

# Water Services Delivery Plan

September 2025

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# **Key Definitions**

The Council Relating to the wider Christchurch City Council (CCC).

Water Services Delivery department within Christchurch City Council.

supply).

Wastewater network Infrastructure & processes to collect, store, transmit, treat or discharge

wastewater.

Stormwater network Infrastructure & processes to collect, treat, drain, reuse or discharge

stormwater.

Water services delivery plan (WSDP)

This Report – Outline on how water services will be delivered and be

financially sustainable by 30 June 2028. Outcome from Local Water Done

Well.

Years of water services delivery plan

This period refers to the 10 year period from FY2024/2025 to FY2034/2035.

Local Water Done Well New Zealand government reform on delivery of water infrastructure.

Local Government (Water Services) Bill A new regulatory framework requiring councils to provide financially

sustainable, safe and reliable water services.

Local Government (Water Services

Preliminary Arrangements) Act 2024

An act to establish a framework for local government to manage and deliver

water services.

Department of Internal Affairs (DIA) Provide policy advice and administer legislation to supports objectives for

drinking water, wastewater and stormwater services infrastructure.

Commerce Commission The economic regulator for water services under the Governments Local

Water Done Well regime.

Long Term Plan (LTP) The 2024-2034 Long Term Plan, unless another year is noted.

Asset Management Plans (AMP) The 2024-2034 Asset Management Plan, unless another year is noted.

Activity Plans The 2024-2034 Activity Plan LTP, unless another year is noted.

Financial ledger A financial ledger, also called a general ledger, is a record of a business's (or in

this case, Council's) financial transactions. It summarises all the revenue and

expenses of the business, plus the debts owed and assets owned.

# Part A: Statement of financial sustainability, delivery model, implementation plan and assurance

Statement that water services delivery is financially sustainable

# A.1 Financially sustainable water services

Christchurch City Council will continue to deliver water services solely in-house with the projected water services funding and financing sufficient to meet the 'financing sufficiency' requirement by 30 June 2028.

Specifically in the years outlined in the Water Service Delivery Plan:

- Christchurch City Council can afford day to day operations with projected water services revenues exceeding
  operating costs resulting in a growing positive operating surplus ratio and positive operating cash ratio. This
  achievement in the operating surplus ratio is largely due to the Christchurch City Council's strategy to increase
  to 100% rating renewals capital expenditure by 2032. The Council's water services operating cash ratio is
  sufficient to meet the Council's water services investment requirements and meet scheduled debt repayments.
- The proposed level of investment is fully funded by projected revenues and access to financing, to meet the levels of service, regulatory requirements and provide for growth. Council has a large capital programme planned to meet regulatory requirements, level of service and improve the quality of waterways. This ensures a resilient, efficient, and sustainable infrastructure system for Christchurch. The water services asset investment ratio remains positive, demonstrating the capital investment each year in water services infrastructural assets exceeds the annual depreciation.
- The Council's projected water services funding and financing is sufficient to meet the required investment needed. Projected borrowings are within the borrowing limits and maintain sufficient debt headroom to continue the ability to borrow in response to a disaster or unforeseen significant events. Along with rate funded renewals, the Council is in a strong position to finance its proposed capital and renewal works.
- The Council does not require any significant transitional arrangements or changes to achieve financial sustainability. The budgets, revenues and costs (both operational and capital) associated with water services are separately identifiable within the existing financial system structures, additional reporting will need to be undertaken to ensure this information is appropriately accessible to the community.

# Proposed model to deliver financially sustainable water services

# A.2 The proposed model to deliver water services

Christchurch City Council will continue to deliver water services solely in-house. Water supply, wastewater, stormwater and flood protection will be delivered by the dedicated Water Services unit, servicing areas of Christchurch and Banks Peninsula. As part of this Water Service Delivery Plan, the Council is using the opportunity to change the name of its water service unit from Three Waters to the Water Services unit.

# A.2.1 Proposed Model

Operating as an in-house unit, the Water Services unit will continue to deliver high quality service to the community and support integrated infrastructure planning across the wider Council. The Water Services unit will continue to work under the existing council plans, strategies, polices, procedures and bylaws (where appropriate). A full review will be undertaken and where required these will be updated to reflect the new framework.

Christchurch City Councils arrangements to deliver water services in the future allow the Council to implement targeted improvements to ensure the Council meets regulatory compliance and financial sufficiency. Changes to the structure, ownership and contractual arrangements will be implemented to guarantee that the Council continues delivering water services to a high level and ensure financial sufficiency by 30 June 2028.

The rationale for selecting an in-house model is detailed below in Section A.2.2

# A.2.2 Why delivery model was selected

The delivery model was chosen based on a range of criteria, with consideration given to the benefits for both the Council and the community. The Council assessed each model against key criteria: Value to Ratepayers, Regulatory Compliance, Financial Agility, Service Delivery and Operations, Governance and Control, Community Expectations and Engagement, and Implementation Feasibility.

An Indicative Business Case was completed to evaluate the potential models for the delivery of water services in Christchurch. The models evaluated in detail were:

- An in-house delivery model
- A Three Waters Water Services Council Controlled Organisation (WSCCO), and
- A Two Waters Water Services Council Controlled Organisation (WSCCO)

The purpose of the assessment was to identify a proposed model for public consultation, along with alternative options, to ensure informed decision-making and alignment with Christchurch's strategic priorities and community needs.

The analysis showed that while all three models could meet the Government's financial and regulatory requirements, the In-House Delivery Model scored highest overall, primarily due to its operational stability, lower transition risks, and close alignment with Council's existing systems and strategic direction. The three models outlined above were consulted upon with the community, with the In-House Delivery Model as the proposal.

Public consultation was undertaken from 7 March to 6 April 2025, followed by hearings on 15 April 2025. In accordance with the *Local Government (Water Services Preliminary Arrangements) Act 2024*, the Council adopted the alternative consultation procedure.

The majority of submitters (80%, 487/612) supported the Council's proposal of an In-House Delivery Model. Submitters provided a range of feedback but generally indicated that this model best addressed concerns about governance and control of water services and assets. Many emphasised the value they place on the ability to have a say in how water services are managed, stating that an in-house model enables stronger community involvement and accountability through elected representatives.

The Council adopted the in-house model to be included in this plan:

- It scored the highest across the business case evaluation framework, particularly in areas such as governance
  and control, community expectations, value to ratepayers, and implementation feasibility. It also
  demonstrated strong performance in financial sustainability and regulatory compliance, confirming its ability
  to meet the requirements of the Local Water Done Well framework without introducing unnecessary
  complexity or risk.
- The public consultation demonstrated overwhelming support for keeping water services in-house, with 80% of submitters identifying it as their preferred option. This is a significant majority, with submitters consistently referencing the importance of maintaining elected member accountability, avoiding the costs of structural change, and ensuring alignment with local values and priorities.
- The model aligns with Christchurch's existing approach to water service delivery. It builds on well-established operational systems, governance structures, and relationships both within the Council and with the community. It maintains integration with other Council activities such as land use planning, flood management, parks, and transport, which is increasingly important given the interdependencies between stormwater, climate resilience, and urban development.
- The in-house model does not offer the same borrowing capacity (capped at 280% of revenue) compared to a
  WSCCO (capped at 500% of revenue), the Council is currently in a strong financial position, and modelling
  indicates this borrowing headroom is sufficient to meet forecast investment needs. The model avoids the
  initial establishment and transition costs associated with setting up a new legal entity, which would otherwise
  place additional pressure on operating and capital budgets.
- The Council retains full flexibility to adjust its in-house approach to water service delivery over time as community needs, financial conditions, or regulatory settings evolve. This includes the ability to refine internal governance and delivery structures, explore shared services or partnerships, and adapt resourcing or operational models without requiring major structural change. The Council also maintains direct control over pricing and investment decisions, ensuring that water services can continue to reflect local priorities and respond to emerging challenges.
- Adopting the in-house model does not preclude the Council from considering a WSCCO or other more
  significant structural changes in the future. Once the water services delivery plan is in place and the national
  regulatory and funding environment has stabilised, the Council will be better positioned to assess alternative
  models with greater clarity. This approach avoids the risks of premature or unnecessary structural change in
  a volatile setting, while preserving the ability to make considered, evidence-based decisions at the
  appropriate time.

The in-house Water Services unit provides the following key benefits:

- Retains Council governance, and operational responsibility for all water services, water supply, wastewater, stormwater and flood protection. It maintains integration with other council services and leverages existing systems, processes, and relationships.
- Maintains direct accountability to the community through elected representatives.
- Utilises existing council systems, minimising transition risks and administrative disruption.
- Avoids significant establishment and transaction costs associated with setting up a new legal entity.
- Retains full flexibility to adjust its approach to water services delivery over time as community needs, financial conditions, or regulatory settings evolve.
- Maintains flexibility over funding tools and pricing structures (e.g. the Council can choose to continue with targeted rates or transition to alternative non-rates-based method of charging).
- Strong alignment with community expectations based on consultation feedback.

# A.2.3 Treaty Relationships

The Council's engagement and relationships with Māori are founded on te Tiriti o Waitangi as well as subsequent legislation such as the *Local Government Act 2002*, the *Resource Management Act 1991* and *Te Rūnanga o Ngāi Tahu Claims Settlement Act 1998*.

We recognise the takiwā of Ngāi Tūāhuriri Rūnanga, Te Hapū o Ngāti Wheke, Te Rūnanga o Koukourārata, Ōnuku Rūnanga, Wairewa Rūnanga, and Te Taumutu Rūnanga within our district. Since 2015, the relationship anchored by the Te Hononga Council – Papatipu Rūnanga Committee ensures both governance and ongoing kōrero between the Council and the rūnanga.

The Council's partnership with Ngā Papatipu Rūnanga ensures that the views and values of Māori are considered across all activities as the Council make decisions about the city, its resources and the environment. Land, water (all forms) and the natural environment are of significant cultural value for Māori and are mutual areas of interest for manawhenua and the Council.

In light of this, staff consider there is a need to strengthen partnership approaches and support more collaborative implementation of the water services delivery plan. The flexibility offered by the in-house Water Services unit allows for continuous improvement, and there is scope to work alongside Mana Whenua to embed inclusive governance practices, reflect mātauranga Māori where appropriate, and ensure locally responsive water management. As implementation progresses, staff recommend that ongoing engagement supports shared problem-solving and helps build enduring relationships that improve outcomes for water, people, and place. Staff will consult with Mana Whenua on the future governance for the Council water services.

# A.2.4 Water Services unit structure

As it currently functions, the Water Services unit will continue to operate as part of the Council, looking after water supply, wastewater, stormwater and flood protection. The Water Services unit will continue to manage both water take and water discharge as well as the treatment of drinking water and wastewater. Flood protection and stormwater will continue to be managed and delivered by the in-house Water Services unit however flood protection will not be financially ringfenced.

To comply with the regulatory requirements, water supply, wastewater and stormwater, excluding flood protection, will be financially ringfenced from other Council activities by ensuring all water services transactions are recorded as separately identifiable within the Council's cost and budget ledger, ensuring each water service can be independently reported, and revenues and budgets associated with water services can only be applied to the related water service.

To comply with regulatory requirements the unit will be financially ringfenced from other Council activities as outlined in Section A.2.5 and in further detail in Section C.1.2.

Refer to Figure 1 below for the proposed functional structure for the Water Services unit.

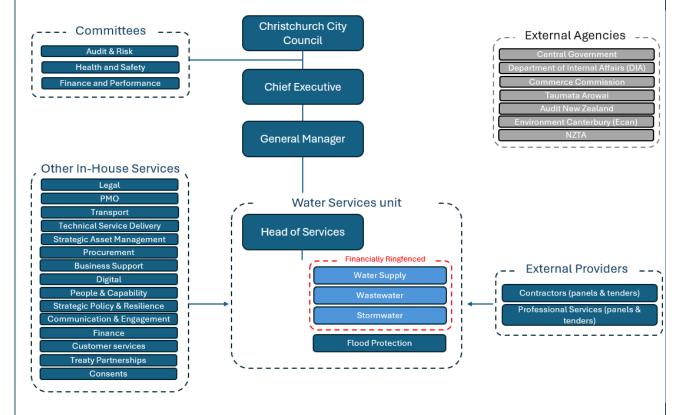


Figure 1 – Functional structure for delivery of water services within Christchurch City Council

# Governance

Governance for the Water Services unit will be through the existing council governance structure. A review will be undertaken in the second quarter of 2026 to consider whether any changes to the governance arrangements are required to be implemented by the *Local Government (Water Services) Bill* or other reforms. Staff will report to the Council with a recommendation for the future governance of water services.

# **Operating Structure**

There are currently 209 FTE's (Full-Time Equivalent) staff in the current Water Services unit. Work is currently being undertaken to develop a comprehensive Water Services Operating Model. The Water Services unit operating model is how Christchurch City Council supports strategic planning, delivery prioritisation and investment decisions for water services. The Council's water services infrastructure has grown rapidly, and so have the complexity, risks and coordination challenges. The intent of the operating model is that it will give everyone clarity from frontline to leadership; about roles, processes and decision making. At its core, it connects key areas such as planning, asset management, operations and maintenance, service delivery, and continuous improvement with the resources and governance needed to support them. This approach enables the Council to lay the foundation to make informed decisions, ensure continual compliance with regulatory requirements and build future resilience.

Following completion of the operating model, the Water Services unit organisation chart will be assessed alongside the requirements set out in the *Local Government (Water Services) Bill*. If there are proposed changes to the existing structure, a business case and change proposal will be developed.

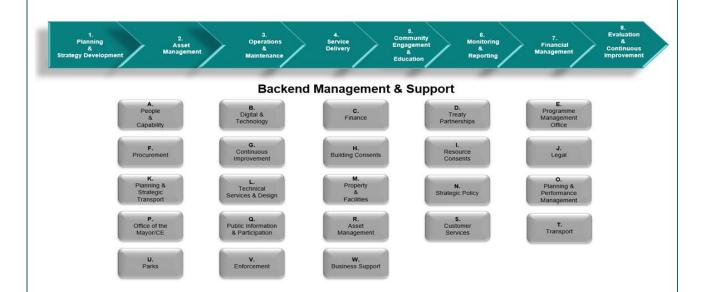


Figure 2 - Operating model

The model shown in Figure 2 above, applies a structured process to every part of the water services value chain outlining Level 1 of the Business Process Taxonomy Framework showing how we plan, deliver, manage and improve our services. The Council has gone further, creating a level of detail down to Levels 2 and 3. This degree of detail describes the individual tasks under each of these processes along with the responsibility and roles that the supporting departments are required to uphold as per the agreement with each supporting department. This includes confirming the Relationship Agreements with each of the various supporting departments to ensure there is no gaps between expected and available support. This model applies a structured process taxonomy to map every part of the water services value chain – from planning and operations to performance and improvement. By implementing this operating model, it provides the Council and the Water Services unit with the following:

- Transparency clear visibility on how the Water Services unit operates from end to end.
- Alignment improved coordination between functions ensuring the Council meet consumer expectations.
- Regulatory assurance compliance with all regulatory requirements and providing safe drinking water.
- Investment confidence delivery of services in a cost-effective and financially sustainable manner.
- Performance insight adoption of best practice, Level of Service tracking, continuous feedback, benchmarking & reporting.

Through the process, if any service gaps or changes are required, business cases will be developed and funding incorporated into the Water Services Strategy, with implementation scheduled for post FY2028.

# Relationship agreements (Service level agreements)

Part of implementing this operating model involves re-evaluating the expected support required from other business lines within the Council. In the past this has occurred as part of business as usual, where support teams have supported when needed. To improve the efficiency, transparency, and cost-effectiveness of delivering water services the Council will implement Service Level Agreements (SLAs) to formalise the level of service the Water Services unit requires from each of the support business lines. These agreements have been completed for Digital, Finance, Programme Management, Procurement, Legal, Property & Facilities, Strategic Policy, Communications, Customer Service and Technical Services and Design while agreements with Transport and Parks are still in development. An agreement to use existing overhead allocations is in place for the initial period but further work is required to assess how the pricing model should better align with the deliverables and SLAs to ensure transparent allocation of funds transferred from the Water Services unit.

# A.2.5 Financial model arrangements

# Revenue collection

The Council will continue to create the majority of its revenue from council rates as well as contributions from development fees. The Council has two different rate charges, general and targeted rates, which it passes onto the consumer. General rates are based on capital value of the property and is mostly used to manage council debt repayments. Targeted rates enhance the transparency of the Council's spending and benefit those that have connections to water supply, wastewater and stormwater.

Minor changes will occur to improve clarity for ratepayers about the general rate portion applied to water services, and to more accurately allocate finance costs to water services funded by targeted rates. A strategy already approved by the Council is fully funding water service renewal programmes from rates to 100% of the long run average renewals by 2032. This is key element in achieving a balanced budget and financially delivery water services in a sustainable manner. For further information on revenue collected by the Council refer to Section C.2.2.

# Ringfencing revenues

The revenues generated by the Water Services unit services will be isolated and ringfenced from other council revenues by using cost objects and hierarchies to ensure each water activity is separately identifiable within the Council's cost and budget ledgers, Flood protection however will not be financially ringfenced although will continue to be delivered by the in-house Water Services unit. The implementation of this will occur in a staged approach, ensuring correct frameworks and financial systems are set up. This will ensure water services revenues are tracked and consolidated or separated as required for both, budget, forecast and renewals. For further information refer to Section C.1.2. Christchurch City Council already separates water services through its activity statements, however moving forward, the Council will ensure the separation is more easily accessible within the Council's reporting to enable ease of governance and management review. This will ensure that revenues, costs, overheads and surplus's generated for or by water services are only applied to water services.

# A.2.6 Working with other Councils

Christchurch City Council engages with other councils through informal and formal channels. Existing formal channels include:

- Canterbury Drinking Water Reference Group
- Canterbury Wastewater Working Group
- Canterbury Stormwater Forum
- MoU between Christchurch City Council and Dunedin City Council Investigation into shared services

Christchurch City Council is committed to working with other councils when opportunities arise.

# Implementation plan

# A.3 Implementing the proposed service delivery model

As part of Christchurch City Council decision to continue delivery water services under an in-house model, the Council commits to implement various actions to ensure its delivery of water services will be financially sustainable by 30 June 2028. Below outlines the process in which the Council will undertake and deliver these arrangements moving forward.

# A.3.1 Delivering the water services delivery plan

By continuing the delivering of its water services in-house, which minimises the disruption for teams and ensures that the Council can continue to meet the expectations of the community. The Council acknowledges that while past performance is valuable for learning, it is crucial to focus on the changes required to enhance delivery processes and comply with the current and future regulatory requirements, namely: the anticipated *Local Government (Water Services) Bill.* This will allow Council to sustainably plan for the projected growth expected whilst continually meeting the level of service the community expects. An implementation plan in Section A.3.3 below, outlines the tasks that the Council considers necessary to improve the Water Services unit during the years of the water service delivery plan.

Whilst undertaking the implementation plan, the Council will monitor aspects such as:

- Review and refine Service Level Agreements, reporting and invoicing systems where required.
- Monitor the Water Services unit financial sufficiency requirements.
- Produce and publish standalone financial statements annually to ensure compliance.
- Maintain ongoing compliance with economic and environmental regulations.
- Conduct regular service performance and 'fit for purpose' reviews of the Water Services unit.

The Council will utilise in-house resources to undertake many of these tasks, with external support where necessary. The Council is committed to executing these tasks within the implementation plan, although the Council is conscious that additional requirements may emerge as the implementation plan progresses, which will be addressed accordingly.

# A.3.2 Improving delivery and measuring unit performance

Part of the implementation plan includes the development of three plans aimed at driving performance improvements and ensuring council compliance with both current and future regulatory requirements, along with the objectives of the Local Water Done Well reform. These include:

- Capital Delivery and Asset Management Improvement Plan
- Operating Cost Improvement Plan
- Maintenance Strategy

# Capital Delivery and Asset Management Improvement Plan

A capital delivery and asset management improvement plan for the Water Services unit will strengthen the way it will plan, manage, and deliver essential water infrastructure. This improvement initiative aims to address key challenges such as increasing regulatory expectations, climate change impacts, ageing assets, and the need for greater efficiency and transparency in investment decisions. By enhancing our processes, systems, and capabilities across both asset management and capital delivery functions, the Water Services unit will be better positioned to prioritise the right investments, optimise whole-of-life asset performance, and deliver infrastructure projects more effectively. This integrated improvement plan is critical to ensuring long-term service reliability, affordability, and environmental sustainability for the people of Christchurch and Banks Peninsula.

### Operating cost improvement plan

The purpose of the Operating Cost Improvement Plan for the Water Services unit is to drive greater cost efficiency and ensure the long-term affordability of water services for the community. This plan will identify and implement targeted initiatives to improve operational performance, reduce unnecessary expenditure, and optimise resource allocation across water supply, wastewater, and stormwater services. As part of this approach, we will benchmark our performance against comparable councils and industry standards to ensure we are delivering value for money. Key metrics such as cost per connection, energy use per cubic meter, reactive versus planned maintenance ratios, and service response times will be used to track progress and guide continuous improvement. This work is essential to maintaining high levels of service while managing increasing cost pressures and meeting regulatory and environmental expectations.

### Water Services unit maintenance strategy

Development of a Maintenance Strategy for water services will ensure the effective, efficient, and sustainable management of our water supply, wastewater, and stormwater assets. With a large and diverse network of ageing infrastructure, a well-defined maintenance strategy is essential to proactively manage asset condition, reduce the risk of service failures, and extend asset life. This strategy will establish clear frameworks for planned, reactive, and preventative maintenance activities, ensuring the right work is done at the right time and in the most cost-effective way. It will also support compliance with regulatory standards, improve health and safety outcomes, and provide better transparency and accountability in maintenance decision-making. Ultimately, the strategy will enable us to deliver reliable services to the community while optimising operational expenditure and preserving infrastructure performance for future generations.

# A.3.3 Implementation Plan

To implement the proposed model and the Water Services Delivery Plan the tasks listed in the table below will be actioned

Table 1 - Implementation Plan

| No. | Task  | Milestone Date |
|-----|---|----------------|
| 1   | Receive and implement any feedback from DIA/Commerce Commission on the Delivery Plan  | Q4 2025        |
| 2   | Assessment of shared services opportunities with Dunedin City Council – Phase 2 (Report to Council)   | Q4 2025        |
| 3   | Complete Water Services Operational Model – identify service gaps or changes required, if changes are required develop business case to implement changes | Q2 2026        |
| 4   | Review Governance of the Water Services unit  | Q2 2026        |
| 5   | Financial separation of water services - ringfencing  | Q2 2026        |
| 6   | Capital delivery and asset management improvement plan  | Q4 2026        |
| 7   | Asset data base review and update   | Q4 2026        |
| 8   | Finalise Service Level Agreements and strategy for allocating internal costs for services   | Q4 2026        |
| 9   | Maintenance strategy  | Q1 2027        |
| 10  | Adoption of Water Services strategy   | Q2 2027        |
| 11  | Operating Cost Improvement Plan   | Q3 2027        |
| 12  | Implementation of operational and governance changes (if any)   | Q2 2028        |
| 13  | Implementation of other changes required under the Local Government (Water services) Bill   | As required    |

# Implementation of changes required under the anticipated Local Government (Water Services) Bill

As part of our commitment to delivering safe, reliable, and resilient water services, staff are preparing for the transition to operating under the new regulatory framework established by the *Local Government (Water Services) Bill* and associated legislation.

The Council will ensure operations, planning, and governance structures align with the enduring settings outlined in the new legislation, including economic regulation, consumer protection, and environmental performance standards.

Teams are undertaking detailed assessments of what we need to do differently (i.e. how we access private property to maintain assets), preparing for new reporting requirements, and reviewing of bylaws and plans as specified in the anticipated legislation. Operational readiness, compliance and alignment are key guiding principles as we transition to operating under the new framework. Further information on how the Council will meet compliance is outlined further in Section B.4.

The Council considers this transition as an opportunity to strengthen our water services and deliver long-term value to our communities. The goal is to ensure continuity of service while embracing the reforms that will shape the future of water services management in New Zealand.

# **Consultation and engagement**

# A.4 Consultation and engagement undertaken

In accordance with *The Local Government (Water Services Preliminary Arrangements) Act 2024* and *Local Government Act 2002*, the Council carried out consultation on its proposed water services delivery model. It has not consulted the community on its water services delivery plan. However, aspects that underpin the information that forms parts of this plan, where indicated, were based on information from the Long Term Plan, which was consulted on prior to its adoption.

# A.4.1 Consultation carried out on the proposed water services delivery model

On 19 February 2025, the Council resolved to rely on the alternative consultation process provided for under *The Local Government (Water Services Preliminary Arrangements) Act 2024* for its decision-making, and the purpose of consultation.

The Council agreed to consult on the following three delivery models in the public consultation process:

- In-house delivery model.
- Three Waters Council-Controlled Organisation (WSCCO) Model.
- Two Waters Council-Controlled Organisation WSCCO model.

The Council's decision on its proposed in-house model and the other alternative delivery models was of high significance under its Significance and Engagement Policy.

Christchurch City Council developed a plan to ensure that throughout the process, the Council focused on effectively engaging with staff, stakeholders and the public with a clear objective of developing clear and consistent messaging about Local Water Done Well, how it was proposed to be delivered and what it would mean for our target audiences, helping to build trust and drive engagement. This involved all parties including the mayor and councillors, council staff, Mana whenua, community boards, partners and stakeholders and the residents of Christchurch and Banks Peninsula.

The consultation on the Council's proposed water services delivery model started on 7<sup>th</sup> March and ran until 6<sup>th</sup> April 2025. The consultation details shared on the 'Kōrero mai | Let's Talk' webpage were advertised via the following means:

- An email sent to 328 key stakeholders and subscribers to Korero mai on 7 March letting them know consultation was open and a follow up email was sent to 335 key stakeholders and subscribers to Korero mai on 31 March, letting them know there was one week left to make a submission.
- A Newsline article and accompanying social media post published on 7 March which was viewed 7,502 times.
- Follow-up social media posts on 28 March and 4 April, which reached 5,964 and 3,934 people respectively.
- A marketing campaign including digital (Meta, Google Performance Max and Stuff) and print (The Star, The Press, Star Communities and Akaroa Mail).
- Consultation documents and submission forms, available in all council libraries and service centres.

The Council undertook face-to-face consultation sessions with the various rohe to ensure they had an opportunity to contribute to the decision-making process and understand the changes being proposed under the different water delivery models.

# A.4.2 Findings

As a result of these consultation methods, the 'Kōrero mai | Let's Talk' webpage received 13,341 views throughout the consultation period, with 7,869 unique visitors. There were 681 valid responses with 658 of those coming from individuals and 23 coming from organizations.

Of these responses, a total of 612 submitters indicated a preference. Which the majority of submitters (80%) indicated than an in-house delivery model was their preferred option. 69 submitters did not indicate a preference.

Table 2 - Consultation findings

| Option  | Count | %   |
|---|-------|-----|
| The Council's proposal: In-house delivery model                 | 487   | 80% |
| Three Waters Council-Controlled Organisation (Three Waters CCO) | 87    | 14% |
| Two Waters Council-Controlled Organisation (Two Waters CCO)     | 38    | 6%  |

Community values around governance, accountability, and public ownership were prominent. Many submitters indicated a strong preference for retaining direct the Council's direct control over water services, with concerns about governance separation and potential risks of privatisation under a Council-Controlled Organisation model. At the same time, a proportion of submitters expressed support for a specialist water services entity, believing it would provide greater long-term planning stability, operational efficiency, and improved compliance. Views on financial sustainability were mixed, with some favouring the borrowing headroom and focus of a Council-Controlled Organisation, while others preferred the more integrated and cost-stable in-house delivery model approach. There was a recognition of trade-offs across all models, including the costs and risks associated with establishing new governance structures, the importance of aligning with national standards, and the need to maintain community trust and transparency.

Overall, the consultation highlighted a well-informed and engaged community that recognises the complexity of the decision and the trade-offs inherent in each model. While the in-house delivery model received the strongest support, the feedback across all three options provides valuable insight into the outcomes the community expects from any future approach – including transparency, long-term investment certainty, efficient service delivery, and accountability.

# Assurance and adoption of plan

# A.5 Council assurance of the Plan

The Plan has been prepared on the basis of the best available information that is true and correct at the time of certification.

Christchurch City Councils level of confidence in the accuracy of the underlying information included in the plan is included below:

- Regulatory compliance: High level of confidence, reinforced by the Council's quality and compliance water services team working closely with the Water Service Authority/Taumata Arowai to ensure the Council meets current requirements.
- Asset condition: High/Medium level of confidence that the information provided is consistent with current
  asset data and operational knowledge of the assets' condition and performance. As outlined in the plan,
  some areas have been identified where improvements are required due to limitations with certain asset
  data.
- Investment requirements: High level of confidence that the investment outlined in the plan is accurate, aligns with the current available asset condition data, and reflects the need to continue to operate the infrastructure network reliably and cost effectively.
- Financial projections: High level of confidence that the projections reflect the projected level of investment required to manage asset condition, growth and regulatory requirements.

Material risks or constraints that may impact on the delivery of water services, the ability to implement the plan and assumptions adopted in the Water Service Delivery Plan is outlined in Section F.2.

Material risks and constraints to achieving financially sustainable delivery of water services is listed in Section D.3.

An internal assurance review has been undertaken to ensure the accuracy of asset condition data, financial investment requirements, and regulatory compliance requirements and assumptions.

# A.6 Council resolution to adopt the Plan

Christchurch City Council adopted this Water Services Delivery Plan by resolution at the council meeting of 20 August 2025. A copy of the resolution is attached as Part G: Appendix – Council Resolution

# A.7 Certification of the Chief Executive of Christchurch City Council

I certify that this Water Services Delivery Plan:

- complies with the Local Government (Water Services Preliminary Arrangements) Act 2024, and
- the information contained in the Plan is true and accurate.

Signed:

Name: Mary Richardson

Designation: Chief Executive

Council: Christchurch City Council

Date: 22/08/25

# Part B: Network performance

# Investment required in water services

# **B.1** Serviced population

The Council's water services assets include, water supply, wastewater, and stormwater, which currently serve a population of around 400,000 residents. Over the next decade, water services are projected to require steady growth, with the serviced population expected to increase by approximately 5 percent. Water supply and wastewater connections are expected to increase at a similar rate over the next 10 years. Stormwater services are generally associated with geographic coverage and will reflect urban development growth. These projections highlight the increasing demand on the Council's water infrastructure and the importance of strategic planning and investment to ensure sustainable service delivery. The projected growth numbers are shown below in Table 3, Table 4 and Table 5 for water supply, wastewater and stormwater.

Population projections and connections are based upon a standard set of demographic assumptions and urban expansion models. The Council revises its growth modelling annually based on the best information available at the time and projects a long-term projection of 50 years. The base data is sourced from the census data available and is analysed by the monitoring and asset planning teams who run multiple scenarios to understand the level of variance that could occur. The projected populations listed below are considered a low projection to align with the census base date and to reflect what Long Term Plan programmes are based off.

# Table 3 - Water supply projected serviced population

| Projected serviced population     | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Serviced population               | 387,417   | 389,491   | 391,567   | 393,643   | 396,270   | 398,895   | 401,518   | 404,139   | 406,759   | 409,139   |
| Total residential connections     | 154,580   | 155,423   | 156,267   | 157,110   | 157,914   | 158,718   | 159,521   | 160,323   | 161,125   | 161,810   |
| Total non-residential connections | 11,107    | 11,345    | 11,566    | 11,800    | 12,020    | 12,228    | 12,436    | 12,644    | 12,868    | 13,080    |

# Table 4 - Wastewater projected serviced population

| Projected serviced population     | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Serviced population               | 389,182   | 391,256   | 393,330   | 395,406   | 398,030   | 400,650   | 403,268   | 405,883   | 408,495   | 410,869   |
| Total residential connections     | 158,292   | 159,056   | 159,820   | 160,584   | 161,308   | 162,033   | 162,756   | 163,479   | 164,201   | 164,807   |
| Total non-residential connections | 16,797    | 17,138    | 17,452    | 17,779    | 18,090    | 18,380    | 18,671    | 18,962    | 19,278    | 19,574    |

# Table 5 - Stormwater projected serviced population

| Projected serviced population     | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Serviced population               | 404,500   | 408,600   | 412,800   | 417,000   | 419,700   | 422,400   | 425,100   | 427,800   | 430,400   | 432,900   |
| Total residential connections     | N/A       |
| Total non-residential connections | N/A       |

# B.1.1 Areas that receive water services

Under Christchurch City Councils responsibility, are eight schemes for water supply, five schemes for wastewater and seven catchments for stormwater as outlined in Table 6 below. For water supply and wastewater, the Council utilises multiple growth scenarios to manage the number of residential and non-residential connections and the expected future connections to ensure the network is managed correctly. Within the stormwater network, all properties are considered to receive a stormwater service, whether or not there is a direct property connection to a network pipe.

**Table 6 - Water serviced areas** 

(information based in Taumata Arowai regulations)

| Serviced areas (by reticulated network)   | Water supply schemes   | Wastewater<br>schemes   | Stormwater catchments   |
|---|--|---|---|
| Residential areas (If more than one identify separately)  | 8 schemes:  Christchurch, Brooklands/Kainga, Akaroa, Duvauchelle, Little River, Birdlings Flat, Pigeon Bay, (<10 connections) Wainui.  Total connections:  | 5 schemes:  | 7 catchments:  Otūkaikino, Pūharakekenui/Styx, Otākaro/Avon, Opāwaho/Heathcote, Huritini/Halswell, Ihutai/Estuary and coast. Te Pātaka o Rākaihautū/Banks Peninsula |
| Non-residential areas (If more than one identifies separately)  | 154,580 residential connections.  7 schemes:  Christchurch,  Brooklands/Kainga, (< 10 connections)  Akaroa,  Little River,  Birdlings Flat, (< 10 connections)  Pigeon Bay, (< 10 connections)  Wainui. (< 10 connections) | 158,292 residential connections  3 schemes:  Christchurch,  Akaroa,  Duvauchelle (< 10 connections) | N/A   |
| Mixed-Use rural drinking water schemes (where these schemes are not part of the Council's water services network) | 11,107 non-residential connections 0   | 16,797 non-residential connections  0   | 0   |
| Areas that do not receive water services (If more than one identifies separately)                                 | Refer to Section B.1.2   | Refer to Section B.1.2  | Nil   |
| Proposed growth areas Planned (as identified in district plan)  | Refer to Section B.1.3   | Refer to Section B.1.3  | Stormwater servicing is provided by a combination of developer delivered and LTP funded infrastructure.   |

| Infrastructure enabled (as identified and |  |  |
|---|--|--|
| funded in LTP)                            |  |  |

### Note:

The number of drinking water schemes is based on the latest information registered with the Water Services Authority/Taumata Arowai in Hinekorako. The latest wastewater schemes are as reported to the Water Services Authority/Taumata Arowai in the Network Environmental Performance Measures.

# B.1.2 Areas that do not receive water services

Areas that do not receive water services are within the Banks Peninsula where some settlements are small.

