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CDEM Resilience Fund project application form

Application for CDEM Resilience Collaborative fund approval	
Project title	Managing residual flood risk on the Waikanae River
Date of application	28 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, Porirua City Council, Kapiti Coast District Council, Hutt City Council, Upper Hutt City Council, South Wairarapa District Council, Carterton District Council and Masterton District Council.

Project description

Executive summary *[200 words maximum description.]*

Flood risk management for the Waikanae River primarily involves flood protection infrastructure, land use planning and managing the residual risk through CDEM response planning. This project will improve the ability of CDEM to plan for this residual risk. This project will provide inundation maps showing the **degree and location** of the inundation for different river levels, therefore identifying the priority areas for response.

The ability to use a more innovative approach to flood response, will lead to better decisions being made and ultimately increase the communities' confidence in the ability of CDEM to make the right decisions at the right time.

Problem/opportunity *[200 words maximum description.]*

The Waikane River Flood Management Plan identifies how flood risk will be managed and whilst there is the provision in this for flood protection infrastructure and land use planning, there is still significant residual risk for anything over the 1 in 20 year event, which must be addressed with CDEM response plans.

Currently only the overall flood extent is known, therefore authorities only know what the end result will look like in terms of inundation and depth. This level of information whilst valuable, makes it impossible to identify priority areas in terms of time. This project produces maps that show how the flood will unfold, showing where the first breaches may occur and to what depth. This is information is specifically for CDEM response agencies as it will significantly aid them in addressing the residual risk with response plans.

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
Goal 3: Enhancing New Zealand's capability to manage emergencies. ***Objective 3B:*** *Enhancing the ability of CDEM Groups to prepare for and manage civil defence emergencies.*	**Goal 2: The community and emergency management agencies take action to manage the risks they face.**

Alignment with the National Strategy's goals and objectives:

(Objective 3B) With staged inundation maps, response plans will address priority areas and therefore increase both CDEM agencies and the communities' confidence in our ability to respond in the most appropriate manner.

Alignment with the Group's goal:

Recognising that there is significant residual risk for the Waikanae River and developing robust response plans which identify priority areas for response supports Goal 2.

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

This provides the opportunity to show how science and new technology can be *applied* in the CDEM sector to improve our ability to manage the residual risk and respond to a flood event. By utilising this, we add credibility as the response (including non-response) can be tailored to the characteristics of each individual flood, rather than a one size fits all approach. The most recent floods in Nelson remind us that not only can flooding occur very quickly, but that flooding can be devastating. As emergency management response agencies, having the confidence that you a well informed of the potential flood extent and how the inundation might occur, can only be of great benefits as it allows you to make quick decisions you feel confident in.

Project design	
Project manager	To be determined upon acceptance.
Other project members	Members of the Wellington CDEM Group and Greater Wellington Flood Response
External providers/contractors	River Edge Consulting, SKM, OPUS and/or Cutriss consultants (will be put out for tender).

Deliverables		
Milestone	Date for completion	Cost
Waikanae River (Modelling)	31st Jan 2013	$50,000

Modelling imported into WaterRide for map generation	1st March 2013	NIL
Maps available to be incorporated into appropriate response plans and SOPs and disseminated.	30 June 2013	NIL
Identified risks		
Risk	Suggested management	
Model accuracy This is a **model** of the river system and is based on collected data, approximations based on engineering judgement and hydrological inputs based on historical records. Therefore the model may not be a 100% accurate prediction of future events.	These models are built to international best practice standards, are the best information we have and will be more accurate than other tools (such as relying on experience to assist emergency management staff.	
Funding request and use		
CDEM resilience fund contribution	$50,000	
Local authority contribution	$3,000 (the cost the WaterRide licences)	
Other sources of funding	NIL	
Expenditure *[Please supply details]*	*$50,000*	
Hydraulic modelling and dam break scenarios	$50,000	
Application confirmation		
Approval of Chief Executive		
CDEM Group comment		
Comment		
Approval of Coordinating Executive Group Chair