

Transforming the system for delivering three waters services

Summary of proposals

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**Te Tari Taiwhenua
Internal Affairs**

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Introduction

In July 2020, the Government launched the Three Waters Reform Programme with the ambition of significantly improving the safety, quality, resilience, accessibility, and performance of three waters services, in ways that are efficient and affordable for New Zealanders.

Currently, New Zealand's three waters system is not set up in a manner that will enable the achievement of this ambition, and is facing range of issues and a series of challenges that, taken together, mean service-delivery arrangements are ineffective, inefficient, and no longer fit for purpose.

The Government's objectives for this programme are to:

- improve the safety, quality, and environmental performance of three waters services
- ensure all New Zealanders have access to affordable three waters services
- move the supply of three waters services to a more financially sustainable footing, and address the affordability and capability challenges that currently exist in the sector
- improve transparency in, and accountability for, the delivery and costs of three waters services
- improve the coordination of resources and unlock opportunities to consider New Zealand's water infrastructure needs at a larger scale and alongside wider infrastructure and development needs
- increase the resilience of three waters service provision to both short- and long-term risks and events, particularly climate change and natural hazards
- provide mechanisms for enabling iwi/Māori rights and interests.

Following almost two years of intensive evidence gathering and policy development, including significant engagement and consultation with local government and iwi/Māori, the Government has developed an integrated suite of reforms that seek to transform the current system for delivering three waters services and infrastructure.

The package comprises the following core components:

- Establish four statutory, publicly owned water services entities to provide safe, reliable, and efficient water services.
- Enable the water services entities to own and operate three waters infrastructure on behalf of the communities they serve, enabling them to access cost-effective finance from capital markets to invest in maintaining and upgrading that infrastructure.
- Provide for ongoing public ownership of the new water services entities by local authorities, and statutory provisions that protect against future privatisation.
- Establish independent, competency-based boards to govern each water services entity.

- Set a clear national policy direction for the three waters sector, including expectations relating to the contribution by water services entities to any new spatial/resource-management planning processes.
- Establish consumer protection mechanisms and an economic regulation regime to ensure efficient service delivery and to drive the achievement of efficiency gains.

The reforms are being progressed through a comprehensive suite of legislation, the first component of which is the Water Services Entities Bill (the Bill) introduced to the House on 2 June 2022 and had its first reading on 7 June 2022.

The Bill establishes four publicly owned water services entities that will provide safe, reliable, and efficient water services in place of local authorities. It contains the ownership, governance, and accountability arrangements relating to those entities, and provides for transitional arrangements during an establishment period. The entities will begin delivering these services on 1 July 2024.

The Bill will be followed by further legislation to provide for the specific powers, functions, and responsibilities of the entities, economic regulation and consumer protection, and details relating to the transfer of assets, liabilities, and employees from local authorities to new water services entities.

This document was first published in June 2021 and revised in June 2022 following significant refinements to the Government's reform proposals in partnership with local government and iwi. This document serves as an overview of the policy proposals being progressed through the Three Waters Reform Programme, including background information on why reform is needed, to support public understanding of the proposals.

How are three waters services currently delivered?

The three waters (drinking water, wastewater, and stormwater) are lifeline utilities that provide essential services that are critical to public health, environmental sustainability, community wellbeing, housing and urban development, and the economic development of New Zealand's communities.

New Zealand's 67 local authorities own and operate the majority of three waters services across New Zealand. Around 85% of New Zealanders receive their three waters services from their councils (local or unitary authorities), with the remainder being provided by smaller private and community-based schemes.

Councils use a range of arrangements for delivering three waters services, from in-house business units to council-controlled organisations (e.g. Watercare in Auckland and Wellington Water). Councils also use private contractors and third-party supply arrangements to access the capabilities of water services providers, engineers, and other specialists. Overall, the sector comprises 4,900 staff who support the delivery of services to 4.3 million customers.

Three waters infrastructure

Three waters infrastructure consists of the assets and processes used to collect, store, transfer, treat, and discharge three waters. The infrastructure is complex and expensive, and much of it is underground and in an unknown condition.

Three waters represents one of New Zealand's most significant infrastructure sectors, with an estimated replacement value of more than \$70 billion. The sector includes:

- drinking water assets comprising 339 water treatment plants, 42,559 kilometres of water supply pipes, and 817 water pump stations across the 39 local authorities that participated in Water New Zealand's 2020/2021 National Performance Review.
- wastewater treatment assets comprising 327 wastewater treatment plants across New Zealand, which are owned and operated by local authorities, and associated pipes for collecting and transferring wastewater to and from these plants
- stormwater network assets 18,452 kilometres in length and 213 pump stations across the local authorities that participated in the 2020/2021 National Performance Review.

Cost of providing services

Overall, these services are expected to cost \$2 billion per year to operate, and cost councils around \$2.7 billion per annum in maintaining and upgrading these networks.¹

The approaches to charging for these services vary significantly across the country. Most local authorities levy rates for water services that are wholly or partly based on the land or capital values of landowners' properties. Some councils have put in meters and charge customers on the basis of their water use, with a mix of fixed and variable charges.

How these costs are paid for

¹ Average yearly figures based on 2021-31 Long-Term Plan estimates. The rate of annual investment has increased in the current LTPs from an historic average of \$1.5 billion, however many councils are not keeping pace with planned investment.

Different services are charged for in different ways. Fixed, targeted rates are most common for the supply of drinking water to unmetered properties, with a combination of fixed and volumetric charges common for metered properties. Wastewater tends to be charged on a fixed, targeted rate basis, and sometimes on a number of pans or volumetric basis. Stormwater has public good characteristics and is typically charged as part of a council's general rate, as a specific targeted rate or some combination of the two.

Regulatory environment

A complex system of regulation applies to the three waters system, with responsibilities shared across multiple local and central government agencies. The regulatory environment is changing as a result of the establishment of the new water services regulator, Taumata Arowai, and the implementation of a new regulatory framework contained in the Water Services Act 2021.

The roles and responsibilities of the parties that play key roles in the regulatory system are summarised below.

Table 1: Regulatory environment roles and responsibilities

Party	Role	Responsibilities
Department of Internal Affairs	Lead policy responsibility and stewardship role in relation to local government Treaty/Tiriti partners	<ul style="list-style-type: none"> Leading the policy response to the Three Waters Review, including the service delivery reform programme Monitoring Taumata Arowai
Regional councils	Environmental regulators	<ul style="list-style-type: none"> Setting consent standards for its region Granting consents Monitoring compliance with consents Monitoring and regulating discharge and abstraction Flood protection
Taumata Arowai	Drinking water regulator Oversight of environmental regulation (after the proposed Water Services Bill is enacted)	<ul style="list-style-type: none"> Enforcement of drinking water regulatory requirements imposed under the system Monitoring of wastewater and stormwater performance Monitoring how water service providers give effect to Te Mana o te Wai
Local authorities	Urban planners	<ul style="list-style-type: none"> Urban and land use plans Growth strategy Providing water service (regulated by Taumata Arowai and regional councils) Will assume responsibilities in relation to private and community supplies (under the Water Services Bill)
Ministry of Health	Drinking water regulator (until the Water Services Bill is enacted) Treaty/Tiriti partners	<ul style="list-style-type: none"> Enforcement role in the drinking water regulatory system (until the Water Services Bill is enacted) Will continue to have responsibilities under the public health legislation, including the Health Act 1956
Ministry for the Environment	Lead responsibility for environmental policy Steward of the environmental management system Treaty/Tiriti partners	<ul style="list-style-type: none"> Sets high-level standards for environmental regulation Oversight for national environmental standards

Iwi/Māori	Treaty/Tiriti partners	<ul style="list-style-type: none"> Involved through consenting processes (Cultural Impact Assessments, community consultation, and defining and assessing Te Mana o te Wai)
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Recent changes to the regulatory environment

Taumata Arowai became a Crown entity in March 2021 and took over from the Ministry of Health as the dedicated new drinking water regulator when the Water Services Act commenced on 15 November 2021.

Taumata Arowai enforces current drinking water standards and, working alongside the Regional Council regulators, provides national oversight of environmental performance of wastewater and stormwater networks.

The Water Services Act provides Taumata Arowai with a comprehensive set of regulatory tools to ensure that drinking water safety standards are achieved.

The drinking water standards remain unchanged. However, in the new regulatory environment, suppliers are required to meet these standards. At present many do not. In many cases to comply with these standards may require additional infrastructure investment. Councils will no longer be able to defer crucial upgrades on the grounds of cost.

Taumata Arowai has the power to put in place directions and compliance orders to ensure that unacceptable risks to public health are resolved in a timely way. It can also issue infringement fees and prosecute where reckless or wilful behaviour creates risk to public health. These tools will enable the regulation of drinking water to be in proportion to the risk, scale and complexity of a supply.

Working alongside the Regional Council regulators, Taumata Arowai will also monitor compliance with environmental regulations at a national level and drive greater focus on the performance of wastewater and stormwater networks.

Figure 1: Overview of roles and responsibilities in the Three Waters System



Recent changes to the regulatory environment

The future operating environment for water services providers, including local authorities, will change significantly with the establishment of Taumata Arowai and the implementation of the new water services regulatory framework.

It will take some time to implement the new regulatory regime, but it can be expected to provide much greater assurance that drinking water is safe and that drinking water standards are being complied with. Key features of the new regulatory framework include:²

- all drinking water suppliers, except domestic self-suppliers, will have a duty to consistently provide safe drinking water
- stronger requirements on water suppliers to manage risks to drinking water safety
- strong compliance, monitoring and enforcement actions for Taumata Arowai
- new national environmental standards for wastewater discharges and overflows, with new obligations on network operators to manage risks to people, property, and the environment
- new requirements for reporting on the performance of wastewater and stormwater networks.

These regulatory changes will increase the pressure on local authorities to raise current levels of investment in three waters infrastructure and services. Shifting public perceptions around access to safe drinking water and environmentally friendly wastewater and stormwater practices, and tougher resource management consent requirements, are expected to be key drivers of future investment.

² These provisions are contained within the Water Services Act 2021.

Without reform, local authorities will need to make increasingly difficult decisions about how they meet these challenges, including through future rates rises, higher levels of borrowing, and scaling back or delaying other investment priorities.

Under the Water Services Act 2021, local authorities also have general obligations to ensure the safety of drinking water in their communities that extend beyond their roles in directly providing water services.³ Specifically:

- local authorities have a duty to ensure communities have access to drinking water if existing suppliers face significant problems in complying with drinking water standards
- local authorities are required to make assessments of drinking water, wastewater and sanitary services at least once every three years to ensure communities have access to safe drinking water. The scope of these assessments includes private and community supplies (excluding domestic self-supplies)
- if an assessment identifies problems with a supplier's compliance with the regulatory requirements, local authorities are required to work with suppliers and consumers to identify solutions
- local authorities have responsibilities to ensure the supply of safe drinking water if a supplier is unable to meet standards, including potentially taking over the management and operations of private or community supplies.

It will be challenging for many small suppliers to comply with these new obligations, particularly those that are being brought into the regulatory system for the first time. Local authorities will also face an added burden given that they will have a duty to intervene on behalf of suppliers that are unable to meet their obligations under the new regulatory environment.

³ Under the Government's proposed reforms, these regulatory responsibilities would transfer from local authorities to the new water services entities.

How is the current system performing?

The three waters system is critical for the health and wellbeing of New Zealanders. It is significant for the functioning of society, the health of the environment, and the performance of the economy.

While there are pockets of good performance, in many parts of New Zealand people cannot be confident that their drinking water is safe, that the three waters sector is achieving good environmental outcomes, that there is sufficient capacity to accommodate population and housing growth, that the rights and interests of iwi/Māori are being upheld, and that climate change and natural hazard risks are being managed successfully.

The evidence suggests there are persistent systemic issues facing three waters infrastructure and services that are leading to unacceptable outcomes. These outcomes include:

- poor compliance with drinking water standards
- poor health outcomes
- poor environmental outcomes
- poor customer outcomes
- a lack of resilience in the face of climate change and natural hazard risks
- persistent under-investment, leading to deteriorating assets and the accumulation of a large infrastructure deficit.