Table 7 – Banks Peninsula serviced areas

| Area                    | Population<br>(2018 Census) | Water Supply | Wastewater |
|-------------------------|-----------------------------|--------------|------------|
| Little River & Cooptown | 279                         | YES          | NO         |
| Birdlings Flat          | 198                         | YES          | NO         |
| Takamatua               | 111                         | YES          | NO         |
| Pigeon Bay              | 27                          | YES          | NO         |
| Wainui                  | 77 (18 on WW)               | YES          | Partial    |
| Port Levy               | 35*                         | NO           | NO         |
| Okains Bay              | 40*                         | NO           | NO         |
| Purau                   | 116                         | NO           | NO         |
| Okuti Valley            | 50                          | NO           | NO         |
| Le Bons Beach           | 37                          | NO           | NO         |
| Teddington              | 36                          | NO           | NO         |
| Little Akaloa           | 33                          | NO           | NO         |
| Kukupo                  | 33                          | NO           | NO         |
| Allandale               | 33                          | NO           | NO         |
| Ohinetahi               | 27                          | NO           | NO         |
| Barrys Bay              | 26                          | NO           | NO         |
| Upper Kaituna           | 24                          | NO           | NO         |
| French Farm             | 21                          | NO           | NO         |
| Tikao Bay               | 20                          | NO           | YES        |
| Pile Bay                | 20                          | NO           | NO         |
| Kaituna Huts & Reserve, | 18                          | NO           | NO         |
| Hammond Point           | 13                          | NO           | NO         |
| Le Bons Esplanade       | 11                          | NO           | NO         |
| Camp Bay                | 10                          | NO           | NO         |
| Onuku                   | 7                           | NO           | NO         |

# B.1.3 Infrastructure for population growth

Over the next decade, the Christchurch area is projected to experience steady growth with the serviced population is anticipated to increase by approximately 5 percent, which will increase the demand on the network. As shown in Table 8 below, the additional residential and non-residential connections in the next 10 years are expected to be in excess of 9000 connections.

Table 8 - Total increase of connections

|   | Water Supply | Wastewater | Stormwater |
|---|--------------|------------|------------|
| Total residential & non-residential connections | 9203         | 9292       | N/A        |

The majority of the additional connections are anticipated to be in areas that have been highlighted for future growth from the recent 2024 District Plan. These rural urban fringe zones or greenfield areas have been identified by the Council to be future growth areas and have now been rezoned as new neighbourhood zones. These zones have undertaken high level development plans by the Council to outline the infrastructure and water services required to service the area sufficiently.

These areas identified include:

- East Papanui
- Highfield South
- Belfast West
- Belfast East
- Halswell

The Council maintains city-wide Master Plans for water supply and wastewater, while stormwater and flood protection are managed through a series of Catchment Management Plans. These policies and plans provide strategic direction for the sustainable, efficient, and resilient management of the water services infrastructure across the city. An extensive, ongoing network modelling programme supports this planning of infrastructure investment. This modelling forms the foundation for the budgets outlined in the Long Term Plan and Infrastructure Strategy, supporting long-term service delivery and sustainable growth.

A summary of the expenditure budgeted for growth during the next 10 years is listed in Table 9 below. For further information on the capital expenditure and the significant projects in the programme to meet additional demand, refer to Section B.5.1

**Table 9 - Future Growth** 

|   | Water Supply  | Wastewater   | Stormwater    |
|---|---------------|--------------|---------------|
| Capital Expenditure to meet additional demand | \$115,348,567 | \$51,710,954 | \$136,987,883 |

# B.1.4 Current Levels of Service (LoS) for water assets

To ensure the Council meets growth demands and regulatory compliance, it is paramount to understand where the current Level of Service (LoS) is and the Council's proposed targets to ensure it continues to meet the expectations of the community and regulatory authorities.

The current Levels of Service (LoS) for water services as agreed in the 2024 Long Term Plan Activity Plans is outlined in Table 10, along with targets set for future years and historic performance of previous years.

The key areas for water supply cover water quality, reliability, responsiveness, and sustainability. This plan reflects the Council's commitment to safe, high-quality, reliable, and sustainable water supply services while ensuring customer satisfaction and operational efficiency. Wastewater level of service measures on reliability, responsiveness, public health protection, and discharge quality with the aim to provide reliable, responsive, and environmentally responsible wastewater services while ensuring public health protection and regulatory compliance. Stormwater management aims on minimising the risk of flooding, damage, and disruption to reduce the threat to properties and dwellings during extreme rainfall events.

Table 10 – Past and proposed Levels of Service (LoS) for Water Services Unit.

(Information sourced from 2024 Activity Plans & recent 2025 results)

|  | Water Supply  |           |               |                |                     |   |  |  |
|--|---|-----------|---------------|----------------|---------------------|---|--|--|
| Level of Service statement (What we  | Measures of success (What our   | Р         | erformance Ta | argets/Outputs | ;                   | Method of Measurement   | Historic Performance<br>Trends   | Benchmarks   |
| will provide)  | community can expect)   | FY2025    | FY2026        | 2026/27        | FY2034<br>(Year 10) |   |  |  |
| Council water supplies are safe to drink   |   |           |               |                |                     |   |  |  |
| Council provides water supplies that are safe to drink and compliant with Drinking Water Standards | Water supplied is compliant with<br>the DWQA Rules (Bacteria<br>compliance) (DIA 1a) (12.0.2.9)   | Compliant |               |                |                     | CCC report on compliance with the Drinking water Standards for NZ (DWSNZ) and Drinking Water Quality Assurance Rules (DWQA Rules) from Taumata Arowai  The DWQA Rules primarily impose requirements relating to drinking water supplier duties to: (1) Supply safe drinking water (2) ensure that drinking water complies with the Water Services (Drinking Water Standards for New Zealand) Regulations 2022. Department of internal affairs, Water Supply non-financial performance measure 1b. | 2024 & 2023: Compliance was not met for all supplies. All distribution zones achieved compliance. 2022: Not achieved (The DIA target of 100% was not met. Only 1 of our water distribution zones was noncompliant) 2021: 85.15% - Not achieved 2020:100% 2019:100% | Ministry of<br>Health<br>annual<br>report on<br>drinking<br>water quality<br>2018-2019:<br>95.3% |
|  | Water supplied is compliant with<br>the DWQA Rules (Protozoal<br>compliance) (DIA 1b) (12.0.2.10) |           | Сотр          | oliant         |                     | CCC report on compliance with the<br>Drinking-water Standards for NZ<br>(DWSNZ) and Drinking  | 2024& 2023:<br>Compliance was not<br>met for all supplies.<br>2022: Not achieved   | Ministry of<br>Health<br>annual<br>report on   |

|   |   |  |                 |                  |                 | Water Quality Assurance Rules (DWQA Rules) from Taumata Arowai. The DWQA Rules primarily impose requirements relating to drinking water supplier duties to: (1) Supply safe drinking water (2) ensure that drinking water complies with the Water Services (Drinking Water Standards for New Zealand) Regulations 2022 Department of internal affairs, Water Supply non-financial performance measure 1b. | (The DIA target of 100% was not met as only 2 out of our 15 water treatment plants were compliant. 2021: 0% 2020: 0% 2019: 0% | drinking<br>water quality<br>2018-2019:<br>78.7%                            |
|---|---|--|-----------------|------------------|-----------------|---|---|---|
|   | Proportion of customers connected to water supply zones with an up-to-date Ministry of Health approved Water Safety Plan (12.0.2.1) | 100%  Brown DWQA, the Council has a plan in place which is funded in the |                 |                  |                 | Quality & Compliance team report on water safety plans  | 2024: 100%<br>2023: 100%<br>2022: 100%<br>2021: 100%<br>2020: 100%<br>2019: 100%  | Ministry of Health annual report on drinking water quality 2018-2019: 98.3% |
| proposed level of service re  | quirements. As explained further in Section<br>ments. These will replace any temporary e  | n B.5.1, the Cou   | ncil has implen | nented a large d | capital investn | nent programme to install new permanent el of service expected and the regulatory r   | chlorination equipment and  |   |
| Council provides high quality water that residents are satisfied with | Proportion of residents satisfied with quality of council water supplies (12.0.2.19)  | ≥52%   | ≥54%            | ≥56%             | ≥56%            | Residents Satisfaction Survey   | 2024: 52%<br>2023: 53%<br>2022: 45%<br>2021: 45%  | Dunedin:<br>22/23: 72%<br>(satisfaction                                     |
|   |   |  |                 |                  |                 |   | 2021: 45%<br>2020: 48%<br>2019: 37%   | with quality & pressure)  |

| Council operates water s   | upplies in a reliable manner   |      |                             |  |  |   |
|--|--|------|-----------------------------|--|--|---|
| Council operates water supplies in a reliable manner                                   | Number of unplanned interruptions per 1,000 properties served per year (12.0.1.2)                        | ≤ 41 | ≤ 41 - ≤<br>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.  | 2024: 28.9<br>2023: 9.73<br>2022: 9.75<br>2021: 9.94<br>2020: 38.43<br>2019: 17.72                                       | Watercare:<br>2.56<br>2021/22:<br>2.25  |
|  | Proportion of residents satisfied with reliability of water supplies (12.0.1.13)                         | ≥80% | Between<br>≥ 80% - ≥<br>60% | Residents Satisfaction Survey  | 2024: 84%<br>2023: 79%<br>2022: 77%<br>2021: 75%<br>2020: 72%<br>2019: 81%<br>Not measured prior to<br>2018.             | Water NZ National Performance Review 2021/22: 28.09 2018/19: 7.9              |
| Council operates water s   | upplies in a responsive manner   |      |                             |  |  |   |
| Council staff and contractors respond to customers feedback and quickly resolve issues | Median time (in hours) from<br>notification to attendance of<br>urgent call-out (DIA 3a) (12.0.1.10)     | ≤1   |                             | 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.  Reported in monthly contract reports from the Contractor.  Department of Internal Affairs, Water Supply non-financial performance measure                    | 2024: 30 mins<br>2023: 39 min<br>2022: 1 hr 11 mins<br>2021: 1hr 4mins<br>2020: 41mins<br>2019: 38mins                   | Water NZ National Performance Review 2021/22: 0.39 2018/19: 0.5 2017/18: 0.51 |
|  | Median time (in hours) from<br>notification to resolution of urgent<br>callouts (DIA 3b) (12.0.1.12)     | ≤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.  Department of Internal Affairs, Water Supply non-financial performance measure | 2024: 1 hr 51 mins<br>2023: 2 hrs 48 mins<br>2022: 5 hrs 20 mins<br>2021: 1hr 53mins<br>2020: 2 hrs 21mins<br>2019: 2hrs | Water NZ National Performance Review 2021/22: 4.56 2018/19: 2.4               |
|  | Median time (in hours) from<br>notification to attendance of non-<br>urgent callouts (DIA 3c) (12.0.1.9) | ≤ 72 |                             | 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.  Reported in monthly contract reports from the Contractor.  | 2024: 9hrs<br>2023: 9hrs 13mins<br>2022: 41hrs 19 mins<br>2021: 71hrs<br>2020: 19hrs<br>2019: 4hrs 36mins                | Water NZ National Performance Review 2021/22: 41.19 2018/19: 6.2              |

|   | Median time (in hours) from<br>notification to resolution of non-<br>urgent callouts (DIA 3d) (12.0.1.11) |             | ≥9               | 96    |  | Department of Internal Affairs, Water Supply non-financial performance measure 3a  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.  Department of Internal Affairs, Water Supply non-financial performance measure 3a | 2024: 16hrs 18mins<br>2023: 15hrs 40mins<br>2022: 44 hrs 16 mins<br>2021: 76 hrs 24 mins<br>2020: 21 hrs 7 mins<br>2019: 6 hrs 53 mins | Water NZ<br>National<br>Performance<br>Review<br>2021/22:<br>44.16<br>2018/19:<br>20.2 |
|---|---|-------------|------------------|-------|--|--|--|--|
|   | The proportion of residents satisfied with council responsiveness to water supply problems (12.0.1.14)    | ≥ 65% ≥ 70% |                  | ≥ 70% |  | Residents Satisfaction Survey  | 2024: 64%<br>2023: 59%<br>2022: 57%<br>2021: 52%<br>2020: 54%<br>2019: 60%<br>Not measured prior to<br>2018                            | Wellington Water: 65% (Jul-Sep 2023) customer satisfaction with service)               |
| Council water supply net  | works and operations are sustainable  |             |                  |       |  |  |  |  |
| Council water supply<br>networks and<br>operations are<br>sustainable | Average consumption of drinking water in litres per resident per day (DIA 5) (12.0.7)                     | ≤ 220       | ≤ 210            | ≤ 2   | 200  | 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 performance measure 5  | 2024: 239<br>2023: 261<br>2022: 278<br>2021: 398<br>2020: 229<br>2019: 209   | Water NZ<br>National<br>Performance<br>Review<br>2021/22:611<br>2018/19:<br>294        |
|   | Percentage of real water loss from council's water supply reticulated network (DIA 2) (12.0.6)            |             | ≤ 25% - ≤<br>15% |       | Calculated from night time flow measurement and total water abstraction.  Department of Internal Affairs, Water Supply non-financial performance measure | 2024: 28.6%<br>2023: 27.3%<br>2022: 25.5%<br>2021: 23.5%<br>2020: 20.2%<br>2019: 23.0%   | Water NZ<br>National<br>Performance<br>Review<br>2021/22:<br>22%   |  |

| Wastewater                       |   |                             |         |         |           |                       |                                |            |  |
|----------------------------------|---|-----------------------------|---------|---------|-----------|-----------------------|--------------------------------|------------|--|
| Level of Service                 | Measures of success (What our                             | Performance Targets/Outputs |         |         |           | Method of Measurement | Historic Performance<br>Trends | Benchmarks |  |
| statement (What we will provide) | community can expect)                                     | 2024/25                     | 2025/26 | 2026/27 | 2033/34   |                       |                                |            |  |
| provide                          |   |                             |         |         | (Year 10) |                       |                                |            |  |
| Council operates wastewa         | Council operates wastewater services in a reliable manner |                             |         |         |           |                       |                                |            |  |

| Council operates          | Proportion of residents satisfied   | ≥68%   | ≥70%     | ≥72%   | ≥72%             | Residents Satisfaction Survey  | 2024: 67%                                  | Dunedin         |
|---------------------------|-------------------------------------|--------|----------|--------|------------------|--|--|-----------------|
| wastewater services in a  | with the reliability and            | ≥00%   | 270%     | 2/2%   | 2/270            | Residents Satisfaction Survey  | 2024: 67%                                  | 22/23: 68%      |
| reliable manner,          | responsiveness of wastewater        |        |          |        |                  |  | 2023: 59%                                  | (satisfied with |
| minimising the number     | services (11.0.1.16)                |        |          |        |                  |  | 2022: 59%                                  | how DCC manages |
| of complaints around      | services (11.0.1.10)                |        |          |        |                  |  | 2021: 66%                                  | the sewerage    |
| •                         |                                     |        |          |        |                  |  |  | system)         |
| wastewater issues         | Total number of complaints          |        | <u> </u> | . 7    |                  | Total number of complaints   | 2019: 71%<br>2024: 0.21                    | Medians from    |
|                           | received per 1000 connections by    |        | ≥ 10     | 1.7    |                  | received through Council's call  | 2024: 0.21                                 | Water NZ        |
|                           |                                     |        |          |        |                  | 9  |  |                 |
|                           | council per year about (DIA 4)      |        |          |        |                  | centre about odour, system faults,   | 2022: 10.12                                | National        |
|                           | (11.0.1.10):                        |        |          |        |                  | blockages or responses to  | New measure in 2022                        | Performance     |
|                           | a) Wastewater odour                 |        |          |        |                  | complaints multiplied by   | combining 4 individual                     | Review          |
|                           | b) Wastewater system faults         |        |          |        |                  | 1000/number of connections.  | performance measures                       | 2021/22: 2.70   |
|                           | c) Wastewater system blockages      |        |          |        |                  |  |  | 2018/19: 10.81  |
|                           | d) Council's response to            |        |          |        |                  |  |  |                 |
|                           | wastewater issues                   | < 170/ | < 100/   | < 100/ | z 100/ z         | Longths of pine of condition and   | 2024. 5.250/                               |                 |
|                           | Percentage of total wastewater      | ≤ 17%  | ≤ 18%    | ≤ 19%  | ≤ 19% - ≤<br>26% | Lengths of pipe at condition grade   | 2024: 5.25%                                |                 |
|                           | gravity network pipework            |        |          |        | 26%              | 5 divided by total wastewater pipe   | 2023: 8.22%                                |                 |
|                           | length at condition grade 5 (very   |        |          |        |                  | length expressed as a percentage.  | 2022: 11.54% Change                        |                 |
|                           | poor) (11.0.1.18)                   |        |          |        |                  | Condition deterioration since  | in measurement                             |                 |
|                           |                                     |        |          |        |                  | inspection to be included when   | method for 2021/22.                        |                 |
|                           |                                     |        |          |        |                  | assigning a condition grade to a   |  |                 |
|                           |                                     |        |          |        |                  | pipe.  |  |                 |
|                           |                                     |        |          |        |                  | Reported from Council asset  |  |                 |
|                           |                                     |        |          |        | <u> </u>         | management systems.  |  |                 |
| Council operates wastewa  | ter services in a responsive manner |        |          |        |                  |  |  |                 |
| Council operates          | Median time (in hours) from         |        | ≤ 1      | L      |                  | The median attendance time   | 2024: 20 mins                              | Median          |
| wastewater services in a  | notification to attendance of       |        |          |        |                  | measured from the time that  | 2023: 36 mins                              | Results from    |
| responsive manner         | overflows resulting from network    |        |          |        |                  | the Council receives notification of   | 2022: 34 mins                              | Water NZ        |
| following notification of | faults (DIA 3a) (11.0.1.5)          |        |          |        |                  | the fault to the time that service   | 2021: 32mins                               | National        |
| an issue                  |                                     |        |          |        |                  | personnel confirm resolution of the  | 2020: 33mins                               | Performance     |
|                           |                                     |        |          |        |                  | fault.   | 2019: 34mins                               | Review.         |
|                           |                                     |        |          |        |                  | Reported in monthly contract   |  | 2021/22: 0.33   |
|                           |                                     |        |          |        |                  | reports from the Contractor.   |  | 2018/19: 0.55   |
|                           |                                     |        |          |        |                  | Department of Internal Affairs,  |  | 2015/16: 0.92   |
|                           |                                     |        |          |        |                  | wastewater non-financial performance<br>measure 3a                                     |  |                 |
|                           | Median time (in hours) from         |        | ≤1       | 2      |                  | The median resolution time   | 2024: 2hrs 14 mins                         | Water NZ        |
|                           | notification to resolution of       |        | 31       | _      |                  | measured from the time that  | 2023: 2 hrs 7 mins                         | National        |
|                           | overflows resulting from network    |        |          |        |                  | the Council receives notification of   | 2022: 2 hrs 15 mins                        | Performance     |
|                           | faults (DIA 3b) (11.0.1.6)          |        |          |        |                  | the fault to the time that   | 2022: 21113 13 111113<br>2021: 2hrs 6 mins | Review          |
|                           | 100103 (DIA 30) (11.0.1.0)          |        |          |        |                  | service personnel confirm  | 2021: 21115 0 111115<br>2020: 1hr 54 mins  | 2021/22: 3.3    |
|                           |                                     |        |          |        |                  | resolution of the fault. Reported in   | 2019: 2hrs 25mins                          | 2018/19: 2.8    |
|                           |                                     |        |          |        |                  | monthly contract reports from the  | 2013. 21113 231111113                      | 2015/19: 2.8    |
|                           |                                     |        |          |        |                  | inontiny contract reports from the   |  | 2013/10. 3.0    |
|                           |                                     |        |          |        |                  | Contractor   |  |                 |
|                           |                                     |        |          |        |                  | Contractor.  Department of Internal Affairs.   |  |                 |
|                           |                                     |        |          |        |                  | Contractor.<br>Department of Internal Affairs,<br>wastewater non-financial performance |  |                 |

| wastewater discharge infringement notices, enforcement orders and convictions regarding council resource consents related to reports to ECan.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2.  The partment of Internal Affairs, wastewater non-financial performance measure 2. | Council has high Number of abatement notices, infringement notices, infringement notices, enforcement orders and convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from wastewater of the convictions regarding council resource consents related to discharges from the conviction resource related to discharges from the conviction resource related to disch | Public health is protected from council wastewater services by minimising dry weather overflows                     | Number of dry weather overflows from wastewater systems per 1,000 connections per year (DIA 1) (11.0.5.2)   | ≤ 0.7 | ≤ 0.7 - ≤ 0.8 | Number of dry weather overflows per 1,000 properties connected to the wastewater network. Reported in resource consent compliance reports to ECan. Department of Internal Affairs, wastewater non-financial performance measure 1 | 2024: 0.08<br>2023: 0.16<br>2022: 0.43<br>2021: 0.52<br>2020: 0.60<br>2019: 0.54 | Median from Water NZ National Performance Review. 2021/22: 0.1 2018/19: 0.99 |
|--|--|---|---|-------|---------------|---|--|--|
|  | Stormwater   | Council has high wastewa<br>Council has high<br>wastewater discharge<br>quality complying with<br>resource consents | Number of abatement notices, infringement notices, enforcement orders and convictions regarding council resource consents related to discharges from wastewater | 0     |               | reports to ECan.<br>Department of Internal Affairs,<br>wastewater non-financial performance   | 2023: 0<br>2022: 0<br>2021: 0<br>2020: 0<br>2020: 0                              | National<br>Performance  |

|   |  |                                   |              | Stormwate     | r                    |  |   |            |  |  |
|---|--|-----------------------------------|--------------|---------------|----------------------|--|---|------------|--|--|
| Level of Service  | Measures of success (What our  | F                                 | erformance T | argets/Output | S                    | Method of Measurement  | Historic Performance<br>Trends  | Benchmarks |  |  |
| statement (What we will provide) community can expect)                                    |  | 2024/25                           | 2025/26      | 2026/27       | 2033/34<br>(Year 10) |  |   |            |  |  |
| Council responds to flood events, faults and blockages promptly and effectively           |  |                                   |              |               |                      |  |   |            |  |  |
| Council responds to<br>flood events, faults, and<br>blockages promptly and<br>effectively | Median response time to attend a flooding event, measured from the time that the territorial authority receives notification to the time that service personnel reach the site (DIA 3) (14.0.10) | ≤60 mins urban<br>≤120 mins rural |              |               |                      | Reported in monthly contract reports from the Contractor. Both targets must be met for the level of service to be met.  Department of Internal Affairs, Stormwater non- financial performance measure number 3 | 2024: Urban: Nil / Rural Nil 2023: Urban 43 Rural Nil 2022: Urban: 33 / Rural: Nil 2021: Urban: Nil / Rural Nil 2020: Urban: Nil / Rural Nil 2019: Urban: Nil / Rural Nil |            |  |  |
| -   | water network in a responsible and su  |                                   |              | ı             |                      |  |   |            |  |  |
| Council manages the stormwater network in a responsible                                   | Resident satisfaction with council's management of the stormwater network (14.0.3)   | 45%                               | 50%          | 55            | 5%                   | Resident satisfaction surveys  | 2024: 56%<br>2023: 43%<br>2022: 44%<br>2021: 45%  |            |  |  |

| and   |                                      |                       |                          |                |                                   | 2020: 42.7%            |  |  |  |
|---|--------------------------------------|-----------------------|--------------------------|----------------|-----------------------------------|------------------------|--|--|--|
| sustainable manner  |                                      |                       |                          |                |                                   | 2020: 42.7%            |  |  |  |
| sustainable manner  |                                      |                       |                          |                |                                   | 2019. 47%              |  |  |  |
|   | Number of abatement notices,         |                       | 0                        |                | Reported in resource consent      | 2024: 0                |  |  |  |
|   | infringement notices,                |                       |                          |                | compliance reports to ECan.       | 2023: 0                |  |  |  |
|   | enforcement orders and successful    |                       |                          |                | Department of Internal Affairs,   | 2022: 0                |  |  |  |
|   | prosecutions regarding council       |                       |                          |                | Stormwater non- financial         | 2021: 2                |  |  |  |
|   | resource consents related to         |                       |                          |                | performance measure number 2      | 2020: 0                |  |  |  |
|   | discharges from the stormwater       |                       |                          |                |                                   | 2019: 0                |  |  |  |
|   | networks per year (DIA 2) (14.0.2)   |                       |                          |                |                                   |                        |  |  |  |
| Stormwater network is managed to minimise risk of flooding, damage and disruption |                                      |                       |                          |                |                                   |                        |  |  |  |
| Stormwater network is   | The number of flooding events that   |                       | <2 flooding events       |                | (C) Site inspection reports. "The | 2024: 0                |  |  |  |
| managed to  | occur (DIA 1a) (14.0.11.2)           |                       | Ü                        |                | number of flooding events that    | 2023: One flooding     |  |  |  |
| minimise risk of flooding,  | ,                                    |                       |                          |                | occur in a territorial authority  | event occurred that    |  |  |  |
| damage,   |                                      |                       |                          |                | district" (DIA Sub-part 3, 1a)    | affected 2             |  |  |  |
| and disruption  |                                      |                       |                          |                |                                   | habitable floors 2022: |  |  |  |
|   |                                      |                       |                          |                |                                   | 2 flooding events in   |  |  |  |
|   |                                      |                       |                          |                |                                   | Dec 2021 and Feb 2022  |  |  |  |
|   |                                      |                       |                          |                |                                   | 2021: 0                |  |  |  |
|   |                                      |                       |                          |                |                                   | 2020: 0                |  |  |  |
|   |                                      |                       |                          |                |                                   | 2019: 0                |  |  |  |
|   | LTP24: For each flooding event, the  | <0.1 habital          | ole floors per 1000 proj | perties        | (C) Site inspection reports. "For | 2024: 0                |  |  |  |
|   | number of habitable floors           |                       |                          |                | each flooding event, the number   | 2023: 0.013            |  |  |  |
|   | affected. (Expressed per 1000        |                       |                          |                | of habitable floors affected.     | 2022: 0.01             |  |  |  |
|   | properties connected to the          |                       |                          |                | (Expressed per 1000 properties    | 2021: 0                |  |  |  |
|   | territorial authority's stormwater   |                       |                          |                | connected to the territorial      | 2020: 0                |  |  |  |
|   | system) (DIA Sub-part 3, 1b)         |                       |                          |                | authority's stormwater system)"   | 2019: 0                |  |  |  |
|   | (14.0.11.1)                          |                       |                          |                | (DIA Subpart 3, 1b)               | 2015.0                 |  |  |  |
|   | Number of complaints received by     | < 9 complaints r      | er 1000 properties       | Between        | Number of requests for service    | 2024: 8.16             |  |  |  |
|   | a territorial authority about the    | r 5 complaints p      | -c. 2000 p. opc. t.co    | <9 - <8        | received through the Hybris.      | 2023: 0.87             |  |  |  |
|   | performance of its stormwater        |                       |                          | complaints     | Department of Internal Affairs,   | 2022: 8.5              |  |  |  |
|   | system (Expressed per 1000           |                       |                          | per            | Stormwater non- financial         | 2021: 0.5              |  |  |  |
|   | properties connected to the          |                       |                          | 1000           | performance measure number 4      | 2020: 6.07             |  |  |  |
|   | territorial authority's stormwater   |                       |                          | properties     |                                   | 2019: 6.74             |  |  |  |
|   | system) (DIA 4) (14.0.11.3)          |                       |                          | p. op c. t. cs |                                   | 2025: 0.7 :            |  |  |  |
| Implement flood plain man   | nagement programme works to reduce   | risk of flooding to p | property and dwellings   | during extrem  | ne rain events                    |                        |  |  |  |
| Implement Flood Plain   | Annual reduction in the modelled     | ≥ 0 properties p      | er annum on a rolling t  | three-year     | Flood Models                      | Properties per annum   |  |  |  |
| Management  | number of properties                 | · · · ·               | average                  | -              |                                   | 2024: 6                |  |  |  |
| Programme works to  | predicted to be at risk of habitable |                       | <u> </u>                 |                |                                   | 2023: 17               |  |  |  |
| reduce risk of flooding to  | floor level flooding of the primary  |                       |                          |                |                                   | 2022: 30               |  |  |  |
| property and dwellings  | dwelling in a 2% AEP Design          |                       |                          |                |                                   | 2021: 43               |  |  |  |
| during extreme rain   | Rainfall Event of duration 2 hours   |                       |                          |                |                                   | 2020: 44               |  |  |  |
| events  | or greater excluding flooding that   |                       |                          |                |                                   | 2019: 57               |  |  |  |
|   | arises solely from private drainage  |                       |                          |                |                                   |                        |  |  |  |
|   | (14.1.6.1)                           |                       |                          |                |                                   |                        |  |  |  |
|   | (=                                   |                       |                          |                | l .                               |                        |  |  |  |

# B.2 Assessment of the current condition and lifespan of the water services network

The Council uses a range of tools and processes to assess the current condition and projected lifespan of its water services network. With a variety of assets throughout the water service network, with differing installation dates, materials, levels of criticality and asset value, understanding the condition of these assets has its challenges. The outlined below outlines how the Council currently assesses its assets and the network condition to inform planning for renewals, maintenance and capital works.

# B.2.1 Christchurch City Council Asset Assessment and Intervention Framework

In response to an approaching renewals peak and the need for more effective identification and prioritisation of renewal requirements, the Council initiated the Asset Assessment and Intervention Framework (AAIF) to improve its renewals planning processes. The framework is designed to establish a planning process that is integrated within Council IT systems, repeatable, robust, transparent and fast. In addition, enables the Council to adjust the renewals programme based on affordability constraints, delivery capacity and operational costs by ensuring a focus on asset replacement decisions are driven by risk prioritisation while balancing network performance and service levels.

# AAIF Input & Output Concept Over 100 External and Internal Data Sources

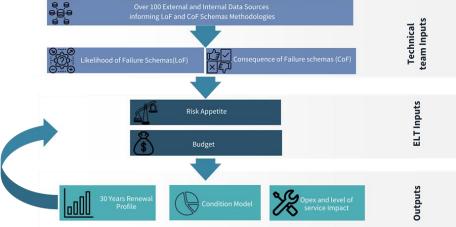


Figure 3 – Asset Assessment Intervention Framework Concept

The overall process uses internal asset data and derives additional data from external sources to develop a base required renewals profile. An iterative process then follows where risk, cost and deliverability are assessed, and direction provided to the asset team. Technical staff then interpret outputs by applying the risk appetites and proposed budgets to achieve better outcomes in the next iteration.

Currently the AAIF only covers reticulation asset renewal planning.

The Asset Assessment Intervention Framework is beneficial for determining and prioritising renewal requirements through a multi-criteria assessment based on Figure 4 below.

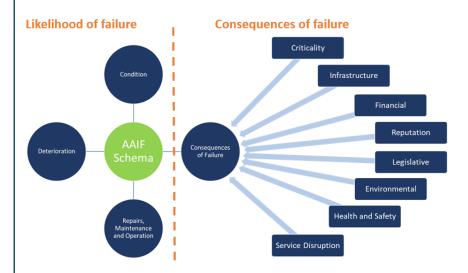


Figure 4 – Asset Assessment Intervention Framework

The final process assigns a score from one to five score for each of the four main criteria outlined above. Condition, Degradation and Repair Maintenance and Operations (RMO) indicate the likelihood of failure occurring, while the consequence of failure is determined by eight supporting criteria. These components form a comprehensive risk-based approach to renewals planning.

At a high level, each of the four criteria are described below:

<u>RMO</u> is based on the historical number and frequency of failures/interventions required to keep the pipe in operation. This assessment only counts failures on the pipe itself and excludes failures or faults relating to fittings or third-party damage.

<u>Degradation</u> uses the same 1 to 5 score based on the environmental hazards in proximity to each pipe and the susceptibility of the pipe material to each hazard. Degradation grades identify pipes likely to deteriorate faster or slower than average and are applied as adjustments to the theoretical useful lives to account for each asset's environmental exposure.

Consequence of failure (CoF) grades are a measure of how severe the outcomes to the city and community will be in the event of a failure. CoF fall into a wide range of categories. Splitting the CoF schema into eight sub-schema permits assessment under each category. Further information about the Consequence of failure or 'criticality' of council's assets is discussed further down in Section B.2.11.

<u>Condition</u> grades for individual pipes can be physical condition assessment results, or in the absence of a condition assessment, an estimate based on installation date and theoretical useful life is used. Further explanation on condition grading is described in Section B.2.4

# B.2.2 Average age of network assets and expected lifespan

### **Reticulation Network**

Pipe materials for the water supply network have changed over time with cast iron (CI) the predominant pipe material up until the 1940s, followed by asbestos cement (AC) from 1950 to 1980s and then plastic (PVC) from the mid-1980s to now. The theoretical useful lives of CI, AC and early generation PVC are 120, 60 and 40 years respectively, meaning that much of the initial network from the 1950s and the 1980s is all approaching end of life. The Council has also experienced issues with a high breakage rate for early generation HDPE submains and crossover pipes that were installed in the 1990s. Of the 861.1km 'In Service' HDPE pipes throughout the network, a failure rate of 5.4 breaks per kilometre has been calculated which is considered extremely high for an asset of this age. To enable these assets to be renewed in a timely manner, an effective asset life of these HDPE pipes has been reduced to 40 years and 70 years respectively. Therefore, it is considered that the overall average age of the reticulation network is around 50 years old.

For wastewater, some of the oldest reticulation assets such as brick barrel assets are still in use, dating back to 1880s in Christchurch. A significant portion of the reticulation network was renewed after the earthquakes which lessens the peak for renewals. Much of the replaced wastewater pipes were renewed with PVC pipes which will provide an expected lifespan of 100 years.

Stormwater pipes did not receive the same attention as wastewater pipes after the earthquake, with a majority of stormwater network installed in the 1970s/1980s with concrete pipes. Recent upgrades and new installations with PVC has been occurring which expects to provide a theoretical useful life of these pipes of around 100 years, however due to many historic stormwater pipes still remaining, the average age of the stormwater network is still around 40-50 years.

# **Pump Stations**

A large portion of pump stations were constructed in the 1950s, 1980s and then again in the 2000/2010s. Eliminating the few outlier stations built before 1950s, the average age is 30-40 years.

### Tanks & reservoirs

For water supply there is a comprehensive list of asset age for suction tanks and reservoirs that were completed as part of a condition assessment programme of works in 2021. Many of the suction tanks were installed in the 1950/1960s with an additional number of tanks build in late 1980s and early 1990s. Similar to suction tanks, much of the reservoir tanks were constructed in the 1940,1950s and 1960s with further constructed in the 1990s.

The average age of these tanks, both suction and reservoirs are about 40-50 years.

# Wastewater Treatment plants

Christchurch Wastewater Treatment plant (CWTP) has undergone significant upgrades and expansion over the years.

