SOUTH WAIRARAPA DISTRICT COUNCIL

Kia Reretahi Tātau

Infrastructure Strategy 2024-2054

Date of Approval	xx June 2025
Next Review	30 June 2027

Contents

Introduction

Strategy purpose

South Wairarapa District Council (Council) is the steward of $744 million (replacement value as at June 2024) of core infrastructure assets. The core assets include drinking water, wastewater, stormwater and land transport and are the foundations on which Council provides key services to our community. The management of these assets is long-term and inter-generational.

High quality infrastructure is crucial to supporting and enabling our daily activities, ensuring that our people and water are healthy and that our district is safe and resilient in times of stress or shock. Good infrastructure also provides the foundation for economic prosperity.

It is therefore essential that Council invests effectively and efficiently in our infrastructure to contribute to meeting our agreed community outcomes of social, economic, environmental and cultural wellbeing.

The 30 Year Infrastructure Strategy (Strategy) has been prepared in accordance with the requirements of section 101B of the Local Government Act 2002 (LGA). The purpose of our strategy, as stated in the LGA, is to identify:

- The key issues faced by Council in managing these assets over the next 30 years (2024-2054).
- A summary of the options identified to address these issues.
- Council's strategic response and preferred options scenario.
- The cost and service delivery implications of the options.

This Strategy also outlines the most likely scenario for the management of our infrastructure assets during its 30 year period, the estimated costs of managing those assets, the nature and timing of expected significant capital expenditure decisions and the assumptions on which the scenarios are based.

This Infrastructure Strategy has been developed in conjunction with Council asset planning team and will be revised every three years as part of the LTP process. Council undertakes its asset planning in collaboration with its infrastructure partners, Wellington Water Limited and the Ruamāhanga Roads arrangement.

About this strategy

Council delayed their 2024 Long Term Plan due to uncertainties with the change of Government policy, specifically three waters. The 2024 Infrastructure Strategy will still have a 30 year horizon with the 2024/25 Enhanced Annual Plan as year 1 and it will be published on 1 July 2025. The focus for the 2024 Strategy is to put in place the right basic building blocks for three water assets to support sound decision making. There has been good planning work undertaken for managing three water assets in partnership with Wellington Water Limited but is recognised that the practices for managing the three water assets still need to improve.

We wish to prepare for the future and improve the practices for managing three water assets particularly data reliability, regardless of the decision for the preferred service delivery arrangement under any new Government policy. Therefore, the approaches adopted for the 2024 strategy is setting up the right foundations to improve the underlying asset data (bottom up). It will take a few Long Term Plan cycles to achieve an evidence-based strategy consistently across all of our Infrastructure.

Land transport assets are generally performing adequately when compared with our peer group (other councils with similar population size and network). Council generally outperforms its peer group in asset performance trends in road roughness, pavement and surfacing condition. However, the introduction of the national Consistent Condition Data Contract may identify more performance issues due to more accurate measurement tools and technology.

Strategy scope

This Strategy includes all the mandatory infrastructure categories in the Local Government Act 2002

- Water supply.
- Wastewater (sewage treatment and disposal).
- Stormwater drainage and flood protection (at a local level)
- Roads, footpaths and bridges.

The following assets are excluded from our strategy:

- Water races.
- Non-core infrastructure assets such as sports, recreation and environment, facilities and waste services.
- State highways as this is the responsibility of Waka Kotahi NZ Transport Agency (NZTA).

1. Strategic context

1.1. Strategic framework

Infrastructure plays a vital role in promoting the wellbeing of our communities. How we invest and manage our assets now will have implications for future generations. This document sets out our infrastructure management approach for the next thirty years, subject to the constraints created by the Government implementing its Local Water Done Well (LWDW) policy. The strategy also considers any other likely significant challenges ahead of us.

This strategy is part of a suite of strategies, plans and policies that contribute to the long-term sustainable management of Council's infrastructure. The Strategy is overarching and interlocks with asset management practices. It is a key supporting document for the Long Term Plan (LTP) 2024-34, reflecting the contribution of our vision and the outcomes we aspire to achieve for our communities.

1.1.1. Our vision

Council has adopted a District-wide vision:

'The best of country living with the community at the heart of everything we do'.

Core infrastructure is a key platform on which community wellbeing is provided for. The goal of this strategy is to support our District-wide vision through the provision of core infrastructure.

1.1.2. Community Outcomes

SWDC has four Community Outcomes supported by a number of strategic drivers as shown in Figure 1. This Infrastructure Strategy will describe the preferred maintenance, renewals and upgrade programme and how it will contribute to the achievement of our Community Outcomes.

Figure 1 SWDC Community Outcomes

The described strategy considers recent consultation and engagement processes that have begun to explore what our communities want council to focus on. These processes have indicated that, of the four well beings, environmental and economic wellbeing are front and centre. This is not to minimise the importance of social and cultural wellbeing but is likely a reflection of the under investment in core infrastructure over many decades, the visible impact of climate change over recent years, and significant rises in inflation that have affected the cost of living.

Council takes into consideration community's feedback with our management core infrastructure. We will continue to maintain suitable levels of investment in three waters and land transport assets.

2. The South Wairarapa Story

2.1. Geography

The South Wairarapa district is situated at the southernmost, eastern corner of the North Island, as shown in the map below, and has an area of approximately 248,455 hectares (2,484 square kilometres). In the south, the district boundary follows the coastline from the western end of Palliser Bay in Cook Strait to Honeycomb Rock, east of Martinborough. The western boundary follows the main divide of the Remutaka and Tararua ranges to Mount Hector, from which the boundary runs south-east across the Wairarapa Plains to the coast. The district includes the towns of Featherston, Greytown and Martinborough which are the main population centres.

The district includes four major waterways (the Ruamāhanga, Huangarua, Tauwharenīkau and Waiohine Rivers) and importantly Lakes Wairarapa and Ōnoke which, together with their neighbouring wetlands of 9,000 hectares, comprise the Wairarapa Moana (sea of glistening water). This was handed back to local Māori under a recent settlement agreement and is Ramsar [1] recognised.

Figure 2 SWDC Geographic Context Map

2.2. Population trends

The South Wairarapa is a sparsely populated district and one of the smaller local authorities. The district population increased by 11.7% from 10,575 in 2018 to 11,811 in 2023 (based on Census data).

Population projections for the period 2023 to 2053 are based on the median population projections provided by Sense Partners (as at March 2023). South Wairarapa's population growth is predicted to increase slightly over the period of the 2024 LTP, mostly from strong internal migration from within New Zealand. The projections indicate that the district's resident population will grow from 11,811 in 2023 to 13,011 in 2032 and 14,811 by 2052. This represents an average annual growth of 1.1% from 2023 to 2032 over the life of this LTP and 1.3% from 2023 to 2052.

[1] Ramsar site is a wetland designated to be of international importance under the Ramsar Convention, an international environmental treaty signed in the Iranian city of Ramsar in 1971

2.3. Natural hazards

The South Wairarapa District is subject to several natural hazards including:

- Inundation including both storm-related coastal events and tsunami as well as high intensity rainfall events.
- Coastal erosion particularly the exposed part of the Cape Palliser / Mātakitaki-a-Kupe Road (refer to photograph in Figure 4).
- Other weather hazards, earthquakes, landslides and wildfires.

Figure 3 Exposed part of the Cape Palliser / Mātakitaki-a-Kupe Road

Council is preparing and adapting for the impact of natural hazards with a multi-faceted approach including:

- Wairarapa Combined District Plan - The combined plan was adopted by South Wairarapa, Carterton and Masterton District Councils in May 2011. It is the principle means by which the Councils seek to ensure the sustainable management of the natural and physical resources of the district.
- Wairarapa Maps GIS viewer - The three Wairarapa Councils have pooled resources to create a public, viewable, web-based mapping application. The website shows information about the region's properties, planning zones, District Plan, geographic features and natural hazards such as fault lines, tsunami, liquefaction and flood risk areas.

Greater Wellington Regional Council also identifies hazard areas such as coastal hazards, flood hazards, sea level rise mapping and coastal vulnerability. South Wairarapa District Council's main hazard area is coastal erosion with its extensive coastline.

The coastal vulnerability of the Wellington region to climate change, sea level rise and natural hazards was assessed in 2019. The assessment identified Palliser coastline (about 31km) as the most vulnerable coastal unit (compared with Onoke and South Wairarapa coastal units as shown in Figure 5) within the Wairarapa. This is due to its vulnerability in relation to erosion risk and roading (a combination of single access and priority roads at risk).

Figure 4 South Wairarapa Coastal Unit

Source: Assessing coastal vulnerability to climate change, sea level rise and natural hazards, Mitchell Daysh (June 2019)

2.4. Economic impacts

Economic impacts were not quantified for 2024 LTP and will likely be part of the 2027 LTP. The 2027 Infrastructure Strategy will include risks and consequences of economic impacts on core infrastructure.

3. Regional collaboration

3.1. Greater Wellington regional context

Regional collaboration and maintaining relationships are essential for SWDC as a small rural district. This enables us to respond to legislative changes as well as connecting with Government agencies such as the Department of Internal Affairs and NZTA.

We regularly collaborate with neighbouring Carterton and Masterton District Councils as well as with other councils in the Greater Wellington Region at management level with various activity specific forums. Other joint initiatives include the Wairarapa Combined District Plan, Wairarapa Maps GIS viewer, and Ruamāhanga Strategy (joint Climate Change Strategy for SWDC and Carterton District Council). There is also a shared climate change resource between the three Wairarapa councils.

3.2. Joint road maintenance approach

Carterton and South Wairarapa District Councils collaborate with a joint approach to managing the land transport networks. The Ruamāhanga Roads contract commenced in July 2019 and is a joint approach between South Wairarapa and Carterton District Councils to roading maintenance. It aims to maximise efficiency, achieve increased regional consistency, and optimise the use of internal resources.

The contract includes maintenance, renewals, and upgrades to both council networks. The new contract has moved away from lump sum / monthly items to a true measure and value for all maintenance activity. By taking a shared services approach to the work (increased volume and reduced management overheads), joint activity planning and openly tendering the work, both councils have created economic and administrative efficiencies. This has protected us to some extent from the impact of market changes.

3.3. Local Water Done Well

Councils are required to prepare a Water Services Delivery Plan as part of the Government's LWDW policy within 12 months of enactment of the Local Government (Water Services Preliminary Arrangements) Bill.

The purpose of the plan is to demonstrate publicly the council's commitment to deliver water services in a way that:

- Ensures that the council will meet all relevant regulatory quality standards for its water services.
- Is financially sustainable for the council.
- Ensures the council will meet all drinking water quality standards.
- Supports the council's housing growth and urban development, as specified in the council's LTP.

The finalised Water Services Delivery Plan must be formally submitted by 3 September 2025. Council must apply to the Minister for an extension at least 30 days prior if unable to meet this date. The Water Services Delivery Plan must include a description of the proposed model or arrangements to deliver water services.

The three Wairarapa district councils (Masterton, South Wairarapa, Carterton) and Tararua District Council are exploring options for future water services delivery, as required by the new legislation, including the development of a joint Water Services Delivery Plan.

South Wairarapa District Council is required to consult on at least two preferred service delivery options under the Water Services Preliminary Arrangements Act 2024. Council is only required to consult on the proposed service delivery arrangements and not the plan itself.

The two water service delivery models that South Wairarapa District Councils will consult on will be:

- A Wairarapa and Tararua water services delivery joint arrangement (known as Wai + T), involving Masterton, Carterton, South Wairarapa, and Tararua district councils utilising a water services Council Controlled Organisation model.
- A status quo model which is a non-asset owning Council Controlled Organisation (like Wellington Water Limited) delivering against new government requirements.

3.4. Management of three water assets

South Wairarapa District Council became a shareholding council of Wellington Water Ltd (WWL) on 1 October 2019. WWL is owned by six councils including South Wairarapa District Council plus Wellington City Council, Porirua City Council, Hutt City Council, Upper Hutt City Council and Greater Wellington Regional Council. The roles and responsibilities between Council and WWL are summarised in Table 1.

Table 1 Summary of three water asset custodial arrangements

Organisation	Role	Description
South Wairarapa District Council	Asset owner	• Council owns its three waters infrastructure. • Sets the performance standards for water services in the district. • Sets all the policies and performance objectives that are expected to be met by WWL. • Makes final decisions on investment.
WWL	Asset custodian	• Responsible for managing and providing three waters services to Council. • Provides planning, advice, design, project and operations management, maintenance, and monitoring relating to 3 water assets and services. • Advises Council on investment priorities in its planning processes. • The two operational teams (Networks and Treatment Plants) are based at the Carterton Roading Depot. The Network Operations are a mix of both WWL and Fulton Hogan employees as per the Alliance. The Treatment Plant Operations are WWL employees only.

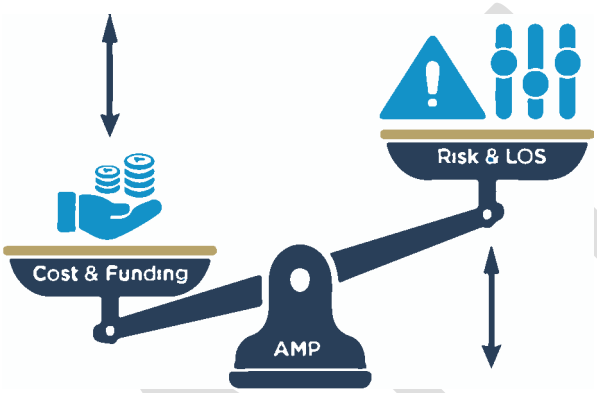
4. How We Manage Our Infrastructure

4.1. Asset management approach

4.1.1. Overall asset management approach

Council is committed to providing good quality infrastructure assets that serve the needs of the community. The asset management approach is for the sustainable management of its assets and activities. Effective asset management requires the balance between levels of service, risk and cost as shown in the figure below.

Figure 5 Asset management balancing act



Council wishes to optimise the investment in our infrastructure assets to ensure that:

- We comply with our regulatory obligations.
- We meet the needs of our community, both now and intergenerationally.

4.1.2. Asset lifecycle approach

Lifecycle management overview

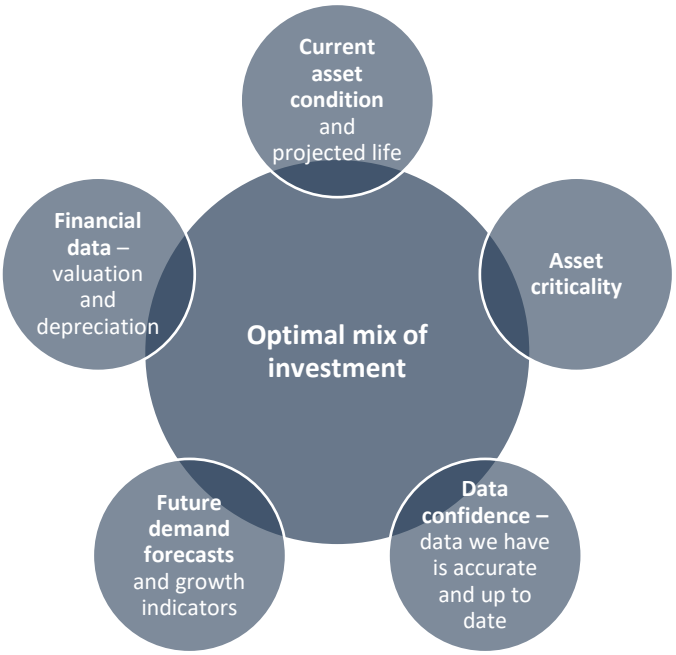
Our asset lifecycle approach involves working within our partnership arrangements with WWL and Ruamāhanga Roads to have clear strategies, asset planning, and activity schedules to ensure optimal performance through:

Figure 6 Asset lifecycle approach

Ongoing operation of assets	• Ensure SWDC assets are used and operated efficently • To prolong the asset life and comply with regulatory obligations
Preventative maintenance	• Regular servicing of assets • To minimise the likelihood of asset failure, particularly for critical assets
Reactive maintenance	• Responding to and repairing an asset failure • Such as broken pipe, roadside slips
Renewals	• Replacement or restoration of an existing asset • To extend its economic life and meet agreed service levels
Upgrades	• To meet an increase in demand • Such as from growth, regulatory changes or service changes

What the right mix of investment for each activity is derived from multiple factors as shown conceptually below and discussed in more detail in this strategy:

Figure 7 Optimal investment



Lifecycle management approach – three waters

The lifecycle management approach for the three water activities by major asset classes is summarised in the following table.

Table 2 Lifecycle approach – three waters

Activity	Major asset class	Lifecycle management approach
Water supply	Pipelines	Reactive maintenance: • Response to all work orders. • Repair and resolution of leaks or faults on service lines and water mains. • Investigating and resolution of customer complaints in relation to; water quality, leaks, pressure and no water. • Repairing of leaks or damaged water assets. Planned maintenance: • Programmed maintenance of water sites. • Hydrant and valve exercising and painting. • Mains and scour valve flushing. • Air valves inspections. • Water sampling. • Critical bulk water mains inspections. Planned renewals: • Replace watermains based on various factors including breakages, criticality, pipe material, very poor asset condition.
	Treatment plants	Reactive maintenance: • Response to SCADA system alarms. Planned maintenance: • Programmed maintenance of water sites. Planned renewals: • Replace asset equipment based on age so fit for purpose. • Upgrade SCADA system for efficiency.
	Water meters	Reactive maintenance and renewals: • Response to all work orders (based on customer complaints). • Repair / replace faulty water meters.

Activity	Major asset class	Lifecycle management approach
	Reservoirs	Planned maintenance and renewals: • Reservoir dipping / internal visual inspections. • Replace reservoir asset components reactively identified from the inspections that are past the useful life or performance issues.
Wastewater	Pipelines	Reactive maintenance: • Response to all work orders. • Repair and resolution of faults on wastewater mains. • Investigating and resolution of customer complaints in relation to blockages. • Repairing damaged wastewater assets. • Response to wastewater overflows. Planned maintenance: • Programmed maintenance of wastewater sites. • Flushing and undertaking CCTV inspection for gravity pipeline. Planned renewals: • Replace / rehabilitate wastewater pipelines based on various factors including criticality, blockages, pipe material, very poor asset condition.
	Treatment plants	Reactive maintenance: • Response to SCADA system alarms. Planned maintenance: • Programmed maintenance of wastewater sites. Planned renewals: • Replace asset equipment based on age so fit for purpose. • Upgrade SCADA system for efficiency.
Stormwater	Pipelines	Reactive maintenance: • Response to all work orders. • Repair and resolution of faults on stormwater mains. • Investigate and resolution of customer complaints in relation to flooding and blockages. • Repairing damaged stormwater assets.

Activity	Major asset class	Lifecycle management approach
		Planned maintenance: • Clearing stormwater inlets and outlets prior to and following storm events. • Investigate customer complaints about flooding incidents impacting habitable floors. Reactive renewals: • Replace the stormwater pipeline section in response to failed asset, typically deteriorated material / collapsed.
	Manholes	Reactive maintenance: • Respond with urgency to popping manhole lids to ensure public safety.
	Channels	• Clear debris from the channels so can convey floodwaters effectively.

Lifecycle management approach – transport

The lifecycle management approach for the land transport activity by major asset classes is summarised in the following table with further detail in the 2024 Ruamāhanga Roads Activity Management Plan.

Table 3 Lifecycle approach – land transport

Transport asset class	Lifecycle management approach
Sealed roads	Pavement rehabilitation - sites are determined through: • High cost section (maintenance costs and/or identified open defects). • Multiple seal layers (stability and flushing issues). • HSD survey. Resurfacing - sites are determined through a variety of means: • HSD/surveys. • Network drive overs for field validation of data. • Treatment Selection Algorithm /Candidate Selection Programme . • Seal age / seal type / road use. • Crashes caused by road condition. • Seal condition.
Unsealed roads	• Unsealed roads are graded and metalled on a cycle. • Reactive works based on adverse weather condition or high use e.g. forestry or other HGVs. • Respond to customer complaints.
Bridges	• Bridges and large culverts (>3.4m^2) inspections are carried out: – 6 yearly – detailed inspection – 2 yearly – general inspection – Annual – maintenance inspections (all structures) • Proactively replace bridge asset components identified from the annual and general inspections that are past the useful life or performance issues. • Schedule the replacement of the bridge stock identified as past its useful life and can no longer be extended with specific asset component replacement.