Compliance with drinking water standards

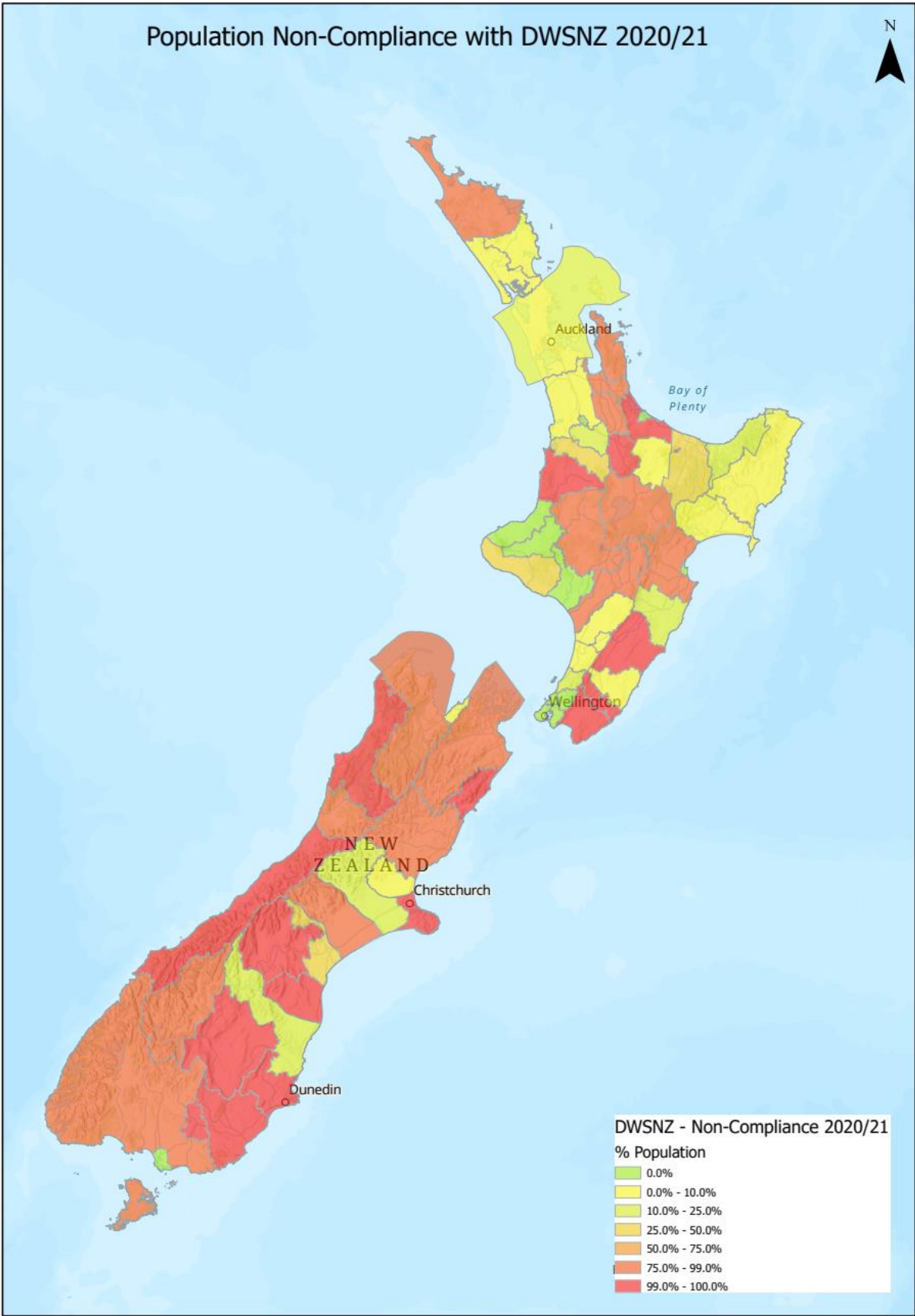
Access to safe drinking water and sanitation is a basic human right. However, many New Zealanders cannot be confident that their drinking water is safe. A recent survey, undertaken by the Infrastructure Commission with more than 23,000 New Zealanders, found that access to safe drinking water was the number one infrastructure issue.⁴

Water suppliers' compliance with drinking water standards varies significantly across the country. The map below outlines the percentage of the population within each local authority area that is served by supplies that are non-compliant with the drinking water standards, as reported by the Ministry of Health.⁵

⁴ New Zealand Infrastructure Commission, Te Waihanga (2021) Aotearoa 2050 survey results. Available at https://infracom.govt.nz/assets/Uploads/TeWaihanga_Aotearoa2050_Report.pdf.

⁵ Ministry of Health (2021). Annual Report on Drinking-water Quality 2020-21. Available at <https://www.health.govt.nz/system/files/documents/publications/annual-report-on-drinking-water-quality-2020-2021-mar22.pdf>

Figure 2: Map of compliance with Drinking Water Standards New Zealand 2020-21



Source: Beca, using data from the Ministry of Health Annual Report on Drinking Water Quality 2020-2021

The Ministry of Health also reports that there were 27 permanent and 56 temporary boil water notices in place for the reporting period (1 July 2020 – 30 June 2021), affecting roughly 40,000 people.

Health outcomes

Based on the latest Ministry of Health data, 78 percent of the population served by networked supplies received drinking water that complied with all drinking water standards.⁶ This means approximately one in five New Zealanders is supplied with drinking water that is not guaranteed to be safe from bacterial contamination.⁷

Contaminated water is a significant source of waterborne gastrointestinal illnesses, with an average of 8,000 cases or more notified each year by public health units.⁸ These numbers are likely to be an underestimation of the true incidence of illness due to the large number of visitors in small, non-compliant townships and/or the under-reporting of waterborne illnesses.

The health impacts of a failing three waters system have significant flow-on effects from an economic perspective:

- Cases of waterborne gastrointestinal illnesses have been calculated to have cost New Zealanders \$496.1 million over 40 years, principally in terms of health care and lost productivity.⁹
- In 2006, the Ministry for the Environment estimated that waterborne diseases cost New Zealand \$25 million a year.¹⁰
- The economic cost of the Havelock North outbreak to the country was calculated to be \$21 million.¹¹

⁶ Ibid.

⁷ Ministry of Health (2021). Annual Report on Drinking-water Quality 2020-21. Available at <https://www.health.govt.nz/system/files/documents/publications/annual-report-on-drinking-water-quality-2020-2021-mar22.pdf>

⁸ Environmental Health Intelligence New Zealand (2021). Notifications of potentially waterborne disease with untreated drinking water as a risk factor. https://www.ehinz.ac.nz/assets/Factsheets/Released_2021/Notification-of-Waterborne-Disease-with-Untreated-Drinking-Water-FA.pdf

⁹ Moore, et al., Cost Benefit Analysis of Raising the Quality of New Zealand Networked Drinking Water (LECG, 2010), 159. <http://srgexpert.com/wp-content/uploads/2018/02/cba-raising-quality-of-networked-drinking-water-jun20101.pdf>

¹⁰ Ministry for the Environment, Proposed National Environmental Standard for Sources of Human Drinking-Water: Resource Management Act Section 32: Analysis of the Costs and Benefits (Ministry for the Environment, March 2007), <https://www.mfe.govt.nz/sites/default/files/nes-drinking-water-section-32-mar07.pdf>

¹¹ Government Inquiry into Havelock North Drinking Water, Report of the Havelock North Drinking Water Inquiry: Stage 2 (Department of Internal Affairs, December 2017), 33. [https://www.dia.govt.nz/diawebsite.nsf/Files/Report-Havelock-North-Water-Inquiry-Stage-2/\\$file/Report-Havelock-North-Water-Inquiry-Stage-2.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Report-Havelock-North-Water-Inquiry-Stage-2/$file/Report-Havelock-North-Water-Inquiry-Stage-2.pdf)

Specific cases of water contamination in recent years have also dented public confidence in the system for delivering three waters services and exposed the systemic issues facing the sector. The Havelock North tragedy was the largest recorded outbreak of waterborne disease in the country, killing four people and causing illness in 5,500 of the town's 14,000 residents. Recent infrastructure failures in Wellington and the discovery of elevated levels of lead in the water supply in Dunedin provide more recent and tangible examples of the potential challenges we will continue to face across the country under the current system for delivering three waters services.

Infrastructure investment

The Office of the Auditor-General reported in 2017 that local authorities were not investing enough in three waters assets, indicating that assets could have been deteriorating to an extent that they were unable to meet the levels of service their communities expect.¹²

More recent analysis by the Water Industry Commission for Scotland (WICS), based on information provided by local authorities, indicates there has been systematic under-funding of economic depreciation by local authorities in New Zealand. This is shown in Table 2 below:

Table 2: Average spending on three waters infrastructure as a % of economic depreciation

Local authority group	Average annual spend per connected resident (based on Annual Reports from 2015 onwards)	WICS assessed economic depreciation per connected resident	% of economic depreciation
Metro	NZ\$124	NZ\$267	46%
Provincial	NZ\$128	NZ\$254	50%
Rural	NZ\$158	NZ\$253	63%
Larger rural (>10,000 residents)	NZ\$153	NZ\$237	65%
Smaller rural	NZ\$163	NZ\$266	61%

Source: Water Industry Commission for Scotland, 2021.

WICS estimates that between **\$120 billion to \$185 billion** of investment will be needed over the next 30 years to address this renewals backlog (i.e. replace and refurbish existing infrastructure), upgrade three waters assets to meet drinking water and environmental standards, and provide for future population growth.¹³ WICS reports that these figures are likely to underestimate the real cost of lifting the performance of our three waters infrastructure.

¹² Controller and Auditor-General. Introducing our work programme - Water management. October 2017 ISBN 978-0-478-44275-5. paras 2.9 -2.11. Available at <https://oag.parliament.nz/2017/water-management/docs/water-management.pdf>

¹³ Water Industry Commission for Scotland (2021). Economic analysis of water services aggregation: Final report. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/wics-final-report-economic-analysis-of-water-services-aggregation.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/wics-final-report-economic-analysis-of-water-services-aggregation.pdf)

Beca New Zealand reviewed the standards and practices that apply in Scotland and their relevance for New Zealand and concluded that WICS' estimates of the future investment requirement are conservative, as they did not include certain factors unique to New Zealand, such as giving effect to iwi/Māori aspirations and building resilience in the face of seismic risk and climate change.¹⁴

Customer outcomes

There is no globally consistent set of performance measures for evaluating the performance of three waters delivery systems.¹⁵ In New Zealand, this problem is compounded by a lack of high-quality information generally on the state and performance of three waters networks, which in itself reflects the challenges facing the sector.

WICS has used a performance measurement tool (the Overall Performance Assessment) developed by the water regulator in England and Wales (Ofwat) to measure the performance of water utilities in areas significant to customers (e.g. service disruptions, responses to complaints). Based on WICS' comparison¹⁶ of the performance of New Zealand local authorities with that of regulated water utilities in the United Kingdom (see Figure 3), it is clear that:

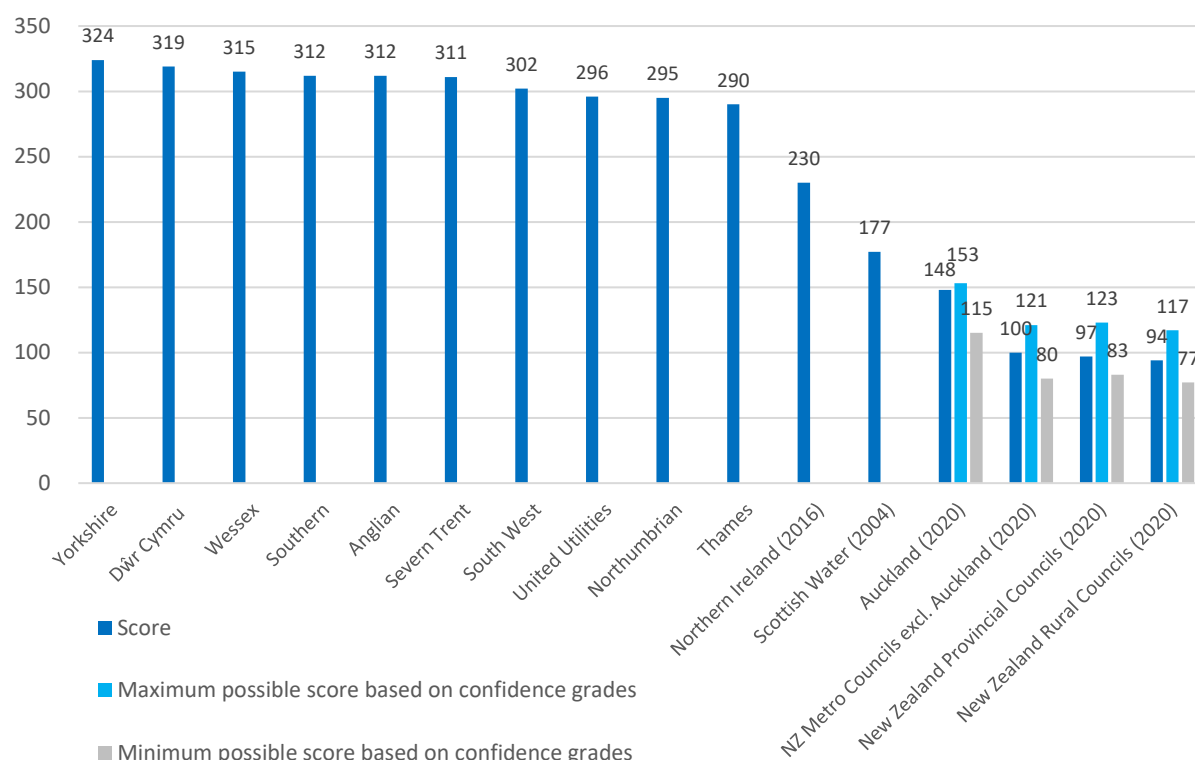
- New Zealand has a long way to go to catch up with the performance of more mature systems overseas
- as a country, our starting position is similar to that of Scottish Water prior to the most recent round of Scottish water services reforms. In the past two decades, Scottish Water has significantly lifted its performance and is now among the top-performing water services providers in the United Kingdom.

¹⁴ Beca (2021). Review of assumptions between Scotland and New Zealand three waters systems. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/beca-report-dia-three-waters-reform-wics-modelling-phase-2.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/beca-report-dia-three-waters-reform-wics-modelling-phase-2.pdf)

¹⁵ The closest measures used in New Zealand would be those used in the Water New Zealand National Performance Review, which helps to provide a basis for comparisons between different parts of the country.

¹⁶ The WICS assessment is indicative only as, like the Water New Zealand survey, it is based on the submissions of only a subset of local authorities in response to the Department of Internal Affairs request for information (albeit a large subset representing over 80% of the population), and the assessment also relies on councils' self-reporting. Unlike the Water New Zealand survey, there was no audit process for the Request for Information

Figure 3: Comparison of local authorities' Overall Performance Assessment scores with UK water utilities



Source: Water Industry Commission for Scotland, 2021

Environmental outcomes

Wastewater discharges

Discharges from wastewater treatment plants are harming the environment in many parts of New Zealand, particularly where multiple plants are scattered across a catchment or are operating poorly. These discharges can also cause health problems if they contain bacterial pathogens such as *E. coli* or *Campylobacter*, or protozoan pathogens such as *Cryptosporidium* or *giardia*.

Resource consents are required for the discharge of treated wastewater from treatment plants in all regions. A 2019¹⁷ report found that at that time nearly a quarter of wastewater treatment plants were operating on expired consents.

The same report noted there was a bow wave of treatment plants that would require re consenting between 2019 and 2029, with almost 35% of all treatment plants (comprising 110 plants) currently going through or expected to go through a resource consenting process in that period.

