The critical place of water

JOHN PFAHLERT, CEO, WATER NEW ZEALAND

The Kaikoura earthquake put the spotlight on the infrastructure around our precious water asset and the need to ensure we build resilience into communities.

THE QUAKE HIGHLIGHTED the importance of Civil Defence planning and collaboration between local authorities, engineers and contractors in order to get three waters infrastructure up and running as soon as possible after a disaster.

Major earthquakes reveal the necessity to quickly reinstate safe drinking water supply, and then how vital it is to re-establish wastewater infrastructure.

But it's not just earthquakes – increasingly chaotic weather means stormwater systems are becoming more vulnerable. Resilience was the theme of our three-day Stormwater Conference in Nelson where 330 delegates from around the country took part in discussions about what was referred to as "one of the most important issues facing New Zealand today".

At the conference, many spoke about flood prone Christchurch, both pre and post-quake, the damage done to the city and how subsequent heavy rainfall events adversely affected the region, as well as the various models proposed to best cope with future floods.

The Christchurch quake has already helped spark a joint venture project between Water New Zealand, the Institute of Public Works Engineering Australasia (IPWEA) and the University of Canterbury Quake Centre.

Though still in the early stages, the Evidence Based Investment Decision Making for 3 Water Pipe Networks programme aims to help local authorities find the most cost-effective ways to make the best decisions around the maintenance of water infrastructure.

We know that New Zealand faces a multi-billion-dollar liability as drinking water, wastewater and stormwater pipes nearing the end of their useful lives need replacing. This vital infrastructure is worth $50 billion.

Yet its replacement is one some local authorities have an "out of sight, out of mind" attitude to. Perhaps that's not surprising given the competing demands on local authorities when libraries, swimming pools and parks make a much more attractive and visible investment.

The Evidence Based Investment Decision Making for 3 Water Pipe Networks programme aims to provide real data to allow community representatives to better understand what they are investing in. It will help them to understand the risk, the value of the asset in the ground, and the balance between resilience and cost.

The programme could hold the key for unlocking billions of dollars of potential savings for ratepayers. If we could improve decision making by five percent on a $50-billion asset, that's $2.5 billion of potential savings.

This project is linked to the development of metadata standards for water assets that have been worked on over the past year. This government-funded project represents an opportunity, through providing consistent and commonly used standards for infrastructure projects, to ultimately enable better decision-making in capital and operations maintenance and investment.

The implementation of these standards in coming years will give an opportunity for collaboration within the water sector, with Water New Zealand playing a central role to achieve our stated aim of a "self-determining future". The roll out of these data standards is expected to start mid-2017.

The past year at Water New Zealand has seen a number of changes made to the way we operate that are relevant for members of the construction industry. Our new modus operandi will see us working in a more collaborative manner with industry and councils, being a stronger advocate for the sector on water-related issues and strengthening our technical capability. An organisational restructuring to align staffing with those objectives was completed in 2016.

Every year our Association undertakes a benchmarking exercise – The National Performance Review – among councils on how councils manage their three waters assets.

We seek information on a range of issues including the following:

- How do councils charge for water – through general rating or via targeted rates?
- Have councils undertaken a climate change assessment and what are the expected impacts on water-related assets from climate change?
- How are councils managing in over-allocated catchments?
- How are councils designing their stormwater assets for flooding?

Fifty councils participated in the review in 2016, and results are freely available early in 2017 on our website.

The other big water issue of 2016 was the contamination of drinking water in Havelock North. Members of our Association and our staff have been assisting Hastings District Council and we are taking an active role in the Government Inquiry into the crisis.

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Water New Zealand is registered as a Core Participant in the Inquiry. We will be submitting evidence on what changes we believe are necessary to improve performance of the sector for the future benefit of consumers.

This matter is likely to be a significant issue in 2017. The Inquiry probably presages the onset of several years of discussion about the appropriate level of regulatory control of the sector and what changes may be required to the existing system. I expect to see changes to regulations governing water supply, treatment, oversight and operational practices in the years ahead. This could well result in the need for local authorities to spend more on public water supply networks.

The government is looking at developing a stronger national direction around improving freshwater management and those of us in the water sector need to make sure we're determining how that future develops. It's reasonably clear that the National Policy Statement (Freshwater Management) will have significant implications for the future management of stormwater in particular.

Water New Zealand had a very successful annual conference in Rotorua in 2016. Collaboration and customer focus was a recurring theme. We came away with the message that we need to ensure that our stakeholders, including those in the government, know what we are doing and why we are doing it.

We also heard about possible new technologies, such as the atmospheric harvesting of water which could eliminate the need for a pipeline reticulation network. It is clear that all of us in the water sector, whatever our role, need to be thinking towards the future and open to new ideas, including those that test our current paradigm about the provision of infrastructure. **CP**