

Maurice Wills - *Web form submission*

**Critical Infrastructure Resilience**

***What is your name?***

Maurice Wills

***What is your email address?***

mauriceawills@yahoo.co.nz

***Are you responding as an individual or on behalf of an organisation?***

Individual

***Do you consent for your submission (including identifying information) to be published and shared in lines with terms for this public consultation?***

Yes

***Do you consent for your submission (including identifying information) to be published and shared in lines with terms for this public consultation? - Please note what should be withheld and for what reasons.***

[Nil]

***Does more need to be done to improve the resilience of New Zealand's critical infrastructure system?***

Yes, infrastructure design is not fit for purpose in high hazard zones where they need to be engineered and strengthened for higher resilience. One example is the Rangitata Flood of 2019 where a minor flood, in an area the Rangitata river had flooded before pulled down multiple power pylons. These pylons are not as resilient as the ones across the Waimakariri river.

***Have you had direct experience of critical infrastructure failures, and if so, how has this affected you?***

Through work in supporting Civil Defence:  
Chch Earthquake,  
Port Hills Fire  
Kaikoura Earthquake  
Rangitata Floods  
Canterbury Floods 2021

***How would you expect a resilient critical infrastructure system to perform during adverse events?***

Flood scenarios are well mapped  
Historical Flood Photos  
Coastal Inundation  
Tsunami scenarios  
Fault lines mapped

Infrastructure at key high hazard locations need to be strength tested, re-engineered, and resilient.

***Would you be willing to pay higher prices for a more resilient and reliable critical infrastructure system?***

Which is cheaper usually? Being proactive at strengthening infrastructure or the major cost of disaster recovery?

Billions for Chch earthquakes, North Canterbury Transport Corridor, Post Cyclone Gabrielle.

***The work programme's objective is to enhance the resilience of New Zealand's critical infrastructure system to all hazards and threats, with the intent of protecting New Zealand's wellbeing, and supporting sustainable and inclusive growth. Do you agree with these objectives? If not, what changes would you propose?***

Yes.

***Do you agreed with the proposed criteria for assessing reform options? If not, what changes you would propose?***

[Nil]

***Do you think the megatrends outlined pose significant threats to infrastructure resilience?***

Climate change will accerbate floods, droughts, fires.

***Are there additional megatrends that are also important that we haven't mentioned? If so, please provide details.***

Drinking water infrastructure and human healt shoukd be considered.

***Do you think we have described the financial implications of enhancing resilience accurately? If not, what have we missed?***

[Nil]

***How important do you think it is for the resilience of New Zealand's infrastructure system to have a greater shared understanding of hazards and threats?***

National standards for hazards mapping and identification would help. With clear communication in the data or probabilities estimated.

***If you are a critical infrastructure owner or operator, what additional information do you think would best support you to improve your resilience?***

Data sharing across organisations.

***What do you think the government should do to enable greater information sharing with, and between, critical infrastructure owners and operators?***

National standards of data.

Laws and mandates for data sharing and open data.

Metadata is key.

The sharing of interoperable DATA (especially geospatial) is needed. Rather than reports, pdf's, documents

***Would you support the government having the ability to set, and enforce, minimum resilience standards across the entire infrastructure system?***

Yes, otherwise infrastructure operators will socialise their losses through the tax payers after disasters.

***Would you support the government investing in a model to assess the significance of a critical infrastructure asset, and using that as the basis for imposing more stringent resilience requirements?***

Yes, tested with the industries and practicable.

***What criteria would you use to determine a critical infrastructure asset's importance? Investing in a model to assess a critical infrastructure asset's criticality, and using that as the basis for imposing resilience requirements that are more stringent on particularly sensitive assets?***

Population serviced

Probability of disaster

Cost of remediation compared to full replacement

Location

***Do you think there is a need for the government to have greater powers to provide direction or intervene in the management of significant national security threats against a critical infrastructure? - Is there a need for greater powers? If so, what type of powers should the government consider? What protections would you like to see around the use of such powers to ensure that they were only used as a last resort, where necessary?***

Yes and most likely threats

Cyber threats from hackers in states like Russia, China and other states known to harbour terrorist groups.

Redundancy in large communication networks.

***Do you think there is a need for a government agency or agencies to have clear responsibility for the resilience of New Zealand's critical infrastructure system?***

One regulator or several doesn't matter. Its whether the rules and national policy guidance are consistent and compliment each other. Rather than confusing and contradictory.

***Do you think there is a need for compliance and enforcement mechanisms (eg. mandatory reporting, penalties, offences) to ensure that critical infrastructure operators are meeting potential minimum standards?***

Yes and a mix of the two. Directors and executive are responsible for the operations of their organisations, they should be meeting their regulatory obligations.

***What additional comments do you have?***

Essential that this happens, we live on islands in the south pacific on the edge of two tectonic plates. Disasters will happen, Civil Defence asks the community to be prepared. As a community member, I am asking the government and infrastructure providers to ALSO be prepared.