Transport asset class	Lifecycle management approach
Footpaths	• Respond to customer complaints about trip hazards and other defects (utilities crossing, tree roots etc.). • Replace any unsafe footpaths reactively. • Replace footpath sections assessed in very poor condition or EOL. • Targeting around 2km per year with renewal funding.
Road drainage	• Respond to road surface flooding that may be caused by blocked drain. • Replace failed road drainage reactively. • Road drainage cleared as part of pavement and some resurfacing. • Inspect road drains in accordance with the planned schedule.
Streetlights	• Respond to lighting defects identified through customer complaints. • Reactively replace identified defects (upgraded to LEDs in 2018). • Poles are replaced based on age and condition.

4.1.3. Asset management documents

We wish to lift our internal asset management capability so there are basic building blocks in place. This will involve working with our partners WWL and Ruamāhanga Roads to ensure there are sound technical documents developed. The status of the asset management documents is summarised in the table below. The improvement actions will inform and strengthen the robustness of the 2027 Infrastructure Strategy.

Table 4 Status of asset management documents

AM documents	Status	Description and improvement actions
AM Policy	No documented policy	An Asset Management Policy sets out the requirements for appropriate management of its assets and activities. It also defines the principles and responsibilities that an organisation applies when managing its infrastructure assets. Council currently does not have a documented Asset Management Policy. The development of an Asset Management Policy is recognised as a high priority improvement action as it will ensure consistency across the diverse range of infrastructure assets including the three water asset categories currently managed by WWL.
Ruamāhanga Roads Asset Management Plan (April 2024)	Final version submitted to NZTA	Carterton and South Wairarapa District Councils have prepared a joint Asset Management Plan. It is updated as required to meet NZTA's requirements for seeking funding.
Three Waters Asset Management Plans	No plans developed	There are currently no 2024 Three Waters Asset Management Plans developed to inform the 2024 Infrastructure Strategy. Plans still need to be developed for the three water activities.

4.1.4. Evidence based improvements

Asset condition and performance enables an assessment of the current asset state. Having knowledge of asset condition enables more accurate prediction of maintenance requirements and timing for renewals. Condition and performance are better indicators of current asset state rather than using age (as this tends to be theoretical based on design lives and is not always available).

Council is committed to improving its knowledge and understanding of the assets as this information is used to inform its investment decisions (refer to Section 4.3 Reliability of Information). Specifically, there is a major focus to improving Council's three waters data reliability to support better decision making. Improving data reliability will take time and is recognised as strategy improvements to inform the 2027 Infrastructure Strategy.

4.1.5. Master planning

Council wishes to plan long term for growth with a 30-year horizon and understand where bulk infrastructure is required to service development. The outputs from the planning tools will inform our strategic planning and investment decisions. The South Wairarapa Spatial Plan was released in late 2021 and is the blueprint for how we want the district to be in 30 years' time.

The master planning process includes looking at the status of our current infrastructure (growth and performance issues) and what will be required to make the master plan come alive. The focus to date has been on Featherston as the South Wairarapa Spatial Plan identified Featherston as a Growth Node (growth area). Further consideration of Greytown and Martinborough will follow at a future date but is not funded in the 2024 Long Term Plan. The status of master plans and supporting studies are summarised in the table below.

Table 5 Summary of master plan status

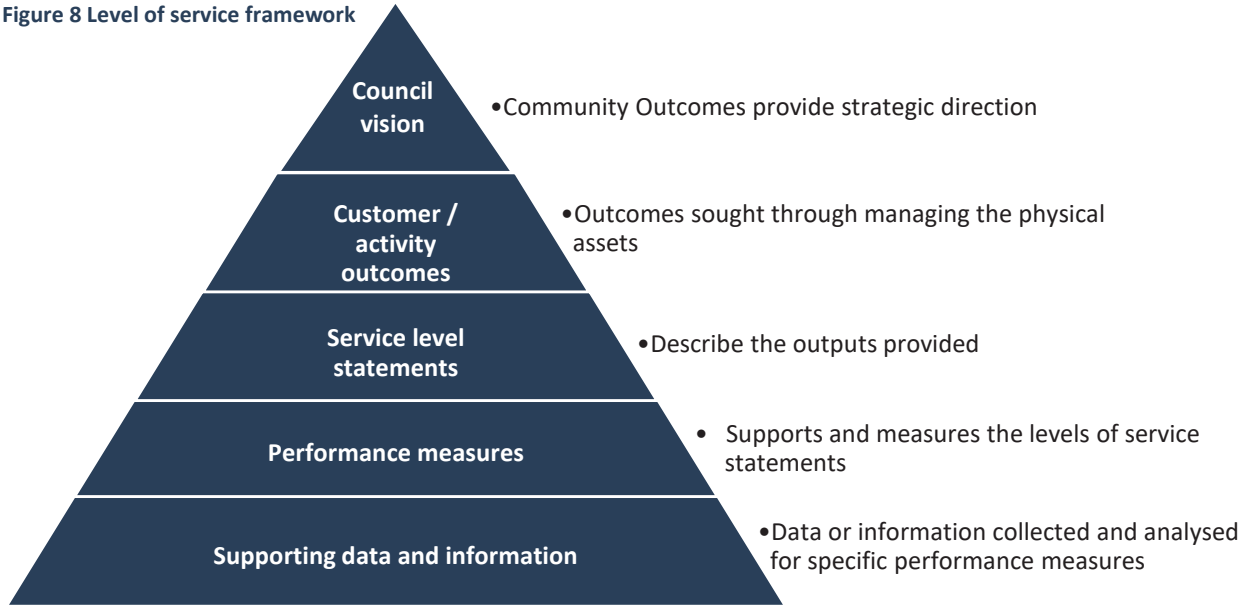
Township	Planning tool	Status / description
Featherston	Master plan	In June 2024 Council adopted the Featherston Masterplan and Implementation Plan. The Featherston Masterplan is a plan to enable transit-oriented growth around the train station, together with achieving a well-functioning urban environment that meets the needs of a diverse population. The town is recognised by the Wellington Regional Leadership Committee as a Complex Development Opportunity within the wider region, and a potential focus for investment from central government. Recommendations for improvement to infrastructure identified in the Featherston Masterplan process are not fully included in this Infrastructure Strategy due to community affordability issues. It is expected that parts of the Featherston Masterplan may be implemented at a future date as funding becomes available or as part of the provision of core infrastructure.
Featherston	Wastewater Growth Plan and Options Assessment Study	The Featherston Wastewater Growth Plan and Options Assessment was completed in September 2023 (Mott MacDonald). Six options were assessed to address the network performance issues. These include an aging network with high inflow and infiltration, high groundwater contributing to infiltration and large flows to treatment plant requiring treatment and disposal. The pressure sewer system was recommended as the preferred option due to higher certainty of success and cost effectiveness, and the ability to stage in targeted catchments.
Martinborough	Wastewater Capacity Study	The Martinborough wastewater reticulation capacity study was completed in early 2024. It found that the wastewater reticulation performed adequately and no major capacity upgrades were identified. The Martinborough WWTP capacity study has been completed. At the recommendation of WWL, Council has put new wastewater connections to both the Martinborough and Greytown Wastewater Treatment Plants on hold until early 2025. A joint comprehensive study of the Martinborough and Greytown WWTPs is underway covering compliance and growth issues. It is expected to be completed in March 2025.
Featherston and Greytown	Model Build, Calibration and Zone Management Plan	The South Wairarapa water supply study covered the water supply model build and calibration for Martinborough, Featherston and Greytown, and Zone Management Plan for Featherston and Greytown (Stantec June 2023). Water supply system performance issues were identified covering minimum pressures, maintaining reservoir replenishment and firefighting adequacy.
Greytown	Wastewater Capacity Study	The Greytown wastewater network capacity study has been deferred until the wastewater trunk main has been rehabilitated. It may not proceed depending on the results from the works.

4.2. Levels of Service

4.2.1. Levels of service framework

Levels of service describe the outputs Council is expected to deliver through the management of the physical assets from a customer, legislative or regulator point of view. The Levels of Service Framework is the structure to align the Council's Vision and Community Outcomes to delivery of the services and contractual performance measures. The Levels of Service Framework is shown in the figure below.

Figure 8 Level of service framework



4.2.2. Three waters customer levels of service

The customer levels of service for the water supply, wastewater and stormwater activities are summarised in the table below including actual performance for 2023/24 contained in the Annual Report. The levels of service are based on the mandatory network environmental performance measures and the new Drinking Water Quality Assurance Rules set by the Water Services Authority Taumata Arowai, and good industry practice.

Notes on compliance with drinking water requirements:

- Water Services Authority Taumata Arowai introduced the Drinking Water Quality Assurance Rules that came into effect on 14 November 2022 and reporting was required from 1 January 2023.
- From 1 July 2023 to 30 June 2024, compliance was measured against Drinking Water Quality Assurance Rules (2022).
- From 1 July 2022, drinking water network operators were required to capture and report data relating to environmental performance measures.
- From 1 July 2024, wastewater network operators are required to report certain environmental performance measures by 30 September 2024. There are also requirements to capture and report certain wastewater measures for the year 1 July 2024 to 30 June 2025.

Council wishes to meet the current levels of services for three water assets, particularly for critical assets. The measurement and reporting of the performance measures identifies any service level gaps. Council monitors the consequences of not meeting the performance measures and puts in suitable mitigation measures. The key mitigation measures for the high level of leakage until plans are implemented is an example proactively managing this service level risk.

Key:

x – not achieved; ✓ - achieved; – not applicable in this year, no data or not measured.

Table 6 Customer levels of service – three waters

Community Outcomes	Customer Outcomes	Water supply (2023/24 results)	Wastewater (2023/24 results)	Stormwater (2023/24 results)
Social wellbeing - Residents are active, healthy, safe, resilient, optimistic and connected.	Safety	Compliance with Drinking Water Quality Assurance Rules (2022) - bacteriological: ✓ - Martinborough and Pironoa x - Greytown and Featherston	x - Council provides wastewater services that effectively collect and dispose of wastewater *(blockages).*	– Stormwater systems protect houses from flooding in urban areas (not applicable as no flooding events that affected habitable floors in the district in 2023/24).
		Compliance with Drinking Water Quality Assurance Rules (2022) – protozoal: ✓ - Pironoa x - Martinborough, Greytown and Featherston	✓ - Council provides wastewater services that effectively collect and dispose of wastewater *(dry weather overflows).*	
Social wellbeing - Residents are active, healthy, safe, resilient, optimistic and connected.	Quality / condition	✓ - Meeting customer expectations *(complaints per 1,000 connections).*	✓ - Meeting customer expectations *(customer satisfaction surveys).*	x - Stormwater drains are well operated and maintained by the Council *(customer satisfaction).*
		x - Meeting customer expectations *(customer satisfaction surveys).*		
Economic wellbeing - A place of destination, new business and diverse employment that gives people independence and opportunity.		✓ - There is adequate water for urban fire fighting.	Meeting customer expectations *(customer complaints):* ✓ - odour, system faults and response to issues x - blockages	

Community Outcomes	Customer Outcomes	Water supply (2023/24 results)	Wastewater (2023/24 results)	Stormwater (2023/24 results)
Economic wellbeing - A place of destination, new business and diverse employment that gives people independence and opportunity.	Responsiveness	Provide prompt responses for service: ✓ - urgent attendance and resolution x - non urgent attendance ✓ - non urgent resolution	Provide prompt responses for service: x - attendance ✓ - resolution	– Provide prompt responses for service (not applicable as no flooding events to respond to in 2022/23).
Environmental wellbeing - Sustainable living, safe and secure water and soils, waste minimised, biodiversity enhanced.	Environmental Sustainability	x - Potable water demand. x - The % of real water loss from the local authority's networked reticulation system identified by establishing and measuring night flow.	Wastewater disposal does not create any smells, spill or health issues and causes minimal impact on the natural environment (consent conditions): ✓ - infringement notices, enforcement notices and convictions x - abatement notices	✓ - Consent compliance
Cultural wellbeing - Strong relationships with whānau, hapū and marae, celebrating diverse cultural identity, arts and heritage.		✓ - Compliance with resource consent conditions/ water permit conditions to "mainly complying" or better.		

4.2.3. Transport customer levels of service

The customer levels of service for the land transport activity are summarised in the table below including actual performance for 2023/24 based on the Annual Report. The levels of service are based on the mandatory performance measures as set by the Department of Internal Affairs, NZTA's requirements and good industry practice. The Transport Activity Management Plan provides the supporting detail and technical levels of service, performance measures and past results against targets. Recent results on Smooth Travel Exposure and roughness performance measures are provided in the Land Transport Activity Section.

Council wishes to meet the current levels of services for land transport assets, particularly for critical assets. The measurement and reporting of the performance measures identifies any service level gaps.

Table 7 Customer levels of service – land transport

Community Outcomes	Customer Outcomes	Roads (2023/24 results)	Footpaths (2023/24 results)
Social wellbeing - Residents are active, healthy, safe, resilient, optimistic and connected	Safety	✓ - The roads are maintained to ensure that they are safe and comfort-able to travel on - measured by change in fatalities and serious injury crashes.	x - Footpaths can be safely used to get around town - measured by customer satisfaction.
	Quality / availability	✓ - Measured by Smooth Travel Exposure.	x - Availability of footpaths on at least one side of the road.
		x - Measured by customer satisfaction.	x - Measured by customer satisfaction.
	Condition	x - Measured by road resurfacing percentage.	✓ - Measured by footpath condition rating.
		✓ - Measured by Pavement Condition Index.	
Economic wellbeing - A place of destination, new business and diverse employment that gives people independence and opportunity	Responsiveness	x - Responding to customer service requests.	x - Responding to customer service requests.
Environmental wellbeing - Sustainable living, safe and secure water and soils, waste minimised, biodiversity enhanced	Environmental Sustainability	– Effects of the natural environment are minimised.	– Effects of the natural environment are minimised.

4.2.4. Proposed changes to levels of service

The service areas where Council wishes to improve its actual performance and / or changes to the levels of service are described in the table below. These are discussed further in Section 6 of the Infrastructure Strategy at activity level.

Table 8 Proposed changes to levels of service

Activity	Proposed changes to levels of service
Land transport	• The mandatory levels of service as set by the Department of Internal Affairs will remain unchanged. • The land transport sector has introduced a new framework called differential levels of service. This will enable a better understanding between levels of service, risk and cost. The 2024 Land Transport AMP shows the various scenarios but it will take time to bed in as business as usual practice.
Water supply, wastewater, stormwater	• The levels of service for the three water activities were historically based on the mandatory performance measures. This has changed as they are aligned with Water Services Authority Taumati Arowai's national environmental performance measures. • Council wishes to meet / maintain the current service levels for water activities as set by the water regulator and other government agencies and has no plans to change these.

4.3. Demand changes

The changes in demand for three waters and land transport services and management strategies are summarised in the table below with further detail in the activity sections.

Table 9 Summary of demand changes and management strategies

Activity	Changes in demand	Management strategies
Water supply	Water consumption is currently at a high level (at 600 litres per person per day) and above accepted industry limits (at 250 litres per person per day).	• Council used the following tool South Wairarapa Water Supply Study – model build, calibration and zone management plan; to better understand demand to inform programmes and investment: • Further strategies to manage leaks to an acceptable level are detailed in Section 6.1.
Wastewater	Wastewater demand is broadly related to water consumption. It is also impacted by inflow and infiltration that can exacerbate peak flows to treatment plants.	• Installation of meters at the plants help to gain better understanding the wastewater demand. • Inflow and infiltration investigations – still to be funded. • Council has put new wastewater connections on hold for Martinborough and Greytown WWTPs until capacity issues are addressed in the short term. This is impacting development in the district.

Activity	Changes in demand	Management strategies
Stormwater	Stormwater demand is broadly related to paved surfaces. The district's rainfall patterns in terms of annual amount as well as the frequency and intensity of stormwater events, may be impacted by climate change.	• The Featherston Masterplan considered climate change factors. The implementation plan includes improvement to strengthen the resilience of stormwater infrastructure. • Council allows for increase in rainfall intensity when designing new stormwater infrastructure / upgrades.
Land transport	Assumptions for population projections and demographic changes have been made based on Council's 2024 LTP assumptions. Established patterns of road use would continue such as flexi working and train for commuters into Wellington City.	• Council uses the master planning process to plan for growth long term, particularly for the urban form in the townships. The Featherston Masterplan and Implementation Plan has been adopted by Council (refer to Section 4.1.5 for detail). Parts of the Featherston Masterplan may be implemented at a future date as funding becomes available. • Traffic count surveys are undertaken on annual basis to understand the demand on the land transport network.
	Traffic volumes - increases and decreases.	• Council undertakes traffic counts to monitor the amount and type of traffic using its roads. • REG also has a Traffic Count Estimation tool that gives adjustments.
	Surfacing / rehabilitation versus budget optimisation.	• SWDC has begun to use JunoViewer to help with modelling and candidate selection.

4.4. Reliability of information

Council is committed to improving its knowledge and understanding of its assets. It is important that the data and information used in renewal planning is sound. This provides assurance that the forward works plans and long term investment programmes represent good use of funds.

The data quality for the three water assets need to improve and has been identified as a strategic challenge. Council wishes to improve its data collection and quality in relation to its three water assets.

Council is moving to its own asset management system AssetFinda (Universus Assets) late 2025. The focus will be on improving the data completeness at asset attribute level. Council's AssetFinda will run in parallel with Wellington Water's asset management system.

4.4.1. Three waters data reliability

A hybrid approach has been adopted to improve the three water asset data confidence levels as there were multiple existing data sets and limitations for the data provided by Wellington Water. The data sources used to develop a hybrid data set is outlined below.

Table 10 Data source for 2024 Infrastructure Strategy – water supply and wastewater

Outputs	Data Source
Asset Profile by Quantities	Asset data provided by Wellington Water and cross-checked against the 2024 asset valuation data.
Asset Profile by Attributes: • Type • Material • Size • Age • Valuation	2024 asset valuation data.
Asset renewal profile: • Quantities • Criticality • Condition • Replacement cost	2024 asset valuation data. Based on the adjusted remaining useful life. Critical assets will be cross-checked against Council's 'Very High Criticality Asset Condition Assessment' for consistency.

Based on the hybrid approach, the updated data completeness assessment at the attribute level for major asset classes for water supply and wastewater is summarised in Table 8. This shows that there are no attributes rated as very uncertain. A high level assessment has been made for confidence in stormwater assets based on the asset valuation (June 2024).

Table 11 Summary of data confidence – three waters

Water type	Asset class	Condition	Criticality	Installed date	Quantity	Valuation
Water supply	Pipe	Reliable	Reliable	Reliable	Reliable	Reliable
	Valve	Uncertain	Uncertain	Reliable	Reliable	Reliable
	Hydrant	Uncertain	Uncertain	Reliable	Reliable	Reliable
	Plants	Uncertain	Uncertain	Reliable	Reliable	Reliable
Wastewater	Pipes	Uncertain	Uncertain	Reliable	Reliable	Reliable
	Plants	Uncertain	Uncertain	Reliable	Reliable	Reliable
Stormwater	Pipes	Uncertain	Uncertain	Uncertain	Uncertain	Reliable

4.4.2. Land transport data reliability

Transport data quality results have been maintained for the last three years at a high standard. The latest results compared nationally is shown in the Land Transport Activity Section. Transport data confidence at asset class level is shown in the table below. There are issues in the detail of the surfacing data that are scheduled to be corrected in late 2024.

Table 12 Data confidence – land transport

Asset Class	Condition	Installed Date	Quantity
Bridges	Reliable	Reliable	Reliable
Footpaths	Reliable	Reliable	Reliable
Retaining Walls	Reliable	Reliable	Reliable
Culverts	Reliable	Reliable	Reliable
Surfacing	Reliable	Uncertain	Uncertain

5. Risk Management

5.1. Risk management approach

Council takes a comprehensive approach to risk management including:

- Oversight / monitoring - Council's corporate risk register, Risk Policy (2024) and Risk Management Framework (2024).
- Governance - Assurance, Risk and Finance Committee with an independent chair.