¹⁷ GHD-Boffa Miskell (2019). National Stocktake of Municipal Wastewater Treatment Plants. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/\\$file/Report-1-National-Stocktake-of-Municipal-WWTPs.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/$file/Report-1-National-Stocktake-of-Municipal-WWTPs.pdf)

Stormwater overflows

In urban areas, stormwater overflows are the main contributors to poor water quality, as a result of the greater proportion of impervious surfaces that increase the volume and speed of contaminant run-off. While there is growing recognition of the importance of, and efforts towards, managing stormwater quality, this is not yet widespread. Of the 41 stormwater service providers contributing to the 2020/2021 National Performance Review, 26 (63%) had stormwater catchment management plans and 23 (56%) were monitoring stormwater quality.¹⁸

As with treatment plants, formal actions in response to stormwater consent breaches are rare, but the number is gradually increasing over time. One important difference from wastewater treatment discharges is that stormwater discharges are not always consented.

Other challenges facing stormwater systems are maintenance, resilience, and climate change. There is currently a lack of consistent information on the condition of stormwater infrastructure, and also on the impacts of climate change and other natural hazards, to which stormwater systems are particularly susceptible.

Infrastructure resilience

New Zealand is facing threats to its water security. Climate change is bringing greater variations and extremes in our climate. Rural and urban areas across the country are experiencing more flooding and droughts. Water shortages are disproportionately affecting small, rural, and/or vulnerable communities, iwi/Māori, and households that depend on rainwater tanks.

In urban areas, it is estimated that 21% of water supplied to networks is lost on the way to its end use. This is more than the combined volume of water supplied by Christchurch City and Wellington Water. Opportunities for reducing water loss exist in at least 83% of serviced districts.¹⁹

When compared internationally, using the Infrastructure Leakage Index, only 5 of the councils that participated in Water New Zealand's National Performance Review had a score below 2 (a score of 1 is typically recognised as "excellent").²⁰ Most councils (16) recorded a score of between 2 and 4.

Water leakages and losses can exacerbate water shortages, especially in dry years, and can lead to water restrictions and disruptions of supply. Because of leakages and losses, water takes and water storage must also be greater than they would otherwise need to be.

¹⁸ Water New Zealand (2021). National Performance Review 2020-21. Available at <https://www.waternz.org.nz/NationalPerformanceReview>

¹⁹ Ibid.

²⁰ Ibid.

Three waters infrastructure will also be increasingly vulnerable to the effects of climate change, including sea level rise. Research commissioned by Local Government New Zealand showed that the replacement value of exposed three waters infrastructure was by far the highest cost to local authorities, exceeding the combined value of exposed roading and buildings.²¹ At 1.0 metre of sea level rise, the estimated total replacement value of exposed water infrastructure is approximately \$2.6 billion and at 1.5 metre rise, the estimated replacement value is \$4 billion. At the 3.0 metre rise, the overall estimated replacement value is over \$7 billion.

Experts consider the most significant climate change risk to New Zealand is the risk to potable water supplies (availability and quality) due to changes in rainfall, temperature, drought, extreme weather events and ongoing sea level rise.²²

Outcomes for iwi/Māori

Māori express a relationship with water as kaitiaki. Māori do not distinguish their rights to and interests in freshwater from the three waters; they are viewed as a connection to the water environs and its systems. This holistic approach highlights the important connection between the review of the three waters service delivery arrangements and other work programmes underway across government, particularly those that relate to resource management and freshwater allocation.

Water can be a taonga of particular significance and importance to Māori, and the Crown has a duty to protect iwi/Māori rights and interests under the Treaty of Waitangi/Te Tiriti o Waitangi (the Treaty / Te Tiriti) and existing and subsequent Treaty settlements. The Crown has responsibilities under the principles of Te Tiriti to protect such relationships and allow for an appropriate exercise of tino rangatiratanga alongside kāwanatanga. The Crown also has broad responsibilities to protect taonga, the exercise of tino rangatiratanga and kāwanatanga, and the principles of Te Tiriti.

A clear concern among iwi/Māori is that the system for delivering three waters needs to uphold, align with, and integrate with Te Tiriti and Te Mana o te Wai.

In addition, iwi/Māori have roles within the current three waters service delivery system that need to be acknowledged. They are suppliers and/or recipients of water services (particularly those in rural marae, papakāinga, and rural communities) and are often members of communities that are under-served by the existing three waters service delivery system and receive poor-quality three waters services or none at all.

²¹ Local Government New Zealand (2019). Vulnerable: the quantum of local government infrastructure exposed to sea level rise. <https://www.lgnz.co.nz/assets/Uploads/d566cc5291/47716-LGNZ-Sea-Level-Rise-Report-3-Proof-FINAL-compressed.pdf>

²² Based on a climate change risk assessment conducted over nine months by a diverse, multi-disciplinary team of academics and consultants. <https://environment.govt.nz/assets/Publications/Files/national-climate-change-risk-assessment-main-report.pdf>

Why is the current system not performing?

It has become clear that the current three waters system is not set up in manner that will enable us to achieve our objectives for the system, or to gain maximum benefit from the regulatory reforms that are already in train.

At the heart of the problem is the way the service delivery system is designed, governed, funded, and regulated. The root causes of the problems we see include:

- the large number of small water services providers, which limit the opportunities for realising the efficiencies that come with scale in the delivery of three waters services
- the incentives and governance structures that are not conducive to long-term decision-making in relation to three waters investment and asset management
- the affordability challenges associated with addressing the infrastructure deficit, particularly for small, rural communities
- a lack of effective system stewardship and regulation.

Fragmented system with limited opportunities to achieve benefits of scale

New Zealand has a highly fragmented and dispersed system, in which services and infrastructure are delivered, operated, and paid for by (or on behalf of) a large number of providers – including 67 territorial authorities and thousands of private and community suppliers. The majority of these providers – including most councils – have relatively small populations/customer bases.

Most local authorities in New Zealand currently serve 100,000 or fewer connected ratepayers, and this creates significant inefficiencies within the system for delivering three waters, including:

- a lack of strategic and coordinated asset planning at a regional or greater level
- limited opportunities to consider catchment-level outcomes
- a lack of funding and pipeline certainty to create competitive pressures in the supply chain
- the lack of capacity and capability that tends to be associated with larger-scale entities
- a lack of innovation
- a lack of career pathways and opportunities for the workforce to specialise
- wide variations in water charges, particularly for vulnerable communities.

Achieving the benefits of reform requires entities to have a sufficient asset and customer base to be financially sustainable, operate at an economically efficient scale, and enable prices to be affordable and levels of service to be broadly comparable.

International evidence indicates that each entity would need to serve a connected population of at least **600,000 to 800,000** to achieve the desired level of efficiency.²³ Below this point water services providers may find it difficult to fully realise the efficiency benefits that have been shown to be possible in other jurisdictions.

²³ See, for instance:

The main benefits of scale relate to:

- improved access to capital markets and borrowing at a greater level than local authorities can achieve – as a result of having stronger balance sheets and independent, professional governance and management
- shifting the provision of water services to a more financially sustainable footing – by leveraging scale to strategically plan, procure, and manage three waters infrastructure and service delivery, delivering operating efficiencies, and adopting more flexible funding and pricing mechanisms to address geographical, climate risk and intergenerational equity considerations
- improving sector capacity – by providing sufficient scale to encourage strategic workforce planning, and providing the required depth of governance, management, and specialist technical skills and experience. There is clear evidence that medium- to large-sized water services providers have greater asset management maturity and more specialised three waters asset management teams, technology, and data systems than smaller-scale providers
- the regulatory burden and benchmarking the performance of providers – including the ability to benchmark performance across a smaller number of providers adequately, without imposing significant costs (relative to the costs associated with benchmarking the performance of a large number of entities with insufficient scale).

Misaligned incentives for critical water infrastructure decisions

Local authority service providers operate in a political environment in which investment decisions are made by elected representatives who have a duty to consider broader community interests (for example, other investment priorities and the affordability of rates increases), and in a constrained financial environment, in which the main funding and financing mechanisms are via ratepayers and council borrowing.

These factors combine to limit levels of three waters investment, for example due to:

- covenants imposed by lenders that limit the debt-to-revenue ratios that councils can maintain while achieving a good credit rating and cost-effective financing
- varying attitudes to debt and rates increases across communities

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- Klien (2017). Global study on the aggregation of Water Supply and Sanitation Utilities.
<https://openknowledge.worldbank.org/bitstream/handle/10986/27981/119098-WP-P159188-PUBLIC-ADD-SERIES-50p-stat-analysis-24-8-2017-13-34-31-W.pdf?sequence=1&isAllowed=y>
 - Ferro, Lentini, and Mercadier (2011). Economies of Scale in the water sector: a survey of the empirical literature.
<https://iwaponline.com/washdev/article-abstract/1/3/179/28777/Economies-of-scale-in-the-water-sector-a-survey-of?redirectedFrom=fulltext>
 - González-Gómez and García-Rubio (2008). Efficiency in the management of urban water services. What we have learned after four decades of research.
https://www.researchgate.net/publication/23565871_Efficiency_in_the_management_of_urban_water_services_What_have_we_learned_after_four_decades_of_research
 - Independent Pricing and Regulatory Tribunal (2007). Literature Review: Underlying costs and industry structures of metropolitan water industries.
https://www.ipart.nsw.gov.au/files/sharedassets/website/trimholdingbay/final_report_-_literature_review_-_underlying_costs_and_industry_structures_of_metropolitan_water_industries_-_september_2007.pdf

- financially constrained households (such as ratepayers on low incomes), especially in areas with high levels of deprivation
- misaligned incentives and a lack of management focus, connected with an operating environment in which three waters is just one aspect of the broader responsibilities that councils have and services that communities require.

Several reviews have highlighted the challenges associated with council elected members making decisions in relation to the management and delivery of critical, long-term water infrastructure:

- **Wellington Water.** Analysis commissioned by the Local Government Commission²⁴ showed that one of the biggest challenges for Wellington Water was the lack of collaboration and agreement across the Wellington local authorities on key priorities for investment. A more recent report by the Mayoral Water Taskforce concluded that: “Our three waters system has for many years been largely out of sight, out of mind. This changed with the high-profile pipe failures in the wastewater network in late 2019 and early 2020, which highlighted the consequences of decades of inattention. Engineers had highlighted the problems of ageing infrastructure and growing investment requirements for years, but the lack of obvious problems meant, until recently, this had gone unaddressed.”
- **Hawke’s Bay.** A business case²⁵ for new service delivery options found there was a wide variation in the condition of the three waters assets across Hawke’s Bay, noting that direct comparisons were difficult as each council had its own approach to assessing the condition of the assets. The business case also highlighted that Wairoa’s assets were generally in a worse condition than those of other local authorities in the region. It did this not to criticise Wairoa, but rather to highlight the challenges faced by small local authorities across New Zealand that had limited resources, capability, and capacity and were forced to make choices in allocating those scarce resources.
- **West Coast.** Similar to the Hawkes’ Bay business case, a review²⁶ of three waters service delivery in the West Coast pointed to affordability as a key concern for smaller and more remote local authorities. Problems such as a low rating base, limits on loan funding, limited access to subsidies, and a focus on user pays approaches by local authorities limited what could be achieved in some communities.
- **Mangawhai community wastewater scheme.** The Office of the Auditor-General found that many of the challenges associated with this scheme, which suffered a blow out from an \$10 million initial cost estimate to more than \$60 million, were partly governance failures – but little has changed systemically to ensure that such failures do not occur again.²⁷

²⁴ Wellington City Council (2020). Mayoral Taskforce on the Three Waters report. Available at <https://wellington.govt.nz/-/media/environment-and-sustainability/water/files/2020/mayoral-taskforce-three-waters-taskforce-report.pdf?la=en&hash=3B3EC07C7DFBC70020C610AB8372E37FEB2C537E>

²⁵ Morrison Low (2020). Hawke’s Bay Three Waters: Business case of three waters service delivery options. Available at <https://www.hb3waters.nz/assets/Uploads/HB-3-Waters-Delivery-Detailed-Analysis-29.07.20-Full-Report.pdf>

²⁶ Tonkin & Taylor (2020). Three Waters Service Delivery Review.

²⁷ Office of the Auditor-General (2013). Inquiry into the Mangawhai community wastewater scheme. Available at: <https://oag.parliament.nz/2013/mangawhai/docs/oag-mangawhai.pdf>

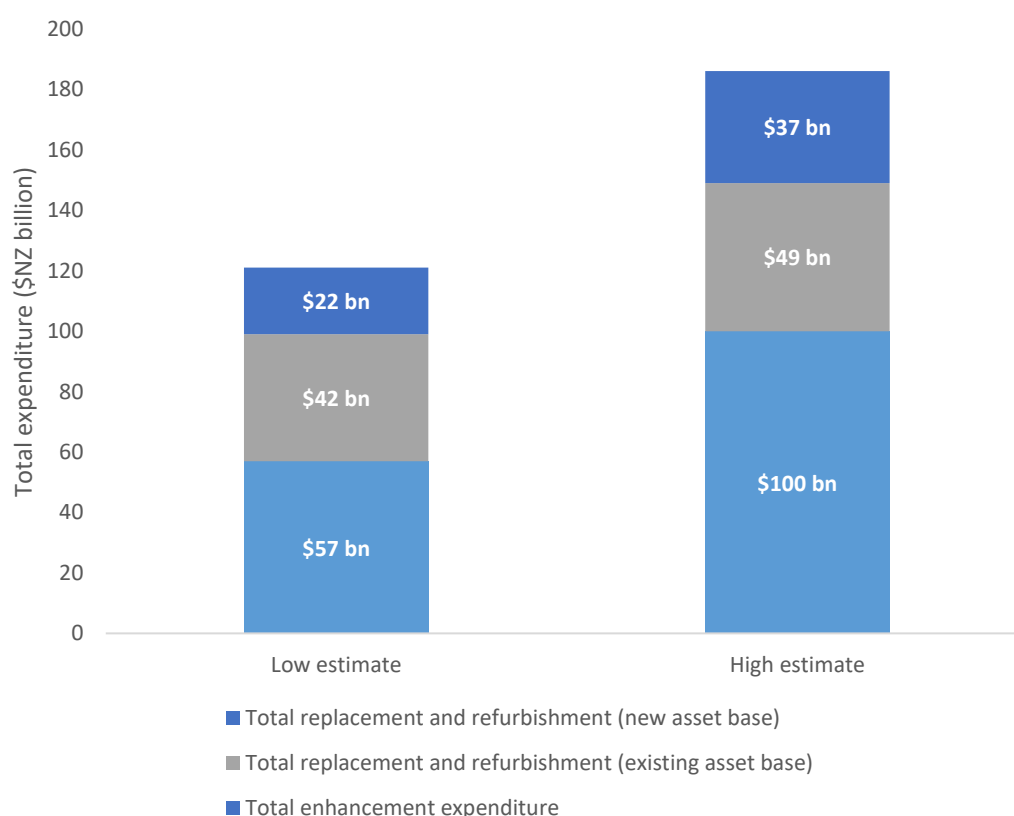
- The **Havelock North Drinking Water Inquiry**²⁸ concluded that political accountability by elected councillors in relation to three waters, while seen as an advantage in the case of local authority suppliers, was ineffectual in reality. It highlighted examples of council officers with responsibility for three waters services encountering difficulty or resistance at the governance or political level when seeking decisions relating to service delivery and investment that would require trade-offs with other local community priorities or that was deemed unaffordable.

