

Long Term Plan 2024-34 Activity Plan

Water Supply

- *Council water supplies are safe to drink*
- *Council provides high quality water*
- *Council operates water supplies in a reliable manner.*
- *Council operates water supplies in a responsive manner.*
- *Council water supply networks and operations are sustainable*

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1. What this activity delivers

We’re investing in Christchurch’s future






This document explains what we propose to invest in over the next 10 years to manage the supply of water and ensure that it is safe to drink. This includes a summary of the investment required to meet future demand, undertake renewals, operate and maintain the infrastructure to deliver the services, and the steps we are taking to demonstrate safe drinking water in Christchurch and Banks Peninsula. It gives Christchurch residents the opportunity to join the conversation by telling us what matters to them.

What we provide

Christchurch City Council (Council) has a responsibility to ensure that its water services, infrastructure and water are managed in a way that supports the environmental, social, cultural and economic wellbeing of current and future generations. Council is responsible for the supply of water that is safe to drink.

The Council supplies water through approximately 170,000 residential and business connections, through seven urban water supply schemes and six rural water supply schemes. We supply in excess of 55 billion litres of water in a typical year, which is the equivalent of around 22,000 full Olympic size swimming pools.

This activity includes the following services:

	Council water supplies are safe to drink Water Safety Plans are used to demonstrate that the drinking water is safe. They assess and manage risks to the safety of drinking water associated with a particular drinking water supply. One of the biggest risks to our water supply is backflow. Backflow prevention devices prevent potentially contaminated water flowing from private property back into the public water supply.
	Council provides high quality water In the water industry, water quality refers to taste, smell and appearance. High quality drinking water therefore does not have any unpleasant taste or smell and appears clear. Council monitors performance through an annual resident satisfaction survey and also reports the number of customer complaints related to water clarity, odour and taste.
	Council operates water supplies in a reliable manner This means that water is available when users need it. This contributes to the community outcome of modern and robust city infrastructure and community facilities.
	Council operates water supplies in a responsive manner This means Council staff and contractors respond to customer feedback and quickly resolve issues as they arise. By operating in a responsive manner, Council can reduce the loss of water and the disruption caused to nearby residents.
	Council water supply networks and operations are sustainable Council seeks to operate water supply networks in a way that protects the environment through sustainable practices and demonstrating environmental stewardship. Council measures progress towards this outcome by monitoring and reporting the average consumption of drinking water per person, and the percentage of water lost through leaks in the water supply network. This contributes to the community outcome of the sustainable use of resources.



Every three years we prepare an Activity Plan for water supply guided by our vision:

Achieving the vision will mean that water resources and taonga are managed in an integrated way to provide people, communities and future generations with access to safe and sufficient water resources, maintain the integrity of freshwater ecosystems and manage hazards from flooding and sea level rise.

The key water supply activities that Council undertakes include:

Water supply pressure, flow and water source level monitoring

Ongoing monitoring for resource consent compliance, billing, network analysis, leak detection and transient mitigation.

Pressure management

Operating the networks within minimum and maximum pressures to balance customer water pressure, operational costs and sustainable water use.

Security of water supply

Water sources are managed, within consent limits, to ensure sufficient water is available to customers. This involves the management of long term water availability and also short term (seasonal) fluctuations. Informing customers of planned outages or any limitations on supply volumes.

Water meter management

Commercial and industrial water meters measure consumption so that customers can be charged appropriately. Water meter management includes meter reading, repair, and replacement. Replacing old meters with smart meters provides an opportunity to improve water demand management.

Water quality management

Routine sampling provides compliance with the Drinking-water Standards for New Zealand. Routine flushing is carried out in some parts of the network. Specific testing and flushing is done in response to water quality complaints or adverse sampling results.

Backflow prevention

Commercial and industrial customers require certified backflow prevention devices to prevent contaminants from entering the public water supply network. Backflow monitoring and enforcement forms a key part of New Zealand Drinking Water Standards and is a requirement of the Building Act.

Leak detection and management

Water loss in the network is managed by detecting and fixing leaks. Reducing leakage means that current supply volumes can reach more customers and demonstrates Council's approach to sustainable water use.

Laboratory services

Laboratory services analyse water samples to check treatment processes and demonstrate compliance with New Zealand Drinking Water Standards.

A snapshot of provision and use:



✓ Reticulation

- 1,839 km of water supply mains
- 1,731 km of water supply sub-mains
- 235 km of water supply laterals
- 15,267 fire hydrants
- 144,031 metered connections



✓ Station

- 689 pump sets
- 154 buildings/kiosks
- 170 wells and wellheads
- 155 reservoirs and tanks



✓ Treatment

- 6 Banks Peninsula Water Treatment Plants



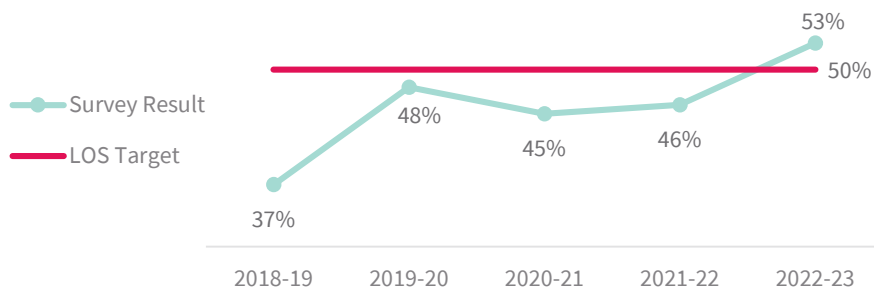
Example of the provision of water supply

Where we came from

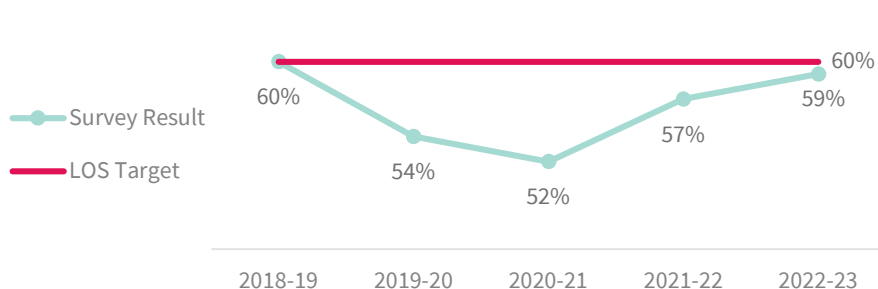
Christchurch's water supply has evolved from the various community schemes that began joining up with central reticulation in the early 1900s. Standardisation of water supply provision increased from 1989 when five local bodies merged into the new Christchurch City Council. Banks Peninsula water supplies came into Council stewardship in 2006 following amalgamation. Christchurch city has a decentralised system of multiple wells that provide high quality deep aquifer groundwater straight into the reticulation system for consumption. The Canterbury earthquakes of 2010 and 2011 Canterbury disrupted the water supply. Repairs and temporary solutions were completed rapidly to restore water supply provision, followed by a programme of assessment and rebuilding. This event increased awareness of the need for water supply resilience. In 2016 a water contamination event in Havelock North put a national spotlight on the risk of water supply contamination. Expert security assessments of our well heads in late 2017 found that none were secure. This cost Christchurch its secure bore status, which is needed if water is not treated. Since then much of the city and Brooklands/Kainga water supplies have been chlorinated to ensure we are compliant with regulations, while infrastructure upgrades are completed. A priority programme of work is now under way.

What our community is saying

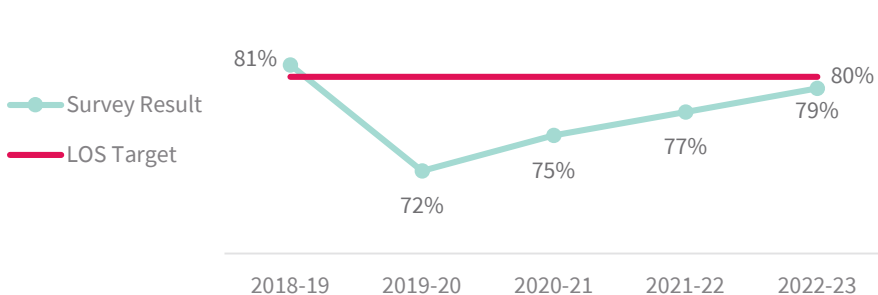
LOS 12.0.2.19 Proportion of residents satisfied with the quality of Council water Supplies



LOS 12.0.1.14 Proportion of residents satisfied with responsiveness of Council to water supply problems



LOS 12.0.1.13 Proportion of residents satisfied with the reliability of Council water supplies



53%-79% are satisfied with various aspects of water supply

Who our key customers are: Christchurch City and Banks Peninsula residents

Who our key stakeholders are: Christchurch City and Banks Peninsula residents

What we do: Supply clean drinking water to protect the health of our community.

What residents think:

- 53% are satisfied with the quality of our drinking water supply.
- 59% are satisfied with the Council's responsiveness to water supply issues.
- 79% are satisfied with the reliability of the water supply.

What residents say:





- "It tastes ghastly, but it's always there."
- "Service calls reporting burst water mains or overflowing storm water have been quickly attended to, with follow-ups. Full marks to the team that does this!"
- "The works were shoddy because leaks appeared in about one in three [replaced water meters]."
- "Existing water quality generally is fantastic and reliable."

Community outcomes: Prosperous economy, resilient communities, healthy environment.