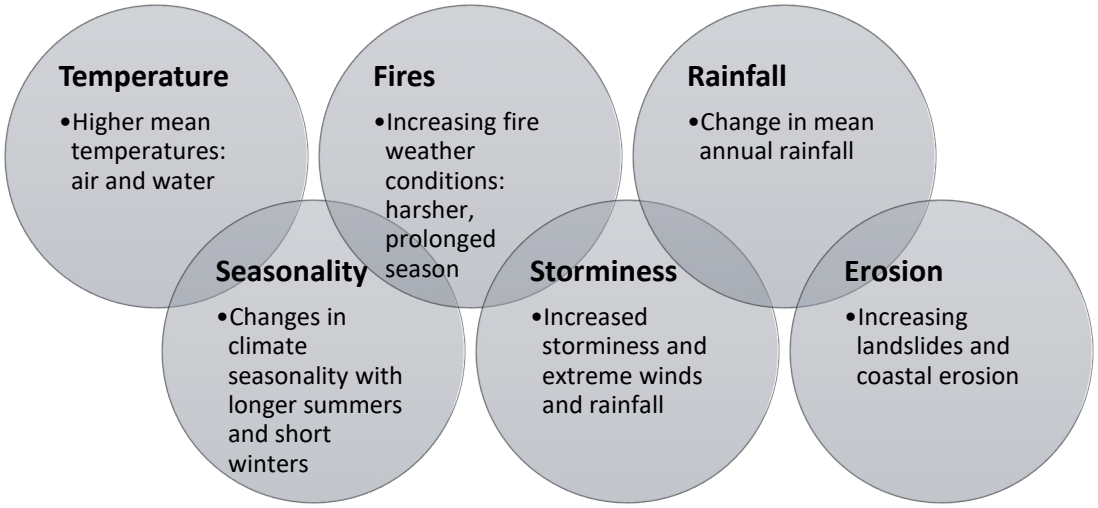
Council is committed to ensuring sustainable and effective management of risks at all levels. The approach for managing the infrastructure balances risk and performance while providing cost effective services. At an activity level, these infrastructure risks need to be considered holistically as part of the asset management planning approach including considering criticality in decision making.

5.1.1. Climate change impacts and actions

Climate change is recognised as a significant issue. The South Wairarapa District's geographical attributes make it susceptible to climate change impacts and extreme weather events. The long coastline is prone to coastal erosion. The district has the longest local authority coastline in the Wellington region covering 124km in length. Climate change only amplifies the effects of natural hazards on our infrastructure assets and impacts our community.

Changes in climate such as rainfall, temperature and wind are already occurring and impacting regions differently. Climate change predictions for the eastern lower North Island are shown in the figure below. Climate change projections for the Wairarapa are detailed in the main LTP documents (refer to Significant Assumptions).

Figure 9 Climate change predictions for eastern lower North Island



Source: NIWA's snapshot for Zone 3

Zone 3 is eastern lower North Island and extends from Hicks Bay to Palliser Bay (Te Waha o te Ika ā Māui) and back to the Ruahine and Kaweka ranges. Includes Gisborne, Hawke's Bay and the Wairarapa catchment of Wellington.

5.1.2. Management response to climate change

Council's strategic response to climate change requires the creation of policies, plans and actions which will require significant community consultation and involvement. Councils' response is summarised in the table below at management and activity levels.

Table 13 Management response to climate change

Management / activity levels	Issue / risk	Council's strategic response / proposed actions
Management	Council is too small to solve this by itself and needs to collaborate regionally to share ideas and solutions.	• Participating in regional climate change forums in the Wairarapa area as well as the Greater Wellington region to influence and ensure best practice is developed and implemented. • South Wairarapa and Carterton District Councils developed Ruamāhanga Strategy (joint Climate Change Strategy) to reduce the councils' carbon footprints. It presents the inventories of greenhouse gas emissions from Wairarapa and from councils' activities, and an action plan with targets.
	Identifying climate change and natural hazard risks in planning tools.	• The Wairarapa Combined District Plan is the combined plan adopted by South Wairarapa, Carterton and Masterton District Councils. It provides consistency in development rules and natural hazard management in the Wairarapa area. • The Featherston Masterplan considered climate change factors and natural hazards including flood hazard area and fault lines. The implementation plan includes: – Three waters - Proposed improvements to strengthen the resilience of 3 waters infrastructure. – Land transport - It promotes urban form that encourages low carbon behaviours such as attractive and safe walkways and cycleways.
	Existing assets designed to legacy standards that have not considered climate change impacts.	Ensuring renewals investment is prioritised to the most vulnerable and critical infrastructure so that the overall resilience of the infrastructure networks is continually enhanced. The Asset Management Plans (where developed) identify specific expected impacts on each activity when replacing or planning new assets.
	Threat to Council infrastructure and the wider community due to natural disasters and climate change.	• Allowing for the implications of sea level rise and changing weather patterns in asset management and service planning. • Making appropriate provisions in the Wairarapa Combined District Plan in relation to known active faults, flooding and sea level rise.

Management / activity levels	Issue / risk	Council's strategic response / proposed actions
Water supply	Prolonged droughts may result in restrictive consent conditions for water takes from streams and waterways.	Upgrade treatment plants / reconfigure supply areas to address reduction in demand due to restrictive consent conditions for water takes from rivers and streams. Greater Wellington Regional Council intends to survey of potential new bore water sources for Wairarapa. Increased investment in water storage and leak detection will be needed to ensure reliability.
	Vulnerability of critical pipelines to land slips.	Continue to use seismically resistant materials for critical water supply assets.
	An optimum and integrated view of water is required for water use in the Wairarapa (initiated by the Wairarapa Economic Development Strategy and Action Plan).	The Wairarapa Water Resilience Strategy was in response to address water use issues in an integrated manner. Improving water resilience in the Wairarapa has been identified as a priority across strategic and planning documents to ensure economic, social and environmental sustainability and improvement for the region. The strategy was prepared jointly regionally by the three Wairarapa councils and Greater Wellington Regional Council and was adopted by South Wairarapa District Council in 2021. The implementation of the Wairarapa Water Resilience Strategy is an initiative set out in Wellington's Regional Economic Development Plan. It is also an enabling activity for water resilience and land use optimisation in the Wairarapa Economic Development Strategy. Greater Wellington Regional Council is leading the implementation of the Wairarapa Water Resilience Strategy.
Wastewater	Inflow and infiltration increase and reduces pipeline capacity during storm events resulting in more frequent wet weather overflows. It will also increase treatment demands.	Develop a cost effective infiltration and inflow programme to prioritise the catchments for remedial works.
	Pump station vulnerability due to flooding inundation.	Identify wastewater pump stations at risk due to flooding inundation.

Management / activity levels	Issue / risk	Council's strategic response / proposed actions
Stormwater	Increased flooding due to pipe capacity issues.	• The development of the Featherston Master Plan considered regional climate change modelling. • Allow for increase in rainfall intensity when designing new infrastructure / upgrades. • Continue to monitor flooding risk to residential properties with the more intense and frequent storms. • Also consider undertaking stormwater catchment modelling.
Land transport	No access to communities and parts of the district cut off due to flooding and coastal erosion, particularly the exposed part of the Cape Palliser / Mātakitaki-a-Kupe Road.	Enhancing road infrastructure to withstand more frequent and intense weather events, particularly in coastal areas prone to erosion. Improve the exposed part of the Cape Palliser / Mātakitaki-a-Kupe Road (Special Purpose Road) including strengthening resilience and undertaking the EcoReef trial (an innovative hexagonal block retaining wall to provide coastal protection).
	More frequent heavy rainfall and storms will lead to landslides, road damage, and erosion, increasing maintenance costs. In particular: • Road slips / under slips. • Erosion undermining road sections and bridges.	• Identification of critical bridges and culverts and development of renewal management strategies. • Increased frequent inspection / maintenance of road drainage systems. • Council is a member of Wairarapa Engineering Lifelines Association working group. • Improved drainage and flood-resilient infrastructure will be required.

5.1.3. Critical assets

A key element of Council's asset management planning approach is to define the critical and non-critical assets. This helps with the day-to-day operations of the infrastructure as well as the renewal strategies. An overarching principle is not to have any unforeseen critical asset failures. Council's risk-based approach to renewing the assets gives priority to public health and safety issues first then critical assets. This ensures there is resilient infrastructure.

Critical assets are significantly important to the community and defined as assets that need to be managed to prevent failure due to potential consequences. The most critical assets are shown in the relevant activity sections.

6. Our core infrastructure –activities

6.1. Water supply activity

6.1.1. Activity overview – water supply

Council's primary aim is to provide safe, reliable and sustainable reticulated water supplies to our towns and to encourage conservation of this valuable resource.

Council provides and maintains potable water supplies to properties throughout the District via WWL. This service is not provided to premises which have their own rainwater tanks or bores.

6.1.2. Asset summary – water supply

In South Wairarapa district, there are presently four public water supply systems serving Featherston and Greytown, Martinborough and Pirinoa and approximately 4,215 serviced and 251 serviceable water connections.

Three main sources supply water to the urban populations of Featherston, Greytown and Martinborough. The Council owns a number of structures and components supplying water as shown below.

Table 14 Summary of water supply asset classes

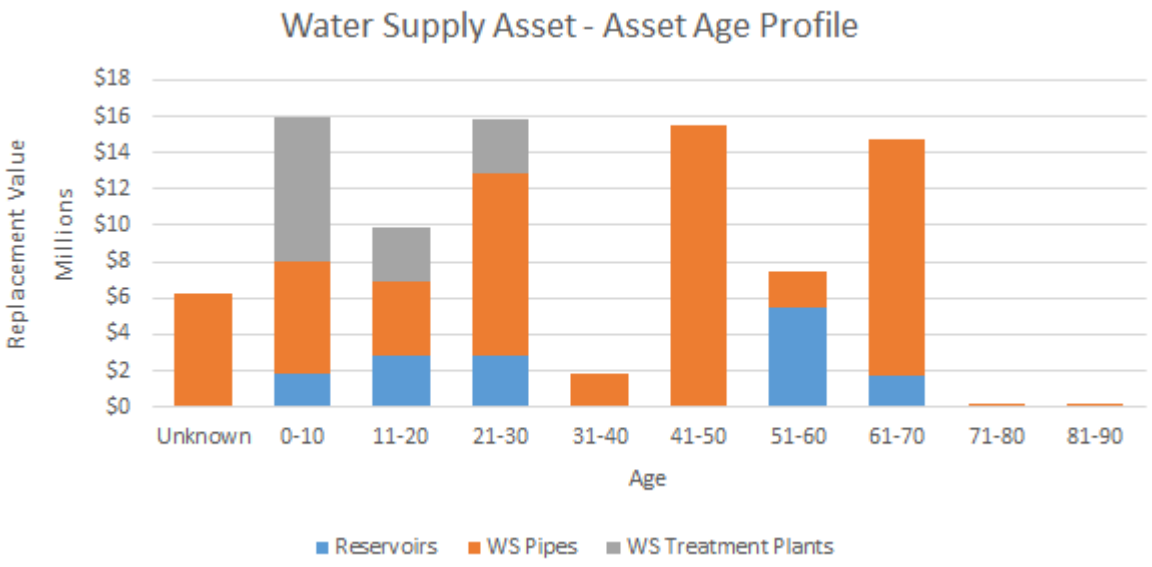
Water supply asset class	Unit of measure	Quantity
Pipes	m	161,602
Valves	each	1,041
Hydrants	each	609
Reservoirs	each	11
Treatment plants	each	5

Source: Asset valuation (WSP June 2024)

6.1.3. Asset age profiles – water supply

The figure below shows the age profiles for our major water supply assets. Our treatment plant assets are between 1 and 30 years old, which is relatively young when compared with other asset classes. The pipe assets are of the most value, which accounts for approximately 70% of the overall replacement value. Some of our reservoirs are old and have reached or are beyond their design life. These reservoirs will need to be inspected in the short term to ensure they continue to function as intended.

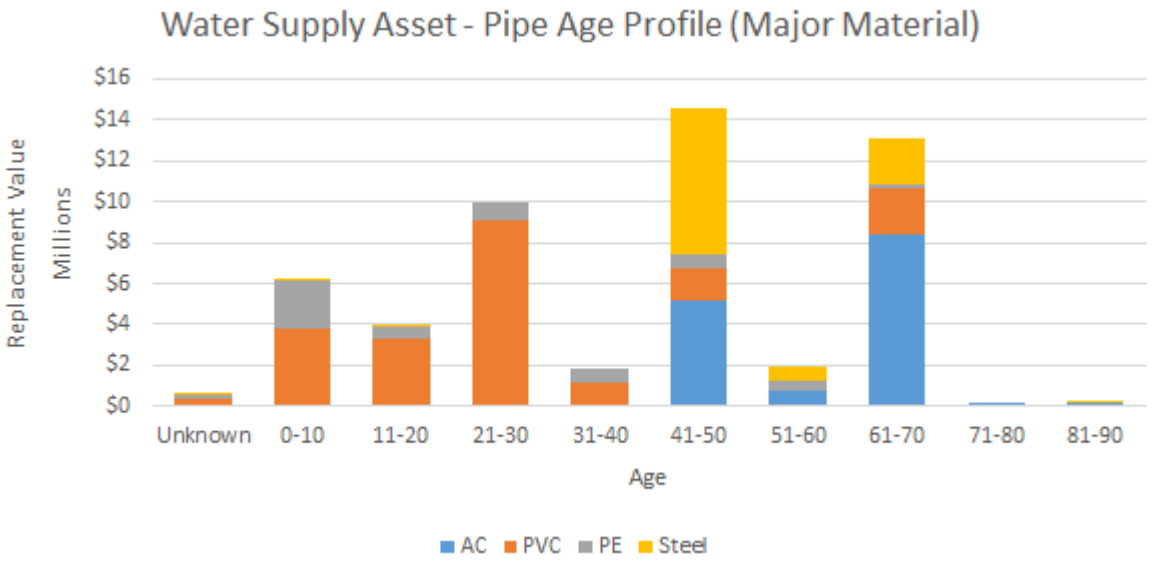
Figure 10 Water supply asset age profile – major asset class



Source: Asset valuation (WSP June 2024)

The majority of our water supply pipe assets are PVC. PE pipes have been installed in recent years, and collectively they account for approximately 50% of the portfolio in replacement value. Most of our AC pipes are reaching the end of their useful life and will need replacement in the medium term.

Figure 11 Water supply pipe age profile – major material



Source: Asset valuation (WSP June 2024)

6.1.4. Asset condition and performance

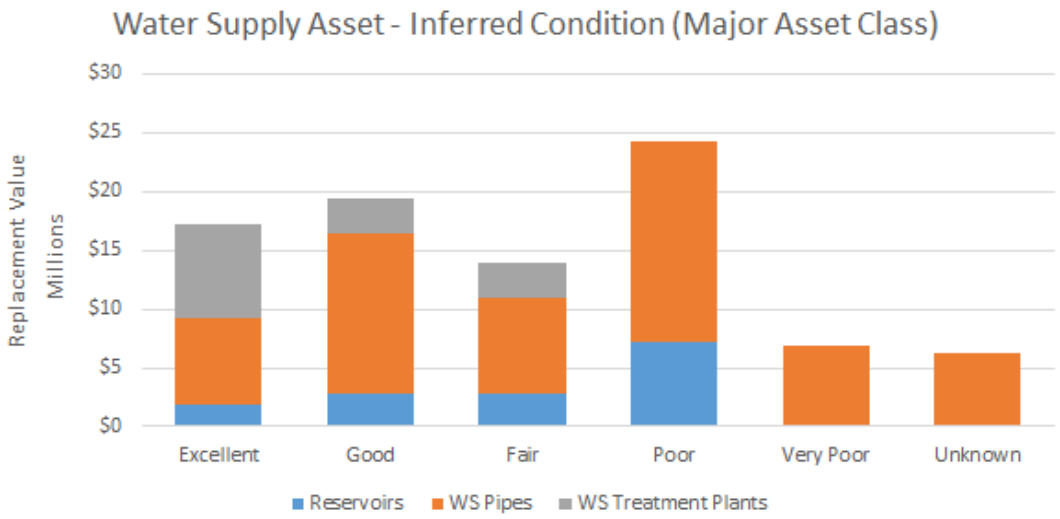
Limited condition surveys have been completed of the water supply assets to assess the current asset state. A hybrid approach was adopted using the multiple data sets and condition was inferred using remaining useful life (refer to Reliability of Information Section). This hybrid approach was used for wastewater assets as well.

The figure below shows the inferred water supply asset condition based on the percentage of remaining useful life (RUL). The grades for categorising inferred conditions are:

- Excellent - % of RUL ≥ 85%
- Good - 85% > % of RUL ≥ 60%
- Fair - 60% > % of RUL ≥ 40%
- Poor - 40% > % of RUL ≥ 10%
- Very poor - % of RUL < 10%

Most of the water supply assets are in excellent, good and fair condition, except for some pipe assets that are in poor or very poor condition. It is noted that the data is based on a hybrid approach with associated data accuracy risk, with reliability ranging from uncertain to reliable.

Figure 12 Water supply asset condition – inferred



Source: Asset valuation (WSP June 2024)

Asset performance of Council's water supply network is assessed in terms of water leakage and water quality as follows:

- Water leakage – Water losses are assessed and measured against the performance measure and reported in the Annual Report. Water loss can happen for a range of reasons, including leaks and breaks in the network and this results in Council treating more water than is needed. Our water loss result for the 2023/24 financial year (42%) has exceeded our target (<30%).

The high level of water leakage is a known issue to Council and we have adopted a multifaceted approach to address this, including:

- Council, in its 2024/25 Enhanced Annual Plan, adopted demand management through reducing the current allocated quota from 350 m^3 to 250 m^3 of water provided to all users. This was a way to help conserve water across the South Wairarapa district.
- Established universal water metering to reduce private leaks. This allows individual customers to monitor their water consumption and track leaks more easily.
- Recent focus has been on identifying unmetered connections and unauthorised use (such as taking water from fire hydrants) to reduce unaccounted-for water on our water networks.

- Developed targeted water renewals with our partner WWL and further refined in our 2024 Infrastructure Strategy. This ensures that we replace problematic pipe materials that are known to fail to reduce avoidable water outages for our customers.
- Ongoing monitoring of the achievement of meeting the performance measures as disclosed in our Annual Report.

We continue to address high water leakage levels with our plans underway to improve this as noted above. There may be risks with maintaining the current levels of service as well as increased costs for unplanned maintenance with assets failing. This is mitigated by:

- Responding to water outages with our O&M contractor.
- Proactively analysing watermain breaks to identify candidates for asset renewals.

» Water quality compliance – Council has a suite of plans and processes to provide assurance that it is providing safe drinking water. Council's water quality is measured monthly against the mandatory performance measures and reported in the Annual Report. Any transgressions are reported to Water Services Authority Taumata Arowai by WWL. Drinking water compliance for Council's facilities is also disclosed in the Wellington Water Operations Report to the Wellington Water Committee.

» All four water supply treatment plants were compliant against new bacterial and protozoal rules. However, there is further work required to meet process assurance rules e.g. development of standard operating procedures, operators completing qualification requirements, and implementation of an asset maintenance recording system for all for plants.

» Water fluoridation - The Director-General of Health directs local authorities to add fluoride to a drinking water supply, under the Health (Fluoridation of Drinking Water) Amendment Act 2021. The Director-General of Health has issued 14 directions to local authorities to fluoridate community water supplies. In November 2022 the Director-General wrote to 27 local authorities to advise that they are being actively considered for a direction to fluoridate in relation to one or more of their drinking water supplies. Council is not on either of these lists at this stage. There are no public water supplies that are fluoridated in South Wairarapa but Council may consider this in future.

Refer to Section 4.1.5 Master Planning for other identified water supply system performance issues covering minimum pressures, maintaining reservoir replenishment and firefighting adequacy.

6.1.5. Critical assets – water supply

WWL adopted a criticality framework to identify highly critical assets which helped to prioritise the asset condition assessments completed in 2022 using the Government's stimulus funding. It was based around three criteria: safety, environmental factors, and network resilience. This framework was also adopted to measure the likely impact on delivery of Wellington Water's service goals.

WWL identified SWDC's water supply assets classified as Very High Criticality Assets as:

» 19km of pipe assets, which is about 10% of the total pipes

» 127 or about 25% of water treatment plant assets

» 7 or 100% of the reservoirs.

6.1.6. Resource consents – water supply

The numbers of water supply consents expiring in the next 30 years is summarised below. This shows that there are currently no expired consents, but these start to occur in decades 2 and 3. All resource consents are current, monitored for compliance and reported on in accordance with the consent conditions.

The following water supply consents are underway but expected to be straight forward and therefore no risks identified at this stage:

- Consent renewal for Pirinoa is underway.
- The bore location for Greytown WTP is also to be consented.