The wastewater treatment plant was first constructed back in the early 1960s and was further expanded in 1975 including additional sedimentary tanks and filters. Further capacity was required as Christchurch grew and major works were required again in late 1990s, early 2000s which included additional sedimentary tanks, and clarifiers. The earthquake in 2011 caused damage to the treatment plant which required works to halt sewage leaking into the estuary and most recently the large trickling filters were completely damaged in a large fire in 2021. The confidence level in asset data is not high. Work is programmed to improve the quality of asset data at the site through its Capital Delivery and Asset Management Improvement Plan which is outlined as Item 6 in the implementation plan within Section A.3.3.

# B.2.3 Water services assets

Table 11 - Summary of age, quantity and condition grading for water services assets

| Parameters  | Drinking supply                         | Wastewater                   | Stormwater                         |
|---|---|------------------------------|------------------------------------|
| Average age of network assets                                       | 50 years old                            | 20-30 years old              | 40-50 years old                    |
| AAIF classified Consequence of Failure assets                       |   |                              |                                    |
| • Identified  | Reticulation assets                     | Reticulation Assets          | Reticulation assets                |
| Not identified (Classified as Critical assets)                      | Station, treatment and reservoir assets | Station and treatment assets | Pump stations and treatment assets |
| Above ground assets (units)   |   |                              |                                    |
| Pump stations   | • 60                                    | • 158 <sup>2</sup>           | • 45                               |
| Treatment plant/s   | • 53                                    | • 5                          | • 2,426 <sup>3</sup>               |
| Reservoirs and tanks  | • 137                                   | •                            | •                                  |
| Stream intakes  | • 71                                    | •                            | •                                  |
| • Lift stations   | •                                       | • 84                         | •                                  |
| Ocean/harbour outfalls  | •                                       | • 6                          | •                                  |
| Odour control sites   | •                                       | • 34                         | •                                  |
| Stop banks  | •                                       | •                            | • 12Km                             |
| Percentage or number of above ground assets with a condition rating | • 50%                                   | • 100%                       | • 50%                              |
| Percentage of above –ground assets in poor or very poor condition   | • 20%                                   | • 8.2%                       | • 12%                              |
| Below ground assets (units)   |   |                              |                                    |
| Total Km of reticulation  | • 3,617Km                               | • 1,641Km                    | • 915Km                            |
| • Wells   | • 133                                   | •                            | •                                  |
| Open waterways  | •                                       | •                            | • 2,429Km                          |
| Waterway lining   | •                                       | •                            | • 220Km                            |
| Percentage of network with condition grading                        | • 100%                                  | • 100%                       | • 100%                             |
| Percentage of network in poor or very poor condition                | • 21%                                   | • 25%                        | • 16%                              |

 $<sup>^14</sup>$  in Akaroa, 1 in Duvauchelle, 1 in Little River and 1 in Pigeon Bay.

### Note:

Asset condition grading is largely based on the asset life and not on a full condition assessment. It is considered this is not reflective of the actual condition of these assets. The Council is developing an asset condition assessment field tool to capture asset condition as part of the Asset Data base Review and update under Item 7 in the implementation plan.

The above table on stormwater assets does not include the separation of Transport and water services stormwater assets.

<sup>&</sup>lt;sup>2</sup> Including an outfall pump station.

<sup>&</sup>lt;sup>3</sup> Sum of 2012 swales, 132 retention basins, 46 detention basins, 69 ponds, 127 soak pits & 40 road gardens as per Land Drainage AMP

### B.2.4 Definition of Condition for water services network assets

Condition grades for assets may be based on physical condition assessment results, although when this is not achievable, a condition estimate is based on the installation date and theoretical useful life. Where data is accessible, a hierarchical approach applies to condition assessments which prioritises laboratory assessment results over CCTV inspections, over visual inspections, overestimates.

The theoretical useful life of an asset is determined based on industry knowledge and historic performance. This estimate reflects the expected duration an asset can effectively serve its intended purpose under normal operating conditions. By analysing data from similar assets, past maintenance records, and physical condition inspections, the Council can predict how long an asset should last before it requires replacement or major refurbishment. Where some assets have not performed as expected in the past, the theoretical useful life is adjusted.

Much of the condition of the asset is based on age, exception being wastewater and stormwater pipes where CCTV inspection have been included in the condition analysis of the asset. Future objectives to improve asset condition data is outlined in Sections B.2.6,B.2.8 and B.2.10.

Where the condition of individual assets is based in the theoretical useful life remaining, water service condition grades individual assets a 1 to 5 scale as described in Table 12 below.

It should be noted that in some assets, 2025 condition data is not an exact reflection of the current state of the asset but a projection from previous CCTV or asset collection measures. This takes into account degradation of the pipe from when the pipe was first inspected and therefore a real time condition in 2025 or future years has a level of approximation in the data.

**Table 12 - Condition grades** 

| Condition Grade | Description | Percentage of Theoretical Useful Life<br>Remaining |
|-----------------|-------------|--|
| 1               | Excellent   | Life remaining ≥ 50%                               |
| 2               | Good        | 25% ≤ Life remaining < 50%                         |
| 3               | Average     | 15% ≤ Life remaining < 25%                         |
| 4               | Poor        | 5% ≤ Life remaining < 15%                          |
| 5               | Very Poor   | Life remaining < 5%                                |

# B.2.5 Condition of water supply network assets

Water supply assets are considered to fall into 3 groups as follows:

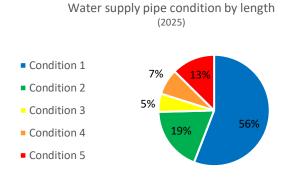
- 1. Reticulation (pipes, mains, submains, laterals, meters, hydrants etc)
- 2. Pump Stations (Buildings & structures, electrics, IAC, mechanical, wells etc)
- 3. Treatment facilities (buildings & structures, reservoirs & tanks etc)

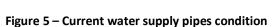
90% of the total value (optimised replacement cost) of the assets covered were associated with pipes and associated nodes (inlets, outlets, manholes etc) that make up the reticulation network. The remaining value sits within Pump Stations, Treatment and Storage.

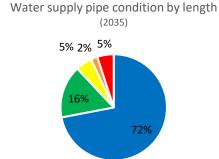
# Water supply reticulation network

Pipe assets have an estimated condition grade based on the installation year and a theoretical useful life. However, sections of asbestos cement piping that had continual faults have had laboratory condition assessments conducted on them to sense check the current remaining useful life that was linked to the pipe asset. below outlines the condition of the reticulation assets, with 74% of the assets in good or very good condition. 13% of assets are in very poor condition. Noting that the grades are based on theoretical life, it is likely the physical condition is better than assessed.

By using the AAIF tool which optimises reticulation renewals, the Council can look ahead using the latest proposed renewal programme and proposed budget in accordance with the recent Long Term Plan to understand the condition of the network in 10 and 20 years' time as per Figure 6.







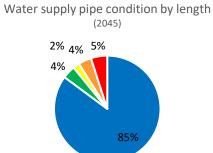


Figure 6 – Future water supply pipes condition using optimised AAIF and proposed LTP budget

### Water supply pump stations

Water supply stations include assets under the categories:

- 1. Civil and structures (including wells, suction tanks & reservoirs)
- 2. Mechanical
- 3. Electrical
- 4. Instrumentation, automation and control (IAC)

The condition data held in the asset database for station assets is poor compared to reticulation assets, therefore is largely based on asset age. A programme of works to undertake structural condition assessments of the suction tanks and reservoir tanks was completed in 2021. There is a high benefit assessing civil and structure assets prior to renewal whereas the majority of electrical and IAC assets can be effectively managed using network-wide assessments rather than individual assessments. Civil and structural assets are fewer in number, but high in value and asset life, compared to mechanical, electrical and IAC assets that are greater in number but lower in value and asset life.

Pump stations is the broader term and are made up of various components with each element having different condition and valuation based on their use. Figure 8 below shows the number of each asset that is in a poor or very poor condition (Condition 4 & 5). Although the number of civil and structures assets represents 3% of all the poor condition assets, the value of these particular assets actually equates to 38% of the total assets. Similarly, IAC assets represent 50% of the number of poor assets however these only represent 6% of the value.

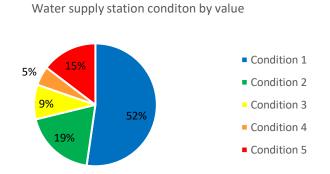


Figure 7 – Water supply station asset condition

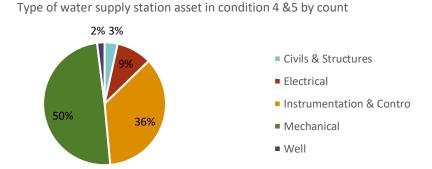


Figure 8 – Water supply poor & very poor station asset conditions

### Water supply treatment & reservoirs

At a portfolio level, there is limited condition data held in the database for treatment assets. A strategy will be implemented to fill key data attributes to improve asset management practices, this will be outlined in the Capital Delivery and Asset Management Improvement plan listed as Item 6 within the Implementation Plan (Section A.3.3).

Since 2021, a large programme of works involved undertaking physical condition assessment of suction tanks and reservoirs. The inspections only included items that were observable from the exterior, however this preliminary assessment highlighted the tanks with the most critical repairs required and prioritised the tanks in need for future detail inspections.

# B.2.6 Water Supply Assets – Continuous Improvement

A large focus for the Council is to increase the level of confidence in the above ground assets data such as pump stations, tanks and treatment facilities. Whilst some of these assets, namely tanks, the Council has data on, the majority of this data is yet to be uploaded into the asset management information systems. To increase confidence in this age-based condition profiling, the Council is aware that there needs to be further condition assessments undertaken on station assets and these would be completed in value hierarchy starting with the individual structural assets. This is not explicitly in the implementation plan as there are further tasks that need to be done first and no funding has been allocated to this yet, however this is something the Council is aware they need to do.

### B.2.7 Condition of wastewater network assets

Wastewater assets are considered to fall into 3 groups as follows:

- 1. Reticulation (pipe and non-pipe assets etc)
- 2. Pump Stations (buildings, odour control, lift stations and monitoring sites etc)
- 3. Treatment and storage facilities (buildings & structures, reservoirs & tanks etc)

Similar to water supply assets, 90% of the total value (replacement cost) of the assets covered are associated with the reticulation network, whilst 8% of the value of the assets are wastewater treatment plants and the remaining being pump stations.

# Wastewater reticulation network

The primary source of capturing wastewater reticulation physical condition data involves Closed Circuit Television (CCTV) inspections with majority of targeted pipes approaching the end of their lives. Current inspection data indicate 72% of condition 4 pipes have a condition grade based on CCTV evidence condition whilst 96% of condition 5 pipes have had a CCTV inspection. Figure 9 shows the condition of wastewater pipe assets where almost 65% of the assets are either in very good or good condition (Condition 1 & 2) and 28% in poor or very poor condition (Condition 4 & 5). A significant portion of the reticulation network after the earthquakes in 2011 was renewed, where a high portion of damage occurred to older, more brittle pipes. However, due to the earthquake recovery budget limit, some newer pipes that also suffered damage could not be replaced, therefore legacy earthquake damage remains.

Utilising the AAIF tool with the Long Term Plan budget allowance, the condition profile of the assets will improve over the next 10 to 20 years, as shown in Figure 10.

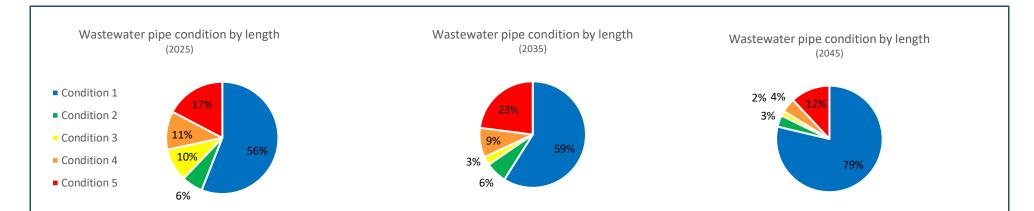


Figure 9 - Current wastewater pipe conditions

Figure 10 - Future wastewater pipes condition using optimised AAIF and proposed LTP budget

A breakdown of condition 5 reticulation pipe materials is listed in Figure 11 with reinforced concrete rubber ring jointed pipes making up a large proportion of the very poor condition assets due to their brittle nature and the corrosive effects from sewer gases.

Wastewater condition grade 5 materials by value

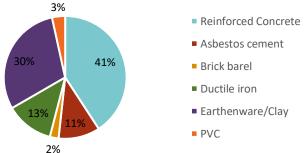


Figure 11 - Wastewater very poor pipe conditions

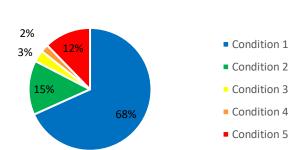
#### Wastewater pump stations

Wastewater stations include assets under the categories:

- 1. Civil and structures (including wet wells)
- 2. Mechanical
- 3. Electrical
- 4. Instrumentation, automation and control (IAC)

Like water supply pump stations, wastewater pump stations are made up of civil & structural components, mechanical, electrical and IAC. At a portfolio level, the condition data held in the database for station assets is poor. To address specific issues, targeted condition assessments are periodically carried out. For example, wet well surveys of specific sites identified the internal pipework structure to be in very poor condition. Figure 12 below outlines the asset conditions measured on a 1-5 condition rating based on the asset replacement value with 14% having a condition rating of 4 or 5.

Based on the replacement value of condition 4 and 5, Figure 13 outlines the individual components that make up the poor and very poor conditions. The worst component is mechanical that represent approximately half of the poor condition assets, however these assets are considered cheap to replace, whilst there are a small number of civil and structures assets which are relatively expensive to replace.



Wastewater station conditon by value

52%

1% 3%

Type of wastewater station asset in condition 4 &5 by count

Civils & Structures

Instrumentation & Contro

Electrical

Mechanical

Well

Figure 13 - Wastewater poor & very poor station asset conditions

Figure 12 - Wastewater pipe asset conditions

#### Wastewater Treatment

The current asset data on the Christchurch Wastewater Treatment plant (CWTP) and Bank Peninsula Treatment plants is poor. Attributes such as installation data are missing. Asset renewals have largely been based on operational feedback and historical indicators. Improvement to the data base will be undertaken as part of its Capital delivery and asset management improvement plan and is included in the implementation plan.

# B.2.8 Wastewater Assets - Continuous Improvement

Outputs from AAIF has indicated there is a significant backlog of pipes requiring CCTV and the Council has budgeted \$1.5 million over the next three years to undertake CCTV of the highlighted pipes requiring information. 80% of this budget is proposed for wastewater whilst 20% is for stormwater. This will further increase the confidence of the wastewater treatment reticulation network to provide confident renewal programmes moving forward.

A plan has been developed to assess and improve asset data. The key deliverable of this project is to fill key data gaps, understand the level of confidence in the data, and implement processes to continually improve asset data. This is a work stream that is already occurring at the Council although as more information comes to hand, this may tie into the Capital Delivery and Asset Management Improvement Plan listed in Item 6 of the Implementation Plan (Section A.3.3)

#### B.2.9 Condition of stormwater network assets

Stormwater assets consist of:

#### Stormwater drainage

- Reticulation (pipes, headwalls, inlets/outlets etc)
- Lined/unlined drains (bank & bed lining, earth channels)
- Open water structures (weirs, debris structures etc)
- Monitoring & Hydrometric equipment (structures, piezometers)
- Pump stations (building & structures, pipework, mechanical)
- Backflow protection systems
- Treatment & Storage facilities (wetlands, dry basins, swales, soak pits etc)

#### Flood Protection & Control works

- Tidal protection structures
- Flood protection structures (stop banks etc)

#### Reticulation network

The majority value of stormwater assets sits amongst the reticulation network which consists of mains, accesses, inlets, outlets, headwalls, valves and fittings. CCTV inspection results are the primary source of physical condition data with inspections providing a measured condition grade for 37% of the total length of mains. However, the value of the mains that have undertaken CCTV is close to 60%, indicating inspections have been targeted at the large more critical pipes. The remaining 40% of the value of the mains has an estimated condition grade based on installation year and theoretical useful life as described in Section B.2.4. Overall condition profile of the stormwater reticulation network is shown below in Figure 14.

The AAIF assessment tool using the budget allowance in the latest Long Term Plan, outlines the condition profile of the assets will improve slightly over the next 10 to 20 years as shown in Figure 15 below.

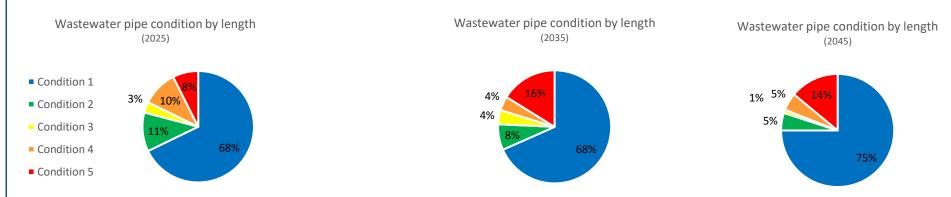


Figure 14 - Stormwater pipe asset conditions

Figure 15 - AAIF optimised condition with proposed LTP budget for stormwater pipes

#### Waterway Lining Assets

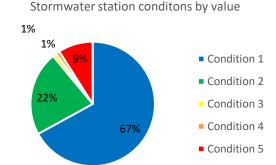
Waterway lining assets make up 115km of the stormwater network however there is a focus for the Council to update the quality of waterway lining data. Estimated remaining useful life of waterway lining from renewal modelling, which was completed in 2015/2016, indicates a portion of lining reaching the end of its useful life within the next couple of year and again in 10 to 15 years. This is due to the large amount of timber lining installed during the 1970/1980s degrading and coming to its end of life. Based on data collected in 2015/2016, this shows that 10% of the waterway lining network is condition grade 4 or 5 with 76% being physically assessed. Recent renewals involve rock linings which has a longer useful life whilst other options include using more natural solutions such as regrading banks and planting to stabilise the ground along these waterways. This is part of an ongoing programme to naturalise waterways where possible.

#### Open waterway structural assets

Generally, there is low confidence with the data contained in the asset systems on structures within waterways. Many unrecorded structures were identified during previous inspections in 2015/2016, but no additional data has been collected to allow any assessment of remaining useful life using type and age. This stream of work, the Council will include this within the Capital Delivery and Asset Management Improvement Plan listed as Item 6 in the Implementation plan (Section A.3.3). Of the 140 of the 247 weirs have been assigned condition grades through physical inspection, as have 15 of the 42 debris racks. Weirs that have been assessed are generally in good condition with only 4% assessed as condition grade 4 or 5. 4 of the 42 debris racks have been assessed as condition grade 4.

#### **Pumping Stations assets**

Condition assessments have not been carried out at the station level. The installation age asset life is used for conditions at present, with the renewal planning process generally managed at the asset group level based on the asset life for each component. Long and medium range forecasting utilises this information exclusively as a proxy for condition. Short term forecasting and project selection is generated by visiting the stations identified through conversations with operations and maintenance staff as well from the asset data set. Overall condition profile of stormwater pump stations network is shown below in Figure 16. Of the 10% of poor and very poor assets, only a small portion of them are civil and structural assets with Electrical, Mechanical and IAC evenly split.



Type of wastewater station asset in condition 4 &5 by count

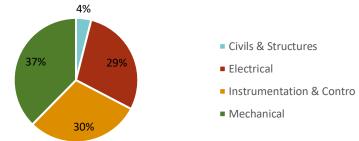


Figure 16 - Stormwater station asset conditions

Figure 17 - Stormwater poor & very poor station asset conditions

#### B.2.10 Stormwater Assets - Continuous Improvement

A large portion of stormwater assets, both below ground reticulation pipes and above ground assets, are missing data attributes that would allow better management of the assets.

As mentioned in Section B.2.8, \$1.5 million over three years will be allocated to CCTV inspections with 20% of this proposed to be used on the high Consequence of failure pipes to better understand the overall condition of the reticulation network. A portion of works is to undertake further condition assessments on the water lining assets.

#### B.2.11 Critical water services assets

As part of the AAIF tool discussed in Section B.2.1, 'criticality', or as the Water Services unit refer it as Consequence of Failure (CoF) grades the importance of individual assets to the delivery of the service. Within the Water Services unit, it is not called criticality, as national data standards limit criticality only to service delivery to customers while with consequences of failure, we are looking at a range of categories. The consequence of failure framework was developed as part of the Council's Asset Assessment and Intervention Framework (AAIF) and is aligned with the organisational risk policy. As part of the AAIF tool, consequence of failure is a weighted average of the score from each of the eight categories: Criticality, Infrastructure, Financial, Reputation, Legislative, Environmental, Health & Safety and Service Disruption.

Calculating each consequence of failure sub-schema score uses a combination of parameters, for example diameter and proximity to a road combine to give the Infrastructure CoF on the transport network, as collapse of a large pipe under a main road will have a greater effect on the transport network than collapse of a small pipe or a pipe outside the carriageway. As different numbers of parameters inform each CoF sub-schema, aggregating parameters needs a method that treats each CoF sub-schema equally irrespective of the number of parameters. In general, assets with high consequences of failure receive a higher level of asset management and more proactive interventions compared to other assets.

The consequence of failure in relation to the AAIF tool has only developed for piped reticulation assets. High CoF reticulation assets are those whose failure would likely result in a significant disruption in service, financial, environment and social cost, and therefore warrant a higher level of asset management.

As AAIF only addresses pipes, a basic concept has been applied for station assets where all assets at the station location are given the same criticality score based on the total flow provided by that station. CoF is not a criteria that is used explicitly for treatment assets, however the Water Safety Plans use risk-based assessment that considers such factors as the numbers of customer supplied by the treatment facility. The Council considers pump stations and reservoirs as critical and grade these assets to a criterion mainly based on the pressure zone they service. However, these are not developed enough to provide a consequence of failure to incorporate into the AAIF renewal programmes.

Consequence of failure is rated 1-5 with the neighbouring description listed below.

Table 13 – Reticulation CoF criteria

| CoF Score | Description  |
|-----------|--------------|
| 1         | Minimal risk |
| 2         | Very Low     |
| 3         | Moderate     |
| 4         | Very High    |
| 5         | Extreme      |

# Water Supply reticulation consequence of failure

Weightings for the water supply activity prioritise the consequences on service delivery to customers (how many properties and the importance of facilities) and service disruption (number of failures affecting the same customers) with a lower weighting on damage to other infrastructure. Figure 18 shows the consequence of failure profiles for the overall reticulation network, with over 90% being of low consequence of failure.

Overall water supply reticulation Consequence of Failure

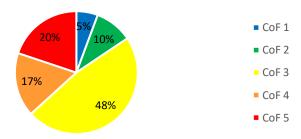
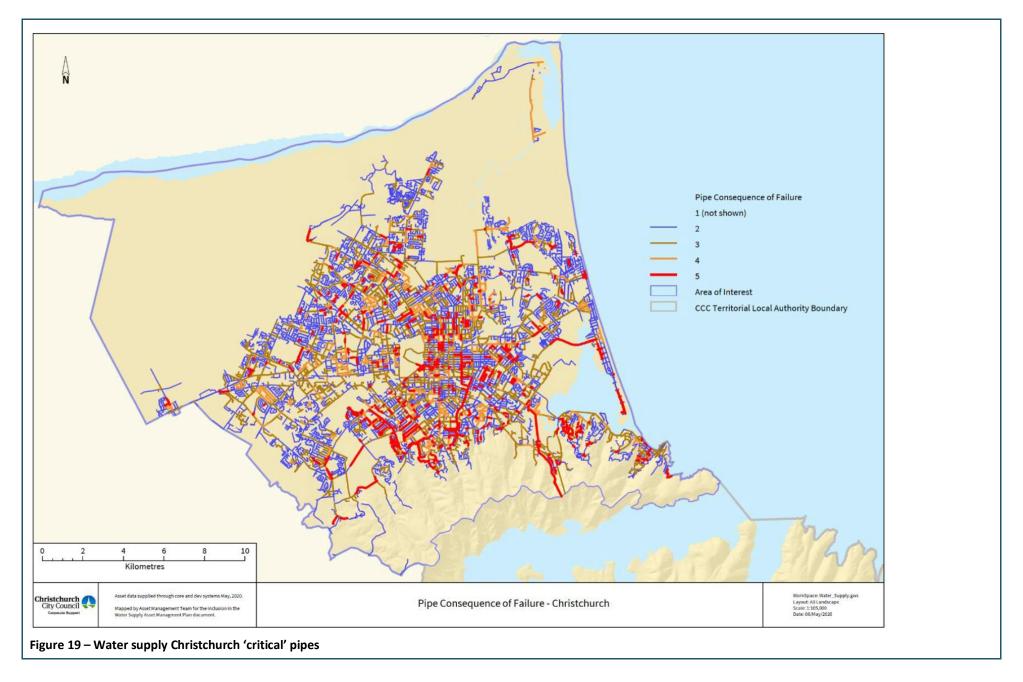


Figure 18 – Water Supply CoF for reticulation assets

The decentralised nature of the Christchurch City water supply network i.e. there are multiple pump stations feeding into each zone for redundancy, meaning that there are few pipes with 'very high' or 'extreme' overall consequence of failure. Figure 19 below shows these 'critical' water supply assets by location within Christchurch City Council area excluding Banks Peninsula.



# Water supply stations criticality

Current criticality criteria are based on the sum of electric motor power for direct pumping stations or the total reservoir capacity as shown in the below Table.

Table 14 – Station criticality criteria

| Criticality Score | Station Size   | Reservoir Storage (m3) |
|-------------------|----------------|------------------------|
| 1                 | Up to 5kW      | Up to 25               |
| 2                 | 5kW to 22kW    | 20 to 100              |
| 3                 | 22kW to 100kW  | 100 to 250             |
| 4                 | 100kW to 200kW | 250 to 500             |
| 5                 | Over 200kW     | Over 500               |

Additionally, stations with generators are classified as criticality 5 since these are needed to meet minimum pressure zone flows or public health protection barriers during outages.

Water supply station criticality by value

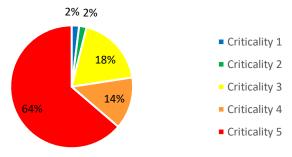


Figure 20 – Water supply CoF for station assets

# Wastewater reticulation consequence of failure

Some wastewater pipes have a unique consequence of failure as they are archaeologically significant sites requiring special attention if exposed and renewed. Figure 21 shows the consequence of failure for wastewater reticulation assets along with Figure 22 further below shows these 'critical' assets within the Christchurch City Council area - excluding Banks Peninsula.

Overall wastewater reticulation Consequence of Failure

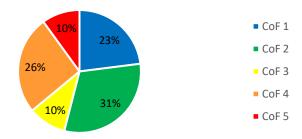
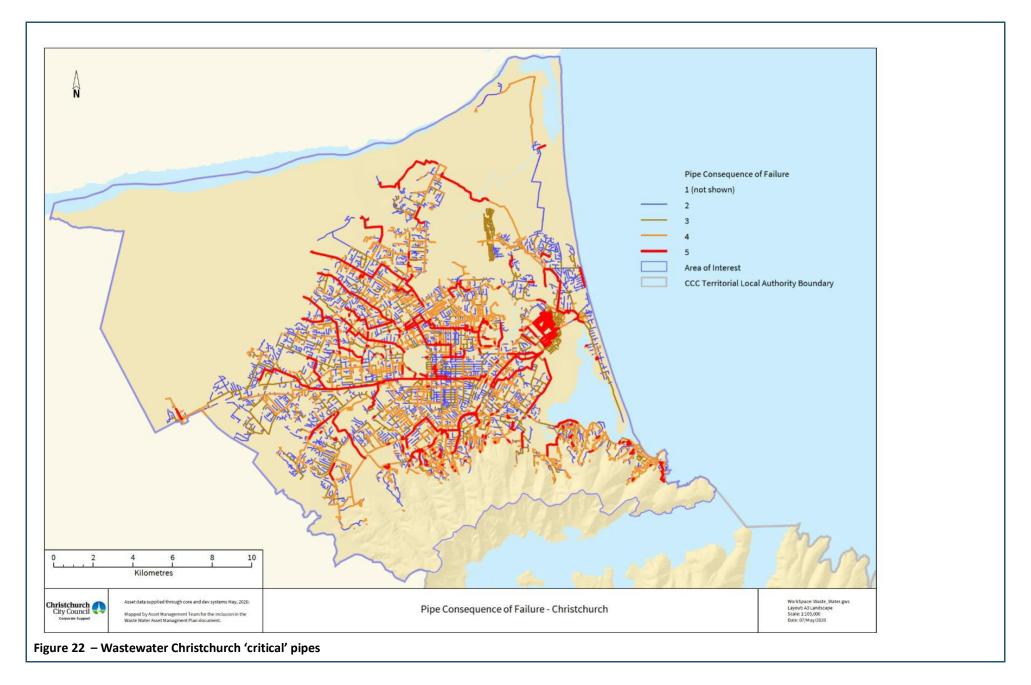


Figure 21 - Wastewater CoF for reticulation assets



# Wastewater stations criticality

Current criticality criteria is based on the sum of electric motor power as shown in the Table 15 below.

Table 15 – Station criticality criteria

| Criticality Score | Station Size   |
|-------------------|----------------|
| 1                 | Up to 5kW      |
| 2                 | 5kW to 22kW    |
| 3                 | 22kW to 100kW  |
| 4                 | 100kW to 200kW |
| 5                 | Over 200kW     |

Stations with generators are generally classified as criticality 5 with smaller monitoring sites and lift stations classified as criticality 1. Lift stations have bypasses that mean flows are still contained within the network if the lift station is not working. This criticality profile as shown below in Figure 23, shows the distribution of criticality across the station sites in the wastewater portfolio.

# Wastewater station criticality by value

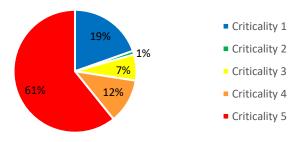


Figure 23 – Wastewater CoF for station assets

# Stormwater reticulation consequence of failure

There are a number of asset types encompassed within stormwater; however, only piped reticulation critical assets are identified under the consequence of failure schema of the AAIF tool. However, for waterway networks i.e. waterways that are still open or piped along the waterway alignment, a 'criticality' score was determined by a panel of operations staff and has not been included in any AAIF. An assessment was carried out in 2017 to attempt to grade the remaining assets on whether an asset is involved or crosses an attribute, such as a road, rail, community facility or contaminated land GIS parcels. Further additional work is required to align the data and make the data more useable.

Figure 24 shows the consequence of failure profile by length for stormwater reticulation whilst Figure 25 below maps these 'critical' stormwater assets by location for Christchurch City Council - excluding Banks Peninsula.



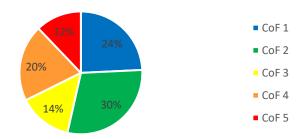
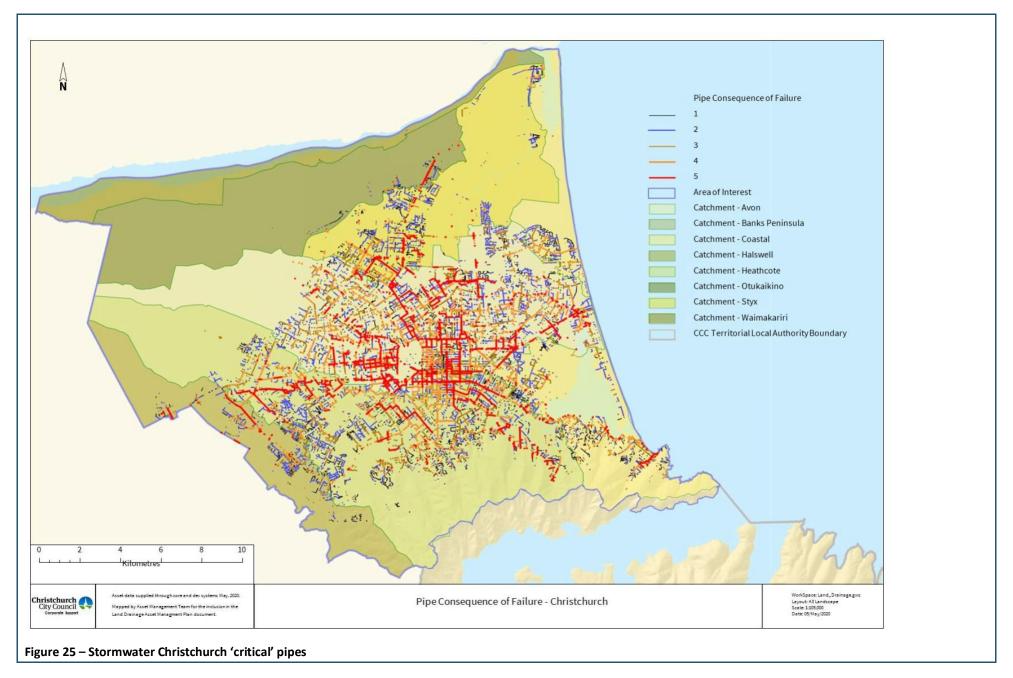


Figure 24 – Stormwater CoF for reticulation assets



# Stormwater stations criticality

Current criticality criteria is based on the sum of electric motor power as shown in the Table 16 below.

Table 16 – Station criticality criteria

| Criticality Score | Station Size   |
|-------------------|----------------|
| 1                 | Up to 5kW      |
| 2                 | 5kW to 22kW    |
| 3                 | 22kW to 100kW  |
| 4                 | 100kW to 200kW |
| 5                 | Over 200kW     |

The criticality profile as shown below in Figure 23, shows the distribution of criticality across the station sites in the stormwater portfolio.

Stormwater station criticality by value

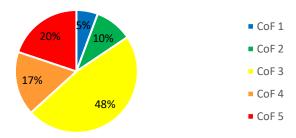


Figure 26 – Stormwater CoF for station assets

# B.2.12 Backlog of water services renewals & maintenance

#### **Asset Renewals**

The current status of pipe asset renewals has been informed by analysis undertaken through the Asset Assessment and Intervention Framework (AAIF). This assessment has identified a backlog of pipe renewals, as illustrated in the figures below (Figure 27, Figure 28, Figure 29). While a renewal backlog exists, it is important to note that the volume of pipe assets with a high consequence of failure is low. Staff are actively working to reduce this backlog at a pace that exceeds what is currently provided for in the Long Term Plan, with a focus on addressing risk-prioritised assets. Reflected in Table 32 in Section D.9, outlines the level of expenditure on renewals compared to the depreciation of water service assets. The Council has a low asset sustainability ratio value due to the fact it recently reduced much of its renewals budget because of the 2010 & 2011 earthquakes which results in the Council's infrastructure undergoing significant repairs or replacement. Therefore, funds were put to other priority assets, however a large set of renewal works in FY2026/27 & FY2027/28 is planned to reinitiate the renewal programme.

For non-pipe assets, there is currently no identified renewal backlog. However, over the next two years, the Water Services unit is set to improve asset data and knowledge of actual condition which will improve our understanding of the condition and renewal needs of these assets. This will help confirm whether any backlog exists and inform future investment decisions.

