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Submission on the draft 'National Disaster Resilience Strategy'

By email to: nationalstrategy@dpmc.govt.nz

Introduction

1. This is a submission from Water New Zealand on the Government's draft 'National Disaster Resilience Strategy', hereafter NDRS.
2. Water New Zealand is a national not-for-profit sector organisation comprising approximately 1900 corporate and individual members in New Zealand and overseas. Water New Zealand is the principal voice for the water sector, focusing on the sustainable management and promotion of the water environment and encompassing the three waters: drinking water, waste and storm waters.
3. The Association represents those with an interest in 3 waters infrastructure in New Zealand. Although our submission represents the views of the Association, it may not necessarily reflect the views of all of its members.

Background

4. The traditional characterisation of civil defence processes in New Zealand distinguishes between risk reduction, community readiness, emergency response, and long term recovery. The Ministry of Civil Defence (MCDEM) has progressively adopted a relatively narrow interpretation of its role in implementing the 2002 Act with a focus on community readiness programmes and response aspects. After the Christchurch and Kaikoura earthquakes central government quickly intervened through necessity, as it was obvious MCDEM had no operational capability. This situation led in turn to the 2017 Ministerial Review (Better Responses to Natural Disasters and Other Emergencies in New Zealand), which sought to find a better approach to civil defence and emergency management.
5. Water New Zealand is a member of the Engineering Leadership Forum, which made an extensive and carefully researched submission to the 'better responses' enquiry. That submission argued that better responses can be achieved by developing new 'surge' support processes to quickly support TLAs and utilities in a disaster; that the MCDEM should be tasked and funded to deliver a national CDEM training programme for both CDEM professionals and prospective volunteers; that minimal requirements on TLAs and utilities for compliance with the Act were essential; and that detailed consideration of a wider range of risk reduction programmes was needed. The submission argued that new approaches were needed to deal with reducing impact – being more resilient, but that otherwise all that was needed was that the Act be implemented properly.
6. In August 2018, the government responded to the 2017 review by announcing five new broad CDEM objectives, but without providing any information on how these would be achieved, nor any associated timelines.
 - Putting the safety and wellbeing of people at the heart of our emergency response system.
 - Strengthening the national leadership of the emergency management system.
 - Making it clearer who is responsible for what, nationally and regionally.
 - Building the capability and capacity of the emergency management workforce, including particular focus on development of emergency event controllers.

- Improving information and intelligence system that supports decision making in emergencies.
7. The November 2018 NDRS cabinet paper explains that the CDEM Act (2002) requires the National CDEM Strategy to be regularly updated – with the next refresh due by April 2019. The paper also directs the updated National CDEM Strategy to contain a greater focus on community resilience and be guided by the vision statement ‘New Zealand is a disaster-resilient nation that acts proactively to manage risks and build resilience in a way that contributes to the wellbeing and prosperity of all New Zealanders’.
 8. The current National CDEM Strategy has four objectives – awareness and preparedness, reducing risk, enhancing CDEM capability, and enhancing recovery capability. Although being more resilient features everywhere in the plan, the concept has in our view been put into the too-hard basket, while the Treasury Infrastructure Unit started to look more closely as to what being resilient actually meant. In our view, the proactive extension of the plan to specifically include building resilience or to being more resilient is a significant new step as is now discussed.

CDEM Strategy and Resilience Building

9. The New Zealand engineering community has been researching and implementing resiliency-building programmes for decades. The 300 page ‘Wellington after the Quake’ (1995) and the Centre for Advanced Engineering’s major report into Christchurch vulnerability ‘Risks and Reality’ (1997) set out a clear pathway for communities to assess and mitigate in this case earthquake risk. There have been numerous reports since then including extensive review of the volcano hazard in Auckland. Recently there has been a significant increase in our knowledge of historic tsunami events along the east coast and this has informed new initiatives in Napier and elsewhere.
10. These reviews all demonstrate that an effective CDEM system, and an effective community response to disaster, is significantly dependent on the performance of lifeline utilities and critical infrastructure systems. Lifeline utilities include 3 waters, electricity distribution and supply, and telecommunications, and critical infrastructure includes roads, key bridge crossings, harbour facilities and airports.
11. The revised Act (2002) therefore contained obligations on lifeline utilities, as did the National CDEM Plan Order 2015 and associated guide, and the Director’s Guideline for Lifeline Utilities and CDEM Groups 2014. Specifically, the CDEM Act at S59, 60 requires lifeline utilities to ensure they are able to function during and after an emergency to the fullest possible extent, albeit at a reduced level – and to plan for it. The new National CDEM Plan (2015) sets parameters at S57 to 61 for the role of lifeline utilities including the obligation to plan co-operatively, address dependencies and reduce vulnerability. The Act has everything covered, but there has been an unwillingness to enforce its implementation.
12. However, utility performance in disaster can be extremely variable as has been extensively documented. Utility resilience can be impacted by poor governance and thin management capability in a disaster, constraining commercial arrangements, the poor condition of assets, and constraints created by the way the emergency response system deals with complex utility interdependencies. Utility resilience is difficult to predict (or police) without formal independent audit, but this level of oversight has never been considered. The variable performance of utilities was dramatically demonstrated in the Christchurch earthquake. The city’s 3 water system was significantly damaged – as it had never been strengthened to deal with liquefaction of local soils – despite endless advice from experts over prior decades (including the findings of the Risk and Reality report noted previously). The Orion Energy electricity network had been strengthened and performed extremely well.
13. Complicating the situation is that risks from natural hazards vary significantly across New Zealand and within regions so that resiliency strategy development is therefore

