

CDEM Resilience Fund project application form

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

Project title	Kermadec Tsunami Response Plan
Date of application	11 June 2021
Details on application	
Applicant <i>(Note: CDEM Group must endorse/sponsor all applications)</i>	Northland CDEM Group
Sponsoring CDEM Group	Northland CDEM Group
Other local authorities, Groups or organisations supporting this proposal	Auckland CDEM Group

Project description

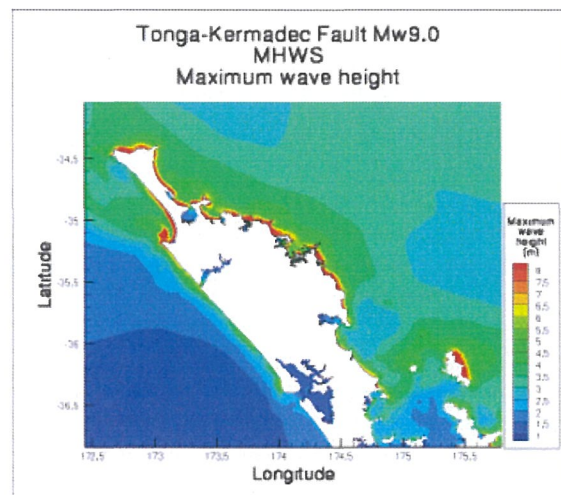
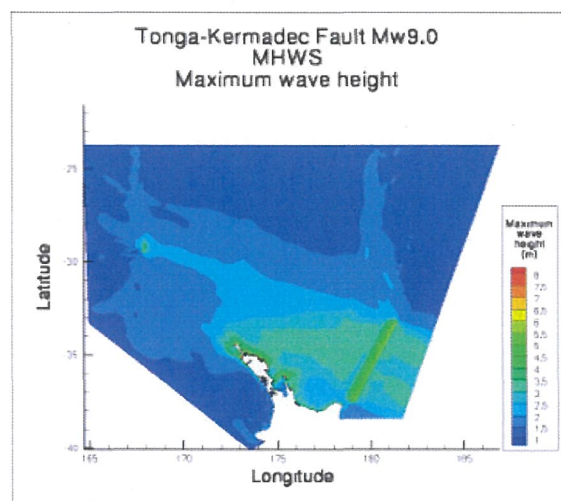
Executive summary [200 words maximum description]

This application is for a one-year project to develop a coordinated Tsunami Response Plan for Northland using a credible source scenario of a Mw 9.0 megathrust earthquake on the Kermadec Trench (NIWA 2006). The plan will outline the proposed response arrangements within the Northland region to guide the response after impact, in advance of any planning under a national earthquake and tsunami framework. The development of this plan is one of the recommendations from the inter-agency de-briefs from the 5 March Kermadec earthquake and tsunami response.

The proposed credible source scenario will require considerations around rapid disaster relief (HBCDEM 2019) as a number of regions would potentially be impacted (Auckland, Waikato, Bay of Plenty and Tairāwhiti). The development of the plan will involve emergency response agencies, lifeline utilities, welfare coordination group agencies and iwi.

While a Tsunami Response Plan is based on only one hazard it will be applicable for a range of events with modification and addition of alternative arrangements. It will also raise the awareness of Northland's tsunami risk and build on existing agencies, community and iwi relationships.

The plan, where possible, will also incorporate the recommendations from the Rapid Disaster Relief plan (HBCDEM 2019).



Maximum water surface elevations for a Mw 9.0 Kermadec subduction zone scenario. NZ (upper figure) and Northland (lower figure). NIWA 2006

Challenge/opportunity [200 words maximum description]

Northland's coast is at risk of a tsunami much like the rest of NZ. However, unlike the rest of NZ, Northland is unlikely to feel an earthquake which is one of the natural signs associated with a tsunami to self-evacuate (GNS 2018), as per NEMA's 'Long, Strong, Get Gone' messaging. A local source tsunami generated by the Kermadec Trench subduction zone has the potential to inundate heavily populated areas of Northland and adjoining CDEM Groups with hardly any warning time. It could result in a number of fatalities while displacing many more people from their homes and having a huge economic impact. An event of this scale could therefore be classified as catastrophic and as a result there is likely to be significant and time-critical unmet basic needs (HBCDEM 2019).

Recent learnings from catastrophic events overseas such as Hurricane Katrina 2005 and the Japan tsunami in 2011 have found responses were not able to just scale up when they were at this catastrophic level;

'The theory was if it's worse, then we'll just scale up, and we found out scaling up didn't work. So you have to prepare for how bad it's going to be, or you're going to fail. And I think that was the lesson we had to learn in all levels of government.' Craig Fugate reflecting on FEMA's response to Hurricane Katrina in the US.

