

Resilience Fund Application Form

This form provides the minimum information for the application. A detailed project plan should be developed to inform this application and may be attached.

Project title	South Island Priority Routes
Date of application	31 January 2023
Details on application	
Applicant <i>[CDEM Group must endorse/sponsor all applications]</i>	Canterbury CDEM Group
Sponsoring CDEM Group	Canterbury
Other local authorities, Groups or organisations supporting this proposal	All South Island CDEM Groups – Southland, Otago, West Coast, Marlborough, Nelson-Tasman, Waka Kotahi, AF8 Programme
Project description	
Executive summary <i>[200 words maximum]</i>	
<p>This project will apply the results of University of Auckland vulnerability modelling for both local roads and state highway networks to an Alpine Fault (AF8) earthquake event. It will build on existing work to provide a basis for assessing priorities for the restoration of roading networks based on the relative priorities of sites and freight corridors requiring access. These sites may include critical lifeline utility sites, emergency services sites, or sites of economic, social or cultural importance following the event.</p> <p>Establishing the priorities of these sites or corridors will be conducted through facilitated workshops in each region, involving relevant stakeholders. Provision of site information may also be facilitated directly through national agencies where applicable.</p> <p>The results of the vulnerability modelling and the above priorities will be combined in a GIS application and priorities for restoration of roading networks established. This will require the participation of Road Controlling Authorities in a further series of regional workshops, moderated across the South Island to determine overall priorities.</p> <p>GIS applications will be developed and hosted by the AF8 Programme team.</p>	
Challenge/opportunity <i>[200 words maximum]</i>	
<p>The South Island Priority Routes project has been scoped by the AF8 Response Planning Group (RPG) for Lifelines and Critical Infrastructure. It aims to identify Priority Sites and Routes for Restoration following an AF8 event and has been identified as a high priority by the Lifelines RPG.</p> <p>Existing work to build on includes NZTA's multi-hazard mapped assessment of State Highway vulnerabilities, including details in relation to disruption, availability and outage times. The opportunity is to enhance and extend this work to include local authority road networks. Furthermore, complementary research work is already underway at the University of Auckland.</p>	



The overall outcome is:

- To provide community access to essential services as quickly as possible, by:
- Facilitating rapid access along important freight routes and to lifelines and critical customer sites.

The project objectives are to:

- Identify the default priority routes for restoration following a disaster, focussed on the AF8 scenario (primary).
- Manage community expectations around what access and services will be available (supporting).

While some work has been initiated, the project requires financial support to progress it systematically and in a coordinated, inter-regional manner across the South Island.

It will be carried out by a project team including representatives of the AF8 Response Planning Group for Lifelines and Critical Infrastructure.

Alignment with priorities and objectives of the National Disaster Resilience Strategy (NDRS) [200 words maximum]

1. Managing risks	1. Identify and understand risk and use this knowledge to inform decision-making	Improves understanding of the vulnerability of road networks to AF8, knowledge that is applied in determining priority routes for restoration
2. Effective response to and recovery from emergencies	12. Improve the information and intelligence system that supports decision-making in emergencies to enable informed, timely, and consistent decisions by stakeholders and the public	Knowledge will be shared with CDEM, lifeline utilities and emergency services across the South Island. It will be applicable in both readiness and response.
3. Enabling, empowering, and supporting community resilience	16. Address the capacity and adequacy of critical infrastructure systems, and upgrade them as practicable, according to risks identified	Has a focus on road networks, both local roads and state highways, and the impact of AF8 on their capacity and availability. May lead to future planned investments.

Alignment with Principles and Allocation Preferences [200 words maximum]

Alignment with National Disaster Resilience Strategy and NEMA key focus areas	Particularly aligns with Objectives 1, 12 and 16 as described above
Achieving equity of outcomes for Māori	Key sites of significance will be recognised in the priority sites and routes workshops, including involvement of Iwi.
Outcome focused	Focussed on access to essential services and rapid restoration of key land transport routes.