Accumulated infrastructure deficit presents affordability challenges

Many local authorities have struggled, and continue to struggle, to fund plant and pipe infrastructure to the levels required in order to meet standards and community aspirations. As a result of persistent under-investment over a long period, many communities face a significant investment challenge to ensure three waters infrastructure meets current and future community expectations and regulatory standards.

Analysis conducted for the Department of Internal Affairs by WICS, based on information provided by local authorities, estimates a future national investment requirement in three waters infrastructure in the order of \$120 billion to \$185 billion over the next 30 to 40 years (see Figure 4 for a breakdown).

Figure 4: Estimated future capital investment requirement for three waters infrastructure



Source: Water Industry Commission for Scotland, 2021

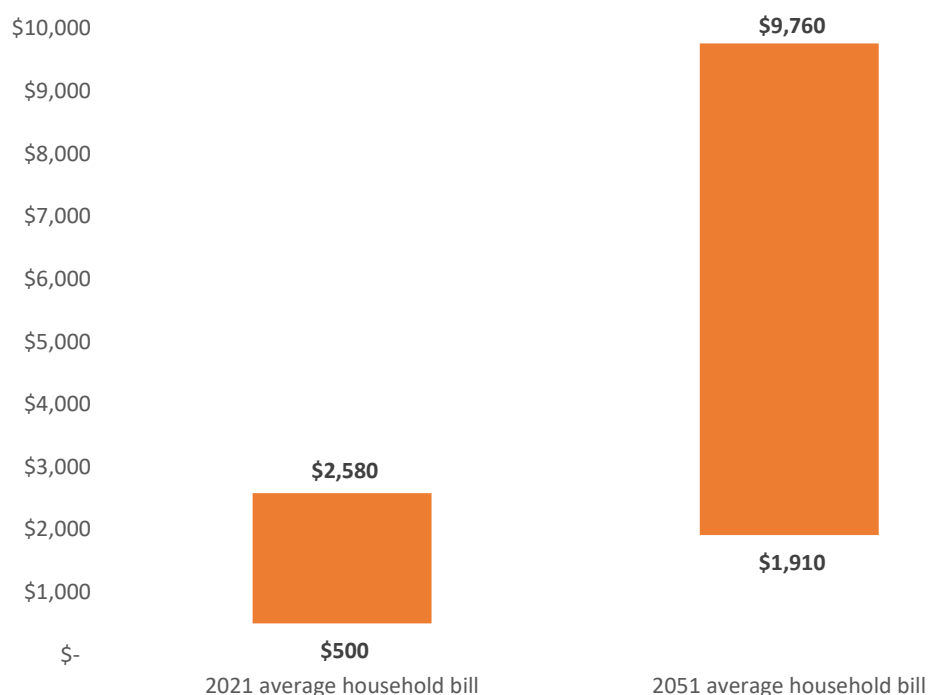
²⁸ Department of Internal Affairs (2017). Report of the Havelock North Drinking Water Inquiry: Stage 2 – [https://www.dia.govt.nz/diawebsite.nsf/Files/Report-Havelock-North-Water-Inquiry-Stage-2/\\$file/Report-Havelock-North-Water-Inquiry-Stage-2.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Report-Havelock-North-Water-Inquiry-Stage-2/$file/Report-Havelock-North-Water-Inquiry-Stage-2.pdf)

As illustrated in Figure 5 below, meeting these costs will be challenging for most local authorities, with average household bills needing to increase significantly.²⁹ Without reform, the real cost increases to households of meeting the required investment would be unaffordable for many smaller communities and low-income customers.

For rural local authorities, average household costs in 2019 ranged from less than \$500³⁰ per annum to \$2,600 per annum, with a median of \$1,300. To meet the investment required, average household costs would need to increase by between three and 13 times in real terms. For some small, rural local authorities, average household costs in 2050 could reach as high as \$9,000 in today's dollars and would be unaffordable for many households.

The situation is not much better for larger provincial and metropolitan local authorities. Average household bills (in 2019) for provincial local authorities ranged from around \$600 to \$2,550, with a median of \$1,120. By 2050 these bills would need to increase by between two and eight times to meet the required investment. Similarly, average household bills across metropolitan councils would need to increase by between 1.5 and seven times. In some metro areas, bills could reach \$1,700 to \$3,500 per annum in today's dollars.

Figure 5: Average household bills in 2021 compared with 2051 without reform



Source: Water Industry Commission for Scotland, 2021

These findings are consistent with analysis undertaken independently by the following local authorities:

- **Auckland.** Under Auckland's current Long-Term Plan, water charges will increase by 7% in 2022, followed by a 9.5% increase each year up to 2029.³¹

²⁹ The average household cost figures for 2051 are charted up to the 75th percentile to account for large variances in the data collected from local authorities.

³⁰ Current costs are not necessarily a good reflection of the true economic costs of service delivery, as evidence suggests many councils do not fully cover economic depreciation through current charges.

³¹ Watercare (2021). Water and wastewater prices to increase from 1 July 2021 Available at <https://www.watercare.co.nz/About-us/News-media/Water-and-wastewater-prices-to-increase-from-1-Jul>

- **Hawke's Bay.** Average three water rates could increase to over \$3,500 and \$4,000 for households in Central Hawke's Bay and Wairoa respectively.
- **Wellington.** Wellington Water proposed that the level of capital investment across the region needs to increase from \$140 million per annum to around \$240 million per annum, with consequential impacts on rates.
- **West Coast.** While not quantified, a review for West Coast councils found affordability was the highest priority challenge for Buller, Grey and Westland councils. In addition to a low rating base, contributing issues included: limits on loan funding; reliance on (uncertain) access to subsidies for investment (e.g. the Tourism Infrastructure Fund); and a broader focus on user pays limiting what could be achieved in some communities.
- **Otago/Southland.** The potential future average charges for three waters services across the region is estimated to more than double over the next 10 years, from \$1,300 to almost \$3,000.³²

Clearly, the costs of accessing safe, clean, and environmentally friendly three waters services are projected to increase significantly and would have an impact on the cost of living for New Zealanders, especially lower-income households.

Lack of effective oversight and stewardship of the three waters sector

New Zealand has 67 local authority drinking water providers, 16 regional councils, and seven government agencies that have a role in relation to the supply of safe drinking water.³³ The dispersed nature of the roles and responsibilities within the system, means no one is responsible for monitoring or overseeing the performance of the whole system.

While the Government has already taken steps to strengthen the regulatory environment – through the creation of Taumata Arowai and passage of the Water Services Act 2021 – these initial changes are primarily focused on improving the regulation of drinking water services and addressing gaps relating to how the performance of the system is monitored.

At present, existing water service providers are not subject to even a basic form of economic regulation (e.g., information disclosure), which has resulted in generally poor quality information about the condition of three waters assets and the performance of water networks around New Zealand.

The lack of effective oversight and stewardship arrangements, and weaknesses in the regulatory environment, only serve to compound the challenges noted above with how the three waters service delivery system is currently designed.

Without good quality information, there is a lack of transparency about fundamental elements of the performance of the three waters system, such as the costs of service delivery, service standards, asset condition, and required investment. This makes it difficult for customers and communities to hold water services providers to account for performance.

³² Morrison Low (2021). Otago Southland Three Waters: Issues and principles. Available at (pages 39 to 68) <https://www.goredc.govt.nz/assets/documents/meetings/2021/20210309-Council-agenda.pdf>

³³ Department of Internal Affairs (2017). Report of the Havelock North Drinking Water Inquiry, Stage 2. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Report-Havelock-North-Water-Inquiry-Stage-2/\\$file/Report-Havelock-North-Water-Inquiry-Stage-2.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Report-Havelock-North-Water-Inquiry-Stage-2/$file/Report-Havelock-North-Water-Inquiry-Stage-2.pdf)

What changes are proposed to three waters services delivery?

Transformative change is required, not piecemeal solutions

The nature and extent of the challenges facing the system mean we cannot expect the current system of service delivery to respond to meet these challenges – particularly in the comprehensive and sustained manner that is required. Most councils and communities will not have the funding, or the operational capacity, to eliminate the infrastructure deficit and meet future growth requirements.

Experience over the past 30 years also indicates that widespread improvements, particularly through voluntary change and collaboration between councils, are unlikely to solve the problems. The Government has considered a wide range of options for overcoming these issues, including creating incentives for voluntary amalgamation of water services delivery, further regulatory reform (e.g., introduction of information disclosure requirements), and the provision of national funding mechanisms for water infrastructure. A brief summary of some of the alternative options considered is provided in Appendix 1.

The Government's response to these issues is a comprehensive package of reforms that collectively seek to address the underlying issues and challenges facing our three waters system. Key elements of the package of reforms include:

- establish four statutory, publicly owned water services entities to provide safe, reliable, and efficient water services
- enable the water services entities to own and operate three waters infrastructure on behalf of the communities they serve, enabling them to access cost-effective finance from capital markets to investment in maintaining and upgrading that infrastructure
- provide for ongoing public ownership of the new water services entities by local authorities, and statutory provisions that protect against future privatisation
- establish independent, competency-based boards to govern each water services entity
- set a clear national policy direction for the three waters sector, including expectations relating to the contribution by water services entities to any new spatial/resource management planning processes
- establish an economic regulation regime, to ensure efficient service delivery and to drive the achievement of efficiency gains, and consumer protection mechanisms.

Further details on each of these components of the reform package are outlined below.

Aggregation of water services delivery into four water services entities

The Government considered a range of factors when determining the number and boundaries of the proposed water services entities, including that each entity would:

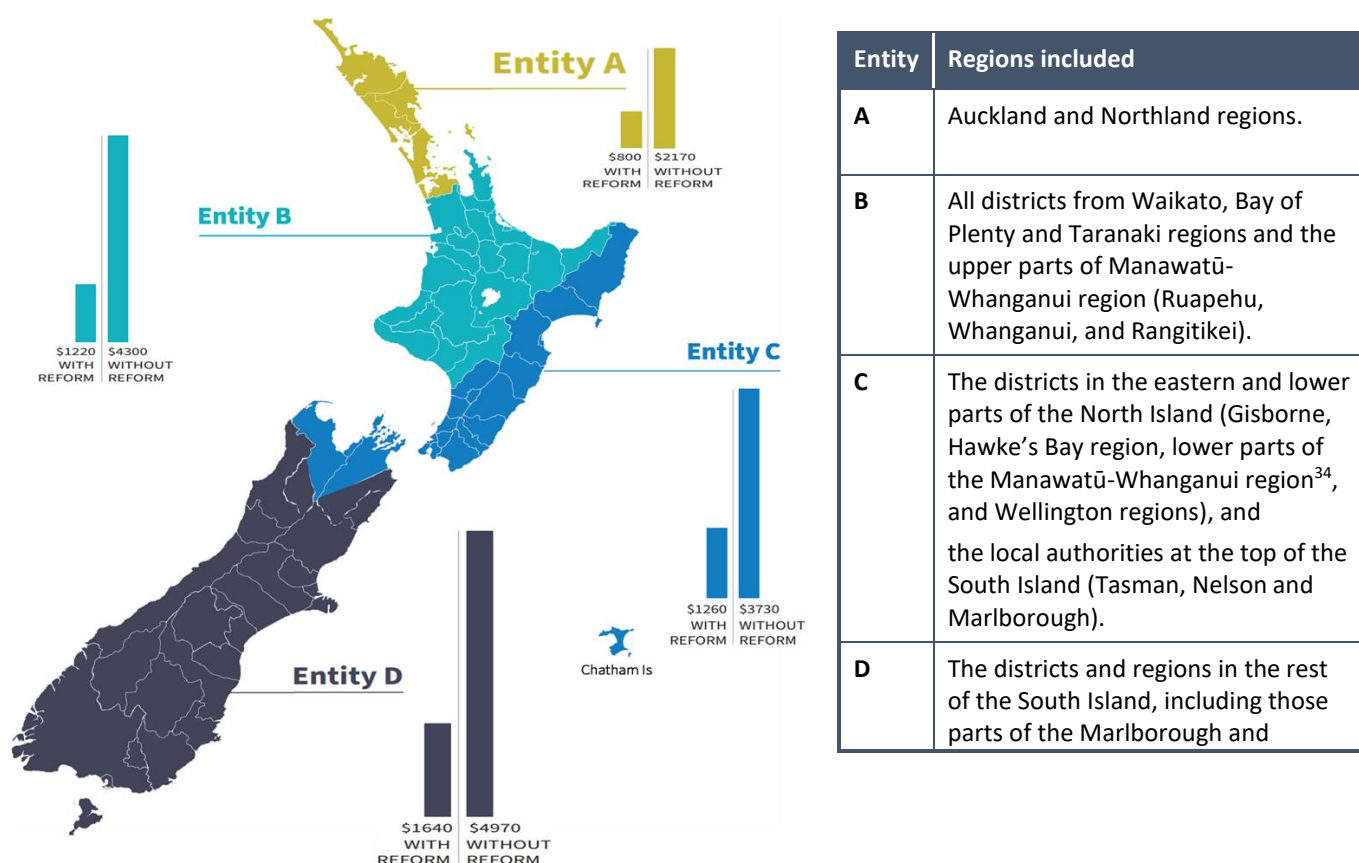
- have a sufficient asset and customer base to be financially sustainable, operate at an economically efficient scale, and deliver water services at an affordable cost to communities across the entity region

- operate effectively in relation to water catchments to achieve desired environmental outcomes, including enabling effective catchment planning and the management of associated infrastructure
- have the ability to engage meaningfully with iwi/Māori, respecting rohe/takiwā boundaries and the importance of preserving a Te Ao Māori expression of kaitiakitanga through ki uta ki tai – the passage of water from the mountains and great inland lakes, down the rivers to hāpua/lagoons, wahapū/estuaries, and the sea
- the ability to understand and reflect relevant community interests, particularly where there are existing economic or functional relationships or shared identities between neighbouring regions or communities
- have access to a skilled local workforce.