Source: <https://ccc.govt.nz/assets/Documents/The-Council/Reporting-Monitoring/General-Service-Satisfaction-Survey/Summary-of-General-Service-Satisfaction-Survey-Levels-of-Service-Results-Table-2023.pdf>

2. Why we deliver this activity

2.1. Community Outcomes: How this activity contributes

Community Outcomes	Contribution*	Key contributions to achieving our community outcomes
 <p>A collaborative confident city Our residents have the opportunity to actively participate in community and city life, have a strong sense of belonging and identity, and feel safe</p>	★★★★	<p>We manage the public drinking water supplies to protect human health. In doing so we:</p> <ul style="list-style-type: none"> • Protect the community from water-borne diseases • Provide the public with water supplies that meet safety and health risk standards • Provide public drinking that has no objectionable or offensive taste, odour or appearance
 <p>A green, liveable city Our neighbourhoods and communities are accessible and well-connected, supporting our goals to reduce emissions, build climate resilience and protect and regenerate the environment, especially our biodiversity, water bodies and tree canopy</p>	★★★★	<p>We sustainably manage drinking water sources by:</p> <ul style="list-style-type: none"> • Limiting the quantity of water abstracted so as to prevent waterway health deterioration • Promoting sustainable use of drinking water through water conservation measures and education • Limiting resource use, both for water abstraction and for water treatment • Reducing operational carbon and lifecycle carbon
 <p>A cultural powerhouse city Our diverse communities are supported to understand and protect their heritage, pursue their arts, cultural and sporting interests, and contribute to making our city a creative, cultural and events 'powerhouse'</p>	★★★	<p>We strive to increase engagement and collaboration with mana whenua by:</p> <ul style="list-style-type: none"> • Reviewing and updating the 3W Strategy Implementation Plan with mana whenua
 <p>A thriving prosperous city Our city is a great place for people, business and investment where we can all grow our potential, where enterprises are innovative and smart, and where together we raise productivity and reduce emissions</p>	★★★★★	<p>We strive for a resilient public drinking water supply network, to support a healthy community, healthy environment and prosperous economy by:</p> <ul style="list-style-type: none"> • Minimising damage from natural disasters by setting minimum requirements for new infrastructure • Gathering an evidence base to support asset lifecycle decision making • Performing lifecycle management to minimise whole of life costs • Minimising disruptions to the water supply service <p>We strive to manage costs and intergenerational debt by:</p> <ul style="list-style-type: none"> • Controlling costs to minimise rates increases • Maintaining networks to prevent future generations inheriting a network in need of significant expenditure
*Level of contribution – what this means		
★★★★★	This activity is critical to the Council's contribution to achieving this community outcome – we measure our impact with specific levels of service	
★★★★	This activity strongly supports the Council's contribution to achieving this community outcome – we measure our impact with specific levels of service for some elements	
★★★	This activity supports the Council's contribution to achieving this community outcome – we measure our impact with specific levels of service if practicable	
★	This activity may provide incidental support to achieving this community outcome – it's not cost-effective to measure our impact	

2.2. Strategic Priorities - How this activity supports progress on our priorities


Strategic Priorities		Contribution*	How our strategic priorities influence the way we work
	Be an inclusive and equitable city which puts people at the centre of developing our city and district, prioritising wellbeing, accessibility and connection	★★★★	<ul style="list-style-type: none"> Supporting the Community Water Partnership, which educates and empowers communities to help resolve water issues Supporting water management zone committee activities Promote wellbeing through providing the community with clean and safe drinking water Developing the infrastructure solutions that will benefit the future generations
	Champion Christchurch and collaborate to build our role as a leading New Zealand city	★★	<ul style="list-style-type: none"> Lead the way in demonstrating safe drinking water to the national regulator and showcasing Christchurch's high water supply quality Collaborate with other Councils to learn and share best practices Show leadership within the proposed Entity boundaries in the delivery of water supply activity
	Build trust and confidence in the Council through meaningful partnerships and communication, listening to and working with residents	★★	<ul style="list-style-type: none"> Increasing customer engagement and consultation through the Long Term Plan process and annual resident surveys to help inform levels of service Providing regular updates/communication to general public Meaningful partnerships/relationships/communication with consultants and contractors
	Reduce emissions as a Council and as a city, and invest in adaptation and resilience, leading a city-wide response to climate change while protecting our indigenous biodiversity, water bodies and tree canopy.	★★	<ul style="list-style-type: none"> Reduce emissions at the Council offices Reduce emissions by focusing on the key greenhouse gas generators including electricity usage for activities such as pumping, construction of new infrastructure or renewal of existing infrastructure, and travel associated with operations and maintenance activities Set realistic and measurable goals for lowering emissions Continue to adhere to standards and regulations, for example ECAN resource consents, to protect our environment
	Manage ratepayers' money wisely, delivering quality core services to the whole community and addressing the issues that are important to our residents	★★★★	<ul style="list-style-type: none"> Financial decisions are prioritised using an evidence base that accounts for risk, public health and safety, security of supply, disruption to customers, and asset lifecycle cost considerations to optimises expenditure and minimises building intergenerational debt Controlling costs to minimise rates increases Maintaining networks to prevent future generations inheriting a network in need of significant expenditure Plan proactive investment to reduce what is spent in reaction to asset failures and disaster events
	Actively balance the needs of today's residents with the needs of future generations, with the aim of leaving no one behind	★★★★	<ul style="list-style-type: none"> Planning for today's needs as well as the future, accounting for growth, asset deterioration, changing regulations, financial constraints and the changing climate Continue to monitor and assess effects of the activity on the environment Maintain networks to prevent future generations inheriting a network in need of significant expenditure Continue applying excess water charging to manage high water demand and incentivise responsibility and stewardship of our resources

*Levels of contribution – what this means


★★★★	This activity is critical to achievement of this strategic priority – we measure our impact with actions and levels of service in the Strategic Priorities Action Plan
★★★	This activity strongly supports achievement of this strategic priority – we measure our impact with actions and levels of service in the Strategic Priorities Action Plan for important elements only
★★	This activity supports achievement of this strategic priority - we measure our impact with actions and levels of service in the Strategic Priorities Action Plan if practicable
★	This activity may provide incidental support for the achievement of this strategic priority – it's not cost-effective to measure our impact

2.3. Climate Resilience Goals: How this activity supports climate resilience goals

Net zero emissions Christchurch

	<p>Key sources of greenhouse gas emissions from this activity includes:</p> <ul style="list-style-type: none"> • Electricity usage for activities such as pumping • Construction of new infrastructure or renewal of existing infrastructure • Travel associated with operations and maintenance activities
	<p>Water Supply are taking the following actions to reduce greenhouse gas emissions:</p> <div> <div data-bbox="206 384 1167 839"> <p>Operational/embedded greenhouse gas emissions</p> <ul style="list-style-type: none"> • Continue leakage monitoring and reduction programme • Continue to implement real-time sensors to enable network optimisation and increase power use efficiency • Include whole-of-life greenhouse gas emissions consideration in planning and design and construction phases • Consider ways to reduce our carbon footprint through changes in design, material choice and construction of new assets without compromising water quality, reliability or resilience • Request environmental product declarations for chemicals used in the treatment process and investigate lower carbon chemical treatment options, where applicable </div> <div data-bbox="1167 384 2110 839"> <p>Greenhouse gas emissions by users of the Water Supply activity</p> <ul style="list-style-type: none"> • Reduce high peak demands through customer water metering and pricing incentives (excess water use charges) to reduce energy use • Adopt water efficient appliances • Encourage rainwater harvesting to support irrigation use • Encourage water heating via renewable energy such as solar </div> </div>

We understand and are preparing for the ongoing impact of Climate change

	<p>Key climate risks for the Water Supply activity includes:</p> <ul style="list-style-type: none"> • Sea Level Rise Related <ul style="list-style-type: none"> ○ Limitations in asset life due to corrosion from salt water intrusion for coastal infrastructure ○ More frequent, more extensive coastal inundation, contributing to service limitations and potentially health consequences ○ Potential increased need for pumping and associated energy costs due to need to retreat from coastal areas ○ Saltwater intrusion to water sources, causing more treatment requirements, noted as minor risk as work has been completed regarding security of bores • Rainfall and Flooding Related <ul style="list-style-type: none"> ○ Higher groundwater levels, making repairs difficult and requiring dewatering ○ Increased sediment, organic carbon, and nutrients due to flooding and event intensity ○ On-site flooding and damage to treatment plants during storm events – additional effect on staffing transport and supply of chemicals to plants ○ Changes in rainfall intensity and seasonality may mean reduced water availability, especially on Banks Peninsula ○ Heath risks from contamination during flood events • Heat, Drought, Fire Related <ul style="list-style-type: none"> ○ Higher water losses from vegetation absorption and evaporation due to higher temperatures ○ Potential reduced recharge of groundwater supply due to less surface runoff and snowmelt
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- More frequent drought which may impact water source availability
- Increased peak water demand from customers due to prolonged dry periods
- Higher concentration of contaminants and pathogens in source water due to increased temperatures
- Increased firefighting demands and usage due to increased fire risk
- Other
 - Scarcity of water may lead to consideration of other technologies such as wastewater reuse
 - Increased requests for additional connections from non-connected properties due to inability to no longer self-sustain supply
 - Population growth from areas which are affected by climate related displacement requires additional service measures
 - Increased building intensification and land-use changes could increase demand
- See the [Asset Management Plan](#) for more details.

Options being considering to reduce the risks to the Water Supply activity and the community posed by those climate risks include:

- Promote sustainable use of drinking water through water conservation measures and education to ensure long-term sustainability objectives
- Implementation of “smart” metering which helps to improve understanding of current customer use patterns, avoid wastage, and manage future use
- Create a dynamic link between “smart” water metering and energy consumption to allow for proactive management of electricity usage
- Continue to implement and manage excess water use charges – initial data has demonstrated a reduction in peak water demand which contributes to the ability to minimise energy usage and increase efficiency
- Improve knowledge of network performance by continuing to use and maintain hydraulic models which consider current and future scenarios
- Proactively monitor and record usage information with the assistance of intelligent technology to enable informed decision making
- Automation of mechanical systems to more efficiently respond to future pressures – for example variable speed drives can help to reduce overall energy consumption
- Protection of groundwater sources and their vulnerability to contamination through targeted investigations, further implementation of source protection works, and restrictions on excavation below groundwater level
- Manage assets collectively to ensure future works maximise collaborative benefits across Council activities. This includes reviewing climate change risks, such as sea level rise extents, and incorporating the results into current and future planning and design works, noting management of climate related risks and reduction in vulnerability will likely include collaboration in multiple Council activity areas.

We are guardians of our natural environment and taonga

We will be undertaking two pilot projects in the next three years to further support climate change initiatives. These are:

Excess Water Use Charges

The excess water use charges were implemented in the network in late 2021. Results from the 2021 and 2022 financial year summaries showed a number of positive outcomes in terms of cost saving, greenhouse gas reduction, and climate reliance opportunities. Implementation of the charges resulted in a change in customer behaviour, which consequently reduced the Council’s peak day demand and peak instantaneous flow demand. Reduced water usage has the benefits of:

- Overall reduction in greenhouse gas emissions for the activity
- If the change in behaviour can be sustained and the reduced peak can be accepted as the new base demand, capacity would be released to accommodate growth, therefore contributing to increased resilience to the effects of climate change and unforeseen events
- Potential decreased necessary capital expenditure to upgrade system to meet future and current population growths

The continuation of the excess water use charges has benefits in the climate change space as well as economic advantages.



Smart Water Network

Use of smart technology including smart water meters has an economic impact as well as directly responds to the challenges faced by climate change by detecting and stopping leaks faster, therefore reducing water use, increasing resilience to the impacts of climate change on water availability, and consequently reducing greenhouse gas emissions through increased energy efficiencies.

The current level of services set-out already begin to address accountability of the activity functions in relation to climate change vulnerability and greenhouse gas emissions.