inherently a local activity undertaken by TLAs on the basis of local risk assessments and impact analysis. In some areas, for example, tsunami risk is the predominant threat – leading to particular response and resilience building programmes. In some areas it will be the threat of utility disruption leading to recovery and response issues. In other cases, building damage and the threat to life is the predominant issue.

14. Concerns have been expressed about the fragmented ownership and oversight of the infrastructure sector, the lack of any control of standards and technology implementation, and the disparate methods of infrastructure management and operational skills in organisations in both Local Government and privately owned utilities. Best practice infrastructure management depends on the preparation and interpretation of detailed long-term asset plans that are underpinned by accepted standards, practices, and methodologies, and prepared by asset management specialists along with well trained and competent operational staff.
15. Asset management planning can facilitate the identification of critical infrastructure resiliency investments. These are measures taken to save repair costs and minimise economic disruption after earthquake or other natural hazards, and can be quite different from routine maintenance. However, notwithstanding the CDEM Act requirements as discussed, and that resilience building technologies are widely understood by engineers, little effort has been made by infrastructure owners to build more resilient utilities. Instead efforts tend to be focused on critical maintenance, and service expansion. This has created a vast legacy issue across the infrastructure sector – but especially in water supply, sewage and stormwater systems. The state of 3 water systems is such that even in moderate earthquakes, significant delays will be experienced in returning businesses to normal.
16. Up until recently businesses were able to purchase business interruption insurance, but on current trends, and as a result of Christchurch and Kaikoura, most businesses will be unable to afford this in future. The economic impact of disasters will therefore rapidly escalate and may threaten the very survival of cities and communities. We are therefore wholly in favour of the proposed extension of the scope of the NDRS to finally deal with resiliency issues.
17. To assist with this situation, we propose that there needs to be a new focus on the implementation of good engineering practice and conformity of standards across the infrastructure sector in all aspects of infrastructure investment, operation and maintenance and, if necessary, by regulation or statute. In addition, Government needs to develop the capability, perhaps in a new organisation like the proposed Infrastructure Body, to start assessing the situation at a national level, prioritising threats to the economy, develop mitigation strategies to deal with the most serious situations, and to oversee their implementation. This may also include consideration of how to fund resilience building investments. It may also include consideration of how to prioritise a national approach to the rapidly increasing demands from TLAs for assistance in dealing with rising sea levels and the retreat from the coastline.

Conclusions and Recommendations

18. The consultation seeks feedback on the proposed strategy, and whether there are any gaps or challenges not properly addressed.
19. The good performance of lifeline utilities and infrastructure in disaster is the key to an effective response to and recovery from disaster. However, we believe this issue is dealt with in passing and superficially in the NDRS.
20. Our view is that there are numerous ways that utility and infrastructure governance and management can be improved and strengthened.

- a) In the interim, the intent of the CDEM Act 2002 in regard to utilities and infrastructure being as resilient as possible needs to be proactively implemented by TLAs and asset owning utilities.
 - b) Proposals for the creation of the new Infrastructure Body are currently being developed by Treasury. A role of the new Body could be the setting of standards for the management and operation of utilities and infrastructure and the proactive development of asset management skills capability in the infrastructure sector generally.
 - c) The government also has a major role to play in co-ordinating the understanding of risk and to facilitate the investment in resiliency in utilities and critical infrastructure. The oversight of this activity could also sit within the new Infrastructure Body, or be an emergent new organisation base on the Treasury Infrastructure Unit but separated from Treasury.
21. MCDEM should in our view be funded and resourced to develop a community-focused NDRS with a particular focus on preparedness and response, and in the preparation of materials and programmes for regional CDEM groups to implement.
22. In conclusion, the draft NDRS sets out 18 objectives under three headings - managing risks (surely identifying risks is what is meant), effective response to and recovery from emergency, and strengthening societal resilience. We propose that these be repackaged into three separate programmes:
- a) Risk and Resiliency – potentially part of the new Infrastructure Body
 - b) Utility and Infrastructure Governance and Management – potentially part of the new Infrastructure Body
 - c) Improving Societal Resilience – MCDEM.



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