The Government weighed up more than 30 different models before deciding on the four-entity model as best balancing the range of factors noted above. In reaching this position, the Government placed significant weight on the need for entities to have sufficient asset and customer bases to be financially sustainable, operate at an economically efficient scale, and enable prices to be affordable and levels of service to be broadly comparable.

The Joint Three Waters Central/Local Government Steering Committee endorsed the conclusion that three or four entities best balanced the range of relevant considerations in determining the number of entities, and that, on balance, a four-entity model was likely to have a broader appeal to the sector than a three-entity option, given greater connections to communities of interest.

Figure 6: Proposed boundary configuration for new water services entities



³⁴ This includes Horowhenua, Manawatū, Palmerston North and Taranua.

This configuration has several advantages, including that it:

- results in broadly even populations served, outside Entity A, enabling each entity to realise the opportunities associated with scale
- combines all districts in Waikato and Bay of Plenty into a single entity, recognising the significant relationships that exist between these councils and leveraging work undertaken to date towards reform
- aligns catchments in the central North Island, in particular from the Taupō district to the Waikato region
- recognises whakapapa linkages between the North and South Islands, including iwi boundaries that span the two islands.

Under this configuration, the Hauraki Gulf marine area spans the boundaries of the two upper North Island entities. This will require them to collaborate with the relevant regional councils on an integrated catchment-management approach to the Hauraki Gulf.

The net present cost of three waters services per connected person is expected to be between \$480 to \$1,060 lower under the reforms, when compared with a 'no reform scenario'.

For rural councils, average household costs in 2018 ranged from less than \$500 per annum to \$2,600 per annum across all 67 councils, with a median average annual cost per household of \$1,300. To meet the forecast investment required, these costs are expected to need to rise by between three and 13 times in real terms over the next 30 years. This would be unaffordable for many households in some small rural communities

The situation is not much better for larger provincial and metropolitan councils, with average household costs projected to rise by between two and eight times to meet the required investment. Similarly, average household bills across metropolitan councils would need to increase by between 1.5 and seven times.

By comparison, with reform the average household costs are expected to fall within a range of \$800 for Entity A and \$1,640 for Entity D in real terms.

Design of the new water services entities

Water services entities will be statutory entities, with legislation prescribing their legal form and ownership arrangements, function, objectives and operating principles, entity boundaries, and ownership, governance and accountability arrangements.

Legal form and ownership by territorial authorities

Water services entities are a new public service delivery model. Each entity will be a body corporate and will be co-owned by the territorial authorities in its service area. Each local authority will be allocated shares in their entity, as a tangible expression of ownership.

³⁵ Adjustments will be made to this boundary to correspond to the Ngāi Tahu takiwā rather than conforming to local authority boundaries.

The legislation to establish the water services entities will set out strong safeguards against privatisation or loss of control of water services and significant infrastructure including:

- collective territorial authority ownership of entities to ensure appropriate oversight and influence on behalf of their communities
- joint oversight of entities by mana whenua
- clear legislative protections against loss of ownership or control, including that an entity must not use water services assets as security for any purpose, divest its ownership in a water service, or sell or lose control of significant infrastructure.

For any divestment proposal to proceed, the legislation would require:

- support from at least 75% of an entity's regional representative group
- unanimous support from its territorial authorities
- support from at least 75% of the votes cast by electors in its service area in a poll.

Function, objectives and operating principles

The function of a water services entity will be to provide safe, reliable, and efficient drinking water, wastewater, and stormwater services in its area.

The objectives of a water services entity will be to:

- deliver water services and related infrastructure in an efficient and financially sustainable manner
- protect and promote public health and the environment
- support and enable housing and urban development
- operate in accordance with best commercial and business practices
- act in the best interests of present and future consumers and communities
- deliver water services in a sustainable and resilient manner that seeks to mitigate the effects of climate change and natural hazards.

To guide how the water services entities deliver their objectives and functions, entities will be required to adhere to the following operating principles:

- developing and sharing capability and technical expertise with other water services entities and across the water services sector.
- being innovative in the design and delivery of water services and infrastructure.
- being open and transparent, including in relation to the calculation and setting of prices, determining levels of service delivery to consumers and communities, and reporting on performance.
- partnering and engaging early and meaningfully with Māori, including to inform how the water services entity can give effect to Te Mana o te Wai, and understand, support, and enable the exercise of mātauranga, tikanga, and kaitiakitanga.
- giving effect to Treaty of Waitangi settlement obligations, to the extent that the obligations apply to the duties and functions of the entities.

- partnering and engaging early and meaningfully with territorial authorities and their communities.
- cooperating with, and supporting, other water services entities, infrastructure providers, local authorities, and the transport sector.

Governance arrangements

Water services entities will have a two-tier governance arrangement comprising:

- a regional representative group, which provides joint oversight of the entity by an equal number of representatives of the territorial authority owners and mana whenua from within the entity's service area
- corporate governance by an independent, competency-based, professional board.

The primary role of a water services entity's regional representative group is to:

- appoint and remove the entity's board members, via a board appointment committee that is part of the regional representative group
- set strategic and performance expectations for the water services entity, and to approve the strategic direction of an entity
- monitor and review the performance of the board and entity
- approve the appointment and remuneration policy prepared by its board appointment committee.

A water services entity may also have regional advisory panels if it chooses, based on a geographic area in the entity's service area. The role of a regional advisory panel is to provide advice to the regional representative group on how to perform or exercise its duties, functions, and powers.

The board is the governing body of the water services entity. All decisions relating to the operation of a water services entity must be made by, or under the authority of, the board.

The board of a water services entity is primarily accountable for developing the strategy and associated accountability documents, including the statement of intent, and for delivering against that strategy once approved. It has responsibility for the day-to-day operations of the entity and appoints the chief executive.

Appointments to the board are required to be made based on the skills of individual members, or collective competencies across the board as a whole, rather than as representatives of councils or mana whenua.

Entity constitution

Each water services entity will have a constitution that will set out:

- the composition and internal procedures of its regional representative group, including how it will perform or exercise its functions, duties and powers
- the composition and internal procedures of any regional advisory panel, and how it will perform its advisory role to the regional representative group
- the composition and internal procedures of its board, including how it will perform or exercise its duties, functions, and powers

- funding and remuneration arrangements for an entity's regional representative group and regional advisory panels
- procedures for dispute resolution, and reviewing, amending or replacing the constitution.

Statement of strategic and performance expectations

The regional representative group must issue a statement of strategic and performance expectations, covering a 3-year period. The purpose of a statement of strategic and performance expectations is to state the regional representative group's objectives and priorities for the entity, so that it can inform and guide the decisions of the board who must give effect to the expectations.

Reporting and accountability

The Board of a water services entity is required to prepare and adopt a suite of accountability documents:

- a statement of intent, in which the strategic elements must be approved by the entity's regional representative group, and which sets out the forecast service performance and budget of the entity
- an annual report setting out the entity's actual performance and audited financial statements
- an asset management plan and funding and pricing plan, which will cover a 10 year period
- an infrastructure strategy, covering a 30 year period; and

Te Tiriti o Waitangi / the Treaty of Waitangi and Te Mana o Te Wai

All persons performing or exercising duties, functions, or powers under the legislation will be required to give effect to the principles of te Tiriti o Waitangi / the Treaty of Waitangi, and must give effect to Te Mana o te Wai, to the extent that Te Mana o te Wai applies to those duties, functions or powers.

A water services entity is therefore required to give effect to Te Mana o te Wai to the extent that it applies to the duties and functions of the entity. This is consistent with the approach across all legislation relating to water services, including the Taumata Arowai - the Water Services regulator Act 2020, and on those who perform or exercise functions, powers and duties under the Water Services Act 2021.

Mana whenua whose rohe or takiwa includes a freshwater body in the service area of an entity can make a Te Mana o te Wai statement for water services, and the board of a water services entity is required to respond to the statement within 2 years, including by setting out a plan for how the entity intends to perform its duty to give effect to Te Mana o te Wai.

To ensure Treaty settlements are enduring, the legislation provides that, where there is consistency between the legislation and a Treaty settlement obligation, the Treaty settlement obligation prevails.

Consumer and community engagement

A water service entity will be required to:

- establish one or more consumer forums to help gather consumer views and understand consumer needs, expectations, and service requirements
- prepare an annual consumer stocktake
- engage with its consumers and communities on its asset management plan, funding and pricing plan, and infrastructure strategy.

A summary of the ownership, governance, and accountability arrangements for the new entities are set out in Table 3 below. The structure of the new water services entities is illustrated in Figure 7.

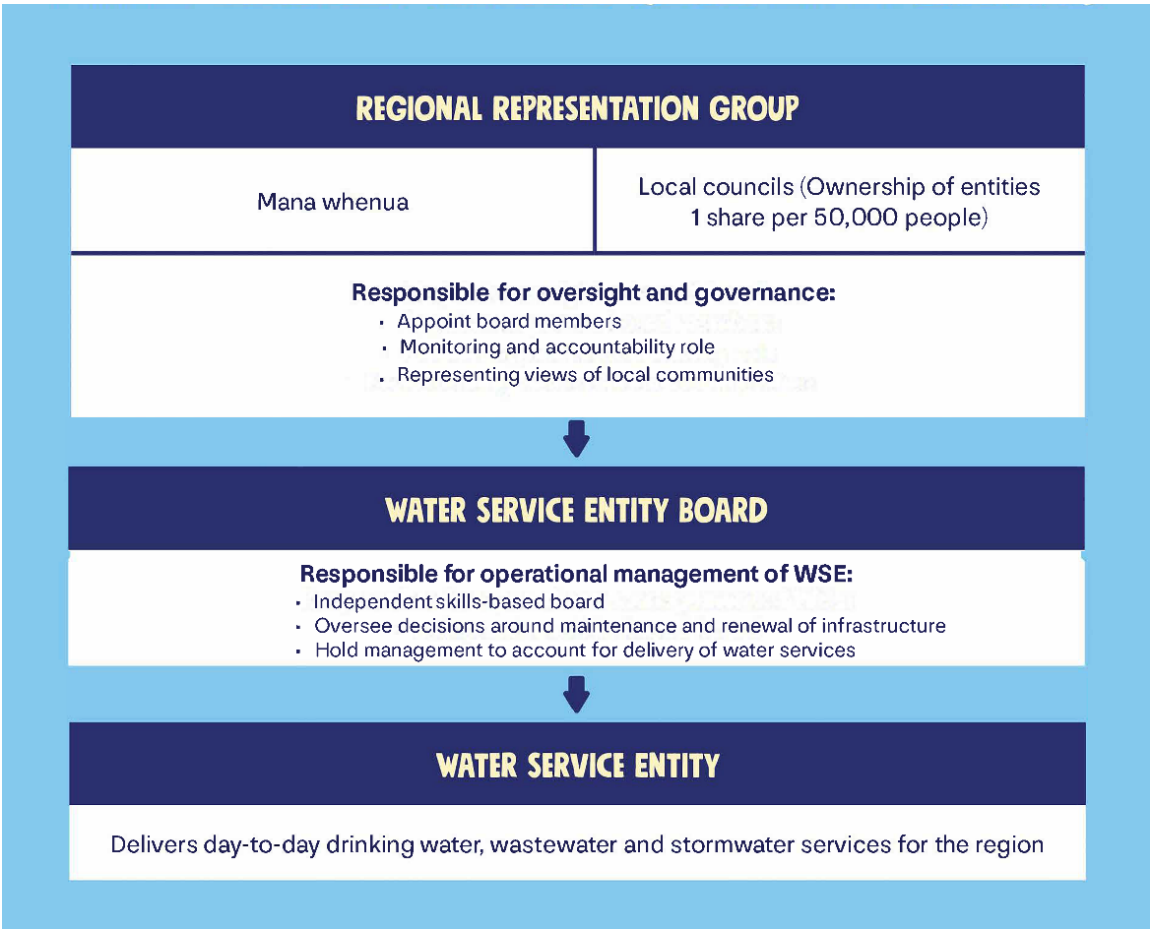
Table 3: Key design features of the new water services entities

Theme	Design features	Contribution to objectives
Ownership of the entities	<ul style="list-style-type: none">• Local authorities are the sole owners of the entities, through shares held on behalf of their communities• Mana whenua are not owners of the entities• Protections in legislation against privatisation	<ul style="list-style-type: none">• Three waters assets and service delivery remain in public ownership• Each local authority will be allocated one share for each 50,000 population in its district, rounded up
Oversight of the entities	<ul style="list-style-type: none">• Each entity will have a Regional Representative Group³⁶ that provides for an equal number of local authority owners and mana whenua• Entities may also have regional advisory boards, whose role is to advise the Regional Representative Group• The Regional Representative Group sets strategic and performance expectations for the entity, approves the statement of intent, appoints the board and monitors its performance• The entity's board will be responsible for developing the strategy and delivery against it	<ul style="list-style-type: none">• Ability for local authorities and mana whenua to influence entity strategic direction• Entities are independently and professionally run

³⁶ Regional Representatives would be elected members (or a relevant and appropriately qualified senior council officer) and iwi/Māori representatives.