Applicable in other regions	Directly applicable to the whole of the South Island, methodology transferrable to other regions.
Supports national consistency	<p>Closely linked to current vulnerability assessment research work and drawing from other similar projects elsewhere in New Zealand.</p> <p>Closely linked to ongoing inter-regional, inter-agency Alpine Fault response planning work, including rapid relief, welfare delivery and intelligence.</p> <p>Methodology transferable to other catastrophic events and hazard scenarios.</p>
Wider funding / resource commitment	Significant “time in kind” and technical contributions anticipated from South Island regional CDEM Groups, AF8 Programme and Road Controlling Authorities.
Builds on existing work	<p>Builds on Waka Kotahi state highway vulnerability work, extending it to local road networks in an integrated manner.</p> <p>Builds on ongoing Alpine Fault response planning activities, enabling an inter-regional view of priority routes.</p>
Application of outcomes/benefits to sector <i>[200 words maximum]</i>	
<p>The project will improve our understanding of road network vulnerability across the South Island, information that can be utilised by lifeline utilities (such as telecommunications, fuel, water, electricity, FMCG, etc.) in their own planning and provision of infrastructure or services. This information will also assist Road Controlling Authorities (RCAs) identify pinch points in their networks, identifying restoration priorities and, potentially, opportunities for improving resilience.</p> <p>It will contribute to the planning and response functions of emergency services agencies (including CDEM, fire, police, health, etc), providing them with a better understanding of the state and availability of the road network following an AF8 event.</p> <p>The participation of other stakeholders will help inform understanding of accessibility to other key sites, such as other transport modes (ports, airports, rail), and economic, social, and cultural sites of significance, again helping inform restoration priorities. This also links into impacts on freight routes.</p> <p>Dissemination will also include:</p> <ul style="list-style-type: none"> • Report(s) being made available to the wider lifelines community and NZ Lifelines Council • Presentation(s) to National Lifelines Forum and other stakeholder groups <p>This project is one of several identified by the AF8 Response Planning Group (RPG) for Lifelines and Critical Infrastructure.</p>	
Ongoing costs (post-project) and how it will be funded <i>[200 words maximum]</i>	



GIS applications using the project outputs will be hosted through the AF8 Programme, and available to CDEM stakeholders.

Further NEMA funding is not expected to be required for this, although in the future it may be appropriate to consider the applicability of the approach to other hazard types for which future NEMA support may be sought.

Project design

Project manager	Mark Gordon (Canterbury Lifelines Group Project Manager)
Other project members	Richard Mowll, Steve Ferriss, Alice Lake-Hammond (AF8), Lisa Roberts (NZLC), regional Lifelines group programme managers as appropriate
External providers/contractors	University of Auckland, Waka Kotahi resilience and journey planning personnel, Eagle Technology (possible)
NEMA resource (if needed)	NEMA Infrastructure Resilience team


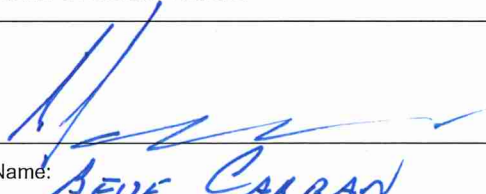
Deliverables *[Note: payments will be made after successful completion of milestones identified]*

Key milestones	Date for completion	Cost (invoice amount)
Project Management	30 June 2024	\$5,000
1. Identify priority sites – map and prioritise sites in GIS that are critical to the recovery of the community following a disaster.	31 August 2023	\$15,000
2. Assess road network vulnerability – use available hazard and asset information to understand exposure and vulnerability to hazards, produce GIS maps. This stage is led by the University of Auckland and includes regional workshops.	31 January 2024	\$35,000
3. Identify priority routes by region / area – consider movement of freight, access to priority sites, alternate routes for vulnerable roads, mapped outputs. Regional workshops approach.	30 April 2024	\$25,000
4. Collate and moderate – bring together all information, moderate assessments across areas, ensure connectivity of whole South Island network. Produce final report and GIS mapping application.	30 June 2024	\$20,000

