Application for CDEM Resilience Collaborative fund approval

<table>
<thead>
<tr>
<th>Project title</th>
<th>West Coast Lifelines Vulnerability and Interdependency assessment</th>
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<tbody>
<tr>
<td>Date of application</td>
<td>27th July 2015</td>
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</tbody>
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**Details on application**

<table>
<thead>
<tr>
<th>Lead local authority</th>
<th>West Coast Regional Council</th>
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<tbody>
<tr>
<td>CDEM Group</td>
<td>West Coast</td>
</tr>
<tr>
<td>Other local authorities or Groups supporting the proposal</td>
<td>Buller District Council, Westland District Council, Grey District Council, West Coast Engineering Lifelines Utilities Group</td>
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**Project description**

**Executive summary**

There are 13 lifeline utilities in the West Coast Engineering Lifelines Utilities Group. The Lifelines Group was formed in 2000 and some good work has emanated from the group over the years culminating in a detailed Lifeline study in 2005-06 of using a scenario of an Alpine Fault rupture being seen as the worse hazard the region could face. That study is now 10 years old. The Lifelines Group has been working on the recommendations from the 2005 report since to enhance the infrastructural assets in the wider community as part of the findings from the report. These recommendations are set in Objective 2 of the CDEM Group plan –Methods, Tools and Actions.

The frequency return time of an Alpine Fault rupture has now changed. More hazard information is now available. GNS Science has now advised the Alpine fault is due to rupture soon. There is a 30% chance of a fault rupture in the next 50 years. What was not discovered in the initial Lifelines report was where the hotspots, pinch points and interdependencies were i.e. the key gaps and infrastructural hotspot and pinch point vulnerabilities in the region. This needs to be identified and relate back to the new hazard information that is now available.

The restoration priorities have not yet been set either for the West Coast after an Alpine Fault rupture. CDEM planning will be informed from this work that will set the priorities of which part of the community can be restored in a priority order.

These steps will be undertaken as a project led by the West Coast CDEM group office. Funding is sought for the necessary technical expertise by way of a consultant to ensure the steps can be undertaken in a robust manner.

The project will increase resilience with the West Coast CDEM group area and inform the assessment of the national situation with respect to Lifeline vulnerabilities.

**Problem/opportunity**

The West Coast Lifeline Group needs to undertake vulnerability assessments to assess the vulnerability of infrastructure in the region to specific hazards and the interdependency of lifeline utilities to each other.

In addition Critical Sites studies to identify essential infrastructure and community sites and set out a restoration strategy to inform lifeline utility response and recovery activities is needed.
Finally Hotspots Projects (which may be undertaken in association with the above) to identify and assess the vulnerability of areas where assets of a number of utilities converge.

This work is specialised and must be approached in a systematic way. It should draw on the experiences and learnings of studies elsewhere in New Zealand and work the West Coast Engineering Lifelines group has done to date.

The West Coast CDEM Group requires resourcing and funding of these project inputs by way of employment of a consultant to carry out this study.

**Alignment with identified goals and objectives**

Lifeline utilities are required by section 60 of the CDEM Act to ensure that they are able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency.

Lifeline utility representatives collaborate with scientists, emergency managers and other relevant professionals in regionally-based Lifelines Groups. The purpose is to reduce infrastructure outage risks and minimise restoration time when outages occur.

1. **The West Coast Group plan Objective two is;**

   **To work towards the long-term strategic reduction of risks from hazards through collaborative planning with stakeholders.**

   ✓ Risk reduction is actively promoted across many areas; and many CDEM Group members and stakeholders have ongoing programmes to reduce the risk of hazards on the region. Example, the continuation of the adoption of the reduction recommendations made in the 2006 Engineering Lifelines Reports;

2. **The West Coast 2015 CDEM work plan has a Group objective to undertake long-term, strategic reduction of the risks from hazards through collaborative work within the group and with other stakeholders. This is achieved by continuing to implement findings of 2005-06 Lifelines Study reports**

**Dissemination of benefits to sector [200 words maximum description.]**

The West Coast region relies heavily on its roading network to provide access to communities, businesses and a conveyancing mechanism for service goods to production plants e.g., milk production and as a conduit route for tourists on which the West Coast community heavily relies on for its economy and gross domestic product. The study will identify the hotspots especially with the roading network and ways to determine timings for re-establishing some of the network to at risk communities. Coal is also transported from the Buller Coal fields over the Midland Railway which crosses the Alpine Fault near Inchbonnie. Learning from a fault rupture in this area can determine mitigation measures that can be made to ensure restoration of services as soon as practicable.

The study will also strengthen understandings between territorial authorities. The Lifelines group and emergency services which become critical during and after an emergency event. We are trying to get as much cross collaboration for planning purposes amongst the stakeholders on the West Coast for the identified risks that we are faced with.
## Project design

**Project manager**: Chris Raine  
**Other project members**: Lifelines Coordinator & West Coast Lifelines Group  
**External providers/contractors**: To be selected by the Lifelines group after suitable offers of service are obtained

## Deliverables

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<tr>
<th>Milestone</th>
<th>Date for completion</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Project Brief confirmed and consultant engaged</td>
<td>30th September 2015</td>
<td>$5000</td>
</tr>
<tr>
<td>Analysis, draft reporting completed, workshops with all Lifeline organisations, describing hotspots, interdependencies and pinch points for the West Coast CDEM Group area, describing emergency response priorities, response dependencies and a set of restoration priority principles.</td>
<td>30th April 2016</td>
<td>$40,000</td>
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<tr>
<td>Final report and associated mapping completed and accepted by the Lifelines Group and West Coast CEG.</td>
<td>15th June 2016</td>
<td>$15,000</td>
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## Identified risks

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<th>Risk</th>
<th>Suggested management</th>
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<tr>
<td>1. Poor participation by Lifeline Utilities and Emergency Service membership.</td>
<td>1. Governance by Lifeline Project manager, Chair of Lifelines Group and Regional manager with follow-up by CEG as necessary.</td>
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<tr>
<td>2. Poor information and report result completed.</td>
<td>2. Accurate, well defined brief developed with involvement of lifelines and emergency services</td>
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<tr>
<td>3. Final document is not useful to Lifeline and CDEM organisations</td>
<td>3. Combined involvement from West Coast engineering lifelines group to enhance the report will be required</td>
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## Funding request and use

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<thead>
<tr>
<th>Funding request and use</th>
<th>Amount</th>
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<tbody>
<tr>
<td>CDEM resilience fund contribution</td>
<td>$40,000</td>
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<td>Local authority contribution</td>
<td>$20,000</td>
</tr>
<tr>
<td>Other sources of funding</td>
<td>$0</td>
</tr>
<tr>
<td>Expenditure: Local authority to fund Lifeline coordinator/ Project Manager, $40,000 to fund consultant work</td>
<td>$60,000</td>
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<tr>
<td>Application confirmation</td>
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<tr>
<td>Approval of Chief Executive</td>
<td>□ □ □ □</td>
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<tr>
<td>CDEM Group comment</td>
<td></td>
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<tr>
<td>Comment</td>
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<tr>
<td>Approval of Coordinating Executive Group Chair</td>
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