Theme	Design features	Contribution to objectives
Appointing board members	<ul style="list-style-type: none"> The Regional Representative Group will appoint board members via a board appointment committee, in accordance with its appointment and remuneration policy Board members will be appointed on the basis of merit, taking into account the collective or individual experience, qualifications, skills, or expertise required of members of the board 	<ul style="list-style-type: none"> Entities are operationally and financially independent from local authorities
Ownership of three waters infrastructure	<ul style="list-style-type: none"> Entities will assume ownership of three waters infrastructure, as well as associated debt and revenue, from local authorities Transferring ownership of the infrastructure will enable entities to borrow in their own right, independent of local authorities 	<ul style="list-style-type: none"> Entities have financial capacity to meet the infrastructure deficit and future investment needs Balance sheet separation
Consumer and community influence	<ul style="list-style-type: none"> Entities will be required to engage with consumers and communities on key strategies and plans that affect them Entities will be required to establish consumer forums 	<ul style="list-style-type: none"> System for delivering three waters services is responsive and accountable to consumers and communities
Charging	<ul style="list-style-type: none"> Each entity will be required to be transparent in how it calculates and sets prices, and must engage with consumers and communities on proposed prices and charges Entities will be enabled to use a range of charging instruments, many of which are already used by local authorities During the transition to the new delivery arrangements, it is anticipated that consumers will continue to be charged on a similar basis to their existing arrangements, at least in the initial years of the entities' operations 	<ul style="list-style-type: none"> Entities are operationally and financially independent from local authorities Entities have financial capacity to meet the infrastructure deficit and future investment needs

Figure 7: Water services entity structure



Stormwater

Bringing together the delivery of drinking water, wastewater and stormwater enables the new water services entities to adopt an integrated catchment approach to the management and operation of urban water systems. In practice, there are multiple ‘interactions’ between the three waters, and in many parts of the country wastewater enters the stormwater systems, and vice versa, through leaking wastewater pipes, constructed overflows, or illegal connections.

Transferring territorial authority responsibilities to the new water services entities also recognises that there are specific challenges facing the stormwater system, and that community expectations around the performance of the stormwater system are continuing to increase. The continuing expansion of urban areas, increasing frequency of high-intensity rainfall events, and a growing awareness of the environmental impact of stormwater run-off on fresh and coastal water bodies, are all placing significant pressure on the existing arrangements for managing the stormwater system.

This analysis has been supported by my engagement with local government stakeholders and iwi/Māori, which has revealed that there is strong support for the integrated management of all three waters, including stormwater. Iwi/Māori have also been consistent in their view that ‘wai is wai’, and have strongly supported the integrated management of all three waters.

Engagement with the local government sector has shown that while there are mixed views across the sector, there is significant support for transferring the responsibility for stormwater to the proposed water services entities. Support for the inclusion of stormwater reflects:

- a recognition among many local authorities that they will struggle to afford the increasing investment requirements for stormwater
- concern, particularly among small local authorities, about their capacity and capability to manage stormwater if drinking water and wastewater assets and functions are transferred to the proposed water services entities
- Some councils, including those in the Wellington Water Group, and the Waikato and Bay of Plenty, have indicated that inclusion of stormwater underpins their support for reform.
- Stormwater funding and delivery issues have also been identified as a major constraint across Kāinga Ora's large-scale projects in Auckland and Eastern Porirua. The current alignment and coordination issues facing large-scale housing projects could be improved if responsibility for stormwater sat with fewer entities.

The reforms represent an opportunity for a step change in the performance of the stormwater system by:

- bringing together the delivery of drinking water, wastewater, and stormwater to enable the new water services entities to adopt an integrated and holistic approach to managing catchments, particularly in urban areas
- leveraging the scale and financial capacity of the new entities to address the growing challenges associated with the stormwater system as a result of the continuing expansion of urban areas, the increasing frequency of high-intensity rainfall events, and a growing awareness of the environmental impacts of stormwater run-off on fresh and coastal waterbodies
- allowing an increase in investment, capability, and capacity to lift the performance of stormwater systems, ensure they are resilient, reduce impacts on water quality, enable the delivery of large-scale housing projects, and adapt to long-term challenges like climate change
- providing the opportunity to coordinate and align stormwater-management functions across the current system to enable a shift from the current reactive approach to management of the stormwater system.

Unbundling stormwater responsibilities is complex, will take time, and will require further detailed work and engagement between central and local government before future arrangements can be finalised. A Stormwater Technical Reference Group was established to consider the proposed approach to the transfer of stormwater functions to new water services entities, and its report on the transfer approach can be found [here](#).

While the issues are complex, the inclusion of stormwater within the scope of water services entities is not without precedent. Similar approaches have been followed in other jurisdictions; for example, Melbourne Water manages bulk stormwater infrastructure.

Relationship with resource management reform

The three waters service delivery reforms are part of a wider, interconnected programme of reforms. In addition to the implementation of the three waters regulatory reforms and the establishment of Taumata Arowai, there are proposed changes to the resource management system.

In the new system for delivering three waters services, local government will continue to have primary accountability for urban and land-use planning.

The water services entities will be required to identify and make provision for infrastructure to support growth and development identified in relevant plans. This will enable them to service demand for new strategic capacity, including meeting the three waters needs of all new housing developments, and commercial and industrial customers.

When providing new infrastructure, the entities will need to work with urban and land-use planning authorities, and other infrastructure providers, to ensure that the delivery of infrastructure is sequenced and supports committed development, to minimise the likelihood of redundant assets.

In parallel with the resource management reforms, it is likely that the water services entities will have statutory obligations to support an integrated planning approach. These obligations would ensure that urban planning authorities, the new water services entities, and other infrastructure providers coordinate the planning and delivery of the right infrastructure, at the right time, in accordance with commitments in agreed urban growth strategies and spatial and implementation plans (including those provided for under the new resource management system).

A step change for iwi/Māori rights and interests in waters service delivery

Reform of the system for delivering three waters, and the introduction of new legislative, governance and management arrangements to deliver water services, provides an opportunity to include mechanisms for the recognition of iwi/Māori rights and interests in the new three waters system. The reform package includes the following mechanisms for protecting and promoting iwi/Māori rights and interests in the new three waters service delivery model:

Table 4: Mechanisms to protect and promote iwi/Māori rights and interests

Mechanisms	Impacts
Statutory recognition of the Treaty of Waitangi and Te Mana o te Wai in legislation	Requiring all persons performing or exercising duties, functions, or powers under the legislation must give effect to the principles of Te Tiriti and Te Mana o te Wai, to the extent that Te Mana o te Wai is applicable to those duties and functions.

Mechanisms	Impacts
Equal representation by mana whenua on the Regional Representative Group, enabling exercise of greater tino rangatiratanga than the current system allows	Iwi/Māori play a role in providing strategic influence and oversight for the new water services entities
Mana whenua enabled to make a Te Mana o te Wai statement for water services, which the board would be required to respond to within 2 years	Enable mana whenua to express kaitiakitanga in the new system, with the onus of response sitting with the water services entity
Requirements that the board of each entity, collectively, has competence relating to the Treaty of Waitangi, mātauranga Māori, tikanga Māori, and te ao Māori	The water services entities have the competency to embed Te Mana o te Wai as an objective of the entity and to uphold the principles of Te Tiriti across all its activities
Requirements that the board of each entity includes members with specific expertise in supporting and enabling the exercise of mātauranga Māori and tikanga Māori and kaitiakitanga with respect to the delivery of water services	The water services entities have the competency to embed Te Mana o te Wai as an objective of the entity and to uphold the principles of Te Tiriti across all its activities
Requirements that the entities fund and support capability and capacity of mana whenua to participate in relation to three waters service delivery	Ensuring that iwi, hapū and Māori are provided with reasonable financial and non-financial support to participate fully and meaningfully in the system for delivering three waters and to undertake the roles envisaged for them

System stewardship

The Inquiry into Havelock North Drinking Water³⁷ identified inadequacies in national policy and stewardship of the sector as contributing factors to the Havelock North tragedy.

These stewardship challenges need to be addressed, to ensure the benefits of reform are fully realised and sustained over time, and that the new system can adapt, and remain fit for purpose.

³⁷ Government Inquiry into Havelock North Drinking Water, Report of the Havelock North Drinking Water Inquiry: Stage 2 (Department of Internal Affairs, December 2017), 33.
[https://www.dia.govt.nz/diawebsite.nsf/Files/Report-Havelock-North-Water-Inquiry-Stage-2/\\$file/Report-Havelock-North-Water-Inquiry-Stage-2.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Report-Havelock-North-Water-Inquiry-Stage-2/$file/Report-Havelock-North-Water-Inquiry-Stage-2.pdf)

National policy direction

To strengthen stewardship of the three waters system, the Water Services Entities Bill would enable the Minister to make a Government policy statement setting out the Government's overall direction and priorities for water services, to inform and guide agencies involved in, and the activities necessary and desirable for, water services. A water services entity must give effect to the statement when performing its functions.

Crown monitoring and intervention

The Bill enables the Minister to appoint a department as a Crown monitor. The role of the monitor is to:

- act as a steward to provide oversight to the water services system from a whole-of-government perspective
- tender advice to Ministers, and assist the Minister to carry out the Minister's role under the legislation.

The Bill contains a Crown intervention framework, providing the Minister with powers of intervention based on a graduated risk regime, including:

- circumstances where there is a significant or persistent failure by a water services entity to perform one or more functions or give effect to a Government policy statement
- a water services entity's failure to demonstrate prudent financial management
- a state of emergency.

These powers of intervention are based on a similar framework in the Local Government Act 2002 and include the appointment of a Crown review team, a Crown observer, or, as a last resort, a Crown manager.

Economic regulation and consumer protection

Economic regulation and consumer protection are a critical part of the overall reform package, but detailed proposals will be developed over a slightly longer timeframe.

Evidence from overseas jurisdictions, and other utility sectors in New Zealand shows that economic regulation can be effective in protecting and enhancing the long-term interests of consumers. Economic regulation will also help to address the current information constraints within the sector, making performance information available so consumers, communities and other stakeholders can hold suppliers to account for the quality of their services and the prices they charge.

The Government has agreed, in-principle, to the introduction of an economic regulation regime in a reformed New Zealand three waters sector. At the minimum, this will include an information disclosure regime that publishes information relating to the performance of the new water services entities.

The Ministry of Business, Employment and Innovation is undertaking further work to develop an appropriate economic regulation regime. This work will also include the development of advice and proposals relating to consumer protection mechanisms for the new three waters system, including for example disputes resolution, protections for vulnerable consumers and transparency around price-setting.

Benefits of reform

The reforms are intended to generate a wide range of benefits, which are outlined in more detail in the Department's Regulatory Impact Statement.³⁸

Health and environmental benefits

Reform is expected to facilitate a material improvement in health and environmental outcomes. This conclusion is informed by international evidence that suggests that water services entities are likely to be in a stronger position to meet new drinking water and environmental standards because of the reforms. The combination of a stronger regulatory framework and structural and governance reform has been shown to both strengthen the incentives on water service providers to improve service standards and strengthen the capacity of those providers to deliver improvements.³⁹

A further benefit of reform, particularly for urban water outcomes, is the improved ability for water services entities to address contamination of urban streams through sewer overflows and other unauthorised discharges and stormwater run-off. Improved management and investment, as well as the ability to plan on a catchment level, will enable water services entities to better manage contamination and erosion, with flow-on benefits for receiving urban water environments.

Economic benefits

Analysis by Deloitte shows that reform will impact every corner of the economy and could see GDP expand by \$14 billion to \$23 billion over the next 30 years.⁴⁰ This represents a 4.4% to 7.1% increase in the size of the New Zealand economy and an average increase in GDP per annum of between 0.3% to 0.5%.

Reform is also expected to unlock an additional 5,800 to 9,300 jobs, with the water sector workforce expected to grow by 80% over the next 30 years. Deloitte anticipate that reform will change the composition of jobs in the water sector, with the likelihood of some jobs being replaced over time. However, the reform provides significant opportunities for career advancement, including greater levels of specialisation and a lift in average wages.