Identified risks

Risks	Suggested mitigation / management
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Costs exceed budget estimate	Milestone cost reviews and revise scope if necessary to stay on budget		
Project delays	Work closely with regional CDEM Groups and UoA to identify alternative approaches to still deliver the outcome		
Key staff become unavailable	Ensure alternate team members are able to take over roles		
Lack of commitment or availability of key stakeholders (e.g., TLA roading staff)	Regional lifelines group project managers to maintain close liaison and foster local participation.		
Funding request and use			
CDEM Resilience Fund contribution	\$100,000		
Local authority / organisation contribution	Participation of SI CDEM Group personnel, local authority roading staff, Waka Kotahi – BAU in kind, costs not quantified at this stage		
Other sources of funding or support	University of Auckland – BAU in kind		
Budget <i>[please supply spreadsheet]</i>	\$100,000		
Applies if application exceeds \$100,000 over the life of the project	Are you prepared to attend an interview in support of this application (if needed)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Application confirmation			
Is this application from an individual or other organisation	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Does the CDEM Group support this application? <i>[sign off below confirms support]</i>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Approval of Chief Executive [Chief Executive or Head of the organisation receiving the funding]	 Name: Dr Stefanie Rixecker		
Approval of CEG Chair	 Name: STEVE CARRAN		

All communications regarding the application, including approval decisions will be addressed to the Chief Executive and CEG Chair

CDEM Group comment

This is an important, South Island CDEM Groups and AF8 supported, project. It will provide CDEM Groups with confirmed priority routes that can be surveyed and programmed for priority repair after an Alpine Fault earthquake. This work will also support route management for other hazards and so will be valuable in multiple situations.

The results of the work will assist in infrastructure resilience building.

Note: Only complete forms will be considered for assessment. All completed forms and supporting documents must be emailed to NEMA at resilience.fund@nema.govt.nz

NEMA Assessment [internal use only]

Principles	Yes	No
Local / regional focus	<input type="checkbox"/>	<input type="checkbox"/>
Values the role of Māori in the Emergency Management System	<input type="checkbox"/>	<input type="checkbox"/>
NEMA involvement required	<input type="checkbox"/>	<input type="checkbox"/>
Allocation Preferences		
Alignment with NDRS	<input type="checkbox"/>	<input type="checkbox"/>
Achieves equity of outcomes for Māori communities, marae, hapū, iwi and Māori organisations	<input type="checkbox"/>	<input type="checkbox"/>
Outcome focused	<input type="checkbox"/>	<input type="checkbox"/>
Applicable in other regions / CDEM Groups	<input type="checkbox"/>	<input type="checkbox"/>
Supports national consistency	<input type="checkbox"/>	<input type="checkbox"/>
Wider funding / resource commitment	<input type="checkbox"/>	<input type="checkbox"/>
Build on existing work	<input type="checkbox"/>	<input type="checkbox"/>
Operational expenditure (Opex)	<input type="checkbox"/>	<input type="checkbox"/>
Capital expenditure (Capex)	<input type="checkbox"/>	<input type="checkbox"/>
Other		
Application from individuals or other organisations endorsed/sponsored by CDEM Group		

NEMA Subject Matter Expert Comment	Supported <input type="checkbox"/>	Not supported <input type="checkbox"/>
NEMA Regional Emergency Management Advisor Comment	Supported <input type="checkbox"/>	Not supported <input type="checkbox"/>
NEMA Review Panel Comment	Supported <input type="checkbox"/>	Not supported <input type="checkbox"/>
NEMA Director Decision Sign-off	Approved <input type="checkbox"/>	Declined <input type="checkbox"/>
<p>Director of Civil Defence Emergency Management</p>		





Appendix A Report Template

CDEM Resilience Fund Project Status Report		Date: DD MMMM YY
Project title	Project number	
Project manager	Contact details	
Executive summary of status		
Progress of deliverables		
Milestones	Status (on track, delayed, etc.)	Progress this quarter and next steps



Identification of any issues (actual or potential)						
	Issue	Mitigation				
Schedule						
Staff resources						
Budget						
Dependencies						
Stakeholders						
Quality						
Other						
Budget						
Activity	Expenditure to date	Budget to date	Full year budget	Budget forecast	Variance	

Comment on variance

Confirmation

I confirm the status report is accurately reflected and the invoice amount is correct.

