

30 Year Infrastructure Strategy

2025 – 2055

Final

Waimate District Council

Waimate
District Council

Quality Record Sheet

Waimate District Council

30 Year Infrastructure Strategy

2025 - 2055

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1.0 EXECUTIVE SUMMARY

Waimate District Council's Infrastructure Strategy forms part of the framework of strategy and planning documents that are used to guide Council's sustainable management of assets, while also allowing Council to achieve identified infrastructure objectives over the next 30 years. This is the fourth infrastructure strategy produced as a requirement of amendments to the Local Government Act 2002 in 2014. It provides discussion into the range of scenarios and responses Council could make in providing services to the community in a sustainable way.

1.1 Strategy Purpose

The purpose of the Infrastructure Strategy is to:

- Provide residents of the Waimate District with a clear view of the state of Council's core infrastructure, and priorities for investment over the next 30 years
- Provide robustness around long term budgets for the Core Infrastructure Assets activities
- Discuss significant issues for the Core Infrastructure Assets across a 30-year time frame and provide a strategic direction that reflects the current legislative environment and the Council's priorities across the district

1.2 Strategy Extent

The Infrastructure Strategy has direct linkage to Council's Roading, Water, Wastewater and Stormwater Asset Management Plans, and is used to inform the 2025-2034 Long Term Plan.

The Infrastructure Strategy covers the Council's core infrastructure activities of Roading and Footpaths, Water Supply, Wastewater and Stormwater. The core infrastructure is the most critical area of investment for the Council with infrastructure delivering essential services to residents and visitors.

Core Infrastructure Assets: A summary of the Council's Core Infrastructure Assets that are considered in this Infrastructure Strategy are presented below:

Table 1-1: Core Infrastructure Assets

Asset	Description	Optimised Replacement Values ($M)	% of Total
Roads and footpaths (2022)	Roads, streets, bridges, footpaths, and related infrastructure	575.5	84.3%
Water Supply (2024)	Water extraction, treatment and distribution	57.5	8.4%
Wastewater (2024)	Wastewater collection, treatment and discharge	42.3	6.2%
Stormwater (2024)	Stormwater collection and discharge	7.5	1.1%
TOTAL		$ 682.8M	

1.3 Strategy Priorities

At a high level, Council's priorities in respect to the Water, Wastewater, Stormwater and Roading and Footpaths are:

- Maintain the District's roads to a safe standard and fit-for-purpose for the long term
- Use efficient and effective asset management practices to maximise roads and footpaths asset life to provide a resilient network
- Demonstrate to customers that Council is managing the assets responsibly
- Ensure that the level of service required by customers is provided in the most cost-effective manner
- Customers will be regularly consulted over the price/quality trade-offs resulting from alternative levels of service
- Provide a continuous supply of potable water to meet agreed demands
- Maintain sewage disposal and treatment facilities to protect public health through ensuring good sanitary standards and freshwater management
- Manage the impacts of land use change and growth
- Advocate on behalf of the community where direct management of issues is not possible e.g. impacts of regional plans/rules

1.4 Key Decisions

There are several key decisions ahead for Council and the community; these are detailed in the following section:

Table 1-2: Key Decisions

Core Infrastructure	Key Decision
Roading and Footpaths	**Increasing Investment** Continually consider increased investment in Roading and Footpaths to provide a satisfactory level of service and provide for the effects of a diverse range of road users. The following trends are increasing the maintenance demand and cost: • Land use changes resulted in greater truck numbers associated with dairying and fodder crops, as opposed to dry stock farming • Trucks on the network are larger (including 50MAX and HPMV), as are agricultural vehicles. Historically the level of investment required to keep roads to a 'fit for purpose' level in Waimate District has been among the lowest in the country • Adequate investment in drainage is essential in achieving and maintaining the maximum useful life of our assets • Due to the large proportion of pavement that was constructed at the same time Council is aware of the potential rehabilitation 'bow-wave'. It is proposed that small increases in funding are initially made whilst monitoring and modelling is undertaken. The modelling outcomes will help develop a more robust understanding of this issue, and the scale and timing of future investment During the more recent funding rounds Council has seen a reduction in funding relative to the initial request. This has left the corresponding council share without co-funding and may result in unsubsidised works being completed should the community support this approach.

Core Infrastructure	Key Decision
	Roading Collaboration Group Arrangements Council values the current Aoraki (South-Mid Canterbury) Roading Collaboration Group arrangements are delivering the desired outcomes for WDC. Since 2014, a strong collaboration has developed across Waimate, Mackenzie, Timaru and Ashburton District Councils. The development of a common maintenance contract document meant that the Councils had to work together and provide efficiencies. This has formed an excellent platform for combined work, as well as procuring physical works and professional services.
Water Supplies	**Renewals Planning and Delivery** The renewal programme is considerable and will extend well out into the future. Council will need to continue its commitment to this in order to maintain satisfactory levels of service and to provide increased levels of service required for compliance with both the Drinking Water Standards for New Zealand (DWSNZ) and the Drinking Water Quality Assurance Rules (DWQAR), improved regulation and associated compliance monitoring.
Wastewater	**Renewals Planning and Delivery** The renewal programme is considerable and will extend well out into the future. Council will need to continue its commitment to this in order to maintain satisfactory levels of service, and compliance with both current and future consents. The Wastewater discharge consent is due for renewal (re-consenting) in 2036. Along with the reconsenting it is anticipated that there will also be associated WWTP updates and meet new consent conditions.
Stormwater	**Future Capital Funding Requirements** The forward works programme is adequate. If a greater level of service is desired, then higher levels of investment will be required. Short term renewal investment is currently targeting known locations where agreed levels of service cannot be achieved. There is ongoing work required to identify, protect and improve overland flow paths through both the stormwater activity and the District Plan review. Near-term investments are programmed that will potentially create capacity within the network and allow for growth over the period of the Infrastructure Strategy. These investments will also deliver on the requirements of the recent Stormwater Discharge Consent.

1.5 Council's Response

Aging assets, addressing changing transport and diverse range of road users' demands, improving road safety and improving water supplies are all challenges for Waimate District Council. Over the next ten years investments to improve levels of service will be the priority, and renewal programmes will ramp up for water services and pavement rehabilitation works. Some shorter-term investment is also required to meet additional demand associated with growth. Longer-term investments are programmed to meet future growth requirements.

Council will continue to engage with government around the water reform programme.

Roading investment levels will be reviewed every three years in line with the government priorities for financial assistance. These priorities typically manifest in the Government Priority Statement.

1.5.1 Strategic Direction

Councils' strategic direction to ensure that its decisions address both the priorities and long and short-term issues are documented in Section 7 of this 30-year infrastructure strategy. Analysis of available options for the key issues has resulted in the following strategies:

Table 1-3: Strategic Responses

Core Infrastructure	Strategic Response
Roading and Footpaths	• Increased traffic volume and weight, and end of asset useful life require increased work programme. • Ongoing investment to maintain drainage to provide network resilience. Investigation required to study network capacity and deficiencies to cope with storm events. • Key bridges, where cost benefit is demonstrated, to be considered for upgrade. • Road Safety is a critical outcome. Removing deficiencies by intersection upgrades, providing guard railing, and increase carriage width to improve inadequate LoS.
Three Waters	• The future Water Servicing options are currently being developed as part of the Water Services Delivery Plans as required by legislation. These Plans are required to be submitted to the Secretary for Local Government by 3 September 2025.
Water Supplies	• The application of a prioritised approach to the replacement of aged water mains to ensure impacts on customer level of service is limited. Priority is given to those assets displaying poor condition, high failure rates, high criticality and that have potential to affect a high number of consumers. Comprehensive asset management planning is required to maintain a satisfactory level of service. Hydraulic modelling findings are also being utilised for short term renewals as well as long-term investment for optimised renewals, LoS and Growth project planning. Associated with the modelling work there will be initiatives to improve the asset data. • Council will continue its programme of water scheme treatment plant upgrades in order to achieve compliance with the current DWSNZ and DWQAR. Where the proposed water reform programme indicates that legislative change is likely and alternative compliance pathways become available, Council will review the programmed upgrades to ensure that cost-effective compliance is achieved. For example,

Core Infrastructure	Strategic Response
	completion of enabling works early, followed later by alternative compliance methodology. Council remains committed to achieving compliance concurrently with the Three Waters Reform process. • Progressively renew and upgrade our rural townships to address leakage and access to water services for growth.
Wastewater	• The application of a prioritised approach to the replacement of aged and poor condition sewer mains to ensure impacts on customer level of service is limited. Priority is given to those assets displaying poor condition, high failure rates, high criticality and that have potential to affect a high number of consumers. Comprehensive asset management planning is required to maintain a satisfactory level of service. • A combined approach to replacing aged and poor condition pipes alongside continuing inflow investigation to provide capacity and resilience in the wastewater network. • The inflow investigation has highlighted the worst catchment for inflow and infiltration (I&I). This catchment is the focus of near-term efforts to reduce I&I through a comprehensive CCTV programme and physical investigation.
Stormwater	• Implementation of the approved Stormwater Management Plan as part of the global discharge consent. The global consent has conditions that will affect the future management of the stormwater activity.

The following chart summarises the key infrastructure issues and responses:

Table 1-4: Key Infrastructure Issues and Responses

Core Infrastructure	Years 1-3	Years 4-10	Years 11-20	Years 21-30
Roading and Footpaths	Improved drainage Drainage Renewals Flood resilience Reseals Pavement Rehabilitation Reduced funding available for footpaths	Improved drainage Drainage Renewals Flood resilience Reseals More Pavement Rehabilitation Reseals Safety improvements	Improved drainage Drainage Renewals Flood resilience Reseals Increased Pavement Rehabilitation Safety improvements	Improved drainage Drainage Renewals Flood resilience Reseals Increasing Pavement Rehabilitation Safety improvements
Water Supplies	Treatment upgrades Pipe renewals Govt. water reform Consenting	Pipe renewals / LoS Improvements Consenting	Pipe renewals / Growth / LoS improvements	Pipe renewals/ Growth / LoS improvements
Wastewater	Reduce Inflow Pipe renewals Network Extensions Govt. water reform	Reduce inflow Pipe renewals Network Extensions	Monitor I&I Pipe renewals Network Extensions Consenting WWTP and necessary upgrades Construction WWTP	Monitor I&I Pipe renewals Network Extensions
Stormwater	Urban improvements Action Global Consent Govt. water reform	Urban improvements	New Global Consent Network Extensions Capacity and Quality Improvements	Network Extensions Capacity and Quality improvements

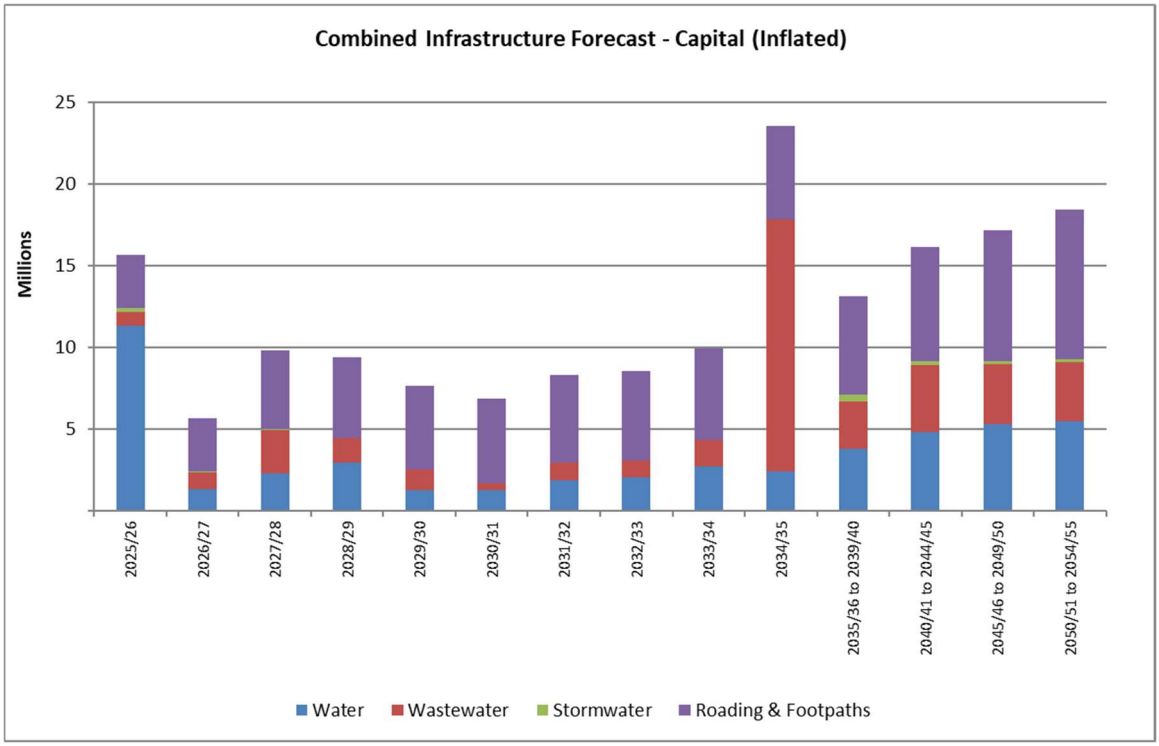
Some of the Roading and Footpaths network is located on difficult soils which are poorly drained. The network is impacted by storm-related flooding, that is predicted to gradually increase as a result of climate change. This has the potential to affect the fit for purpose performance of the network resulting in pavement defects where drainage and ground conditions are poor. New designs and renewals take the effects of climate change into consideration.

Road Safety is a critical outcome. Removing deficiencies and other Road safety initiatives contribute to the reduction of the negative effects of vehicle crashes.

1.6 30 Year Strategy Financial Investment Forecasts

The table below summarises the 30 year capital investment forecasts (inflated):

Figure 1-1 30 Year Capital Investment Forecasts



Note: Years 2035 – 2055 represented as 5-year annualised average budgets and a Berl 4.1% 20-year average annual inflation index for years 11-30.

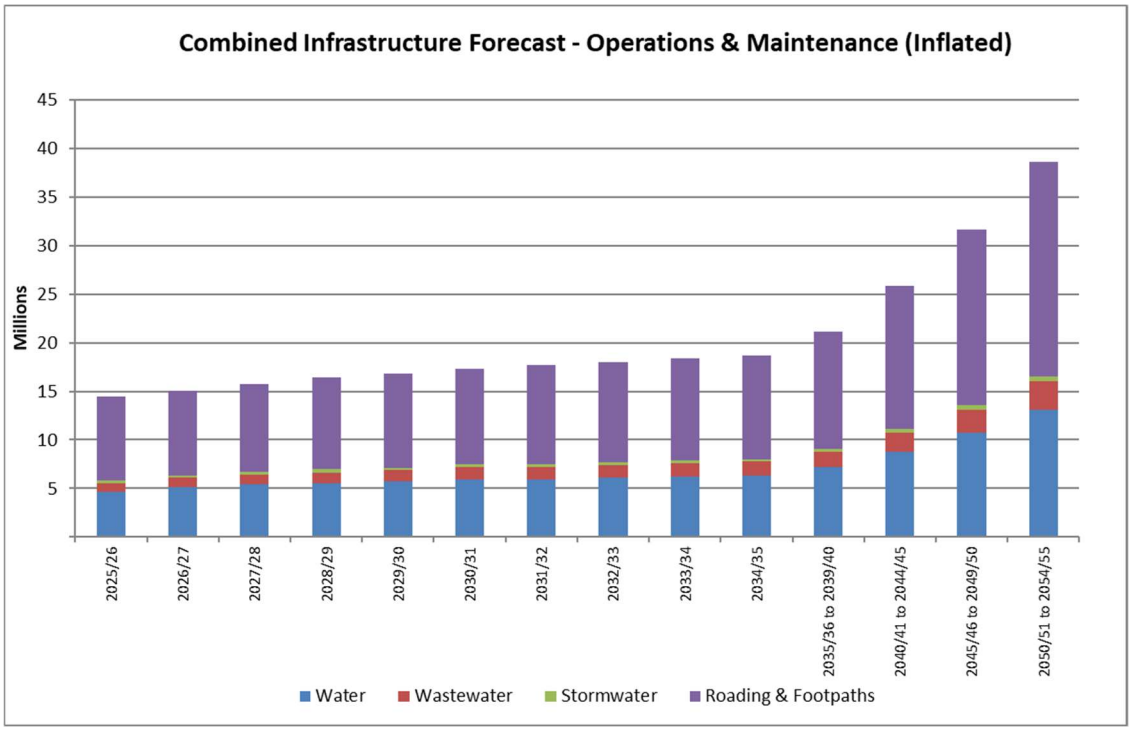
Total Core Infrastructure Capital Investment Summary:

10 Year Total: $105.64M

30 Year Total: $430.21M

The table below summarises the 30 year infrastructure operations and maintenance investment forecasts (inflated):

Figure 1-2: 30 Year Infrastructure Investment Forecasts



Notes:

- *Operating expenditure includes internal expenditure*
- *Years 2035 – 2055 represented as 5-year annualised average budgets and a Berl 4.1% 20-year average annual inflation index for years 11-30.*

Total Core Infrastructure Operational Investment Summary:

10 Year Total: $168.50M

30 Year Total: $755.10M

The combined forecast for operations and maintenance as well as capital identified is considerable. The Core infrastructure costs (total 10 Year Average $24M/year) is a challenge for a small community and smart planning is vital.

