

Briefing to Minister Mahuta

- Engineering New Zealand (previously known as IPENZ) is the professional home for engineers, with more than 22,000 members – and the strongest and most influential voice on engineering issues.
- Engineers are at the coalface of New Zealand’s greatest opportunities and most pressing challenges. We also play a pivotal role in responding to, shaping and solving them.
- Last year, Engineering New Zealand asked engineers to identify the most critical engineering-related challenges facing our country. Water was at the top of the list, along with seismic resilience and cleaner energy. We brought together engineers, policy makers and scientists to unpick these challenges and find a way forward.
- In our report [*Engineering a Better New Zealand*](#), we ask decision makers and all New Zealanders to take a hard, fresh look at water quality, for the sake of future generations’ prosperity and safety.

OUR RECOMMENDATIONS FOR WATER MANAGEMENT

1. Fix our broken drinking-water system

Following lessons from the Havelock North Inquiry, a revitalised vision for drinking-water infrastructure is emerging. We believe the regulatory system should enable affordable water of a consistent minimum standard for all New Zealanders, wherever they live. This requires clear accountability for setting, monitoring and enforcing minimum standards. It also requires services delivered by competent and regulated water practitioners, more efficient service delivery and funding to upgrade infrastructure.

2. Make hard choices now about unsustainable locations

Three waters infrastructure is exposed to the impacts of climate change. Adapting to the risk presented by climate change means local government stopping new development in locations with existing and increasing risk, and making tough calls about existing developments that are becoming untenable.

3. Enable the community to value water (in all its forms)

The community must help create a vision for safe water, and understand its role in protecting it. Properly informed, the community will value water, push for investment in its protection and its infrastructure, and take action to conserve it. To enable this, the community needs government and engineers to provide clear and accessible information – about risks, costs, the benefits of intervention, and incidents that occur. We also need fair pricing that reflects the value of clean, healthy water yet safeguards everyone’s access to it. An effective way to create the right incentives is volumetric charging for drinking water and wastewater.

4. Commit to real-time monitoring and reporting of water quality

We need water regulators, infrastructure owners and managers to pursue best practice for drinking water, the water we swim in and to reduce flood risk. There should be a commitment to real-time monitoring, so that individuals and communities can make informed choices. This means taking collective responsibility in a way that exceeds current regulatory obligations. It should be supplemented by predictive modelling.

RESILIENT LOCAL GOVERNMENT INFRASTRUCTURE

- Local government is a major infrastructure provider and yet there are significant limitations in its ability to finance, fund and deliver the resilient infrastructure New Zealand needs. We want to see more coordinated infrastructure investment at the scope and scale required to deliver affordable and resilient infrastructure that meets the needs of all New Zealanders.
- There are significant economies of scale and scope in the provision of infrastructure services. But local government does not always have the mechanisms to plan and deliver infrastructure regionally, which can result in disjointed investment decisions. An example of fragmentation is wastewater and drinking water services outside of the Auckland and Wellington regions.
- A challenging combination of capacity, capability, funding and financing issues is most acute for smaller councils who may lack the expertise, independence, scale and scope to make and fund the optimal investments for New Zealand.
- Engineers are central to meeting this infrastructure challenge. It is important that local authorities have access to the best engineering advice to support decision-making for infrastructure services. Currently, some local authorities don't have ready access to the engineering expertise they need to make the best decisions about their infrastructure, and we see this as an issue that needs to be addressed.
- User charges are an effective mechanism to raise revenue and as a result finance capital investment. Volumetric charging for water and wastewater incentivises more efficient use of resources and enable financing for long-term capital projects paid for over the lifespan of the asset. User charges can help to ensure that costs fall fairly on those that use the services.
- There can be a democratic barrier to introducing targeted rates and user charges, partly because the need for increased investment is not well understood by the public. Where there is greater community understanding there can be support for targeted rates and user charges. For example, Auckland's Safeswim model led to community demand for cleaner water even if this meant targeted rates to pay for it.

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