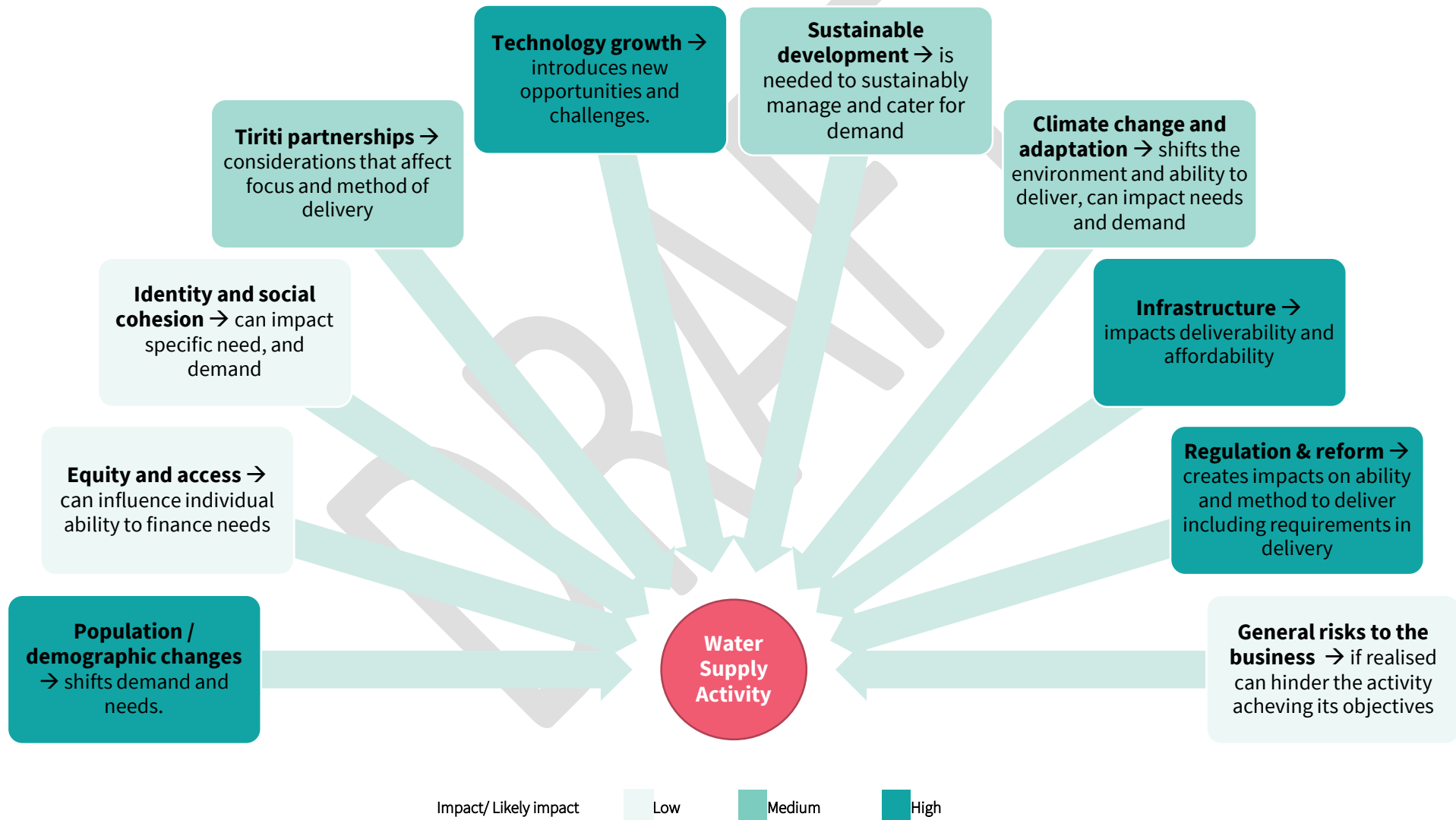
- Council water supplies are safe to drink
 - Water Safety Plans are a condition of the current level of service and address future risk to the source water. Updated plans can include special consideration for management of climate change effects
- Council operates water supplies in a reliable manner
 - The reliability measure of service is dependent on management of the activity to respond to climate change impacts
- Council water supply networks and operations are sustainable
 - Leak detection initiatives and water loss records are already being actioned in performance targets and contribute to reduction in greenhouse gas emissions and minimising the effects of climate change impacts
 - Use of excess water charges and smart water technology enable measuring of customer water use, which contributes to efficient use of water and enables data collection for effective decision making to respond to future climate challenges

As part of the ongoing work, it is important to form a detailed baseline of greenhouse gas emissions in the water supply activity through measurement in our services. This information can then be used for effective future decision making in an effort to reduce greenhouse gas emissions in a partial contribution towards Christchurch District and Christchurch City Council's emissions targets.

3. How we are planning for future impacts

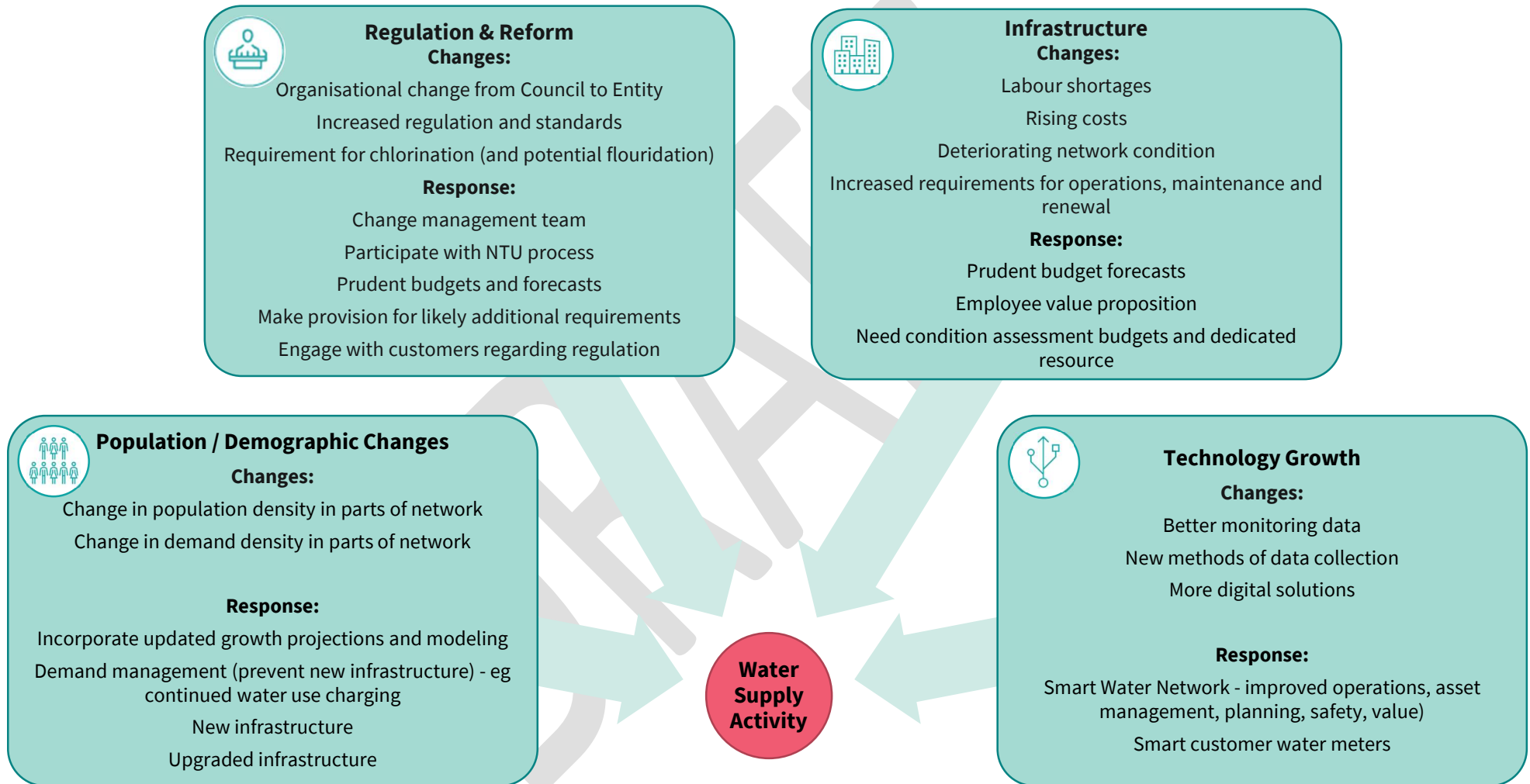
There are various factors influencing current and future demand for Council water supply facilities and the ability to deliver them. These are listed below.

3.1. Issues impacting current and future activity demand and deliverability



3.2. The high impact issues and mitigations planned

The more prominent ones that in particular effect our Community Outcomes or Strategic Priorities are summarised on this page. For further details on issues, including the current status, future projections, likely impact and mitigations please see Appendix B.








4. Our levels of service

Council's Levels of Service (LoS) measures enable us to monitor and report against our outcomes and service performance. See Appendix A: Levels of Service Details for more detail.

Services & Levels of Service measurements

- ➔ Water supply has **16 Community (C) Levels of Service**. (These LOS community facing and will be published in our Statement of Service Provision)
- ➔ Water supply also has **16 Management (M) Levels of Service**. (These are LOS that are measured in the organisation to ensure service delivery)

 Council operates water supplies in a reliable manner		 Council provides high quality water	
Service contributes to: <ul style="list-style-type: none"> A thriving prosperous city <p>This is by generally maintaining the targets of the levels of service promised.</p>	Levels of Service This service has 2 Community and 3 Management LoS. <ul style="list-style-type: none"> Weekly average of the number of unplanned interruptions of greater than 4 hours duration each year & number of unplanned interruptions per 1,000 properties served per year. Proportion of residents satisfied with reliability of water supplies Number of continuity of supply complaints per 1,000 properties served per year Number of pressure or flow complaints per 1,000 connections per year 	Service contributes to: <ul style="list-style-type: none"> A collaborative confident city <p>This is by generally maintaining the targets of the levels of service promised.</p>	Levels of Service This service has 2 Community and 3 Management LoS. <ul style="list-style-type: none"> Proportion of residents satisfied with quality of Council water supplies Total number of complaints received by Council about 6 aspects (drinking clarity, taste, and odour, and pressure/flow, continuity of supply and Councils' response to these issues) 3 targets for the number of water complaints per 1,000 connections per year (clarity, odour, and water taste)
 Council operates water supplies in a responsive manner		 Council water supplies are safe to drink	
Service contributes to: <ul style="list-style-type: none"> A thriving prosperous city <p>This is by generally maintaining the targets of the levels of service promised.</p>	Levels of Service This service has 5 Community and 1 Management LoS. <ul style="list-style-type: none"> 2 measures around median time from notification to attendance and resolution of urgent call-outs 2 measures around median time from notification to attendance and resolution of non-urgent call-outs The proportion of residents satisfied with Council responsiveness to water supply problems 	Service contributes to: <ul style="list-style-type: none"> A collaborative confident city <p>This is by generally maintaining the targets of the levels of service promised.</p>	Levels of Service This service has 5 Community LoS and 1 Management LoS. <ul style="list-style-type: none"> Proportion of High Hazard commercial connections with compliant backflow prevention device tested within the last year Proportion of Medium Hazard commercial connections >38mm diameter with compliant backflow prevention device tested within the last year