Waimate District Council continues to face the challenge of aging pipe assets that are both due, or are overdue, for replacement and a roading network that is under pressure. This infrastructure is vital to the economy of the district and beyond, along with the wellbeing of the community. Obtaining accurate information relating to the performance and condition of assets is required in the short term. This will prevent unnecessary, and early, replacement of assets that currently appear due or indeed overdue.

A focus on asset criticality and prioritisation will be key to investing where it will provide the greatest benefit. This information will need to be clearly communicated as there could be differing views on priorities and timing.

Council is currently considering additional analysis of the reticulated networks through fault records which will also assist with prioritisation. Balancing age, criticality, risk appetite and overall performance with affordability is also a challenge over the 30-year timeframe.

The Government Policy Statement on Land Transport 2024-34 has a reduced focus on footpaths and consequently reduced available funding.

The theoretical backlog for Roads and Footpaths indicates approximately a $35M shortfall over the ten-year period. For the same period, the Three Waters theoretical / budgeted renewal shortfall is negligible. The end-of-life assets are still being utilised and are performing adequately.

Whilst there is a theoretical backlog of renewals in both the Three Waters and Roading activities, the following improvements will help to reduce this in future iterations of this strategy, correcting useful lives by completing the following:

- Componentisation of bridges and footpaths where there is significant variance in the useful lives of beams, decks and piles, and between sealed surfaces and basecourse respectively. Individual component renewal can extend the useful lives of assets through capitalised maintenance.
- Condition and Performance grading. The inclusion will allow more detailed assessment of proposed renewals and enable the theoretical backlog to be reduced as a result.
- Reassess useful lives. Where condition and performance records are adequate and failures are not being observed, useful lives for some assets can be extended.

Council currently utilises empirical assessment to achieve the above and to ensure investment / intervention is appropriate.

Alongside this infrastructure strategy, the financial strategy outlines the options for funding these infrastructural challenges. The financial strategy details funding sources and differing rating methodologies. Council will also need to carefully consider how it funds growth in an equitable manner, alongside being focussed on continuing to support the district and its residents. This means providing a fair balance of revenue methods and providing fit for purpose services.

2.0 INTRODUCTION

This is Waimate District Council's fourth Infrastructure Strategy. It has been prepared from Council's 2024 suite of Activity Management Plans and the proposed 2025-2034 Long Term Plan.

This Infrastructure Strategy should be read in conjunction with other relevant Council documents including the LTP, Financial Strategy and the AMPs.

The issues discussed in the Strategy reflect the current legislative environment and the communities' priorities across the district.

The financial forecasts are estimates and the reliability of the forecasts decreases beyond ten years and towards the thirty-year planning horizon.

2.1 Strategy Extent

This Infrastructure Strategy covers the Waimate District Council's core infrastructure (Roads and Footpaths, Water, Wastewater and Stormwater). The core infrastructure is the most critical area of investment for the Council, representing around half of the annual expenditure and close to 90% of all the value of all Council's assets.

Figure 2-1: Infrastructure Annual Expenditure

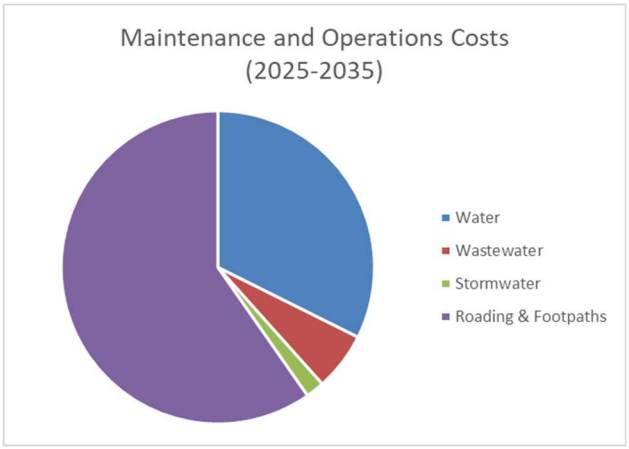
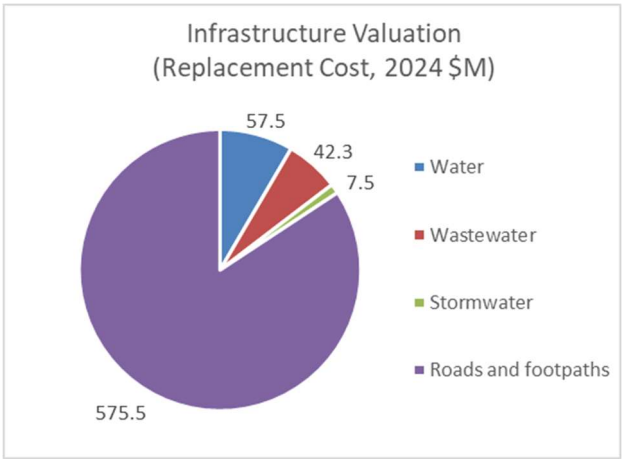


Figure 2-2: Asset Valuation (Replacement Cost)



2.2 Strategy Layout

The Strategy document format and corresponding LGA sections are detailed below:

Table 2-1: Strategy Layout

Strategy Section		LGA 2002 (Section 101B)
1	Executive Summary	
2	Identifies the purpose of the Infrastructure Strategy and the core infrastructure included in this strategy	2(a) and 6
3	Describes the district/city and illustrates the linkage between strategic documents	2(a)
4	Describes the core infrastructure, its condition and performance while recording the significant assumptions, risks and mitigation	2, 3(e), 4 (c) & (d)
5	Discusses the emerging issues that will impact on the core infrastructure assets	3 (b) to 3(e)
6	Discusses Council's response to the emerging issues and the significant decisions to be made during the term of this strategy	2(b), 4(b)
7	Identifies the response options for the significant issues and documents the benefits, cost, timing and funding source	2(b); 3(a) to (e) & 4(a) to (c)
8	Identifies the costs associated with the actions proposed	4(a)

2.3 Strategy Purpose

2.3.1 Purpose of Infrastructure Strategy

The purpose of the Infrastructure Strategy is to:

- Provide residents of the Waimate District with a clear view of the state of Council's core infrastructure, priorities for investment over the next 30 years
- Provide robustness around long term budgets for the core Infrastructure Assets
- Discuss significant issues for the Core Infrastructure Assets across a 30 year time frame and provide a strategic direction that reflects the current legislative environment and the communities' priorities across the district

Section 101B of the Local Government Act states:

Infrastructure Strategy:

- *A local authority must, as part of its long-term plan, prepare and adopt an infrastructure strategy for a period of at least 30 consecutive financial years.*

The stated purpose of the Infrastructure Strategy is to:

- *Identify significant infrastructure issues for the local authority over the period covered by the strategy; and*
- *Identify the principal options for managing those issues and the implications of those options.*

Section (6) defines infrastructure assets as including:

a) existing or proposed assets to be used to provide services by or on behalf of the local authority in relation to the following groups of activities:
    - *i. water supply:*
    - *ii. wastewater and the treatment and disposal of sewage:*
    - *iii. stormwater drainage:*
- *flood protection and control works:*
    - *iv. the provision of roads and footpaths; and*

b) any other assets that the local authority, in its discretion, wishes to include in the strategy.

2.3.2 Infrastructure Drivers

Changing Land Use
Expansion of reliable irrigation has underpinned historic changes to land use within the district. This is mainly in dairy, dairy support and high value crops. This in turn has and will continue to support local service industries and value-added manufacturing. The expansion of reliable irrigation has and is expected to result in a stable but small population increase and ongoing demand of the Council's supporting infrastructure (Roading, Water, Wastewater and Stormwater).

As the demands on the networks increase and the remaining land-use changes occur, it is clear that levels of service will be challenged. It is timely to acquire knowledge and invest to protect the existing asset and ensure that levels of service remain satisfactory.

The report 'Economic Impact of Freshwater Management Policies on the Waimate District' April 2021 (Rationale, Benje Patterson) notes small but important potential changes in land use and farming practices as a result of national freshwater management changes and requirements. These changes may also have a small ongoing detrimental effect on district employment. Council will work closely with various stakeholders to quantify and monitor these effects over the coming years.

The Coalition Government has signalled changes to the National policy Statement for Freshwater in 2025/26. Council will monitor the impacts of these changes.

Population Growth

Population growth (or decline), age structure and distribution (spread), and the number and type of households and families in our district affects:

- Demand for local services
- The willingness and ability of ratepayers to pay for them
- Representation and participation in local democracy
- Interactions between human activity and the environment

It is therefore essential for asset management planning that sound information is used regarding population, demographic and geographic change.

In the past Waimate District Council have used the growth projections prepared by Stats NZ. The Council now looks for a more in-depth understanding of what their district might look like over the next 30 years. Council now commissions these growth projections from an external specialist. The 'Waimate District Council Growth Projections, August 2020' reporting prepared by Rationale enabled the organisation to understand the future growth in their district. This work was updated in 2023 with the 2020 assumptions closely followed, Council has more confidence in the future projections.

This is discussed in section 5.1, along with other challenges.

2.3.3 Infrastructure Capacity

Capacity assessments by the Council in relation to the land use and population growth drivers indicate that:

- Hydraulic rearrangement and pressure management for the urban water supply both assists in extending the useful life of the network assets and will provide additional near-term capacity to cater for growth. Interventions later are likely to be required and are reliant on demand monitoring.
- National freshwater reforms may cause future land use change that results in different farming practices, water use requirements and transport network use.
- Regional planning frameworks may well require council to intervene in locations where infrastructure does not already exist. For example, to enable continued development in areas such as Glenavy where it has become increasing difficult to consent wastewater discharges.
- The urban Wastewater network and treatment plant have adequate capacity to cater for the increased population (additional 2,900 persons available) provided stormwater inflow and groundwater infiltration can be reduced. Notwithstanding this could change in 2036 when the treatment process will need reconsenting.

2.4 Waimate District Core Infrastructure Assets

The core Waimate District Infrastructure Assets are tabled with 2024 replacement values below:

Table 2-2: Waimate District Infrastructure Assets

Asset	Description	Replacement Value ($M)	% of total
Water Supply (2024)	Water extraction, treatment and distribution	57.5	8.4%
Wastewater (2024)	Sewage collection, treatment and discharge	42.3	6.2%
Stormwater (2024)	Stormwater collection and discharge	7.5	1.1%
Roads and Footpaths (2022)	Roads, streets, bridges, footpaths, and related infrastructure	575.5	84.3%
TOTAL		**$ 682.8M**	

There are some very minor infrastructure assets associated with flood protection and control works including the Elephant Hill drainage channel. Council considers that there will be no increased demand for this service over the next thirty years.

2.4.1 Infrastructure Performance

General comments on the condition and performance of the district's infrastructure in terms of the services required at a network level is presented in the table below:

Table 2-3: Core Infrastructure Condition and Performance

Core Infrastructure	Condition	Performance
Roads and Footpaths	Condition records and current assessments are thorough, being detailed and collected over 33 years. Improvements are planned to collect more complete age and remaining life data for all assets. The network is generally sound but is beginning to show signs of deterioration as age and demands increase.	Increasing traffic volumes and heavy vehicle axle weights are expected to increasingly impact on the district's core road network, particularly where ground conditions are weak, and drainage is poor.
Water Supply	Council considers that the majority of the network (source, treatment and distribution) is in good condition but there are portions of the reticulation that are coming to the end of their useful life.	Council considers that the networks operate effectively and efficiently. Some performance issues are noted due to undersized pipework which cannot meet fire flow requirements or where level of service can be comprised under maximum demand scenarios.
Wastewater	There are areas of the network (collection, treatment and disposal) that are showing signs that they are coming to the end of their useful life. This is particularly evident with original pipework in Waimate town where there is inflow occurring.	Council considers that the majority of the network operates effectively and efficiently but there are sections of the network that have a lower level of performance during heavy rain or unusually high groundwater conditions.
Stormwater	The network is relatively new (with extensive useful lives) and in good condition.	There is only limited stormwater piping, there is some surface flooding of streets in parts of Waimate town which are being progressively addressed. Some work is required to better understand overland flow paths. Performance and Capacity gains are targeted early in the planning period.

2.4.2 Risks to Core Infrastructure Asset Performance

Table 2-4: Risks to Core Infrastructure Asset Performance

Core Infrastructure	Risks
Roads and Footpaths:	The assets are well understood and there is relevant information on bridge structures. Risks have been considered at a South Canterbury level ,with neighbouring authorities, to understand wider network resilience. Council intends to calculate waterway capacity of bridges and major culverts to better understand the network resilience to flood events. The New Zealand Transport Agency is planning to survey all networks and provide additional condition and performance information to aid decision making in the future.
Water, Wastewater and Stormwater:	The main risks that would affect the performance of the Infrastructure Assets have been identified using a Risk Summary Table initially developed in 2011. This indicates that there are a small number of high or significant risks, but these have appropriate mitigation. Critical reticulation assets were identified in 2017 to ensure they are prioritised appropriately. Hydraulic modelling further informs appropriate interventions. Council is involved with the Government on the NZ water reform initiatives that have been progressed since 2021. Local Water Done Well is the current government initiative supported by three key pieces of legislation. The final bill will establish the enduring settings and will be introduced in December 2024.

2.4.3 Other Activities

Council undertakes other activities beyond the 'core infrastructure' described in this Infrastructure Strategy.

In time the Parks and Recreation assets and Community Buildings may be added to the above list of core infrastructure as Council's plans for those activities mature.

2.4.4 Infrastructure Achievements

Over the last three to six years Council has:

- maintained, replaced, constructed our infrastructure
- identified and investigated issues
- undertaken strategic actions – including the adoption of Waimate District Council's Consolidated Bylaw (2018) and the Council's Procurement Strategy (2023)

The following details improvements achieved over the last number of years with our core infrastructure:

Table 2-5: Infrastructure Strategy Improvements Achieved

Core Infrastructure	Improvements achieved
Roads & Footpaths	Waimate District Council's participation in the Aoraki (South-Mid Canterbury) Roading Collaboration has aided cost-effective service delivery in line with industry best practice. A Bridge Replacement and Upgrade Strategy has been developed. Council has assessed condition of all culverts on the roading network, verifying RAMM data and estimating construction dates and condition of culverts. This information is being used to form a replacement and maintenance programme. Council has continued to manage a modest and affordable programme of "Low Cost-Low Risk" work category Minor Safety Improvements as part of Capital Programmes, which include targeted seal widening, geometric improvements, enhanced delineation on horizontal curves and footpath extensions.
Water Supply	Council has completed water treatment plant upgrades within the urban area and has partially completed upgrades of Cannington-Motukaika and Waihaorunga Rural Water Supplies. Pipe renewals, in both the rural and urban schemes, are ongoing. The data capture and condition assessment programme is ongoing.
Wastewater	Pipe and manhole renewals are ongoing. The data capture and condition assessment programme is ongoing. Catchment hydraulic modelling has been completed and has provided information on I&I. This has allowed more targeted investigations and renewals.
Stormwater	Pipe and manhole renewals are ongoing. The data capture and condition assessment programme is ongoing. Catchment modelling is ongoing. Future interventions are likely to provide capacity within the existing infrastructure alongside addressing localised flooding.

3.0 WAIMATE DISTRICT

3.1 Waimate District Council

The Waimate District Council consists of a Mayor, eight Councillors and 60.11 FTE staff (as at 30 June 2023). The Mayor and Councillor positions are subject to election every three years. The elected representatives are drawn from four wards: Waimate Urban, Lower Waihao, Hakataramea-Waihaorunga, and Pareora-Otaio-Makikihi.

Ultimate responsibility for all of the District Council's activities rests with the Council. The Council decides the range of services and activities to be provided, sets the policy for these services and activities, delegates the implementation of these to the staff via the Chief Executive and monitors their performance. While the Council can exercise its initiative in deciding its aim and policies, it must do this within the laws, regulations and requirements set down by central government. A local authority may only undertake those activities which are permitted by central government.