#### Maintenance

There is currently no maintenance backlog. It is important to recognise that the concept of a maintenance backlog is relative to the maintenance strategy adopted by an organisation. In our case, we are progressing the development of a comprehensive Maintenance Strategy, as outlined in the Implementation plan, Item 9. (Section A.3.3). This strategy will clearly define our approach to asset maintenance, including levels of service, risk-based prioritisation, and intervention thresholds. It will also provide a framework for identifying and managing any future maintenance backlog, should one arise.

# Water Supply

The below Figure 27 shows the forecasted end of useful life of the reticulation network which gives an indication of the current backlog.

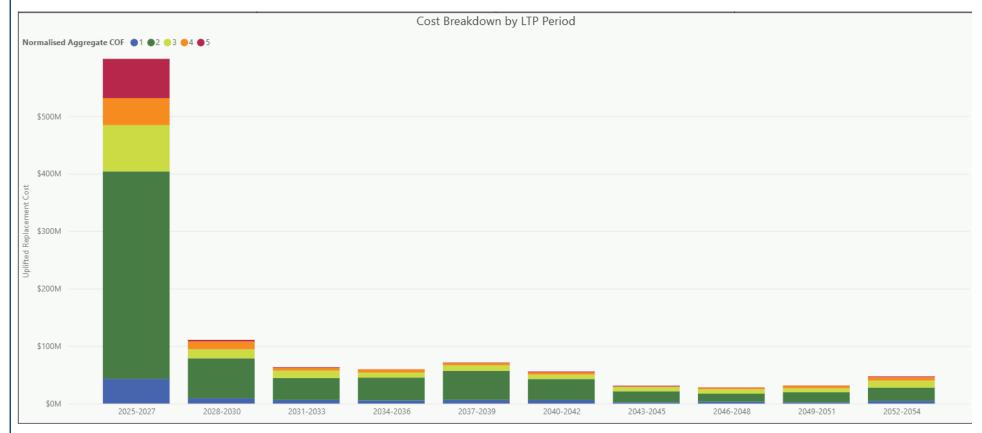


Figure 27 – Water supply renewals forecast for reticulation assets – including backlog

# Wastewater

Figure 28 below shows the forecasted end of useful life of the pipe network which gives an indication of the current backlog.

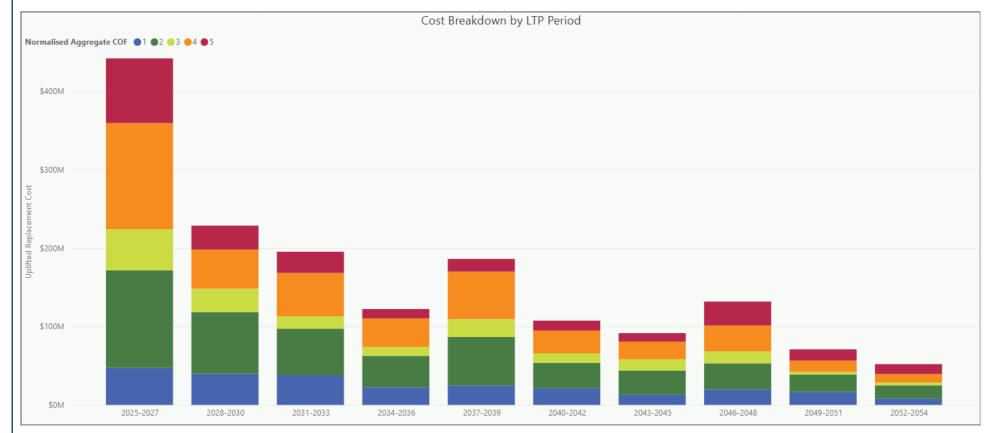


Figure 28 – Wastewater renewals forecast for reticulation assets – including backlog

# Stormwater

Figure 29 below shows the forecasted end of useful life of the reticulation network which gives an indication of the current backlog.

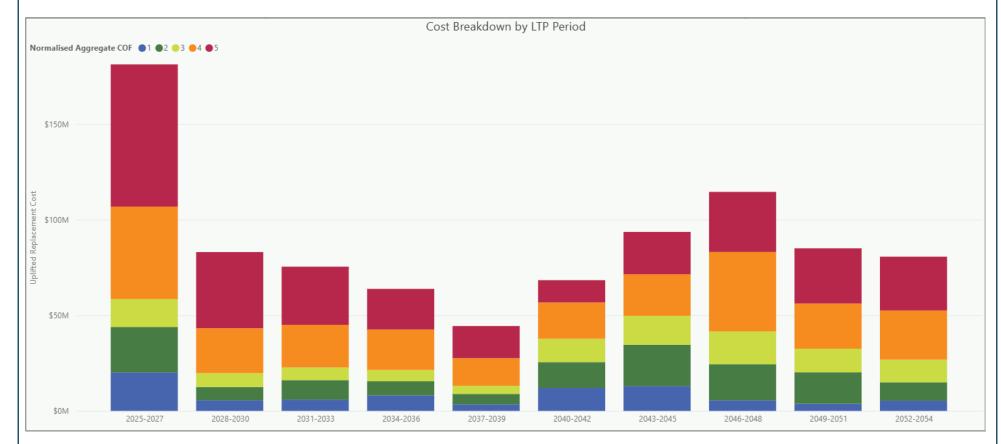


Figure 29 – Required stormwater main renewals budget – including backlog

# **B.3** Asset management approach

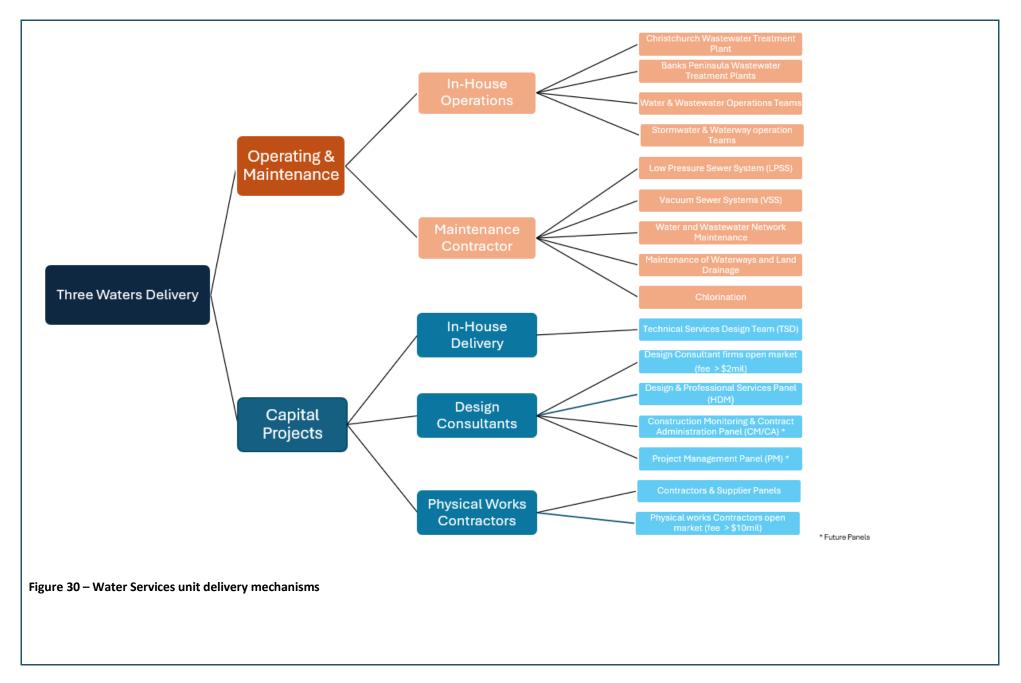
# B.3.1 Service delivery mechanisms

The Council will continue to deliver waters services using both in-house and external resources. The Water Services unit consists of planners, asset management, compliance, operations and project managers. To maintain the delivery of renewal projects whilst balancing the requirements to meet demand or compliance, the Council utilises external parties such as consultants and contractors, which allows the Council to scale up where needed. The Council produces work through panels which provided an efficient means to get projects to market with competitive process. The Council utilises these panels for both professional services and physical contractors.

Operating and Maintenance programmes for the network are delivered by a mixture of internal and external maintenance contractor, currently CityCare, is responsible for the operation and maintenance of the water network. Note that the Council is currently in the process of tendering the Operational and Maintenance Contracts.

Council's in-house and onsite operation teams manage the wastewater treatment plants.

An outline of the responsibilities is outlined below in Figure 30.



## B.3.2 Asset management systems & products

The Council currently utilises a range of complex information systems to manage its data and assets. For the Water Services unit, the Asset Management team use a core set of products to actively manage the network efficiently and the correct data is fed into renewal programmes and maintenance works.

The Water Services unit has its own standalone Business Intelligence (BI) team that manages data storage and data ingestion to ensure the systems and products are linked. This team collects, analyses, and visualises data from water services to help the Council understand performance, identify trends, and forecast future needs. This enables the Council to make smarter data-driven decision that benefit both the Council and the community. The Council also has its own in-house IT department that manages any of the licenses and work alongside the BI team to ensure the systems are running smoothly.

A list of products that the Council uses are listed below:

#### InfoAsset

The Water Services unit utilises InfoAsset to store, analyse, and manage a wide range of water infrastructure assets. InfoAsset is a specialized asset management tool that supports efficient planning and operational decision-making by enabling the Council to maintain detailed records of asset condition, maintenance history, and inspection data. A key function of InfoAsset is its role in storing CCTV inspection footage and related data for the underground pipe network, particularly in wastewater and stormwater systems. This CCTV information provides critical insights into pipe condition and performance. The data captured in InfoAsset is then integrated into the AAIF, allowing for centralized access, improved analysis, and more coordinated asset planning and investment across the Water Services unit.

#### AAIF

The Asset Assessment Intervention Framework was developed in-house for determining and prioritising pipe renewal requirements through a multi-criteria assessment as outlined in detail in Section B.2.1. It grades a one to five score for each of four main criteria. Condition, Degradation and RMO give the likelihood of failure occurring while Consequence of failure is dependent on eight supporting criteria, which gives the consequences of failure for an overall risk-based renewals planning process. The Council continue to manage and update this in-house.

#### SAP

Christchurch City Council primarily uses SAP as its core system for financial management and as the system of record for its assets. SAP is leveraged to track financial transactions, link operational costs to specific assets, and manage the performance and lifecycle of water infrastructure. Within the Water Services unit, SAP plays a key role by storing detailed asset data, particularly for critical infrastructure such as pump stations and treatment facilities. While some asset information related to the reticulation network is also maintained, the system is mainly focused on housing data for larger, fixed assets. This integration of financial and asset data within SAP allows the Council to make informed investment decisions, ensure regulatory compliance, and support efficient operations across its water services. Software licenses are managed in-house by the IT team.

#### GIS

The Council uses GIS to spatially visualize, manage, and analyse its infrastructure assets. This includes mapping and monitoring the entire network of pipes, treatment plants, reservoirs, and drainage systems, allowing the Council to quickly identify faults, leaks, or blockages, as well as linking them to critical data like maintenance history, performance metrics, and financial information. By analysing spatial data, the operating units can plan maintenance schedules, prioritize repairs, and optimise the delivery of clean water while preventing contamination. GIS also supports flood risk management by modelling stormwater flow and identifying vulnerable areas, helping to protect communities from water-related hazards. Overall, GIS enables the Council to efficiently manage water resources, improve service reliability, and safeguard public health.

There are no immediate changes proposed to the systems and products used to manage and capture water services assets, however the Water Services unit understand from reviewing its condition data as outlined in Section B.2, it highlights the need to improve its asset data confidence as part of its Asset Data base Review and update as part of the Item 9 in the implementation plan (Section A.3.3).

## B.3.3 Asset management policy

The Council's Asset Management Policy will continue to provide the organisation's long-term vision, values and direction for asset management. The current policy relates to the Council's overarching intentions for asset management and the asset management system and not specifically assets or asset decisions. The policy's statement is: "The Council will apply an organisation-wide approach to asset management, which aligns with the Council's vision, community outcomes and strategic priorities, and is appropriate to the assets, services and risks being managed".

The five principles underpinning the policy are:

- Asset management outcomes align with the strategic direction of the Council.
- Asset management is an organisational wide practice.
- Decisions about assets are based on well-managed, quality information.
- Asset management maturity is appropriate to the assets, services and risks we manage.
- Asset management plans are living documents.

A new policy is currently in the process of being updated and is currently being reviewed by the Council.

Upon completion of the Capital delivery and Asset Management Improvement Plan outlined the implementation plan, the Water Services unit may investigate creating a standalone Water Services unit Asset Management Policy to better align with any requirements under the *Local Government (Water Services) Bill*. However, at the moment, the Council's overall policy aligns with water services objectives and promotes responsible management of assets to deliver value to customers and support business objectives, in accordance with ISO55001.

# B.3.4 Asset management maturity assessment (AMMA)

The Council carries out an asset management maturity assessment (AMMA) every three years. A complete asset management maturity assessment was run in 2020 for water supply, wastewater and stormwater. Following the review, the result was defined as "intermediate or advanced level for most functions".

In 2023, another AMMA was run, but this was a very specific assessment focusing on a core selection of topics, which generated a more compiled assessment of water services. These topics included asset condition and performance, asset financial planning and management, asset data and information, asset management information and systems, asset management process management, outsourcing and procurement and continuous improvement. The result of this AMMA, determined that water services unit was rated at a "core or intermediate level" for the essential asset management functions.

As part of these asset management maturity assessments, the Council has stated it will put an emphasis on increasing asset management maturity. On this basis, improvement plans will be included as part of the Asset Management Improvement Plan in item 6 of the Implementation Plan (Section A.3.3) to improve the level of asset management maturity.

# **B.4** Statement of regulatory compliance

#### Disclaimer:

During the process of writing this Water Service Delivery Plan, there does not appear to be an alignment or shared common approach on reporting compliance information from external agencies. Definitions and KPIs differ which may cause confusion to the public as it may be compliant for one agency whilst non-complaint for another. Therefore, for transparency and consistency, the Council has based the information reported in this Water Service Delivery Plan on what is reported to the Water Services Authority/Taumata Arowai.

#### B.4.1 Resource consents

Outlined below is a list of all current resource consents and any consents the Council have in the application stage.

#### Significant current resource consents

As "significant consents" is not defined, Council has interpreted this to include the ones reported to Water Servies Authority/Taumata Arowai in the Network Environmental Performance Measures (NEPM): "D-EH8 Number of resource consents that are held (report at a network level): provide the total number of resource consents related to the <u>current</u> operation of the drinking water network".

**Table 17 – Significant resource consents** 

| Water Services | Location   | Туре              | No.   | Description                                 | Expiry                             |
|----------------|--|-------------------|---|---|------------------------------------|
|                | Network Wide   | Take Consent      | 14  | To take and use water for public            | Ranging from Year 2028 – Year 2046 |
| Water Supply   | Duvauchelle, Little  | Discharge Consent | 4   | Discharge to land & water to discharge sand |                                    |
| water suppry   | River, Birdlings Flat, Wainui (WWTPs) filter backwash water from treatment pla |                   | filter backwash water from treatment plants | 2028,2044,2047,2046                         |                                    |
|                | Wainui, Tikao Bay,   | Discharge Consent | 4   | Discharge to land                           |                                    |
|                | Christchurch, Okains   |                   |   |   | 2038,2038, 2046,2046               |
| Wastewater     | Bay (WWTPs)  |                   |   |   |                                    |
| wastewater     | Akaroa, Christchurch,  | Discharge Consent | 7   | Discharge to air                            | Ranging from Year 2030-Year 2054   |
|                | Duvauchelle (WWTPs)  |                   |   |   |                                    |
|                | Christchurch City wide   | Discharge consent | 1   | Discharge to water                          | 2029                               |
| Stormwater     | Network Wide   | Discharge consent | 1   | Discharge to water                          | 2044                               |

#### Note:

There are no expired consents for the Water Services unit being renewed under Section 124 of the Resource Management Act 1991.

#### Current resource consent applications

Table 18 -Resource consents applications

| Three Water  | Location  | Туре  |  |  |
|--------------|---|---|--|--|
| Water Supply | Okains Bay  | Water take Consent                                      |  |  |
|              | Akaroa Treated Wastewater Irrigation Scheme               | Land use to construct and operate treatment plant site  |  |  |
|              | Akaroa Treated Wastewater Irrigation Scheme               | Discharge treated wastewater to land and air discharge  |  |  |
|              | Akaroa Treated Wastewater Irrigation Scheme (Duvauchelle) | Land use to construct and operate treatment plant site  |  |  |
|              | Akaroa Treated Wastewater Irrigation Scheme (Duvauchelle) | Discharge treated wastewater to land and air discharge  |  |  |
| Wastewater   | Okains Bay  | Water discharge & land use for treatment plant site     |  |  |
|              | Christchurch Wastewater Treatment Plant                   | Land use for the treatment plant site                   |  |  |
|              | Christchurch Wastewater Treatment Plant                   | Amendment to water take consent for relocated bore      |  |  |
|              | Tikao Bay Wastewater Treatment Plant                      | Land use for the treatment plant site                   |  |  |
|              | Wainui Wastewater Treatment Plant                         | Land use and air discharge for new treatment plant site |  |  |
| Stormwater   | Nil   | Nil   |  |  |

#### B.4.2 Regulatory requirements

The activities that the Council undertake for resource consent compliance includes ongoing monitoring of water source take flows along with discharge quality/quantity of stormwater and treated wastewater. The Council also monitors the receiving environment from discharges as part of resource consent conditions.

# Legislative compliance

For water quality and quantity management, routine sampling and operational performance provides compliance with the drinking water standards for New Zealand and the drinking water quality assurance rules. In addition, laboratory services analyse water samples to check source, treatment and distribution processes to demonstrate compliance with New Zealand drinking water standards and water quality assurance rules, along with ensuring consent discharge are within the current regulatory requirements.

# Anticipated future regulatory requirements

In the long-term, water service asset management is expected to align with Te Wai Ora o Tane – Integrated Water Strategy, which sets out the Council's vision, goals, objectives and suggested implementation for work in water supply, wastewater and stormwater.

The drinking water regulatory environment in New Zealand is changing. Water Services Authority/Taumata Arowai is reviewing the drinking water quality assurance rules for level 3 supplies (population >500). Council has been part of a research project with Water Services Authority/Taumata Arowai, the Institute of Environmental Science and Research, and Environment Canterbury which provided evidence that two urban water source supplies' currently do not have evidence of the presence of viruses. The intent of this research will be to inform proposed amendments by the Water Services Authority/Taumata Arowai to the Drinking Water Quality Assurance Rules in relation to bacterial and viral compliance and it's expected that some of the requirements for bacterial compliance will change, such as the introduction of a virus chapter.

The Council will continue to work with Water Services Authority/Taumata Arowai to ensure an informed decision about the new requirements under this section is taken.

For wastewater, the Council also will need to comply with new environmental standards which may require a focus on reducing overflows and altering discharge requirements. The current resource consent requirements are less stringent than the proposed wastewater environmental standards, therefore it is expected that the impact on the compliance aspect will be low risk. A list of capital projects that reflect these compliance measures is listed in Section B.5.1.

The Local Government (Water Services) Bill and Local Government (Preliminary Arrangements Water Services) Act 2024 proposes that water service providers must make a series of plans to meet legislative requirements. The Council is aware of these new requirements and undertook a gap analysis so the Water Services unit could understand what further work is required. The most relevant plans that Council will need to complete are:

- Drinking water catchment plans (resources already in place, processes to be set)
- Trade waste plan (resources and processes already in place)
- Stormwater network risk management plan (resources and processes already in place)
- Water services strategy (resources or processes in place)
- Water services annual report (resources and processes to be determined)
- Wastewater network risk management plan (resources already in place, processes to be set)

# B.4.3 Current non-compliances

As outlined in Table 19 below, the Council is not compliant with bacteria (E. coli) and protozoa in the eight drinking supply schemes that it manages, i.e. Christchurch, Brooklands/Kainga, Akaroa, Duvauchelle, Little River, Birdlings Flat, Pigeon Bay and Wainui, on the basis of the Drinking Water Quality Assurance Rules. Exception being Pigeon Bay which is compliant with protozoa.

The class 1 programme to demonstrate protozoa compliance in Christchurch City has been completed in April 2025, meaning that 44 out of 46 treatment plants are now classified as class 1 and therefore protozoa compliant, hence additional treatment barriers for protozoa aren't required. For water sources that don't meet the class 1 status criteria, Council has two water supply treatment plants (Main Pumps and Tanner Street) that required work to make the them protozoa compliant. Main Pumps has UV (ultraviolet) in place now and is therefore protozoa compliant. Council is currently working on installing a protozoa barrier at Tanner Street, as outlined in the capital projects (Section B.5.1), which will be compliant by the end of the year.

On Banks Peninsula water is mostly sourced from streams and requires protozoa treatment. The exceptions are Birdlings Flat, Little River and Wainui, where water is sourced from aquifers.

Birdlings Flat and Little River already have UV (ultraviolet) system in place, whilst a project is underway to install a UV barrier at the Wainui Treatment Plant since the bore is shallower than the 30m requirement.

Once those projects are completed, 100% of our water supply systems will have barriers in place to comply with Drinking Water Quality Assurance Risk and within the deadline provided by Water Service Authority/Taumata Arowai.

To achieve bacterial compliance in the distribution systems, we need to install continuous water quality monitoring as well as complete some treatment plant upgrades in Banks Peninsula and Christchurch.

We currently are not able to comply with bacterial compliance contact time requirement in our treatment plants in Christchurch, and with the current Drinking Water Quality Assurance Rules for Level 3, Council don't have a pathway to compliance. This is mainly because the current rules require a chlorine contact time at each of the 46 treatment plants, that Council can't provide due to the infrastructure. To become compliant in this aspect, would require constructing considerable suction tanks and related infrastructure in most of the 46 treatment plants, which is not achievable due to the necessary investment and locations. Water Service Authority/Taumata Arowai is aware of this aspect, and

we are expecting that the review of the Level 3 rules will address this aspect. The recent achievement of class 1 for most of the sources as well as the promising results of the virus research, will help to inform a more holistic approach of the level 3 rules in the current review process.

All the drinking supply schemes are compliant with chemical conformity with 0 notices in place in all eight drinking supply schemes. In addition, no water restrictions have been in place in the last three years except for Akaroa and Duvauchelle in FY24 (02/02/24 – 11/04/24) Level 2.

#### B.4.4 Current compliances

Under the in-house model, the Council retains direct responsibility for ensuring compliance with regulatory requirements for water services. The regulatory requirements for the in-house delivery model will be compliant with current standards, with a clear framework for adapting to future requirements. This includes meeting requirements in the *Local Government (Water Services) Bill*, requirements set by Water Services Authority/Taumata Arowai for water quality, adhering to environmental guidelines, and complying with economic regulations overseen by the Commerce Commission as listed in item 13 in the implementation plan (Section A.3.3).

The Council is implementing a large capital investment programme, as outlined in Section B.5.1, to install new permanent chlorination equipment and controls to meet water quality online monitoring requirements. These measures will mitigate the non-compliances that the Council currently has with regards to its eight drinking supply schemes. This work will replace any temporary equipment that was installed, to ensure the Council meets the level of service expected and the regulatory requirements in the future. It should be noted that this differs from the non-compliances Council has with regards to the chlorination contact time that is mentioned above in Section B.4.3

Currently 99% of water supply resource consent conditions are compliant, while wastewater resource consent conditions are 96% compliant. Stormwater resource consent conditions are 100% compliant. None of the non-compliant conditions are significative, and all of them have an action plan underway.

The Water Services unit has a dedicated team to monitor, escalate and address legislative and consent non compliances. The drinking water safety plans identify, score and address the risks to the water supply systems. Those risks are then raised to the water services planning team ensuring they are scoped, prioritised and included in the Long Term Plan. This creates certainty that the risks are addressed and provides a pathway and timeframe for compliance. Once the *Local Government (Water Services) Bill* is approved, the same process will be applied for the risks identified in the stormwater and wastewater network risk management plans.

The Council will implement as part of its Water Safety plans and this water services delivery plan, a comprehensive action plan that addresses both: the unacceptable risks to ensure water safety and the legislative requirements to become compliant. These actions have been converted into projects with some of these projects underway, listed in further detail in Section B.5.1. As discussed, these include upgrades to the temporary chlorination online monitoring to a permanent system as well as installing continuous water quality monitoring and several Banks Peninsula treatment plant upgrades.

The Council also has implemented several projects to improve stormwater quality aligned to meet consent compliance, especially regarding to the content of lead, copper, zinc and sediments at the discharge points and the receiving environment. The Council already undertakes other activities related to change behaviour, community initiatives, planting and industrial site audits, with a collaborative approach with the community and mana whenua (Te Whaka-Ora, Community Waterways Partnership, etc.)

Table 19 - Quality and compliance parameters for Water Services unit

(information based in report on compliance to Water Services Authority/ Taumata Arowai)

| Parameters   | Drinking supply schemes   | Wastewater schemes | Stormwater<br>Schemes/catchments |  |  |
|--|---|--------------------|----------------------------------|--|--|
| Drinking water supply  Bacterial compliance (E. coli) Protozoa compliance Chemical compliance Boiling water notices in place Fluoridation Average consumption of drinking water <sup>4</sup> Water restrictions in place (last 3 years) Firefighting sufficient  | <ul> <li>1. Christchurch</li> <li>No. 4% compliant</li> <li>No. 79% compliant</li> <li>Yes</li> <li>O notices in place for last 3 years</li> <li>No</li> <li>262 l/person/day</li> <li>No</li> </ul>  | N/A                | N/A                              |  |  |
| <ul> <li>Bacterial compliance (E. coli)</li> <li>Protozoa compliance</li> <li>Chemical compliance</li> <li>Boiling water notices in place</li> <li>Fluoridation</li> <li>Average consumption of drinking water<sup>4</sup></li> <li>Water restrictions in place (last 3 years)</li> <li>Firefighting sufficient</li> </ul> | <ul> <li>Yes</li> <li>2. Brooklands/Kainga</li> <li>No. 4% compliant</li> <li>Yes</li> <li>Yes</li> <li>0 notices in place for last 3 years</li> <li>No</li> <li>267 l/person/day</li> <li>No</li> <li>Yes</li> </ul>   | N/A                | N/A                              |  |  |
| <ul> <li>Bacterial compliance (E. coli)</li> <li>Protozoa compliance</li> <li>Chemical compliance</li> <li>Boiling water notices in place</li> <li>Fluoridation</li> <li>Average consumption of drinking water<sup>4</sup></li> <li>Water restrictions in place (last 3 years)</li> <li>Firefighting sufficient</li> </ul> | <ul> <li>3. Akaroa</li> <li>No. 90% compliant</li> <li>No. 90% compliant</li> <li>Yes</li> <li>0 notices in place for last 3 years</li> <li>No</li> <li>711 l/person/day<sup>5</sup></li> <li>Yes. FY24 (02/02/24 – 11/04/24) Level 2</li> <li>Yes</li> </ul> | N/A                | N/A                              |  |  |
| <ul> <li>Bacterial compliance (E. coli)</li> <li>Protozoa compliance</li> <li>Chemical compliance</li> <li>Boiling water notices in place</li> <li>Fluoridation</li> <li>Average consumption of drinking water<sup>4</sup></li> <li>Water restrictions in place (last 3 years)</li> <li>Firefighting sufficient</li> </ul> | <ul> <li>4. Duvauchelle</li> <li>No. 96% compliant</li> <li>No. 92% compliant</li> <li>Yes</li> <li>O notices in place for last 3 years</li> <li>No</li> <li>311 l/person/day</li> <li>Yes. FY24 (02/02/24 – 11/04/24) Level 2</li> <li>Yes</li> </ul>        | N/A                | N/A                              |  |  |
| Bacterial compliance (E. coli)   | <ul><li>5. Little River</li><li>No. 77% compliant</li></ul>   | N/A                | N/A                              |  |  |

|  | 1   |      |      |
|--|---|------|------|
| Protozoa compliance  | No. 67% compliant                                       |      |      |
| Chemical compliance  | Yes   |      |      |
| <ul> <li>Boiling water notices in place</li> </ul>   | <ul> <li>0 notices in place for last 3 years</li> </ul> |      |      |
| <ul> <li>Fluoridation</li> </ul>   | • No  |      |      |
| <ul> <li>Average consumption of drinking water<sup>4</sup></li> </ul>  | <ul> <li>76 l/person/day (not all connected)</li> </ul> |      |      |
| <ul> <li>Water restrictions in place (last 3 years)</li> </ul>   | • No  |      |      |
| Firefighting sufficient  | • Yes   |      |      |
|  | 6. Birdlings Flat                                       | N/A  | N/A  |
| Bacterial compliance (E. coli)   | No. 87% compliant                                       |      |      |
| Protozoa compliance  | No. 92% compliant                                       |      |      |
| Chemical compliance  | • Yes   |      |      |
| Boiling water notices in place   | O notices in place for last 3 years                     |      |      |
| Fluoridation   | • No  |      |      |
| <ul> <li>Average consumption of drinking water<sup>4</sup></li> </ul>  | 116 l/person/day  |      |      |
| Water restrictions in place (last 3 years)   | • No  |      |      |
| Firefighting sufficient  | • Yes   |      |      |
| 0 0  | 7. Pigeon Bay   | N/A  | N/A  |
| Bacterial compliance (E. coli)   | No. 96% compliant                                       | 1976 | N/A  |
| Protozoa compliance  | • Yes   |      |      |
| Chemical compliance  | • Yes   |      |      |
| Boiling water notices in place   | O notices in place for last 3 years                     |      |      |
| Fluoridation   | No  |      |      |
| Average consumption of drinking water <sup>4</sup>   | • 257 l/person/day                                      |      |      |
| Water restrictions in place (last 3 years)   | No  |      |      |
| Firefighting sufficient  | • Yes   |      |      |
| The Harman Samuel Control of the Harman Samue | 8. Wainui   | N/A  | N/A  |
| Bacterial compliance (E. coli)   |   | IN/A | IN/A |
| Protozoa compliance  | No. 91% compliant     No. F3% compliant                 |      |      |
| Chemical compliance  | No. 53% compliant     Vos                               |      |      |
| Boiling water notices in place   | Yes     Onetices in place for last 3 years              |      |      |
| Fluoridation   | 0 notices in place for last 3 years                     |      |      |
| Average consumption of drinking water <sup>4</sup>   | No     304 Magraph (day)                                |      |      |
| Water restrictions in place (last 3 years)   | 294 l/person/day  |      |      |
| Water restrictions in place (last 5 years)     Firefighting sufficient   | • No  |      |      |
| 4. Rased on EV24 water sunnlied less real water loss estimates   | • Yes   |      |      |

<sup>&</sup>lt;sup>4.</sup>Based on FY24 water supplied, less real water loss estimates less commercial consumption divided by Census 2023 population.

<sup>5.</sup> This usage is known to be high and smart customer meters are being rolled out to identify the issues including water losses – both public and private

# Table 20 – Resource Management for the Water Services unit

(information based in report on compliance to Water Services Authority/ Taumata Arowai)

| Parameters   | Drinking supply schemes                      | Wastewater schemes                          | Stormwater<br>Schemes/catchments |
|--|--|---|----------------------------------|
| Resource Management  ■ Significant consents (note if consent is expired and operating on S124)   | See Table 17                                 | See Table 17                                | See Table 17                     |
| Expire in the next 10 years.   | • 10   | • 4   | • 0                              |
| <ul> <li>Non-compliance:</li> <li>Significant risk non-compliance</li> <li>Moderate risk non-compliance</li> <li>Low risk non-compliance</li> </ul>                              | • 0<br>• 0<br>• 2 <sup>6</sup>               | • 0<br>• 2 <sup>8</sup><br>• 4 <sup>9</sup> | • 0<br>• 0<br>• 0                |
| Active resource consent applications   | See Table 18                                 | See Table 18                                | See Table 18                     |
| <ul> <li>Compliance actions (last 24 months):</li> <li>Warning</li> <li>Abatement notice</li> <li>Infringement notice</li> <li>Enforcement order</li> <li>Convictions</li> </ul> | • 0<br>• 0<br>• 1 <sup>7</sup><br>• 0<br>• 0 | • 0<br>• 0<br>• 0<br>• 0<br>• 0             | • 0<br>• 0<br>• 0<br>• 0<br>• 0  |

<sup>&</sup>lt;sup>6</sup> Missing data in 2011 between Environment Canterbury and the Council, therefore, will always have low risk non-compliance

<sup>&</sup>lt;sup>7</sup>·Discharge of chlorinated water in stream. Consent required water to be de-chlorinated if entering stream

<sup>8.</sup> Wastewater overflow reporting and sampling issue and CWTP odour

<sup>9-</sup>Okains Bay campground exceeding occupancy at busy times, Tikao Bay & Duvauchelle Wastewater discharge reporting and sampling issue due to site access restriction (H&S)

# B.5 Capital and operational expenditure to deliver water services and comply with regulatory requirements

Christchurch City Council has a responsibility to ensure that its infrastructure and water services are managed in a way that supports the environment, social, cultural and economic wellbeing of current and future generations. The planning and delivery of water services requires a clear understanding of the investment needed to meet future demand, undertake renewals, and ensure the effective operation and maintenance of infrastructure assets.

Below outlines key projects and investment that is designed to:

- Align with existing and proposed Levels of Service (LoS),
- Ensure compliance with regulatory and environmental requirements,
- Support population and housing growth in accordance with the Council's current Long-Term Plan.
- Enable the ongoing operation, maintenance, and renewal of water network assets,

Capital expenditure covers projects required to achieve compliance, maintain or enhance levels of service, and facilitate network expansion to accommodate future growth. Operational expenditure ensures the sustainable, day-to-day functioning of services and assets.

### B.5.1 Capital expenditure projects

Moving forward into the next 30 years, there are a number of specific challenges that need to be mitigated or addressed to ensure the Council provides a level of service to the community. These include aging infrastructure, new regulations, service delivery reform, climate change, risk, resilience and demand management. The current capital programme has been designed to balance between deliverability and achieving a level of service.

Below is only a selection of capital projects, for a full list of significant capital projects, refer to Section F.1.

#### **Priorities**

The Council's immediate priorities will be to focus on renewing assets with the highest criticalities or poor performance to ensure the level of service is met. Whilst planning for pipeline renewals is well advanced further work is required to improve renewal planning for non-reticulation assets. Another priority is the development of a strategy for optimising proactive renewals mainly for the mechanical and electrical, instrument and control (EIC) assets. This set of works will be included within the Capital Delivery and Asset Management Improvement Plans outlined in Item 6 of the Implementation Plan (Section A.3.3).

# Projects to meet additional demand

Apart from ongoing renewal programmes, the Council has also implemented programmes to account for the future growth expected of the city, with additional pump stations and wells for water supply, along with upgrading original pump stations or storage facilities for both water supply and wastewater.

Some notable projects to meet additional demand and improve resilience include:

- Water Supply Ferrymead capacity upgrade including new pump stations and groundwater abstraction wells.
- Water Supply Moorhouse Avenue new pump station to cater for future growth in the central water supply zone.

- Wastewater Grassmere storage tank, pump station and pressure main to reduce wet weather sewage overflows and provide capacity for new development.
- Wastewater Tyrone pump station capacity renewal to accommodate growth in the Belfast area.