	<ul style="list-style-type: none"> Number of complaints regarding Council's response to complaints about drinking water taste, odour, clarity, pressure or flow, or continuity of supply per 1,000 properties connected to the Council's water supply system per year 		<ul style="list-style-type: none"> Water supplied is compliant with the DWQA Rules in the Distribution System (Bacteria compliance) Water supplied is compliant with the DWQA Rules in the Treatment System (Protozoal compliance) Proportion of customers connected to water supply zones with an up to date Water Safety Plan Proportion of microbiological drinking water samples collected and analysed by an IANZ accredited and Ministry of Health registered laboratory
	Council water supply networks and operations are sustainable		
<p>Service contributes to:</p> <ul style="list-style-type: none"> A green, liveable city <p>This is by generally increasing the targets of the levels of service promised.</p>	<p>Levels of Service</p> <p>This service has 2 Community and 6/7/8 Management LoS.</p> <ul style="list-style-type: none"> Average consumption of drinking water in litres per resident per day Percentage of real water loss from Council's water supply reticulated network Annual average power (kWh of electricity) used to pump each cubic metre of water Number of infringement notices for major or persistent breaches of resource consents regarding the operation of the water supply network, as reported by ECan or Council Total volume of water abstracted for urban water supplies in millions of cubic metres per year – (TBC) Average Infrastructure Leakage Index (ILI) for all Council water loss zones Peak day demand of drinking water in L per connection per day Peak hour demand of drinking water in L per connection per hour 10 year rolling historic ratio of renewals to depreciation Increase Water Supply Asset Management Maturity towards agreed, appropriate level (Advanced) – (TBC) 		

5. How assets will be managed to deliver the services

The Water Supply portfolio is made up of reticulation, pump stations, treatment, and storage assets. The Asset value of this Activity is approximately \$3.7 Billion.

Managing our assets

Assets are provided by the activity by three key means: Asset improvement/growth, renewals, and vested assets from development. Development infrastructure is driven by private developers, meaning that the timing of new infrastructure, handover provisions and accounting for new operations and maintenance spending can be difficult to manage.

New and upgraded assets for growth and improved levels of service are generally required to meet compliance and regulatory requirements (eg the Water Services Regulator Act, the Water Services Act, the Water Services Entities Act, Freshwater NES) or in response to climate change or resilience to natural hazards.

Renewal projects are required to replace assets at the end of their useful lives to prevent critical and chronic asset failures and moderate the level of reactive operational and maintenance spending.

Council's largest capital expenditure category for this activity is for asset renewal, predominantly driven by the prioritised reticulation renewal programme (mains and submains).

The water activity is primarily the responsibility of Council's internal Three Waters Unit. Council's Three Waters Network Operations Team operates the

Looking forward

The longer-term strategic direction for water supply is supported by Council's Te Wai o Tane - Integrated Water Strategy. This provides Council's vision, goals, objectives and suggested implementation actions for the city's water, wastewater and stormwater services. Water supply asset management strategies are expected to align with the Integrated Water Strategy objectives.

The current context surrounding the water supply activity will continue to influence the current and future outlook. This includes new drinking water regulation, water industry service delivery reform, renewal of ageing infrastructure, responses to climate change, addressing risk and resilience, reducing water demand, moving to data-rich smart technology solutions, engaging with customer expectations, and managing financial constraints.

The transition from Council delivery to a new Entity model as part of the ongoing water reforms will influence how the water supply assets are managed going forwards. The new Entity is expected to be operational and responsible for service delivery by July 2026.

The new Entity will inherit the assets and the asset management practices of the water supply activity, so Council's continuing focus on prudent investment and asset management over the period of transition is important for the long term success of the activity.

One of the key messages within the Infrastructure Strategy, Financial Strategy and the Mayors Letter of Expectation is ensuring that the capital programme is appropriate deliverable.

We acknowledge that while past performance is valuable for learning, it is crucial to focus on the changes required to enhance delivery processes and ensure the capital program's deliverability. Three Waters has and continues to make systematic

Christchurch water supply network with maintenance activities carried out by Citycare Limited. Councils Operations Team operate the Banks Peninsula schemes and treatment plants.

The Draft Infrastructure Strategy (IS) contains some key significant issues that affect our ability to manage ratepayer money wisely, including *“We need to improve our understanding of our infrastructure so we can make the best decisions for our community”*. This is an on-going issue that additional resource is needed to make any improvements to data collection or management. There are a number of processes that need to be improved, for example the ability to collect and update condition data of our waterway linings to be able to create renewal models with accurate funding projections. Many of these issues are also reflected within the Risk Table of the Strategic Asset Management Activity Plan which is the key team responsible for guiding the organisation with all things asset management.

changes to delivery that will enable the delivery of the Capital program. The following are changes being undertaken to improve the efficiency of capital delivery:

- Development of a 3-year delivery program
- Improved scheduling, resourcing and allocation
- Improved program management
- Pipe renewals delivered through a multi-year performance based contract with Tier 1 contractors
- Contingency funds to be held at program level for low risk projects
- Development of a capital works program that is agile and can react to project delays that will invariably occur on a capital works program of this size
- Increased investigations and designs ahead of plan, this will remove the risk of procurement delays impacting the capital program

By recognizing the need for improvement and implementing the necessary changes, we are confident in achieving successful outcomes for the program and it is deliverable. There are sufficient contractor resources in the market, the challenges in supply chain are being overcome through advanced planning, and design resources are available. This is all made possible with a well developed program and schedule, allowing our delivery partners to prepare and allocate resources to support our capital program.

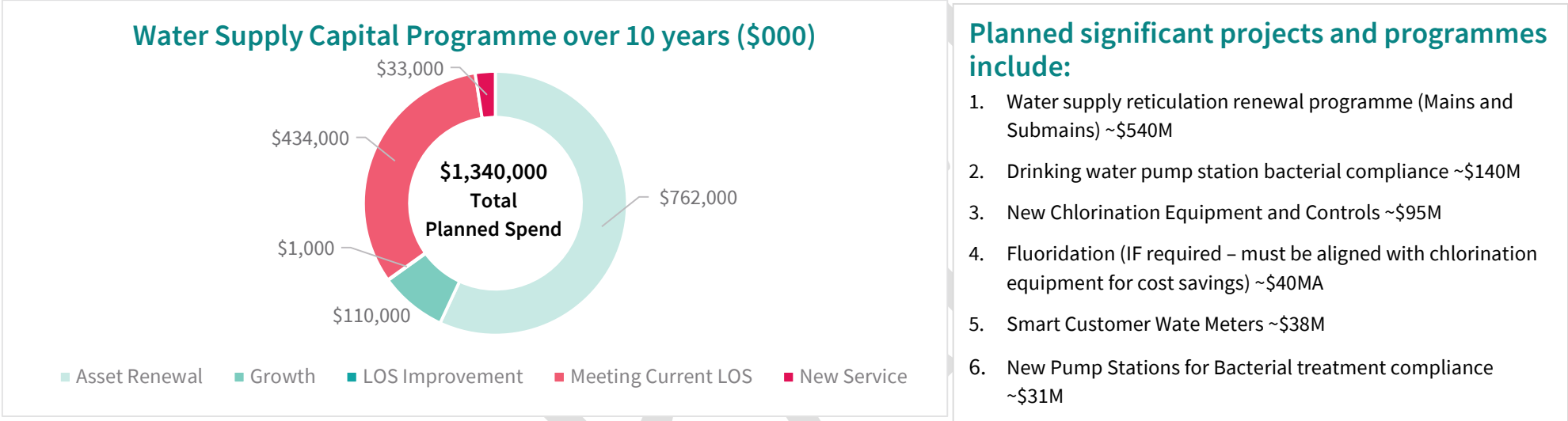
Reducing the capital program would increase the risk profile to Council. The program is developed to meet the level of service targets, avoid the sweating assets that would increase operational costs, and undertaking projects required to meet growth demands.

Currently the capital budget is used as the key performance indicator for the capital program. In measuring success, it is more appropriate to measure quality and delivery of planned capital projects in any given year. Focusing on spend drives poor outcomes and negates working smarter, improving procurement, and delivering what is most important – completed projects.

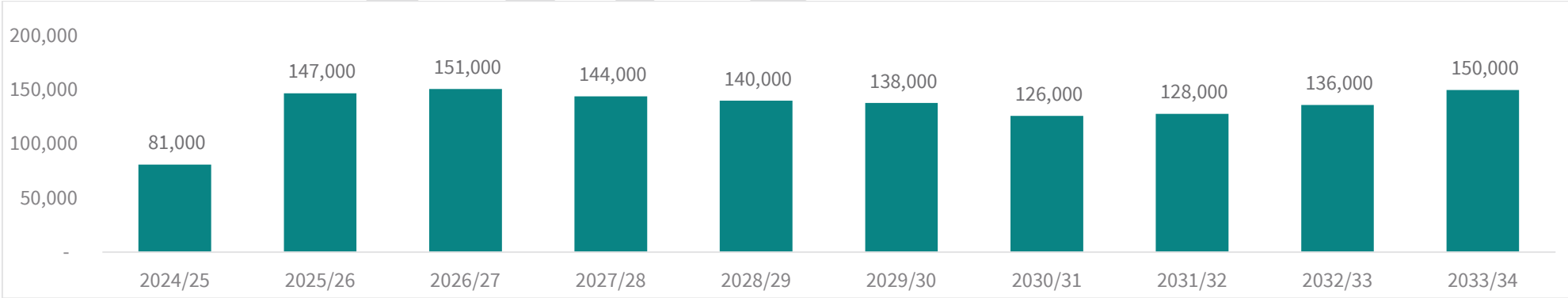
Please refer to the [Water Supply Asset Management Plan](#) for more information on these assets.

6. Capital expenditure and key capital projects

To ensure the continued ability to deliver on our activities and services, and contributing to our community outcomes and strategic priorities, projects have been planned and budgeted for the next 10 years. Please note this programme is based on the capital works programme provided to the National Transition Unit to reflect the unconstrained needs of the 3 Waters business with consideration for deliverability. *Note that Water Services Entities are expected to go live by July 2026.*



Total Planned Capital Programme summary (\$000)



See [reference](#) for more detail on the Planned Capital Programme.