The challenge is meeting the gap to provide urgent access to water, shelter, food and medical after a catastrophic event when the official response is still mobilising and support from outside the region has not yet arrived as our neighbouring CDEM groups will also be impacted.

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

The **National Disaster Resilience Strategy (NDRS)** sets out the vision and long-term goals for civil defence emergency management (CDEM) in NZ. The **vision** is a 'disaster resilient nation that acts proactively to manage risks and build resilience in a way that contributes to the wellbeing and prosperity of New Zealanders'. This project aligns with the **overall goal** to 'strengthen the resilience of the nation by managing the risks, being ready to respond to and recover from emergencies, and by enabling, empowering and support individuals, organisations, and communities to act for themselves and other, for the safety and wellbeing for all'.

This project also aligns with the following **objectives**:

1. Identify and understand risk scenarios (including the components of hazard, exposure, vulnerability, and capacity), and use this knowledge to inform decision-making.
The plan will identify Northlands most catastrophic event and use this to create a plan which will provide an operational basis to inform initial post tsunami impact decision-making to minimise, as much as possible, the impact on people by meeting basic needs.
2. Put in place organisational structures and identify necessary processes – including being informed by community perspectives – to understand and act on reducing risks
The plan will incorporate community perspectives and resources while building on existing organisational structures and processes.
3. Build risk awareness, risk literacy, and risk management capability, including the ability to assess risk
Part of the project will be increasing the awareness around a Kermadec mega-thrust earthquake and tsunami risk.
6. Understand the economic impact of disaster and disruption, and the need for investment in resilience; identify and develop financially mechanisms that support resilience activities.
We anticipate working with EQC to determine the economic impact of this catastrophic event and identifying where resilience building activities will be best placed in relation to the event.
8. Build the relationship between emergency management organisations iwi/groups representing Māori, to ensure greater recognition, understanding, and integration of iwi/Maori perspectives and tikanga in emergency management
We will work in collaboration with iwi groups to develop this plan through our existing CEG/WCG representatives and aim to integrate where possible iwi/Maori perspectives.
10. Ensure it is clear who is responsible for what, nationally, regionally, and locally, in response and recovery; enable and empower community-level response, and ensure it is connected into wider coordinated responses, when and where necessary.
Outcomes from the plan will inform community response planning for those communities who could be significantly impacted by this event.

This application is also in line with the recommendations from the **2018 The Better Responses to Natural Disasters and Other Emergencies** (TAG Review):

Putting the safety and wellbeing of people at the heart of the emergency response system:

1.1 Recognising the capability that iwi bring to emergency management

Ensuring that Northland iwi are part of the planning for a maximum credible source tsunami

Improving the information and intelligence system that supports decision making in emergencies

7.4 Recognise the importance of science intelligence as part of situational awareness

Using science to confirm the maximum credible tsunami event for Northland and plan a post tsunami response impact that puts people's wellbeing first.

Making it clear who is responsible for what, nationally and regionally

The Northland Tsunami Response Plan will build on further understanding of an agencies roles and responsibilities after the impact of a tsunami.

Alignment with Principles and Allocation Preferences *[200 words maximum description]*

Principles:

- NEMA provides leadership with anticipated involvement with the national planning team.
- NEMA will be invited through the REMA and the Senior Planning advisor to participate in workshops and development of plan content
- This project is for the completion of a Tsunami Response Plan which will benefit the agencies and communities of the Northland region.
- Iwi will be involved in the planning process to ensure a greater understanding around tsunami risk is established and to incorporate a māori perspective into the planning output.

Allocation Preferences:

- This application is in alignment with the National Disaster Resilience Strategy (NDRS) as per the descriptions provided under the alignment with the NDRS section of the application.
- This application will support the outcomes of the Northland CDEM Groups 5 March de-brief report which identified a number of recommendations including the creation of a response plan to cover 1-5 days after initial impact of a worst-case credible source tsunami
- This would build on existing work within the Northland region including the Tsunami Initial Actions Plan, the tsunami information and siren installation and maintenance programme, community response planning and marae preparedness. It will also supplement the Lifelines Tsunami Plan and other operational group planning.
- This would also build on the work of the Hikurangi Response Plan toolkit and the national earthquake and tsunami framework enabling national consistency.
- Outcomes from this project may encourage further funding to be sought partnering with other agencies or private industry.
- While this plan is based on Northland's worst hazard risk the content of the plan will be applicable for a range of events with modification and addition of alternative arrangements.

Application of outcomes/benefits to sector *[200 words maximum description]*

The project will rely on sector consultation and bringing together stakeholders from across Northland to promote a coordinated approach to this tsunami risk, which will be of huge benefit when a tsunami inundation event occurs.