For stormwater and flood protection, multiple projects within the next three years are set to kick off to increase the detention and treatment of stormwater runoff in areas that have been highlighted as areas of growth in the district plan. These areas include:

- Flood Protection Styx Catchment retention and detention basins to support growth in these areas such as Belfast and Highfield. An additional part to this programme of works is the purchase of greenfield land to set aside and construct a first flush basin and stormwater wetland for the area.
- Flood Protection Cashmere Street naturalisation and provision of stormwater treatment basins to manage stormwater runoff from 190 hectares of greenfield land proposed for residential development in the Halswell area.
  - Projects to improve the levels of service and/or compliance

Investment decisions have primarily been driven to meet the Level of Service (LoS) defined in the Long Term Plan. There are some investments that are not linked to any LoS but have been requested by elected members. Significant work is undertaken by staff to develop long-term investment requirements, and work continues to support future requests in investment for the Water Services Strategy. Currently the Council is non-compliant by regulations set out by Water Services Authority/Taumata Arowai and the Drinking Water Quality Assurance in relation to providing 'safe drinking water'. This level of service criteria is important, and a large capital investment programme is underway to install new permanent equipment and controls to meet water quality requirements. However as outlined in more detail Section B.4.3, the Council has been part of a research project to determine if the urban source water can inform any proposed amendments by the Water Services Authority/Taumata Arowai to the Drinking Water Quality Assurance in relation to bacterial and viral compliance. This may change the requirements set out by the Water Services Authority/Taumata Arowai and the Council will adjust it programme where necessary. However, until this has been confirmed, the Council have budgeted to replace any temporary chlorination equipment to ensure Council meets the level of service expected and the current regulatory requirements. The Council will continue to work with Water Services Authority/Taumata Arowai to ensure an informed decision about the new requirements are undertaken as outlined further in Section B.4.3. For wastewater, the Council also may need to comply with new environmental standards which may require a focus on reducing overflows and different discharge requirements.

Capital work projects that will address those non-compliances involve:

- Water Supply –Implementation of new chlorination equipment and controls to meet the requirements set out by Taumata Arowai.
- Water Supply Smart water meter rollout to provide more details water usage data for better water management and billing.

In addition to the projects occurring in the immediate Christchurch City area, the Council is undertaking capital work projects in Banks Peninsula to better support the area and provide a better level of service to the community involve:

- Water Supply Port Levy water supply system providing safe and reliable drinking water to a community of 40 that previously have not had access to mains water.
- Water Supply Okains Bay new water supply to provide drinking water to the residents and visitors and ensure it meets New Zealand drinking water standards.
- Wastewater Akaroa Reclaimed water treatment and reuse scheme to provide alternative and improved treatment to meet cultural resource consent conditions.
- Wastewater Duvauchelle wastewater treatment and disposal upgrade
   Projects that benefit the community

A large focus for the Council is to improve the long-term sustainability of Christchurch City's water supply to ensure safe drinking water for the community. This may involve replacing existing assets or upgrading the network. Over the next 10 years the Council has a plan to roll out smart metering and volumetric charging for the city's water supply to reduce water consumption and to improve the long-term sustainability of the Council's water take.

The Council's goal to reduce the environmental impact and comply with regulatory requirements, involves reducing the amount of contaminated water and wastewater overflows into the environment. Wastewaters overflows can occur in two different ways. Dry weather overflows which result from blockages or pipe breaks and wet weather overflows which are caused by wastewater systems becoming inundated with water during wet weather events. The Council currently has a wastewater overflow consent from Environmental Canterbury, which allows the discharge of untreated wastewater to water ways during large storms.

Individual projects included in the capital works programme proposed to mitigate these overflow issues to provide more healthy waterways for the community and natural environment include:

- Wastewater Selwyn pump station upgrades to reduce wastewater overflows to the Heathcote River so that compliance with the wet weather overflow consent can be achieved.
- Wastewater Riccarton Interceptor to reduce overflows to the environment whilst providing for future growth.
- Wastewater Grassmere storage tank, pump station and pressure mains to reduce wet weather sewage overflows.
- Stormwater Addington Brook and Riccarton stream drainage filters using a natural installed Filterra Bioscope to filter runoff from industrial areas within the catchment.
- Stormwater Port Hills revegetation and sediment control to reduce the amount of sediment being eroded from the hills and currently being washed into the Heathcote River and Ihutai-Estuary.

A list of capital expenditure investment over the course of the delivery plan are listed below.

Table 21 - Capital expenditure in the next 10 financial years for Water Services unit.

| Projected investment in water services (\$'000)        | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Drinking Water   |           |           |           |           |           |           |           |           |           |           |
| Capital expenditure - to meet additional demand        | 5,831     | 4,080     | 7,445     | 18,482    | 19,739    | 21,345    | 13,986    | 5,796     | 9,230     | 9,414     |
| Capital expenditure - to improve levels of services    | 12,477    | 15,180    | 13,973    | 8,930     | 8,415     | 12,064    | 10,050    | 15,906    | 15,292    | 10,060    |
| Capital expenditure - to replace existing assets       | 56,713    | 51,068    | 55,661    | 69,497    | 61,173    | 53,897    | 72,520    | 75,357    | 70,700    | 69,127    |
| Total projected investment for drinking water          | 75,022    | 70,329    | 77,080    | 96,910    | 89,327    | 87,306    | 96,556    | 97,058    | 95,222    | 88,602    |
| (\$'000)   |           |           |           |           |           |           |           |           |           |           |
| Wastewater   |           |           |           |           |           |           |           |           |           |           |
| Capital expenditure - to meet additional demand        | 5,097     | 13,229    | 13,120    | 5,604     | 2,274     | 3,590     | 2,832     | 1,242     | 1,425     | 3,298     |
| Capital expenditure - to improve levels of services    | 14,768    | 23,576    | 53,007    | 47,687    | 36,392    | 24,542    | 9,384     | 8,990     | 5,575     | 1,354     |
| Capital expenditure - to replace existing assets       | 54,622    | 90,365    | 98,651    | 76,971    | 51,167    | 50,225    | 52,344    | 66,380    | 71,824    | 74,967    |
| Total projected investment for wastewater (\$'000)     | 74,486    | 127,170   | 164,777   | 130,263   | 89,832    | 78,356    | 65,560    | 76,612    | 78,823    | 79,619    |
| Stormwater   |           |           |           |           |           |           |           |           |           |           |
| Capital expenditure - to meet additional demand        | 14,479    | 22,006    | 18,330    | 19,230    | 13,662    | 14,476    | 9,497     | 3,868     | 9,973     | 11,461    |
| Capital expenditure - to improve levels of services    | 13,481    | 13,471    | 39,731    | 48,900    | 50,238    | 57,494    | 57,204    | 59,767    | 58,854    | 81,983    |
| Capital expenditure - to replace existing assets       | 29,082    | 26,439    | 17,106    | 16,620    | 11,039    | 11,688    | 22,411    | 22,823    | 20,857    | 14,885    |
| Total projected investment for stormwater              | 57,043    | 61,917    | 75,168    | 84,751    | 74,940    | 83,659    | 89,113    | 86,459    | 89,685    | 108,330   |
| Total projected investment in water services _(\$'000) | 206,551   | 259,415   | 317,025   | 311,924   | 254,099   | 249,321   | 250,229   | 260,129   | 263,731   | 276,551   |

# B.5.2 Operation expenditure

Operation expenditure covers expenses such as personnel, maintenance, electricity, service contracts etc. Any operating costs relating to the maintenance contracts, such as CityCare, will be recorded as operational costs.

Table 22 - Operating expenditure in the next 10 financial years for Water Services unit.

| Projected operation expenditure in water services (\$'000) | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Drinking Water   |           |           |           |           |           |           |           |           |           |           |
| Operating expenditure                                      | 39,220    | 46,120    | 48,214    | 50,221    | 51,109    | 52,615    | 54,225    | 55,431    | 56,637    | 57,825    |
| Wastewater   |           |           |           |           |           |           |           |           |           |           |
| Operating expenditure                                      | 56,337    | 59,340    | 61,903    | 64,095    | 65,951    | 67,854    | 69,770    | 71,468    | 73,155    | 74,831    |
| Stormwater   |           |           |           |           |           |           |           |           |           |           |
| Operating expenditure                                      | 25,991    | 25,450    | 26,565    | 27,730    | 28,768    | 29,806    | 30,857    | 31,634    | 32,414    | 33,190    |
| Total projected investment in water services (\$'000)      | 121,548   | 130,910   | 136,682   | 142,046   | 145,828   | 150,275   | 154,852   | 158,533   | 162,206   | 165,846   |

A full list of revenue and expenses are further listed in Section D.12.

# **B.6** Historical delivery against planned investment

# B.6.1 Historical delivery & constraints

Actual investment in water services has generally been strong, with past years closely matching planned levels. FY2024/2025 we saw a drop due to some of the constraints outlined below.

Table 23 - Historical delivery against planned investment

| Delivery against planned investment                | Renev     | vals investment fo                | or water services ( | \$000)    | Total investment in water services (\$000) |                      |         |           |
|--|-----------|-----------------------------------|---------------------|-----------|--|----------------------|---------|-----------|
| (\$'000)   | FY2024/25 | FY21/22 - FY18/19 - Total FY2024/ |                     | FY2024/25 | FY21/22 -<br>FY23/24                       | FY18/19 -<br>FY20/21 | Total   |           |
| Total planned investment (set in the relevant LTP) | 140,357   | 337,592                           | 212,691             | 690,641   | 208,955                                    | 517,461              | 381,088 | 1,107,505 |
| Total actual investment                            | 99,287    | 306,679                           | 178,106             | 541,208   | 142,685                                    | 494,307              | 389,426 | 969,963   |
| Delivery against planned investment (%)            | 70%       | 91%                               | 84%                 | 78%       | 68%  | 96%                  | 102%    | 88%       |

Over the recent years there has been a number of challenges, these are summarised as follows:

- Significant stormwater and flood protection works delayed with no consenting option (could not intercept groundwater without groundwater take).
- Delays with some complex projects.
- Procurement delays.
- Delay in obtaining consents.
- Delays in implementing MEICA projects.

# B.6.2 Future improvements

A list of tasks that the Council expect to implement in the future to increase efficiency and improve delivery are outlined below. A big focus for the Council is prioritising some of the backlog as outlined in Section B.2.12 and understanding future peaks to ensure they are managed correctly. By managing the budget and using both in-house and external resources, the Council plans to deliver capital projects more efficiently, which will allow a focus back on delivering renewals. This does not involve requesting more budget allowance to complete the works, but bringing the budget already allocated forward so the delivery teams can proceed with completing the required renewals.

The following steps have been taken to improve delivery:

- Environment Canterbury (ECAN) have committed to a Plan change to resolve the groundwater issue.
- Experienced project managers engaged for complex projects and programmes.
- Programme manager and project team placed at the Christchurch Wastewater Treatment Plant.
- Increased project tracking.
- Provision of forward workplans provided to consultants and contractors monthly.

As part of the process to always improve, the Council has multiple areas that the Water Services unit have highlighted to improve the efficiency of its business to scale up to meet future peaks. This is not necessarily in the implementation plan as these are already planned to improve the delivery and meet delivery peaks in the future.

- Maintain and expand panels for consultants and contractors.
- Addition of a capital programme director.
- Emphasis on planning of capital programme delivery.
- Select appropriate method of delivery (Early Contractor Involvement, Design & Build etc).

# **B.7** Additional guidance for Statement of Regulatory Compliance

Regulatory compliance includes meeting drinking water standards, resource consents for water takes and discharges, wastewater discharge consents (land, air, odour amongst others), stormwater discharge consents and network consents. For a full detail outline of regulatory compliance, refer to Section B.4.

Christchurch's water source comes from groundwater and is extracted from 126 wells located across 46 sites across the city. Protozoal compliance is obtained through demonstration of Class 1 water sources for all but two of these sites (where UV treatment will be used). Bacterial compliance at these sites is unable to be demonstrated because of the lack of treated water storage which is needed to be able to demonstrate that contact time requirements from the Drinking Water Quality Assurance Rules are met. The Council is working closely with Water Services Authority/Taumata Arowai (including jointly contributing to research being undertaken by Environmental Science & Research into virus presence in groundwater as explained in Section B.4 above and anticipated changes to Drinking Water Quality Assurance T3 rules may enable the demonstration of bacterial compliance. If the changes anticipated to Drinking Water Quality Assurance Rules are not made or do not reduce contact time requirements sufficiently then bacterial compliance at 42 treatment plants across Christchurch would need significant investment.

With regards to fluoridation, the investment plan does not include fluoridation installation but there is provision for 'limited' associated upgrades, although this is also not fully funded in the next 10 years.

The Council is continuing the process to apply for new wastewater discharge consents whilst the industry awaits the new regulatory wastewater standards.

# Part C: Revenue and financing arrangements

## Revenue and charging arrangements

## C.1 Charging and billing arrangements

Currently water services within Christchurch City Council are majority charged through council rates, with 90% of revenue charged to consumers through rates, with the remainder charged through development contributions or minor specific consumer pay fees.

#### C.1.1 Water services charges

The Council has two different rate charges, general and targeted rates, which it passes onto the consumer.

- General rates are based on capital value of the property and is mostly used to manage Council debt repayments.
- Targeted rates enhance the transparency of the Council's spending and benefit those that have connections to water supply, wastewater and stormwater.
- Development Contributions
- Charges and Fees

Further explanation of these charges is listed below in Section C.2.2.

There are no proposed changes to the Council's current charging schemes.

#### C.1.2 Ringfencing revenue

The revenues generated by the Water Services unit services will be isolated and ringfenced from other council revenues by using cost objects and hierarchies to ensure each activity is separately identifiable within the Council's cost and budget ledgers, Flood protection however will not be financially ringfenced although will continue to be delivered by the in-house Water Services unit. The implementation of this will occur in a staged approach, ensuring correct frameworks and financial systems are set up. This will ensure water services revenues are tracked and consolidated or separated as required for both, budget, forecast and renewals.

The Council already separates water services through its activity statements, however moving forward, the Council will ensure the separation is more easily accessible within the Council's reporting to enable ease of governance and management review. This will ensure that revenues, costs, overheads and surplus's generated for/by water services are only applied to water services.

# **C.2** Water services revenue requirements and sources

#### C.2.1 Revenue requirements

The revenue requirements to deliver water services under the water services delivery plan will remain largely unchanged from the current council requirements. This involves ensuring the Funding Impact Statement is balanced and sufficient funding meets the required expenditure. Minor changes will occur to improve clarity for ratepayers about the general rate portion applied to water services, and more accurately allocate finance costs to water services funded by targeted rates.

## C.2.2 Sources of revenue

Sources of revenue include:

- General rates
- Targeted rates
- Development Contributions
- Charges and Fees

#### **General Rate**

General rates are based on capital value, land value or annualised value. In addition, the Council set a uniform annual general charge (UAGC) as a fixed amount per rating unit, or a fixed amount per separately used or inhabited part (SUIP) of a rating unit. The bulk of our general rates is the proportion of each rating unit's capital value. Capital value represents the owner's full investment in the property and is therefore considered to provide a more equitable basis for the general rate than the land value or annual value alternatives.

To account for different sectors in the community and how each benefits differently from activities, the Council has determined to apply differentials to the value-based general rate, based on the use to which the land is put and the benefit they receive from these activities. For example, business properties and vacant land properties in the central city tend to benefit relatively more whilst remote rural properties relatively less than the standard property.

#### **Targeted Rate**

Most of the water supply, wastewater & stormwater charges to consumers result from targeted rates. The Council uses targeted rates where it is considered desirable and practicable either to enhance the transparency of the spending (i.e. so that ratepayers can see how much they pay for a particular activity) or to ensure that the cost of a particular item is borne by the group(s) deemed to derive most benefit from it.

Water supply, wastewater and stormwater activities are considered to primarily benefit those properties which connect or can connect to the network. Targeted rates therefore are used to fund the activity from those properties receiving or able to receive this benefit. These targeted rates will collect the operating cost of the water service activity plus a significant contribution towards the expected long term average cost of related asset renewal and replacement (charged in lieu of depreciation).

For water supply, an additional excess water supply targeted rate is charged by assessing those residential or commercial properties placing an unusually high demand on the water supply network.

Liability for the Excess Water Supply Commercial Targeted Rate is calculated as a number of dollars per cubic metre of water consumed in excess of the water supply targeted rate allowance for that rating unit.

#### **Development Contributions**

The Council also makes significant capital investment in infrastructure specifically to service growth development in the district (i.e. new subdivision and/or more intensive development of existing developed land). The Council uses development contributions to recover a fair and equitable portion of the cost of this investment from persons undertaking development.

#### Fees and Charges

Where an activity is perceived to provide benefit to identifiable individuals or groups, or where an activity was driven by the actions of an individual or group, the Council will typically collect fees and charges in respect to this. Consideration is given to whether each fee or charge is practical, economically viable, or may undermine an identified core community outcome. For water services, only a small amount is collected through this means.

## Rate Penalties

In the occurrence of delayed rates payments and rate penalties, any penalty payments will be pro rata'd to represent the water service portion.

# **C.3** Consumer user charges

## C.3.1 Residential and non-residential charging

The Council understands that the benefits from activities can be distributed unevenly between different sectors of the community – in particular, business properties can tend to benefit relatively more and remote rural properties relatively less than other (standard) properties (including residential properties). Vacant land properties in the central city and some suburban commercial centres can also benefit relatively more than standard and business properties that have corresponding capital values.

We have therefore determined to apply differentials to the value-based general rate, based on the use to which the land is put and where the land is situated:

- All properties are charged at a standard rate, except those that meet the criteria for business, city vacant or remote rural set out in the Funding Impact Statement,
- Business properties are charged at a differential rate which is higher than the standard rate,
- "City vacant" properties (vacant land properties in the central city and some suburban commercial centres) are charged at a differential rate which is higher than the standard and business rates, and
- Remote rural properties are charged at a differential rate which is lower than the standard rate.

An outline of projected charges for residential household over the next 10-year period are listed in Section D.5 Table 25.

## C.3.2 Collection methodology

The charging and collection methodology for residential and non-residential consumers, will remain as per the Council's quarterly rates billing cycle.

Development contributions are invoiced through the consenting process. Fees and charges invoices on a user pay basis, for both commercial and residential customers.

# C.4 The affordability of projected water services charges for communities

Affordability considerations and constraints, including the community's ability to pay water services charges are at the forefront of rate decisions. The Council, along with Councillors, understands the pressures put onto households with cost of living, interest rates, tail wind of Covid pandemic and general global uncertainty. Christchurch City Council work for the people of Christchurch & Banks Peninsula and these financial pressures are seriously considered when reviewing rates changes. When reviewing and setting rates, the Council considers the capital value of the property, the use to which the land is put to and the benefit the uses receive from these activities. Applying this in-depth thought process helps to account for the differential of people financial situations.

However, with rates expected to slowly rise in order to pay for 100% of all renewals through rates, the Council is aware to stagger this gently so that the burden is spread out and not an immediate hit to the community.

The Council did consider using more debt to fund work programmes to mitigate some of the rate increases, but this did not ensure a balanced budget is maintained as outlined further below in Section D.3, Financial Strategy assumptions.

The average water charges per connection as a percentage of median household income are listed in Section D.5 in Table 29 & Graph 2.

### Funding and financing arrangements

# C.5 Water services financing requirements and sources

An explanation of how Council undertakes its financing to ensure it continues to deliver water services and the strategies regarding borrowing and debt are set out below.

## C.5.1 Borrowing

The debt to revenue ratio is an indicator of debt affordability and prudence. The Council maintains covenants with lenders which set the limits on borrowing. The Council's biggest source of debt funding is the Local Government Funding Agency (LGFA) which limits the Council's total net debt to 285 percent of total operating revenue in the 2024/25 year, before settling at a new long-term limit of 280 percent from 2025/2026. The projected borrowings for water services will be within borrowing limits as outlined in Section D.13.

The Council has an obligation to report against the financial prudence benchmarks set out in the *Local Government* (*Financial Reporting and Prudence*) *Regulations 2014*. The Council applies five additional debt benchmarks as shown below, in which the first four are also used to satisfy financial covenants agreed with the Local Government Funding Agency (LGFA). These are set by the foundation policies in Schedule 1 of LGFA's Shareholders' Agreement. Tighter limits apply if our long-term credit rating falls below 'A'. Standard & Poor's review in December 2023 confirmed the Council's credit rating as AA (Stable).

Table 24 - Debt limits

| Measure                            | Limit                        |
|------------------------------------|------------------------------|
| Net Debt/Total revenue             | <290% (2024)<br><285% (2025) |
|                                    | <280% (from 2026)            |
| Net interest / Total revenue       | <20%                         |
| Net interest / Annual rates income | <30%                         |
| Liquidity                          | >110%                        |
| Net Debt / Equity                  | <20%                         |

A prudent debt strategy should restrict planned borrowing to materially less than the covenant limit, to provide budget flexibility (or debt headroom) in the event of unexpected adverse changes to our financial position or operating environment.

The maximum debt to revenue ratio proposed over the 2024-34 period is 201.2 percent in FY2028/29, well under the 280 percent LGFA limit. At this peak we retain debt headroom of \$1,128 million.

## Financial Strategy assumptions

The Council's 2024 Financial Strategy assumptions were:

- Asset re-instatement value increased 32% from 2019 to 2022.
- A 1 in 5,000 year disaster event now requires debt headroom of \$600m.
- A 1 in 10,000 year disaster event requires debt headroom of \$650m.

Based on the updated assumptions above, the Council has set the following debt targets:

- Debt headroom will be at least \$600 million.
- The minimum debt headroom budgeted capacity in the LTP 2024-34 is \$1079 million

A reduction in budgeted debt headroom (by using more debt to fund Council's annual work programme) was considered as an alternative to the proposed rate increase but this impacted significantly on one of our key Financial Benchmarks; the need to maintain a balanced budget.

#### C.5.2 Financial strategy for water services

The costs to the Council from the 2010/11 earthquakes and the Covid-19 pandemic demonstrated the need to be in a financial position to enable Council to appropriately respond to unexpected events. Council needs to continue to maintain the ability to borrow sufficient funds at short notice to soften the effect of a fiscal emergency and to deliver services without the need to immediately pass on the usually short term costs via rates.

To achieve long-term financial resilience the following prudent financial management measurers will be used:

#### Maintain a balanced budget

Outside of FY2026/27, Council proposes to maintain a balanced budget. This will ensure that Council rate the current generation for sufficient funds to cover the wear and tear on existing assets (represented by depreciation), ensuring the growing liability to maintain these existing assets is not left to future generations. The goal of fully funding our renewals from rates is a key element in achieving a balanced budget.

#### Rating for renewals

Council has had a strategy to incrementally increase rating for asset renewals to 100% of long run average renewals by 2032. Since the earthquakes of 2010/11 the Council has been borrowing to fund some of the cost of its annual asset renewal programme. However, since 2015 the Council have been transitioning to fully fund renewals from rates by 2032. This helps ensure current ratepayers are not subsidised by future generations.

#### Borrowing

We borrow to fund spending where the benefit is perceived to endure for multiple years – for example, capital expenditure on improving assets, or growth prior to the collection of development contributions. Repayment of rate-funded debt is via the general rate over a period of thirty years.

#### **Funding of Operating costs**

Where an activity is funded using a number of funding sources, our practice is to meet our operating costs in the first instances from fees and charges and grants and subsidies (subject to the considerations outlined above). If the activity requires further operational funding, this remainder is funded through rates.

## C.5.3 Debt and borrowing strategy

The expected tenor of new borrowings is thirty years, with repayment funded through the Council's general rate.

The Council manages debt on a net portfolio basis, and should the Council require individual borrowing deals, they will not be associated with particular projects or spending, unless the interest expense associated with borrowing can be claimed as a tax deduction, then in that instance, the Council will specifically borrow for that particular project or spending.

### Maturing debt

Debt will be repaid as it falls due in accordance with the applicable borrowing arrangement. Subject to the appropriate approval and debt limits, a loan may be rolled over or re-negotiated as and when appropriate.

## Security

Under a Debenture Trust Deed, our borrowing, committed bank facilities and potential liabilities under International Swaps and Derivatives Association (ISDA) contracts are secured by a charge over all our rates levied under the *Local Government (Rating) Act 2002*. From time to time, and with the Council's approval, security may be offered by providing a charge over one or more of our assets such as our physical assets.

#### Interest rate risk

Interest rate risk is the risk that funding costs will materially exceed projections included in the Long Term Plan or Annual Plan. This can be caused from adverse movements in interest rates which can adversely impact revenue and expense projections, cost control and capital investment decisions, returns or feasibilities.

Certainty around interest costs can be achieved through the active management of underlying interest rate exposures and reducing the uncertainty relating to the impact of interest rate movement through fixing/hedging of interest rates. The Council ensures that it doesn't take on too much interest rate risk and looks ahead when locking in interest rates so that the Council doesn't pay more on interest than expected.

#### Liquidity risk/funding risk

The Council plans carefully to make sure it always has enough money or borrowing options available to meet payments, and that it can refinance debt at good terms — even if unexpected events happen.

Management of cash flow deficits in various future periods as identified in long term financial forecasts is reliant on the maturity structure of cash, short-term financial investments, borrowings and committed loan facilities. The Council utilises liquidity risk management which focuses on the ability to access committed funding at a future time to fund the gaps, and funding risk management which centres on the ability to re-finance or raise new debt at a future time at acceptable pricing (fees and borrowing margins) and maturity terms.

The management of these risks is important as several risk factors can arise to cause an adverse movement in borrowing margins, term availability and general flexibility including:

- Local Government risk is priced to a higher fee and margin level;
- Our credit standing or financial strength as a borrower deteriorates due to financial, regulatory or other reasons;
- A large individual lender experiences its own financial/exposure difficulties resulting in the Council not being able to manage our debt portfolio as optimally as desired;
- New Zealand investment community experiences a substantial over-supply of the Council's investment assets:
- Financial market shocks from domestic or global events.

The management of our funding risk is important to mitigate any adverse movement in borrowing margins, term availability and general flexibility.

To mitigate this, Council seeks a diversified pool of borrowings where possible and ensures that bank funding is only sought from approved strongly rated New Zealand registered banks. By spreading the maturity of existing borrowings over time, so that, in the event of any of the above events occurring, Councils overall borrowing cost and maturity is not significantly compromised.

## Counterparty credit risk

Credit risk will be regularly reviewed by the Finance & Performance Committee. Credit limits are dependent on the counterparty's Standard & Poor's, (S&P) rating.

#### C.5.4 Minimum cash and working capital requirements

Minimum cash and working capital requirements are managed at an all of Council level, to ensure that cashflows are sufficient to ensure that both core Council activities and the water services activities can be carried out without interruption.

The Council uses its Liability Management & Investment Policy to set limits and rules on the management on liquidity, funding and associated risks to ensure it maintains sufficient working capital and enough cash to carry out the budgeted works programme.

The management of our funding risk is important to mitigate any adverse movement in borrowing margins, term availability and general flexibility. Funding risk is primarily controlled by spreading the maturity of existing borrowings over time, so that, in the event of any of the above events occurring, our overall borrowing cost and maturity is not significantly compromised.

Where possible, the Council seeks a diversified pool of borrowing and ensures that bank funding is only sought from approved strongly rated New Zealand registered banks. Strongly credit rated banks have a short-term and long-term credit rating from Standard & Poor's (or equivalent) of at least A-1 and A respectively.

To ensure sufficient borrowing is capacity is available, including in the event of an emergency, the Council has a self-imposed debt headroom limit of at least \$600 million based on the following assumptions:

- Asset reinstatement values increased 32% from 2019 to 2022.
- A 1 in 5,000-year disaster event now requires debt headroom of \$600m.
- A 1 in 10,000-year disaster event requires debt headroom of \$650m.

## C.6 Determination of debt attributed to water services

The total council debt as of 30 June 2024 was \$2,592.7 million, with the total debt related to water services as of 30 June 2024 being \$899.7 million (35% of total council debt). This put Christchurch City Council's net debt to operating revenue as of 30 June 2024 was 145%.

In the past, Christchurch City Council had no borrowing or balance of borrowing for its core activities (including water services) as of the end financial year 2008, as per its audited annual report. From 2009-2024, the new borrowing for water services has been extracted from the Funding Impact Statement in each financial year's annual report, for each water service.

A straight line 30-year debt repayment has been assumed for each years borrowing, reducing the balance of debt allocated to water services on the 30 June 2024.

Significant capital revenue, such as crown earthquakes recoveries, which reduced the amount of borrowing or assisted with debt repayment have been applied to the activities in which those funds were spent, including water services, reducing the amount of debt applied to water services on 30 June 2024.

# **C.7** Insurance arrangements

Christchurch City Council holds the necessary insurance cover and policies on its assets. The insurance arrangements the Council currently has is outlined below.

#### C.7.1 Level of cover

The most recent valuation carried out in 2023 is the basis for how the level of insurance cover is justified. Assets are valued every three years by external valuers, with desktop updates using cost indices whilst taking into account new and disposed assets in the other years. Insurance cover listed below is based on capacity available in the market and the results of loss modelling.

- Above ground assets (pump stations, reservoirs, treatment plants) are covered against all perils for reinstatement value listed, up to a policy limit of \$1.5 billion.
- Below ground assets (reticulation networks, land drainage etc) are covered against all perils for reinstatement value listed, up to the policy limit of \$600 million.

Due to the size of the Council's asset portfolio, the Council utilises a variety of different insurance schemes to ensure the policy limit is necessary for the assets. Recent global natural catastrophic losses have and continue to erode insurance capital for exposed risks, which in turn has reduced cover and increased costs. The Council continues to go to the market to see what capacity is out there so they can get as much coverage as possible.

### C.7.2 Insurance reviews

This insurance cover is reviewed annually for all assets as part of the renewal process with asset schedules updated for additions and disposals based on the Council's SAP Asset Management system. The Council currently insures for all risks including seismic, tsunami, flood, fire. With the use of the Verisk Touchstone model and leaning on the industry, the Council can utilise modelling to estimate losses that could be sustained by a portfolio of assets due to a catastrophic event. This includes:

- Risk evaluation and assessment seismic loss modelling is carried out every two years using the Verisk
  Touchstone model. This model is an external software that streamlines operations, manages complex risk
  and makes data-powered decisions with robust analytics.
- Last updated in early 2024 with the next update scheduled for early 2026.
- Carried out for both above and below ground assets.
- Loss scenarios range from 1/50 to 1/10000-year return periods and include perils of ground shaking, fire following earthquake, tsunami, seismically induced landslide and liquefaction.

#### C.7.3 Insurance evaluations

An AIR Worldwide earthquake model for New Zealand provides an integrated view of potential loss following ground shaking, liquefaction, seismically induced landslides, tsunami and fire following an earthquake. Computer simulators are used to estimate the events intensity, magnitude and location whilst looking at the asset's vulnerability and subsequent loss due specific events. The outputs is an estimate of the damage expected and combines this with the underwriter's policy conditions to provide an insured loss calculation.

Once the insured value is finalised and policy limit is set, the Council determine how much of assets are covered by the crown, what is covered by insurance and how much debt the Council can cover. The Council assesses the level of insurance available annually and decides whether there is an acceptable level of risk remaining.

Insurance renewals are placed by staff under delegation from the Council. The renewal strategy is reported to the Finance and Performance Committee ahead of the renewal process beginning, and the outcome of the process is reported once renewal is complete. A summary of claims is included in the quarterly finance report and reviewed by the Finance and Performance Committee. Any significant claims are managed by the Insurance Sub-committee of the Finance and Performance Committee in accordance with the terms of reference.

# Part D: Financial sustainability assessment

## Financially sustainable water services provision

# D.1 Confirmation of financially sustainable delivery of water services by 30 June 2028

- The Council plans to achieve financial sustainability by 30 June 2028, based on the financial measure and planning included in the water services delivery plan.
- The Council can afford day to day operations with projected water services revenues exceeding operating
  costs resulting in a growing positive operating surplus ratio and positive operating cash ratio. This
  achievement in the operating surplus ratio is largely due to the Christchurch City Council's strategy to
  increase to 100% rating renewals capital expenditure by 2032. The Water Services unit operating cash ratio
  is sufficient to meet the Council's water services investment requirements and meet scheduled debt
  repayments.
- The proposed level of investment is fully funded by projected revenues and access to financing, to meet the
  levels of service expected, regulatory requirements and provide for growth. This ensures a resilient,
  efficient, and sustainable infrastructure system for the community. Water services asset investment ratio
  remains positive in all years of the water services delivery plan, demonstrating the capital investment each
  year in water services assets exceeds the incurred depreciation expense.
- The Council's projected funding and financing is sufficient to meet the required investment needed.
  Projected borrowings are within the borrowing limits and maintain sufficient debt headroom to continue
  the ability to borrow in response to a disaster or unforeseen significant event for all years of the water
  services delivery plan. Along with rating for renewals, the Council is in a strong position to finance its
  proposed capital and renewal works.

# D.2 Actions required to achieve financially sustainable delivery of water services

Christchurch City Council has only minor actions to implement to ensure that the delivery of water services will be financial sustainability by 30 June 2028. The Council currently met revenue and investment sufficiency, and this is not expected to change over the course of the water services delivery plan. However minor actions that underpin this water services delivery plan include rating for renewals and ringfencing its revenues.

The Council already separates its water services through its activity statements which allows the Council to analysis the sustainability of its finances, however moving forward, Council will ensure the separation is more easily accessible within Council's reporting to enable ease of governance and management review.

In addition, Council's Long Term Strategy to increase to 100% rating renewals expenditure by 2032 will be implemented to ensure the Council continues to meet the levels of service expected, achieve regulatory compliance and provide for growth. Projected borrowings are within the borrowing limits and maintain sufficient debt headroom to maintain the ability to borrow in response to a disaster or unforeseen significant event for all years of the water services delivery plan.

# D.3 Risks and constraints to achieving financially sustainable delivery of water services

A list of issues, constraints and risks to deliver this water serviced delivery plan financially sustainably are listed below:

Programmes and projects are assumed to be delivered within budget and on time. If actual costs vary from
estimates, due to higher input prices and/or delivery delays, then this could result in budget shortfalls.
However, the Council has tendered significant work in the past and estimates are based on the best available
information.