7. Financial resources needed

7.1. Resources needed

Indicative budgets are based on the 2023/24 Annual Plan projections for the balance of the current LTP. They are subject to year end capital carry forwards, and further refinement of inflation and other assumptions for the new LTP.

Water Supply

000's	Annual Plan 2023/24	LTP 2024/25	LTP 2025/26	LTP 2026/27	LTP 2027/28	LTP 2028/29	LTP 2029/30	LTP 2030/31	LTP 2031/32	LTP 2032/33	LTP 2033/34
Activity Costs Before Overheads by Service											
Water Supply	30,214	35,438	36,545	38,027	39,482	40,061	41,186	42,380	16,372	16,372	
	30,214	35,438	36,545	38,027	39,482	40,061	41,186	42,380	16,372	16,372	
Activity Costs by Cost Type											
Direct Operating Costs	9,321	11,419	11,812	12,156	12,498	12,750	13,044	13,320	2,019	2,019	
Direct Maintenance Costs	10,890	13,087	13,440	14,261	15,061	15,095	15,657	16,325	1,865	1,865	
Staff and Contract Personnel Costs	9,932	10,858	11,217	11,531	11,843	12,134	12,401	12,649	12,488	12,488	
Other Activity Costs	71	74	76	78	80	82	84	86			
Overheads, Indirect and Other Costs	16,465	17,485	18,557	18,916	19,823	20,853	21,251	21,712	6,341	6,192	
Depreciation	51,518	55,272	58,361	59,487	62,391	65,201	68,035	66,774	13,391	13,391	
Debt Servicing and Interest	6,171	8,000	9,794	11,188	12,327	12,940	13,273	12,966	6,790	6,852	
Total Activity Cost	104,368	116,194	123,256	127,618	134,023	139,055	143,745	143,832	42,893	42,806	
Funded By:											
Fees and Charges	7,323	5,553	5,737	5,897	6,057	6,202	6,338	6,465	(2,496)	(2,496)	
Grants and Subsidies											
Cost Recoveries	41	43	44	46	47	48	49	50			
Other Revenues											
Total Operational Revenue	7,364	5,596	5,781	5,943	6,103	6,250	6,387	6,515	(2,496)	(2,496)	
Net Cost of Service	97,004	110,598	117,474	121,675	127,920	132,805	137,357	137,317	45,388	45,302	
Funding Percentages											
Rates	93%	95%	95%	95%	95%	96%	96%	95%	106%	106%	100%
Fees and Charges	7%	5%	5%	5%	5%	4%	4%	4%	-6%	-6%	0%
Grants and Subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cost Recoveries	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other Revenues	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Capital Expenditure											
Improved Service Levels	8,414	12,209	11,931	17,643	12,173	14,892	13,754	13,241			
Increased Demand	4,528	4,155	6,336	6,250	3,218	7,050	6,041	11,628			
Renewals & Replacements	42,742	39,151	51,380	62,421	77,018	75,385	75,226	71,816			
Total Activity Capital	55,684	55,515	69,647	86,313	92,409	97,327	95,021	96,685			

7.2 Funding consideration and outcome

Section 101 Local Government Act 2002 - Funding Consideration. The following tables are based on the financials from the previous page.

Council funds the Water Supply Activity predominately through the general rate. This means that most funding comes from property owners, mostly on the basis of the rateable value of their property.

- **Operating expenditure** is largely funded through general rates as the Water Supply Activity is a core service that benefits the community as a whole, and the benefits are received mostly in the same year the expenditure is incurred.
- **Capital expenditure** is largely funded from borrowing, with some funding from development contributions. Funding from rates is used to service the capital expenditure debt.

This funding approach is based on applying the following main funding principles to determine the funding policy.

Funding principles considered for operating costs

Consideration for funding method	Result	Implication
User-Pays <i>the degree to which the Activity can be attributed to individuals or identifiable groups rather than the community as a whole</i>	High	Fund from X
Exacerbator-Pays <i>the degree to which the Activity is required as a result of the action (or inaction) of individuals or identifiable groups</i>	Low	Fund from x
Inter-Generational Equity <i>the degree to which benefits can be attributed to future periods</i>	Low	Fund when
Separate Funding? <i>the degree to which the costs and benefits justify separate funding for the Activity</i>	High	Fund from x

Outcome: Funding for operating costs

Source	Proportion funded*	Funding Mechanisms
Individual / Group	High	Targeted Rate Fees & Charges
Community	Low	Grants & Other

Funding of net capital expenditure

Net means after specific capital grants/subsidies/funding

Category of capex	How it is funded initially - Refer also to Financial Strategy	Proportion*
Renewal/replacement	<i>Mix of rates and debt, but mostly rates – because the renewal / replacement programme is continuous. In future years, debt repayment is funded by rates.</i>	High
Service improvement	<i>Debt – because the benefits of capital expenditure on service improvement are received in future periods. In future years, debt repayment is funded by rates.</i>	Low
Growth	<i>Development contributions and debt – because the benefits of capital expenditure relating to growth are received in future periods. In future years, debt repayment is funded by a mix of development contributions and rates.</i>	Low

Outcome: Initial funding for capital

Initial funding source	Proportion of capex funded*
Rates	High
Borrowing	-
Development Contributions	-
Grants and Other	Low

* Low = this source provides 0%-25% of the funding for this Activity, Medium = this source provides 25%-75% of the funding for this Activity, High = this source provides 75%-100% of the funding for this Activity

More information on the Council's Finance and Funding Policies can be found in the [Financial Strategy](#) and the [Revenue and Financing Policy](#)

8. Possible significant negative impacts on wellbeing



This activity may have significant negative effects on social, economic, environmental or cultural wellbeing of the local community, now or in the future.

Negative Effect	Mitigation
Social	
Chemical addition may be required (chlorination or fluoridation) as dictated by legislation and/or water quality	Respond to new Central Government legislation as required. Continue to chlorinate as required, while prioritising works to demonstrate where water safety can be achieved without chlorine. Fluoridate water if required by the Te Whatu Ora.
Economic	
Cost of operating a compliant potable water supply	Documented processes and maintenance systems control costs. Improve network efficiency through asset renewal. Water supply rezoning and pressure management to reduce operating and maintenance costs. Reduce demand through water conservation measures. Assess and report cost efficiency and affordability. Reduce wastage through pipe leaks.
Environmental	
Salt-water intrusion in coastal regions compromises water quality	Monitor well takes in coastal areas for salinity (conductivity) and investigate any changes. Long term strategy to move wells away from coast where salt-water intrusion may impact on quality.
Effects of water abstraction on the environment and future resourcing of water for the city	Network maintenance and water conservation measures to minimise wastage (leaks). Annual leak detection programme to monitor and reduce water loss. Maintain resource consent compliance and avoid over-abstraction. Establish infrastructure (e.g. suction tanks) to improve management of groundwater abstraction. Respond to notifications from Environment Canterbury regarding requests for new water takes.
Cultural	
Cultural impact of groundwater abstraction and network water losses	Work collaboratively with Ngāi Tahu and local rūnanga to find cost effective solutions that address cultural concerns.

Appendices

A. Appendix A: Levels of Service detail

A.1. Continuous Improvement Review (S17A) – Recommendations for change

No Continuous Improvement Reviews (S17A) have been identified for this Activity, noting that the Three Waters Reform programme is ongoing and that there will be a change to an entity model.

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A.2. Levels of Service: Performance measures in detail

Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.

LOS number	C/ M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
Council water supplies are safe to drink										
12.0.2.2	C	Proportion of High Hazard commercial connections with compliant backflow prevention device tested within the last year	2023: TBD 2022: 100% (Revised measure in 2022)	None found.	≥100%	≥100%	≥100%	≥100%	Water Services team report on the properties assessed and required to install backflow prevention devices	A collaborative confident city
12.0.2.20	C	Proportion of Medium Hazard commercial connections >38mm diameter with compliant backflow prevention device tested within the last year	2023: TBD 2022: 95%	None found.	≥100%	≥100%	≥100%	≥100%	<div>Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.</div>	A collaborative confident city
12.0.2.9	C	Water supplied is compliant with the DWQA Rules in the Distribution System (Bacteria compliance)	2023: TBD 2022: Not Achieved The DIA target of 100% was not met. Only 1 of our water distribution zones was non- compliant 2021: 85.15% - Not achieved	Ministry of Health Annual Report on Drinking-water Quality 2018-2019: 95.3%	Compliant Council are not currently compliant	Compliant	Compliant	Compliant		

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
			2020: 100% 2019: 100%						<p>from Taumata Arowai.</p> <p><i>The DWQA Rules primarily impose requirements relating to drinking water supplier duties to:</i> (1.) supply safe drinking water (2.) ensure that drinking water complies with the Water Services (Drinking Water Standards for New Zealand) Regulations 2022.</p> <p><i>Department of Internal Affairs, Water Supply non-financial performance measure 1a</i></p>	
12.0.2.10	C	Water supplied is compliant with the DWQA Rules in the Treatment System (Protozoal compliance)	Urban 2023: TBD 2022: Not Achieved the DIA target of 100% was not met as only 2 out of our 15 water treatment plants were compliant.	Ministry of Health Annual Report on Drinking-water Quality 2018-2019: 78.7%	Compliant	Compliant	Compliant	Compliant	Report on compliance with the Drinking-water Standards for NZ (DWSNZ) and Drinking Water Quality Assurance Rules (DWQA Rules) from Taumata Arowai.	A collaborative confident city

Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
			However, we did exceed our internal target of $\geq 0.3\%$ * 2021: 0% 2020: 0% 2019: 0%						<p><i>The DWQA Rules primarily impose requirements relating to drinking water supplier duties to:</i> (1.) supply safe drinking water (2.) ensure that drinking water complies with the Water Services (Drinking Water Standards for New Zealand) Regulations 2022.</p> <p><i>Department of Internal Affairs, Water Supply non-financial performance measure 1b.</i></p>	
12.0.2.1	C	Proportion of customers connected to water supply zones with an up to date Water Safety Plan	2023: TBD 2022: 100% 2021: 100% 2020: 100% 2019: 100%	Ministry of Health Annual Report on Drinking-water Quality 2018-2019: 98.3%	100%	100%	100%	100%	Quality & Compliance team report on water safety plans	A collaborative confident city

Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
12.0.2.21 (change - reword / note amendment)	M	Proportion of micro-biological drinking water samples collected and analysed by an IANZ accredited and Ministry of Health registered laboratory. Confirm with Veronica Zefferino	2023: TBD 2022: 100% 2021: no data found 2020: 100% 2019: 100%	None found.	100%	100%	100%	100%	Number of samples analysed in an IANZ lab / Total number of samples analysed * 100	A collaborative confident city
Council provides high quality water										
12.0.2.19	C	Proportion of residents satisfied with quality of Council water supplies	2023: TBD 2022: 46% 2021: 45% 2020: 48% 2019: 37%	Overall Resident Satisfaction: Watercare: 84% Wellington Water: 57% Dunedin: 74%	≥ 50%	≥ 50%	≥ 50%*	≥ 50%*	Residents Satisfaction Survey	A collaborative confident city
12.0.1.16	C	Total number of complaints received by Council about: a) Drinking water clarity b) Drinking water taste c) Drinking water odour	2023: TBD 2022: 0.067 New measure in 2022	Water NZ National Performance Review 2021/22: 4.82 2018/19: 6.07 2015/16: 9.38	≤ 6.6	≤ 6.6	≤ 6.6	≤ 6.6	Total number of complaints received through Council's call centre about clarity, taste, odour, pressure, flow, continuity of supply, or responses to	A collaborative confident city

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
		d) Pressure or flow e) Continuity of supply f) Council's response to any of these issues per 1,000 properties served per year.							complaints, multiplied by 1000/number of connections. <i>Department of Internal Affairs, Water Supply Non-Financial Performance Measure 4.</i>	
12.0.2.13	M	Number of water clarity complaints per 1,000 connections per year	2023: TBD 2022: 0.70 2021: 0.41 2020: 0.33 2019: 0.35	Water NZ National Performance Review 2021/22: 0.702 2015/16: 1.84	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	The number of complaints about water clarity received through the call centre, expressed per 1,000 properties connected to the Council's water supply system. <i>Department of Internal Affairs, Water Supply Non-Financial Performance Measure 4a.</i>	A collaborative confident city
					<i>Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.</i>					
12.0.2.14	M	Number of water odour complaints per 1,000 connections per year	2023: TBD 2022: 0.18 2021: 0.44 2020: 0.28 2019: 0.44	Water NZ National Performance Review 2021/22: 0.18 2015/16: 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	The number of complaints about water odour received through the call centre, expressed per	A collaborative confident city

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
									1,000 properties connected to the Council's water supply system. <i>Department of Internal Affairs, Water Supply non-financial performance measure 4c</i>	
12.0.2.15	M	Number of water taste complaints per 1,000 connections per year	2023: TBD 2022: 0.479 2021: 0.498 2020: 0.45 2019: 0.81	Water NZ National Performance Review 2021/22: 0.478 2015/16: 0.21	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	The number of complaints about water taste received through the call centre, expressed per 1,000 properties connected to the Council's water supply system. <i>Department of Internal Affairs, Water Supply Non-Financial Performance Measure 4b.</i>	A collaborative confident city
Council operates water supplies in a reliable manner										
12.0.1.1	M	Weekly average of the number of unplanned interruptions of greater than 4	2023: TBD 2022: 1.71 2021: 0.63 2020: 0.98 2019: 1.3	Watercare : 2.56 2021/22: 2.25	≤ 1.2	TBC	TBC	≤ 2.0	Monthly Contractor reports giving the total number of unplanned interruptions	A thriving prosperous city

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
		hours duration each year							longer than 4 hours from notification to resolution each week divided by weeks to date.	
12.0.1.2	C	Number of unplanned interruptions per 1,000 properties served per year	2023: TBD 2022: 9.75 2021: 9.94 2020: 38.43 2019: 17.72	Water NZ National Performance Review 2021/22: 28.09 2018/19 : 7.9 2015/16 : 4.89	≤ 41	TBC)	TBC	≤ 42	Monthly Contractor reports giving the total number of unplanned interruptions to date in a year divided by the number of properties served multiplied by 1,000.	A thriving prosperous city
<div>Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.</div>										
12.0.1.13	C	Proportion of residents satisfied with reliability of water supplies.	2023: TBD 2022: 77% 2021: 75% 2020: 72% 2019: 81% Not measured prior to 2018.	Overall Resident Satisfaction: Watercare: 84% Wellington Water: 57% Dunedin: 74%	≥ 80%	TBC	TBC	≥ 60%	Resident satisfaction surveys	A thriving prosperous city
12.0.1.7 (same – possible change in MoM)	M	Number of continuity of supply complaints per 1,000 properties served per year	2023: TBD 2022: 18.31? 2021: 1.59 2020: 1.27 2019: 1.57	Water NZ National Performance Review 2015/16: 4.17	≤ 2.0	≤ 2.0	≤ 2.0	≤ 2.0	Number of complaints divided by the total number of properties connected to the water supply	A thriving prosperous city

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
									network divided by 1,000. <i>Department of Internal Affairs, Water Supply non-financial performance measure 4e</i>	
12.0.1.8 (same – possible change in MoM)	M	Number of pressure or flow complaints per 1,000 connections per year	2023: TBD 2022: 2.12 2021: 0.99 2020: 0.80 2019: 0.85	Water NZ National Performance Review 2015/16: 2.66	≤ 2	≤ 2	≤ 2	≤ 2	The number of complaints about water flow or pressure received through the call centre, expressed per 1,000 properties connected to the Council's water supply system <i>Department of Internal Affairs, Water Supply non-financial performance measure 4d</i>	A thriving prosperous city
Council operates water supplies in a responsive manner										
12.0.1.10	C	Median time (in hours) from notification to attendance of urgent call-out	2023: TBD 2022: 1 hour 11 minutes 2021: 1.07 2020: 0.41 2019: 0.62	Water NZ National Performance Review 2021/22: 0.39 2018/19: 0.5 2017/18: 0.51	≤ 1	≤ 1	≤ 1	≤ 1	The median response time measured from the time that the Council receives notification of the issue to the time	A thriving prosperous city

Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
				2016/17: 0.50					that service personnel reach the site. Reported in monthly contract reports from the Contractor. <i>Department of Internal Affairs, Water Supply non-financial performance measure 3a</i>	
12.0.1.12	C	Median time (in hours) from notification to resolution of urgent call-outs	2023: TBD 2022: 5 hours 20 minutes 2021: 3.87 2020: 2.37 2019: 2.01	Water NZ National Performance Review 2021/22: 4.56 2018/19: 2.4 2017/18: 2.5 2016/17: 2.3	≤ 5	≤ 5	≤ 5	≤ 5	The median resolution time measured from the time that the Council receives notification of the issue to the time that service personnel confirm resolution of the issue. Reported in monthly contract reports from the Contractor.	A thriving prosperous city

Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
									<i>Department of Internal Affairs, Water Supply non-financial performance measure 3b</i>	
12.0.1.9	C	Median time (in hours) from notification to attendance of non-urgent call-outs	2023: TBD 2022: 41 hours 19 minutes 2021: 71 hours 2020: 19.0 2019: 4.6	Water NZ National Performance Review 2021/22: 41.19 2018/19: 6.2 2017/18: 13.9 2016/17: 6.4	≤ 72	≤ 72	≤ 72	≤ 72	<p>The median response time measured from the time that the Council receives notification of the issue to the time that service personnel reach the site.</p> <p>Reported in monthly contract reports from the Contractor.</p> <p><i>Department of Internal Affairs, Water Supply non-financial performance measure 3c.</i></p>	A thriving prosperous city
12.0.1.11	C	Median time (in hours) from notification to resolution of non-urgent call-outs	2023: TBD 2022: 44 hours 16 minutes 2021: 76 hours 24 minutes 2020: 21.1	Water NZ National Performance Review 2021/22: 44.16 2018/19: 20.2	≤ 96	≤ 96	≤ 96	≤ 96	<p>The median resolution time measured from the time that the Council receives notification of the</p>	A thriving prosperous city

Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
			2019: 6.0	2017/18: 20.4 2016/17: 23.0					<p>issue to the time that service personnel confirm resolution of the issue.</p> <p>Reported in monthly contract reports from the Contractor.</p> <p><i>Department of Internal Affairs, Water Supply non-financial performance measure 3d</i></p>	
12.0.1.14	C	The proportion of residents satisfied with Council responsiveness to water supply problems	2023: TBD 2022: 57% 2021: 52% 2020: 54% 2019: 60% Not measured prior to 2018.	Overall Resident Satisfaction: Watercare: 84% Wellington Water: 57% Dunedin: 74%	≥ 65%	TBC	<p>TBC</p> <p><i>Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.</i></p>	≥ 60%	Resident satisfaction surveys	A thriving prosperous city
12.0.1.15	M	Number of complaints regarding Council's response to complaints about drinking water taste, odour,	2023: TBD 2022: 0.06 2021: 0.06 2020: 0.01 Not measured prior to 2019.	None found	≤ 0.6	≤ 0.6	≤ 0.6	≤ 0.6	The number of complaints about the Council's response to complaints received under 12.1.1 Target 4, 12.1.1 Target 10,	A thriving prosperous city

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
		clarity, pressure or flow, or continuity of supply per 1,000 properties connected to the Council's water supply system per year							12.3.1 Target 2 and 12.3.1 Target 3 received through the call centre, expressed per 1,000 properties connected to the Council's water supply system. <i>Department of Internal Affairs, Water Supply non-financial performance measure 4f</i>	
Council water supply networks and operations are sustainable										
12.0.4	M	Annual average power (kWh of electricity) used to pump each cubic metre of water	2023: TBD 2022: 0.4 2021: 0.33 2020: 0.37 2019: 0.34	Water NZ National Performance Review 2021/22: 0 2015/16: 3.37	≤ 0.35	≤ 0.35	≤ 0.35	≤ 0.35	Total power used from all water supply pump stations divided by total volume of water pumped	A green, liveable city
12.0.5	M	Number of infringement notices for major or persistent breaches of resource consents regarding the operation of the water supply network, as	2023: TBD 2022: 0 2021: 0 2020: 0 2019: 0	Wellington Water: 0	0	0	0	0	<div>Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.</div>	A green, liveable city

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
		reported by ECan or Council								
12.0.9 (possible change/deletion?)	M	Total volume of water abstracted for urban water supplies in millions of cubic metres per year Check with Veronica - having a target might be part of our consent requirements. Arguably not a level of service - an internal performance figure	2023: TBD 2022: 52.6 2021: 56.49 2020: 56.0 2019: 52.02	Christchurch specific measure, no benchmarks available. 2021/22: 58.8x	≤ 55	≤ 55	≤ 55	≤ 55	Total volume of water abstracted from resource consent compliance reports to ECan.	A green, liveable city
12.0.7	C	Average consumption of drinking water in litres per resident per day	2023: TBD 2022: 278 2021: 398 2020: 229 2019: 209	Water NZ National Performance Review 2021/22: 611 2018/19: 294 2017/18: 314 2016/17: 292	≤ 210	TBC	TBC	≤ 180	Total volume of water abstracted minus the leakage from the public network divided by the total population served by Council's water supply networks Department of Internal Affairs, Water Supply non-financial	A green, liveable city

Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
									performance measure 5	
12.0.6	C	Percentage of real water loss from Council's water supply reticulated network	2023: TBD 2022: 25.5% 2021: 23.5% 2020: 20.2% 2019: 23.0%	Water NZ National Performance Review 2021/22: 22% 2015/16: 24%	≤ 25%	TBC	TBC	≤ 26% (24?) Budget says we going higher	Calculated from night time flow measurement and total water abstraction. Department of Internal Affairs, Water Supply non-financial performance measure 2 At CCC we are not measuring real water loss (not able to), we are assuming private loss at a certain level (not measured)	A green, liveable city
12.0.6.2	M	Average Infrastructure Leakage Index (ILI) for all Council water loss zones.	2023: TBD 2022: 4.12 2021: No data found 2020: No data available 2019: 3.73	Water NZ National Performance Review 2021/22: 4.1 2018/19: 3.125	≤ 3.28	TBC	TBC	≤ 3.35 Budget says we going higher	Infrastructure Leakage Index = Real losses (L/connection/day)/ Unavoidable real losses	A green, liveable city

Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
									(L/connection/day).	
12.0.10	M	Peak day demand of drinking water in L per connection per day	2023: TBD 2022: 1,275 2021: No data found 2020: 1,617 2019: 1,402	None found.	≤ 1400	TBC	TBC	≤ 1000	Total volume of water abstracted from the public network on the peak day divided by the total number of properties served by Council's water supply networks	A green, liveable city
12.0.11	M	Peak hour demand of drinking water in L per connection per hour	2023: TBD 2022: 74 2021: No data found 2020: 103 2019: 96	None found.	≤ 95	TBC	TBC	≤ 85	Total volume of water abstracted from the public network on the peak hour divided by the total number of properties served by Council's water supply networks	A green, liveable city
12.0.15	M	10 year rolling historic ratio of renewals to depreciation	2023: TBD 2022: 55.3% 2021: No data found New Metric 2019: 32.6%	IPWEA Asset management financial indicator: 100%	≥70%	TBC	TBC	≥85%	Historic 10 year average renewals expenditure / Historic 10 year average depreciation	A green, liveable city

Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 10 2033/34		
12.0.16 (Delete?)	M	Increase Water Supply Asset Management Maturity towards agreed, appropriate level (Advanced 93)	2023: TBD 2022: 82 2021: No data found 2020: 82 2019: 76	NZ Treasury Investor Confidence Rating (ICR) Asset Management Maturity Assessment (AMMA) Tool	82	TBC	TBC	93	Conduct assessment on alternate years Asset Management Maturity assessment (AMMA) to be conducted every two years by an external assessor until appropriate level of maturity target is achieved.	

Note: All Water Services Entities are expected to go live between 1 July 2024 and 1 July 2026. LOS targets may not be applicable beyond year 2 of this plan.

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A.3. Levels of Service changes from Long-term Plan 2021-31, and why

Deletions

Activity / Level of Service	Change from 2021-31 LTP	Reason/Rationale	Options for Consultation
LoS 12.0.9 - Total volume of water abstracted for urban water supplies in millions of cubic metres per year (M) Target: ≤ 55	Delete Level of Service	Having a target might be part of our consent requirements. Arguably not a level of service - an internal performance figure. TBC	
LoS 12.0.16 - Increase Water Supply Asset Management Maturity towards agreed, appropriate level (Advanced 93) (M) Target: 93	Delete Level of Service	TBC	

New

Activity / Level of Service	Change from 2021-31 LTP	Reason/Rationale	Options for Consultation
LoS # - Residual Disinfection? Target:	New Level of Service	Describe reason	Standard Consultation with LTP 2024-34 or anything more complex?
LoS # - Carbon LoS? Target:	New Level of Service		

Amendments

Activity / Level of Service	Change from 2021-31 LTP	Reason/Rationale	Options for Consultation
LoS 12.0.2.21 - Proportion of microbiological drinking water samples collected and analysed by an IANZ	Change the name to Taumata Arowai. Intention is kept the same.	Taumata Arowai	

accredited and Ministry of Health registered laboratory (M)			
Target: 100%			
LoS 12.0.1.7 - Number of continuity of supply complaints per 1,000 properties served per year (M)	Need clarity about how measured - and information sources	Currently this is picking up every phone call logged as a complaint	
Target: ≤ 2.0			
LoS 12.0.1.8 - Number of pressure or flow complaints per 1,000 connections per year (M)	Need clarity about how measured - and information sources	Currently this is picking up every phone call logged as a complaint	
Target: ≤ 2.0			
LoS 12.0.6 - Percentage of real water loss from Council's water supply reticulated network	Amend target to be 24 or 26%? Can we also show volume as well?	At CCC we are not measuring real water loss (not able to), we are assuming private loss at a certain level (not measured)	Please note that this only needs to be for yr 1 and yr 2 for now.
Target: $\leq 26\%$ or 24% (TBC)??			

B. Appendix B: Possible issues impacting the Activity & the mitigations planned

B.1. Changing customer needs

Population / Demographic Changes (high impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans/actions
Population growth	389,300 in 2022	<ul style="list-style-type: none"> Council's city wide water master plan is based on a population projection of 500,000 in 2068. The Water Supply activity is currently using the latest available growth model (2021). The updated growth forecast is unknown and not specifically planned for 	<ul style="list-style-type: none"> Network upgrades and new pump stations required to accommodate growth 	<ul style="list-style-type: none"> Fund WS network upgrades and new pump stations as aligned to the growth projection Incorporate updated growth projections and modelling into planned water supply works
Population growth (general and in specific areas)		<ul style="list-style-type: none"> Change in population intensity in parts of the network Change in demand density in parts of the network 	<ul style="list-style-type: none"> Capacity issues 	<ul style="list-style-type: none"> Demand management (that reduces the need for new infrastructure) – e.g. continued water use charging New infrastructure to increase capacity Upgrade existing infrastructure to increase capacity
Shifts within city (e.g., growing communities, possible future managed retreat)		<ul style="list-style-type: none"> It is considered that changes will be seen in the number and location of growth as a result of Plan Change 14 (Housing and Business Choice Plan Change) and concurrent spatial planning activities; 	<ul style="list-style-type: none"> Growth may exceed the capacity of infrastructure at a localised level and can lead to reduced levels of service; The WS Master Plan on which this Activity Plan is based may not provide adequately for the 	<ul style="list-style-type: none"> Water master planning to be reviewed and updated with population growth changes Waiting on Central Government decisions legislation around managed retreat. Then developing and

		<ul style="list-style-type: none"> It is as yet uncertain what the quantum and rate of intensification will be across the City Unknown extent of possible managed retreat, but some policy, actions and directives are inevitable for coastal areas 	<p>upgrades that may be needed to accommodate growth</p> <ul style="list-style-type: none"> Unfeasible to service some areas 	following policy on managed retreat
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Equity and access (low impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Incomes/discretionary income	In 2019, the city's median equivalised household income was \$62,300	<ul style="list-style-type: none"> Rising cost of living putting pressure on rates increases 	<ul style="list-style-type: none"> Reduction in levels of service if required funding is not in place 	<ul style="list-style-type: none"> Front foot public debate and engage with customers regarding the value of water supply services
Growing gap rich and poor	The bottom 20% of households had a median income of \$32,300. The top 20% of households had a median income of \$105,700.	<ul style="list-style-type: none"> Household charges subject to change with new legislation 	<ul style="list-style-type: none"> Change in funding model and perception will bear differently on different customers 	<ul style="list-style-type: none"> Any changes in charging mechanisms will be led by new legislation and water service Entity

Identity and social cohesion (low impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Sense of place and community		<ul style="list-style-type: none"> Worse (or better) customer satisfaction with drinking water supply Adverse community views on chlorine disinfection Adverse community views on fluoridation (if required) 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Engage with customers regarding regulation and impacts on the Christchurch drinking water supply

Rising crime, rallies, protests (safety)		<ul style="list-style-type: none"> Increased vandalism and theft 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Acknowledge need to invest in security features
Safety staff and public		<ul style="list-style-type: none"> Increased risk for frontline staff and contractors 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Acknowledge need to invest in training and staff safety protocols Budget for additional operational costs

B.2. Tiriti Partnerships (medium impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Mana whenua cultural awareness		<ul style="list-style-type: none"> Increased engagement and collaboration with mana whenua 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Review and update the 3W Strategy Implementation Plan with mana whenua
Te mana o te wai		<ul style="list-style-type: none"> Changes required to give effect to Te mana o te wai 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Review and update 3W Strategy Implementation Plan with respect to Te mana o te wai Increased level of engagement and planning on individual project levels
		<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none">

B.3. Technological growth (high impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Changing technology		<ul style="list-style-type: none"> Better monitoring data New methods of data collection More digital solutions 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Smart Water Network - improved operations, asset management, planning, safety, value) Smart customer water meters
Digital security		<ul style="list-style-type: none"> More water supply data available and administered by Council 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Maintain separate operations communication network

		<ul style="list-style-type: none"> More sophisticated hacking and cyber-attack technology and techniques 		
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B.4. Resilience and environmental considerations

Climate change & adaptation (medium impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Key climate impact #1		<ul style="list-style-type: none"> Refer to Section 2.3 for detail. 	•	•
Sea Level Rise		<ul style="list-style-type: none"> Limitations in asset life due to corrosion from salt water intrusion for coastal infrastructure More frequent, more extensive coastal inundation, contributing to service limitations and potentially health consequences Potential increased need for pumping and associated energy costs due to need to retreat from coastal areas Saltwater intrusion to water sources, causing more treatment requirements, noted as minor risk as work has been completed regarding security of bores 	•	**Refer table above (Section 2.3)
Rainfall and Flooding Related		<ul style="list-style-type: none"> Higher groundwater levels, making repairs difficult and requiring dewatering Increased sediment, organic carbon, and nutrients due to flooding and event intensity On-site flooding and damage to treatment plants during storm events – additional effect on staffing transport and supply of chemicals to plants Changes in rainfall intensity and seasonality may mean reduced water 	•	

		availability, especially on Banks Peninsula <ul style="list-style-type: none"> • Heath risks from contamination during flood events 		
Heat, Drought, Fire Related		<ul style="list-style-type: none"> • Higher water losses from vegetation absorption and evaporation due to higher temperatures • Potential reduced recharge of groundwater supply due to less surface runoff and snowmelt • More frequent drought which may impact water source availability • Increased peak water demand from customers due to prolonged dry periods • Higher concentration of contaminants and pathogens in source water due to increased temperatures • Increased firefighting demands and usage due to increased fire risk 	•	
Other		<ul style="list-style-type: none"> • Scarcity of water may lead to consideration of other technologies such as wastewater reuse • Increased requests for additional connections from non-connected properties due to inability to no longer self-sustain supply • Population growth from areas which are affected by climate related displacement requires additional service measures • Human health risks from climate change including waterborne disease • Increased building intensification and land-use changes could increase demand • Increased demand from non-residential development 	•	
Population movement due to managed retreat and adaptation		<ul style="list-style-type: none"> • Yet to be advised 	<ul style="list-style-type: none"> • Changes in demand 	•