Project Manager

Chief Executive

CEG Chair

Comment by Resilience Fund Coordinator



2023 RESILIENCE FUND APPLICATION

South Island Priority Routes Project – Project Plan Summary

Date: 16 January 2023

Milestone Stage	Key Task	Resources	Approach	Resilience Fund (excl GST)	Timing
Project management 1. Identify priority sites	Project management	Project Team	Project tracking, monthly invoicing, quarterly reporting to NEMA	\$5,000	30 June 2024
	Information collection	Project Team. Regional Lls Group Programme Managers working with CDEM stakeholders.	Facilitate initial engagement. Includes planning steps / development of contact lists / outreach to stakeholders. CDEM Groups – BAU/in kind	\$5,000	31 August 2023
2. Assess road network vulnerability	Project geospatial intelligence (collection, analysis, dissemination) and planning tools using ArcGIS	Eagle Technology Emergency Management Geospatial Specialist. AF8 Group ArcGIS Intelligence & Insights Analyst. CDEM Group ArcGIS Specialist(s).	Eagle Tech. creation, setup platform. AF8 Programme / CDEM Group hosting and GIS support - BAU/in kind	\$10,000	31 August 2023
	Confirm Methodology and information needs	UoA led on-line workshop involving AF8 Programme lead, CDEM Lls Group PMs, Project Team members.	CDEM Groups – BAU/in kind	\$0	31 July 2023
	Collect additional information	Regional Lls Group Programme Managers & GIS Specialists working with Waka Kotahi (NZTA) and TLAs.	CDEM Groups – BAU/in kind TLAs, NZTA – BAU/in kind	\$0	31 August 2023
	Undertake Road Network Vulnerability Assessment	UoA PhD researcher working with Project Team, Regional Lls Group PMs, TLAs, NZTA, KiwiRail and GIS resource.	Supporting tasks – \$10k AF8 Programme GIS support - BAU/in kind. TLAs, NZTA, KiwiRail, CDEM Groups – BAU/in kind.	\$10,000	31 October 2023
	Local / Regional Workshops	Project Team, Regional Lls Group PMs, GIS resource(s), stakeholders	Planning and facilitation of regional workshops – \$20k. CDEM Groups / others – BAU/in kind	\$20,000	31 December 2023

Milestone Stage	Key Task	Resources	Approach	Resilience Fund (excl GST)	Timing
3. Identify Priority Routes	Finalise Damage / Outage Maps	(incl. TLAs, NZTA, CDEM, NEMA, others as required). Project Team, GIS resource(s), other stakeholders as above	Facilitate the process, coordinate, agree mapping outputs. CDEM Groups – BAU/in kind.	\$5,000	31 January 2024
	Priority Routes - Workshops	Project Team, Regional Lls Group PMs, GIS resource, stakeholders (incl TLAs, NZTA, CDEM, NEMA, others as required).	Plan and facilitate second round of regional workshops	\$20,000	31 March 2024
4. Collate and Moderate	Mapping of Priority Routes	Project Team, AF8 Programme / CDEM Group GIS resource	Facilitate the process, coordinate, agree mapping outputs	\$5,000	30 April 2024
	Moderation and finalisation	Project Team. Inter-regional moderation – e.g., on-line workshop. .	Facilitate the process, coordinate, agree final priorities	\$5,000	31 May 2024
	Finalise mapping	AF8 Group ArcGIS Intelligence & Insights Analyst, CDEM Group ArcGIS Specialist(s).	BAU/in kind	\$0	31 May 2024
	Produce AF8 Priority Routes Intel & Planning applications using GIS technology hosted by AF8 for data flow and future AF8 planning.	Eagle Technology Emergency Management Geospatial Specialist. AF8 Group ArcGIS Intelligence & Insights Analyst	Produce AF8 Priority Routes Intel & Planning applications using GIS technology hosted by AF8 for data flow and future AF8 planning – BAU in kind	\$5,000	30 June 2024
	Project report	Project Team, Regional Lls Group PMs, AF8 Programme Manager	Document the project outcomes, including summary of methodology, assumptions, stakeholder involvement, prioritisation results, selected mapping outputs.	\$10,000	30 June 2024
TOTAL				\$100,000	