- Regulatory changes by external authorities could result in funding for unexpected infrastructure to meet
  certain requirements and compliance. This includes meeting requirements in the Local Government (Water
  Services) Bill, Water Services Authority/Taumata Arowai for water quality, adhering to environmental
  guidelines, and complying with economic regulations overseen by the Commerce Commission. Any decision
  to significantly alter the capital works programmes would likely need to be addressed in a future Annual
  Plan or Long Term Plan.
- Useful life of assets is as recorded in asset management systems and plans are based upon professional advice (Accounting Policies detail the useful lives by asset class). If the useful life of an asset is significantly shorter than expected, then the asset will need to be replaced sooner than planned and budgeted for.
- Carrying value of assets. The opening statement of the financial position reflects correct asset values. The carrying value of assets are reviewed and updated on a regular basis. If inflation is materially higher or lower than anticipated, then the Council will have a revenue shortfall or surplus relative to its planned work programme. If inflation on costs is not offset by inflation on revenues, then the Council will have a revenue shortfall relative to affected planned work programmes.
- Inflation. The Council has considered both information provided by Business Economic Research Limited (BERL) to all local authorities and a weighted mix of its own cost inputs in determining appropriate inflators. It also receives external advice on forecast future salary movements. However, these risks are unlikely to eventuate to a significant degree within a single rating year. Any decision to significantly cut services or increase debt would be more likely to be addressed in a future Annual Plan or Long-Term Plan.
- Population and business growth will differ as forecasted by Council's growth modelling.
- The Council's current rating of AA is maintained. If the Council's credit rating with Standard and Poor's is downgraded, then the Council's cost of borrowing is likely to increase.
- Borrowing Costs. If interest rates increase to above the assumed level, then the Council's debt servicing
  costs will increase. The Council manages its interest rate exposure in accordance with its Liability
  Management Policy and in line with advice from an independent external advisor. Projected debt is mostly
  hedged to reduce exposure to market rate fluctuations, but a moderate amount of risk remains.
- Securing External Funding. The Council minimises its liquidity risk by maintaining a mix of current and noncurrent borrowings in accordance with its Liability Management Policy, plus some undrawn committed lending facilities from banks.
- Local Government Funding Agency (LGFA) Guarantee. Council believes the risk of the guarantee being called
  on and any financial loss arising from the guarantee is remote. The likelihood of a local authority borrower
  defaulting is extremely low and LGFA has recovery mechanisms that would be applied prior to any call on
  the Guarantee.
- Contract Rates. Re-tendering of major contracts could result in cost increases in excess of the rate of inflation
- Insurance cover. The Council has adequate Material Damage cover for all above ground buildings which are
  undamaged and fire cover for significant unrepaired buildings. Risk of major loss through fire. The results of
  external and independent modelling suggests that the Council's insurance cover is sufficient to meet two
  times the maximum loss. Any financial impact is not expected to be significant.
- Natural disaster financial implications. It is assumed the Council's insurance along with central government
  assistance will cover the cost of repairs. If the Council's insurance cover and expected Government
  assistance isn't sufficient to cover the costs of repairing the Council's infrastructure following a natural
  disaster, then additional funding will need to be found. The Council is maintaining significant debt headroom
  to be able to respond to such events.

For a list of further general assumptions and risks for the delivery of the water services delivery plan, refer to Section F.2.

## Assessment of revenue sufficiency

# D.4 Projected water services revenues cover the projected costs of delivering water services

The revenues collected for water services will be isolated from other council revenues by recording all transactions relating to Water Services unit in separate financial ledger account.

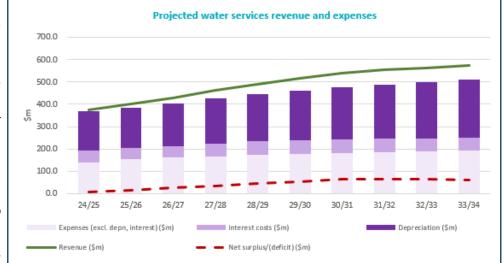
Operating revenue is used as a proxy by the Local Government Funding Agency's (LGFA) definition of revenue. LGFA defines revenue as "Cash earnings from rates, grants and subsidies, user charges, interest, dividends, financial and other revenue and excludes non-government capital contributions (e.g. developer contributions and vested assets)".

Christchurch City Council's projected water services revenues are sufficient to meet the water services revenue sufficiency requirement.

- In all years covered by the Water Service Delivery Plan, projected water services revenues exceed expenses including finance costs and depreciation, as shown in Graph 1 adjacent.
- The Water Services unit maintains and grows a positive operating surplus ratio, from financial year 2027/28 (Table 30)
- The Water Services unit maintains and grows a positive operating cash ratio for the full period of the water services delivery plan (Table 31).

The projected water services revenues applied to the delivery of those water services is sufficient to ensure the Council's long term investment in delivering the capital and renewals programmes, along with meeting the expected growth, levels of service and regulatory requirements.

**Graph 1 – Projected water services revenue and expenses** 



# D.5 Average projected charges for water services over FY2024/25 to FY2033/34

### Charges per connection

## Table 25 - Connection charges

| Projected average charge per connection / rating unit (including GST) (\$) | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Drinking water   | 680       | 730       | 788       | 865       | 917       | 964       | 1,010     | 1,038     | 1,053     | 1,065     |
| Wastewater   | 1,094     | 1,111     | 1,168     | 1,264     | 1,331     | 1,382     | 1,404     | 1,395     | 1,380     | 1,366     |
| Stormwater   | 433       | 455       | 495       | 548       | 593       | 636       | 683       | 717       | 742       | 770       |
| Average charge per connection / rating unit                                | 2,206     | 2,296     | 2,451     | 2,677     | 2,842     | 2,982     | 3,097     | 3,149     | 3,175     | 3,201     |
| Increase in average charge   | 12.7%     | 4.0%      | 6.8%      | 9.3%      | 6.2%      | 4.9%      | 3.9%      | 1.7%      | 0.8%      | 0.8%      |
| Water services charges as % of median household income                     | 1.9%      | 1.9%      | 2.0%      | 2.1%      | 2.2%      | 2.3%      | 2.3%      | 2.3%      | 2.3%      | 2.2%      |

#### Note:

The average projected charge per connection has been calculated as follows:

(Total Water Services General Rates Revenue incl GST + Total Water Services Targeted Rates Revenue incl GST) / Projected Rateable Units with Water Services Connections)

#### Rating Revenue

Table 26 below outlines Christchurch City Council's projected increase in rates revenue for all of water services within the Water Services unit and what portion of this increase is attributable to capital renewals expenditure.

Table 26 - Rating charges for whole of the Water Services unit

| All Water Services (\$'000)                         | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total Rates Revenue (excl. GST)                     | 334,265   | 353,813   | 380,739   | 419,285   | 448,611   | 474,497   | 496,723   | 509,121   | 517,372   | 525,680   |
| Projected Rates Increase                            | 6.1%      | 5.8%      | 7.6%      | 10.1%     | 7.0%      | 5.8%      | 4.7%      | 2.5%      | 1.6%      | 1.6%      |
|   |           |           |           |           |           |           |           |           |           |           |
| Total Rating for Capital Renewals (excl. GST)       | 118,316   | 126,845   | 143,253   | 164,308   | 180,289   | 196,425   | 212,879   | 222,707   | 228,718   | 234,210   |
| Projected Rates Increase                            | 12.9%     | 7.2%      | 12.9%     | 14.7%     | 9.7%      | 9.0%      | 8.4%      | 4.6%      | 2.7%      | 2.4%      |
|   |           |           |           |           |           |           |           |           |           |           |
| Total Rates Revenue (Excluding Rating for Renewals) | 215,949   | 226,968   | 237,486   | 254,977   | 268,322   | 278,072   | 283,844   | 286,414   | 288,654   | 291,470   |
| Projected Rates Increase                            | 2.7%      | 5.1%      | 4.6%      | 7.4%      | 5.2%      | 3.6%      | 2.1%      | 0.9%      | 0.8%      | 1.0%      |

The split between for water supply, wastewater and stormwater are listed in the tables Table 27 below.

Table 27 – Rating charges for individual waters

| Drinking Water / Water Supply (\$'000)                          | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total Rates Revenue (excl. GST)                                 | 103,818   | 113,854   | 123,928   | 137,168   | 146,547   | 155,249   | 163,947   | 169,770   | 173,732   | 177,009   |
| Projected Rates Increase  | -2.5%     | 9.7%      | 8.8%      | 10.7%     | 6.8%      | 5.9%      | 5.6%      | 3.6%      | 2.3%      | 1.9%      |
|   |           |           |           |           |           |           |           |           |           |           |
| Total Rating for Capital Renewals (excl. GST)                   | 47,080    | 50,474    | 57,003    | 65,381    | 71,740    | 78,161    | 84,708    | 88,619    | 91,011    | 93,196    |
| Projected Rates Increase  | 9.0%      | 7.2%      | 12.9%     | 14.7%     | 9.7%      | 9.0%      | 8.4%      | 4.6%      | 2.7%      | 2.4%      |
|   |           |           |           |           |           |           |           |           |           |           |
| Total Rates Revenue (Excluding Rating for Renewals) (excl. GST) | 56,738    | 63,380    | 66,925    | 71,787    | 74,807    | 77,088    | 79,239    | 81,151    | 82,721    | 83,813    |
| Projected Rates Increase  | -10.3%    | 11.7%     | 5.6%      | 7.3%      | 4.2%      | 3.0%      | 2.8%      | 2.4%      | 1.9%      | 1.3%      |
| Wastewater / Water Supply (\$'000)                              | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
| Total Rates Revenue (excl. GST)                                 | 165,435   | 170,715   | 180,877   | 197,400   | 209,544   | 219,280   | 224,599   | 224,856   | 224,238   | 223,752   |
| Projected Rates Increase  | 9.1%      | 3.2%      | 6.0%      | 9.1%      | 6.2%      | 4.6%      | 2.4%      | 0.1%      | -0.3%     | -0.2%     |
|   |           |           |           |           |           |           |           |           |           |           |
| Total Rating for Capital Renewals (excl. GST)                   | 52,808    | 56,614    | 63,938    | 73,335    | 80,468    | 87,670    | 95,014    | 99,400    | 102,083   | 104,535   |
| Projected Rates Increase  | 13.4%     | 7.2%      | 12.9%     | 14.7%     | 9.7%      | 9.0%      | 8.4%      | 4.6%      | 2.7%      | 2.4%      |
|   |           |           |           |           |           |           |           |           |           |           |
| Total Rates Revenue (Excluding Rating for Renewals) (excl.      | 112,627   | 114,101   | 116,939   | 124,065   | 129,076   | 131,610   | 129,585   | 125,456   | 122,155   | 119,217   |
| GST)  |           |           |           |           |           |           |           |           |           |           |
| Projected Rates Increase  | 7.2%      | 1.3%      | 2.5%      | 6.1%      | 4.0%      | 2.0%      | -1.5%     | -3.2%     | -2.6%     | -2.4%     |
| Stormwater / Water Supply (\$'000)                              | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
| Total Rates Revenue   | 65,011    | 69,245    | 75,934    | 84,717    | 92,521    | 99,968    | 108,178   | 114,494   | 119,401   | 124,919   |
| Projected Rates Increase  | 13.9%     | 6.5%      | 9.7%      | 11.6%     | 9.2%      | 8.0%      | 8.2%      | 5.8%      | 4.3%      | 4.6%      |
|   |           |           |           |           |           |           |           |           |           |           |
| Total Rating for Capital Renewals                               | 18,428    | 19,757    | 22,312    | 25,592    | 28,081    | 30,594    | 33,157    | 34,688    | 35,624    | 36,479    |
| Projected Rates Increase  | 22.4%     | 7.2%      | 12.9%     | 14.7%     | 9.7%      | 8.9%      | 8.4%      | 4.6%      | 2.7%      | 2.4%      |
|   |           |           |           |           |           |           |           |           |           |           |
| Total Rates Revenue (Excluding Rating for Renewals) (excl.      | 46,583    | 49,488    | 53,622    | 59,125    | 64,440    | 69,374    | 75,021    | 79,806    | 83,777    | 88,440    |
| GST)  |           |           |           |           |           |           |           |           |           |           |
| Projected Rates Increase  | 10.9%     | 6.2%      | 8.4%      | 10.3%     | 9.0%      | 7.7%      | 8.1%      | 6.4%      | 5.0%      | 5.6%      |

## Number of connections

As discussed further in Section B.1, 5% growth in connections is expected over the next 10 year period for Christchurch City Council. A list of population and projected connections are listed in Part B Table 3, Table 4, Table 5. A summary of these connections is listed below in Table 28.

Table 28 – Number of connections

| Projected Number of Connections | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Drinking Water                  | 175,652   | 179,390   | 180,825   | 182,272   | 183,730   | 185,200   | 186,681   | 188,175   | 189,680   | 191,198   |
| Wastewater                      | 173,880   | 176,734   | 178,148   | 179,573   | 181,010   | 182,458   | 183,917   | 185,389   | 186,872   | 188,367   |
| Stormwater                      | 172,837   | 175,051   | 176,451   | 177,863   | 179,286   | 180,720   | 182,166   | 183,623   | 185,092   | 186,573   |

For further discussion on growth areas within Christchurch City Council, please refer to Part B Section B.1.3.

## **Household Income**

The median household income, based on the Regional Economic Profile provided by Infometrics, increases annually by the average change in the median household income since 2000 (\$2,853 per year). See below the historic and planned projection income in Graph 2 below.

Table 29 – Household income

|                                   | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Projected Median Household Income | 117,450   | 120,303   | 123,156   | 126,010   | 128,863   | 131,716   | 134,569   | 137,423   | 140,276   | 143,129   |

## **Graph 2 – Projected Median household income**



# D.6 Projected operating surpluses/(deficits) for water services

The operating surplus ratio reflects what percentage of the Council's water services revenues remain after paying for water services operating expenditure (including depreciation). A negative percentage means that the Council's water services operating expenditure exceeds its water services operating revenues. It is important to maintain a positive operating surplus ratio to ensure the Council rate the current generation for sufficient funds to cover the wear and tear on existing assets (represented by depreciation), to ensure liability is not left to future generations, to maintain these existing assets.

#### Table 30 - Operating surplus ratio

| Operating surplus ratio (whether revenues cover costs) (\$'000)                  | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Operating surplus/(deficit) excluding capital revenues – combined water services | (27,244)  | (24,548)  | (14,014)  | 1,260     | 11,204    | 20,963    | 29,662    | 30,238    | 27,926    | 25,327    |
| Operating revenue – combined water services                                      | 341,615   | 361,273   | 388,429   | 427,215   | 456,763   | 482,860   | 505,296   | 517,891   | 526,335   | 534,830   |
| Operating surplus ratio  | (8.0%)    | (6.8%)    | (3.6%)    | 0.3%      | 2.5%      | 4.3%      | 5.9%      | 5.8%      | 5.3%      | 4.7%      |

Note: Operating revenue in the Table above does not include Development costs.

The goal of fully funding our renewals from rates is a key element in achieving a positive operating surplus ratio as Christchurch City Council does not rate for depreciation, rather it rates for renewals of capital expenditure. The current strategy as per the Council's 2024 Long Term Plan Financial Strategy is to incrementally increase rating for asset renewals to 100% of long run average renewals by 2032.

The Council deems it appropriate to have a negative operating surplus ratio from financial year 2024/25 to 2026/27, due to the need to balance the Council's financial prudence, flexibility and rates increases with the ability of rate payers to meet the increase. Increasing the rating for renewals, addresses the current negative operating surplus by putting more focus on renewals with an operating surplus ratio expecting to grow to 4.7% by FY2033/34.

Any water services surpluses generated will be applied to water services debt repayment and reducing the water services new borrowing required.

# D.7 Projected operating cash surpluses for water services

The operating cash rate is an indicator of whether the Water Services unit cash surpluses generated from operations are sufficient to pay for interest expenses, capital investment and debt repayment (cost of finance). A positive operating cash ratio shows the percentage of operating revenue that remains available to cover the cost of finance. The operating cash ratio differs from the operating surplus ratio, as it removes the impact of depreciation (not a cash expense), and interest costs.

Table 31 -Operating cash ratio

| Operating cash ratio (whether revenues cover costs) (\$'000)                   | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Operating surplus/(deficit) + depreciation + interest costs - capital revenues | 200,630   | 205,269   | 226,957   | 259,635   | 284,407   | 306,295   | 323,774   | 331,420   | 336,534   | 340,953   |
| Operating revenue – combined water services                                    | 341,615   | 361,273   | 388,429   | 427,215   | 456,763   | 482,860   | 505,296   | 517,891   | 526,335   | 534,830   |
| Operating cash ratio   | 58.7%     | 56.8%     | 58.4%     | 60.8%     | 62.3%     | 63.4%     | 64.1%     | 64.0%     | 63.9%     | 63.7%     |

The Water Services unit are projecting to maintain a positive operating cash ratio, growing from 58.7% to 63.7%. The positive ratio is a result of the Council's policy to rate for interest expense, debt repayment and the increasing rating for renewals. The Water Services unit operating cash ratio is sufficient to meet the investment requirements and meet scheduled debt repayments.

Any cash surplus' generated for water services will be applied to water services related expenditure, either being allocated to the repayment of water services related debt or specific projects / operating costs as approved by the governance structure.

## Assessment of investment sufficiency

# D.8 Projected water services investment is sufficient to meet levels of service, regulatory requirements and provide for growth

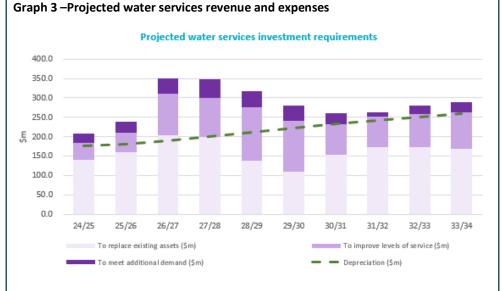
Christchurch City Council's projected water services capital investment is appropriate to meet the water services 'investment sufficiency' test.

- The proposed level of investment is sufficient to meet levels of service, regulatory requirements and provide for growth.
- The proposed level of investment is fully funded by projected revenues and access to financing.

As indicated in Graph 3 adjacent, and further outlined in sections below:

 The Water Services unit asset investment ratio remains positive in all years of the water services delivery plan, demonstrating the capital investment in water services assets each year exceeds the incurred depreciation expense.

The Water Services unit asset consumption ratio improves over the water services delivery plan period, indicating that the burden on future consumers to replace network assets is decreasing (Table 34).



# D.9 Renewals requirements for water services

The asset sustainability ratio assesses whether projected renewals investment is more or less than projected depreciation and is an indicator as to whether the renewals programme is replacing network assets in line with the rate of asset deterioration. Where the ratio is positive, this means that there is more projected renewals investment than projected depreciation. Where this ratio is negative, this means that projected renewals investment is less than projected depreciation.

Table 32 - Asset sustainability ratio

| Asset sustainability ratio (\$'000)                         | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Capital expenditure on renewals – all water services assets | 140,357   | 160,578   | 203,144   | 199,652   | 138,323   | 108,980   | 153,752   | 172,573   | 172,269   | 168,521   |
| Depreciation – all water services assets                    | 177,080   | 180,348   | 189,657   | 201,121   | 211,887   | 222,698   | 232,549   | 241,844   | 251,504   | 260,457   |
| Asset sustainability ratio                                  | (20.7%)   | (11.0%)   | 7.1%      | (0.7%)    | (34.7%)   | (51.1%)   | (33.9%)   | (28.6%)   | (31.5%)   | (35.3%)   |

The Christchurch City Council's capital expenditure on renewals is lower than depreciation largely as a result of the 2010 & 2011 earthquakes, which resulted in the Council's horizontal infrastructure (including water supply, wastewater and stormwater assets) undergoing significant repairs or replacement. Post earthquake, expenditure over this period on wastewater was at a far higher rate than normal (a total of 162% of depreciation) while stormwater had also been at double the normal rate over those years (203%). As of recent, renewals expenditure has been reduced to direct funds to other priority assets, however a large set of renewal works in FY2026/27 & FY2027/28 is planned to re-initiate the renewal programme.

It is critical that planning is in place to renew water services assets at the right time in their lifespan before they fail or are no longer fit-for-purpose. The renewal of capital assets for water supply, wastewater and stormwater is informed by assessing asset conditions and employing predictive models, which are provided by the Asset Assessment Intervention Framework (AAIF). This ensures that risk is managed through a prioritisation process, rather than simply renewing assets that are still fit for purpose, or less critical to the city than others.

The AAIF tool as discussed in detail in Section B.2.1, ensures renewals are both achievable and financially sustainable. However, it's important to note that the funding allocated in the Long-term Plan does not aim to renew all assets before they fail. Such a comprehensive approach would be neither economically feasible nor practical. Instead, renewals are prioritised based on a combination of condition, RMO, deterioration and consequence of failure.

The proposed levels of investment have been determined by the Council's assets planners, based on the levels of service and targets/priorities set by Christchurch City Council as outlined in Part B Table 10.

The Water Services unit is well-positioned to manage any issues arising from the gap between planned expenditure and depreciation by using two different approaches. The AAIF tool will ensure that priority renewals occur along with the Council's strong balance sheet means that any renewals that may arise in the gap between expenditure and renewal can be funded through debt.

# D.10 Total water services investment required over 10 years

The asset investment ratio compares total investment to projected depreciation. Where the ratio is positive, this means that there is more projected investment than projected depreciation. Where this ratio is negative, this means that projected investment is less than projected depreciation.

Table 33 – Asset Investment ratio

| Asset investment ratio (\$'000)                       | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total capital expenditure – all water services assets | 208,955   | 238,412   | 351,047   | 349,065   | 317,339   | 279,441   | 261,407   | 263,490   | 279,284   | 289,446   |
| Depreciation – all water services assets              | 177,080   | 180,348   | 189,657   | 201,121   | 211,887   | 222,698   | 232,549   | 241,844   | 251,504   | 260,457   |
| Asset investment ratio                                | 18.0%     | 32.2%     | 85.1%     | 73.6%     | 49.8%     | 25.5%     | 12.4%     | 9.0%      | 11.0%     | 11.1%     |

As part of the Long Term Strategy for water supply and wastewater services, the Council aims to protect the community from water-borne diseases and ensure water supplies meet the rigorous safety and health risk standards. The Council's goals extend to contributing to safe and healthy communities, providing top-quality drinking water whilst maintaining its robust infrastructure and facilities for its reticulation networks, pump stations and treatment plants.

A large portion of the funding is renewals of water supply and wastewater network during FY2026/27 & FY2027/28 as outlined in Part B Section B.5.1, which plans to re-initiate much of the renewals that are required, ensuring the Council continues to meet the increase regulatory requirements.

For stormwater services the Council's investment prioritises and the ability to meet established service levels by maintaining and renewing our assets, investing capital to cater to growth demands and improving stormwater discharge quality.

This ensures a resilient, efficient, and sustainable infrastructure system for Christchurch.

For a full list of significant capital projects, refer to Table 56, Table 57, Table 58 with a full description in Section F.1.

# **D.11** Average remaining useful life of network assets

The asset consumption ratio compares the book value of water infrastructure assets to total replacement value of water infrastructure assets. The ratio percentage represents the average remaining useful life of network assets. If this ratio materially reduces over time, then this means that the burden on future consumers to replace network assets is increasing.

#### Table 34 -Asset consumption ratio

| Asset consumption ratio (\$'000)                 | FY2024/25  | FY2025/26  | FY2026/27  | FY2027/28  | FY2028/29  | FY2029/30  | FY2030/31  | FY2031/32  | FY2032/33  | FY2033/34  |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Book value of water infrastructure assets        | 7,889,528  | 8,411,355  | 9,056,044  | 9,711,934  | 10,348,274 | 10,936,329 | 11,512,545 | 12,072,588 | 12,649,636 | 13,222,235 |
| Replacement value of water infrastructure assets | 13,362,964 | 13,908,501 | 14,543,201 | 15,216,170 | 15,897,320 | 16,560,597 | 17,148,510 | 17,719,586 | 18,287,310 | 18,865,418 |
| Asset consumption ratio                          | 59.0%      | 60.5%      | 62.3%      | 63.8%      | 65.1%      | 66.0%      | 67.1%      | 68.1%      | 69.2%      | 70.1%      |

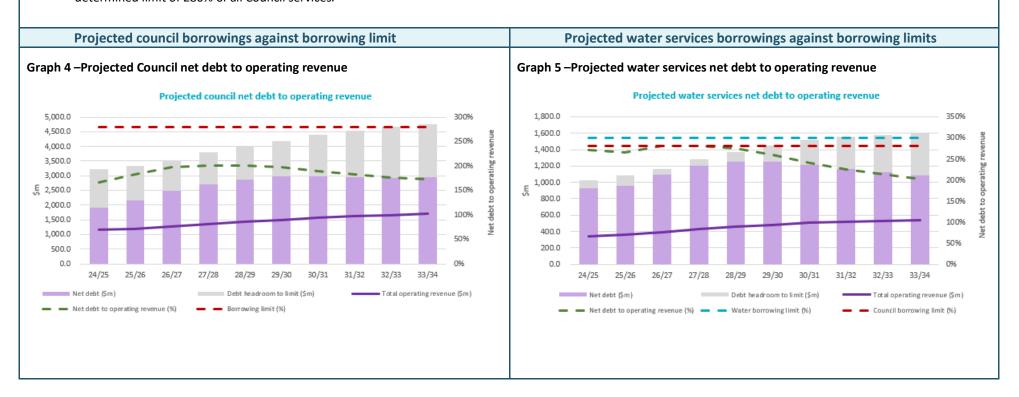
The Water Services unit asset consumption ratio improves over the period of the water services delivery plan, indicating that the current capital expenditure into water services assets is improving the alignment of the utilisation and burden of who pays to replace/renew the network of assets. This reflects the capital programme planned in the years of the water services delivery plan to improve the water services infrastructure.

## **Assessment of financing sufficiency**

# D.12 Confirmation that sufficient funding & financing can be secured to deliver water services

Christchurch City Council's projected water services funding and financing can be secured and is sufficient to meet the water services 'financing sufficiency' test.

- The Christchurch City Council projected borrowings are within the whole of the Council's borrowing limits and maintain sufficient debt headroom to maintain the ability to borrow in response to a disaster or unforeseen significant event for all years of the Water Services Delivery Plan.
- The Christchurch City Council's projected water services borrowings are within the council-determined limit for all years of the Water Services Delivery Plan.
- The Christchurch City Council's projected level of borrowing at the Water Services unit and at the Council level can be sourced within existing financing arrangements.
- The net debt to operating revenue ratio for water services is a Council-determined limit of 300% in all years of the water services delivery plan which differs from the predetermined limit of 280% of all Council services.



# **D.13** Projected borrowings for water services

The net debt to operating revenue ratio compares projected borrowings to projected operating revenues. Operating revenue is used as a proxy for the Local Government Funding Agency's (LGFA) definition of revenue, for simplicity. LGFA defines revenue for this purpose as "Cash earnings from rates, grants and subsidies, user charges, interest, dividends, financial and other revenue and excludes non-government capital contributions (e.g. developer contributions and vested assets)".

The debt to revenue ratio is an indicator of debt affordability and prudence. The Council maintains covenants with lenders which set limits on borrowing. The Council's biggest source of debt funding is the Local Government Funding Agency (LGFA) which limits the Council's total net debt to 285 per cent of total operating revenue in FY2024/25 year, before settling at a new long-term limit of 280 per cent from FY2025/26.

A prudent debt strategy should restrict planned borrowing to materially less than the covenant limit, to provide budget flexibility (or headroom) in the event of unexpected adverse changes to our financial position or operating environment.

Table 35 – Water Services net debt to operating revenue

| Water Services Net debt to operating revenue (\$'000)        | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Net debt attributed to water services (gross debt less cash) | 923,535   | 960,986   | 1,091,606 | 1,198,532 | 1,254,096 | 1,251,225 | 1,211,294 | 1,162,251 | 1,121,907 | 1,084,863 |
| Operating revenue – combined water services                  | 341,615   | 361,273   | 388,429   | 427,215   | 456,763   | 482,860   | 505,296   | 517,891   | 526,335   | 534,830   |
| Water Services Net debt to operating revenue %               | 270%      | 266%      | 281%      | 281%      | 275%      | 259%      | 240%      | 224%      | 213%      | 203%      |

#### Table 36 - Council net debt to operating revenue

| Council Net debt to operating revenue (\$'000) | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Council Net debt (gross debt less cash)        | 1,917,717 | 2,172,355 | 2,490,107 | 2,713,252 | 2,881,540 | 2,968,096 | 2,973,518 | 2,964,397 | 2,932,243 | 2,938,525 |
| Council Operating revenue                      | 1,155,310 | 1,187,137 | 1,259,541 | 1,352,221 | 1,432,065 | 1,498,208 | 1,567,602 | 1,623,671 | 1,665,603 | 1,697,021 |
| Council Net debt to operating revenue %        | 166%      | 183%      | 198%      | 201%      | 201%      | 198%      | 190%      | 183%      | 176%      | 173%      |

The Christchurch City Council projected position remains comfortably within its net debt to operating revenue limit for all years, enabling the Council to seek financing to meet its investment requirements.

The Water Services unit net debt to operating revenue is 281% at its highest level in FY2026/27 and FY2027/28 due to the increase of renewal programmes and capital projects as discussed in Section B.5.1. However, this net debt to operating revenue drops to 203% by FY2033/34, due to the Council's strategy to increase rating for renewals, which both increases the Water Services unit revenue and in turn limits the need for new borrowing for water services. The two years of net debt to operating revenue greater than 280% are not of concern, as the Council can leverage its overall net debt to enable this borrowing carry out the projected water services capital programme.

The water services net debt to operating revenue ratio remains within the council-determined limit for water services of 300% in all years of the water services delivery plan.

# D.14 Borrowing headroom/(shortfall) for water services

The borrowing headroom/(shortfall) against the limit set determines whether projected borrowings are within borrowing limits, as well as the ability to borrow for unforeseen events. A positive number equates to the additional amount of borrowings that could be taken on without exceeding borrowing limits. A negative number means borrowings exceed the borrowing limit.

#### Table 37 - Water Services net debt headroom

| Borrowing headroom/(shortfall) against limit (\$'000) | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Operating revenue                                     | 341,615   | 361,273   | 388,429   | 427,215   | 456,763   | 482,860   | 505,296   | 517,891   | 526,335   | 534,830   |
| Debt to revenue limit for water services (%)          | 300%      | 300%      | 300%      | 300%      | 300%      | 300%      | 300%      | 300%      | 300%      | 300%      |
| Maximum allowable net debt at borrowing limit         | 1,024,844 | 1,083,820 | 1,165,287 | 1,281,644 | 1,370,290 | 1,448,579 | 1,515,888 | 1,553,673 | 1,579,006 | 1,604,491 |
| Projected net debt attributed to water services       | 923,535   | 960,986   | 1,091,606 | 1,198,532 | 1,254,096 | 1,251,225 | 1,211,294 | 1,162,251 | 1,121,907 | 1,084,863 |
| Borrowing headroom/(shortfall) against limit          | 101,309   | 122,834   | 73,681    | 83,112    | 116,194   | 197,355   | 304,594   | 391,422   | 457,098   | 519,628   |

#### Table 38 - Councils net debt headroom

| Borrowing headroom/(shortfall) against limit (\$'000) | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Council Operating revenue                             | 1,155,310 | 1,187,137 | 1,259,541 | 1,352,221 | 1,432,065 | 1,498,208 | 1,567,602 | 1,623,671 | 1,665,603 | 1,697,021 |
| Council Debt to revenue limit (%)                     | 280%      | 280%      | 280%      | 280%      | 280%      | 280%      | 280%      | 280%      | 280%      | 280%      |
| Council Maximum allowable net debt at borrowing limit | 3,234,868 | 3,323,984 | 3,526,715 | 3,786,219 | 4,009,782 | 4,194,982 | 4,389,286 | 4,546,279 | 4,663,688 | 4,751,659 |
| Council Projected net debt                            | 1,917,717 | 2,172,355 | 2,490,107 | 2,713,252 | 2,881,540 | 2,968,096 | 2,973,518 | 2,964,397 | 2,932,243 | 2,938,525 |
| Council Borrowing headroom/(shortfall) against limit  | 1,317,151 | 1,151,628 | 1,036,608 | 1,072,967 | 1,128,242 | 1,226,886 | 1,415,767 | 1,581,882 | 1,731,445 | 1,813,134 |

In the 2024 Long Term Plan Financial Strategy the Christchurch City Council determined that it needed to maintain a minimum debt head room of \$600 million to respond to a disaster event on the following basis:

- Asset reinstatement values increased 32% from 2019 to 2022.
- A 1 in 5,000-year disaster event now requires debt headroom of \$600m.
- A 1 in 10,000-year disaster event requires debt headroom of \$650m.

To manage an unexpected event at that scale, currently the lowest level of borrowing headroom over the water services delivery plan for all Council is \$1.04 billion in FY2026/27, before increasing to \$1.81 billion in FY2033/34.

For the Water Services unit, a borrowing headroom over the period of the water services delivery plan slightly drops in FY2026/27 & FY2027/28 before gradually increasing to \$519.6 million by FY2033/34, which is driven by the Council's strategy to increase rating for renewals. This will increase the operating revenue whilst lowering the amount of borrowing required for water services capital expenditure.

# **D.15** Free funds from operations

The free funds from operation to net debt ratio measures the percentage of debt balance that is generated in free cash flow each year and is key leverage indicator for financiers.

## Table 39 – Household income

| Free funds from operations (\$'000)                   | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Projected net debt attributed to water services       | 923,535   | 960,986   | 1,091,606 | 1,198,532 | 1,254,096 | 1,251,225 | 1,211,294 | 1,162,251 | 1,121,907 | 1,084,863 |
| Projected free funds from operations – water services | 533,394   | 566,747   | 601,215   | 652,048   | 690,436   | 722,058   | 748,381   | 763,701   | 773,240   | 783,876   |
| Free funds from operations to net debt ratio          | 57.8%     | 59.0%     | 55.1%     | 54.4%     | 55.1%     | 57.7%     | 61.8%     | 65.7%     | 68.9%     | 72.3%     |

The Water Services unit free funds from operations to net debt ratio improves from 57.8% in FY2024/25 to 72.3% by FY2033/34, primarily as a result of the strategy increasing rating for capital renewals, which increases the Council's water services funds from operations, while limiting the increase in net debt.