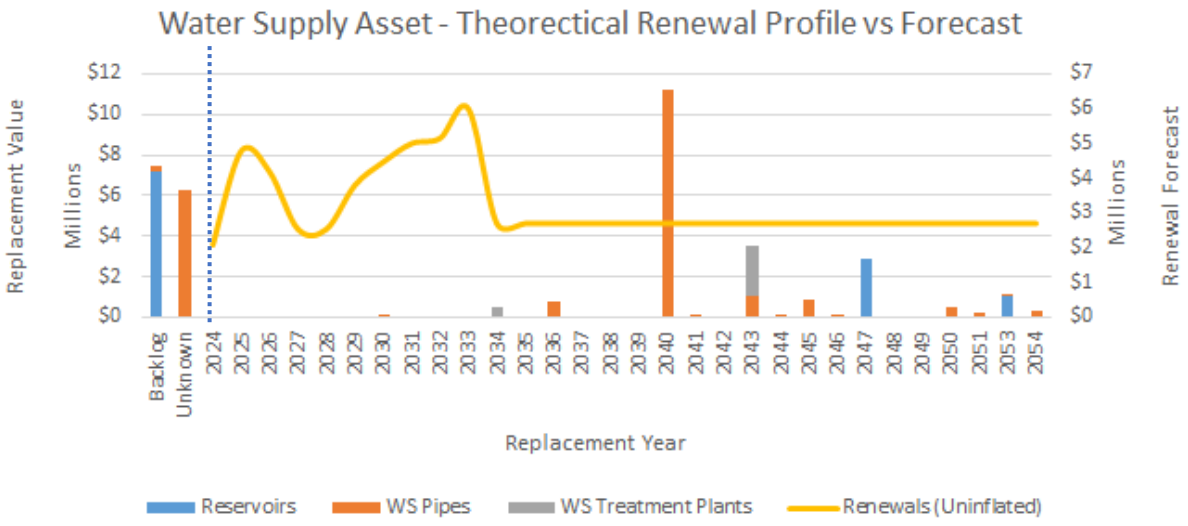
Table 15 Summary of resource consents expiring – water supply

Activity - number of consents expiring	Expired	In decade 1 (2024 to 2033)	In decade 2 (2034 to 2043)	In decade 3 (2044 to 2054)	Total number of consents	Comments
Water supply	NA	30/09/30, 30/09/30, 30/09/25	30/09/37, 27/11/37, 28/09/37	NA	6	Featherston, Martinborough Emergency, Featherston Emergency, Martinborough, Greytown, Pirinoa

6.1.7. Asset renewals forecast – water supply

The figure below shows the renewal profile for water supply assets based on their asset design life. There is currently a renewal backlog for our reservoir assets (approximately $7.2m) as they are past their design life. There is also uncertainty around the age of some of our pipe assets (approximately $6.2m), which needs to be verified. Some of these pipes can be old or in poor condition and will need to be replaced in the next couple of years.

Figure 13 Water supply asset renewal profile – theoretical versus forecast

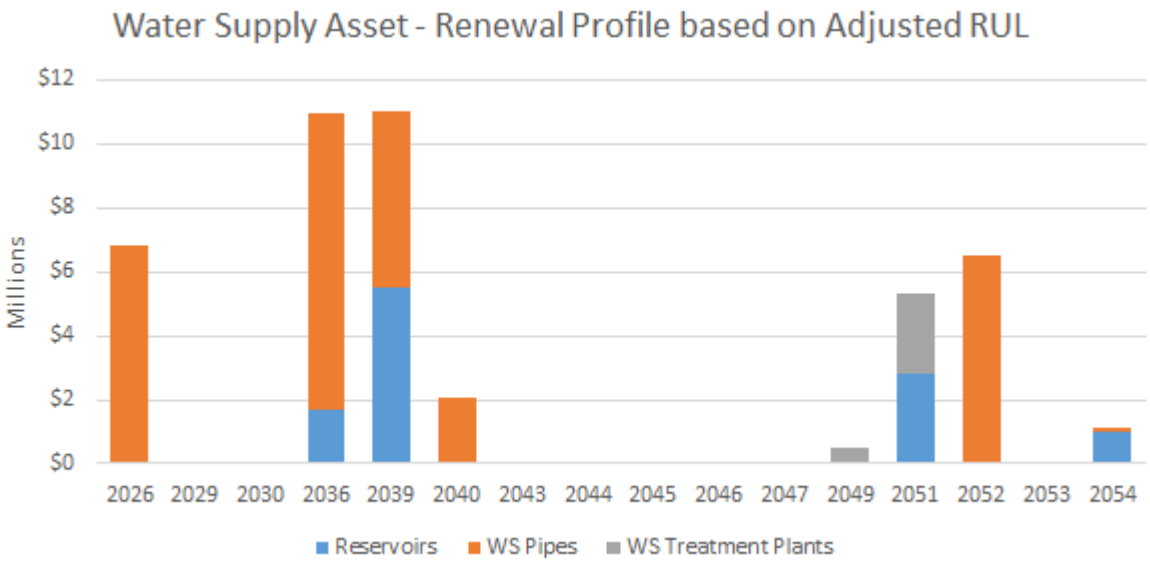


While most pipe assets have not reached their theoretical design life, we have attempted to adjust their remaining useful life based on our operational and technical knowledge. The figure above shows that we have identified approximately $30m worth of renewals up to 2040. This has formed the basis of our renewal budget for the next 10 years.

Our renewal forecast (as shown in Figure 14) has been developed to address the existing renewal backlog and future asset needs. It has considered the following factors:

- Council's debt ceiling in the first three years for capital works.
- Cost smoothing to reduce financial impact on Council.
- Capital works achievability based on historical performance.
- Outputs from the latest asset valuation to inform the cost of renewal.

Figure 14 Water supply asset renewal profile – adjusted RUL from valuation



6.1.8. Key challenges – water supply

Table 16 Summary of key challenges – water supply

Key challenges	Discussion / management response
Affordability - The community cannot afford significant future rate rises to fund water services. This is compounded by cost escalation and cost of living pressures. (This issue is common for 3 waters).	• Limited rate revenue restricts the current ability to deliver against increasing standards/compliance requirements, meeting levels of service and planning for growth. • Double-digit rate increases are not affordable for the community who have a low appetite for such a significant increase. • Council will actively seek external funding and contributions to fund infrastructure. • Council will also phase improvement programmes over a number of years to spread the cost. • LWDW will influence the future 3 waters service provision. This includes the delivery model, mitigation measures, and possibly increasing borrowing capability.

Key challenges	Discussion / management response
Growth - Constraints on growth from existing infrastructure.	• The district is approaching capacity constraints to meet current water demand. Extra connections and subdivisions are putting water supply systems under pressure, particularly in the existing townships.
Limited data management – There is limited asset data to inform asset management planning, and it is not always proactively managed. (This issue is common for 3 waters).	• Council acknowledges the need for strong AM supported by fit for size AM system and asset data. Council is working towards the implementation of both. • WWL continues to collect asset data as existing assets are renewed or new assets are installed.
Aging assets - An aging network that results in asset failure and requires an increase in renewal.	• The level of investment in renewal of water infrastructure, particularly reticulation, is not sufficient to address the significant backlog of worn-out assets. They are now generating high volumes of leaky pipes. • The consequence is further compounded by climate change and may severely impacts the ability to meet water demand.
Adaptation planning for climate change – The district is already experiencing impacts such as prolonged droughts and flooding events. The long dry summers result in the ground drying out and there is an increase in watermain breaks. There will be longer periods of water restrictions in the drier months too.	• A reliable supply is needed during drought and for firefighting purposes. Council aims to improve reliability through demand management, investing in growth studies to plan for capacity increases, and investment in core infrastructure. • Some demand management initiatives are in place, such as universal metering, reducing the allocated quota to 250m3 of water provided to all users and increasing the excess water charges to $2.50 per m^3 for water used above this. • Council also has plans to actively investigate leaks and minimise water losses.
Infrastructure resilience - A key focus is strengthening our infrastructural resilience as some of our assets have limited redundancy.	• Council acknowledges the historical issues of existing water supply activity and is looking to increase the amount of redundancy. Council has plans to undertake master planning for major townships following on from the Featherston Masterplan.

6.1.9. Significant issues and options – water supply

The significant issues and options for the water supply activity are summarised in the table below.

Table 17 Significant water supply issues and options

Significant water supply issues	Options	Implications of the options	Preferred option	Years 1 to 10	Years 11 to 20	Years 21 to 30	Risk (L/M/H)
Increasing investment requirements to meet new standards, compliance, levels of service and future growth is unaffordable for the community.	1. Status quo – Respond to legislative requirements reactively as they arise.	– Requirements are identified progressively as they arise. – Funds for any significant capital expenditure may not be available due to Council borrowing limits. For example, the requirement for fluoridation may require a significant investment to comply. The Director-General of Health has issued 14 directions to local authorities to fluoridate community water supplies. SWDC is currently not on this list.	2	✓	✓	✓	H
	2. Actively seek external funding & contributions while maintaining a watching brief on the LWDW programme and the possible future delivery models.	– Council is working through the process of identifying the preferred water services delivery model as part of the Wellington / Wairarapa Region Water Services Delivery Planning groups. – Spreading costs across multiple years to increase affordability. The future delivery model may have better borrowing capacity – depending on the decision.		✓	✓	✓	M

Significant water supply issues	Options	Implications of the options	Preferred option	Years 1 to 10	Years 11 to 20	Years 21 to 30	Risk (L/M/H)
Asset data - There is limited asset data to inform asset management planning.	1. Status quo – Continue with the existing approach and update asset data in the current AM system as assets are renewed or created.	– The quality of asset information can limit the effectiveness of AM planning and decision-making.	2	✓	✓	✓	H
	2. Review existing asset data to verify data needs and identify a fit-for-size AM system. Gather asset data proactively to develop an evidence based renewal strategy.	– Takes time for data gathering but would provide benefits for a long time. – The approach needs to be considered along with the LWDW programme and the future service delivery model.		✓	✓	✓	M
Network resilience - Strengthening our infrastructural resilience as some of our critical assets have limited redundancy.	1. Continue with strengthening the resilience of our water supply schemes progressively as infrastructure issues are identified.	– Capital investment takes time to gain Council budget approval and to implement the physical works. – Significant water restrictions may occur from time to time. – Some townships may run out of water in extreme dry events.	2	✓	✓	✓	M
	2. Investigate increasing water sources and strengthen the resilience of the treatment plant system through master planning.	– Security of supply is improved and meets industry good practices. – Opportunity with Greater Wellington Regional Council to identify future water resources for resilience (i.e. aquifer mapping project).		✓	✓	✓	H

6.1.10. Significant decisions on water supply capital expenditure

The table below shows the likely timing and estimated cost of significant water supply capital projects and work programmes. The table provides a project description and project linkages to the significant infrastructure issues (detailed above), key decisions including process and timing, project budgets and timeframes.

Table 18 Summary of significant decisions – water supply

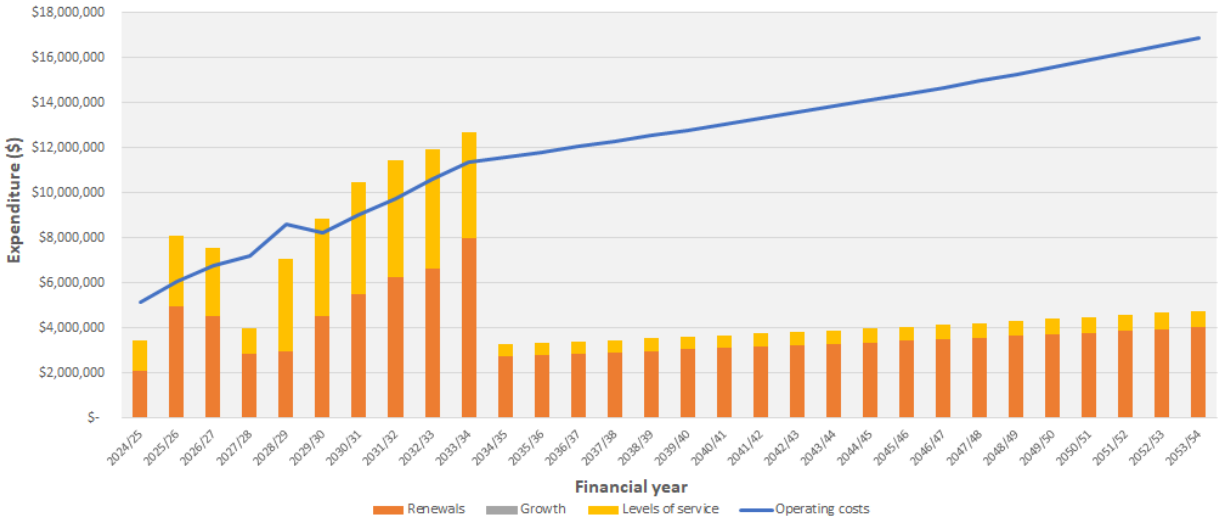
Significant water supply issues	Most likely scenario	Key decision	Specific projects for likely scenario	Timing (works)	Estimated cost (inflated)
Affordability – Unable to meet new standards, compliance requirements, levels of service and growth	Actively seek external funding & contributions while maintaining a watching brief on the LWDW programme and the possible future service delivery models.	Decision to increase investment levels across all categories. Decision process and timing: 2024 LTP (adopted 1 July 2025) for most LOS and growth programmes except firefighting capacity decision likely 2027.	Programme: New works programme; Primary drivers – growth, LOS	2024 to 2054	$49.7 million
Asset data – There is limited asset data to inform asset management planning	Review existing asset data to verify data needs and identify a fit-for-size AM system. Gather asset data proactively to develop an evidence based renewal strategy.	Decision to invest in asset data quality and completeness. Decision process and timing: Council is moving to its own asset management system AssetFinda (Universus Assets) late 2025; covered in operational budgets part of 2024 LTP.	Operational programme: Staff costs. Programme: Asset planning, LOS	2024 to 2054	Part of operational budget - $364.1 million
Network resilience – Strengthening our infrastructural resilience as some of our critical assets have limited redundancy	Investigate increasing water sources and strengthen the resilience of the treatment plant system.	Decision to invest in resilience of water sources and treatment system to improve redundancy. Decision process and timing: Projects are scoped and will be funded under 2024 LTP (adopted 1 July 2025).	Programme: New works programme; Primary driver, LOS	2024 to 2054	$49.7 million

6.1.11. Water supply expenditure forecasts

Renewals makes up 70% of the water supply capital forecast and reflects the need to meet compliance with our treatment plants, as shown in the figure below. Council's major capital expenditure is in:

- Annual recurring projects for reactive replacements (at about $0.8 million pa).
- Featherston watermain renewals to replace high frequency of network failures (at $8.4 million).
- Drinking water pipe renewals (at $24.8 million).
- Firefighting upgrades (at $26.6 million)
- Greytown Water Treatment Plant Upgrades Stage 3 (at $7.2 million).

Figure 15 Water supply 30-year forecasts (inflated)



Source: Council's LTP budget (as at 13 February 2025)

6.1.12. Funding water supply activity

Council funds its water supply activity through:

- Targeted rates and fees and charges for the operational programme.
- Loans for the capital programme.

6.2. Wastewater activity

6.2.1. Activity overview – wastewater

Through its Council Controlled Organisation WWL, Council provides and maintains wastewater services to properties in the district. This excludes single premises that have their own septic tanks. Council aims to collect, treat and dispose of wastewater from the urban areas of Featherston, Greytown, Martinborough and Lake Ferry to provide public health protection with minimal effects on the environment.

6.2.2. Asset summary – wastewater

In South Wairarapa district, there are presently four wastewater systems, serving the urban areas s of Featherston, Martinborough, Greytown and Lake Ferry. This includes servicing approximately 4,365 serviced pans and 286 properties that are serviceable. The breakdown by asset class is summarised in the table below.

Table 19 Summary of wastewater asset classes

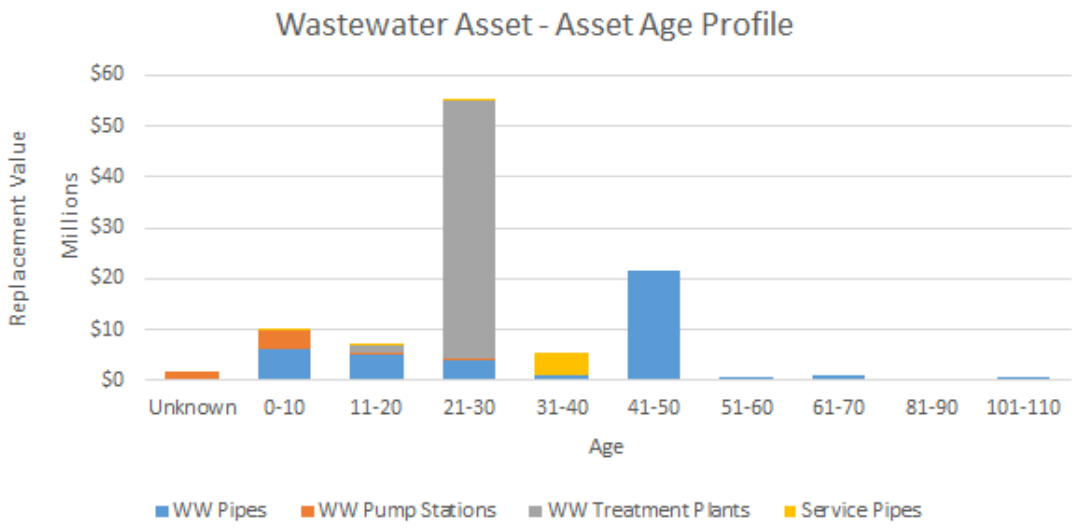
Wastewater asset class	Unit of measure	Quantity
Pipes	m	81,651
Pump stations	each	15
Treatment plants	each	4

Source: Asset valuation (WSP June 2024)

6.2.3. Asset age profiles – wastewater

The figure below shows the age profiles for our major wastewater assets. Our treatment plant assets are of the most value, which accounts for approximately 55% of the portfolio in replacement value, followed by the pipe assets (40%). Generally, treatment plant assets have a design life of 50 years. A significant portion of treatment plant assets will require renewal in the next 20 years. It is noted that the upgrade of the Featherston Wastewater Treatment Plant is underway.

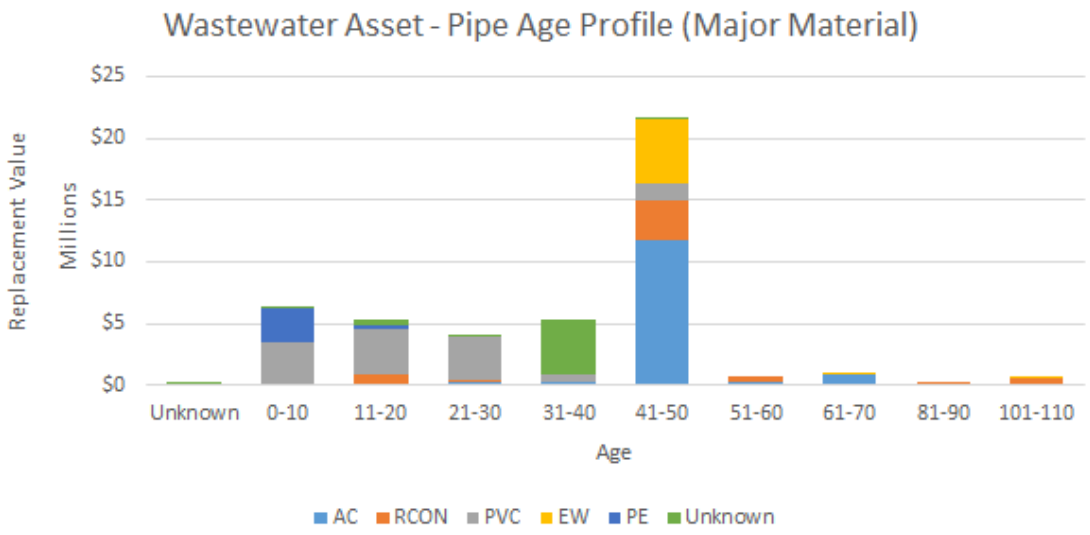
Figure 16 Wastewater asset age profile – major asset class



Source: Asset valuation (WSP June 2024)

The majority of our wastewater pipe assets are AC followed by PVC. AC and PVC pipes collectively account for approximately 65% of the portfolio in replacement value. Most of the EW and AC pipes are between 41 and 51 years old, which is about 60% through their design life and will need replacement in the medium to long term.

