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National Security Group
Department of the Prime Minister and Cabinet
Level 8 Executive Wing,
Parliament Buildings,
Wellington 6011

Via email: infrastructureresilience@dpmc.govt.nz

Otago Regional Council submission on the “Strengthening the resilience of Aotearoa New Zealand’s critical infrastructure system” discussion document

INTRODUCTION

Otago Regional Council (ORC) welcomes the opportunity to contribute to this consultation.

ORC is represented by the Regional sector submission to this consultation by Te Uru Kahika. The main focus of this ORC specific submission is drawn from our own experience managing critical flood protection and drainage assets.

ORC either owns and manages, or holds interests in, infrastructure that it considers to critical in respect to its functions and responsibilities.

Operationally, one of ORC’s significant activities is managing significant flood protection and drainage assets across parts of Otago.

ORC manages flood protection and land drainage assets that help to protect approximately 43,000ha of rural and urban land in Otago. Our assets include:

- 7 specific flood protection and/or drainage schemes
- 200km of floodbanks
- 12 pumping stations
- 55 bridges, culverts and various other assets

Critically, our flood protection management assets and schemes serve to protect our local communities and other critical infrastructure (Dunedin International Airport, primary production land, roading) from experiencing the full extent of damaging flood events.

In addition, ORC is responsible for an extensive array of assets that monitor the flows and levels in many rivers to provide near real time flow information. This, combined with weather forecasts, helps to give council staff, and the public, as much advance warnings as possible of possible flooding events and enable pre-emptive actions such stock movements, feed dispersal, and activation of various support networks. Our understanding is such equipment is not necessarily considered as critical infrastructure.

ORC is also a 100% shareholder in Port Otago Limited. Port Otago is the primary export port for the lower South Island supporting a range of business activities including Container, Bulk (logs, LPT, fertilisers), Property and Cruise liners. Ports are vital infrastructure for economic wellbeing, and also provide resilience for keeping key supply lines open for areas of the country if other transport networks (such as roading, rail or airports) are compromised.

Prelude: Objectives for and principles underpinning this work programme

The consultation asks the question “Does more need to be done to improve the resilience of New Zealand’s critical infrastructure system?”

ORC supports improving critical infrastructure resilience and acknowledges one of the challenges to improving the resilience of New Zealand’s critical infrastructure is ensuring that the definition of critical infrastructure is fit for purpose and includes all infrastructure that New Zealand will need to both manage an emergency event and recovery. This may require casting the definition of critical infrastructure wider, for example to provide for how important our internet services (and the networks that support it) has become as a communication tool at all times for the public – and particularly during emergencies. Regulatory changes will need to bridge these gaps and ensure resilience is enabled as a priority.

DEPENDENCIES

While flood protection may not currently be defined as critical infrastructure, there should be recognition that some defined critical infrastructure occupies areas provided by, or dependant on, flood protection assets. Within the Otago region this includes, but is not limited to:

- Key transport routes and infrastructure such as Dunedin International Airport, State Highways (e.g. SH1 and SH87) and trunk railway lines, and associated infrastructure such as bridges.
- Homes and businesses in towns such as Balclutha, Mosgiel and Dunedin, and productive farmland in the Lower Clutha and Lower Taieri.
- water, wastewater and power utilities.

Paragraph 61 on the consultation document notes the need for “...a *coordinated, systematic approach to building resilience of the whole infrastructure system*” (Te Waihangā and New Zealand’s National Adaptation Plan), and the need to shift to how assets and networks between them can contribute to overall resilience. However, the document looks to be a one size fits all approach and doesn’t recognise that the nature of the risks it covers are very different and have different needs in terms of increasing resilience.

BUILDING COMMUNITY RESILIENCE

Flood protection measures (defences against water) are an important and longstanding approach for improving resilience of some infrastructure, however it’s important to compliment this with land use planning, and other adaptation measures to minimise or avoid further development in areas prone to flooding and increasing risk and residual risk. This would better enable infrastructure owners and communities to navigate uncertainty as resilience needs must adapt to future trends.

We note the consultation document (p.97) highlights the desire to construct new critical infrastructure in a more resilient way. In Otago there are areas which face ongoing pressure to continue the development of land that is prone to flooding due to factors such as market pricing, proximity to services, and ease of development. Our experience is that this comes with increased expectation and reliance on aging flood defence infrastructure to perform and provide a greater level of service for protection than it was designed to provide.

The renewal or upgrade of flood protection infrastructure requires reasonably long lead times and comes at significant costs for relatively small base of ratepayers. ORC considers that additional regulatory steps should be taken to recognise higher levels of flood risk and minimising or adapting development in flood prone areas.

Community education and building of overall community resilience should also encouraged for strengthening the resilience of critical infrastructure. Recognising the dependencies between infrastructure owners and operators, and community reliance on such infrastructure should be a key strategy in strengthening the overall resilience of New Zealand's critical infrastructure.

AFFORDABILITY

The ability of customers to pay through higher prices in the short term discussed in paragraph 65 needs broader consideration alongside the implications of the rising cost of living and higher prices for the provision of many essential services. The objective of longer-term overall benefit of more resilient infrastructure is clear, however more information is required to quantify and interpret this for infrastructure owners and communities that will bear the costs. The scale and consequence of any cost increases discussed in paragraph 68 will also impact on Council investment in resilience (para 68) and it's not especially clear how this may apply.

Coupled with an improved understanding of risk, it will be important to identify where resilience isn't affordable. This will require multiple agencies (not just critical infrastructure owners) to come to the table as the impact to afford all essential services will potentially impact on other Council workstreams and our ability to complete our necessary work programmes.

RESILIENCE ENABLERS

The discussion document doesn't fully recognise or consider the roles of other agencies, including Regional Councils, to help provide resilience to critical infrastructure, and having a potential role in increasing the resilience of our flood protection and drainage infrastructure with the aim of supporting greater community resilience e.g., less reliance on pumps where practicable, emergency generator provisions at critical pump stations. As such Regional Councils should be at the table as resilience enablers given their function, knowledge, and expertise.

A further enabler for resilience is recognising the potential role and co-benefits of nature-based solutions, such as wetlands which can, along with a range of biodiversity functions, assist in improving the physical resilience of critical infrastructure from floods and climate change. 'Soft' or natural solutions provide opportunities that should be recognised where they would directly add to the resilience of systems and networks that form critical infrastructure.

RECOGNISING EXISTING REGULATION

One of the provisions of the Soil Conservation and Rivers Control Act 1941 is to make better provision with respect to the protection of property by floods. The discussion document notes that New Zealand's regulatory approach is asset- and sector-centric (paragraphs 33-35 of the discussion document), however the legislation may be broader and include recognition of approaches that extend beyond built infrastructure.

RISK MANAGEMENT

Given the dependencies between infrastructure owners and providers, it will be important to adopt a consistent approach to measuring and understanding risk across New Zealand. Key to this will be ensuring that the information collected to form this risk assessment is consistent across different providers and able to be more broadly communicated with affected communities.

If possible, ORC would like to speak to its submission.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Gretchen Robertson', written in a cursive style.

Gretchen Robertson
Chairperson