

Volcanic Impacts Study Group – Charter – December 2015

Subcommittee of the Auckland Lifelines Group

Objectives	<p>To collate and advocate existing knowledge about the impacts of volcanic hazards (e.g., volcanic ash) on, and mitigation measures for, lifeline infrastructure¹.</p> <p>To facilitate and support research on the impacts of volcanic hazards on lifeline infrastructure and the development of appropriate mitigation measures.</p> <p>To provide a vehicle for two-way exchange of relevant research information between the research and lifeline infrastructure community.</p> <p>To facilitate reconnaissance investigations, and/or advocate lifeline representation on reconnaissance investigations, to active volcanic areas where this would add to our knowledge about volcanic impacts on infrastructure.</p> <p>To provide a national focal point for volcanic impacts work on lifeline infrastructure.</p>
Expected Benefits	<p>Improved knowledge of the impacts of volcanic hazards on infrastructure and mitigation options.</p> <p>Reduce risk and increase resilience of lifeline infrastructure</p> <p>Better linkages between all agencies.</p>
Background	<p>VISG recommends specific projects ALG or others may wish to undertake. Any research sponsored by ALG needs to meet agreed criteria (e.g., be of direct benefit to lifeline infrastructure; see Appendix 1). VISG is ongoing, with activity levels varying from year to year depending on funding allocated and/or whether any research is sponsored. VISG comprises a committee of core members (including people external to ALG – see Structure and Linkages). VISG is low key, interfacing with research institutes, and recommending back to the ALG any projects which might be suitable for full or partial ALG funding. A key function of VISG would be to leverage other funding sources for projects.</p>
Scope/ Deliverables	<ul style="list-style-type: none"> ▪ VISG will produce a quarterly newsletter on recent activities to circulate with ALG steering committee meeting agendas. ▪ VISG will provide verbal updates at ALG steering committee meetings ▪ VISG will be available to give a presentation at annual National Lifeline Forum meetings ▪ VISG will organise an annual seminar on volcanic impacts ▪ VISG will provide ALG with a report on any reconnaissance investigations undertaken by members. Copies of research theses will be made available. ▪ VISG will help coordinate post-New Zealand eruption event research as needed. ▪ VISG will maintain a documents library of relevant volcanic impact information.

¹ Throughout this document, “lifeline infrastructure” refers to infrastructure, utilities, and services provided by lifeline companies recognised in the Civil Defence Emergency Management Act 2002.

- Out of Scope**
- VISG does not have an operational role during crises. Members may be involved with the operational National Volcano Science Advisory Panel (NVSAP) Lifelines Subgroup
 - VISG does not consider health or agricultural impacts of volcanic eruptions.

Link to other projects VISG link to and promote work being undertaken within the Natural Hazards Platform, the National Science Challenge, DEVORA, EQC-sponsored research, and other national good funded projects.

- Structure and linkages**
- **Champions (ALG Steering Committee Members):** Natalia Deligne (GNS), Peter Halliwell (Air NZ)
 - **Contact / Coordinator:** Natalia Deligne (N.Deligne@gns.cri.nz)
 - **Committee:** Natalia Deligne (GNS/ALG), Tom Wilson (UC), Carol Stewart (GNS/Massey), Peter Halliwell (Air NZ/ALG), TBD Auckland CDEM representative
 - **Wider Interest Group:** Colin Wilson (Vic), Brad Scott (GNS), Emma Hudson-Doyle (Massey), Graham Leonard (GNS), Richard Smith (EQC), Lisa Roberts (ALG/NLC), Mike Rosenberg (GNS), David Johnston (GNS), Nico Fournier (GNS), Jon Proctor (Massey), Jan Lindsay (UA), Shane Cronin (UA), Michele Daly (GNS), Brian Park (Watercare / ALG), Richard Woods (GNS)
 - A call for wider interest group members will be made on an annual basis.
 - **ALG utility organisations** to be kept informed through VISG newsletters.
 - **Research providers** undertaking research in the area (e.g. GNS, University of Canterbury, University of Auckland, Massey University).
 - Other **stakeholder groups** to be engaged through workshops and newsletter.
 - Other possible **benefactor organisations** to keep informed of VISG activities include the Ministry of Civil Defence Emergency Management, the National Lifelines Forum, and the National Volcano Science Advisory Panel.