Figure 17 Wastewater pipe age profile – major material



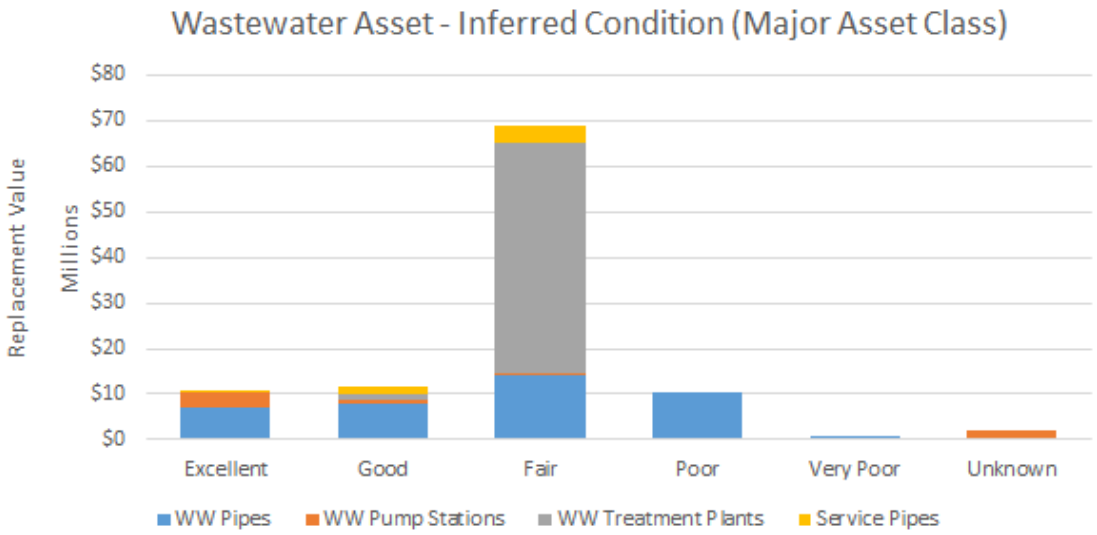
Source: Asset valuation (WSP June 2024)

6.2.4. Asset condition and performance

Limited condition surveys of the wastewater assets have been completed to assess the current asset state. The figure below shows the inferred wastewater asset condition based on the percentage of remaining useful life.

Most wastewater assets are in fair condition or better. There is a small portion of pipe assets that are in poor and very poor condition. Undertaking planned condition surveys of the above and below ground wastewater assets is a high priority for Council as this will inform future renewals.

Figure 18 Wastewater asset condition – inferred



Source: Asset valuation (WSP June 2024)

Asset performance of Council's wastewater network is assessed in terms of overflows, inflow and infiltration and resource consent compliance as follows:

- Dry weather overflows – A dry weather overflow is an uncontrolled wastewater discharge that is not associated with a rain event. Dry weather overflows are reported as a mandatory performance measure to the Greater Wellington Regional Council. Blockage incidents occur from time to time, but our asset performance for dry weather overflow events meets the industry accepted benchmarks.
- Inflow and infiltration. We know operationally that some of our catchments are leaky. This is the term used to describe groundwater and stormwater entering into dedicated wastewater system resulting in the system becoming overloaded and overflows occurring. We assessed inflow and infiltration as part of the Featherston Wastewater Growth Plan and Options Assessment (refer to Refer to Section 4.1.5 Master Planning).
- Compliance with resource consents – Currently, none of the wastewater treatment plants (WWTP) are compliant with resource consent conditions (refer to status in table below). Major investments are required at each plant to achieve compliance status. Most WWTPs continue to require ongoing effluent volume / quality management to achieve compliance due to capacity issues. Effluent discharged to rivers continues to exceed the consent limit. Council has plans to investigate the feasibility of land disposal for the long term. The risks and costs with consent renewal is also detailed in the following table.

Table 20 Current compliance status for wastewater treatment plants

WWTP	Compliance status	Risks and costs with consent renewals	Commentary
Greytown	Non-compliant	• Identified capital costs from the Growth-Capacity Study is greater than approved funding. • Areas with high ground water may not be suitable for land disposal which may increase costs.	Current plant design and processes are inadequate for the connected population, resulting in non-compliance (specifically related to ammonia concentration in the effluent) which is affected by seasonal weather patterns. In 2023, Greater Wellington Regional Council requested explanations of non-compliance. WWL is implementing the required corrective actions where possible within plant and resource constraints. Major investment is required, and current approved funding levels do not meet this. A compliance upgrade project is underway (excluding growth). The plant is already operating beyond its design loading capacity and so new connections have been paused. The Growth-Capacity Study in conjunction with Martinborough's study was completed in December 2024 A desludging project is underway however, the degree of desludging that will be achieved at Greytown is not yet determined as full desludging of Martinborough is a priority.
Featherston	Non-compliant	• Local Government Water Services Bill (Bill 3) amends the legislation to provide for a single standard approach for wastewater environmental performance standards. The consent authority will be unable to set consent conditions that are either higher or lower than the standard. To ensure that network operators can apply for new consents using the wastewater standards, the Bill extends the expiry date of consents by two years for wastewater treatment facilities that would have otherwise expired during that two-year period. • This may provide an opportunity for Council to apply for consent under the new regime that is more achievable and affordable. • Council is exploring with Department of Internal Affairs to be a case study to test the new regime.	Major investment is required to achieve a new consent. Renewal of the consent is being managed as a major project and plant is currently operating on an extension of the old consent. The consent approval process will better inform the required capacity of the plant to cater for growth in Featherston beyond 2032. A significant effluent non-compliance occurred in May / June 2024. This was due to the high volume of septic tank discharges (from Lake Ferry wastewater treatment plant) being pumped into the pond via a nearby manhole. Plant continues to require ongoing management of resources, focused on effluent quality, to achieve compliance with consent requirements.

WWTP	Compliance status	Risks and costs with consent renewals	Commentary
Lake Ferry	Partially compliant	• Council may be able to delay the consent process by two years under Bill 3 arrangements as above. • Difficult to enforce remediation of the defects identified on private laterals identified through the inflow and infiltration investigation.	Further investment is required to achieve a management plan and consent compliance into the future. A new resource consent application is being developed to be submitted by 30 March 2025. Early conversations suggest that the current scheme will require capital works because of consenting requirements. The inflow and infiltration investigation has been completed. Many of the defects are on the private laterals and this is difficult to enforce. Peak loads are near the plant's hydraulic capacity. Septic tank cleanouts and filter cleaning has been completed. The effect on effluent compliance will be assessed in coming months. The treatment process is being tested and assessed for optimised operation. Plant valving automation is required to better comply with consent discharge requirements; however, this is not funded.
Martinborough	Non-compliant	Council is proactively working through the to do notices so this risk will reduce as the works are completed.	Council has received an abatement notice for this plant. WWL and Council are working together to address the items raised and converting this into a series if to do notices as work is being completed. Major investment is required, and current approved funding levels do not meet this requirement. Current plant design is insufficient to avoid non-compliance. Effluent discharge rate and quality to land continues to exceed current consent limits. Effluent volume discharged to river continues to exceed the annual average consent limit. GWRC has issued an updated To Do Abatement notice, with a deadline of May 2025 to complete desludging. Good progress is being made on the desludging geobag laydown area consenting and tendering process, as well as UV optimisation.

Source: Wellington Water Operations Report (12 September 2024)

6.2.5. Critical assets – wastewater

WWL identified SWDC's wastewater assets classified as Very High Criticality Assets as:

- Donald Street pump station.
- 4 or 100% of wastewater treatment plants.

6.2.6. Resource consents – wastewater

The numbers of wastewater consents expiring in the next 30 years is summarised below with commentary on the current non-compliance in the section above. The current resource consent for the Featherston WWTP has expired and it is operating under an extension. All resource consents are current, monitored for compliance and reported on in accordance with the consent conditions.

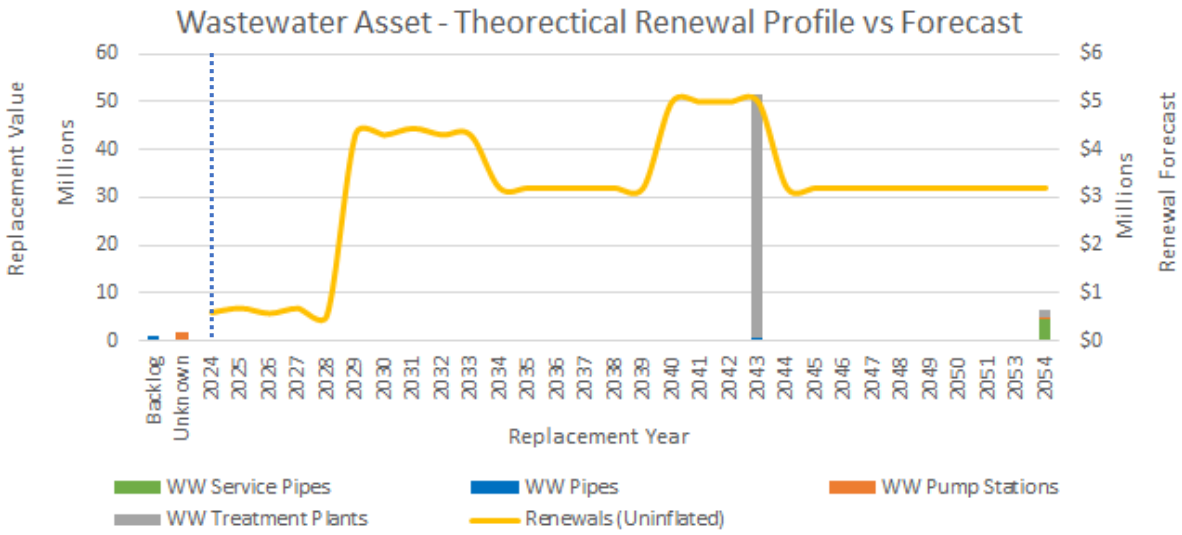
Table 21 Summary of resource consents – wastewater

Activity - number of consents expiring	Expired	In decade 1 (2024 to 2033)	In decade 2 (2034 to 2043)	In decade 3 (2044 to 2054)	Total number of consents	Comments
Wastewater	25/08/12	30/09/25, 30/09/25, 30/09/25, 30/09/25		15/03/51, 11/02/51, 15/03/51, 15/03/51, 15/03/51, 11/02/51, 15/03/51,	12	Lake Ferry, Martinborough, Greytown, Featherston

6.2.7. Asset renewals forecast – wastewater

The figure below shows the renewal profile for wastewater assets based on their asset design life. Currently, there is a minimum renewal backlog for our wastewater assets and assets with unknown age. While most treatment plant assets will only require renewal after the first 10 years, we have developed our renewal budget by bringing these investments forward based on our operational and technical knowledge to meet consent requirements. The figure below shows that we have identified approximately $60m worth of renewals up to 2043. This has formed the basis of our renewal budget for the next 10 years.

Figure 19 Wastewater asset renewal profile – theoretical vs forecast

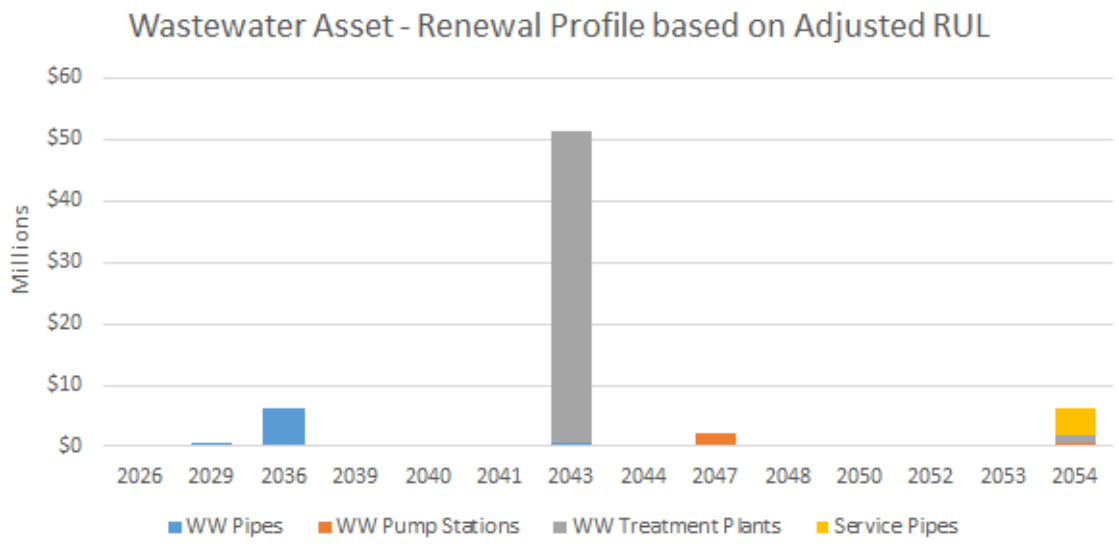


We aim to refine our investment profile as we better understand our assets in the next 3 years. Undertaking planned condition surveys is a high priority for Council, which will inform future renewals. We have made provisions in our renewal budget to enable works to be undertaken as we progress.

Our renewal forecast has been developed to address our future asset needs. It has considered the following factors:

- Council's debt ceiling in the first three years for capital works.
- Additional renewals as asset conditions are better understood.
- Cost smoothing to reduce financial impact on Council.
- Capital works achievability based on historical performance.
- Outputs from the latest asset valuation to inform the cost of renewal.

Figure 20 Wastewater asset renewal profile – adjusted RUL from valuation



6.2.8. Key challenges – wastewater

Table 22 Summary of key challenges – wastewater

Key challenges	Discussion / management response
Growth constraints - Lack of wastewater plant capacity means growth has been constrained in the main townships until plants are upgraded.	• No new wastewater connections are available in Martinborough or Greytown. • Currently undertaking a growth and capacity study to identify the level of investment needed to support growth out to 2051. Report covering Martinborough and Greytown is due March 2025.
Expired consents - Four wastewater consents are expiring next year, with one already expired (Featherston). The consent conditions may be more restrictive and costly.	• Water Services Authority Taumata Arowai is reviewing wastewater performance measures, which may have an impact on future consent conditions. • The Government is looking at the standardisation of resource consents, this might have an influence on future compliance requirement. • Currently, all wastewater treatments have consent compliance issues. The current funding levels are unlikely to meet future requirements.
Future service delivery - Council has voted to exit the Wellington Regional Water Services Delivery Plan, and to continue developing a joint Wairarapa + Tararua (Wai+T) plan involving Masterton, Carterton, South Wairarapa, and Tararua district councils (multi council water services council-controlled organisation).	• Council will actively seek external funding and contributions to fund infrastructure. • Mitigation measures are likely to come from the LWDW programme and directives from the Government which may include increasing borrowing capability. • Council will need to work with neighbouring councils and consider the financial impacts of continuing with the Wai+T options that might impact ratepayers.

Key challenges	Discussion / management response
Infrastructure resilience - A key focus is strengthening our infrastructural resilience as some of our assets have limited redundancy.	• Council acknowledges the historical issues of the existing wastewater activity and is looking to increase the amount of redundancy. For example, the upgrade of the Featherston Wastewater Treatment Plant is underway and Greater Wellington Regional Council has received public submissions on the new resource consent. • Council has plans to undertake master planning for major townships and following on from the Featherston Masterplan (refer to Section 4.1.5 on master plan status).

6.2.9. Significant issues and options – wastewater

The significant issues and options for the wastewater activity are summarised in the table below.

Table 23 Significant wastewater issues and options

Significant wastewater issues	Options	Implications of the options	Preferred option	Years 1 to 10	Years 11 to 20	Years 21 to 30	Risk (L/M/H)
Expired consents - Four wastewater consents are expiring next year, with one already expired (Featherston). The consent conditions may be more restrictive and costly. There are significant challenges with future upgrades and affordability issues for the community.	1. Continue with operating existing plants and be at risk of receiving more abatement and infringement notices.	– Will not always meet current minimum resource consent requirements. – The regulator will get frustrated at Council's lack of commitment and action to address the long-standing wastewater issues. – The environment may degrade overtime. – Council will continue to receive abatement and infringement notices and potentially be prosecuted.	2	✓	✓	✓	H
	2. Develop and implement a long term investment plan to guide decisions on addressing the long-standing wastewater issues. Interrelated issues to consider include growth, freshwater management and the new Water Services Authority Taumata Arowai performance measures.	– Will take time to develop robust long term investment plan for wastewater. – Improves the freshwater quality of the receiving environment. – Some people in the community may not be able to afford the required upgrades.		✓	✓	✓	M

Significant wastewater issues	Options	Implications of the options	Preferred option	Years 1 to 10	Years 11 to 20	Years 21 to 30	Risk (L/M/H)
Aging wastewater assets - Like many councils, our wastewater assets are aging. This is exacerbated by a reactive maintenance approach resulting in service failures such as blockages.	1. Continue with managing the wastewater assets reactively with minor renewals.	– There are aging and capacity issues with the existing plants, as such, service failures will increase and result in more overflows (uncontrolled wet weather and dry weather). – Maintenance costs increase and exceed approved budgets. – Reactive renewals are unbudgeted so impacts the targeted rate calculation. – Hard to set the targeted rates as have limited asset data to base it on.	2	✓	✓	✓	H
	2. Develop and implement operational programme to proactively manage the wastewater networks.	– The asset performance of the wastewater network is understood with operational evidence stored in an asset management system and actively managed. – The balance between reactive and proactive maintenance is optimised, and costs are controlled.		✓	✓	✓	M
Network resilience - Strengthening our infrastructural resilience as some of our critical assets have limited redundancy.	1. Continue with strengthening the resilience of our wastewater schemes progressively as infrastructure issues are identified.	– Opportunities are identified progressively as assets fail or upgraded. – Funds for any significant capital expenditure may not be available due to Council borrowing limits. – Development occurs progressively.	2	✓	✓	✓	H

Significant wastewater issues	Options	Implications of the options	Preferred option	Years 1 to 10	Years 11 to 20	Years 21 to 30	Risk (L/M/H)
	2. Strengthen the resilience of the network and treatment plant system through master planning.	– Bulk infrastructure is planned holistically with longer term horizon. – Based on realistic forecast of development, where it will likely occur and when. – Funds for any significant capital expenditure may not be available due to Council borrowing limits. – Allowance made for climate change adaptation.		✓	✓	✓	H

6.2.10. Significant decisions on wastewater capital expenditure

The table below shows the likely timing and estimated cost of significant wastewater capital projects and work programmes. The table provides a project description and project linkages to the significant infrastructure issues (detailed above), key decisions including process and timing, project budgets and timeframes.

Table 24 Summary of significant decisions – wastewater

Significant wastewater issues	Most likely scenario	Key decision	Specific projects for likely scenario	Timing (works)	Estimated cost (inflated)
Expired consents – Consent conditions may be more restrictive and costly, which may not be affordable for the community.	Develop and implement a long term investment plan to guide decisions on addressing the long-standing wastewater issues. Interrelated issues to consider include growth, freshwater management and the new Water Services Authority Taumata Arowai performance measures.	Decision to invest in developing and implementing a long term investment plan to guide decisions on addressing the long-standing wastewater issues. Decision process and timing: Implementation of the plant upgrades as part consent process and funded under 2024 LTP (adopted 1 July 2025).	Programme: Asset planning; Primary driver –LOS	2024 to 2054	$190.1 million

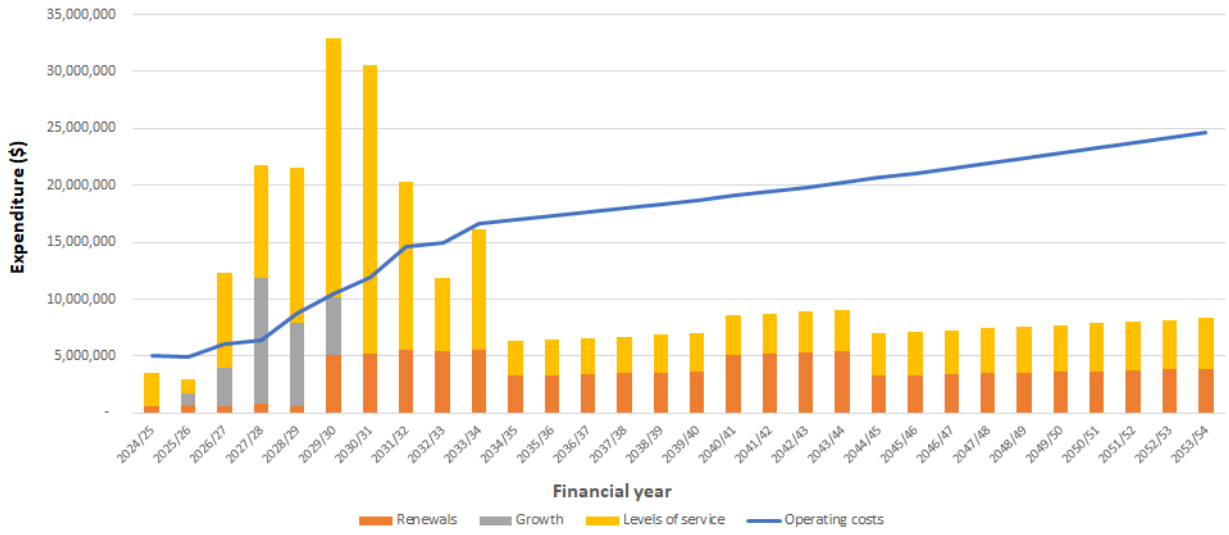
Significant wastewater issues	Most likely scenario	Key decision	Specific projects for likely scenario	Timing (works)	Estimated cost (inflated)
Aging assets – This is exacerbated by a reactive maintenance approach resulting in service failures such as blockages.	Develop and implement operational programme to proactively manage the wastewater networks.	Decision to invest in developing and implementing an operational programme to proactively manage the wastewater networks. Decision process and timing: Decision to improve asset data part of moving to AssetFinda late 2025; operational programme funded under 2024 LTP (adopted 1 July 2025).	Operational programme: Staff costs. Programme: Asset planning, LOS	2024 to 2054	$511.1 million
Network resilience - Strengthening our infrastructural resilience as some of our critical assets have limited redundancy.	Strengthen the resilience of the network and treatment plant system through master planning.	Decision to invest in resilience of wastewater network and treatment system to improve redundancy. Decision process and timing: Decision made to implement Greytown wastewater trunk main and funded under 2024 LTP (adopted 1 July 2025).	Programme: New works programme; Primary driver – LOS	2024 to 2054	$190.1 million

6.2.11. Wastewater expenditure forecasts

Levels of service makes up 58% of the wastewater capital forecast and reflects the need to meet compliance with our treatment plants, as shown in the figure below. Council's major capital expenditure is in:

- Annual recurring projects for reactive replacement (at about $0.6 million pa).
- Wastewater pipe renewals (at $23.4 million)
- Martinborough compliance WWTP upgrades for land irrigation and winter storage (at $45.9 million for stage 2 and b).
- Featherston WWTP Consent renewals and upgrade (at $24.3 million).
- Greytown WWTP compliance upgrades for land irrigation (at $26.2 million).
- Greytown capacity upgrades to enable growth (indicative at $11.9 million).
- Martinborough capacity upgrades to enable growth (indicative at $11.9 million).