			<ul style="list-style-type: none"> Water infrastructure in coastal environments may need to be relocated 	
Increasing numbers of extreme weather events change utilisation of physical and digital assets		<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none">
Increased community expectations of information and engagement		<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none">

Sustainable development (medium impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Managing GHG emissions (per table above)		<p>Key sources of greenhouse gas emissions from this activity includes:</p> <ul style="list-style-type: none"> Electricity usage for activities such as pumping Construction of new infrastructure or renewal of existing infrastructure Travel associated with operations and maintenance activities 	<ul style="list-style-type: none"> 	<p>Water Supply are taking the following actions to reduce greenhouse gas emissions:</p> <p>**Refer table above (Section 2.3)</p>
Ethical markets & procurement		<ul style="list-style-type: none"> Change in political and cultural expectations about how procurement happens (local and mana whenua suppliers) 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Use indicator score for measuring local supply chain including community benefits 3 Waters reform will likely prompt change that comes with new Entity, water regulator, and economic regulator

Resilience & risk		<ul style="list-style-type: none"> Increased expectation for climate resilient to be built into infrastructure solutions 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Develop 3 waters climate change resilience framework
Natural hazards		<ul style="list-style-type: none"> Flood, earthquake, tsunami, and fire risk continue to be planned for – with an increasing hazard impact exacerbated by climate change Increasing design and planning parameters to further include climate change predictions 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Maintain natural hazard risk and resilience framework, and incorporate 3 waters climate change resilience framework
Triple bottom line		<ul style="list-style-type: none"> Increased expectation for financial, social and environmental bottom line reporting 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Continue to incorporate triple bottom line analysis and reporting at a strategic planning level

B.5. Infrastructure (high impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Delivering on what we say and looking after what we've got		<ul style="list-style-type: none"> Increased labour shortages Rising costs Increases in operations and maintenance, and renewals due to ageing asset base 	<ul style="list-style-type: none"> Reductions in levels of services 	<ul style="list-style-type: none"> Increase budgets Improve employee value proposition Streamline processes to deliver maintenance and renewal
Resilience to impacts of climate change		<ul style="list-style-type: none"> Increases in water use Uncertain scenarios around coast area servicing and/or retreat. Waiting for policy direction Unknown extent of climate change impacts but future policy, actions and directives are inevitable 	<ul style="list-style-type: none"> Infrastructure capacity issues Unfeasible to service some areas 	<ul style="list-style-type: none"> Demand management (that reduces the need for new infrastructure) Waiting on Central Government direction. Then developing and following policy on managed retreat

Planning and investing for growth		<ul style="list-style-type: none"> Population increase Population intensification in parts of the network 	<ul style="list-style-type: none"> Infrastructure capacity issues 	<ul style="list-style-type: none"> Demand management that reduce the need for new infrastructure) Water loss reduction programme New infrastructure to increase capacity Upgrade existing infrastructure to increase capacity
Understanding and maintaining the condition of our infrastructure	We have good condition information and a robust forward planning process	<ul style="list-style-type: none"> Deterioration of network condition Increased percentage of pipes with a condition grade of 4 or 5 (poor and very poor) 	<ul style="list-style-type: none"> Increased failures 	<ul style="list-style-type: none"> Prudent budget forecasts Sufficient capital expenditure for renewal Acknowledge the need for specific condition assessment budgets and a dedicated resource

B.6. Regulations & reform (high impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Three Waters reform		<ul style="list-style-type: none"> Organisational change and upheaval with move from Council delivery to new Entity model Increased water supply regulation and standards Requirement for chlorination (and potential fluoridation) 	<ul style="list-style-type: none"> Disruption to services Increased costs of meeting regulation Ongoing/additional chemical treatment required 	<ul style="list-style-type: none"> Change management team Participate with the National Transition Unit Process Prudent budgets and forecasts, with additional budget provisions Make provision for likely additional requirements Engage with customers regarding regulation changes
Resource Management reforms		<ul style="list-style-type: none"> Unknown state 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> To be developed

Future for Local government		<ul style="list-style-type: none">Unknown state	<ul style="list-style-type: none">	<ul style="list-style-type: none">To be developed
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B.7. Identified Business Unit Risks

The main risks to the activity have been discussed in Section 3.XX of the Water Asset Management Plan. Below are some risks that are more general and affect the 3-Waters Business. Risks are recorded and periodically reported to the Executive Leadership Team and the Audit and Risk Management Committee.

Strategic priorities risk is associated with	Risk Description	Assessed Risk Level			Controls / Mitigations	Residual Risk Rating
		Impact	Likelihood	Inherent Risk Level		
<ul style="list-style-type: none"> Manage ratepayers' money wisely, delivering quality core services to the whole community and addressing the issues that are important to our residents. 	<p>Economic Environment on Capital Programme</p> <p>There have been significant financial increases affecting Council due to changes in the current economic environment that started with the onset of the Covid-19 Pandemic.</p> <p>There is a risk of:</p> <ul style="list-style-type: none"> Capital programme forecasts will be underdeveloped requiring additional funding. Inability to source key materials/products. Failure to meet levels of service Inability to meet compliance requirements (CSNDC conditions for water quality) 	Moderate	Highly Likely	7	<ul style="list-style-type: none"> Ensure realistic contingency amounts are included in the project/programme estimates. Ensure that suitable escalation calculations are carried out and used. Ensure projects are carried out in a timely fashion to prevent undue escalation during the design phase of the project. Consider having a stand-alone "escalation" budget that can be called upon to top up projects if needed over the financial year and returned to the general Council funds if not required. 	Medium
<ul style="list-style-type: none"> Manage ratepayers' money wisely, delivering quality core services to 	<p>Three waters reform</p> <p>There is still general uncertainty on the reform process, what staff will be affected, what positions</p>	Moderate	Likely	6	<ul style="list-style-type: none"> More open and transparent information to be provided from staff. Increased involvement of key 3-waters staff with NTU workshops. 	medium

Strategic priorities risk is associated with	Risk Description	Assessed Risk Level			Controls / Mitigations	Residual Risk Rating
		Impact	Likelihood	Inherent Risk Level		
the whole community and addressing the issues that are important to our residents.	<p>will be required in the new entity and how work flows will be managed in the future.</p> <p>There is a risk of:</p> <ul style="list-style-type: none"> Staff well-being and stress levels as the process continues Disengagement of staff. Loss of institutional knowledge if staff leave. Lack of advice from the National Transition Unit (NTU) to give and surety to staff. Continuation of the current process with lack of key 3-waters staff involvement in meetings/workshops led by NTU may lead to staff feeling disconnected with the reform process. 				<ul style="list-style-type: none"> Allow NTU staff to liaise directly with staff rather than the reform team. More staff involvement in the processes of e.g. data provision and high level meetings. 	
<ul style="list-style-type: none"> Be an inclusive and equitable city which puts people at the centre of developing our city and district, 	<p>Staff wellbeing</p> <p>If the level of organisational demands continues to be highly ambiguous and reactive, then staff will feel pressured and have unreasonable workloads.</p> <p>There is a risk of:</p>	Moderate	Highly Likely	7	<ul style="list-style-type: none"> Increased leadership engagement with teams on wellbeing Increased EAP, People and Culture connections Wellbeing activities embedded into day-to-day working culture. Development of unit programme of work to prioritise activities and manage individual workloads. 	Medium

Strategic priorities risk is associated with	Risk Description	Assessed Risk Level			Controls / Mitigations	Residual Risk Rating
		Impact	Likelihood	Inherent Risk Level		
<p>prioritising wellbeing, accessibility and connection.</p> <ul style="list-style-type: none"> • Manage ratepayers' money wisely, delivering quality core services to the whole community and addressing the issues that are important to our residents. 	<ul style="list-style-type: none"> • Staff burnout and related health issues • Absenteeism and productivity impacts <p>Increased recruitment costs if retention impacted</p>				•	
<ul style="list-style-type: none"> • Be an inclusive and equitable city which puts people at the centre of developing our city and district, prioritising wellbeing, accessibility and connection. • Manage ratepayers' 	<p>Recruitment and retention of skilled staff</p> <p>If Council and the activity have a high level of staff turnover, then there is less skilled and experienced staff to deliver the activities.</p> <p>There is a risk of:</p> <ul style="list-style-type: none"> • Staff wellbeing negatively impacted by workload changes. 	Moderate	Likely	6	<ul style="list-style-type: none"> • Increased staff wellbeing programmes • Work with staff on personal development opportunities including internal secondments. • Use exit interviews to identify opportunities for improvement. • Development of leadership opportunities and training • Increase remuneration to closer match the private sector. 	Low

Strategic priorities risk is associated with	Risk Description	Assessed Risk Level			Controls / Mitigations	Residual Risk Rating
		Impact	Likelihood	Inherent Risk Level		
money wisely, delivering quality core services to the whole community and addressing the issues that are important to our residents.	<ul style="list-style-type: none"> Level of service achievement is impacted. <p>Increased cost of external resourcing to achieve schedule requirements</p>					
<ul style="list-style-type: none"> Manage ratepayers' money wisely, delivering quality core services to the whole community and addressing the issues that are important to our residents. 	<p>Asset Management Policy advice and performance</p> <p>If Asset Management advice is not understood and taken into consideration across the organisation, then Elected Members and Community expectations of Council Assets will not be met.</p> <p>There is a risk of;</p> <ul style="list-style-type: none"> Clear asset management priorities will not be embedded at the needed operational level to see the required changes. Decision-making is not informed by evidence-based advice. 	Major	Highly Likely	8	<ul style="list-style-type: none"> Develop a comprehensive communication plan to ensure that Asset Management advice is effectively communicated to all relevant stakeholders, including elected members, staff, and the community. Use clear and concise language to explain Asset Management principles, objectives, and benefits. Avoid jargon and technical terms that may hinder understanding. Foster a collaborative culture by creating forums, workshops, or focus groups where stakeholders can exchange ideas, share experiences, and contribute to Asset Management discussions. Provide training programs and resources to enhance the knowledge and skills of staff members and elected members regarding Asset Management 	High

Strategic priorities risk is associated with	Risk Description	Assessed Risk Level			Controls / Mitigations	Residual Risk Rating
		Impact	Likelihood	Inherent Risk Level		
	<ul style="list-style-type: none">• The necessary investment into asset management will not occur.• Councils Asset management will not align with national legislation or best practice				principles, processes, and decision-making frameworks	