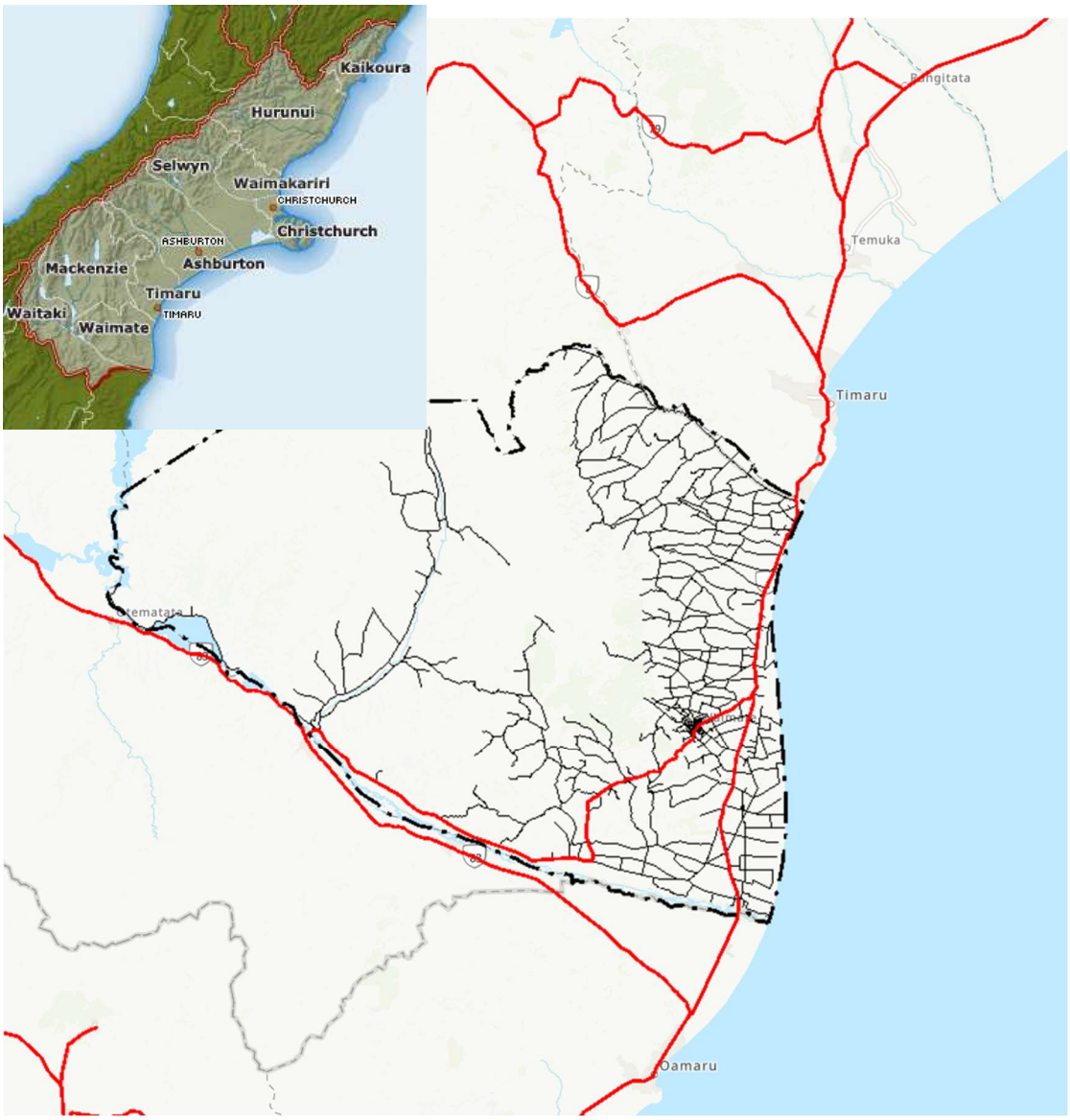
As well as providing services itself, the Council may contract for services to be provided and assist many other organisations through membership, technical services, advice and financial grants.

The District Council is headed by the Chief Executive, who is responsible to the elected Council for ensuring the effective, efficient and economic management of all the Council's activities.

To carry out its function the Council is divided into the following departments:

- Roading
- Utilities
- Parks and Reserves
- Regulatory and Compliance
- Corporate Services
- Community and Strategy

Figure 3-1: Map of Waimate District



3.2 District Overview

Situated around 180 kilometres south of Christchurch, Waimate District is in the central South Island. The district is bounded by the Pacific Ocean in the east, west of the shores of Lake Benmore and the Pareora and Waitaki Rivers at the north and south respectively. The district covers around 3,582 square kilometres and has a population of approximately 8,121 (2023 census).

The district is characterised by a variety of farming and forestry activities. Crop and livestock farming are the main activities on the fertile plains and easy hills with more extensive grazing on less fertile or steeper country. Dairying has expanded significantly with dairying now occupying the majority of the areas served by irrigation schemes.

Waimate town is the largest population centre, with the balance located in smaller communities and the rural area. Waimate town is the only community served with comprehensive Water and Wastewater schemes.

A summary of the Infrastructure Assets owned and operated by Council within the Water, Wastewater, Stormwater and Roads and Footpaths activities is provided below:

Table 3-1: Core Infrastructure Asset Information Summary

Core Infrastructure	Asset Information Summary
Roads and Footpaths:	- 651 kilometres of sealed roads - 674 kilometres of unsealed roads - 49.1 kilometres of kerb and channel - 63 kilometres of footpaths - 3,544 culverts • 182 bridges (plus an additional 90 concrete fords)
	The total replacement cost = $575.5M
Water:	• one on-demand water scheme (Waimate) - six rural water supplies - Water source: Water is obtained from a range of surface and groundwater sources through the means of river intakes, infiltration galleries and bores - Water treatment plants - Storage: reservoirs, tanks - Pump stations - 910 km of pipe - Approximately 6,000 consumers • Note: The Cattle Creek (a very small and private scheme) and Hakataramea water supply (managed and operated by an incorporated society) are not considered in this Infrastructure Strategy • WDC has a 14% share in the Downlands water scheme operated by Timaru District Council and provides water to properties within the Waimate District including St Andrews. This scheme is not included in this Infrastructure Strategy.
	The total replacement cost = $57.5M

Core Infrastructure	Asset Information Summary
Wastewater:	• Only Waimate town is served by a community Wastewater scheme - 1,832 connections - 43.7 km of gravity pipe and rising mains - 2 pump stations - 1 Wastewater Treatment Plant (WWTP) and disposal system - Treated effluent disposal - discharged on to land
	The total replacement cost = $42.3M
Stormwater:	• 1 urban Stormwater network for Waimate - 10km pipe and open drains • sumps and soakholes • disposal points (natural waterways, soakpits and streams)
	The total replacement cost = $7.5M

3.3 Strategic Context

3.3.1 Community Outcomes

The Strategy aims to give effect to Council's strategic direction as set out in the Community Outcomes. Linkages to each activity are shown below:

Table 3-2: Community Outcome Linkages to Activity

Community Outcomes		Transportation	Water, Wastewater and Stormwater
Thriving Community	A district that provides infrastructure for economic activity A District that encourages development	Efficient and safe roading networks are part of the essential infrastructure for economic growth and development	The timely provision of utility services is essential to supporting growth
Safe and Healthy People	A place where people are safe in their homes, work and public spaces Our services, infrastructure and environment enhance quality of life A resilient and adaptive community in a changing environment	Safe and well maintained roads, footpaths and road verges promote safety of all road users, including pedestrians	Protecting the communities from drinking water-related health issues and providing firefighting capability Protects public health by ensuring a safe and viable wastewater disposal system Flooding is adequately managed within urban areas We have reliable, efficient and well-planned water, wastewater and stormwater infrastructure that meet the needs of residents allowing for climate change impacts over the life of the assets
Sustainable District and Environment	A district that is enhanced through sustainable and diverse development We value the natural environment, biodiversity and landscapes Our heritage is valued and protected	A well-managed roading network minimises the adverse effects on the environment	We preserve the environment by ensuring the quality and quantity of discharges to the environment Water is used efficiently and in a sustainable manner

Community Outcomes		Transportation	Water, Wastewater and Stormwater
Active, Diverse and Supportive Community	District assets provide recreation and leisure choice We celebrate and support the good things in our community All people are encouraged to participate in our democratic	Roads and footpaths are an important element in both the residential and rural environment for physical exercise, leisure activities and social contact	

3.3.2 Financial Strategy

The Infrastructure Strategy and Financial Strategy form the pillars that support the Consultation document, and each document has been developed in close cooperation with each other.

3.3.3 Infrastructure Strategy & AMPs

Waimate District Council has a well-developed suite of Asset Management Plans that are formally updated on a three yearly cycle. The Roading AMP is audited by NZTA and integrates the business cases required to support transportation investments.

This Infrastructure Strategy integrates with the AMP's and is developed following the AMP update cycle. This Infrastructure Strategy draws on the detailed analysis contained in the AMPs to set out the high-level issues and investment projections.

3.3.4 Significance and Engagement Policy

Waimate District Council developed and maintains a Significance and Engagement Policy to determine the significance of issues within the District, and how to align Council engagement with the public based on the degree of significance of the issue.

The Significance and Engagement Policy identifies the assets covered by this Infrastructure Strategy as Strategic Assets:

- Roading Networks and connected Infrastructure
- Wastewater Networks and Treatment Plants
- Stormwater Networks
- Water Treatment, Storage and Supply Networks

3.3.5 Assumptions

Council has developed and adopted a set of assumptions to assist with the strategic planning process. Where there is some uncertainty about the issues that affect planning and what response Council chooses, an assumption with qualifications on likelihood and impact are made.

There are also many risks that are associated with long term delivery of services to the community through infrastructural assets. There is a high level of uncertainty about these risks and the impact that could be expected. These are also discussed under assumptions and in Section 5.

Holme Station Corner Bridge in Flood conditions

The table below summarises the significant assumptions that have been applied for the purpose of producing forecasts for the Roads and Footpaths, Water, Wastewater and Stormwater. An indication of the risk, impact and level of uncertainty associated with each assumption has been provided. Where the level of uncertainty associated with an assumption has been assessed as 'Medium' or 'High', Council's proposed action to reduce uncertainty and mitigate the level of risk has been presented.

Table 3-3: Significant Forecasting Assumptions 2025 – 2034

ASSUMPTION	SOURCE	RISK	LEVEL OF UNCERTAINTY	IMPACT OF VARIATION	MANAGEMENT OF RISK	ACTIVITY
POPULATION CHANGE						
The Waimate District population will observe a gradual increase by 4.7% between 2023-2033. It is assumed that this increase will generate a relative impact on population-related metrics, such as the quantity of rateable properties.	Rationale Ltd.	Population growth either significantly exceeds that of the projected percentage or is significantly below the projected percentage.	Low	If population accelerates significantly above the given assumption, existing infrastructure may not be suitable to cope with the extra demand.	Council will monitor population measures provided for the district, and will respond to significant variations to assumptions, where possible.	All activity groups
DEMOGRAPHIC CHANGES						
Between 2020-2030, the district's population retains its comparatively high mean age, while observing a gradual and mild reduction in the mean age level, with the age group of 45-49 years likely to be the most frequent by 2030.	Rationale Ltd.	The demographic make-up of the Waimate District changes significantly.	Low	If the district's demographic changes significantly from the predicted range, the existing infrastructure and services may not meet the needs of the relevant demographic classes.	Council will monitor demographic measures provided for the district and respond to significant variations to assumptions, where possible.	All activity groups
OIL PRICE						
Oil prices are increasingly volatile and more likely to be influenced by global political and economic events. Prices are unlikely to reliably stabilise for any extended length of time.	WDC	There is a risk that fuel demand will be different to that assumed, and that significant changes in market price occur with greater frequency and/or greater severity.	Moderate	Increased fuel costs would have a particular impact on the costs of road maintenance, renewal, and improvement. This may affect Council's ability to carry out planned work without additional funding. It may also increase demand for alternative methods of transport.	Council will monitor the impact of fuel price on spending and aim to optimise spending.	All activity groups

ASSUMPTION	SOURCE	RISK	LEVEL OF UNCERTAINTY	IMPACT OF VARIATION	MANAGEMENT OF RISK	ACTIVITY
CLIMATE CHANGE						
Changes in our climate are projected to continue into the future. Projections indicate that Canterbury should expect warmer temperatures, an increasing number of hot days, and wider temperature ranges. The frequency of extreme weather events is projected to increase along with associated costs to economic, community wellbeing and environmental sustainability as a result.	WDC Ministry for the Environment National Institute of Water and Atmospheric Research Environment Canterbury	Environmental changes may accelerate at a rate higher than predicted, and/or the socio-economic consequences of adaptation measures may exceed the anticipated range.	Moderate	If environmental changes were to accelerate, Council's infrastructure assets would be significantly impacted. This would result in further modifications or more regular repairs to relevant assets.	Council is currently undertaking the development of a climate resilience strategy aimed at consistent monitoring, active mitigation, and pre-emptive adaptation efforts. This strategy is being built on the foundation of extensive engagement, education, and feedback to address the unique challenges faced by Waimate. This engagement includes seven community workshops based on key economic, social, environmental, and cultural activities relevant to Waimate's future.	All activity groups
EMISSIONS TRADING SCHEME (ETS)						
The Emissions Trading Scheme (ETS) and the price of New Zealand Units (NZU) will remain relatively stable in response to changes in legislation that affect price certainty and unit limits.	Ministry for the Environment	There is a risk of legislative change, which could result in costs being higher or lower than assumed.	Low	Should the impact of the scheme exceed significantly from the given assumption, budget for additional cost may need to be considered.	Council will monitor the development of relevant legislation and review the impact of any significant changes in the Annual Plan.	Investments and Finance

ASSUMPTION	SOURCE	RISK	LEVEL OF UNCERTAINTY	IMPACT OF VARIATION	MANAGEMENT OF RISK	ACTIVITY
NEW ZEALAND TRANSPORT AGENCY (NZTA) WAKA KOTAHI REVENUE						
Roading expenditure comprises a significant portion of Waimate District Council's total expenditure, therefore using a significant portion of Council's overall rate take. The majority of Council's expenditure on the district's roads is eligible to attract an assistance rate from the Waka Kotahi New Zealand Transport Agency (NZTA). The funding assistance rate received by Council for qualifying roading expenditure for maintenance and improvement projects is set at 68% for 2024-27.* It is further assumed that this funding assistance rate will remain unchanged over the life of the Long Term Plan as there is no indication that NZTA will modify the criteria used to establish these rates. Council also assumes that funding priorities indicated in Government Policy Statements on Land Transport will remain consistent through future bids during the life of the plan.	Waka Kotahi NZTA	The subsidy rate may be subject to change, along with any variation in criteria for inclusion in subsidized works programmes.	Moderate	Changes to the funding priorities of NZTA remain outside Council control. Minor variations would impact significantly on forecasted financials.	Any impact of changes to the NZTA funding assistance rate will be applied to the relevant Annual Plan.	Roading and Footpaths
*Normal funding assistance rates | Waka Kotahi NZ Transport Agency (nzta.govt.nz)						
EMERGENCY EVENT						
Disruptive or destructive emergency events such as earthquakes, extreme weather events, and pandemics may occur to damage, disable, or destroy community infrastructure (for example, district roads, bridges, water supplies, among others), or community activities. It is further assumed that the cost of correcting such damage is met either by Council or its insurance providers, or by possible special government grants.	WDC NEMA National Emergency Management Advisor Ministry for Environment	Inability to recover or continue business following a major event. Inability to provide intended level of service to affected areas.	Moderate	If a major emergency event did occur, Council have some insurance for its infrastructure, and assistance would be offered from Central Government. To pay for additional emergency work not covered by the above, Council would increase internal/external borrowings.	Council undertakes business continuity plans for its own operation and coordinates Civil Defence planning for the district. In doing so, Council attempts to prepare itself and the district for such events.	All activity groups
LEGISLATION CHANGES						

ASSUMPTION	SOURCE	RISK	LEVEL OF UNCERTAINTY	IMPACT OF VARIATION	MANAGEMENT OF RISK	ACTIVITY
Council's operations are guided by central government legislation and policy directives that set the framework for decision making and service delivery. Council operates under the assumption that while minor legislative changes and evolving policy guidance are expected, major changes that could significantly alter Council operations are infrequent. When such changes do occur, they are typically communicated well in advance, allowing time for necessary adjustments.	Central Government Taituarā	That major legislative changes are introduced on short notice or due to an unforeseen event that would require Council to alter its existing business operations.	Low	Council would need to implement changes at a pace faster than anticipated. Accelerated timeframes would likely result in increased costs of implementation.	Council maintains consistent communication with central government, regulatory bodies, and local government support organisations to ensure that proposed changes that may impact Council operations are identified and anticipated at the earliest stage.	All activity groups
NEW ZEALAND WATER SERVICE DELIVERY						
Delivery of 3 waters assets and infrastructure (water, sewer, and stormwater) remain under Council ownership for the life of the plan.	WDC Central Government	Legislation changes under urgency in Parliament that must be implemented immediately.	High*	Changes are required to be implemented more quickly than anticipated.	Council closely monitors any and all developments and responds accordingly.	Rural Water Supply, Urban Water Supply, Sewer, Stormwater
* While the uncertainty of this assumption is high, the potential impacts of this uncertainty on financial estimates cannot yet be determined until further information becomes available through the production of a water service delivery plan. The development of a Water Services Delivery Plan and its submission to DIA may provide additional clarity; however, aspects of this uncertainty regarding implementation are likely to continue into the development of the LTP 2027-2037.						