Figure 21 Wastewater 30-year forecast (inflated)



Source: Council's LTP budget (as at 13 February 2025)

6.2.12. Funding wastewater activity

Council funds its wastewater activity through:

- Targeted rate for sewerage disposal based on a per pan charge in urban serviced areas.
- Trade waste fees and charges.
- Loans for the capital programme.

6.3. Stormwater activity

6.3.1. Activity overview – stormwater

Council provides and maintains stormwater drainage assets through WWL and also defines the requirements for these assets where provided by others. Council's responsibilities include an obligation to identify where a public stormwater management service is required and to either provide it directly or to maintain an overview where it is provided by others.

An overall level of stormwater protection is provided by a combination of a primary and a secondary stormwater system. The primary stormwater system is the system of reticulation pipes, culverts, open drains and access chambers. It is designed to collect stormwater resulting from moderate rainfall and discharge it into watercourses. The primary stormwater system is intended to minimise what is often termed as nuisance flooding.

The secondary stormwater system generally comprises overland flow-paths designed to convey excess floodwater with a minimum of damage when the primary stormwater system is unable to cope. Roads are often used as secondary flow paths.

6.3.2. Asset summary – stormwater

Council owns and maintains urban pipes and drains in the main townships, with assets summarised in the table below. The urban stormwater systems are not complete formal networks.

Table 25 Summary of stormwater asset classes

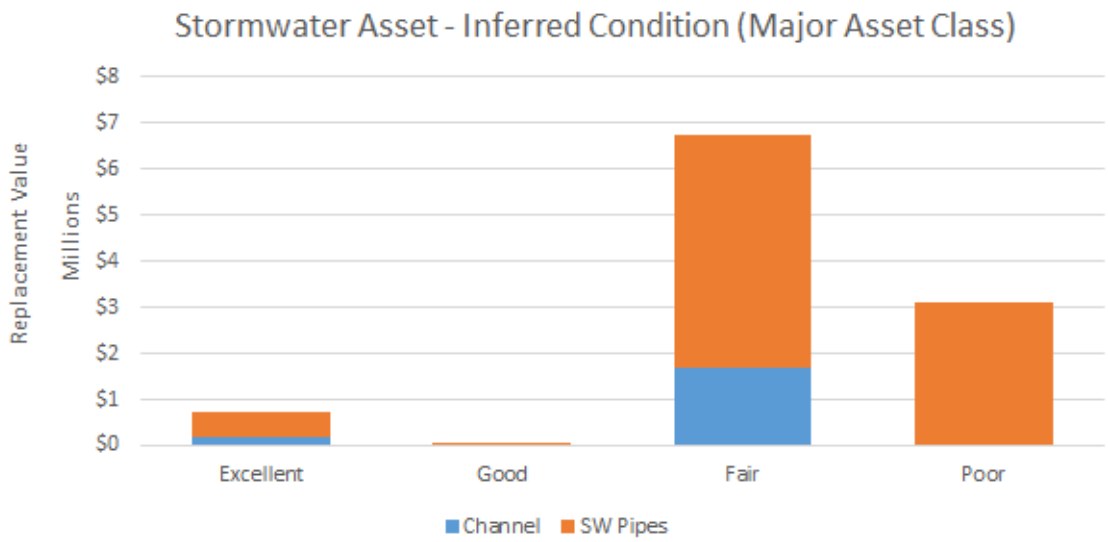
Stormwater asset class	Unit of measure	Quantity
Pipes	m	17,925
Channels	m	20,151

Source: Asset valuation (WSP June 2024)

Asset condition and performance

Asset condition has not been formally assessed for the stormwater network to date. The stormwater network has generally been surveyed in response to an operational incident. We intend to move to a programme of planned condition surveys to help us better understand the state of our stormwater assets. The figure below shows the inferred stormwater asset condition based on the percentage of remaining useful life. Most of the stormwater assets are in fair condition, with a portion of pipe assets in poor condition.

Figure 22 Stormwater asset condition – inferred



Source: Asset valuation (WSP June 2024)

Asset performance of our stormwater network is assessed in terms of capacity constraints (flood protection) and stormwater quality. There were no habitable floors flooded reported in 2023/24 as a mandatory performance measure.

6.3.3. Critical assets – stormwater

Critical stormwater assets have been identified based on operational knowledge as:

- Culverts and ponds and detention dams.
- Pipe intersects state highway carriageway.

6.3.4. Resource consent – stormwater

Council is pursuing a global contest for the urban stormwater networks. The greatest risk is that the regional council sets conditions that are not proportional to Council's network size and complexity. Councill will monitor the new requirements to simplify consent conditions under Bill 3.

6.3.5. Key challenges – stormwater

Table 26 Summary of key challenges – stormwater

Key challenges	Discussion / management response
Service delivery - The implications of Local Water Done Well on Council's stormwater network. Water Services Authority Taumata Arowai is developing stormwater performance measures.	• The future management of the Council stormwater network will need to be determined as part of the transition to LWDW. It will be decided once the new service delivery structure is developed. • There is no current visibility regarding future performance measures and implications.

Key challenges	Discussion / management response
Network performance - Lack of understanding on the existing stormwater network and how it performs. Traditionally stormwater activity has been a mainly reactive service compared to water supply and wastewater activities. We have limited asset condition information and knowledge of our stormwater network.	• Council acknowledges the need to undertake stormwater catchment modelling to identify stormwater capacity issues. • Council is currently going through a single stormwater discharge resource consent application process.
Stormwater investment - There has been historic under investment in the stormwater network.	• Council has an appetite to increase investment in stormwater over the next ten years. • Water supply and wastewater activities are considered higher priority than investing in stormwater assets.
Adaptation planning for climate change – Severe weather events impact on the public stormwater infrastructure ability to cope with capacity.	• There is localised flooding across South Wairarapa in significant storm events. • Council is working to mitigate flooding risks, particularly in the Featherston area.
Asset management accountability - Different accountabilities of stormwater management results in unclear responsibilities. There are multiple parties responsible for stormwater across an entire catchment.	• Accountability currently sits across multiple organisations, and it can be difficult to have clear responsibilities at times. • Accountabilities will be informed by the LWDW programme once a preferred service delivery model is selected.

6.3.6. Significant issues and options – stormwater

The significant issues and options for the stormwater activity are summarised in the table below.

Table 27 Significant stormwater issues and options

Significant stormwater issues	Options	Implications of the options	Preferred option	Years 1 to 10	Years 11 to 20	Years 21 to 30	Risk (L/M/H)
Service delivery - Changes to legislation resulting from the Government's LWDW policy are still uncertain for the stormwater activity.	1. Continue with water services remaining in house by Council going alone.	– There are likely to be increased costs to address stormwater quality issues in the existing networks from the Regional Council. – This will be resourced through existing budgets. – Service continuity may be impacted if budgets are insufficient.	2	✓	✓	✓	H
	2. Explore and evaluate potential service delivery models with councils in the Wellington / Wairarapa Regions. This will also need to explore the inclusion / exclusion of stormwater assets due to its complex interactions.	– This is being undertaken currently and Council is expected a decision by the end of December 2024. – Implications from LWDC on service delivery including the impact of Water Services Authority Taumata Arowai and changes to legislation are still unfolding and happening at a rapid pace. – Define clear stormwater management accountabilities among different organisations as part of the process.		✓	✓	✓	M

Significant stormwater issues	Options	Implications of the options	Preferred option	Years 1 to 10	Years 11 to 20	Years 21 to 30	Risk (L/M/H)
Adaptation planning for climate change - Effect of severe weather events on public stormwater infrastructure to cope with capacity.	1.Continue to allow for increase in rainfall intensity when we design new or upgrade stormwater infrastructure.	– Pipes will be increased in capacity to cope with projected climatic variations as they are replaced or new infrastructure is installed. – Existing stormwater networks may not cope in severe weather events resulting in habitable floor flooding until upgrades undertaken. – Upgrades are undertaken progressively.	1	✓	✓	✓	M
	2. Increase investment in stormwater planning, such as developing Catchment Management Plans / Masterplans to inform future planning.	– Identify likely habitable floors that may flood in future and how Council will mitigate this. – Budget will need to be allocated for Catchment Management Plan development.		✓	✓	✓	H

6.3.7. Significant decisions on stormwater capital expenditure

The table below shows the likely timing and estimated cost of significant stormwater capital projects and work programmes. The table provides a project description and project linkages to the significant infrastructure issues (detailed above), key decisions including process and timing, project budgets and timeframes.

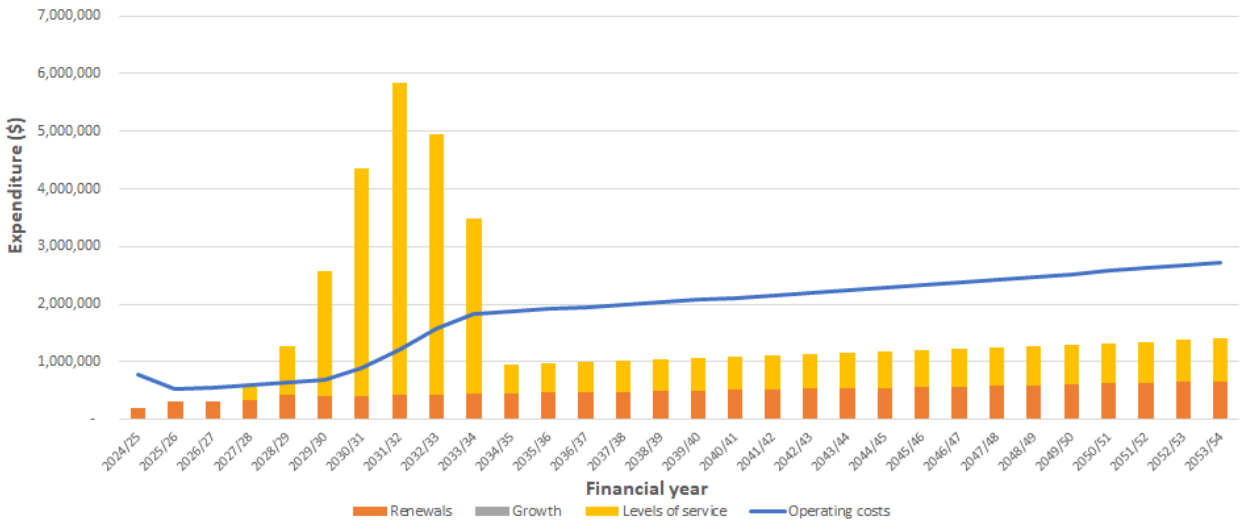
Table 28 Summary of significant decisions – stormwater

Significant stormwater issues	Most likely scenario	Key decision	Specific projects for likely scenario	Timing (works)	Estimated cost (inflated)
Service delivery - Uncertainties around the changes to legislation resulting from the Government's LWDW policy.	Explore and evaluate potential service delivery models with councils in the Wellington / Wairarapa Regions. This will also need to explore the inclusion / exclusion of stormwater assets due to its complex interactions.	Decision to explore future service delivery model for stormwater. Decision process and timing: Water Services Delivery Plan to be adopted by Council in 2025 after community consultation and submitted to Government by 3 September 2025.	Programme: Asset planning; Primary drivers – growth and LOS	2024 to 2054	Part of operational budget - $54.8 million
Adaptation planning for climate change - Effect of severe weather events on public stormwater infrastructure to cope with capacity.	Continue to allow for increase in rainfall intensity when we design new or upgrade stormwater infrastructure.	Decision to increase pipe capacity as they are replaced or new assets to cope with projected climatic variations. Decision process and timing: Decisions made on ad hoc basis as required as not formal stormwater system and funded under 2024 LTP (adopted 1 July 2025).	Programme: 30 year stormwater capital programme; Primary drivers: renewals and LOS	2024 to 2054	$47.2 million

6.3.8. Stormwater expenditure forecasts

Level of service makes up 69% of the stormwater capital forecast and renewals making up the other 31%, as shown in the figure below. Over the next 3 years, Council's capital expenditure is mainly in annually recurring projects for reactive replacements with the level of service improvements (flooding improvements) not starting until around year 4 and onwards. General recurring renewal projects equate to about $0.4 million per year and flooding improvements are around $6.0 million (in total) each for Featherston, Greytown and Martinborough.

Figure 23 Stormwater 30-year forecast (inflated)



Source: Council's LTP budget (as at 13 February 2025)

6.3.9. Funding stormwater activity

Council funds its stormwater activity through:

- General and targeted rates and fees and charges for the operational programme.
- Loans for the capital programme.

6.4. Land transport activity

6.4.1. Activity overview – land transport

Council provides roading network services in the South Wairarapa district. This includes roads, bridges and culverts, footpaths, street lighting, street cleaning, vegetation control, kerb and channel, and structures such as retaining walls, bus shelters and car parks. Council aims to plan, provide and maintain a roading network for the safe, comfortable and convenient movement of people and goods in an affordable manner.

The section of State Highways 2 and 53 within the South Wairarapa district boundary are controlled and operated by NZTA. Footpaths within the 7.281km of state highway corridors in urban areas are included in this plan as they are maintained by Council.

6.4.2. Asset summary – land transport

A summary of our transport assets is listed in the table below:

Table 29 Transport asset class summary

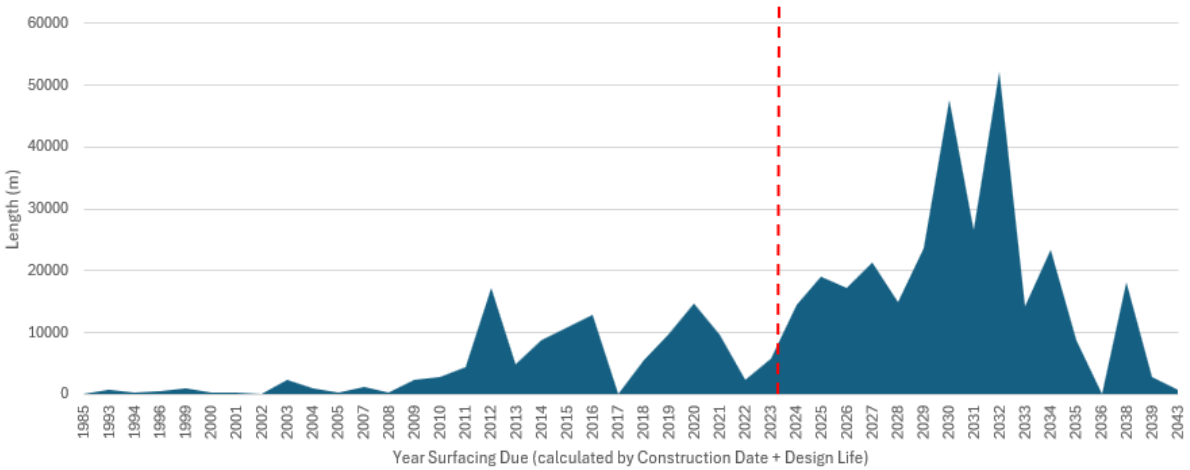
Transport asset type	Quantity
Road Length (total):	671km
Sealed	407km (61%)
Unsealed	264km (39%)
Footpaths	65.4km
Channels:	
Lined channel	98km
Unlined channel	658km
Bridges (number)	135
Retaining walls (number)	139
Pipes (culverts)	2,568 (number) or 29km (length)
Chambers (sumps)	655
Streetlights	886

Source: Transport Insights and Council RAMM Database (1 November 2024)

6.4.3. Asset age profiles

The pavement surface profile graph below and as an indicator shows that 28% or 112km of roads have exceeded their design life (construction date + design life). There is still ongoing validation of the surfacing records to ensure reporting is accurate. Council field validate their resurfacing programme to confirm the timing of treatment based condition, traffic use, crash statistics as well as age.

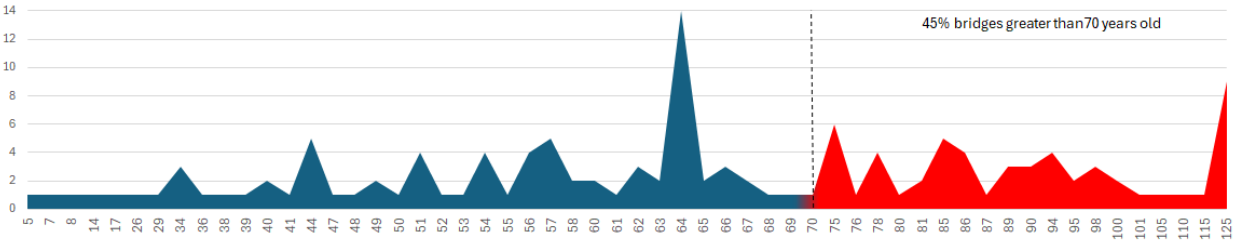
Figure 24 Pavement surface profile



Source: Council RAMM Database, surface structure table (7 November 2024)

Council has a large number of bridge assets that are reaching / reached end of life (EOL) or have structural components that need replacing such a main beam or the deck. Almost half or 45% of Council bridge stock is greater than 70 years old as shown in the figure below. Most of these bridges are on low volume roads has enabled Council to extend the life of these assets. However, over the next 30 year period a number of these bridges will need to be replaced.

Figure 25 Bridge age profile



Source: Council RAMM Database, bridge table (13 December 2024)

6.4.4. Asset condition and performance

The table below highlights that the assets are being maintained with very little condition 'Unknown' or 'Very Poor'. The dates of the condition assessment are being kept updated so that the information is accurate.

Table 30 Asset condition summary

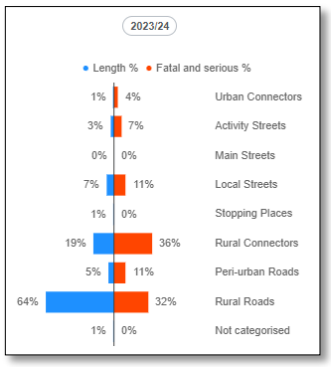
Asset Type	Excellent	Good	Average	Poor	Very Poor	Unknown
Bridges	4%	86%	6%	3%	0%	1%
Footpaths	18%	12%	68%	1%	0%	0%
Retaining Walls	13%	30%	36%	14%	7%	0%
Culverts	10%	68%	15%	4%	2%	1%

Source: Council RAMM database (1 November 2024)

The crash trends have been increased since 2019/20 and cover most road categories as shown below.

Table 31 Crash trends

Year	DSI Count	Trend
2019/20	3	
2020/21	6	↑
2021/22	7	↑
2022/23	6	↓
2023/24	6	↔



Source: Transport Insights 30/11/2024

Trends in Smooth Travel Exposure (STE) over the last 4 years and across the ONF categories are listed below. STE is a measure for ride quality. STE across of road classes are all in the 90-100% range. The introduction of the national Consistent Condition Data Collection (CCDC) survey data beginning in mid-2025 may may identify more performance issues as it is a more accurate survey method. Current KPI for the smoothness of its roads is 95%.

