

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	Porirua Flood Monitoring and Community Warning Project
Date of application	28/01/25
Details on application	
Applicant <i>[CDEM Group must endorse/sponsor all applications]</i>	Porirua City Council
Sponsoring CDEM Group	Wellington
Other local authorities, Groups or organisations supporting this proposal	Wellington Water Gemtech Solutions Ltd.
Project description	
Executive summary <i>[200 words maximum]</i>	
<p>Porirua City has not been affected by a substantial event such as Cyclone Gabrielle or Debbie. However it has had numerous small and medium stormwater events, and has substantial vulnerability to localised stormwater flooding.</p> <p>Porirua City does not have a major river and generally is not monitored for flooding through a control system of the type managed by Regional Councils.</p> <p>This proposed project establishes foundations for a regional real-time stormwater inlet flood monitoring system. The initial step will improve critical stormwater inlet monitoring at three key sites, upstream of flood-prone residential and industrial areas in Porirua. Monitoring at these sites enables pre-event maintenance, real-time intelligence and early warning, empowering residents and businesses to protect themselves. It also allows system expansion into a regionally-integrated stormwater monitoring network.</p> <p>Two sites provide warning for areas with a high proportion of Māori residents including the flood prone Takapūwāhia marae. Benefits include:</p> <ul style="list-style-type: none"> - Real-time monitoring of major stormwater inlets to identify blockages before flooding – informing maintenance effort and monitoring. - Timely awareness of flood risk, allowing communities to make informed decisions regarding property protection and evacuation. - System integration with Wellington Councils, GWRC, WREMO and Wellington Water. <p>Two co-funding options are presented depending on the level of capex investment available from the Resilience Fund.</p>	

Challenge/opportunity [200 words maximum]

The sites identified are on known overland flow paths or are prone to deep, life-threatening surface flooding when the stormwater system capacity is breached, often through drain/grate blockages. Catchments above the areas in question are prone to intense, brief rainfall that overwhelms stormwater infrastructure. This means that real time, remote alerts are highly desirable, driving the requirement for pressure sensors at key locations in the stormwater network.

Investigations have identified no affordable infrastructure solutions such as pipe upgrades, pumping infrastructure or property purchase. These solutions would require tens of millions of dollars of PCC capital investment, an unaffordable cost for a community that is already financially stressed.

The next best mitigation measure is to improve community preparedness and emergency response. Both are enhanced with real time monitoring of stormwater blockages and water levels.

Finally, outside of the Regional Council's existing system for major rivers, there is currently no agreed roadmap for a regional flood monitoring approach, which creates the risk of councils having disparate systems that can't be integrated in the future.

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

The project addresses all three priorities and relevant subordinate objectives of the National Disaster Resilience Strategy, in that:

- It seeks to improve risk awareness and associated decision-making, and limit impacts – especially regarding risks to life to maintenance crews and within vulnerable communities. By providing the public with access to real time information the community can take steps to reduce the impact of flooding, such as moving cars and valuables or erecting building protection measures.
- Ahead of impending flooding events, real time information allows for a better response, through knowing if stormwater systems are operating at full capacity. Blockages can be cleared while it is still safe to do so and with less time pressure, reducing risk to life. It also removes the need for physical inspections, allowing resources to be deployed elsewhere.
- During flooding events, evacuation decision-making would be informed in real time, providing certainty and improved ability to plan. This leads to better resource allocation and psycho-social outcomes, through communities having greater situational awareness.
- Real-time information empowers potentially affected communities to make their own decisions to preserve life and property. The two residential areas downstream of the identified monitoring sites house are vulnerable communities.

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

The Project is aligned with the relevant Principles and Preferences:

- WREMO and Porirua City Council EM staff will be supported/informed to monitor the project.
- The Project has a local focus, with additional effort to scope a regional system.
- Two of the sites support timely decision-making and better physical and psycho-social outcomes in communities who have a high proportion of Māori, and a marae.
- It is fully aligned with the NDRS.
- It will make a material difference, in terms of early warning to allow timely decision making and the reduction of risk to life and property.
- It can be applied to other Councils (scoping this is one of the stated project outputs).
- Analysing a regional approach/system can be applied more widely in the future, to improve national consistency and a national common operating picture.
- Porirua City Council will provide up to \$15k capex and will fund the future operating costs of the system from baseline.
- It will complement other monitoring systems on the stormwater system.
- Capex is required for the hardware. Opex will allow for system integration analysis and a regional roadmap – providing the opportunity to create an integrated system, over time.