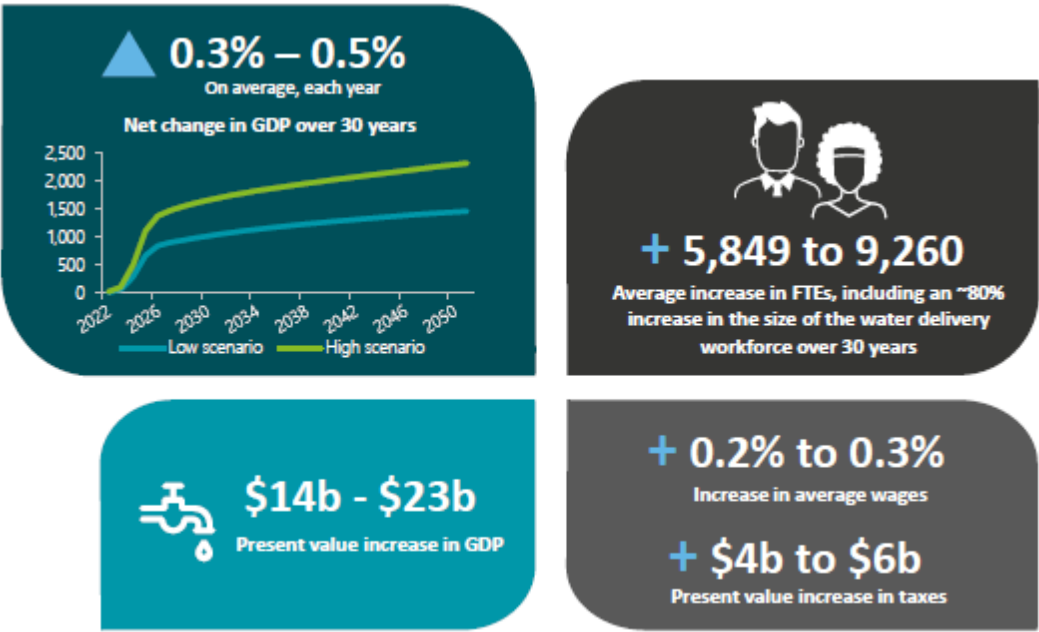
The widespread nature of the economic impacts underlines the critical role that the water sector plays in the national and regional economy. A lift in investment in the water sector therefore has multiple flow-on benefits for other parts of the economy.

³⁸ Department of Internal Affairs (2021) Regulatory Impact Statement: Decision on the reform of three waters service delivery arrangements. [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme-2022/\\$file/regulatory-impact-assessment-decision-on-the-reform-of-three-waters-service-delivery-arrangements.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme-2022/$file/regulatory-impact-assessment-decision-on-the-reform-of-three-waters-service-delivery-arrangements.pdf)

³⁹ Frontier Economics (2019). Review of experience with aggregation in the water sector. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/\\$file/Frontier-Economics-review-of-experience-with-aggregation-in-the-water-sector.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/$file/Frontier-Economics-review-of-experience-with-aggregation-in-the-water-sector.pdf)

⁴⁰ Deloitte Access Economics (2021). Industry Development Study and Economic Impact Assessment. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/deloitte-report-industry-development-study-&-economic-impact-assessment.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/deloitte-report-industry-development-study-&-economic-impact-assessment.pdf)

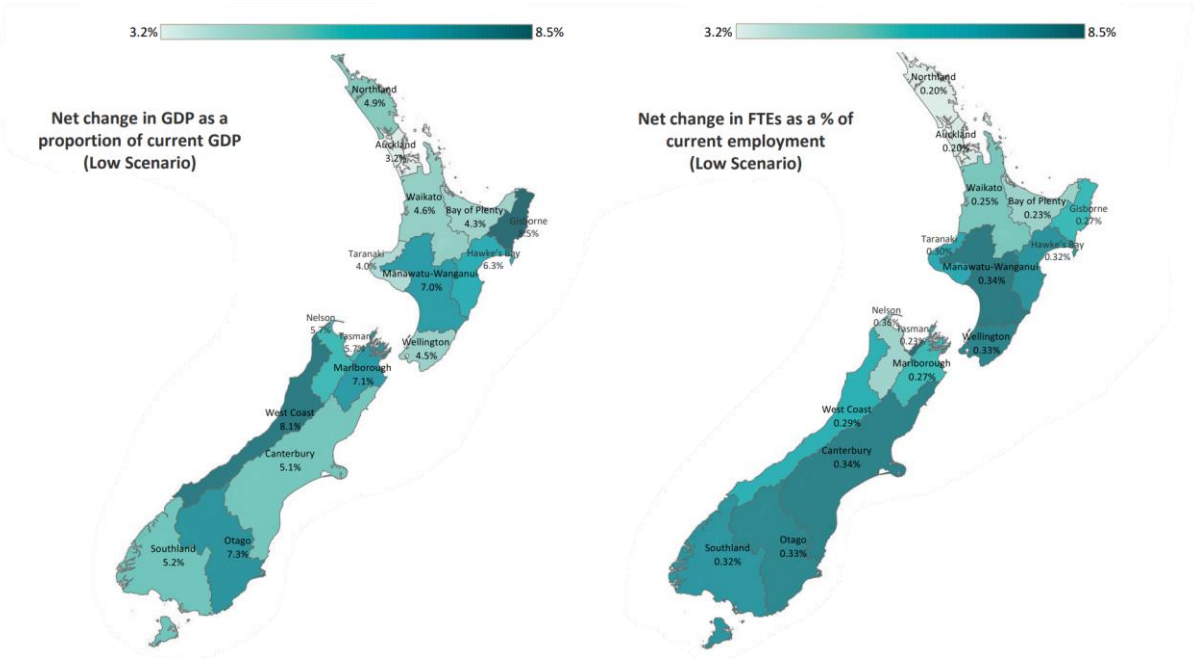
Figure 8: Summary of the potential economic benefits of reform



Source: Deloitte Access Economics, 2021

Every region in New Zealand will be positively impacted by reform but not all will be affected equally (see Figure 9). Most rural and provincial regions are estimated to benefit more than the national average through reform, experiencing larger increases in economic activity in relative terms. Metropolitan regions are also forecast to experience large increases in GDP and employment in absolute terms, particularly Auckland.

Figure 9: Regional impacts of reform on GDP and employment



Source: Deloitte Access Economics, 2021

More cost effective service delivery

Consolidating administration and overhead costs, and improving organisational and technical capability, can enable more efficient delivery and lower the operating costs of providing water services. While some of those cost savings would be balanced against increases in capital expenditure to address the likely backlog of under investments, the cost savings attributable to those financial efficiencies could result in lower water charges, compared with what they would otherwise need to rise to without reform.

Significant improvements in efficiency have been achieved in overseas jurisdictions that have pursued reform of a similar nature to that proposed in New Zealand.

- In Australia, the Productivity Commission found that service delivery reform has helped to improve efficiency and deliver significant benefits for water users and communities.⁴¹
- Frontier Economics, in its review of the experience with water services aggregation in Australia, Great Britain, Ireland and New Zealand (Auckland and Wellington) finds that there is “strong and consistent evidence” that reforms have led to significant improvements in productivity and efficiency.⁴²
- Farrierswier, in its review of WICS methodology, comments on the potential that exists for efficiency gains from amalgamating water services in New Zealand and notes significant improvements are possible through aggregation and associated reforms, including improving the ability to attract and retain skilled management and staff, more effective procurement functions, asset level optimisation and reduction in corporate overheads and duplicative functions.⁴³
- WICS reports that Scottish Water has been able to reduce its operating costs by over 50% since reform, while improving levels of service to customers and absorbing the new operating costs associated with its investment programme.⁴⁴
- A report for the United Kingdom water trade association found that reform of the water industry in England resulted in annual productivity growth of 2.1% or 64% over 24 years when adjusted for service quality improvements.⁴⁵

⁴¹ Productivity Commission (2021). National Water Reform 2020: Productivity Commission Draft Report. Available at <https://www.pc.gov.au/inquiries/completed/water-reform-2020/draft/water-reform-2020-draft.pdf>

⁴² Frontier Economics (2019). Review of experience with aggregation in the water sector. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/\\$file/Frontier-Economics-review-of-experience-with-aggregation-in-the-water-sector.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/$file/Frontier-Economics-review-of-experience-with-aggregation-in-the-water-sector.pdf)

⁴³ Farrierswier (2021). Review of methodology and assumptions underpinning economic analysis of aggregation. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/farrierswier-three-waters-reform-programme-review-of-wics-methodology-and-assumptions-underpinning-economic-analysis-of-aggregation-released-june-2021.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/farrierswier-three-waters-reform-programme-review-of-wics-methodology-and-assumptions-underpinning-economic-analysis-of-aggregation-released-june-2021.pdf)

⁴⁴ Water Industry Commission for Scotland (2021). Supporting Materials Part 2: Scope for Efficiency. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/wics-supporting-material-2-scope-for-efficiency.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/wics-supporting-material-2-scope-for-efficiency.pdf)

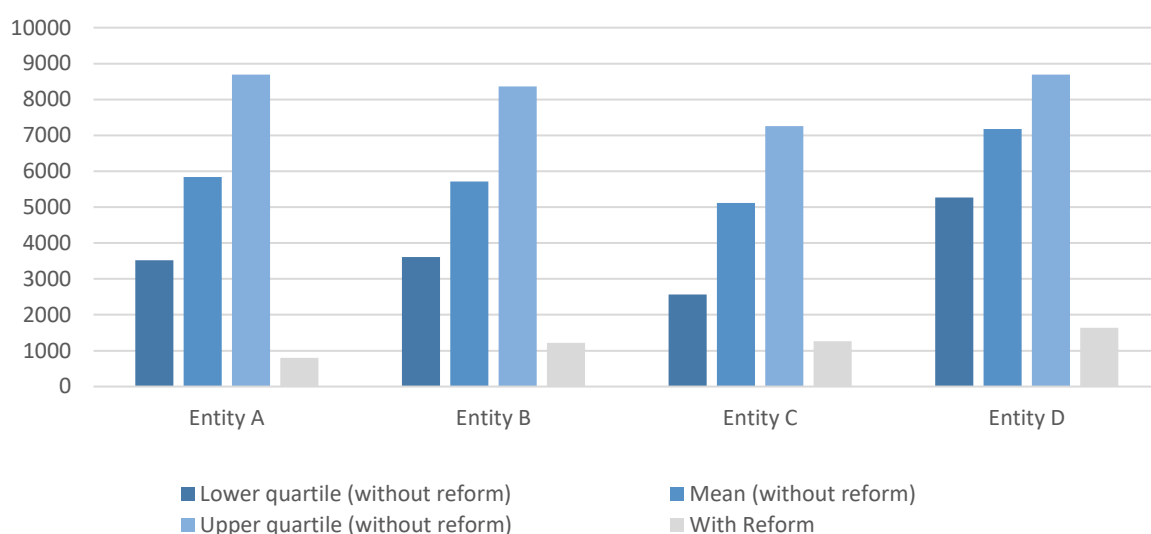
⁴⁵ Frontier Economics (2017). Productivity improvement in the water and sewerage industry in England since privatization. Available at <https://www.water.org.uk/wp-content/uploads/2018/11/Water-UK-Frontier-Productivity.pdf>

Improved affordability

WICS analysis indicates that, with reform, the net present cost of serving each connected citizen is likely to reduce by between \$500 to \$1,000 depending on the entity (in relative terms this equates to a reduction of between 45% to 49%).⁴⁶

Figure 10 below summarises the impacts reform could have on the average costs of providing three waters services per household in 2051. The distributions of costs without reform demonstrate a significant variance across neighbouring councils, with smaller rural and provincial councils in particular likely to face significantly high costs on a per-household basis. Notably the potential costs under reform demonstrate that ALL councils stand to benefit from reform.

Figure 10: Comparison of average costs per household in 2051 without and with reform



A common feature of many water service reforms has been a move to harmonise tariffs across the new service areas. In Scotland, which has one national provider, there is agreement that similar properties should pay the same amount for water services. In Auckland, when Watercare was established, all water charges were harmonised so that each community paid the same \$1.30 per unit for water services across Auckland. This process meant tariff reductions ranging from 0.6% in Manukau City to 62.9% in the rural Rodney District.

WICS analysis of current average costs for households indicates a variance of over 1200% (between a \$210 to \$2,580 average cost per household). Over time, this is estimated to reduce to a variance of around 200% with reform (i.e., average household costs (in today's dollars) are estimated to range from \$800 to \$1,640 by 2051).⁴⁷

⁴⁶ Water Industry Commission for Scotland (2021). Supporting Materials Part 3: Costs and Benefits of Reform. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/wics-supporting-material-3-costs-and-benefits-of-reform.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/wics-supporting-material-3-costs-and-benefits-of-reform.pdf)

⁴⁷ Water Industry Commission for Scotland (2021). Supporting Materials Part 3: Costs and Benefits of Reform. Available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/wics-supporting-material-3-costs-and-benefits-of-reform.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/wics-supporting-material-3-costs-and-benefits-of-reform.pdf)

While aggregation overseas has sometimes been associated with an increase in average customer bills, this has been accompanied by improvements in service standards. In particular, more remote areas have benefited from access to a broader funding base and investment that may not otherwise have been possible.

Greater financial capacity and more certain investment

More customers, a larger revenue catchment, balance sheet separation and economic regulation will provide water service providers with stronger balance sheets and greater flexibility to direct significant investment to where it is needed. A stronger balance sheet means greater investment can be made in all communities throughout New Zealand. This would improve the resilience of new water service providers, enabling them to finance the required catch-up investment, and respond to short-term shocks like earthquakes, and long-term challenges like climate change.