Key:

Result drop from previous year	No result change from previous year	Result improvement from previous year

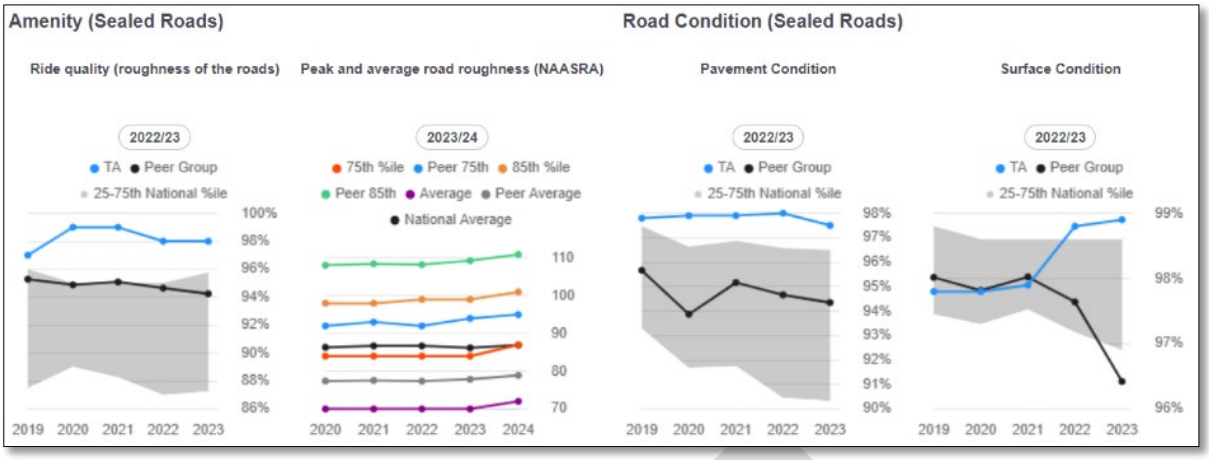
Table 32 STE trends

STE	Urban Coll	Activity	Main	Local	Stopping	Rural Collectors	Peri-urban	Rural roads
20/21	100	98	100	95	100	100	99	98
21/22	94	91	88	92	100	98	98	96
22/23	94	91	88	92	100	98	98	96
23/24	97	93	100	93	96	98	98	96

Source: Transport Insights: STE (1 November 2024)

The asset performance trends in roughness, pavement and surfacing condition are shown below. This shows that Council outperforms its peer group. Target maintenance to fix the worse errors has helped maintain good pavement and surfacing results. The introduction of the national Consistent Condition Data Contract may impact these results due to more accurate measurement tools and technology.

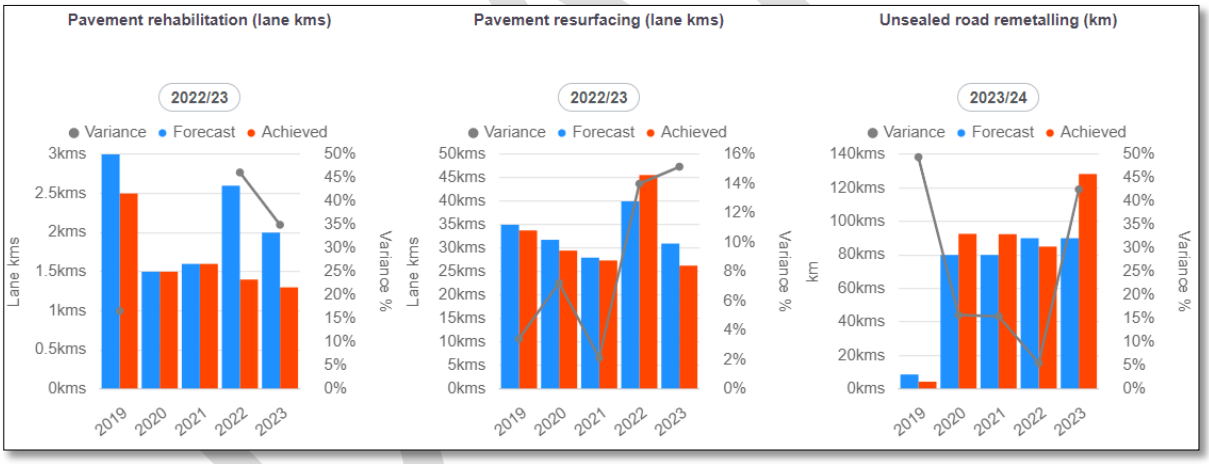
Figure 26 Transport asset performance trends



Source: Transport Insight (1 November 2024)

Annual pavement rehabilitation lengths have not matched forecasts over the last 2 years as shown in the figure below (due to funding issues). Annual surfacing lengths have been declining until an increase in 2022 but generally under what was forecast. The 2024 LTP has an uplift in renewals and surfacing forecasts to align more closely with the Government Policy Statement on Land Transport (2024 to 2034) and in line with best industry practise.

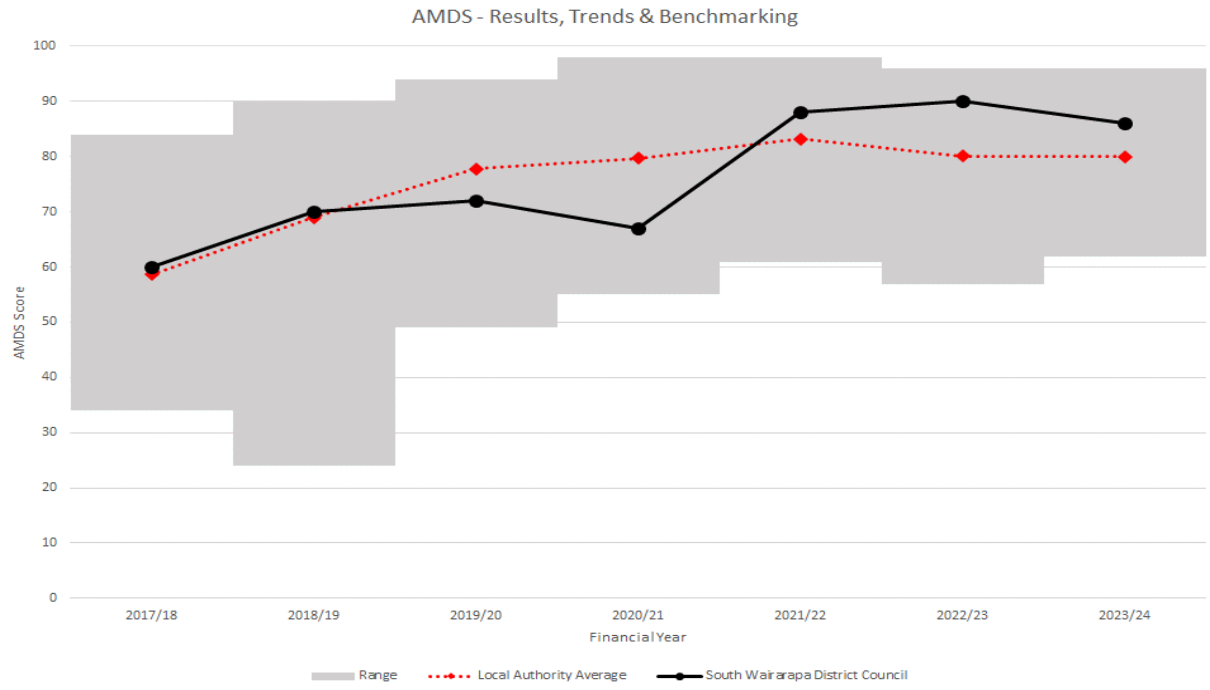
Figure 27 Trends in pavement rehabilitation



Source: Transport Insights (1 November 2024)

Transport data quality results have been maintained for the last three years at a high standard as shown in the figure below. This measure looks at completeness, timeliness and accuracy of Council's asset data.

Figure 28 Transport data quality results



Source: Transport Insights

6.4.5. Critical assets – land transport

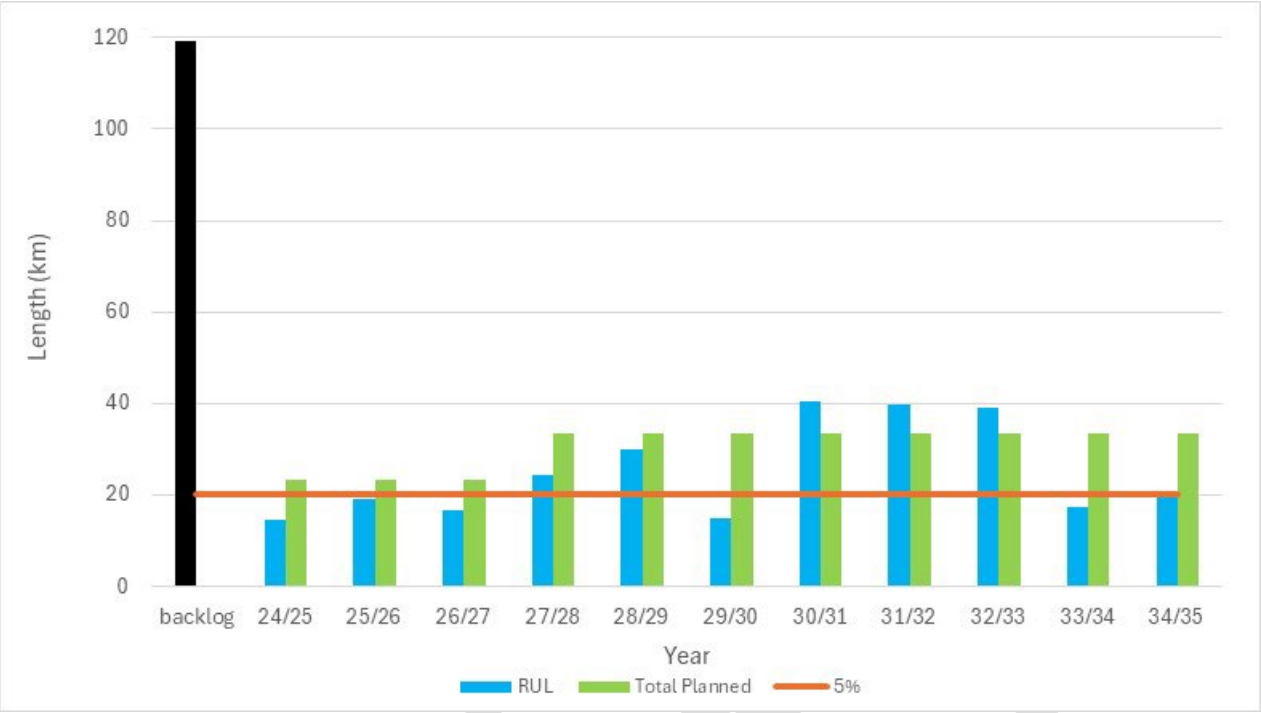
- Roading network and its bridge stock as lifelines for communities.
- Bridge and retaining wall structures.
- Single access roads to communities.
- Assets along lifeline routes.
- State Highways 2 & 53 (owned by NZTA) are connectors between communities and freight routes.

6.4.6. Renewals – planned versus theoretical

Council has previously been sweating the land transport assets as much as possible, due to financial constraints and NZTA directive. This has led to a backlog of overdue surfacings as shown in the figure below currently at 112km.

Council is working to reduce this backlog however this requires an uplift in funding for this work category. Keeping to the DIA target of 5% of the network sealed each year, will not be sufficient to address the backlog and quantity of seals due to expire in the upcoming years.

Figure 29 Land transport renewal comparison – planned versus theoretical



Source: Council RAMM Database (4 February 2025)

6.4.7. Problem Statements

1. The under-investment in pavement renewals will result in unsustainable maintenance volumes in Future years.
2. The rate of serious and fatal accidents is increasing which is negatively impacting the welfare of the Community.
3. The increased scale and frequency of damage caused by weather events will be beyond the ability of the Community to fund the required repairs.
4. The Carbon footprint of the Transport (Roading) Activity must be reduced so the Councils can meet their Climate Change commitments.
5. The damage to the urban road pavements caused by the water services results in 80% of the pavement repair costs and noise complaints related to the roads.
6. There is a projected shortage in the availability of roading aggregates within the Wellington Region.
7. The demands that developments will place on the roading network are not known.
8. There is a backlog of required maintenance work on the Roading network.
9. A 24% increase in funding is required as a result of inflation over 3 years.

6.4.8. Key challenges – land transport

Table 33 Summary of key challenges -land transport

Key challenges	Discussion / management response
Maintenance and renewals have been under-invested in past years. The under-investment in pavement renewals will cause unsustainable maintenance volumes and costs in future years. There is also low customer satisfaction and safety issues. (reference Problem Statement 1)	• Increase in renewals and resurfacing to align with GPS and Pothole Prevention Fund. • Proactive drainage maintenance and renewals. • Awareness around procurement and LTP.
The rate of serious and fatal accidents is increasing which is negatively impacting the welfare of the district. (reference Problem Statement 2)	• Council's transport team aware of under reporting in rural areas (impacting trends). • Widening of collector roads with sub-standard pavement widths. • Improved signage, delineation and safety barriers to help the driver. • Proactive speed management to match road design. • Ongoing investment in road safety education and enforcement.
The increased scale and frequency of damage caused by weather events will be beyond the ability of the community to fund the required repairs. Communities may become isolated with single access road. (reference Problem Statement 3)	• Proactive drainage maintenance and renewals • Extend erosion protection for Cape Palliser Road* (*note this was part of the LCLR budget category that no longer exists - to be confirmed). • Implementation of the stabilisation of one high risk site trial (EcoReef). • East Coast Hill Study and improved stability planting programmed.
Resilience of critical transport infrastructure particularly long coastline needs national guidance.	• Build in resilience when undertaking renewals (mainly on structures and part of emergency works). • Culvert size upgraded where appropriate when renewals take place. • Build back better when undertaking works.
Resurfacing backlog not quantified as based on asset lives and local preferences for work programmes.	• Previous resurfacing budgets achieved 3-4%, increasing to 4-6% of the network. • Implement JunoViewer to analyse and predict renewals more accurately. • Consistent CCDC survey of the network.
Aging bridge stock.	• We have an extensive bridge network to provide access to our communities across our vast district. • Many of our bridges are reaching towards the end of their life (70 to 90 years). • To date, we have used heavy maintenance to address asset component failure. However, many of the concrete and steel bridges will need replacement in the next 30 years.

6.4.9. Significant issues and options – land transport

The significant issues and options for the land transport activity are summarised in the table below.

Table 34 Significant transport issues and options

Significant land transport issues	Options	Implications of the options	Preferred option	Years 1 to 10	Years 11 to 20	Years 21 to 30	Risk (L/M/H)
Financial sustainability - Sustainable capital resurfacing works programme	1. Funding to allow for 2-3% network renewals	– Backlog of work grows under this option, network deteriorates. – Increase in customer complaints, crashes and travel times/disruption. – Not meeting levels of service.	2	✓	✓	✓	H
	2. Funding to allow for 4-6% network renewals	– Reduces backlog. – Improvement in road condition, reduction of customer complaints, crashes and travel times/disruption. – Meet level of service. – Affordable.		✓	✓	✓	M
	3. Funding to allow for 7-9% network renewals	– Not affordable without significant rate increases which is unpalatable for Council. – Exceed levels of service.		✓	✓	✓	M
Road safety - Increased safety risks on unsealed and narrow roads	1. Do minimum (just delineation)	– Line marking and edge marker post work only. – Crash statistics do not improve / worsen.	2	✓	✓	✓	H
	2. Fund appropriate safety measures listed noting that the LCLR budget no longer exists	– Widening of roads with sub-standard pavement widths. – Improved signage, delineation and safety barriers.		✓	✓	✓	M

Significant land transport issues	Options	Implications of the options	Preferred option	Years 1 to 10	Years 11 to 20	Years 21 to 30	Risk (L/M/H)
		– Proactive speed management to match road design. – Ongoing investment in road safety education and enforcement. – Crash statistics improve. – Affordable for the community.					
	3. Blanket network with safety barriers	– Crash statistics almost eliminated. – Unaffordable. – Not achievable on large parts of the network.		✓	✓	✓	L
Network resilience - Parts of the network are vulnerable to coastal erosion due to the district's significant coastline	1. Continue to undertake trials, and coastal protection works.	– Access in and out available to residents and visitors. – Risk manageable.	1	✓	✓	✓	M
	2. Retreat roads away from the coast	– Will still require coastal protection works otherwise erosion will still continue to erode the land. – Unaffordable for the community. – Not achievable in places due to the topography.		✓	✓	✓	H

6.4.10. Significant decisions on land transport capital expenditure

The table below shows the likely timing and estimated cost of significant land transport capital projects and work programmes. The table provides a project description and project linkages to the significant infrastructure issues (detailed above), key decisions including process and timing, project budgets and timeframes.

Table 35 Summary of significant decisions – land transport

Significant transport issue	Most likely scenario	Key decision	Specific projects for likely scenario	Timing (works)	Estimated cost (inflated)
Financial sustainability - Sustainable capital resurfacing works programme	Funding to allow for 4-6% network resurfacing renewals.	Decision to increase investment in resurfacing. Decision process and timing: • Part of the funding request to NZTA on 3 yearly cycle, approved in September 2024. • Council's share to be approved as part of 2024 LTP (to be adopted on 1 July 2025).	Programme: Resurfacing Programme; Primary driver – renewals	2024 to 2034	$19m
Road safety - Increased safety risks on unsealed and narrow roads	Fund appropriate safety measures listed noting that the LCLR budget no longer exists.	Decision to continue to invest in road safety improvements and education programmes. Decision process and timing: • Part of the funding request to NZTA on 3 yearly cycle, approved in September 2024. • Council's share to be approved as part of 2024 LTP (to be adopted on 1 July 2025).	Operational programme: Road safety programmes	2024 to 2034	$8.3m

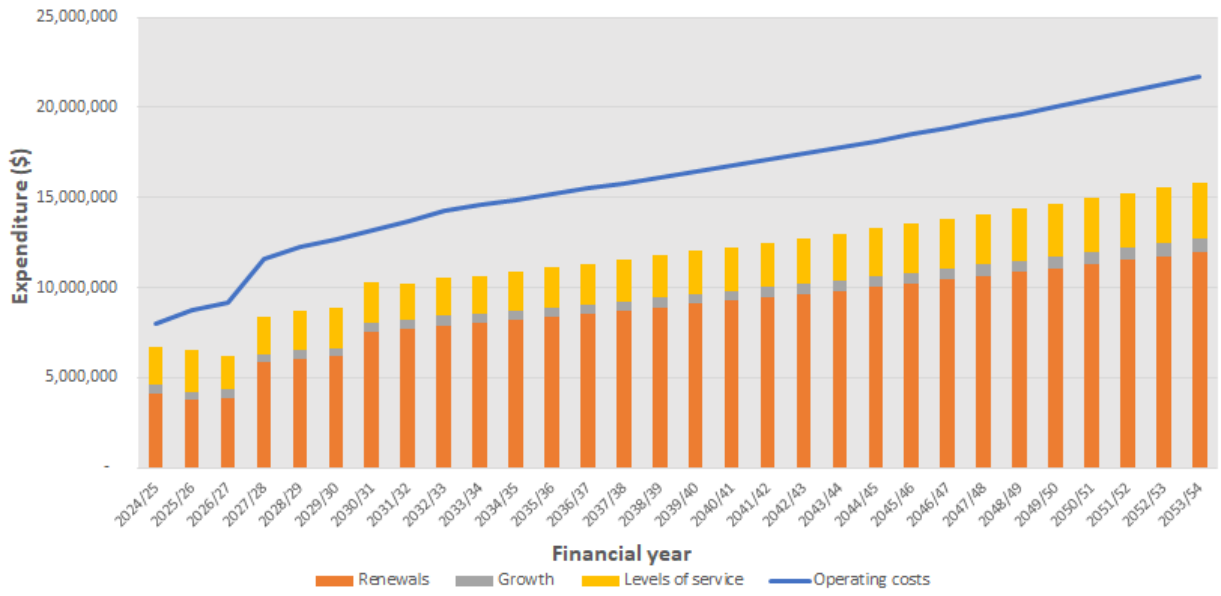
Significant transport issue	Most likely scenario	Key decision	Specific projects for likely scenario	Timing (works)	Estimated cost (inflated)
Network resilience - Parts of the network are vulnerable to coastal erosion due to the district's significant coastline	Continue to undertake trials and coastal protection works.	Decision to continue with trials and invest in coastal protection works. Decision process and timing: • Part of the funding request to NZTA on 3 yearly cycle, not approved in September 2024. Council to reapply again to NZTA for funding. • Council to decide how to fund this without NZTA as part of the 2024 LTP process. Decision expected after community consultation then adopted as part of the 2024 LTP (1 July 2025).	Operational programme: maintenance and resilience renewals	2024 to 2034	$12.5m

6.4.11. Land transport expenditure forecasts

Renewals makes up 74% of the land transport capital forecast and reflects the need to keep up with the ageing infrastructure, as shown in the figure below. Council's major expenditure is in:

- Road rehabilitation (at about $1.7 million pa).
- Road resurfacing (at about $1.9 million pa).
- Drainage renewals (at about $0.6 million pa).
- Unsealed road remetalling (at about $0.8 million pa).
- Kerb & Channel / footpath additions (at about 0$.3 million pa).
- Bridge / structural replacement (at about $0.25 million pa).
- EcoReef extension (at $1.1 million).