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

The Project benefits are applicable to the CDEM Sector in that they support timely decision making and effective resource commitment both ahead of and during flooding events – reducing strain on regional EM resources and decision making during the Response stage. Of further relevance is that analysis of the desired regional future state will allow a regional system to be moved towards over time, improving regional outcomes relating to reduction, readiness, response and recovery.

The Greater Wellington Regional Council is also investigating improved flood warning systems with a focus on the major rivers. This project is complementary to that work, and there is an agreement to consider integration with local stormwater monitoring systems via this project. The

Porirua City Council intends to share the project with the Severe Weather Technical Advisory Group to socialise more widely a shared understanding of intelligence across the region. The system would be tested in EOC simulations in order to provide clarity around roles & responsibilities for systems users, and integration the intelligence into response action plans for the community and agencies such as WREMO.



Ongoing costs (post-project) and how it will be funded *[200 words maximum]*

Operating costs are estimated less than \$1k per month to be funded from Council baseline.

Project design

Project manager	Chad Preece, on behalf of PCC.
Other project members	Ben Fountain, PCC Chief Advisor Resilient Infrastructure. Sourab Simha (Wellington Water POC).
External providers/contractors	Gemtech Solutions Limited.
NEMA resource (if needed)	Nil.

Deliverables <i>[Note: payments will be made after successful completion of milestones identified]</i>		
Key milestones	Date for completion	Cost (invoice amount) All prices <u>GST excluded</u>
Market scan completed, to identify most cost-effective solutions (both CAPEX and ongoing operating costs). Project plan initiated and integration analysis completed.	18/07/25	\$3.9k The scan aims to save more than it costs.
Consultation with other Councils, Wellington Water and GWRC to ensure future compatibility.	22/08/25	\$3.9k
Procurement and installation of hardware and associated software solutions, plus system testing.	29/08/25	\$2.5k (Project Management fixed fee)
Consultation with all relevant councils and agencies and create Roadmap to a regional system completed. Project and closure report completed.	17/10/25	\$10.4k
Contingency (only applied with prior approval and if the benefits of additional time spent are agreed).	17/10/25	\$4.1k
Identified risks		
Risks	Suggested mitigation / management	
Hardware or software not future-proof and/or orphaned from other Councils' systems.	Consultation with other GWRC, Wellington Councils and Wellington Water. Seek credible off-the-shelf systems from reputable suppliers.	
Roadmap to Regional system unachievable due to changing funding decisions or policy direction.	Cater for funding uncertainty in Roadmap and deep consultation to create a map that is flexible to be robust against policy changes.	
Regional Roadmap doesn't gain buy-in from all Wellington Councils.	Early consultation to identify risk areas and compromises that cater to regional needs.	

Funding request and use			
CDEM Resilience Fund contribution	Option 1: \$34.9k (\$24.8k opex + 10.1k capex). CCTV and water pressure sensors at three sites, allowing for automated alerts, or Option 2: \$24.8k opex CCTV at three sites and a pressure sensor at the most vulnerable site.		
PCC contribution	\$15k capex		
Other sources of funding or support	Nil.		
Budget <i>[please supply spreadsheet]</i>			
Option 1: OR	\$49.9k + GST (including PCC contribution) OR		
Option 2:	\$39.8k + GST (including PCC contribution)		
Applies if application exceeds \$100,000 over the life of the project	Not applicable	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]</i>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Approval Chief Executive Porirua City Council		 Name: Wendy Walker	
Approval Chair Co-ordinating Executive Group Wellington CDEM Group		 Name: Darren Edwards	
All communications regarding the application, including approval decisions will be addressed to the Chief Executive and CEG Chair.			
CDEM Group comment			
This application is aligned with the Group's aspirations and general direction of travel, and is strongly supported.			

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"/>
Director of Civil Defence Emergency Management		

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		