Engagement with credit rating agency Standard & Poor's has confirmed that under the new system and entity design arrangements, the water services entities would be deemed as financially and operationally separate from local authorities, ensuring their ability to borrow on similar terms to other utilities and operate on a financially sustainable basis over time.⁴⁸ The rating of the water entities will reflect a variety of factors but are expected to achieve issuer ratings similar to that of councils.⁴⁹

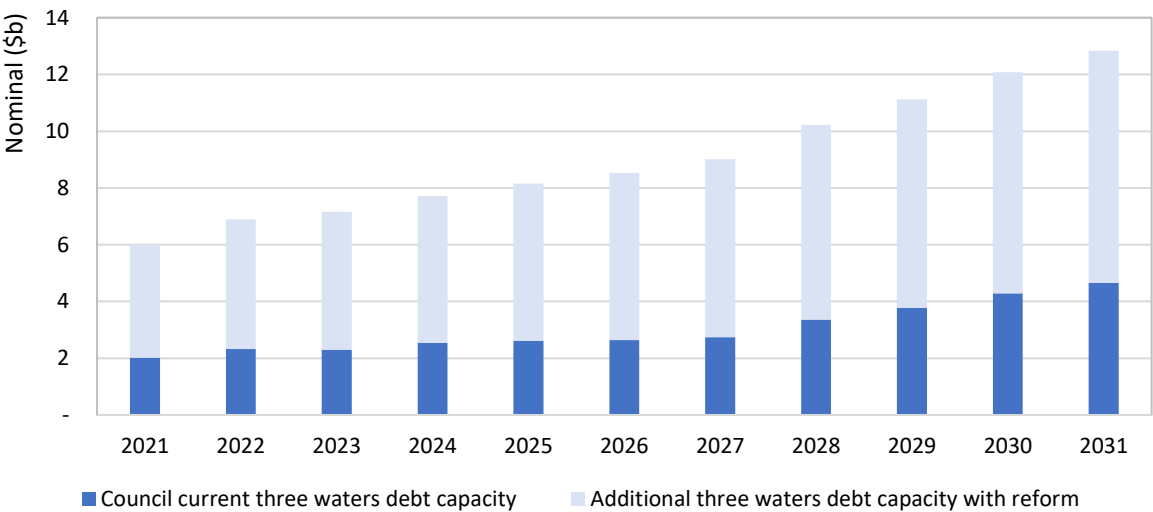
Initial analysis shows that with balance sheet separation and appropriate credit worthiness, water entities can achieve higher leverage ratios than councils, creating additional debt capacity following reform of between \$4 billion and \$8 billion over the 2021 to 2031 period.⁵⁰ We note that the conservative assumptions utilised means this may be understating the additional debt capacity for water investment following reform. International experience demonstrates that regulated water utilities are able to leverage up to 8 times water revenue while retaining an issuer rating similar to that of councils.

⁴⁸ A letter summarising the output of Standard & Poor's Rating Engagement Service can be found at: [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme-2022/\\$file/Ratings-Evaluation-Service-\(RES\)-Letter-Three-Waters-Reform-Programme-May-2022.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme-2022/$file/Ratings-Evaluation-Service-(RES)-Letter-Three-Waters-Reform-Programme-May-2022.pdf)

⁴⁹ The final credit rating of the entities will reflect a variety of factors including fiscal and economic performance, and the effectiveness of the government's institutions.

⁵⁰ Entity by entity financial projections can be found at: [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/water-services-entities-overview-30-june-2021.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/water-services-entities-overview-30-june-2021.pdf)

Figure 11: Comparison of current council three waters debt capacity and additional debt capacity for new water services entities following reform



Initial feedback from capital markets participants has indicated that the credit profile of the water services entities would make them an attractive proposition to capital markets investors (i.e. issuers of debt, bonds etc). The water entities would join a suite of large, highly rated New Zealand borrowers (NZDMO, Kāinga Ora, LGFA and Auckland Council) who access the capital markets in volume and would increase New Zealand’s presence in international capital markets providing a wider benefit to New Zealand borrowers.

Strong balance sheets and economic regulation mean investment pipelines can be established with more confidence for a longer horizon and supports the development of capital works programmes. Certain investment pipelines and programmes of work will give the sector the certainty needed to invest, supporting greater sector capacity and efficiencies over time.

Creating large scale providers with strong balance sheets would also contribute positively to the supply of housing by enabling water infrastructure to be provided to new developments, which has been a big constraint for debt-limited councils in high-growth areas.

Currently within any catchment there could be several district and city councils, all making individual decisions to fund and upgrade water infrastructure. In the context of the significant wastewater investment programme required over the next 10 years, increases in scale create an opportunity to consider the best investment across boundaries. This could also enable new water services entities to rationalise existing water infrastructure and invest in new infrastructure where it can make the most impact.

Larger service providers can also unlock strategic opportunities to take a more coordinated approach, and consider our infrastructure needs at a larger scale. This has been the case in Auckland, where Watercare is building the \$1.2 billion Central Interceptor to improve the quality of Auckland waterways. It is unlikely this would have been possible under the previous seven Auckland councils.

A larger, more specialist workforce

Increasing the size and scale of water service providers would enable the industry to build technical capability and attract talent. Watercare and Wellington Water demonstrate the lift in capability that is possible with larger providers. Larger providers can attract and retain specialist staff, such as microbiologists, water engineers, data specialists, and dedicated community engagement staff, and provide career pathways for people entering the water industry.

As noted above water entities will support more certain investment pipelines and greater use of programmes of work. Watercare has demonstrated some of the benefits associated with these elements, however, there are still improvements that can be driven through greater certainty of investment. International precedent suggests this could have substantial benefits for sector capacity and efficiency generation.

Improved financial flexibility for the local government sector

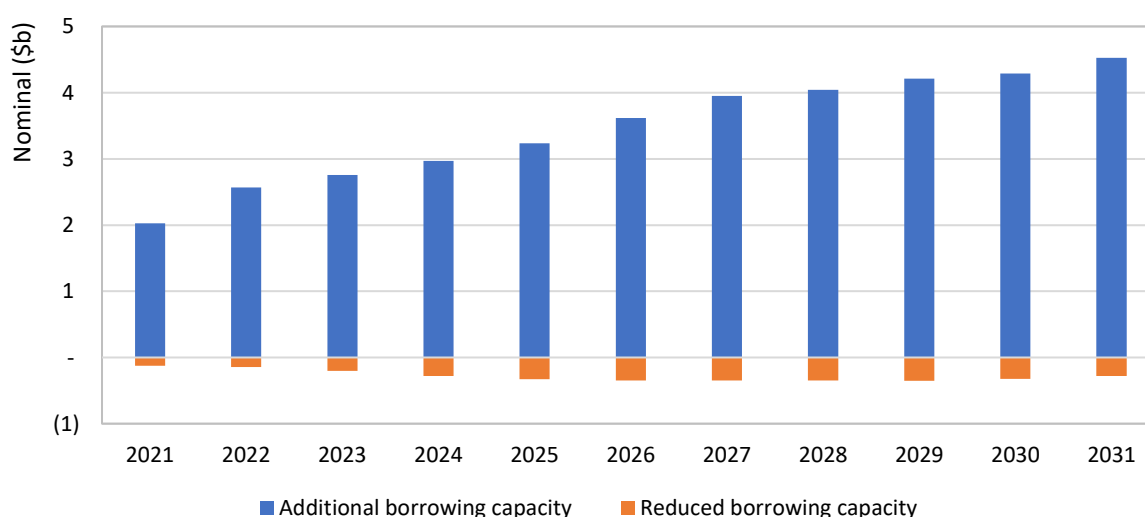
Engagement with credit rating agency Standard & Poor's has indicated that it is unlikely that any local authority will suffer a credit rating downgrade as a result of the transfer of water services to water entities. The engagement also suggests that for some local authorities the transfer may support a credit rating upgrade immediately following the transfer.

As a general observation three waters assets are more highly leveraged than other council assets, and a transfer of three waters assets and liabilities would tend to improve a local authority's debt to revenue ratio.

DIA have estimated that cumulatively, the additional borrowing capacity associated with non-water investment for all local authorities could represent approximately \$2.5 billion by FY24 and \$4.0 billion by FY31 (see Figure 12). This reflects information provided in the RfI and current draft long-term plans.

Additional borrowing capacity could either be utilised by councils to support additional investment that improves the wellbeing of their communities or improving the credit rating and reducing the council cost of capital with a commensurate reduction in rates.

Figure 12: Impact on council borrowing capacity for non-water investment following the transfer of water assets



The additional borrowing capacity for each council can only be determined following a detailed financial audit of council three waters services to identify the associated debt and revenue. The Government has agreed to a package of “no worse off” funding for councils.

As the graph shows, there are a small number of councils that could experience a slight reduction in non-water related borrowing capacity following the transfer of water assets. The Government is committed to working with all councils during the transition period to ensure that councils are “no worse off” as a result of the transfer.

Establishment and transition process

The Government has introduced the Water Services Entities Bill to implement its decisions to establish four public entities to take on the delivery of drinking water, wastewater and stormwater services across New Zealand from July 2024.

The Water Services Entities Bill is the first in a suite of legislation to enact the three waters reforms. It sets out the ownership, governance, accountability arrangements relating to these entities and includes essential provisions for ongoing public ownership and engagement, and safeguards against future privatisation.

The Bill also sets out the geographical boundaries of the service delivery area for each of the four entities and provides for transitional arrangements to enable the transition and establishment activities needed to ensure these four new entities are in place to deliver services from 1 July 2024.

The Water Services Entities Bill:

- provides the legislative basis to establish the four new publicly owned water services entities, and sets out the ownership, governance, and accountability arrangements relating to these entities, as well as and setting out the framework for community and consumer engagement
- includes essential provisions for ongoing public ownership of the new entities, including safeguards against future privatisation
- provides for transitional arrangements relating to the establishment and governance of the new entities, including strategic direction, planning and reporting, employment, and the oversight powers of the Department of Internal Affairs during the establishment period.

You can read the Bill and follow its progress on the [Parliament website](#).

Further legislation to be introduced in the second half of 2022 to transfer assets and liabilities from local authorities to water services entities, and establish the powers and functions for the entities in relation to managing the provision of water services. This further legislation will integrate the entities into other regulatory systems, such as the resource management and economic regulatory regimes.

Implementing these reforms will be a highly complex and challenging process, involving a range of transition activities. Schedule 1 of the Bill provides for the transition and establishment arrangements including:

- establishing the new entities, including providing for establishment boards and chief executives
- requiring the preparation of allocation schedules that list the assets, liabilities and other matters (e.g., contracts, information) that will transfer from local government organisations to the water services entities
- requiring each entity to prepare an asset management plan and funding and pricing plan during the establishment period
- providing the process for identifying and providing employment certainty to staff eligible to transfer to the new entities
- providing the Department with certain transitional powers to enable a smooth transition and establishment process.

Appendix 1: Selection of alternative options considered

Sector-led reform

While some regions have undertaken investigations of local service-delivery-reform options (e.g. Hawke's Bay, Otago/Southland, Manawatū-Whanganui), limited progress has been made and there are statutory barriers to the aggregation of service delivery that are likely to limit the potential benefits of sector-led reform.

Continuing with a sector-led approach would require a significant, coordinated approach to reform of a scale and extent not previously seen. There are no guarantees that reforms would be delivered consistently across the country, or that the new service-delivery models would meet the Government's objectives and achieve similar benefits to the large-scale, asset-owning entities that feature in the proposed approach.

It is also not clear if sector-led reform under existing legislation would deliver the kind of transformation required to address the root causes of the challenges the sector is facing. It is likely that councils would need to establish multi-regional providers as council-controlled organisations (CCOs) as provided for through the Local Government Act 2002. This approach would have some limitations, including that:

- the current provisions in the Local Government Act are not fit for this purpose and present barriers to reform. It would likely take as long to redesign and amend the existing legislative provisions as it would to create bespoke provisions in new legislation (including some form of economic regulation)
- establishing CCOs requires the agreement of all councils, each of which would need to undertake public consultation. This would take time and create uncertainty about the outcome
- if the new entities were CCOs, it would likely have implications for financing arrangements. They may not be sufficiently separate from local government to borrow at similar rates as other utilities, for example.

National three waters fund

Officials have considered the option of establishing a national three waters fund, similar to the National Land Transport Fund⁵¹ that Waka Kotahi NZ Transport Agency administers. This could have the potential to provide a new, dedicated fund for three waters improvements, while also incentivising some voluntary service-delivery improvements.

However, there are fundamental challenges with establishing a national three waters fund, and this approach would not deliver the broader benefits associated with creating larger-scale water services providers.

⁵¹ The National Land Transport Fund collects levies and charges applied to users of the transport system, and distributes these to councils on the basis of a funding allocation formula that is decided by Waka Kotahi NZ Transport Agency. Councils bid for funding from the national fund by preparing regional transport plans that need to reflect Government policy priorities and are required to meet some of the costs through locally raised revenue (through rates, development contributions etc).

The main challenges relate to the sources and administration of funding. The National Land Transport Fund is sourced from road users through various charges, with local government contributing co-investment in addition to this (sourced largely from rates). However, water services are delivered locally and subject to different rating policies. There is no consistent user-charge regime in place that would be amenable to a centralised collection of revenue. There are several theoretical revenue-collection mechanisms that could be explored, for instance implementing a national or local levy, but all options have significant operational inefficiencies.

A newly created national fund would also require machinery to administer it, either through the creation of a separate function within an existing entity or a completely new entity altogether. This would add to the costs and complexity associated with the fund.

More importantly, even if the operational and administrative challenges noted above were addressed, a national fund would fail to address the other root causes we have identified, and any lift in investment levels would occur within a system that will continue to struggle from a lack of scale, accountability, and operational independence.

Further regulatory reform

Officials have also examined the extent to which outcomes, objectives, and ‘strategic shifts’ can be achieved through regulatory reform alone.

This would require a coordinated change in the regulatory system to strengthen the consideration of environmental impacts alongside the increased focus on public health that Taumata Arowai would bring. It would also require the introduction of economic regulation of local authority service provision, including much more stringent performance measurements, information disclosures, and protections for consumers than are currently the case.

This approach, on its own, is unlikely to incentivise service-delivery reforms or enable scale benefits to be achieved. In particular, it is unlikely to encourage a widespread transfer of asset ownership to standalone three waters providers, which is one of the key contributing factors to the benefits associated with reform.

Asset-owning entities have greater flexibility to borrow against their balance sheets, greater access to capital, and long-term funding certainty, and can use this certainty to develop reliable infrastructure pipelines that build supplier capability and capacity. Shared service models, which do not involve asset ownership, have a number of shortcomings in comparison. Wellington Water, for example, is still subject to the decisions of council owners, who retain asset ownership and have different views on relative priorities and charging that limit Wellington Water’s ability to plan and invest strategically in its network.

While regulatory reform alone will not be sufficient to achieve the outcomes Ministers are seeking, it will form an important part of the overall reform pathway. Examples of successful international reforms indicate that a combination of quality and economic regulation, better governance models, and aggregation is a common approach that is likely to lead to the best outcomes. As noted above, it is anticipated that a system of economic regulation will be developed, in addition to the creation of Taumata Arowai.