The project will be completed in stages:

2. **Initial scoping:** Confirm the maximum credible Kermadec megathrust earthquake and tsunami scenario event. Determine the impacts and consequences for CDEM response planning
3. **Scope** out the interdependencies and key partners to be engaged, identify gaps in scientific knowledge, use existing plans and outline what work can be completed in the year timeframe
4. Undertake **informed workshops**. Raise awareness of the Kermadec megathrust earthquake and tsunami risk and undertake response planning activities.
5. **Develop a response plan**. Development of a comprehensive response plan with continued engagement. The response plan will ensure national benefit by linking into the existing planning framework and through some cross boundary conversations with the Auckland CDEM Group.

Sector benefit will be through participation and engagement with the project and the identification of the consequences and vulnerabilities both individual and collective and the development of agreed response actions. The plan will provide a baseline for further planning with adjoining CDEM groups and agencies.

Ongoing costs (post project) and how it will be funded *[Please provide a summary of ongoing costs (if any) and how it will be funded/managed - 200 words maximum]*

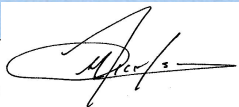
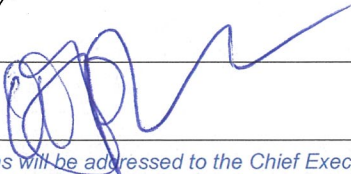
Any on-going costs will be covered by the Northland CDEM Group and/or subsequent funding applications.

Project design

Project manager	Graeme MacDonald
Other project members	Claire Nyberg
External providers/contractors	Yet to be determined
NEMA Resource (if required)	Senior Planning Advisor- Hukurangi Response NEMA for Northland Region

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

Key Milestones	Date for completion	Cost (Invoice Amount)
<p>1. Initial scoping phase;</p> <ul style="list-style-type: none"> • Confirm maximum credible earthquake/tsunami using latest scientific theories and existing EQC modelling. • Determine impacts and consequences of the maximum credible hazard. • Investigate any gaps in the scientific information currently available, interdependencies, existing stakeholder plans for earthquake generated tsunami events. • Determine what future work needs to be done to enhance our scientific understanding of the maximum credible earthquake/tsunami event. 		\$15,000
<p>2. Workshops;</p> <ul style="list-style-type: none"> • Undertake engagement and discussion with a range of different stakeholders, organisations and iwi to gain a full understanding of the issues and risks. • Workshop with a few 'at risk' communities to raise tsunami awareness and gain an understanding of the community response of this scale. 		\$15,000
<p>3. Response plan development;</p> <ul style="list-style-type: none"> • Develop a comprehensive response plan and socialise this with agencies and communities. • Identify key actions for agencies and groups and how this can feed into community response planning. • The plan should also include future priority work and a 1-5 year work programme to support future planning. 		\$15,000

Identified risks	
Risks	Suggested mitigation / management
Another large emergency occurs during the project year	Bringing in an outside workforce may reduce the impact of this risk
Operational staff terminate their employment	Re-prioritise workload of existing staff to ensure project deliverables are met
Agencies do not have time to or capacity to contribute to the project	There will be several opportunities for agencies to contribute through workshops, individual agency meetings and/or through surveys and distribution of material for review. Consideration of electronic options.
The project scope creeps beyond the resilience fund application description	Regular reporting to the Group Manager will ensure deliverables are met and any scope creep can be managed.
Funding request and use	
CDEM Resilience Fund contribution	\$45,000
Local authority/organisation contribution	Dependent on progress
Other sources of funding or support	Nil
Budget <i>[Please supply spreadsheet]</i>	\$
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 checked="" type="checkbox"/>
Application confirmation	
Is this application from an individual or other organisation (not CDEM Group)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Does the CDEM Group support this application? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<i>(Sign-off below confirms support)</i>	
Approval of Chief Executive <i>(Chief Executive or Head of the organisation receiving the funding)</i>	
Approval of CEG Chair	
<i>All communications regarding the application, including approval decisions will be addressed to the Chief Executive and CEG Chair</i>	
CDEM Group comment	

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

NEMA Assessment (Internal Use Only)		
Principles	Yes	No
Local/Regional Focus	<input type="checkbox"/>	<input type="checkbox"/>
Valuing the role of Maori in 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"/>
Achieving 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"/>
Enables national consistency	<input type="checkbox"/>	<input type="checkbox"/>
Wider funding/resource commitment (i.e. co-funding, on-going funding, resource time committed)	<input type="checkbox"/>	<input type="checkbox"/>
Builds 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	<input type="checkbox"/>	<input type="checkbox"/>
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>		