ASSUMPTION	SOURCE	RISK	LEVEL OF UNCERTAINTY	IMPACT OF VARIATION	MANAGEMENT OF RISK	ACTIVITY
RESOURCE CONSENTS						
The conditions of resource consents held by Council may be changed, and that Council will obtain the necessary resource consents for planned projects.	WDC	There is a risk that resource consent conditions are altered significantly.	Moderate	Advanced warning of likely changes is expected. The financial effect of any change to resource consent requirements would depend on the change.	Council will monitor the development of relevant standards and review the impact of any significant changes.	Roading and Footpaths, Sewerage, Stormwater, Waste Management, Urban Water Supply, Rural Water Supply
WATER SCHEMES VIABILITY						
Elevated pricing for rural water schemes, and particularly the stock water element, may result in the relinquishment of water allocations. Sourcing of stock water from existing irrigation schemes may mean that pricing within individual supplies increases as a result.	WDC	Increased cost associated with water allocations under existing and proposed service delivery models	Moderate	No new irrigation schemes are currently planned within the district and the existing command areas only cover a small proportion of the overall footprint of the Waimate District Council Rural Water Supplies.	Council will monitor sold volumes (allocations) and review charging structures if necessary to mitigate the overall risk for the district. Council is actively engaging with central government to mitigate the impact of this risk.	Rural Water Supply
USEFUL LIVES OF SIGNIFICANT ASSETS AND DEPRECIATION						
The useful lives of significant assets are based on the useful lives as identified in the Statement of Accounting Policies. It is assumed that these useful lives are retained for the nine year period covered by this Long Term Plan. In practice useful lives are re-assessed at a minimum of every three years in line with asset revaluations.	New Zealand Asset Management Support WDC asset revaluations	There is a risk that assets will wear out more quickly than forecasted and require replacement earlier than planned	Moderate	If assets require replacement earlier than first considered, capital expenditure projects may need to be brought forward.	Regular review of the useful life of each asset category reduces the risk of significant inaccuracies.	Roading and Footpaths, Rural Water Supply, Urban Water Supply

ASSUMPTION	SOURCE	RISK	LEVEL OF UNCERTAINTY	IMPACT OF VARIATION	MANAGEMENT OF RISK	ACTIVITY
REVALUATION OF NON-CURRENT ASSETS						
Council conducts asset revaluations every three years. The Long Term Plan assumes the following percentage increases to book value, for each of the following class of assets: Land: +10% Buildings: +15% Utilities (Water Schemes, wastewater, stormwater, Sanitation): +8% Roading: +6%	WDC	Revaluations will somewhat differ from those projected carrying values of the assets and depreciation expense.	Moderate	Variation in values is expected to be low unless the valuation methodology changes.	Regular revaluation of non-current assets reduces the risk of significant valuation shifts.	Roading and Footpaths, Rural Water Supply, Urban Water Supply, Sewerage, Property
FUNDS FOR FUTURE REPLACEMENT OF SIGNIFICANT ASSETS						
In general, councils have some flexibility in the policies they may set with regard to sources of funds for the future replacement of significant assets. Council's flexibility centers on whether we should collect depreciation monies from ratepayers during the lifetime of the asset to build up a reserve that can fund the replacement of the asset when it comes to the end of its useful life, or when the asset comes to the end of its useful life which would compel Council to rely on borrowed money to replace it. Council considers that the most sensible approach is to collect depreciation during the life of an asset, therefore having reserve funds on hand at the time replacement is needed. See Council's 'Revenue and Financing Policy' and the 'Financial Strategy'.	WDC	Sufficient funds may not be available to pay for planned asset replacement.	Low	Funds may need to be borrowed or rated for, which may be a burden to either the Council or ratepayers in the future.	Council develops Asset Management Plans that determine the timing of asset replacements. Council uses these to forecast and prepare for future funding requirements.	Property, Roading and Footpaths, Rural Water Supply, Urban Water Supply, Sewerage

ASSUMPTION	SOURCE	RISK	LEVEL OF UNCERTAINTY	IMPACT OF VARIATION	MANAGEMENT OF RISK	ACTIVITY
RETURN ON INVESTMENT- ALPINE ENERGY						
Alpine Energy's FY2025-2027 Statement of Corporate Intent includes a Dividend Policy whereby the Directors are not indicating any dividends to shareholders for the 3 years of the SCI. It is therefore assumed that the company will not provide a return to shareholders for the duration of the 2025-34 Long-Term Plan.	WDC Alpine Energy	There is a risk that returns on investments will be higher than forecasted.	Low	Should dividends be received, Council finances will be more favourable than anticipated to the extent of that dividend. This unanticipated income would contribute to the activity reserve balance and may result in positive cash-flow enabling consideration of higher levels of service	No management of this risk is required as any variation will be favourable to Council.	Investments and Finance
FORESTRY ASSETS VALUES						
It is assumed that the forestry asset values will increase annually over a rotation cycle of 30 years.	WDC Laurie Forestry Limited	The value of forestry assets may sharply increase or decrease.	Low	A change in the value of the forestry asset will change Council's financial performance in the year of change occurring. However, it will not have a direct impact on the level of rates or expenditure.	Annual revaluation of forestry reduces the risk of significant valuation shifts.	Investments and Finance

ASSUMPTION	SOURCE	RISK	LEVEL OF UNCERTAINTY	IMPACT OF VARIATION	MANAGEMENT OF RISK	ACTIVITY
CAPITAL DELIVERY						
Council plan to deliver 100% of all capital projects over the life of the Long-Term Plan. The financial model was developed based on this assumption.	WDC	There is a risk that improved levels of service in the Water Supply area will be delayed. There is a risk that the capital projects will not be completed in any given year and carried over to subsequent years.	Moderate	Variation to planned improved levels of service for the Water Supply area, where any delay in projects relating to Drinking Water Standards New Zealand compliance will result in maintaining current levels of service. If projects are not completed on time, or are deferred, there may be reduced operational costs and depreciation expense impacts. There could also be an increase in required budget to complete the project if delayed.	Council is aware of material sourcing and has addressed this issue by sourcing materials early and maintaining stock levels. Procurement is now completed through the Government Electronic Tenders System (GETS), notifying the wider contracting / consulting market of upcoming projects. In anticipation of a large capital programme in Year 1 (2026), a portion of these projects are likely to be tendered by 30 June 2025, or very early in the 2025/26 financial year. Due to the nature of the rates smoothing profile for the Water Supply activity, any delay in project completion will have no effect on the funding and rates required as planned.	Water Supply & all other activities

ASSUMPTION	SOURCE	RISK	LEVEL OF UNCERTAINTY	IMPACT OF VARIATION	MANAGEMENT OF RISK	ACTIVITY
RETURN ON INVESTMENTS - OTHER						
It is assumed that Council's cash investments will generate returns from 2.38% - 3.77% based on the current economic climate. It is further assumed that the returns from Council's forestry investments for the duration of the Long Term Plan will be reflective of market conditions present at the time of preparation of this document.	Bancorp Laurie Forestry Limited WDC	Returns on investments will be higher or lower than forecasted.	Moderate	Higher interest rates received on cash investments or increased investment income could result in positive cash-flow enabling consideration of higher levels of service or reduced expenditure. Council does not heavily rely on interest revenue for running its operations, therefore the impact of lower investment returns on delivery of Council services would be minimal. Similarly, Council does not use its forestry investment returns to fund other Council operations or activities.	Council will manage its external investments to optimise returns (as described in the Council's Investment Policy). Council will monitor the forestry market's conditions and review the impact of any significant change in forecasted returns through each subsequent Annual Plan process.	Investments and Finance

<table>
<tr><th>ASSUMPTION</th><th>SOURCE</th><th>RISK</th><th>LEVEL OF UNCERTAINTY</th><th>IMPACT OF VARIATION</th><th>MANAGEMENT OF RISK</th><th>ACTIVITY</th></tr>
<tr><td colspan="7">INFLATION</td></tr>
<tr><td>Council, along with many other New Zealand Councils, calculates and applies inflation factors to its Long-Term Plan budget forecast, using predictions of future inflation levels from New Zealand [economic research company] Business and Economic Research Ltd (BERL).
<table>
<tr><th>Year</th><th>Roading
%</th><th>3 Waters
%</th><th>Other Operational Expenditure
%</th><th>Capital Expenditure
%</th></tr>
<tr><td>June 2026</td><td>3.0</td><td>2.5</td><td>3.2</td><td>3.4</td></tr>
<tr><td>June 2027</td><td>3.1</td><td>2.8</td><td>3.2</td><td>3.3</td></tr>
<tr><td>June 2028</td><td>3.0</td><td>2.5</td><td>3.0</td><td>3.2</td></tr>
<tr><td>June 2029</td><td>2.7</td><td>2.1</td><td>2.7</td><td>2.9</td></tr>
<tr><td>June 2030</td><td>2.6</td><td>2.0</td><td>2.6</td><td>2.8</td></tr>
<tr><td>June 2031</td><td>2.5</td><td>2.0</td><td>2.4</td><td>2.5</td></tr>
<tr><td>June 2032</td><td>2.4</td><td>2.0</td><td>2.3</td><td>2.4</td></tr>
<tr><td>June 2033</td><td>2.4</td><td>2.0</td><td>2.2</td><td>2.2</td></tr>
<tr><td>June 2034</td><td>2.2</td><td>2.0</td><td>2.1</td><td>2.1</td></tr>
</table></td><td>Business and Economic Research Ltd.</td><td>Inflation will be higher or lower than anticipated.</td><td>Moderate</td><td>A difference between the inflation rates experienced and those assumed will change the cost base of Council, and therefore impact funding requirements.</td><td>Council has endorsed the rates produced by BERL as the most appropriate basis for accounting for the impact of inflation and preparing the Long Term Plan.

In the event of significant changes to the underlying costs supporting work in the activity areas, mitigation planning will feature in the Annual Plan. Activity areas, mitigation planning will feature in the Annual Plan.</td><td>All activity groups</td></tr>
<tr><td colspan="7">BORROWING COSTS</td></tr>
<tr><td>Interest costs are estimated to range between 3.09% - 5.24% This refers to the expected external cost of debt facilities where costs are not known and are required to be projected. Loan repayments are forecast to be repaid on the last day
of the financial year, therefore interest is incurred for the
full year.</td><td>WDC

Bancorp

Local Government Funding Agency</td><td>Interest rates will differ significantly from those estimated.</td><td>Moderate</td><td>If borrowing costs are greater than those assumed, Council may need to increase its rates or reduce its expenditure. Conversely, lower costs may mean rates required to fund Council operations are lower than they would otherwise have been.</td><td>Council will monitor its applicable interest rates and adjust through the Annual Plan process to reflect a level best aligned to its actual anticipated external borrowing rate, utilizing the advice of its Treasury Advisors.</td><td>Investment and Finance</td></tr>
</table>

ASSUMPTION	SOURCE	RISK	LEVEL OF UNCERTAINTY	IMPACT OF VARIATION	MANAGEMENT OF RISK	ACTIVITY
UNIDENTIFIED LIABILITIES						
It is assumed that Council does not have any unidentified liabilities.	WDC	There is a risk of an unexpected liability occurring. For example, a claim against Council.	Low	If an unidentified liability arises it may increase Council's expenditure. This risk is mitigated by the Council's Risk Management and Insurance Policies.	Regular review of liabilities reduces against the risk of items being unidentified.	All activity groups

Remaining useful lives are discussed in greater detail within the associated asset management plans where the financial impacts associated with the predictive modelling of asset renewal are indicated. Deviation from the predictive model is discussed in terms of asset performance, criticality, renewal, smoothing, and risk (see Lifecycle Management Plans, Water, Wastewater, Stormwater, and Roading AMP's).

3.3.6 Linkage With Other Documents

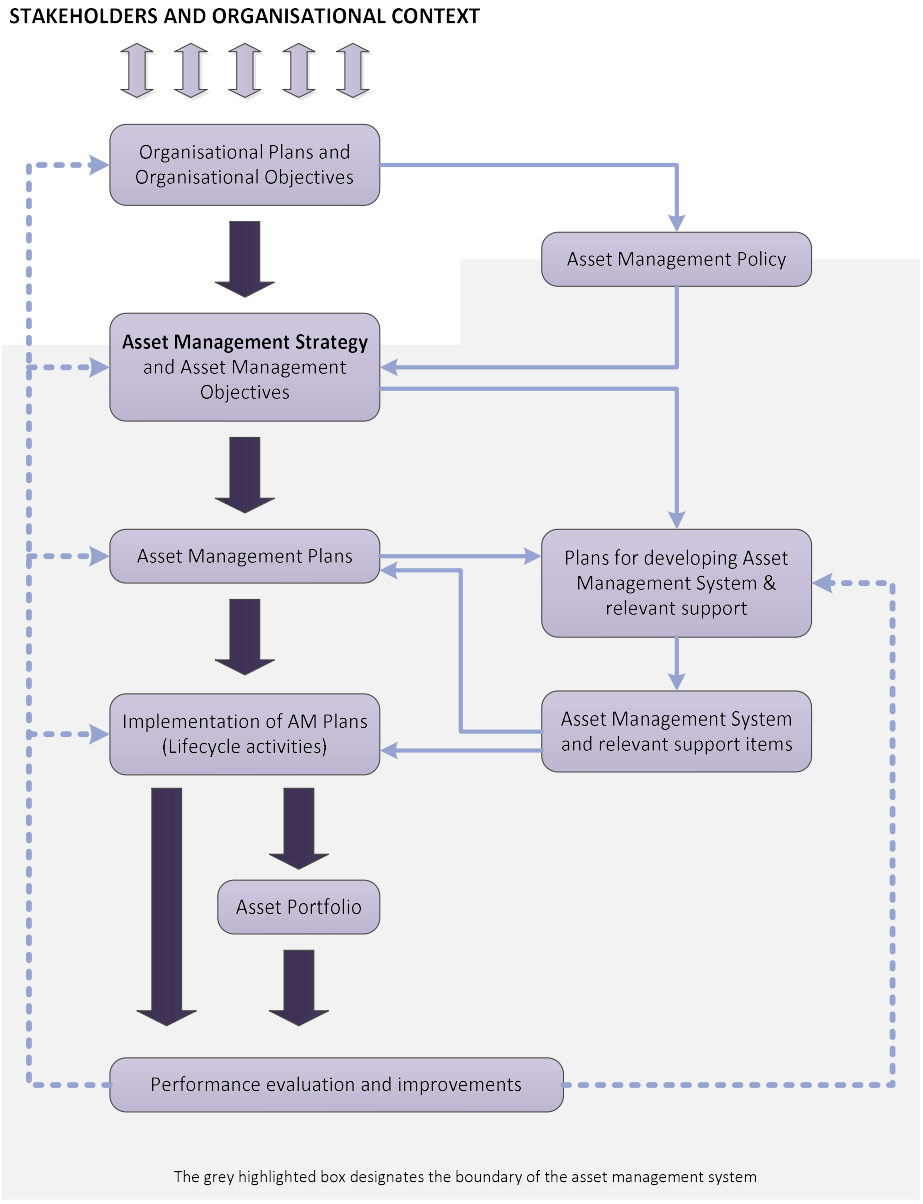
The Infrastructure Strategy and Financial Strategy underpin the Long Term Plan.

The Infrastructure Strategy and the Financial Strategy are key strategic documents for the future of Waimate District. The infrastructure strategy outlines the issues that are expected to arise and how Council proposes to respond to them, while the financial strategy discusses the financial implications and the funding options. In concert, the two are refined to produce the community consultation document. The manner of consultation is defined by the Significance and Engagement policy (and legislation). The Significance and Engagement policy also defines strategic assets that are discussed (not all) in the Infrastructure Strategy.

Figure 3-2: Infrastructure Strategy – Supporting Long Term Plan 2025-2034

The following diagram illustrates the planning regime from an ISO55000 perspective, showing the Asset Management 'system'.

Figure 3-3: Infrastructure Strategy – Linkages with other Documents



4.0 CORE INFRASTRUCTURE

The core infrastructure included in this strategy is:

- Roads and Footpaths
- Water Supply – urban and rural
- Wastewater (Waimate urban)
- Stormwater (Waimate urban)

4.1 Asset Description

4.1.1 Roads & Footpaths

The Roads and Footpaths assets include all Council owned road reserves, roads, streets, bridges, footpaths and related infrastructure (road drainage, signs and streetlights) within the District as shown below.

There is also 120km of state highways throughout the district, where Council has limited involvement. There are regular liaison meetings to discuss issues with the Waimate District State Highways.

Table 4-1: Roads and Footpaths Asset Information

Asset Description	Units	Quantity
Roads Total	km	1,325
Urban Roads - Sealed	km	49.1
Urban - Unsealed	km	6.3
Rural - Sealed	km	601.9
Rural - Unsealed	km	668.0
Bridges	No m	182 3,352
Footpaths	km	62.7
Traffic Services		
Signs	No	4,752
Posts	No	1,826
Street Lighting	No	493
Drainage		
Culverts	No m	3,544 37,226
Concrete Fords	No m	90 1,750
Kerb and Channel & Dish Channel	km	49.1

4.1.2 Water Supply

There are seven water schemes owned and operated by Council. This consists of one urban scheme, Waimate, and the remaining six are rural restricted schemes of Cannington Motukaika, Hook Waituna, Lower Waihao, Otaio Makikihi, Waihaorunga and Waikakahi.