Methodology The study group has three main activities:

- 1. Facilitating and promoting research.** This will be done by workshops and seminars, distributing updates on research activities and their outputs (papers, reports).
- 2. Reconnaissance investigations.** The VISG committee organises and promotes reconnaissance investigations in accordance with nationally established reconnaissance investigation protocols.
- 3. Ad hoc projects.** The VISG committee will develop ad hoc special projects as per Appendix 1. These will be undertaken by consultants (which may also include VISG committee members).

Financial

Apart from any ad hoc projects, VISG requires only low levels of funding (annual seminar costs). The cost of reconnaissance trips will be raised by a separate procedure and will seek funds from other organisations (EQC, GNS, MCDEM etc). Some support maybe sought from ALG to sponsor members on trips.

**Other
resources**

VISG products (e.g., posters, reports) and relevant research outputs will be kept VISG's portion of the ALG website (<http://www.aelg.org.nz/volcanic-impacts/>).

**Reviews &
Approvals**

- Initial special project approval (ALG Steering Committee).
- Approval of project briefs, consultants and prices (ALG Steering Committee).
- Review of draft reports (ALG Steering Committee)
- Review of this charter by committee and wider interest group no later than December 2020.

Appendix 1

Volcanic Impacts Study Group

Project Evaluation Criteria - 2015

Objective: *To provide VISG with an objective and straightforward means by which to recommend projects through to ALG for support (either in kind or directly funded)*

1. Types of Projects funded by ALG

These are a mix of:

- Process/system projects (e.g. a framework for implementation of ALG projects)
- Applied research (e.g. investigating volcanic ash in water supplies)
- Best Practice (e.g. a framework for implementation of ALG projects)
- Field investigations (e.g. reconnaissance investigation domestically and internationally)
- Emergency Management oriented (e.g. lifelines coordination)
- Producing resources (e.g., posters)

The projects can have a single utility focus (e.g. Priority Safe Routes; ash in water supply) but are most commonly multi-utility focussed. The single utility focus projects are acknowledged as having indirect benefits to other utilities due to utility interdependencies. Also, single utility projects often lead into multi utility projects or are the pilot for a more complex multi-utility second phase project (e.g. Priority Safe Routes leading to Priority Sites for Recovery).

The projects vary in cost but are typically less than \$20k.

2. Types of projects recommended by VISG

These could be:

- Where support in kind or an ALG endorsement may be required. Researchers may need access to information, or comment on report drafts etc. Researchers may need to indicate end-users (such as ALG or individual members) on funding applications to various organisations.
- Where ALG is recommended as part or wholly funding a project.

3. Draft Evaluation Criteria

In assessing the merit of a particular project, the following criteria will be used as a guide:

Relevance/ Strategic Fit

- Is the project relevant to the core business of the ALG (refer to ALG objectives: <http://www.aelg.org.nz/about-us/our-objectives/>)?



- vulnerability of infrastructure; resilience; mitigation measures; interdependencies etc.
- How much of the project is concerned with lifeline infrastructure? Most of the project or only part of it?
- How well does the project address a gap in current/future knowledge?
- Is the project adding value to other work?
 - How does it build on/leverage off other work?
 - What other similar work has been undertaken elsewhere?
- Are there tangible benefits?
- Will support of this project stimulate other projects or research?
 - Is the work needing to be undertaken before other work can commence? Is this a seed project?

Quality/ Feasibility/ Capability

- How technically competent is the researcher/ project team/ project leader / student supervisor / support team?
 - Track record; experience; etc.
- How feasible is the project?
 - Sound methodology,
 - Good project management capability or support.
- What is the probability of the project being successfully completed and the results implemented?
 - Have the project risks been identified?
 - Are there factors likely to promote or impede uptake of results?
 - How will lifeline infrastructure groups be involved during the project?

Costs/Benefits

- How good are the benefits in relation to the costs?
- How affordable is the project? Are there obvious gaps in costings?
- What other funding/ partnering opportunities are there?

Timeframe

- Constrained and realistic

Deliverables

- Appropriate
- Consider progress updates / reporting to stakeholders in proportion to the scale of the project