Figure 30 Transport 30-year forecast (inflated)



Source: Council's LTP budget (as at 13 February 2025)

6.4.12. Road subsidies

Funding for road maintenance and renewals are planned on a three-year cycle through the Regional and National Land Transport Plans and prescribed by the Government Policy Statement on land transport. There was a substantial uplift in the 2024/27 National Land Transport Programme approved funding.

The Government has heard our views in relation to the funding for the Special Purpose Road at Cape Palliser and they have agreed to continue to fully fund the road until July 2027.

NZTA's 2024-2027 National Land Transport Programme has less funding available for local roads and a greater focus on state highways. For South Wairarapa District Council, the impacts on the NZTA funding shortfall are:

- For maintenance, operations and renewal funding reduction will have minimal impact on service levels.
- For unfunded local cost low risk budget, will impact resilience and safety projects. Council is considering loan funding these projects then re seek NZTA funding again at the next round.
- Footpath renewals are unfunded.

The major impact will be the contract rate increases due to contract rollover which had not been built into the NZTA funding request.

6.4.13. Funding land transport activity

We fund our land transport services from a range of sources:

- NZTA subsidies (FAR 51%, 100% Cape Palliser Road – Special Purpose Road).
- Targeted rate based on land value.
- Fees and charges for road corridor access applications.

The Financial Assistance Rate for Special Purpose Road will reduce to 51% from July 2027. This reduction in FAR is reflected in our LTP budgets. To mitigate the impact of this reducing funding, Council is undertaking a series of renewals and maintenance activities on the Cape Palliser Road over the next three years as well as mitigating the impact of coastal erosion on this stretch of road.

7. Financial Summary

7.1. Key decisions we expect to make

We will need to make key decisions over the duration of our strategy. Some of these decisions will be significant to the district and some will not. Key decisions and actions that will need to be made by elected members over the next 30 years include:

Table 36 Summary of key decisions

Activity	Key decisions
Three waters	Council is to decide on its preferred service delivery option for three waters under the Water Services Preliminary Arrangements Act 2024 including stormwater management.
Three waters	Continuing to gather evidence, particularly the condition of the critical three water assets, in the next three to five years. This will help us to have a full picture of the current state of three water assets and to develop robust and risk-based renewal programmes.
Wastewater	The focus will be on compliance driven capital projects to meet regulators' requirements due to constrained funding. Currently, none of the wastewater treatment plants are compliant with resource consent conditions. Major investments are required at each plant to achieve compliance status.
Land transport	Prioritisation of resilience, funding for resurfacing and rehabilitation works.
	Strengthening / replacement of aging bridge structures. To date, we have used heavy maintenance to address asset component failure. Many of the concrete and steel bridges will need replacement in the next 30 years.
	Continue with our maintenance and renewal programmes that target interventions at appropriate levels consistent with good industry practice and meeting agreed levels of service.
	We will continue to strengthen our transport infrastructural resilience as some of our district is susceptible to coastal erosion and land stability.

7.2. Financial forecasts

The total expected capital and operational expenditure for the core assets over the 30-year period 2024 to 2054 is summarised in the table below.

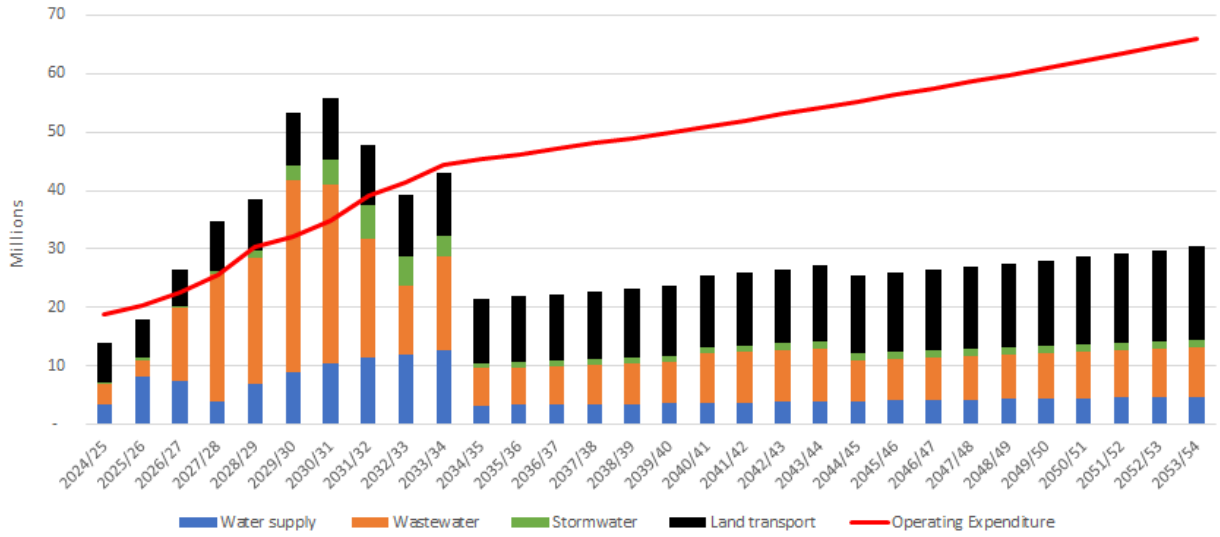
Table 37 Expected total 30 year operating and capital expenditure (inflated)

Activity	Capital expenditure ($)	Operational expenditure ($)
Water supply	$164,860,621	$364,113,551
Wastewater	$325,618,175	$511,224,441
Stormwater	$47,214,586	$54,825,252
Land transport	$351,639,853	$479,932,332
TOTAL	**$889,333,235**	**$1,410,095,576**

Source: Council's LTP budgets (as at 13 February 2025)

The most likely scenario for total operating and capital expenditure for the core infrastructure assets is shown in the figure below.

Figure 31 Combined opex and capex figures



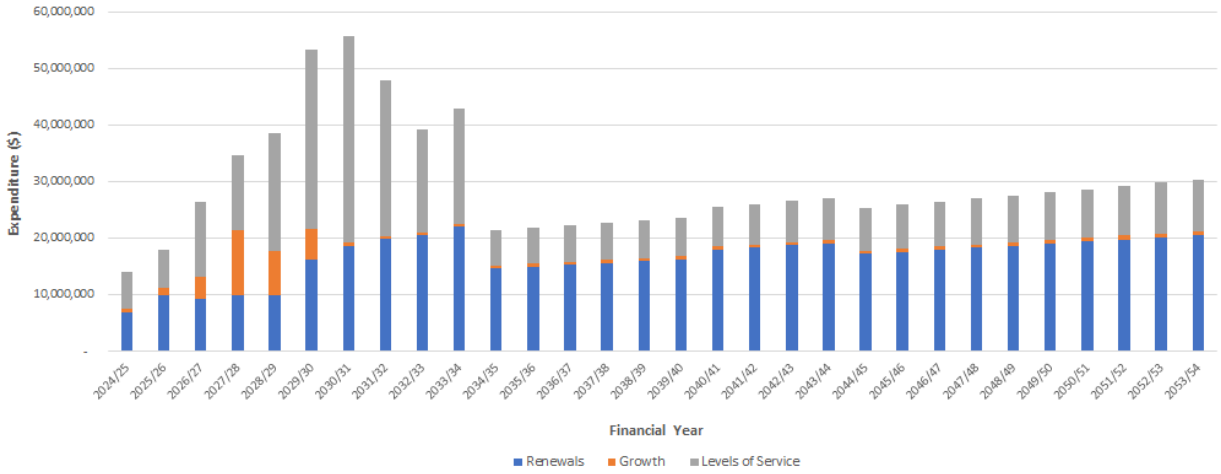
The breakdown by capital categories for each activity over the 30-year period 2024 to 2054 is summarised in the table and figure below. This shows that renewals are 56% of the total capital expenditure followed by levels of service 39% then growth at 5%.

Table 38 Combined capital expenditure by category (inflated)

Activity	Capital expenditure – renewals ($)	Capital expenditure – levels of service ($)	Capital expenditure – growth ($)
Water supply	$115,180,329	$49,680,292	-
Wastewater	$107,586,766	$190,125,409	$27,906,000
Stormwater	$14,638,528	$32,576,059	-
Land transport	$261,065,456	$79,091,472	$16,482,925
TOTAL	**$498,471,079**	**$346,473,230**	**$44,388,925**

Source: Council's LTP budgets (as at 13 February 2025)

Figure 32 Combined capex figures (inflated)



Over the next 30 years it is expected that:

- Aging infrastructure is replaced.
- Infrastructure is capable of meeting regulatory and compliance requirements.
- Infrastructure strives to meet the growing needs of the district.
- Infrastructure resilience is strengthened.

7.3. Funding implications

South Wairarapa District Council is a small rural local authority, with a relatively high infrastructural asset base per capita, and a relatively small ratepayer base. Small local authorities are required to focus heavily on doing the basics right, maintaining current service levels and their infrastructural asset base.

This strategy reflects this focus, while concentrating on increasing network resilience while delivering on our spatial planning commitments. We are confident our asset planning, LTP and Infrastructure Strategy will reflect the best practical options we have to contribute to the longevity of the asset base and maintenance of service levels while retaining financial health.

Debt is generally only used for new assets, with replacements of existing assets paid for from depreciation reserves built up for that purpose. Over 30 year period, depreciation reserves are expected to be sufficient to cover anticipated renewals expenditure.

Financial sustainability is fundamental to the long-term sustainability of the district. The forecasts have been prepared on the basis that, as a minimum, existing levels of service will be maintained whilst maintaining debt covenants as required by the LGA. Demand is assessed against existing capacity of the network and treatment plants. Increasing demands from population growth have informed these requirements. Further modelling work forms part of the LTP to assess the impacts of growth.

There are funding implications from significant capital expenditure in this first ten years to meet to:

- Ensure our land transport network is preserved.
- Upgrade water supply treatment plants to meet new drinking water requirements.
- Upgrade wastewater treatment plants to meet compliance standards and expected growth.

- Investment in stormwater capacity to address flooding issues.
- Ensure our networks are resilient.
- Move from reactive to planned renewals for three water assets to ensure service continuity.

This is discussed in more detail in our Financial Strategy.

7.4. Financial assumptions and uncertainty

7.4.1. Financial assumptions

In developing this Strategy, financial areas of uncertainty have been identified specific to infrastructure assets. The full areas of uncertainty that are financial related are detailed in the Financial Strategy including inflation factors. The identified areas of uncertainty are in the table below. The full list of assumptions (financial and planning) is detailed in the main LTP document (refer to Significant Assumptions).

Table 39 Financials areas of uncertainty

Significant financial assumptions	Level of uncertainty	Impacts	Mitigation
Three waters service delivery – Council needs to decide on its preferred water services delivery options under the Water Services Preliminary Arrangements Act 2024.	High	Retention of the three waters activity will impact Council's ability to borrow, and future rates affordability. Council may still not be financially sustainable under all pragmatic options including creating a Wairarapa and Tararua provincial entity. This is due to Council's significant investment required in three water assets with a small rating base that neighbouring councils will not wish to cross subside.	Continue to work with neighbouring Wairarapa and Tararua councils on alternative model. Continue with Council's three water programmes. Seek Government funding to address the gap in investment.
Construction costs - Capital expenditure estimated costs are based on Council's best estimates and known planned expenditure. Materials and labour costs have increased significantly higher than consumers price index.	High	Capital expenditure varies from approved project budget.	Council will review its budget annually through the Long-Term Plan and Annual Planning process and may adjust work programmes and budgets where necessary. Bundle the capital works programmes into work packages to provide certainty for contractors.

Significant financial assumptions	Level of uncertainty	Impacts	Mitigation
			Work with its partners WWL and Ruamāhanga Roads to strengthen the procurement processes to gain efficiencies and improve practices.
NZTA Financial Assistance Rate for Special Purpose Road – The subsidy rate for Cape Palliser Road will reduce to 51% from July 2027 consistent with NZTA's national approach to phase this subsidy rate out.	High	This reduction in FAR is reflected in our LTP budgets. It impacts the rate increase in 2027/28.	SWDC are undertaking a series of renewals and maintenance activities on the Cape Palliser Road over the next three years as well as mitigating the impact of coastal erosion on this stretch of road.
Funding sources - Funding sources (including external funding sources) do not materially change over the life of this Infrastructure Strategy. Council will continue to seek external Government funding and other sources as it becomes available.	Medium	Levels and sources of funding differ from that forecast resulting in projects being revised or alternative funding sources used. Non-asset activities are more dependent on external funding.	Funding for projects and assets is considered before the commencement of each project or asset. A significant impact from changes in funding or funding sources may result in revised capital works programme.
NZTA funding shortfall - There is less NZTA funding for local roads with the 2024-2027 National Land Transport Programme.	Medium	The community cannot afford to fund the unsubsidised work programmes not approved by NZTA as facing significant general rate rise. For maintenance, operations and renewal funding reduction will have minimal impact on service levels. For unfunded local cost low risk budget, will impact resilience and safety projects.	Council is considering loan funding the resilience and safety projects then re seek NZTA funding again at the next round.

Significant financial assumptions	Level of uncertainty	Impacts	Mitigation
Operational costs – Costs with operational contracts have increased significantly higher than consumers price index due to higher fuel, material and labour costs.	Medium	Annual costs with operational and maintenance contracts increased greater than original contract award amount. Planned maintenance programmes may need to be reduced and focus on reactive maintenance.	Council will assess the variation and impact of service provision to customers and meeting legislative requirements. Budgets may need to be adjusted through the Long-Term Plan / Annual Planning process.
Featherston Masterplan - **Implementing** the Featherston Masterplan is not funded as part of the 2024 Long Term Plan due to community affordability issues.	Medium	Infrastructure is upgraded in ad hoc manner in Featherston and potentially not cost effective.	Parts of the Featherston Masterplan may be implemented at a future date as funding becomes available.
Greytown and Martinborough Masterplans – The development of Greytown and Martinborough Masterplans are not funded in the 2024 Long Term Plan due to community affordability issues**.**	Medium	Infrastructure is upgraded in ad hoc manner in Greytown and Martinborough and potentially not cost effective.	The development of Greytown and Martinborough Masterplans will be considered at a future date.
Development contributions - The Council will continue to not collect development contributions for three water and land transport activities due to the limited growth capital projects.	Low	The growth driven projects will continue to be funded by the existing ratepayers but this is considered minor impact.	At a later stage, Council may implement its planning mechanism with Development Contributions Policy and financial contributions (2021) to recover developers share of growth related infrastructure.

7.4.2. Planning assumptions

This strategy is based on the following planning assumptions:

Table 40 Summary of key planning assumptions

Significant planning assumptions	Level of uncertainty	Impacts	Mitigation
Three water asset data - There are various levels of reliability of information for three waters assets. Gaps have been identified as part of this strategy development.	High	Difficult to make renewals decisions with gaps in information.	Strengthening the process related gaps to improve asset data reliability has been identified as strategy improvement.
Population growth - Growth and demographic change occur at a different rate than assumed	Medium to High	Growth may occur at a faster rate than assumed due predominantly to the proximity to Wellington for employment and relative housing affordability.	Council is investing in infrastructure over the life of 2024 LTP to address previous under-investment. However, this investment is focused on renewing and improving assets to maintain compliance with regulations. Investment in network capacity is planned to take place later during the 2024 LTP period and beyond.
Climate change – Climate change will continue in line with national and regional forecasts, with increasing intensity and frequency of extreme weather events.	Medium	The effects of climate change are more severe than expected, resulting in additional costs to mitigate impacts and increasing damage to Council infrastructure.	Council activities will build appropriate mitigation responses into infrastructure development (refer to Section 5.1.2).
Service levels - Levels of service are defined in the Ruamāhanga Roads Activity Management Plans and the Enhanced Annual Plan 2024/25 for three water activities, to meet legislative requirements and agreed to or accepted by the community. Service levels remain unchanged although these may be tested with budget constraints.	Medium	Some asset classes or in different locations or in smaller townships may deteriorate / service failure due to reduced budgets.	Council regularly monitors existing service provision within its operation on a day-to-day basis. These have been formally established for through the AMP / LTP process. Monitor levels of service for some asset classes where higher risk level been adopted due to trade off with budget reductions.

Significant planning assumptions	Level of uncertainty	Impacts	Mitigation
Land transport asset data – The current high level of data quality is likely to reduce once the national Consistent Condition Data Collection survey is completed.	Medium	Greater number of assets in poor condition than currently identified. Service level achievement may reduce such as ride quality.	Prioritise forward works programmes as there will great numbers of assets that need to be replaced.
Asset lives – Council will maximise the useful and economic lives of its assets.	Medium	This will impact on the timing of replacements and the amount of rates collected for funding depreciations.	Continue to analyse the useful lives of the major asset classes as new information becomes available, with focus on the critical assets.
Regional collaboration – Council will continue to collaborate with neighbouring councils in the Wairarapa area and the Greater Wellinton region on specific programmes and planning initiatives.	Low	Programmes / planning initiatives will not be successful without all Wairarapa councils participating as they are all small district councils. Council may not meet its legislative requirements working by itself.	This relies on effective relationships at senior management level and by elected members.

8. Strategy Improvement

The key improvement tasks identified through the development of Council's 2024 Infrastructure Strategy are summarised in the table below. This is part of continuous improvement process and will ensure that Council is best prepared for the 2027 Infrastructure Strategy. These actions should be read in conjunction with the technical improvement tasks provided in the Activity / Asset Management Plans.

Table 41 Summary of key improvement actions

Strategy element	Improvement actions	Activity	Timeframe	Priority
Strategy (scene setting)	Develop a Strategic Linkages section for the 2027 Infrastructure Strategy to link the organisational objectives to asset management objectives and programmes.	All	2027	M
	Develop a Strategic District Infrastructure Issues Section for the 2027 Infrastructure Strategy to put the infrastructure issues in context.	All	2027	M
	The 2027 Infrastructure Strategy to include risks and consequences of economic impacts on core infrastructure.	All	2027	M
Policy	Develop an Asset Management Policy to ensure consistency for core infrastructure assets managed by various custodial arrangements.	All	2025/26 to 2026/27	M
Asset Management Plans	Develop technical Asset Management Plans for the three water activities as a high priority.	Three waters	2024/25 to 2025/26	H
Integrated planning	Complete the joint comprehensive study of the Martinborough and Greytown Wastewater Treatment Plants covering compliance and growth issues. This is a high priority as new connections to the Martinborough network are on hold due to growth and compliance issues.	Wastewater	2024/25 to 2025/26	H
Adaptation planning for climate change	Evaluate the effectiveness of the EcoReef innovation trial to provide coastal protection on an exposed part of the Cape Palliser / Mātakitaki-a-Kupe Road.	Land transport	2024/25 to 2025/26	H
Asset data	Improve the completeness of three water data including age and material type so basic asset management analysis can be undertaken.	Three waters	2024/25 to 2033/34	H

Strategy element	Improvement actions	Activity	Timeframe	Priority
	Review the data quality results after the national Consistent Condition Data Collection survey is completed for the district. This may impact service levels and forward works programmes.	Land transport	2025/26	M
Asset condition	Undertake planned condition surveys of the above ground water supply assets to understand current asset state and inform future renewals.	Water supply	2024/25 to 2026/27	H
	Undertake planned condition surveys of the above and below ground wastewater assets to understand current asset state and inform future renewals.	Wastewater	2024/25 to 2026/27	H
	Undertake planned condition surveys of the below ground stormwater assets to understand current asset state and inform future renewals.	Stormwater	2027/28 to 2030/31	M