



CDEM Resilience Fund project application form

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Application for CDEM Resilience Collaborative fund approval	
Project title	The effectiveness of compost toilets in an emergency
Date of application	28 th February 2012
Details on application	
Lead local authority	Wellington Region CDEM Group
CDEM Group	
Other local authorities or Groups supporting the proposal	Wellington City Council, Hutt City Council, Upper Hutt City Council, Kapiti Coast District Council, Porirua City Council, Masterton District Council, South Wairarapa District Council, Carterton District Council and Greater Wellington.
Project description	
<p>Executive summary <i>[200 words maximum description.]</i></p> <p>The Canterbury earthquakes highlighted the vulnerability of sewerage systems including the lengthy restoration times. The Wellington region will have significant access issues which will further exacerbate the problem, therefore there needs to be a longer term (more than a few weeks), sustainable solution. Whilst Port-a-loos and chemical toilets have some advantages, there are also some very significant disadvantages. This project will look at using compost toilets, which are seen as more user and environmentally friendly, sustainable, less labour intensive and more acceptable to communities due to the reduced public health risk (hygiene) they pose.</p> <p>This project will deliver a viable, alternative to Port-a-loos and chemical toilets that will be able to be managed effectively by local councils both in the Wellington region and nationwide for a sustained period of time.</p>	
<p>Problem/opportunity <i>[200 words maximum description.]</i></p> <p>Some of the key difficulties identified with the use of Port-a-loos and chemical toilets during the Canterbury earthquakes are summarised in the table below:</p>	
Port-a-loos	Chemical toilets
<ul style="list-style-type: none"> Supply unable to meet demand Some people were required to walk quite a distance to use a port-a-loo Significant odour issues Easily and regularly vandalised Safety issues. Some were tipped over while people were using them Lack of water and hand washing facilities (often not working) Labour intensive as they had to be pumped twice a day Public health issues. Not being cleaned regularly for the number of people using them. Impact on psychological well being of community with the large number of people using one port-a-loo for extended periods of time. 	<ul style="list-style-type: none"> Use of chemicals. Misconception that chemicals are making waste "safe". Some of the chemical used are only odour suppressants. One size fits all approach. Often the seats are designed overseas and are quite small and not suitable. Takes a significant amount of time to source enough toilets to meet needs. Waste needs to be dumped in large communal tank, which is often located in the street. This tank may have public health issues. Pumping of this tank is labour intensive as they require to be pumped daily.

This project provides an opportunity for 10 groups (e.g. households and workplaces) to trial the compost toilets for 4 weeks, to confirm they are suitable for an emergency situation. The trial also provides an opportunity to confirm the described advantages, such as:

- Environmentally friendly – no chemicals
- Smaller load factor (smaller number using each toilet) – reduced public health (hygiene) risk
- Easily put together with readily available materials
- Less labour intensive in terms of pick up and disposal of waste
- Maintenance and cleaning the responsibility of the individual.

Alignment with identified goals and objectives [200 words maximum description.]

The table below identifies how this project aligns with both the National CDEM Strategy goals and objectives, and the Wellington CDEM Group's goals and objectives:

National CDEM Strategy goals and objectives	Group's goals and objectives
<p>Goal 3: Enhancing New Zealand's capability to manage emergencies.</p> <p><i>Objective 3B: Enhancing the ability of CDEM Groups to prepare for and manage civil defence emergencies.</i></p>	<p>Goal 4: The community and emergency management agencies will be able to respond to, and recover from, emergency events effectively.</p>

Alignment with the National Strategy's goals and objectives:

(Objective 3B) Identifying an alternative to Port-a-loos and chemical toilets which allows local authorities to more effectively manage sanitation in an emergency. This enhances our capability to manage an emergency.

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

The processes and guidelines identified during the trial can be easily applied by any CDEM Group nationwide. There is a restricted number of port-a-loos available and the lag time for the delivery chemical toilets can be quite significant. The compost toilets depend on buckets, plywood and wheelie-bins, all of which is readily available.

In addition the compost toilets significantly reduce the level of resource required for the collection and disposal of waste, therefore allowing more resources to be available for other duties.

Project design		
Project manager	To be determined upon acceptance.	
Other project members	Members of the Wellington Region CDEM Group and public health officials.	
External providers/contractors	G&E Consultants – Green Earth Development, Wellington City Council waste contractors.	
Deliverables		
Milestone	Date for completion	Cost
Identify participants for trial	September 2012	\$1,000

Trial commencing	October 2012	\$6,000
Trial complete	November 2012	\$14,000
Results of trial available	March 2012	\$1,000
Final guide/report completed	28 June 2013	\$1,000
Hard copies available	12 July 2013	\$2,000
Identified risks		
Risk	Suggested management	
We may not be able to get enough participants for the term we require.	We will advertise the request for participants across multiple medium, to ensure that we get a large number to choose from.	
The participants may not wish to complete the entire trial once they have commenced.	We will ensure that we are available to support the participants and ensure we are able to provide any assistance they require to help them get through the trial period.	
Public health issues/disease outbreak.	We will develop clear user guidelines in consultation with public health authorities for all participants to reduce the risk. We will ensure the participants are aware of, and understand these guidelines.	
Funding request and use		
CDEM resilience fund contribution	\$23,000	
Local authority contribution	\$2,000 (cost of printing guide)	
Other sources of funding	NIL	
Expenditure <i>[Please supply details]</i>	\$25,000	
<i>G&E Consultants – Green Earth Development</i>	\$10,000	
<i>Sanitation contractors (for removal)</i>	\$3,000	
<i>Materials for trial</i>	\$5,000	
<i>Field work (assessment)</i>	\$5,000	
<i>Printing of guide</i>	\$2,000	
Application confirmation		
Approval of Chief Executive		
CDEM Group comment		
Comment		
Approval of Coordinating Executive Group Chair		