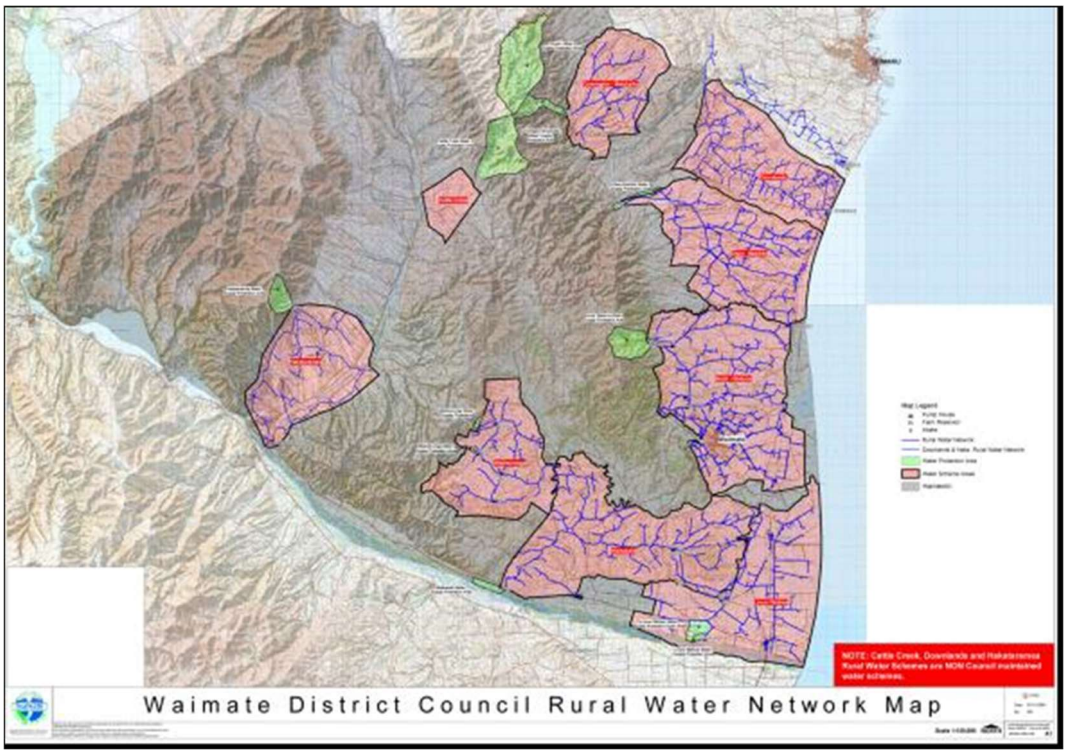
The Hakataramea Rural Water Scheme is currently managed by the scheme users through an Incorporated Society. This scheme may revert to revised management arrangements following the completion of government water reforms. There is still uncertainty as to the requirements of the Local Water Done Well legislative suite. This scheme is not included in the Infrastructure Strategy at this revision.

A summary of the water scheme assets owned by Council is given in the table below:

Table 4-2: Water Asset Information

Scheme	Treatment Plants	Supply Bores	Pumping Stations	Storage Reservoirs	River Intakes	Water mains (kms)
Waimate Urban	2	2	2	1	0	68.5
Cannington Motukaika	1	0	1	1	1	54.7
Hook Waituna	1	0	4	4	1	256.2
Lower Waihao	1	1	3	1	0	132.2
Otaio Makikihi	1	1	1	1	0	158.9
Waihaorunga	2	0	4	4	2	65.4
Waikakahi	1	0	3	2	1	174.3
Total	**9**	**4**	**18**	**14**	**2**	**910.1**

Figure 44-1: Waimate Rural Water Network-



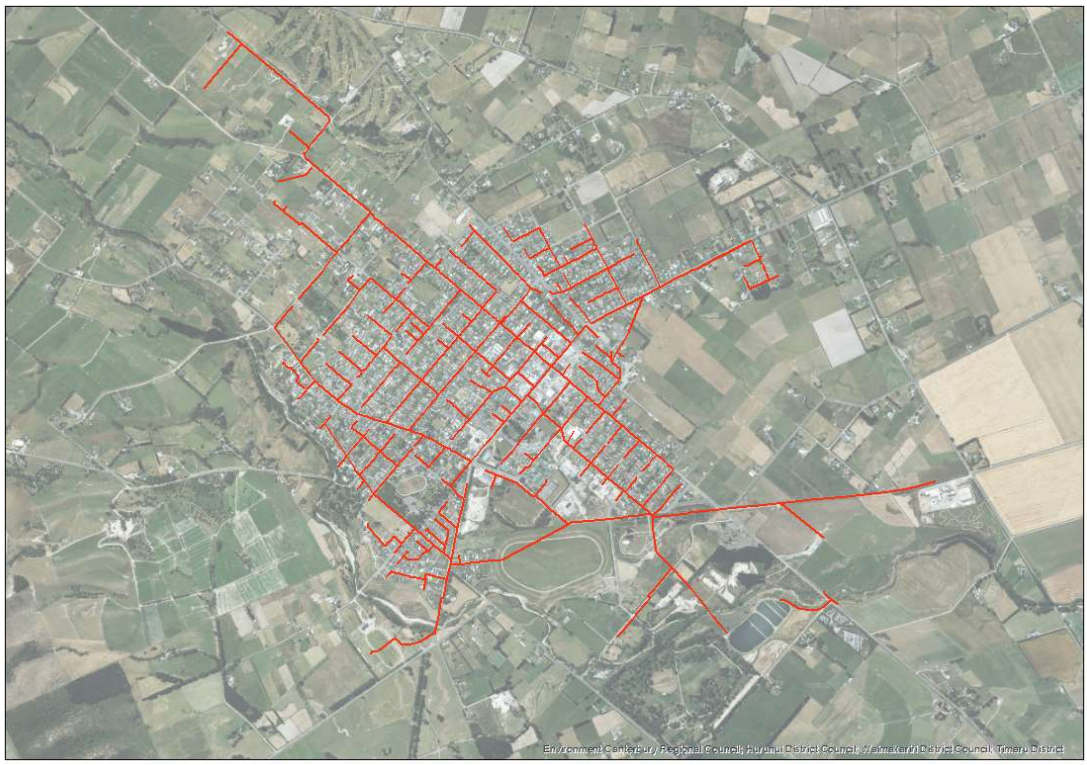
4.1.3 Wastewater

The Council collects wastewater from approximately 1832 connected properties throughout the Waimate urban Wastewater system. Customers include residential, community and industrial/commercial.

A summary of the Wastewater assets owned by the Council is presented below:

Table 4-3: Wastewater Asset Information

Asset Description	Units	Quantity
Reticulation:		
Gravity pipes	m	35,798
Rising mains	m	4,782
Laterals *(estimate – mapping is incomplete)*	No.	18,710
Inspection Pits/Poo Pits	No.	30
Cleaning Eyes	No.	50
Valves	No.	42
Capped Ends	No.	34
Manholes	No.	322
Plant:		
Wastewater Treatment Plant	No.	1
Pump Stations	No.	2



4.1.4 Stormwater

Council owns and operates one significant stormwater system, the system servicing the Waimate Town with an estimated population of 3,590 people. Council owns and operates other systems in St Andrews, Makikihi and Morven townships, but these are considered very minor consisting of some kerb and channel.

With continued changes in weather patterns and rainfall event intensity as a result of climate change Council continues to monitor, model and develop an understanding of the effectiveness of the stormwater system to provide required levels of service. Overland flow paths require further investigation and protection.

Council recently obtained a resource consent (global) for the discharge of stormwater from the Waimate urban area. Modelling and interventions are likely to see increased capacity within the existing infrastructure and reductions in peak flows. The associated Stormwater Management Plan will ensure that contaminants are managed.

A summary of the Stormwater assets, owned by Waimate District Council is shown below:

Table 4-4: Stormwater Asset Information

Asset Description	Units	Quantity
Sump/Grate	No	38
Pit	No	18
Manhole	No	79
Headwalls	No	11
Wingwall	No	2
Open drains	m	4,009
Pipes (inc. Culverts and Syphons)	m	10,042

4.1.5 Other Infrastructure

Council has considered the inclusion of other asset groups in this strategy, particularly parks and reserves, and solid waste. A large portion of the parks and reserves portfolio is operations focussed, and there are few assets involved in the solid waste activity. Both of these activities have sufficient planning within their respective activity management plans. Maintaining the overall liveability of the district remains a core service delivery function of Council.

As work develops around the identification of overland flow paths and the potential use of parks and reserves for the management of stormwater, it may be appropriate to include Parks and Reserves in the future. There is also uncertainty as to whether stormwater will be transferred as part of the Local Water Done Well programme.

4.2 Asset Performance and Condition

Performance is tracked against a suite of levels of service which are developed through the Long Term Plan process and reported through the Annual Plan. The Mandatory Performance Measures are central to these.

The Long Term Plan should be referenced for these levels of service, and activity management plans for further detail.

Detailed discussion on asset performance and condition is included in the respective Activity Management Plans. The following comments are high level and general only:

- Water reticulation condition and performance is good but can be expected to be challenged as pipes near the end of their expected life.
- The condition and performance of asset components at the treatment plants and pump stations are all considered by Council's engineers as good to excellent.
- Wastewater reticulation condition and performance is adequate and is more frequently challenged as pipes near the end of their expected life.
- Most of the Wastewater Treatment Plant is relatively new; Council engineers consider the condition of the WWTP assets to be excellent. The performance of the WWTP is considered to be very good.
- Performance of the WWTP is likely to be challenged when the associated resource consents are renewed in 2036.
- There are no formal pipe condition ratings for the stormwater pipe assets, but the Council engineers consider the condition of the stormwater reticulation in general to be in good order. The stormwater network is relatively limited and proven to be inadequate for some locations during times of heavy rainfall. The most significant challenges have already been addressed. There is a focus on creating capacity within the existing infrastructure in the near-term as part of the global consent requirements.
- The roading network is in good order, and levels of service are structured around the One Network Road Framework.

There is some backlog for roading renewals which are being addressed through works programmes. Backlog is less defined for water assets but addressed adequately through criticality and condition assessments driving works programmes. The acquisition of data relating to condition and performance (and therefore useful life) will confirm whether the apparent backlog is real. Operational observations would indicate that the frequency of blockages and watermain failures does not support a significant backlog or deferral issue.

The Asset Management Information System(s) output the forward work renewals and highlight those assets that effectively have reached the end of their useful life (based on age alone). Staff assess the performance of these "end of life assets" to establish whether renewal is required based on historic performance and / or maintenance interventions. In most cases the assets are performing adequately, and their renewal is deferred on available information. This empirical process will be replaced with a more formal assessment once additional asset data is available.

Smoothing the renewal profile over a ten-year period is one mechanism that addresses actual backlog in the shorter term.

4.3 Asset Data Quality

Council has been progressively improving data to underpin robust decision making. Each activity management plan contains an assessment of data suitability and a programme for improvement.

Roading data quality is considered through the REG data quality programme.

An overview of data quality is provided in the infrastructure valuations below and is further discussed in Section 6.6.

Table 4-5: Assessment of Confidence Levels

Asset	Valuation year	Quantity	Replacement Cost	Life Expectancy	Condition
Water Assets	2024	B	B+	B+	C
Wastewater Assets	2024	B	B+	B+	C
Stormwater Assets	2024	B	B+	B+	C
Roading Assets	2022	A/B	A/B	B	B

5.0 MANAGING CHALLENGES AND EMERGING TRENDS

The task of building, operating and maintaining these infrastructure assets in an **affordable** and **sustainable** manner is becoming increasingly difficult in view of:

- Demographic changes
- New technologies
- Continually changing legislative environment (Central and Regional Government) and associated increasing standards
- Environmental impacts
- Infrastructure resilience
- Aging of infrastructure
- Climate change impacts
- Economic Activity
- Affordability
- Skill Shortage (potentially worsening due to industry structure uncertainty and staff retirements)

5.1 Demographic Changes

Population growth (or decline), age structure and distribution (spread), and the number and type of households and families in our district affects:

- Demand for local services
- The willingness and ability of ratepayers to pay for them
- Representation and participation in local democracy
- Interactions between human activity and the environment

In the past Waimate District Council have used the growth projections prepared by Stats NZ. The Council are now looking for a more in-depth understanding of what their district might look like over the next 30 years. This, coupled with the delayed release of the Stats NZ projections following the 2018 Census, led the Council to commission growth projections from an external specialist. The 2020 projections were developed using a bottom-up approach. Individual growth drivers for each Statistical Area 2 (SA2) were developed using migration for employment and lifestyle as the basis of the modelling. The 'Waimate District Council Growth Projections, August 2020' reporting prepared by Rationale enabled the organisation to understand the future growth of the district. The growth projections were tested and updated in 2023.

A 'Medium' growth scenario has been recommended as the expected level for growth in the next 30 years. This information is used to inform key projects, plans and strategies.

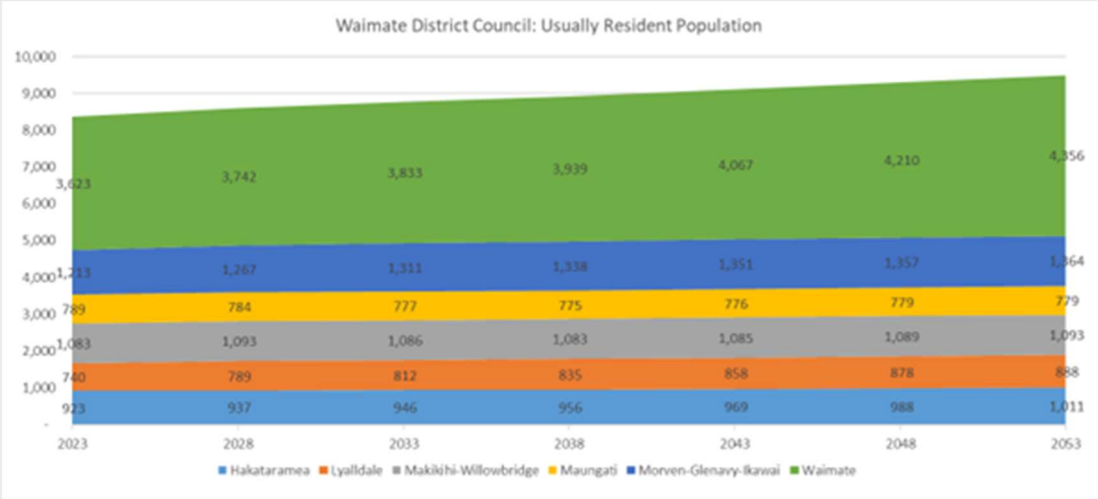
Population Projections (Usually Resident Population)

Over the next 30 years, the usually resident population of Waimate District is predicted to increase slightly.

The average age of Waimate District's population is older than the national average of 39.4 years (Stats NZ). Looking across the district, Waimate town has a significantly older average age of 49.7 years in 2022 when compared to the outlying rural areas. This makes sense as people are living and working on farms then moving into Waimate for retirement later in life.

The recommended medium growth scenario projects the District's population to increase to 9,500 by 2053. Based on the medium projection, the population of the Waimate District is projected to grow by, on average, 0.4% a year between 2023 and 2053. This is less than the projected 1.0% a year growth rate of the Canterbury region and New Zealand's total population.

Figure 55-1: Waimate District Population Projections 2023-2053-



With a low base population, significant industrial projects are capable of having an impact on the District's population. Further expansions of both Oceania and Fonterra Dairy Factories in the next ten years could increase job opportunities in the District. Whilst not predicted, future irrigation schemes have potential to see an increase in on-farm jobs in the District and the creation of secondary jobs as a result of increased agricultural production in wider South Canterbury. Should all of these projects proceed the District may see population growth trending more towards the high projection. While this may appear conservative, it is important that Council does not overestimate population growth and the associated infrastructure provision required. It also reflects that a considerable number of employees from both dairy factories live in either the Waitaki or Timaru Districts. Given the close proximity of both Timaru and Oamaru to these sites, increased job opportunities may not necessarily equate to comparable population increase in the Waimate District. Growth over the next 30 years of between 1,000 and 2,000 people is likely.

Natural Decrease

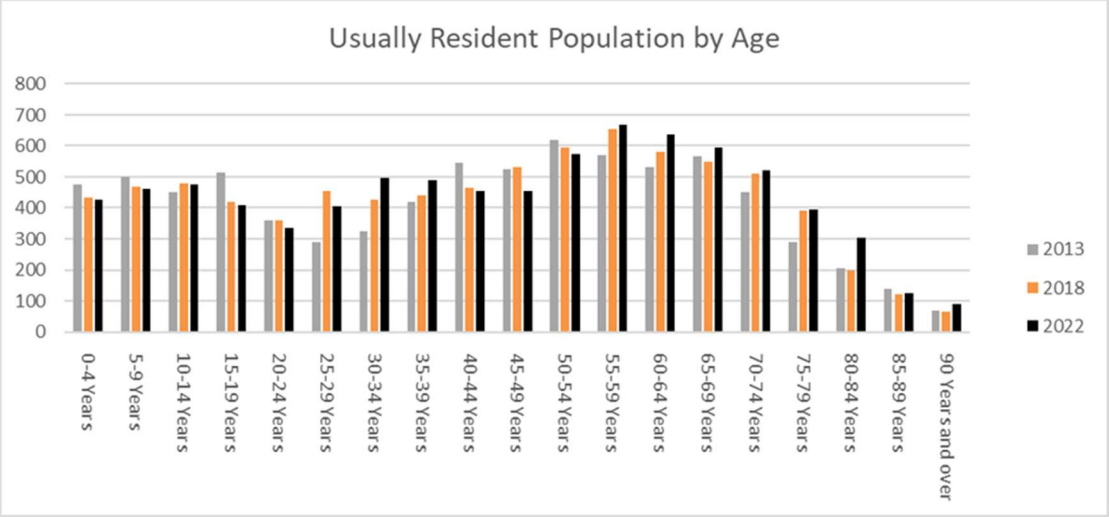
As New Zealand's population continues to age, more and more areas will consistently experience a natural decrease, i.e. more deaths than births (three territorial authorities experienced this between 2010-2014). For areas that have traditionally relied on a natural increase for population growth (including Waimate), a natural decrease will mean a shrinking population unless offset by net migration gains. Within the Waimate District, natural decrease is projected to occur around 2040. Without net migration gains, the population will probably decrease.