# Part E: Projected financial statements for water services

## Projected financial statements – for water services within the Water Services unit

# **E.1** Projected funding impact statement

## Table 40 – Funding impact statement (combined Water Services unit)

| Projected funding impact statement - water services            | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sources of operating funding (\$'000)                          |           |           |           |           |           |           |           |           |           |           |
| General rates  | 61,766    | 55,586    | 56,020    | 60,588    | 64,862    | 67,493    | 66,877    | 64,096    | 63,352    | 61,977    |
| Targeted rates   | 272,499   | 298,227   | 324,719   | 358,697   | 383,749   | 407,004   | 429,846   | 445,025   | 454,020   | 463,703   |
| Subsidies and grants for operating purposes                    | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Local authorities fuel tax, fines, infringement fees and other | 305       | 252       | 261       | 269       | 277       | 284       | 291       | 298       | 305       | 310       |
| Fees and charges   | 7,046     | 7,142     | 7,364     | 7,592     | 7,805     | 8,008     | 8,208     | 8,397     | 8,581     | 8,761     |
| Total sources of operating funding                             | 341,615   | 361,208   | 388,363   | 427,146   | 456,693   | 482,788   | 505,222   | 517,815   | 526,258   | 534,752   |
| Applications of operating funding (\$'000)                     |           |           |           |           |           |           |           |           |           |           |
| Payments to staff and suppliers                                | 110,696   | 113,091   | 119,566   | 124,600   | 127,810   | 132,887   | 137,572   | 140,480   | 144,949   | 148,608   |
| Finance costs  | 50,794    | 49,469    | 51,315    | 57,253    | 61,316    | 62,633    | 61,563    | 59,339    | 57,104    | 55,169    |
| Internal charges and overheads applied                         | 19,437    | 25,095    | 24,789    | 25,534    | 26,529    | 26,289    | 26,670    | 27,937    | 27,595    | 28,030    |
| Other operating funding applications                           | 17        | 2,146     | 2,147     | 2,225     | 2,187     | 2,187     | 2,188     | 2,188     | 2,189     | 2,189     |
| Total applications of operating funding                        | 180,944   | 189,801   | 197,817   | 209,613   | 217,841   | 223,997   | 227,992   | 229,944   | 231,836   | 233,997   |
| Surplus/(deficit) of operating funding (\$'000)                | 160,671   | 171,407   | 190,546   | 217,534   | 238,851   | 258,791   | 277,230   | 287,871   | 294,422   | 300,755   |
| Source of capital funding (\$'000)                             |           |           |           |           |           |           |           |           |           |           |
| Subsidies and grants for capital expenditure                   | 4,157     | 8,575     | 8,250     | 2,306     | 0         | 0         | 0         | 0         | 0         | 0         |
| Development and financial contributions                        | 19,065    | 19,713    | 20,324    | 20,954    | 21,541    | 22,101    | 22,653    | 23,174    | 23,684    | 24,181    |
| Increase/(decrease) in debt                                    | 23,837    | 37,451    | 130,620   | 106,926   | 55,564    | (2,871)   | (39,931)  | (49,043)  | (40,343)  | (37,044)  |
| Gross proceeds from sales of assets                            | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Other dedicated capital funding                                | 1,225     | 1,266     | 1,306     | 1,346     | 1,383     | 1,420     | 1,455     | 1,488     | 1,521     | 1,554     |
| Total sources of capital funding                               | 48,284    | 67,005    | 160,500   | 131,531   | 78,488    | 20,650    | (15,823)  | (24,381)  | (15,138)  | (11,309)  |
| Applications of capital funding (\$'000)                       |           |           |           |           |           |           |           |           |           |           |
| Capital expenditure - to meet additional demand                | 25,407    | 28,884    | 39,426    | 49,487    | 41,020    | 38,296    | 29,240    | 11,685    | 21,927    | 25,803    |
| Capital expenditure - to improve levels of services            | 43,191    | 48,950    | 108,476   | 99,927    | 137,996   | 132,165   | 78,416    | 79,232    | 85,088    | 95,122    |
| Capital expenditure - to replace existing assets               | 140,357   | 160,578   | 203,144   | 199,652   | 138,323   | 108,980   | 153,752   | 172,573   | 172,269   | 168,521   |
| Increase/(decrease) in reserves                                | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Increase/(decrease) in investments                             | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Total applications of capital funding                          | 208,955   | 238,412   | 351,047   | 349,065   | 317,339   | 279,441   | 261,407   | 263,490   | 279,284   | 289,446   |
| Surplus/(deficit) of capital funding (\$'000)                  | (160,671) | (171,407) | (190,547) | (217,534) | (238,852) | (258,792) | (277,230) | (287,871) | (294,422) | (300,755) |
| Funding balance (\$'000)                                       | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |

Table 41 –Funding impact statement (Water supply)

| Projected funding impact statement - water services            | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sources of operating funding (\$'000)                          |           |           |           |           |           |           |           |           |           |           |
| General rates  | 1,850     | 603       | 672       | 1,183     | 1,684     | 1,514     | 1,247     | 1,128     | 1,417     | 949       |
| Targeted rates   | 101,968   | 113,251   | 123,256   | 135,985   | 144,863   | 153,735   | 162,700   | 168,642   | 172,315   | 176,060   |
| Subsidies and grants for operating purposes                    | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Local authorities fuel tax, fines, infringement fees and other | 0         | 24        | 25        | 26        | 27        | 28        | 28        | 29        | 30        | 30        |
| Fees and charges   | 319       | 7         | 7         | 8         | 8         | 8         | 8         | 8         | 9         | 9         |
| Total sources of operating funding                             | 104,138   | 113,885   | 123,960   | 137,201   | 146,582   | 155,285   | 163,983   | 169,807   | 173,771   | 177,048   |
| Applications of operating funding (\$'000)                     |           |           |           |           |           |           |           |           |           |           |
| Payments to staff and suppliers                                | 35,511    | 39,462    | 41,774    | 43,640    | 44,397    | 46,109    | 47,744    | 48,692    | 50,143    | 51,340    |
| Finance costs  | 7,348     | 7,329     | 8,025     | 9,424     | 10,217    | 10,322    | 10,351    | 10,389    | 10,227    | 9,735     |
| Internal charges and overheads applied                         | 9,204     | 9,261     | 9,208     | 9,542     | 9,921     | 9,910     | 10,139    | 10,665    | 10,657    | 10,888    |
| Other operating funding applications                           | 17        | 1,614     | 1,614     | 1,674     | 1,645     | 1,645     | 1,646     | 1,646     | 1,647     | 1,647     |
| Total applications of operating funding                        | 52,080    | 57,666    | 60,622    | 64,279    | 66,180    | 67,986    | 69,881    | 71,392    | 72,674    | 73,610    |
| Surplus/(deficit) of operating funding (\$'000)                | 52,058    | 56,219    | 63,338    | 72,922    | 80,402    | 87,299    | 94,102    | 98,415    | 101,097   | 103,438   |
| Source of capital funding (\$'000)                             |           |           |           |           |           |           |           |           |           |           |
| Subsidies and grants for capital expenditure                   | 1,007     | 325       | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Development and financial contributions                        | 2,716     | 2,808     | 2,895     | 2,985     | 3,068     | 3,148     | 3,227     | 3,301     | 3,374     | 3,444     |
| Increase/(decrease) in debt                                    | 18,016    | 12,002    | 29,820    | 26,106    | 5,643     | (1,468)   | 2,653     | (1,127)   | (5,359)   | (14,344)  |
| Gross proceeds from sales of assets                            | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Other dedicated capital funding                                | 1,225     | 1,266     | 1,306     | 1,346     | 1,383     | 1,420     | 1,455     | 1,488     | 1,521     | 1,554     |
| Total sources of capital funding                               | 22,964    | 16,401    | 34,021    | 30,437    | 10,094    | 3,100     | 7,335     | 3,662     | (464)     | (9,346)   |
| Applications of capital funding (\$'000)                       |           |           |           |           |           |           |           |           |           |           |
| Capital expenditure - to meet additional demand                | 5,831     | 5,480     | 6,690     | 18,476    | 20,397    | 22,407    | 15,185    | 6,205     | 9,750     | 9,993     |
| Capital expenditure - to improve levels of services            | 12,537    | 9,567     | 19,645    | 17,000    | 8,265     | 11,930    | 10,500    | 16,696    | 16,165    | 10,687    |
| Capital expenditure - to replace existing assets               | 56,653    | 57,573    | 71,025    | 67,883    | 61,834    | 56,062    | 75,753    | 79,177    | 74,718    | 73,413    |
| Increase/(decrease) in reserves                                | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Increase/(decrease) in investments                             | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Total applications of capital funding                          | 75,022    | 72,620    | 97,359    | 103,359   | 90,496    | 90,399    | 101,437   | 102,078   | 100,633   | 94,092    |
| Surplus/(deficit) of capital funding (\$'000)                  | (52,058)  | (56,219)  | (63,338)  | (72,922)  | (80,402)  | (87,299)  | (94,102)  | (98,415)  | (101,097) | (103,438) |
| Funding balance (\$'000)                                       | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |

## Table 42 –Funding impact statement (Wastewater)

| Projected funding impact statement - water services            | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sources of operating funding (\$'000)                          |           |           |           |           |           |           |           |           |           |           |
| General rates  | 44,563    | 39,250    | 37,432    | 38,564    | 39,068    | 38,465    | 33,914    | 27,613    | 23,278    | 18,666    |
| Targeted rates   | 120,872   | 131,465   | 143,445   | 158,836   | 170,476   | 180,815   | 190,685   | 197,243   | 200,960   | 205,086   |
| Subsidies and grants for operating purposes                    | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Local authorities fuel tax, fines, infringement fees and other | 243       | 228       | 236       | 243       | 250       | 256       | 263       | 269       | 275       | 280       |
| Fees and charges   | 6,710     | 7,118     | 7,339     | 7,566     | 7,778     | 7,980     | 8,180     | 8,368     | 8,552     | 8,732     |
| Total sources of operating funding                             | 172,388   | 178,061   | 188,451   | 205,210   | 217,572   | 227,516   | 233,042   | 233,493   | 233,065   | 232,763   |
| Applications of operating funding (\$'000)                     |           |           |           |           |           |           |           |           |           |           |
| Payments to staff and suppliers                                | 51,117    | 51,223    | 54,140    | 56,193    | 57,735    | 59,942    | 61,935    | 63,280    | 65,375    | 67,076    |
| Finance costs  | 32,525    | 30,818    | 30,530    | 32,726    | 33,876    | 32,987    | 29,571    | 25,526    | 21,962    | 18,575    |
| Internal charges and overheads applied                         | 6,180     | 8,962     | 8,690     | 8,899     | 9,262     | 9,021     | 9,034     | 9,465     | 9,138     | 9,194     |
| Other operating funding applications                           | 0         | 447       | 447       | 463       | 455       | 455       | 455       | 455       | 455       | 455       |
| Total applications of operating funding                        | 89,822    | 91,450    | 93,807    | 98,281    | 101,327   | 102,406   | 100,995   | 98,726    | 96,930    | 95,300    |
| Surplus/(deficit) of operating funding (\$'000)                | 82,566    | 86,610    | 94,644    | 106,929   | 116,244   | 125,110   | 132,047   | 134,767   | 136,135   | 137,464   |
| Source of capital funding (\$'000)                             |           |           |           |           |           |           |           |           |           |           |
| Subsidies and grants for capital expenditure                   | 3,150     | 8,250     | 8,250     | 2,306     | 0         | 0         | 0         | 0         | 0         | 0         |
| Development and financial contributions                        | 11,352    | 11,738    | 12,102    | 12,477    | 12,826    | 13,160    | 13,489    | 13,799    | 14,103    | 14,399    |
| Increase/(decrease) in debt                                    | (22,582)  | (8,723)   | 55,915    | 31,901    | 14,116    | (49,670)  | (86,979)  | (74,819)  | (67,742)  | (67,755)  |
| Gross proceeds from sales of assets                            | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Other dedicated capital funding                                | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Total sources of capital funding                               | (8,080)   | 11,265    | 76,267    | 46,684    | 26,943    | (36,510)  | (73,490)  | (61,020)  | (53,639)  | (53,356)  |
| Applications of capital funding (\$'000)                       |           |           |           |           |           |           |           |           |           |           |
| Capital expenditure - to meet additional demand                | 5,097     | 3,914     | 13,687    | 11,539    | 8,663     | 3,433     | 2,835     | 1,433     | 1,637     | 3,638     |
| Capital expenditure - to improve levels of services            | 14,768    | 20,342    | 43,359    | 29,408    | 69,717    | 44,477    | 1,331     | 3,142     | 5,654     | 1,438     |
| Capital expenditure - to replace existing assets               | 54,622    | 73,620    | 113,865   | 112,666   | 64,807    | 40,690    | 54,390    | 69,172    | 75,205    | 79,032    |
| Increase/(decrease) in reserves                                | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Increase/(decrease) in investments                             | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Total applications of capital funding                          | 74,486    | 97,876    | 170,911   | 153,613   | 143,187   | 88,600    | 58,557    | 73,747    | 82,496    | 84,107    |
| Surplus/(deficit) of capital funding (\$'000)                  | (82,566)  | (86,611)  | (94,644)  | (106,929) | (116,244) | (125,110) | (132,047) | (134,767) | (136,135) | (137,464) |
| Funding balance (\$'000)                                       | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |

Table 43 – Funding impact statement (Stormwater)

| Projected funding impact statement - water services            | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sources of operating funding (\$'000)                          |           |           |           |           |           |           |           |           |           |           |
| General rates  | 15,352    | 15,734    | 17,916    | 20,841    | 24,111    | 27,514    | 31,717    | 35,354    | 38,656    | 42,362    |
| Targeted rates   | 49,659    | 53,511    | 58,018    | 63,876    | 68,410    | 72,454    | 76,461    | 79,140    | 80,745    | 82,557    |
| Subsidies and grants for operating purposes                    | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Local authorities fuel tax, fines, infringement fees and other | 62        | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Fees and charges   | 16        | 17        | 18        | 18        | 19        | 19        | 20        | 20        | 21        | 21        |
| Total sources of operating funding                             | 65,090    | 69,262    | 75,952    | 84,736    | 92,539    | 99,988    | 108,197   | 114,515   | 119,422   | 124,940   |
| Applications of operating funding (\$'000)                     |           |           |           |           |           |           |           |           |           |           |
| Payments to staff and suppliers                                | 24,068    | 22,406    | 23,652    | 24,767    | 25,679    | 26,835    | 27,893    | 28,509    | 29,431    | 30,192    |
| Finance costs  | 10,921    | 11,322    | 12,759    | 15,104    | 17,222    | 19,324    | 21,641    | 23,423    | 24,915    | 26,860    |
| Internal charges and overheads applied                         | 4,053     | 6,872     | 6,891     | 7,093     | 7,346     | 7,359     | 7,496     | 7,808     | 7,800     | 7,948     |
| Other operating funding applications                           | 0         | 85        | 85        | 88        | 87        | 87        | 87        | 87        | 87        | 87        |
| Total applications of operating funding                        | 39,042    | 40,685    | 43,387    | 47,053    | 50,334    | 53,605    | 57,117    | 59,826    | 62,232    | 65,087    |
| Surplus/(deficit) of operating funding (\$'000)                | 26,047    | 28,577    | 32,565    | 37,683    | 42,205    | 46,383    | 51,081    | 54,688    | 57,190    | 59,853    |
| Source of capital funding (\$'000)                             |           |           |           |           |           |           |           |           |           |           |
| Subsidies and grants for capital expenditure                   | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Development and financial contributions                        | 4,997     | 5,167     | 5,327     | 5,492     | 5,646     | 5,793     | 5,937     | 6,074     | 6,208     | 6,338     |
| Increase/(decrease) in debt                                    | 28,403    | 34,172    | 44,885    | 48,918    | 35,805    | 48,267    | 44,395    | 26,903    | 32,757    | 45,055    |
| Gross proceeds from sales of assets                            | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Other dedicated capital funding                                | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Total sources of capital funding                               | 33,400    | 39,339    | 50,212    | 54,410    | 41,451    | 54,060    | 50,333    | 32,977    | 38,965    | 51,393    |
| Applications of capital funding (\$'000)                       |           |           |           |           |           |           |           |           |           |           |
| Capital expenditure - to meet additional demand                | 14,479    | 19,491    | 19,050    | 19,472    | 11,961    | 12,456    | 11,220    | 4,047     | 10,540    | 12,172    |
| Capital expenditure - to improve levels of services            | 15,886    | 19,041    | 45,473    | 53,519    | 60,013    | 75,758    | 66,585    | 59,395    | 63,268    | 82,998    |
| Capital expenditure - to replace existing assets               | 29,082    | 29,385    | 18,254    | 19,102    | 11,682    | 12,228    | 23,609    | 24,223    | 22,346    | 16,076    |
| Increase/(decrease) in reserves                                | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Increase/(decrease) in investments                             | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Total applications of capital funding                          | 59,447    | 67,916    | 82,777    | 92,093    | 83,656    | 100,442   | 101,414   | 87,665    | 96,155    | 111,246   |
| Surplus/(deficit) of capital funding (\$'000)                  | (26,047)  | (28,577)  | (32,565)  | (37,683)  | (42,205)  | (46,383)  | (51,081)  | (54,688)  | (57,190)  | (59,853)  |
| Funding balance (\$'000)                                       | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |

# **E.2** Projected statement of comprehensive revenue and expense

## Table 44 – Statement of comprehensive revenue and expenses (Combined Water Services unit)

| Projected statement of profit and loss - water services             | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Revenue (\$000)   |           |           |           |           |           |           |           |           |           |           |
| Operating revenue   | 341,615   | 361,273   | 388,429   | 427,215   | 456,763   | 482,860   | 505,296   | 517,891   | 526,335   | 534,830   |
| Other revenue   | 33,450    | 38,873    | 39,516    | 34,569    | 33,206    | 34,111    | 35,006    | 35,854    | 36,688    | 37,505    |
| Total revenue   | 375,065   | 400,146   | 427,945   | 461,784   | 489,969   | 516,971   | 540,302   | 553,745   | 563,023   | 572,336   |
| Expenses (\$000)  |           |           |           |           |           |           |           |           |           |           |
| Operating expenses  | 121,547   | 130,910   | 136,682   | 142,046   | 145,828   | 150,276   | 154,852   | 158,534   | 162,207   | 165,846   |
| Finance costs   | 50,794    | 49,469    | 51,315    | 57,253    | 61,316    | 62,633    | 61,563    | 59,339    | 57,104    | 55,169    |
| Overheads and support costs   | 19,437    | 25,095    | 24,789    | 25,534    | 26,529    | 26,289    | 26,670    | 27,937    | 27,595    | 28,030    |
| Depreciation & amortisation   | 177,080   | 180,348   | 189,657   | 201,121   | 211,887   | 222,698   | 232,549   | 241,844   | 251,504   | 260,457   |
| Total expenses  | 368,859   | 385,821   | 402,443   | 425,954   | 445,560   | 461,896   | 475,634   | 487,653   | 498,409   | 509,503   |
| Net surplus/(deficit) (\$'000)                                      | 6,206     | 14,325    | 25,502    | 35,829    | 44,409    | 55,075    | 64,668    | 66,092    | 64,614    | 62,833    |
| Revaluation of infrastructure assets                                |           |           |           |           |           |           |           |           |           |           |
| Total comprehensive income (\$'000)                                 | 174,883   | 468,769   | 499,165   | 533,813   | 565,015   | 575,796   | 601,128   | 593,297   | 602,399   | 594,672   |
| Cash surplus/(deficit) from operations (ex non-cash items) (\$'000) | 183,286   | 194,673   | 215,158   | 236,950   | 256,297   | 277,773   | 297,217   | 307,935   | 316,118   | 323,290   |

## Table 45 – Statement of comprehensive revenue and expenses (water supply)

| Projected statement of profit and loss - water services             | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Revenue (\$'000)  |           |           |           |           |           |           |           |           |           |           |
| Operating revenue   | 104,137   | 113,886   | 123,960   | 137,201   | 146,582   | 155,284   | 163,983   | 169,808   | 173,771   | 177,047   |
| Other revenue   | 6,448     | 5,952     | 5,807     | 5,991     | 6,165     | 6,333     | 6,498     | 6,654     | 6,808     | 6,960     |
| Total revenue   | 110,586   | 119,838   | 129,767   | 143,192   | 152,747   | 161,617   | 170,481   | 176,462   | 180,579   | 184,007   |
| Expenses (\$'000)   |           |           |           |           |           |           |           |           |           |           |
| Operating expenses  | 39,220    | 46,120    | 48,214    | 50,221    | 51,109    | 52,615    | 54,225    | 55,431    | 56,637    | 57,825    |
| Finance costs   | 7,348     | 7,329     | 8,025     | 9,424     | 10,217    | 10,322    | 10,351    | 10,389    | 10,227    | 9,735     |
| Overheads and support costs   | 9,204     | 9,261     | 9,208     | 9,542     | 9,921     | 9,910     | 10,139    | 10,665    | 10,657    | 10,888    |
| Depreciation & amortisation   | 50,100    | 50,640    | 53,468    | 56,720    | 59,511    | 62,617    | 65,673    | 68,723    | 71,903    | 74,515    |
| Total expenses  | 105,872   | 113,349   | 118,916   | 125,906   | 130,757   | 135,463   | 140,389   | 145,209   | 149,424   | 152,964   |
| Net surplus/(deficit) (\$'000)                                      | 4,714     | 6,489     | 10,850    | 17,286    | 21,990    | 26,154    | 30,092    | 31,253    | 31,155    | 31,044    |
| Revaluation of infrastructure assets                                |           |           |           |           |           |           |           |           |           |           |
| Total comprehensive income (\$'000)                                 | 43,482    | 130,537   | 140,647   | 153,854   | 164,801   | 169,272   | 178,219   | 178,083   | 182,278   | 181,536   |
| Cash surplus/(deficit) from operations (ex-non-cash items) (\$'000) | 54,814    | 57,129    | 64,319    | 74,006    | 81,500    | 88,770    | 95,766    | 99,977    | 103,058   | 105,559   |

| Projected statement of profit and loss - water services             | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Revenue (\$'000)  |           |           |           |           |           |           |           |           |           |           |
| Operating revenue   | 172,388   | 178,061   | 188,451   | 205,209   | 217,571   | 227,516   | 233,042   | 233,493   | 233,065   | 232,764   |
| Other revenue   | 17,203    | 22,784    | 23,243    | 17,772    | 15,911    | 16,337    | 16,758    | 17,157    | 17,548    | 17,930    |
| Total revenue   | 189,591   | 200,845   | 211,694   | 222,981   | 233,482   | 243,853   | 249,800   | 250,649   | 250,613   | 250,694   |
| Expenses (\$'000)   |           |           |           |           |           |           |           |           |           |           |
| Operating expenses  | 56,337    | 59,340    | 61,903    | 64,095    | 65,951    | 67,854    | 69,770    | 71,468    | 73,155    | 74,831    |
| Finance costs   | 32,525    | 30,818    | 30,530    | 32,726    | 33,876    | 32,987    | 29,571    | 25,526    | 21,962    | 18,575    |
| Overheads and support costs   | 6,180     | 8,962     | 8,690     | 8,899     | 9,262     | 9,021     | 9,034     | 9,465     | 9,138     | 9,194     |
| Depreciation & amortisation   | 91,912    | 94,515    | 99,150    | 105,276   | 111,165   | 116,888   | 121,519   | 125,619   | 129,947   | 134,014   |
| Total expenses  | 186,954   | 193,635   | 200,273   | 210,996   | 220,254   | 226,750   | 229,894   | 232,078   | 234,202   | 236,614   |
|   |           |           |           |           |           |           |           |           |           |           |
| Net surplus/(deficit) (\$'000)                                      | 2,637     | 7,210     | 11,420    | 11,985    | 13,228    | 17,103    | 19,906    | 18,571    | 16,410    | 14,080    |
| Revaluation of infrastructure assets                                |           |           |           |           |           |           |           |           |           |           |
| Total comprehensive income (\$'000)                                 | 94,549    | 219,954   | 232,865   | 245,698   | 257,996   | 263,123   | 272,217   | 265,683   | 267,392   | 261,119   |
| Cash surplus/(deficit) from operations (ex-non-cash items) (\$'000) | 94,549    | 101,725   | 110,571   | 117,261   | 124,393   | 133,991   | 141,425   | 144,190   | 146,357   | 148,094   |

## Table 47 – Statement of comprehensive revenue and expenses (stormwater)

| Projected statement of profit and loss - water services             | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Revenue (\$'000)  |           |           |           |           |           |           |           |           |           |           |
| Operating revenue   | 65,090    | 69,327    | 76,019    | 84,804    | 92,610    | 100,060   | 108,272   | 114,591   | 119,500   | 125,019   |
| Other revenue   | 9,799     | 10,137    | 10,466    | 10,806    | 11,130    | 11,441    | 11,750    | 12,043    | 12,332    | 12,615    |
| Total revenue   | 74,888    | 79,463    | 86,485    | 95,610    | 103,740   | 111,501   | 120,021   | 126,634   | 131,832   | 137,635   |
| Expenses (\$'000)   |           |           |           |           |           |           |           |           |           |           |
| Operating expenses  | 25,991    | 25,450    | 26,565    | 27,730    | 28,768    | 29,806    | 30,857    | 31,634    | 32,414    | 33,190    |
| Finance costs   | 10,921    | 11,322    | 12,759    | 15,104    | 17,222    | 19,324    | 21,641    | 23,423    | 24,915    | 26,860    |
| Overheads and support costs   | 4,053     | 6,872     | 6,891     | 7,093     | 7,346     | 7,359     | 7,496     | 7,808     | 7,800     | 7,948     |
| Depreciation & amortisation   | 35,068    | 35,193    | 37,038    | 39,125    | 41,212    | 43,194    | 45,357    | 47,501    | 49,654    | 51,928    |
| Total expenses  | 76,033    | 78,838    | 83,253    | 89,052    | 94,548    | 99,683    | 105,351   | 110,367   | 114,783   | 119,925   |
| Net surplus/(deficit) (\$'000)                                      | (1,145)   | 626       | 3,231     | 6,558     | 9,191     | 11,818    | 14,670    | 16,267    | 17,049    | 17,709    |
| Revaluation of infrastructure assets                                |           |           |           |           |           |           |           |           |           |           |
| Total comprehensive income (\$'000)                                 | 36,853    | 118,278   | 125,654   | 134,260   | 142,218   | 143,402   | 150,693   | 149,531   | 152,728   | 152,017   |
| Cash surplus/(deficit) from operations (ex-non-cash items) (\$'000) | 33,924    | 35,819    | 40,269    | 45,683    | 50,403    | 55,012    | 60,027    | 63,769    | 66,703    | 69,637    |

# **E.3** Projected statement of cashflows

## Table 48 – Statement of cashflows (combined Water Services unit)

| •   |           |           |           |           |           |           |           |           |           |           |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Projected statement of cashflows - water services | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
| Cashflows from operating activities (\$'000)      |           |           |           |           |           |           |           |           |           |           |

| Cash surplus/(deficit) from operations                        | 160,671   | 171,407   | 190,546   | 217,534   | 238,851   | 258,791   | 277,230   | 287,871   | 294,422   | 300,755   |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| [Other items]   | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Net cashflows from operating activities                       | 160,671   | 171,407   | 190,546   | 217,534   | 238,851   | 258,791   | 277,230   | 287,871   | 294,422   | 300,755   |
| Cashflows from investing activities (\$'000)                  |           |           |           |           |           |           |           |           |           |           |
| Capital expenditure – infrastructure assets                   | 24,447    | 29,554    | 29,880    | 24,606    | 22,924    | 23,521    | 24,108    | 24,662    | 25,205    | 25,735    |
| [Other items]   | (208,955) | (238,412) | (351,047) | (349,065) | (317,339) | (279,441) | (261,407) | (263,490) | (279,284) | (289,446) |
| Net cashflows from investing activities                       | (184,509) | (208,858) | (321,167) | (324,459) | (294,416) | (255,921) | (237,299) | (238,828) | (254,079) | (263,710) |
| Cashflows from financing activities (\$'000)                  |           |           |           |           |           |           |           |           |           |           |
| New borrowings  | 66,192    | 82,012    | 177,915   | 160,151   | 114,127   | 71,727    | 74,367    | 55,574    | 59,049    | 68,430    |
| Repayment of borrowings                                       | (42,355)  | (44,561)  | (47,295)  | (53,225)  | (58,563)  | (74,598)  | (114,298) | (104,617) | (99,392)  | (105,475) |
| Net cashflows from financing activities                       | 23,837    | 37,451    | 130,620   | 106,926   | 55,564    | (2,871)   | (39,931)  | (49,043)  | (40,343)  | (37,044)  |
| Net increase/(decrease) in cash and cash equivalents (\$'000) | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Cash and cash equivalents at beginning of year                | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Cash and cash equivalents at end of year (\$'000)             | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |

## Table 49 – Statement of cashflows (water supply)

| Projected statement of cashflows - water services            | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Cashflows from operating activities (\$'000)                 |           |           |           |           |           |           |           |           |           |           |
| Cash surplus/(deficit) from operations                       | 52,058    | 56,219    | 63,338    | 72,922    | 80,402    | 87,299    | 94,102    | 98,415    | 101,097   | 103,438   |
| [Other items]  | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Net cashflows from operating activities                      | 52,058    | 56,219    | 63,338    | 72,922    | 80,402    | 87,299    | 94,102    | 98,415    | 101,097   | 103,438   |
| Cashflows from investing activities (\$'000)                 |           |           |           |           |           |           |           |           |           |           |
| Capital expenditure – infrastructure assets                  | 4,948     | 4,399     | 4,201     | 4,331     | 4,451     | 4,568     | 4,682     | 4,789     | 4,895     | 4,998     |
| [Other items]  | (75,022)  | (72,620)  | (97,359)  | (103,359) | (90,496)  | (90,399)  | (101,437) | (102,078) | (100,633) | (94,092)  |
| Net cashflows from investing activities                      | (70,074)  | (68,221)  | (93,158)  | (99,028)  | (86,045)  | (85,831)  | (96,755)  | (97,289)  | (95,738)  | (89,094)  |
| Cashflows from financing activities (\$'000)                 |           |           |           |           |           |           |           |           |           |           |
| New borrowings   | 22,994    | 17,746    | 36,156    | 33,647    | 14,305    | 7,671     | 12,048    | 8,670     | 4,727     | 0         |
| Repayment of borrowings                                      | (4,978)   | (5,744)   | (6,336)   | (7,541)   | (8,662)   | (9,139)   | (9,395)   | (9,797)   | (10,086)  | (14,344)  |
| Net cashflows from financing activities                      | 18,016    | 12,002    | 29,820    | 26,106    | 5,643     | (1,468)   | 2,653     | (1,127)   | (5,359)   | (14,344)  |
| Net increase/(decrease) in cash and cash equivalents (\$000) | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Cash and cash equivalents at beginning of year               | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Cash and cash equivalents at end of year (\$'000)            | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |

| Table 50 – Statement of cashflows (wastewater) | Table 50 - | Statement | of | cashflows | (wastewater | ) |
|--|------------|-----------|----|-----------|-------------|---|
|--|------------|-----------|----|-----------|-------------|---|

| Projected statement of cashflows - water services             | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31         | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|-----------|-----------|
| Cashflows from operating activities (\$'000)                  |           |           |           |           |           |           |                   |           |           |           |
| Cash surplus/(deficit) from operations                        | 82,566    | 86,610    | 94,644    | 106,929   | 116,244   | 125,110   | 132,047           | 134,767   | 136,135   | 137,464   |
| [Other items]   | 0         | 0         | 0         | 0         | 0         | 0         | 0                 | 0         | 0         | 0         |
| Net cashflows from operating activities                       | 82,566    | 86,610    | 94,644    | 106,929   | 116,244   | 125,110   | 132,047           | 134,767   | 136,135   | 137,464   |
|   |           |           |           |           |           |           |                   |           |           |           |
| Cashflows from investing activities (\$'000)                  |           |           |           |           |           |           |                   |           |           |           |
| Capital expenditure – infrastructure assets                   | 14,502    | 19,988    | 20,352    | 14,783    | 12,826    | 13,160    | 13,489            | 13,799    | 14,103    | 14,399    |
| [Other items]   | (74,486)  | (97,876)  | (170,911) | (153,613) | (143,187) | (88,600)  | (58 <i>,</i> 557) | (73,747)  | (82,496)  | (84,107)  |
| Net cashflows from investing activities                       | (59,984)  | (77,888)  | (150,559) | (138,830) | (130,361) | (75,440)  | (45,068)          | (59,948)  | (68,393)  | (69,708)  |
| Cashflows from financing activities (\$'000)                  |           |           |           |           |           |           |                   |           |           |           |
| New borrowings  | 7,176     | 21,274    | 86,621    | 65,495    | 49,893    | 0         | 0                 | 0         | 0         | 0         |
| Repayment of borrowings                                       | (29,758)  | (29,997)  | (30,706)  | (33,594)  | (35,777)  | (49,670)  | (86,979)          | (74,819)  | (67,742)  | (67,755)  |
| Net cashflows from financing activities                       | (22,582)  | (8,723)   | 55,915    | 31,901    | 14,116    | (49,670)  | (86,979)          | (74,819)  | (67,742)  | (67,755)  |
| Net increase/(decrease) in cash and cash equivalents (\$'000) | 0         | 0         | 0         | 0         | 0         | 0         | 0                 | 0         | 0         | 0         |
| Cash and cash equivalents at beginning of year                | 0         | 0         | 0         | 0         | 0         | 0         | 0                 | 0         | 0         | 0         |
| Cash and cash equivalents at end of year (\$'000)             | 0         | 0         | 0         | 0         | 0         | 0         | 0                 | 0         | 0         | 0         |

## Table 51 – Statement of cashflows (stormwater)

| Projected statement of cashflows - water services             | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Cashflows from operating activities (\$'000)                  |           |           |           |           |           |           |           |           |           |           |
| Cash surplus/(deficit) from operations                        | 26,047    | 28,577    | 32,565    | 37,683    | 42,205    | 46,383    | 51,081    | 54,688    | 57,190    | 59,853    |
| [Other items]   | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Net cashflows from operating activities                       | 26,047    | 28,577    | 32,565    | 37,683    | 42,205    | 46,383    | 51,081    | 54,688    | 57,190    | 59,853    |
| Cashflows from investing activities (\$'000)                  |           |           |           |           |           |           |           |           |           |           |
| Capital expenditure – infrastructure assets                   | 4,997     | 5,167     | 5,327     | 5,492     | 5,646     | 5,793     | 5,937     | 6,074     | 6,208     | 6,338     |
| [Other items]   | (59,447)  | (67,916)  | (82,777)  | (92,093)  | (83,656)  | (100,442) | (101,414) | (87,665)  | (96,155)  | (111,246) |
| Net cashflows from investing activities                       | (54,450)  | (62,749)  | (77,450)  | (86,601)  | (78,010)  | (94,650)  | (95,476)  | (81,591)  | (89,947)  | (104,909) |
| Cashflows from financing activities (\$'000)                  |           |           |           |           |           |           |           |           |           |           |
| New borrowings  | 36,022    | 42,992    | 55,138    | 61,009    | 49,929    | 64,056    | 62,319    | 46,904    | 54,322    | 68,430    |
| Repayment of borrowings                                       | (7,619)   | (8,820)   | (10,253)  | (12,091)  | (14,124)  | (15,789)  | (17,924)  | (20,001)  | (21,565)  | (23,375)  |
| Net cashflows from financing activities                       | 28,403    | 34,172    | 44,885    | 48,918    | 35,805    | 48,267    | 44,395    | 26,903    | 32,757    | 45,055    |
| Net increase/(decrease) in cash and cash equivalents (\$'000) | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Cash and cash equivalents at beginning of year                | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Cash and cash equivalents at end of year (\$'000)             | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |

# **E.4** Projected statement of financial position

Table 52 – Statement of financial position (combined Water Services unit)

| Projected statement of financial position | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29  | FY2029/30  | FY2030/31  | FY2031/32  | FY2032/33  | FY2033/34  |
|---|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|
| Assets (\$'000)                           |           |           |           |           |            |            |            |            |            |            |
| Cash and cash equivalents                 | 0         | 0         | 0         | 0         | 0          | 0          | 0          | 0          | 0          | 0          |
| Other current assets                      | 0         | 0         | 0         | 0         | 0          | 0          | 0          | 0          | 0          | 0          |
| Infrastructure assets                     | 7,889,528 | 8,411,355 | 9,056,044 | 9,711,934 | 10,348,274 | 10,936,329 | 11,512,545 | 12,072,588 | 12,649,636 | 13,222,235 |
| Other non-current assets                  | 0         | 0         | 0         | 0         | 0          | 0          | 0          | 0          | 0          | 0          |
| Total assets                              | 7,889,528 | 8,411,355 | 9,056,044 | 9,711,934 | 10,348,274 | 10,936,329 | 11,512,545 | 12,072,588 | 12,649,636 | 13,222,235 |
| Liabilities (\$'000)                      |           |           |           |           |            |            |            |            |            |            |
| Borrowings – current portion              | 44,561    | 47,295    | 53,225    | 58,563    | 62,368     | 64,351     | 65,165     | 65,702     | 66,548     | 67,531     |
| Other current liabilities                 | 0         | 0         | 0         | 0         | 0          | 0          | 0          | 0          | 0          | 0          |
| Borrowings – non-current portion          | 878,975   | 913,691   | 1,038,381 | 1,139,968 | 1,191,728  | 1,186,874  | 1,146,129  | 1,096,548  | 1,055,360  | 1,017,332  |
| Other non-current liabilities             | 0         | 0         | 0         | 0         | 0          | 0          | 0          | 0          | 0          | 0          |
| Total liabilities                         | 923,535   | 960,986   | 1,091,606 | 1,198,532 | 1,254,096  | 1,251,225  | 1,211,294  | 1,162,251  | 1,121,907  | 1,084,863  |
| Net assets (\$'000)                       | 6,965,993 | 7,450,369 | 7,964,437 | 8,513,402 | 9,094,178  | 9,685,104  | 10,301,251 | 10,910,338 | 11,527,728 | 12,137,372 |
| Equity (\$'000)                           |           |           |           |           |            |            |            |            |            |            |
| Revaluation reserves                      | 168,677   | 623,120   | 1,096,784 | 1,594,767 | 2,115,373  | 2,636,094  | 3,172,554  | 3,699,759  | 4,237,544  | 4,769,384  |
| Other reserves                            | 6,797,316 | 6,827,248 | 6,867,654 | 6,918,635 | 6,978,805  | 7,049,010  | 7,128,697  | 7,210,578  | 7,290,184  | 7,367,988  |
| Total equity (\$'000)                     | 6,965,993 | 7,450,369 | 7,964,437 | 8,513,402 | 9,094,178  | 9,685,104  | 10,301,251 | 10,910,338 | 11,527,728 | 12,137,372 |

Table 53 – Statement of financial position (water supply)

| Projected statement of financial position | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Assets (\$'000)                           |           |           |           |           |           |           |           |           |           |           |
| Cash and cash equivalents                 | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Other current assets                      | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Infrastructure assets                     | 2,167,595 | 2,315,176 | 2,490,469 | 2,675,337 | 2,850,848 | 3,023,513 | 3,209,219 | 3,391,268 | 3,573,035 | 3,745,066 |
| Other non-current assets                  | 0         | 0         | 0         | 0         | 0         | 0         | 0         |           | 0         | 0         |
| Total assets                              | 2,167,595 | 2,315,176 | 2,490,469 | 2,675,337 | 2,850,848 | 3,023,513 | 3,209,219 | 3,391,268 | 3,573,035 | 3,745,066 |
| Liabilities (\$'000)                      |           |           |           |           |           |           |           |           |           |           |
| Borrowings – current portion              | 5,744     | 6,336     | 7,541     | 8,662     | 9,139     | 9,395     | 9,797     | 10,086    | 10,243    | 10,106    |
| Other current liabilities                 | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Borrowings – non-current portion          | 127,852   | 139,262   | 167,877   | 192,861   | 198,027   | 196,303   | 198,555   | 197,139   | 191,623   | 177,415   |
| Other non-current liabilities             | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Total liabilities                         | 133,596   | 145,598   | 175,418   | 201,524   | 207,166   | 205,698   | 208,351   | 207,225   | 201,866   | 187,522   |
| Net assets (\$'000)                       | 2,034,000 | 2,169,579 | 2,315,052 | 2,473,813 | 2,643,681 | 2,817,815 | 3,000,868 | 3,184,044 | 3,371,169 | 3,557,545 |
| Equity (\$'000)                           |           |           |           |           |           |           |           |           |           |           |
| Revaluation reserves                      | 38,768    | 162,815   | 292,612   | 429,180   | 571,992   | 715,110   | 863,236   | 1,010,065 | 1,161,189 | 1,311,681 |
| Other reserves                            | 1,995,231 | 2,006,763 | 2,022,440 | 2,044,633 | 2,071,690 | 2,102,705 | 2,137,632 | 2,173,978 | 2,209,981 | 2,245,864 |
| Total equity (\$'000)                     | 2,034,000 | 2,169,579 | 2,315,052 | 2,473,813 | 2,643,681 | 2,817,815 | 3,000,868 | 3,184,044 | 3,371,169 | 3,557,545 |

| Projected statement of financial position | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Assets (\$'000)                           |           |           |           |           |           |           |           |           |           |           |
| Cash and cash equivalents                 | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Other current assets                      | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Infrastructure assets                     | 3,455,170 | 3,674,071 | 3,970,167 | 4,255,206 | 4,535,080 | 4,755,989 | 4,948,607 | 5,147,204 | 5,354,180 | 5,554,844 |
| Other non-current assets                  | 0         | 0         | 0         | 0         | 0         | 0         | 0         |           | 0         | 0         |
| Total assets                              | 3,455,170 | 3,674,071 | 3,970,167 | 4,255,206 | 4,535,080 | 4,755,989 | 4,948,607 | 5,147,204 | 5,354,180 | 5,554,844 |
| Liabilities (\$'000)                      |           |           |           |           |           |           |           |           |           |           |
| Borrowings – current portion              | 29,997    | 30,706    | 33,594    | 35,777    | 37,440    | 37,032    | 35,367    | 34,052    | 32,929    | 31,768    |
| Other current liabilities                 | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Borrowings – non-current portion          | 561,373   | 551,941   | 604,968   | 634,686   | 647,139   | 597,877   | 512,563   | 439,059   | 372,440   | 305,845   |
| Other non-current liabilities             | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Total liabilities                         | 591,370   | 582,647   | 638,562   | 670,463   | 684,579   | 634,909   | 547,930   | 473,111   | 405,369   | 337,614   |
| Net assets (\$'000)                       | 2,863,800 | 3,091,424 | 3,331,605 | 3,584,742 | 3,850,501 | 4,121,080 | 4,400,677 | 4,674,093 | 4,948,811 | 5,217,230 |
| Equity (\$'000)                           |           |           |           |           |           |           |           |           |           |           |
| Revaluation reserves                      | 91,912    | 304,656   | 526,100   | 759,814   | 1,004,581 | 1,250,601 | 1,502,912 | 1,750,023 | 2,001,005 | 2,248,044 |
| Other reserves                            | 2,771,889 | 2,786,768 | 2,805,505 | 2,824,929 | 2,845,919 | 2,870,479 | 2,897,766 | 2,924,070 | 2,947,806 | 2,969,186 |
| Total equity (\$'000)                     | 2,863,800 | 3,091,424 | 3,331,605 | 3,584,742 | 3,850,501 | 4,121,080 | 4,400,677 | 4,674,093 | 4,948,811 | 5,217,230 |

Table 55 – Statement of financial position (stormwater)

| Projected statement of financial position | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Assets (\$'000)                           |           |           |           |           |           |           |           |           |           |           |
| Cash and cash equivalents                 | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Other current assets                      | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Infrastructure assets                     | 2,266,763 | 2,422,107 | 2,595,408 | 2,781,392 | 2,962,346 | 3,156,827 | 3,354,718 | 3,534,116 | 3,722,420 | 3,922,324 |
| Other non-current assets                  | 0         | 0         | 0         | 0         | 0         | 0         | 0         |           | 0         | 0         |
| Total assets                              | 2,266,763 | 2,422,107 | 2,595,408 | 2,781,392 | 2,962,346 | 3,156,827 | 3,354,718 | 3,534,116 | 3,722,420 | 3,922,324 |
| Liabilities (\$'000)                      |           |           |           |           |           |           |           |           |           |           |
| Borrowings – current portion              | 8,820     | 10,253    | 12,091    | 14,124    | 15,789    | 17,924    | 20,001    | 21,565    | 23,375    | 25,656    |
| Other current liabilities                 | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Borrowings – non-current portion          | 189,750   | 222,489   | 265,536   | 312,421   | 346,561   | 392,693   | 435,011   | 460,351   | 491,297   | 534,071   |
| Other non-current liabilities             | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Total liabilities                         | 198,570   | 232,742   | 277,627   | 326,545   | 362,350   | 410,617   | 455,012   | 481,915   | 514,673   | 559,728   |
| Net assets (\$'000)                       | 2,068,193 | 2,189,366 | 2,317,781 | 2,454,847 | 2,599,996 | 2,746,210 | 2,899,706 | 3,052,201 | 3,207,748 | 3,362,596 |
| Equity (\$'000)                           |           |           |           |           |           |           |           |           |           |           |
| Revaluation reserves                      | 37,997    | 155,649   | 278,072   | 405,774   | 538,800   | 670,384   | 806,407   | 939,671   | 1,075,351 | 1,209,658 |
| Other reserves                            | 2,030,196 | 2,033,717 | 2,039,709 | 2,049,073 | 2,061,196 | 2,075,826 | 2,093,299 | 2,112,529 | 2,132,397 | 2,152,938 |
| Total equity (\$'000)                     | 2,068,193 | 2,189,366 | 2,317,781 | 2,454,847 | 2,599,996 | 2,746,210 | 2,899,706 | 3,052,201 | 3,207,748 | 3,362,596 |

# Part F: Water Services Delivery Plan - additional information

# **F.1** Significant capital projects

Capital projects listed below have been pulled from the Long Term Plans. To highlight significant projects in the years of the Water Services Delivery Plan, projects less than \$5 million budgeted have been emitted.

## Significant capital projects

## F.1.1 Significant capital projects – drinking water

## Table 56 – Significant water supply projects

| Significant capital projects – drinking water                   | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Projects to meet additional demand (\$'000)                     |           |           |           |           |           |           |           |           |           |           |
| Programme - WS New Pump Stations for Growth                     |           |           | 899       | 3087      | 2107      | 7368      | 1912      | 1005      | 4645      | 4738      |
| WS New Connections  | 1500      | 1551      | 1587      | 1625      | 1664      | 1700      | 1738      | 1774      | 1810      | 1846      |
| Programme - WS Reticulation New Mains                           |           |           |           |           | 555       | 1134      | 1159      | 1183      | 1206      | 1231      |
| WS Moorhouse Avenue Pump Station                                | 5         | 207       | 2644      | 3791      | 2791      | 2374      |           |           |           |           |
| WS Koukourārata Drinking Water Scheme                           | 300       | 310       | 779       | 6038      | 3078      |           |           |           |           |           |
| WS Ferrymead WSZ Capacity Upgrade                               |           | 103       | 529       | 1450      | 7547      | 6445      | 5934      |           |           |           |
| Programme - WS New Wells for Growth                             |           |           |           | 1300      | 1331      | 1360      | 1390      | 1419      | 1448      | 1477      |
| Total investment to meet additional demand (\$'000)             | 1,805     | 2,171     | 6,438     | 17,291    | 19,073    | 20,381    | 12,133    | 5,381     | 9,109     | 9,292     |
| Projects to improve levels of services (\$'000)                 |           |           |           |           |           |           |           |           |           |           |
| WS Wrights Road Suction Tank & Pump Station Building (PS1080)   | 169       | 3136      | 2923      |           |           |           |           |           |           |           |
| WS Okains Bay New Water Supply                                  | 500       | 890       | 3870      | 2188      |           |           |           |           |           |           |
| Programme - WS New Chlorination Equipment & Controls (D3 com)   | 1000      | 2068      | 2116      | 2166      | 2218      | 5668      | 5793      | 11828     | 12065     | 6153      |
| WS Smart Customer Water Meter Rollout                           | 1000      | 1034      | 1058      | 1083      | 1664      | 1700      | 2317      | 2366      | 2413      | 2461      |
| WS Rezoning Stage 1 Implementation                              |           |           |           | 654       | 3106      | 2670      |           |           |           |           |
| Total investment to meet improve levels of services (\$'000)    | 2,669     | 7,128     | 9,967     | 6,091     | 6,988     | 10,038    | 8,110     | 14,194    | 14,478    | 8,614     |
| Projects to replace existing assets (\$'000)                    |           |           |           |           |           |           |           |           |           |           |
| WS Averill Street Pump Station Renewal (PS1005)                 | 100       | 103       | 5289      | 8070      | 3327      | 1134      |           |           |           |           |
| Programme - WS Pumping & Storage Electrical Renewals            | 10        | 333       | 638       | 668       | 460       | 761       | 1127      | 1242      | 1313      | 713       |
| Programme - WS Mains Renewals                                   | 2100      |           | 1233      | 32560     | 33249     | 39540     | 52292     | 56185     | 51879     | 52917     |
| Programme - WS Headworks Well Renewals                          |           | 207       | 1058      | 1083      | 1109      | 1134      | 2317      | 2366      | 1206      | 1231      |
| Programme - WS Submains Renewals                                | 2754      | 4136      | 4231      | 4333      | 4437      | 4534      | 9268      | 9463      | 9652      | 6153      |
| WS Reactive Mains & Submains Renewal                            | 600       | 620       | 635       | 650       | 665       | 680       | 695       | 710       | 724       | 738       |
| WS Kerrs Road Pump Station Renewal (PS1022)                     | 50        | 672       | 5289      | 6066      | 3327      | 1134      |           |           |           |           |
| WS Grampian Street Suction Tank Renewal (PS1074)                | 150       | 155       | 1587      | 3011      | 5444      |           |           |           |           |           |
| WS Mains Memorial, Hampton, Frith, Grangewood, Kyburn & Brac    | 3657      | 2443      |           |           |           |           |           |           |           |           |
| Programme - WS Pumping & Storage Civils and Structures Renewals |           |           | 500       | 162       | 1109      | 1134      | 1159      | 1183      | 2724      | 2461      |
| WS Mains Brougham, Jerrold, Selwyn, Somerset, Colombo, Walth    | 308       | 2313      | 12921     |           |           |           |           |           |           |           |
| WS Mains Hugg, Trur, Norw, Worc, Mari, Copen, Gain, Akar,       | 1513      | 4219      | 1300      |           |           |           |           |           |           |           |
| WS Mains Main South, Main North & Cassidy Renewals              | 149       | 4026      | 3363      |           |           |           |           |           |           |           |
| WS Mains Marine, Ngatea, Te Ara, Marama, Ranui, Koromiko & Ja   | 124       | 3689      | 3093      |           |           |           |           |           |           |           |
| WS Lyttelton Rail Tunnel Pipeline Renewals                      | 200       | 310       | 4231      | 5416      | 3327      |           |           |           |           |           |
| Total investment to replace existing assets (\$'000)            | 11,715    | 23,226    | 45,368    | 62,019    | 56,454    | 50,051    | 66,858    | 71,149    | 67,498    | 64,213    |
| Total investment in drinking water assets (\$'000)              | 16,189    | 32,525    | 61,773    | 85,401    | 82,515    | 80,470    | 87,101    | 90,724    | 91,085    | 82,119    |

## **F.1.2** Significant capital projects – wastewater

## Table 57 – Significant wastewater projects

| Significant capital projects – wastewater                        | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/34 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Projects to meet additional demand (\$'000)                      |           |           |           |           |           |           |           |           |           |           |
| Programme - WW New Mains   |           |           | 402       | 812       | 832       | 567       | 753       | 1065      | 701       | 1514      |
| WW Grassmere Wet Weather Storage Facility                        | 3200      | 11374     | 11636     | 4413      |           |           |           |           |           |           |
| Programme - WW New Mains   |           |           | 402       | 812       | 832       | 567       | 753       | 1065      | 701       | 1514      |
| WW Grassmere Wet Weather Storage Facility                        | 3200      | 11374     | 11636     | 4413      |           |           |           |           |           |           |
| Total investment to meet additional demand (\$'000)              | 6,400     | 22,748    | 24,076    | 10,450    | 1,664     | 1,134     | 1,506     | 2,130     | 1,402     | 3,028     |
| Projects to improve levels of services (\$'000)                  |           |           |           |           |           |           |           |           |           |           |
| Programme - WW New Reticulation Odour Control                    |           |           | 434       | 1083      | 1109      | 1134      | 1159      | 1183      | 1206      | 1231      |
| WW Duvauchelle Treatment and Disposal Renewal                    | 1000      | 1034      | 5712      | 5253      | 5013      | -         |           |           |           |           |
| WW Riccarton Interceptor (Upper Riccarton)                       | 5500      | 5056      | 2670      |           |           |           |           |           |           |           |
| WW Selwyn Pump Station (PS0152), Pressure Main and Sewer         |           |           |           |           |           |           |           |           |           |           |
| Upgrade  | 494       | 5049      | 5289      | 10832     | 12874     | 5668      | 5793      | 5914      |           |           |
| CWTP Biogas Engine Upgrade (Generator 1)                         |           |           | 5989      | 358       |           |           |           |           |           |           |
| WW Akaroa Reclaimed Water Treatment & Reuse Scheme               | 3106      | 8272      | 26609     | 26586     | 14158     | 14793     |           |           |           |           |
| CWTP Biosolids Holding Tank                                      | 20        | 47        |           |           |           |           |           | 1774      | 4187      |           |
| CWTP Biosolids Dewatering Belt Press Upgrade                     |           |           |           |           | 1109      | 2267      | 2317      |           |           |           |
| Total investment to meet improve levels of services (\$'000)     | 10,120    | 19,458    | 46,703    | 44,112    | 34,263    | 23,862    | 9,269     | 8,871     | 5,393     | 1,231     |
| Projects to replace existing assets (\$'000)                     |           |           |           |           |           |           |           |           |           |           |
| WW Reactive Lateral Renewals                                     | 500       | 517       | 529       | 1083      | 1109      | 1134      | 1159      | 1183      | 1206      | 1231      |
| WW Locarno Street Pump Station Renewal (PS0020)                  |           |           |           |           |           |           |           | 59        | 905       | 9919      |
| CWTP Treatment Plant Asset Reactive Renewals                     | 600       | 620       | 635       | 650       | 665       | 680       | 695       | 710       | 724       | 738       |
| Programme - WW Reticulation Renewals                             | 100       | 300       | 209       | 9728      | 29947     | 32873     | 33597     | 44948     | 50673     | 41841     |
| Programme - WW Treatment Plant Civil Structures & Buildings      |           | 52        | 317       | 477       | 555       | 759       | 834       | 964       | 1044      | 1188      |
| Programme - WW Treatment Plant Mechanical Renewals               | 460       | 587       | 1643      | 2094      | 752       | 907       | 927       | 946       | 965       | 984       |
| CWTP Biogas Storage Upgrade                                      | 5158      | 9189      | 130       |           |           |           |           |           |           |           |
| WW Reactive Mains Renewals & Capex Repairs                       | 500       | 517       | 529       | 542       | 555       | 567       | 579       | 591       | 603       | 615       |
| CWTP Wastewater Digester 1-4 Roof Renewal                        |           |           |           | 2512      | 2645      | 2781      |           |           |           |           |
| Programme - WW Pump & Storage Instrumentation Control & Auto     | 10        | 103       | 846       | 596       | 721       | 567       | 1610      | 1360      | 1408      | 816       |
| CWTP Renewals & Replacements                                     | 4000      | 36190     | 48658     | 27079     |           |           |           |           |           |           |
| WW Langdons Rd Mains Renewal                                     | 3840      | 1352      | 1211      |           |           |           |           |           |           |           |
| WW Fitzgerald Ave Brick Barrel Mains Renewal                     | 250       | 380       | 12505     | 7701      |           |           |           |           |           |           |
| WW Buchanans Road Mains Renewal                                  | 2750      | 4198      | 1300      |           |           |           |           |           |           |           |
| WW Brougham Street Mains Renewals (NZTA)                         | 2400      | 5170      | 6225      |           |           |           |           |           |           |           |
| WW Lincoln Road Mains Renewal                                    | 100       | 517       | 1804      | 2600      |           |           |           |           |           |           |
| WW Reactive Wastewater Reticulation Renewals (Maintenance Co     | 650       | 672       | 688       | 812       | 832       | 850       | 869       | 887       | 905       | 923       |
| CWTP Wastewater Pond transfer structure renewal                  | 300       | 310       | 317       | 325       | 333       | 340       | 348       | 1922      | 1961      | 2000      |
| CWTP Wastewater Thermophilic digesters overhaul.                 | 250       | 2068      | 2116      | 812       |           |           |           |           |           | <u> </u>  |
| CWTP Wastewater Clarifiers structures overhaul                   |           |           |           |           |           |           | 1159      | 1183      | 1206      | 6153      |
| CWTP Wastewater Thermophilic and Mesophilic air blowers renewals |           |           |           |           |           |           | 579       | 2188      | 2232      | 2277      |
| Total investment to replace existing assets (\$'000)             | 21,868    | 62,742    | 79,662    | 57,011    | 38,114    | 41,458    | 42,356    | 56,941    | 63,832    | 68,685    |
| Total investment in wastewater assets (\$'000)                   | 38,388    | 104,948   | 150,441   | 111,573   | 74,041    | 66,454    | 53,131    | 67,942    | 70,627    | 72,944    |

## **F.1.3** Significant capital projects – stormwater

## Table 58 – Significant stormwater projects

| Significant capital projects – stormwater  | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 | FY2029/30 | FY2030/31 | FY2031/32 | FY2032/33 | FY2033/3 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| Projects to meet additional demand (\$'000)  |           |           |           |           |           |           |           |           |           |          |
| STYX SMP - Waterway Detention and Treat  |           |           |           | 1,926     | 2,326     | 5,138     | 2,331     | 1,788     | 3,075     | 2,27     |
| Programme - SW Management Plan on Pūharakekenui - Styx                                   |           |           |           | 1926      | 2327      | 5138      | 2332      | 1789      | 3076      | 22       |
| Vaterway Detention & Treatment Facilities  |           |           |           | 1926      | 2327      | 2130      | 2332      | 1789      | 3076      | 22       |
| W Eastman Sutherland and Hoon Hay Wetlands   | 3150      | 2946      |           |           |           |           |           |           |           |          |
| SW Spreydon Lodge Infrastructure Provision Agreement (IPA)                               | 611       | 1204      | 1175      | 1762      | 775       |           |           |           |           |          |
| SW Gardiners Stormwater Facility   | 1906      | 2505      | 1167      | 300       |           |           |           |           |           |          |
| SW Greens Stormwater Facility  | 734       | 748       | 1748      | 1376      | 1229      | 400       |           |           |           |          |
| W Otukaikino Stormwater Facility   | 268       | 708       | 2818      | 3286      | 2055      | 4196      | 793       | 317       |           |          |
| Programme - SW Outer Christchurch Ōtukaikino Waterways Deten                             | 4         | 60        | 111       | 140       | 739       | 4243      | 5864      | 887       | 926       | 9        |
| SW Kainga Basins   |           |           |           |           |           |           | 232       | 591       | 5550      | 77       |
| SW Highsted Styx Mill Reserve Wetland  | 100       | 103       | 2116      | 2166      | 2649      |           |           |           |           |          |
| SW Highsted Wetland, Highams Basin & Pūharakekenui - Styx Street                         | 1974      | 6334      | 4994      | 4347      | 100       |           |           |           |           |          |
| Total investment to meet additional demand (\$'000)                                      | 8,747     | 14,608    | 14,129    | 17,229    | 12,200    | 19,115    | 11,552    | 5,372     | 12,627    | 13,3     |
| Projects to improve levels of services (\$'000)  |           |           |           |           |           |           |           |           |           |          |
| Programme - SW Ōpāwaho - Heathcote Waterways Detention &<br>Freatment Facilities         |           |           |           |           |           |           | 1904      | 5252      | 4818      | 56       |
| Programme - SW Ōtākaro - Avon Waterway Detention & Treatment<br>Facilities               |           | 119       | 115       | 3888      | 2794      | 3934      | 6623      | 6762      | 8104      | 94       |
| Programme - SW Ōtākaro Avon Floodplain Management<br>mplementation FY32-48 (OARC)        |           |           |           |           |           |           |           | 2957      | 7239      | 14       |
| W Horners Kruses Basin   |           |           |           |           | 152       | 155       | 2108      | 4671      | 1206      | 8        |
| W Addington Brook & Riccarton Drain Filtration Devices                                   | 1038      | 1365      | 3621      | 2318      | 1514      | 1816      | 6092      | 6900      | 1200      |          |
| Programme - SW Estuary & Coastal Waterways Detention &                                   | 1036      | 1303      | 3021      | 2310      | 1314      | 1010      | 0032      | 0300      |           |          |
| reatment Facilities  |           |           |           |           | 555       | 537       | 2107      | 863       | 1079      | 14       |
| Programme - SW Banks Peninsula Settlements Waterways Detention<br>& Treatment Facilities |           |           |           |           | 55        | 661       | 1238      | 471       | 1602      | 44       |
| Programme - SW Lower Ōpāwaho - Heathcote River Guidance Pla                              | 500       | 517       | 529       | 542       | 555       | 567       | 579       | 591       | 603       |          |
| SW Waikākāriki - Horseshoe Lake Stormwater Treatment (Stage 1)                           | 873       | 1698      | 2964      | 3333      | 5540      | 1678      |           |           |           |          |
| SW Waikākāriki - Horseshoe Lake Stormwater Treatment (Stage 2)                           | 504       | 480       | 1141      | 3203      | 5878      | 6482      | 232       |           |           |          |
| W Dudley Diversion Basins  | 1         | 1         | 211       | 1172      | 1597      | 4282      | 1159      | 591       |           |          |
| SW Dudley Diversion Wetlands   |           |           |           |           | 555       | 5725      | 2317      | 237       | 1206      | 36       |
| SW Styx and Citywide Flood Modelling Renewals  | 1937      | 1357      | 1587      | 1462      | 542       | 227       |           |           |           |          |
| SW South New Brighton & Southshore Estuary Edge Flood Mitigation                         | 2001      | 1765      | 1748      | -         |           |           |           |           |           |          |
| Programme - SW Flood and Stormwater Priority Works (OARC)                                | 2001      | 52        | 1086      | 3058      | 2773      | 3035      | 3334      | 237       |           |          |
| SW Ōtākaro Avon River Corridor Anzac Drive to Waitaki Street Sto                         | 2404      | 2486      | 2490      | 1467      | 1446      | 3745      | 4059      | 4145      | 2900      | 30       |
| W Ötäkaro Avon River Corridor Stopbank from Pages Road to Bri                            | 238       | 749       | 2985      | 4247      | 3278      | 2553      | 4405      | 2962      | 3624      | 41       |
|  |           | 791       | 826       |           | 3210      | 2555      | 4405      | 2902      | 3024      | 4        |
| SW Port Hills Revegetation and Sediment Control Stage 1                                  | 1550      | 191       | 626       | 1882      | ***       | *200      | 224-      | 5000      | 100.0     |          |
| SW Ōtākaro Avon River Corridor Avondale to ANZAC (OARC)                                  |           |           | 4000      | 27        | 444       | 1389      | 2317      | 5323      | 4826      | 5        |
| Programme - Flood Intervention   |           |           | 1083      | 1091      | 1195      | 1416      | 1517      | 1999      | 2141      | 2:       |
| Programme - Flood Intervention   |           |           | 1083      | 1091      | 1195      | 1416      | 1517      | 1999      | 2141      | 2        |
| W Ōtākaro Avon River Corridor Waitaki Street Treatment Facility<br>OARC)                 |           | 1         | 1428      | 1625      | 2662      | 2834      | 3765      | 591       | 603       |          |
| Programme - SW Improving Urban Waterways   | 50        | 103       | 1640      | 2004      | 2717      | 2777      | 2838      | 2898      | 2956      | 31       |
| Programme - Surface Flooding Reduction   |           |           | 21156     | 21663     | 22183     | 22671     | 23170     | 23657     | 24130     | 24       |
| Total investment to meet improve levels of services (\$'000)                             | 11,096    | 11,484    | 45,693    | 54,073    | 57,630    | 67,900    | 71,281    | 73,106    | 69,178    | 93,2     |
| Projects to replace existing assets (\$'000)   |           |           |           |           |           |           |           |           |           |          |
| Programme - SW Reticulation Renewals   |           | 178       | 3123      | 3301      | 3327      | 3401      | 3476      | 3549      | 3619      | 43       |
| SW Timber Lining Renewal - Marshland Road Canal Reserve Drain                            | 1825      | 3737      |           |           |           |           |           |           |           |          |

| Programme - SW Open Waterway Renewals                |        |        | 740    | 758    | 776    | 793    | 1390   | 1419   | 1448   | 861     |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| Programme - SW Stormwater Drainage Reactive Renewals | 200    | 517    | 611    | 643    | 648    | 851    | 889    | 748    | 779    | 813     |
| Total investment to replace existing assets (\$'000) | 2,025  | 4,432  | 4,474  | 4,702  | 4,751  | 5,045  | 5,755  | 5,716  | 5,846  | 5,981   |
| Total investment in stormwater assets (\$'000)       | 21,868 | 30,524 | 64,296 | 76,004 | 74,581 | 92,060 | 88,588 | 84,194 | 87,651 | 112,584 |

# F.2 Risks and assumptions

## Disclosure of risks and material assumptions for water services delivery

Risks and material assumptions for water services delivery that have been included in the Water Service Delivery Plan are listed in the below tables. For a comprehensive list of financial sustainability risks and assumptions, refer to Section D.3.

## F.2.1 Significant Risks

| Significant Risks   |   | All Water Services  |   |  |  |  |  |  |  |
|---|---|---|---|--|--|--|--|--|--|
| Parameters  Future water service delivery  Network performance  Regulatory compliance  Delivery of Capital Programme  Organisational capacity  Long term issues e.g. providing for growth, climate change | <ul> <li>Central government reform limiting councils to deliver water services.</li> <li>Local government reform</li> <li>Significant natural disaster causing damage to council assets.</li> <li>Pandemic or similar event.</li> <li>Global unrest such as a war.</li> <li>Change in the Council strategy.</li> <li>Loss of council staff with institutional and operational knowledge.</li> <li>Staff strikes at key operation facilities.</li> <li>Expected population growth exceeds expected.</li> <li>Areas of growth differ from that expected and outlined in district plan.</li> <li>Inflation and cost escalation.</li> </ul> |   |   |  |  |  |  |  |  |
|   | Drinking supply   | Wastewater  | Stormwater  |  |  |  |  |  |  |
|   | <ul> <li>Taumata Arowai water supply compliance changes.</li> <li>Unable to take water from current water source (aquifer).</li> </ul>  | <ul> <li>Conflict between Regional Councils<br/>and Taumata Arowai.</li> <li>Changes to wastewater discharge<br/>rules whether from the Resource<br/>Management Act or Taumata<br/>Arowai.</li> </ul> | <ul> <li>Changes to wastewater discharge<br/>rules whether from the Resource<br/>Management Act or Taumata<br/>Arowai.</li> </ul> |  |  |  |  |  |  |

## F.2.2 Assumptions Made

| Significant assumptions   | All Water Services   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Parameters  Future water service delivery  Network performance  Regulatory compliance  Delivery of Capital Programme  Organisational capacity  Long term issues e.g. providing for growth, climate change | <ul> <li>The Christchurch City Council Water Services Delivery Plan has been prepared and should be read in conjunction with the Council's 2024 Long Term Plan — specifically the Finance Strategy, Infrastructure Strategy, and Significant Forecasting Assumptions. Where relevant, specific assumptions relating to water service delivery have been separately identified within this document.</li> <li>The Christchurch City Council may, as required, review and update water services funding requirements, including operational and capital budgets, to reflect changes in regulatory obligations, service deliverability, evolving community needs, and the broader operating environment in which water services are provided.</li> <li>Rating for renewals by 2032.</li> <li>Capacity in the consultant/contractor sector to deliver capital programme.</li> <li>All Council assets are insured sufficiently.</li> <li>Climate change models are as accurate as possible.</li> <li>Financial models are accurate and have no significant bugs.</li> <li>Continuing relationship with communities.</li> <li>Continuing relationship with local lwi.</li> <li>Adequate calculation of debt headroom in case of significant event.</li> <li>Organisation structure has minor change and stays within the Council.</li> </ul> |  |  |  |  |  |  |
|   | <ul> <li>IT systems are updated as required.</li> <li>Operational efficiencies will improve or</li> </ul> Drinking supply  | wer time.  Wastewater  | Stormwater   |  |  |  |  |
|   | Water supply network assets condition, theoretical useful life is accurate as possible.  Water supply will continue to comply with health, safety and environmental regulations.  AAIF tool has no bugs and input data used is accurate.  Chlorination and fluorination implementation will continue.  Residential water usage remains in line with projections both annually and seasonal pattern.  Industrial, commercial, agricultural water usage remains in line with projections annually and seasonal patterns.  Digital metering will provide reliable performance.  | <ul> <li>Wastewater network assets condition, theoretical useful life is accurate as possible.</li> <li>AAIF tool has no bugs and input data used is accurate.</li> <li>Wastewater treatment will continue to comply with health, safety and environmental regulations.</li> <li>Capacity of WWTPs will remain sufficient for growth expected.</li> <li>Major renewal or upgrades to WWTP will remain scheduled in LTP.</li> </ul> | <ul> <li>Stormwater network assets condition, theoretical useful life is accurate as possible.</li> <li>AAIF tool has no bugs and input data used is accurate.</li> <li>Stormwater discharge will continue to comply with health, safety and environmental regulations.</li> </ul> |  |  |  |  |

# Part G: Appendix - Council Resolution

Resolution of Christchurch City Council meeting held on 20 August 2025

## 6. Water Services Delivery Plan Adoption - Local Water Done Well

## Council Resolved CNCL/2025/00001

That the Council:

- 1. Receives the information in the Water Services Delivery Plan Adoption Local Water Done Well Report.
- 2. Notes that the decision in this report is assessed as high significance based on Christchurch City Council's Significance and Engagement Policy.
- 3. Notes that prior to submission of the Water Services Delivery Plan (WSDP), section 18 of the Local Government (Water Services Preliminary Arrangements) Act 2024 (Act) requires the Chief Executive to certify that:
  - a. the WSDP complies with the Act; and
  - b. the information contained in the WSDP is true and accurate.
- 4. Adopts the Water Services Delivery Plan, attached as Attachment A to this report.
- 5. Approves the submission of the Water Services Delivery Plan to the Secretary for Local Government.
- 6. Notes that the Water Services Delivery Plan must be submitted to Secretary for Local Government, for their consideration and acceptance if compliant with the Act, no later than 3 September 2025.
- 7. Authorises the Chief Executive to make minor amendments and corrections to the Water Services Delivery Plan, as may be necessary to ensure accuracy and consistency, provided such changes are not material.

Councillor MacDonald/Councillor Peters

**Carried**