Larger proportion of older people

Under the medium projection series, Waimate District is projected to have a higher proportion of older people (aged 65 and over) in 2053 compared with 2022. This increased population operating on fixed incomes introduces financial and funding challenges.

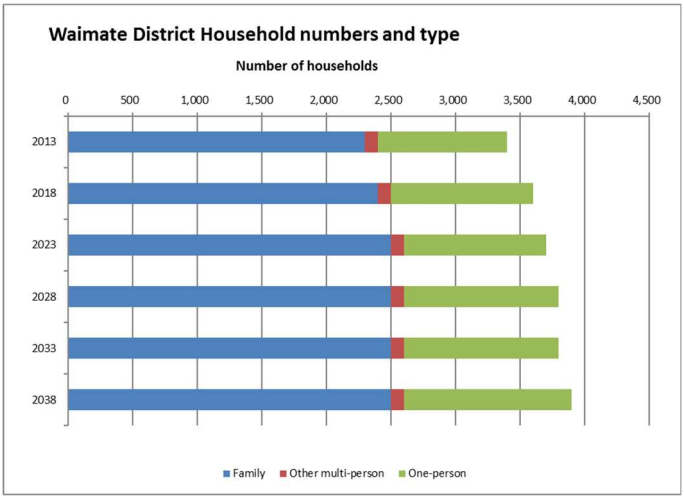
In 2013 19.5% of the Waimate District population was aged 65 and older.

Figure 55-2: Waimate District's population by Age – 2013, 2018, 2022. Source: NZ Stats-



Households

The number of households in the District is projected to increase by an average of 0.4% a year between 2023 and 2053.



The average household size in the Waimate District is set to decline from 2.3 people in 2013 to 2.1 people by 2038. This will follow the national and regional trends (NZ - decrease from 2.64 people to 2.50 people. Canterbury - decrease from 2.4 to 2.3 people).

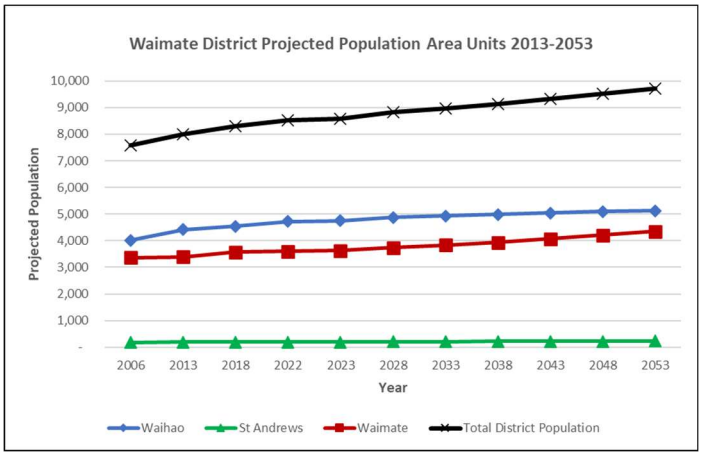
The number of one-person households is the fastest growing household type in the Waimate District, increasing by an average of 1.2% per year.

By 2038 33% of Waimate households will be one-person households and over 15% of Waimate residents will be living alone.

Population Location

Statistics New Zealand provides population breakdowns for area units within territorial authority boundaries for the period 2006-2053. For the Waimate District the area units provided are for urban Waimate, St Andrews township, and Waihao (covering the rest of the district).

The graph below shows gradual growth in the Waimate and Waihao areas, with growth flattening from 2038 onwards. Waimate DC will continue to monitor growth trends though subsequent census periods to confirm these trends.



5.2 New Technologies

From a strategic point of view the Council seeks to remain aware of technological advances primarily through staff involvement in industry developments via training, seminar attendance and directly from suppliers. Internal development of new technologies is advanced through collaboration between staff and with other councils. Staff maintain strong relationships with professional staff from neighbouring councils.

The greatest change expected to be observed in the district is intensification of farming, balanced by changes in farming practices driven by national freshwater reforms, zero emissions targets and environmental sustainability objectives.

Should large scale irrigation projects proceed in the future, the construction period will impact local roads and possibly the demand for rural water supplies. However, observations from other areas indicate the establishment of irrigation schemes have not reduced the demand for reticulated stock water. Pricing may well influence this trend in the future however.

Agricultural intensification is usually associated with a step change in transportation demand on the existing roading network. Carting in stock foods and pasture supplies as well as carting out product will usually involve more truck movements using larger trucks.

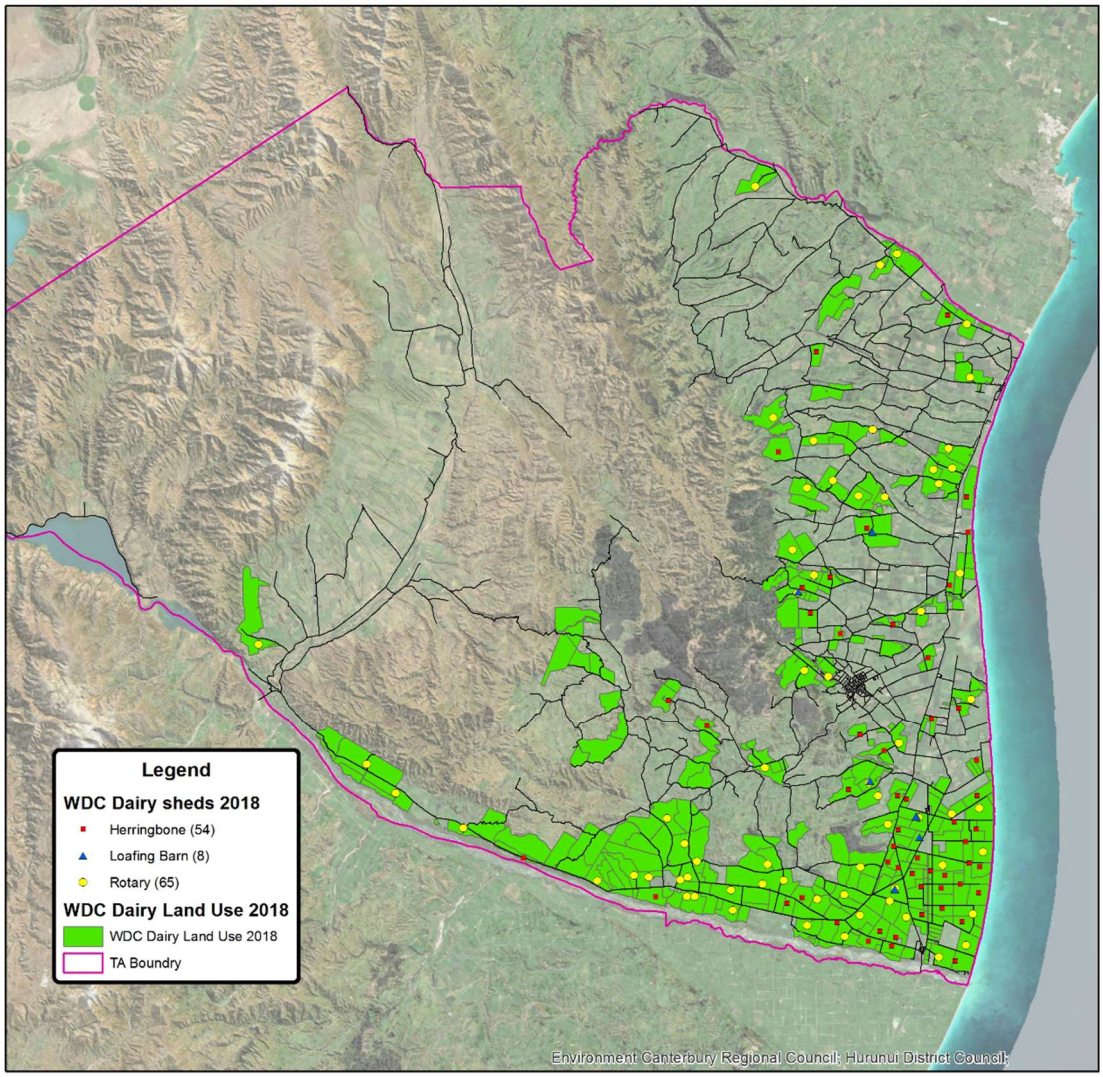
This (potential) irrigation related intensification change may be offset by national freshwater management, zero emissions and environmental sustainability objectives. In total these changes could result in a decline in farm profitability, farm expenditure and lower farm related employment. Farming practices and land use would adapt, with perhaps a resurgence of sheep and beef farming and less dairy conversion. This could lead to less traffic movements on rural roads. The potential adaption is not currently known. Council will continue to monitor trends and adapt infrastructure investment as required.

The environmental effects of land use have recently manifested as challenges within the district. Elevated nitrates (and other chemicals) are now a challenge which must be met with innovative technological solutions.

Harvesting machinery is very large and some roads in the District are unsuitable for the dimensions or mass of such vehicles.

Figure 55-3: Dairy Farmland in the Waimate District 2018-

Total Dairy 46,189.01 Hectares (2018) (41,531,00ha, 2014)



The vehicle fleet is expected to change in the next 30 years. In 20-30 years, electric vehicles are expected to be common, as well as some autonomous vehicles. Changes to freight movement is likely, but the technology is still developing.

5.3 Changing Government Priorities and Legislative Environment

National Policy Statement for Freshwater Management

The Government has commenced the process to replace the National Policy Statement for Freshwater Management. This process is expected to take between 18 to 24 months.

National Policy Statement on Urban Development 2020

The National Policy Statement on Urban Development Capacity 2020 (NPS-UDC) sets out the objectives and policies for providing development capacity under the Resource Management Act 1991.

The amended NPS-UDC came into effect on 20 August 2020 and has been described by the government as “the core issue of increasing land supply”.

The NPS-UDC directs local authorities to provide sufficient development capacity in their resource management plans for housing and business growth to meet demand.

Development capacity refers to the amount of development allowed by zoning and regulations in plans that is supported by infrastructure. This development can be “outwards” (on greenfield sites) and/or “upwards” (by intensifying existing urban environments).

Development infrastructure means the extent they are controlled by a local authority or council-controlled organisation, network infrastructure for water supply, wastewater, or stormwater, and land transport.

WDC sits as a Tier 3 urban environment.

“Tier 3 local authorities are strongly encouraged to do the things that tier 1 or 2 local authorities are obliged to do under Parts 2 and 3 of this National Policy Statement, adopting whatever modifications to the National Policy Statement are necessary or helpful to enable them to do so“

Consideration and implementation through the upcoming District Plan review.

Taumata Arowai, and the Water Services Act

The Water Services Regulator Act 2020 established a new regulatory body, Taumata Arowai, to oversee, administer and enforce a new and strengthened drinking water regulatory system. Taumata Arowai also have a national oversight role to improve the environmental performance of stormwater and wastewater networks.

The role and operating regulations of the water services regulator are under review by the government at the time of the writing of this Infrastructure Strategy. Council will continue to monitor changes and interact with Taumata Arowai in accordance with these requirements. Taumata Arowai continues to refine the compliance framework through guidance from the coalition government. Effectively a “fit for purpose” approach will soften the impact on lower risk water supplies and wastewater treatment.

Taumata Arowai’s role is to:

- Oversee and administer an expanded and strengthened drinking-water regulatory system, to ensure all New Zealand communities have access to safe drinking water. That includes holding suppliers to account, if need be.
- Oversee from a national perspective the environmental performance of drinking-water, wastewater and stormwater networks. (Regional councils will remain the primary regulators of wastewater and stormwater).

The Water Services Act received royal ascent on 6 October 2021. The Act gives effect to decisions to implement system-wide reforms to the regulation of drinking water and source water, and targeted reforms to improve the regulation and performance of wastewater and stormwater networks. The Regulator's detailed functions and powers are located in that Act.

Three Waters Reform – Local Water Done Well

"Local Water Done Well" is the Coalition Government's plan for managing water services delivery and infrastructure following the repeal of Water Services Reform legislation (Three Waters) in February 2024. The "Local Water Done Well" policy framework aims to address concerns about New Zealand's water quality and water services' infrastructure investment, while keeping control over water services and assets local.

Following the 2023 elections, the new Government repealed legislation relating to Three Waters service delivery, replacing it with its Local Water Done Well policy. Local Water Done Well policies include:

- Establishing a regulator to oversee water infrastructure, ensuring sustainability, fair pricing, and quality standards,
- Implementing new financial rules, requiring self-funding water services, revenue to cover maintenance, and sufficient borrowing for growth, and
- Within a year of repealing the 10-entity model, councils have to submit alternative service delivery models (Water Service Delivery Plans) to the Secretary for Local Government for approval. There is flexibility for councils to choose a model and governance structure that works best for them within the remit of the associated legislation.

The new water services legislation includes:

- The **Water Services Acts Repeal Act (enacted in February 2024)** repealed the previous Government's water services legislation and restored continued council ownership and control of water services.
- The **Local Government Water Services Preliminary Arrangements Act** was enacted on 2 September 2024. Key areas included in this Act are:
  - Requirements for councils to develop Water Services Delivery Plans (within 12 months of the Bill being enacted).
  - Requirements for those councils to include in those Plans baseline information about their water services operations, assets, revenue, expenditure, pricing, and projected capital expenditure, as well as necessary financing arrangements, as a first step to future economic regulation.
  - Streamlined consultation and decision-making processes for setting up council-controlled organisations that deliver water services, and joint local government arrangements, both of which are currently provided for in the Local Government Act.
  - Provisions to enable new, financially sustainable model for Watercare (Auckland's Water Services provider)
  - Interim changes to the Water Services Act that means the Te Mana o te Wai hierarchy of obligations in the National Policy Statement for Freshwater Management (NPS-FM) will not apply when Taumata Arowai sets wastewater standards.
- The proposed **Local Government Water Services Bill** will establish the enduring settings for the new water services system.

At this time Council is responding to the new legislative requirements and is in the process of investigating water service delivery options and preparing a Water Service Delivery Plan. Council will continue to monitor and respond to further development with the Government's Local Water Done Well programme.

Infrastructure Commission, Te Waihanga

The New Zealand Infrastructure Commission, Te Waihanga, was established in 2019 as an Autonomous Crown Entity to carry out two broad functions – strategy and planning and procurement and delivery support on infrastructure investment.

InfraCom - Te Waihanga will work with central and local government, the private sector, iwi and other stakeholders, to develop a 30-year infrastructure strategy to replace the National Infrastructure Plan.

'Rautaki Hanganga o Aotearoa 2022 – 2052 New Zealand Infrastructure Strategy' was published during 2022. The strategy is focused on five objectives i.e. the things we need to do as a nation to achieve the vision of a thriving New Zealand:

1. Enabling a net-zero carbon emissions Aotearoa through rapid development of clean energy and reducing the carbon emissions from infrastructure.
2. Supporting towns and regions to flourish through better physical and digital connectivity and freight and supply chains.
- Building attractive and inclusive cities that respond to population growth, unaffordable housing and traffic congestion through better long-term planning, pricing and good public transport.
3. Strengthening resilience to shocks and stresses by taking a coordinated and planned approach to risks based on good-quality information.
4. Moving to a circular economy by setting a national direction for waste, managing pressure on landfills and waste-recovery infrastructure and developing a framework for the operation of waste-to-energy infrastructure.

Government Policy Statement on Land Transport (GPS) – June 2024

The Government Policy Statement on Land Transport 2024-34 is a high-level government document that defines the desired outcomes and funding priorities for land transport activities to achieve national targets. The government's investment (NLTP- National Land Transport Programme) will be guided by the Key Strategic Priorities, identified in the GPS:

- Economic Growth and Productivity
- Increased Maintenance and Resilience
- Safety
- Value for Money

"The Economic Growth and Productivity strategic priority is the overarching strategic priority for the direction of this GPS. Increased maintenance and resilience, safety and value for money are all equally weighted and important priorities that collectively support the delivery of a transport system that drives economic growth and productivity."

Climate Change Response (Zero Carbon) Amendment Act 2019

The Climate Change Response (Zero Carbon) Amendment Act 2019 provides a framework by which New Zealand can develop and implement clear and stable climate change policies that:

- contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels
- allow New Zealand to prepare for, and adapt to, the effects of climate change

The amendments establish four key items:

1. set a new domestic greenhouse gas emissions reduction target for New Zealand to:
    a. reduce net emissions of all greenhouse gases (except biogenic methane) to zero by 2050
    b. reduce emissions of biogenic methane to 24–47 per cent below 2017 levels by 2050, including to 10 per cent below 2017 levels by 2030

2. establish a system of emissions budgets to act as stepping stones towards the long-term target
3. require the Government to develop and implement policies for climate change adaptation and mitigation
4. establish a new, independent Climate Change Commission to provide expert advice and monitoring to help keep successive governments on track to meeting long-term goals. See the Climate Change Commission website.

Council continues to develop its responses to the Act and is working on the development of relevant internal policies and procurement, as well as facilitating discussions with the Waimate communities regarding the wider impacts and changes signalled by the Zero Carbon Act.

5.4 Climate Change

It is now generally accepted worldwide that human activities have accelerated climate change, and that further future climate change is unavoidable. The effects of climate change include both effects on our climate (such as temperature increases or flooding), and a wide range of secondary effects (such as damage to strategic infrastructure). The following details climate change projections for the Canterbury region.

In response to the challenges associated with climate change Council has developed a Climate Change Resilience Strategy, March 2024. Work to date in developing the resilience pathway have included:

- Appointing a part-time Climate Change Officer to oversee the development of the strategy
- Consulting, informing and engaging with district communities, neighbouring councils and the Canterbury Climate Partnership Plan
- Completing the second council carbon footprint assessment in 2022/23

As Councils Climate Change Resilience Strategy and associated pathway continues to develop and mature the strategic documents will be updated as necessary with actions, responses, and budgets required to meet the Strategy requirements.

The National Climate Change Risk Assessment (MfE August 2020) identifies 43 priority risks across five value domains (natural environment, human, economy, built environment and governance) and highlights 10 risks considered to be the most significant. This MfE report highlights, among others, the following two domains (particularly applicable to Council infrastructure) as extreme risks:

Table 5-1: Climate Change Risk to Council

Domain	Risk	Consequence
Economy	Risks to governments from economic costs associated with lost productivity, disaster relief expenditure and unfunded contingent liabilities due to extreme events and ongoing, gradual changes.	Extreme
Built environment	Risk to potable water supplies (availability and quality) due to changes in rainfall, temperature, drought, extreme weather events and ongoing sea-level rise.	Extreme
	Risks to buildings due to extreme weather events, drought, increased fire weather and ongoing sea-level rise.	

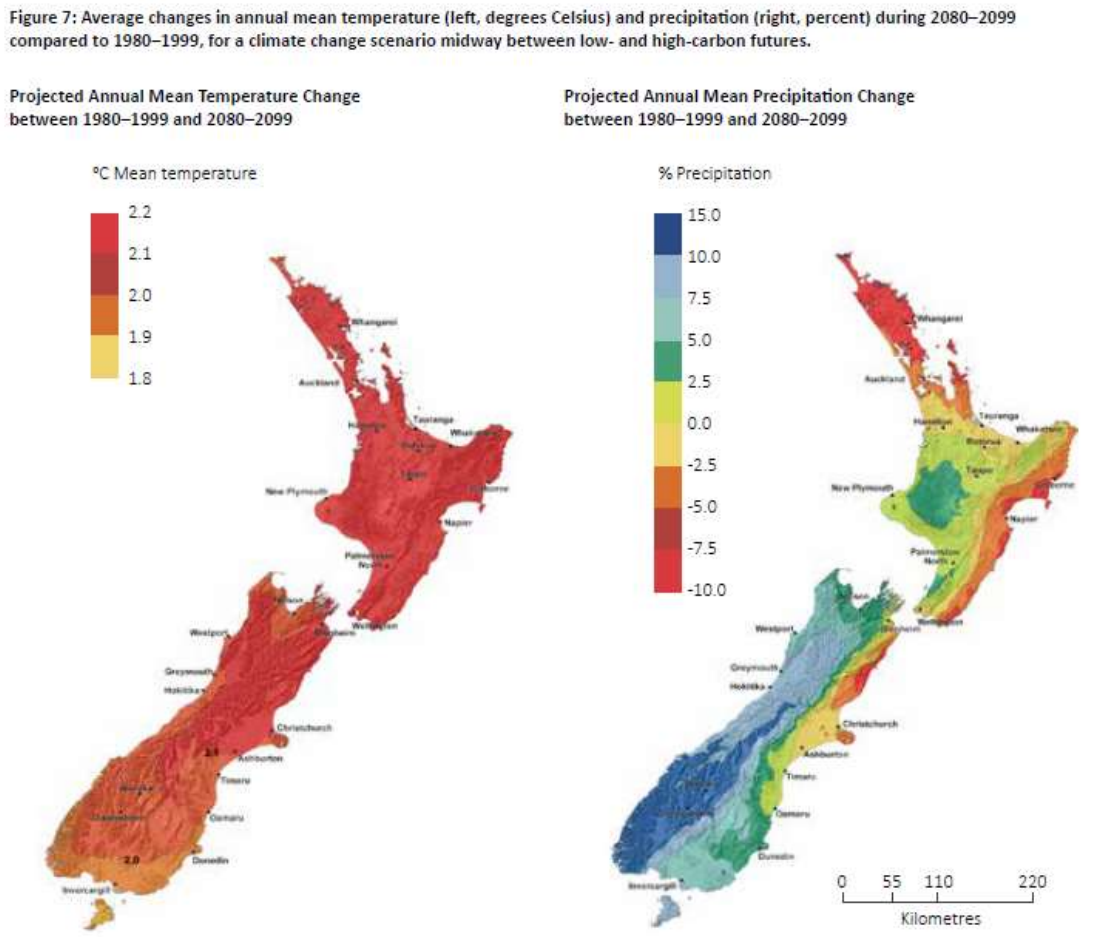
Waimate District is expected to experience two of the main impacts of climate change – sea level rise and more extreme weather patterns.

Sea level rise is considered the lesser of the influences as much of our coastline is elevated above MSL. Modelling of associated inundation, as a result of tsunami, is known to affect very few council-controlled assets.

What is understood is that climate change associated risks will increase in time.

Council recognised the roles of Local Government NZ, the Ministry of Primary Industries, the Ministry for the Environment, and the Royal Society of NZ in researching and guiding a pragmatic response.

Figure 5-4: Climate Change implications for New Zealand



Source: Climate change: Implications for New Zealand (Royal Society of New Zealand, April 2016)

The local government position statement on climate change (2017) states

Climate change actions have three components:

1. actions to reduce emissions (mitigation);

2. planning and actions at the national and local level to support public safety and effective adaptation; and

3. limiting or removing pressure on systems affected by climate change.

All local authorities (city, regional, district and unitary) are at the frontline of climate change adaptation and have a role to play in mitigation.

The role of Council is key in delivering the outcomes sought by the community. Key drivers to support and manage the challenges are the National Climate Risk Assessment for New Zealand (Ministry for the Environment, 2020) and the Climate Change Projections for the Canterbury Region (NIWA, 2020).

Projections for Canterbury

Climate Change Projections for the Canterbury Region have considered the following scenarios, which take into account either cutting greenhouse gas emissions over time from 2019 levels, or not curbing emissions during the life of this Infrastructure Strategy.

Average Temperatures

- Increase with time and greenhouse gas concentrations
- By 2040, annual mean temperature up 0.5 to 1.5°C
- By 2090, up 0.5 to 2°C (if we cut emissions) or up 1.5 to 3.5°C (if we don't)

Maximum Daytime Temperatures

- By 2040, annual mean maximum temperature up 0.5 to 2°C
- By 2090, up 1 to 3°C (if we cut emissions) and up 2 to 5°C (if we don't)
- By 2090, western Canterbury's alpine and sub-alpine areas could be 5 to 6°C warmer in spring and summer (if we don't)

Maximum Night-time Temperatures

- By 2040, annual mean minimum temperature up zero to 1°C
- By 2090, up 0.5 to 1.5°C (if we cut emissions) and up 1 to 2.5°C (if we don't)
- The difference between a day's high and low increases with time and greenhouse gas concentrations

Hot Days (25°C or more)

- By 2090, expect 20 to 60 more hot days in most of Canterbury (if we don't cut emissions)
- Inland areas feel it the most, particularly the southern Mackenzie Basin, which could have 60 to 85 more hot days
- Most of these hot days would happen in summer
- Our warmer season could get longer in relatively low-elevation areas, with 5 to 10 more hot days in autumn and spring
- Increased fire risks

Cold Days (Frosts)

- Expect fewer frost days throughout the region
- Inland areas and higher elevations warm the most, with 10 to 30 fewer annual frost days by 2040, and 20 to 50 fewer by 2090
- The frost season (the time between a year's first and last frost) will likely get shorter

Rainfall

There is likely to be increased rainfall depth and intensity associated with climate change. In addition, the heat that comes from the condensation of this increased moisture will make storms more intense. These extreme events may exacerbate flooding risks for Waimate District.

- Most of the region can expect small changes in annual rainfall, up or down 5%
- By 2040, autumn might be dryer in the Mackenzie Basin, with up to 10% less rain
- By 2090, winters could be wetter in many eastern, western and southern parts of the region, with 15 to 40% more rain
- By 2090, Banks Peninsula and many inland areas might get 5 to 15% less rain (if we don't cut emissions)

Snow

- Expect fewer snow days everywhere, especially in the mountains

Drought

The modelling indicates that by the 2080s, there will be a significant increase in the average water deficit across Canterbury, with increases of between 2 weeks and over 6 weeks of pasture deficit as an average climate condition. By the 2030s, current drought events that are so severe that they only occur in 1 out of 20 years are projected to occur more frequently. Increased fire risks.

Windspeed

- Annual mean wind speeds up slightly, by nil to 5%
- By 2090, winter and spring could be windier (up 5 to15%, if we don't cut emissions)
- That seasonal change might be more keenly felt in inland areas north and west of Rangiora (up 15 to 25%)
- Increased fire risks

Sea Level Rise

Climate Change Projections for the Canterbury Region have identified worsening impacts over time at a regional and national level:

- Sea level rise projections for Canterbury are the same as for New Zealand
- Up by 0.4m in the next 50 years and up 0.6 to 0.7m in 100 years (if we cut emissions)
- Up 0.5m in 50 years and up 1.2 metres in 100 years (if we don't)
- High tides get higher. At 0.65 metres of sea level rise, every high tide is above the spring tide mark (compared to 10% now)

Source: www.wetlandtrust.org.nz

Wainono Lagoon

Source: Stuff 24 July 2017

Localised flooding

Climate Change Effects

The major effects that may impact on the Council's Infrastructure activities are set out below, along with potential mitigation options and an analysis of when the effects may occur. It should be noted that further work is required to understand how these effects will impact the Waimate District, but the collection and monitoring of data will be used to inform a more robust climate change response.

Dust from Unsealed Roads: Hotter temperatures and associated drought conditions could have detrimental effects in terms of increased dust from unsealed roads. This may mean that in future areas of unsealed roads need to be sealed, particularly close to residential properties.

Council currently allows for $50k to part fund “dust seals” via policy. Currently applicants need to fund 50% of the cost. Road classifications and traffic volumes on our low use roads dictate the overall level of service. Individuals are able, with part funding by Council, to increase the level of service adjacent to their property to mitigate adverse effects associated with dust.

Council will continually monitor demand for this service and provide increased funding as required.

Hotter temperatures potentially have an impact on the timing of unsealed road grading and metalling activities which will need to be monitored over time.

In the shorter term this approach is considered appropriate but as the effects of drought conditions become more prevalent, Council may need to consider a revision of the level of service relating to unsealed rural roads which, in turn, will adversely affect funding requirements (increased).

- Likelihood - Possible (25 – 50%)
- Location - District Wide
- Timeframe - 2030 onwards
- Mitigation - Monitor

Changes in Demand: An overall decrease in the mean rainfall for the district could impact on land use and in turn change demand on certain areas of the Council’s infrastructure networks. More intense rainfall events have the ability to damage crops, and this may manifest in changing farming practices. These changes in farming practices could result in changing traffic volumes for particular areas, changes in demand from our water networks, and requirements for higher levels of service to mitigate the risks associated with nuisance flooding, to name the major impacts.

Council will need to monitor and understand these requirements to inform future work programmes. This is achieved through regular traffic counts, up-to-date hydraulic modelling of our water schemes and optimised renewal of drainage assets.

Council is mindful that changes in demand will manifest as changes to LoS, geographic demand and overall demand. In order to cater for this, underlying data is important to plan appropriate renewals in the future.

Council is also installing water metering within the urban water network as a means to manage demand, manage water losses and to increase the availability of potable water.

- Likelihood - Likely (50 – 70%)
- Location - District Wide
- Timeframe - 2030 onwards
- Mitigation - Monitor

Drainage Capacity: Extreme rainfall events in a generally dry region may cause surface flooding effects due to poor capacity of drainage assets. The cost of upgrading drainage assets for these extreme events is likely to be prohibitive for Council. Whilst, as a district, council is unable to build infrastructure to deal with these extreme flows and volumes, it is able to define the levels of service (20% and 2% annual exceedance probability) and therefore the level of protection that ratepayers and users can expect.

Mitigation of events outside of these parameters are dealt with through the protection and definition of overland flow paths, defined areas for detention and improved stormwater management practices. These practices (in an urban sense) are defined in Waimate District Council’s Stormwater Management Plan which is an underpinning document for the global consent issued by Environment Canterbury Regional Council. For example, Council defines on-site management of stormwater as the preferred solution up to a 1 in 50 year event. The defined 1 in 50 year design event takes into account climate change factors defined by NIWA.

Extreme rainfall events have a detrimental impact on council's wastewater network where inflow of stormwater presents several challenges in terms of conveyance capacity and surcharging of manholes. In 2021/22 Council undertook an inflow investigation to identify which areas are affected and formulating appropriate responses to mitigate the effects. Left unchecked, climate change impacts would adversely affect this activity. When addressed, this will lead to increased levels of service, allow for future growth by increasing available capacity and reduced compliance risks.

- Likelihood - Almost certain (70 – 99%)
- Location - District Wide
- Timeframe - 2021 onwards
- Mitigation - Design, planning, and policy

Increased Flood Damage Repair Work: Extreme rainfall events in a generally dry region may cause surface flooding effects and in turn increase requirements for flood damage repair works. Consideration will need to be given to design and location aspects for Council's assets to reduce the risk of damage or loss of service due to extreme weather events. There is no provision (currently) to fund these repairs and they are typically funded via existing budgets and often with co-funding from NZTA.

Council is continually monitoring the financial effects associated with flood events (and the diversion of existing budgets) and has considered (in the past) developing a "flood event" fund. This monitoring will continue with intervention likely if existing programmed work begins to be adversely affected. Potentially this issue will need to be consulted on as increased costs will result in increased rate requirement. Resultantly the community will receive a higher level of service than currently experienced.

Furthermore, storm events can impact on raw water quality from streams and bores used for water supply. This presents challenges associated with the provision of potable water in terms of reliability, treatability and therefore compliance with the Drinking Water Standards for New Zealand.

- Likelihood - Almost certain (70 – 99%)
- Location - District Wide
- Timeframe - 2021 onwards
- Mitigation - Monitor and adapt funding if required

Water availability for Construction: Increasing demand for water is currently an important issue for Canterbury. This increased demand is likely to become increasingly critical in a future characterised by drier average conditions, and an associated increase in both drought frequency and intensity. This may mean, as an example, that it will be more difficult to obtain the required water to complete construction works.

Updating of hydraulic models for the council water supplies allows for optimised future renewals that address the location of demand within the schemes (up or down). They also allow Council to plan for growth and increased demand as a result of changes to legislation e.g. the Water Services Act and its potential impact on water suppliers outside of the current reform programme.

- Likelihood - Almost certain (70 – 99%)
- Location - District Wide
- Timeframe - 2025 onwards
- Mitigation - Monitor and adapt future programmes as required (LoS, additional demand, changing demand)

5.5 Infrastructure Resilience

Customers have a high expectation of continuing functionality and service delivery. Resilience is based on a design philosophy which acknowledges that failure will occur. Resilience requires early detection and recovery, but not necessarily through re-establishing the failed system.

Council is considering the performance of its infrastructure and services in terms of:

- Climate change - drought
- Climate change - severe storms
- Climate change - sea level rise
- Natural disasters - earthquake

In each case, some reduction in performance is expected. Managing demand and improving infrastructure to be resilient, where there is no redundancy in service delivery, is key. Resilience of the roading network is being considered at a South Canterbury level with a 'One network' approach in mind. Council needs to consider managing and mitigating the risks to our infrastructure assets from natural disasters, by establishing the requirements for resilient transport and lifeline utilities networks.

Actions to address infrastructure resilience is discussed in more detail in Section 6.5.

5.6 Aging Infrastructure

The infrastructure is aging, and the district is approaching an important period to ensure that its infrastructure assets continue to meet the needs of the community in the future. We need to consider when we are going to apply a 'just in time' philosophy and defer renewals or apply pro-active renewals. These decisions are informed by factors such as criticality, performance, and risk appetite and manifest as differing treatments at a component level.

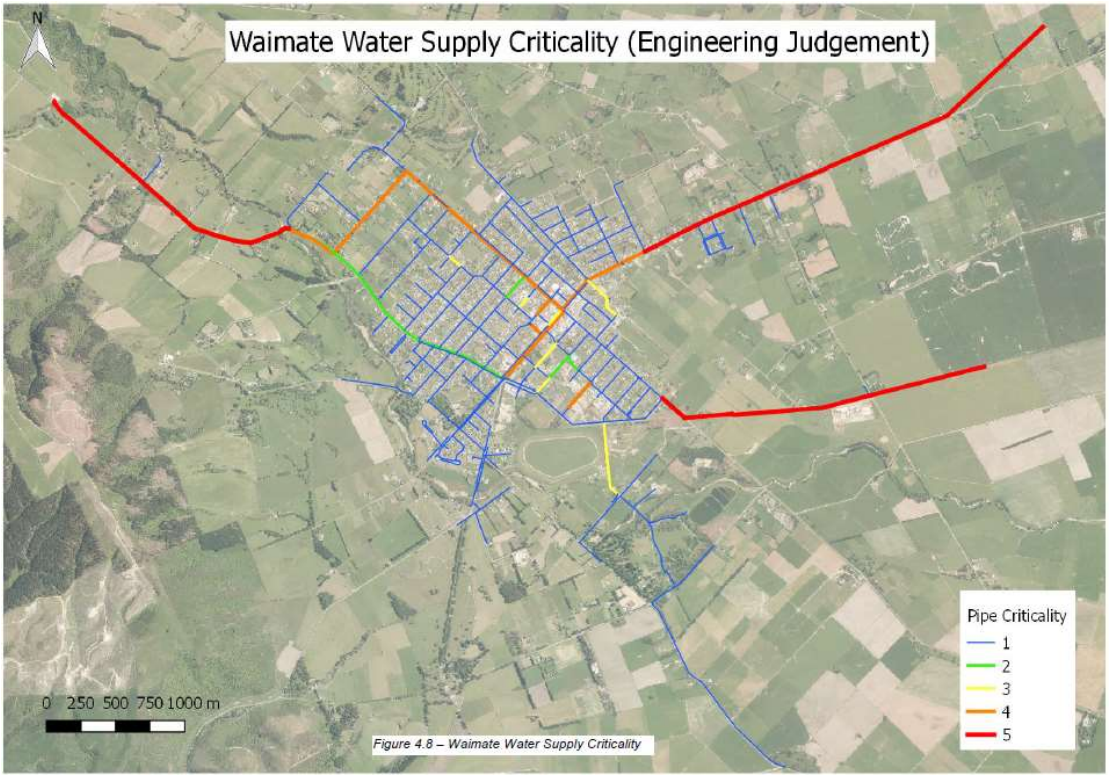
Management of aging infrastructure is closely aligned with the discussion of system resilience above. The key aspect is the recognition of failure mechanisms for our assets, and initiation of a suitable response to minimise cost and disruption to the community. Underground pipe networks represent the greatest risk because of their extent and inaccessibility.

The three key aspects for effectively managing aging infrastructure are:

- to ensure the organisation has sufficient knowledge of asset status
- that funding is available
- that remedial work (maintenance and renewals) is actioned in a timely manner

Council's approach has been, and is, to collect data to understand condition and performance, as well as identify critical assets so we are focussing effort where it is needed most.

Figure 5-5: Water Supply Asset Criticality Map



The aging of Waimate's urban water and Wastewater reticulation continue to be the greatest concern. The creation of a theoretical backlog, and the subsequent non-funding of depreciation, needs further investigation over the next few years. This could result in extended useful lives where assets continue to provide the desired level of service.

The water reticulation pipes are cast iron (dating back to 1908) or asbestos cement (1950s and 1970s). The Wastewater pipes are earthenware (1915 and 1950s). The earthenware pipes are particularly susceptible to inflow and infiltration, with many still performing reasonably well.

A renewal programme has been developed for these assets as discussed in sections 7 and 8 as we move into a phase where the expected life of these assets is reached. Predicted renewals are sense checked against maintenance records, field observations, criticality assessments and existing hydraulic models.

The roading network is also aging, but changes in demand is more pertinent than the age of the asset. Changes in the volume and weight of vehicles has put the network under stress and the life of some pavement assets is being consumed at a faster rate.

A more comprehensive data capture programme is now in place to improve knowledge about the roading assets, and how they are expected to perform in the future.

5.7 Economic Activity

Economic activity and changes in economic activity impact on the requirements for infrastructure, and the community ability to fund infrastructure.

Covid 19 impacts have been wide ranging and included a significant and protracted recession. At the time of writing this infrastructure strategy indications are that New Zealand is beginning to recover from the recession. To assist with the recovery, Council received funding through the following central government initiatives, with some related to the pandemic and others related to the Three Waters Reform programme(s):

- Covid Stimulus Funding ($3,360,000)
- Transition Funding ($350,000)
- Better-Off Funding ($2,420,000)

Also see the LTP assumptions for further information.

5.8 Affordability

In view of the infrastructure investment (and associated funding) Council is facing, providing and managing continued affordable service delivery is a significant and complex challenge. Whilst Council puts considerable effort into managing the affordability of services, the district's small and aging population base means this will remain an ongoing challenge.

Affordability is a key metric that will be further scrutinised as council navigates the Local Water Done Well programme and develops the Delivery Plan for submission in September 2025. Opportunities exist in moving away from a conventional "rating" structure towards a pricing structure.

Also see the LTP assumptions for further information.

5.9 Tourism

Tourism has not been a major driver of demand in the district. Initiatives such as the Alps to Ocean Cycleway has seen a small growth in opportunities and tourism numbers. Tourism, albeit at a low level, has returned to the district with occupancy increasing at the council operated campgrounds.

A Local Waimate based businessman has embarked on a range of commercial building renovation and development projects in the Waimate central business area. These projects have increased the commercial vibrancy in central Waimate, and in time will increase local, national and international tourism flows into the town.

5.10 Prudent Management

Waimate District must carefully manage its investment in infrastructure to ensure it gets value for every dollar and provide infrastructure in a lawful, functional and affordable manner.

The task of building, operating and maintaining - as well as the management of - core Infrastructure Assets in an affordable manner may become increasingly difficult in view of a number of influences (i.e. what is over the horizon) as discussed in the table below:

Table 5-2: Influences on Infrastructure Assets

Influences	Comment
Continually changing legislative and operating environment (Central and Regional Government)	**Roads and Footpaths**: The Government Policy Statement (GPS) changes with the focus of the Government and means there are changes in priority and funding to be addressed. These are outlined in the Government's GPS 2024. **Water**: Regulatory trend towards more stringent Drinking Water Standards and associated compliance monitoring and reporting. Taumata Arowai (water regulator commenced operation in 2021). Impacts of reform will be better understood by September 2025. Regulatory trend towards more comprehensive monitoring and reporting of water takes. Progressive upgrades of the rural water supplies have occurred meaning there is compliance with the NZDWS and DWQAR. This does mean increased operating costs. **Wastewater**: Regulatory trend towards more comprehensive monitoring and reporting of the receiving environment, and treatment process improvements to ensure acceptable effluent quality. **Stormwater**: Compliance with Land and Water Regional Plan is required. This may see increased levels of compliance for discharges (treatment), especially as it relates to industrial discharges. Impacts of climate change and climate change legislation. **Service Integration**: Central Government may require additional integration (sharing) of services with neighbouring Councils to effect greater efficiencies.
Change in demand	**Roads and Footpaths:** Changing demand on the roading network is causing more rapid deterioration. This is multiplied where the road structure is constructed in areas where there are poor ground conditions and/or where the ability to drain water away from Roading infrastructure is limited. **– *Significant Issue*** Heavy vehicle laden weight limits have risen from 40 tonnes to 44 tonnes, and to 50 tonnes maximum (for 50Max vehicles). High Productivity Motor Vehicles (HPMV) permit further increasing weights on trucks, subject to specific axle loadings. To improve efficiency of the freight transport fleet it is likely this trend with increasing truck weights may continue. This creates some issues of restricted access to some areas of the district due to bridge stock that is not capable of carrying these loads, and further damage to weak pavements. **– *Significant Issue*** The irrigation to land that was previously not irrigated can significantly change water tables and therefore the ground conditions the road is founded on (in part offset by changing irrigation methodology from border dyke to pivot irrigation). The latter conversions are almost complete. Diverse range of road users in the Waimate District, whose needs inform provision of a fit-for-purpose network.

Influences	Comment
Aging infrastructure	**Water:** The reticulation networks for parts of the water supplies are at or approaching the end of their expected lives. A large amount of urban pipework was installed from the early 1900s, with rural pipework installed in the 1970s. Renewal programmes are in place for both the urban and rural supplies. Smoothing over ten years somewhat addresses the risk associated with early (and late) intervention/renewal. There remain risks associated with maintenance liability and premature failure. The risk can be mitigated through careful planning and consideration of asset condition, levels of service and growth drivers. ***– Significant Issue*** **Wastewater:** The Waimate reticulation network dates from the early 1920s and 1930s, with an expansion in 1960-1980. Aged pipework inflow and infiltration in both private and public assets has resulted in significant infiltration and inflow into the Wastewater network (related to old earthenware mains installed in 1920-1040s). Reduction in inflow and infiltration will free up additional capacity in the Wastewater network. Continued renewal programme of the aging pipe network is required. ***Significant Issue*** **Roads and Footpaths**: A significant amount of the sealed road infrastructure was constructed between 60 and 45 years ago (with rapid expansion in the network between 1963 and 1973). Some of this sealed infrastructure is nearing the end of its useful life. Council is expecting a 'bow-wave' of sealed road pavement renewal from 2035 onwards. In addition, a number of bridges will require component replacement to maintain accessibility, with some bridges approaching end of useful life. ***– Significant Issue***
Consents	**Wastewater:** The discharge consents for the Waimate Wastewater treatment plant will require renewal in 2036. Considerations of additional or alternative treated effluent disposal options may be required due to increased environmental requirements. Government is actively promoting the use of modular solutions and providing certainty around effluent quality requirements. **Stormwater:** Effective implementation of the Urban Stormwater Management Plan (SMP) is imperative as Council holds a global resource consent. Council will be liable for any non-compliances with the resource consents. Council will need to ensure each and every individual/private developer takes responsibility for stormwater management.

Influences	Comment
Environmental effects	**Water:** A number of water take consents are due for renewal. Whilst Community Water Supplies are provided preference on allocation, reconsenting requires an analysis of potential growth (and therefore the consent limit) to be approved by Ecan. **Wastewater:** Inflow into the Wastewater network via the individual properties and Council's sewer mains will continue to present design constraints, require increased pipe-sizing, and treatment and disposal issues unless this is resolved on a community-wide basis i.e. I&I reduction in the private and public assets. **– *Significant Issue*** In some small communities the reduced groundwater quality due to ongoing use of conventional septic tanks may necessitate the installation of centralised community Wastewater systems with ensuing treatment and disposal system. Council has also identified an opportunity to assist with the consenting and management of septic tank clusters. **Stormwater:** Increased number of intense rainfall events will challenge our current stormwater asset network in terms of capability to meet 20 year return periods. An increased number of intense rainfall events will challenge our aging sewer pipelines through infiltration and resultant surcharge risks, as well as placing a higher burden on our current WWTP capabilities and capacities. **Roads and Footpaths:** Reduced availability of good quality road metals for sustainable road maintenance practices. Traffic on unsealed roads that produces dust which can have adverse effects on the health of people, stock and adjacent crops. Increased number of intense rainfall events will challenge our current road asset network and the resilience of our road network.
Climate change	**Water:** The design of the Three Waters infrastructure is required to provide service to three or more generations, but in the short term there is a need to be efficient in the provision of infrastructure. Climate change will have a detrimental impact on water supply, demand and resilience. **Stormwater:** The predicted increases in extreme weather events involving significant rainfall may lead to increased levels of surface water leading to subsequent flooding, ponding problems and blockages to drains for stormwater run-off. **Roads and Footpaths:** The potential effects of climate change on the district's roading network are understood in terms of the predicted changes in weather patterns. The predicted increase in extreme rainfall events will cause increased storm damage to the road infrastructure and potentially significant damage through washout of bridge approaches and abutments. Weather events which consist of rainfall over extended periods can cause landslips and increased pavement deterioration over time.

Influences	Comment
Infrastructure resilience	Customers have an increasing expectation of continuing functionality and service delivery following significant natural events (snow, wind, extreme rainfall etc.). Council will need to continue to enhance resilience through infrastructural and procedural improvements. **– *Significant Issue***
Population and economic growth	In broad terms, the population of Waimate District is forecast to remain relatively steady. Many of the schemes have capacity to provide for some growth, and there are opportunities for more effective management to cater for growth if it is greater than expected. As the population and local economy grows, this may tend to raise expectations around higher levels of service, which will need to be catered for. For example, more intensive use of the transportation network places a greater maintenance burden on Council. **Water:** Hydraulic rearrangement and pressure management for the urban water supply both assist in extending the useful life of the asset and providing additional capacity to cater for growth (whilst also reducing burst frequency, water loss and extending remaining life of already aged assets). The rural water supplies will be subject to changing demand profiles as a result of reliable irrigation in the future. It is envisaged that existing use will shift from predominantly stock water (potentially sourced from irrigation water) to domestic use as development occurs in the rural area. **Wastewater:** Assessments indicate that the urban wastewater network and treatment plant have adequate capacity to cater for the increased population (additional 2,900 persons available) provided stormwater inflow and groundwater infiltration can be reduced. **Stormwater:** Council will need to undertake upgrades to the stormwater network to reduce known surface flooding resulting from increased stormwater run-off from developments. **Roads and Footpaths:** Council will need to continue footpath development and ongoing network improvements in a timely manner to cater for increasing demands and change in range of users of these assets.
Demographic changes	Significant increase in the over 65 age group may result in affordability issues (increased number of fixed income ratepayers). This trend may be offset by the district's stable working age population. Levels of service may need to be reviewed and amended to either a more affordable level, or to suit the dominant demographic in the future. "Ring Fencing" of the Three Waters as part of Local Water Done Well provides an opportunity to protect those on fixed incomes through pricing structures. **Roads and Footpaths:** An aging population will potentially require higher levels of service for the provision and quality of footpaths for vulnerable pedestrians and the mobility impaired.

Influences	Comment
Land use change	Historically, land use change (dryland farming to dairy) has had an impact on the water activity requirements within the district. Changing freshwater management standards may impact current land use practices and trends. Changes in farming practices in the next 30 years will continue to have a significant influence on current infrastructure needs particularly with the increase in high productivity (i.e. very large tractors) movements throughout the district. If irrigation is improved throughout the district, more land is being converted for dairy farming. This may be offset or changed by evolving freshwater management standards. Dairy conversions have a large impact on the roading network through the generation of a wide range of additional traffic and increases use of agricultural vehicles on the roading network. Cultural diversity as a result of land use change may influence demand on infrastructure.
New Technologies	New technologies will assist in the services becoming more efficient and effective. Opportunities will be reviewed with respect to whole-of-life costs. Historically the change in technologies has had a significant effect in the operation and management of infrastructure assets and it is considered that this will continue possibly at a greater pace. For example, the implementation of Asset Management Information Systems (AMIS) across the infrastructure activities and the continued development of the Council SCADA (system control and data acquisition) system to improve operational efficiency for the water supply and sewage treatment plants. During 2021/22 Council installed universal metering in order to better understand and manage water loss within the urban area. This is coupled with improved asset information and will allow greater efficiency in the operation and management of Council's infrastructure. This will include utilising predictive models for programming and prioritisation of asset renewals. Changes in the scale and types of agricultural activities, including intensification/reduction of dairy and dairy support, in the District will create additional pressures on some of the Council's existing infrastructure networks over time.
Resourcing	An aging workforce and difficulties with the recruitment and retaining of experienced and qualified staff to a rural district may present issues with the future operation and management of the services and infrastructure projects. The continued development of appropriate staff and their skill sets to meet the challenges of infrastructural demands and meeting regulatory changes is essential to ensure prudent and rational outcomes.

6.0 THIRTY YEAR STRATEGY

6.1 The Organisation's Priorities

At high level, Council's Water, Wastewater, Stormwater and Roads and Footpaths priorities are to:

- Maintain the District's roads to a safe standard and fit-for-purpose for the long term
- Use efficient and effective asset management practices to maximise roads and footpaths asset life to provide a resilient network
- Demonstrate to customers that Council is managing the assets responsibly
- Ensure that the level of service required by customers is provided in the most cost-effective manner
- Customers will be regularly consulted over the price/quality trade-offs resulting from alternative levels of service
- Provide a continuous supply of potable water to meet agreed demands
- Maintain sewage disposal and treatment facilities to protect public health through ensuring good sanitary standards and freshwater management
- Manage the impacts of land use change and growth
- Advocate on behalf of the community where direct management of issues is not possible. E.g. impacts of regional plans/rules

These priorities are in line with WDC Community Outcomes detailed in Section 3.

6.2 Asset and Service Management Strategy

Through the provision of infrastructural assets and services to residents and visitors Council's management strategy is to:

Maintain performance measures to ensure that the current strategies do not consume the asset leading to an unexpected increase in maintenance/renewal expenditure in the future.

Council has established an Asset Management Policy. The policy defines the appropriate level of asset management planning in line with International Infrastructure Management Manual (2015) guidelines.

The policy definitions for the Three Waters and Roading activities is "Core".

Roading and Water Supply may include more complex asset management practices such as demand and deterioration modelling above this level, but it will be on a fit-for-purpose basis, rather than a requirement across all asset types.

Responsibility for the asset management of the Water, Wastewater, Stormwater and Roads and Footpaths services is allocated to the Asset Group Manager. This responsibility includes:

- Ensuring services are constructed, maintained and in compliance with consents
- Budgeting and long-term forecasting
- Monitoring Levels of Service for services provided by assets
- Identifying and managing asset and service related risk
- Reporting of Levels of Service, key performance indicators and risks at corporate level
- The achievement of Asset Management practices which meet corporate Asset Management development standards and reporting of these in the AMPs

In providing services to residents and visitors through the use of core Infrastructure, Council's management strategy is to:

- Review planned resource allocations
- Determine the effects these will have on agreed Levels of Service
- Assess how these changes in Levels of Service will be reflected in the end-of-period asset condition and performance
- Adjust the work plan as necessary to achieve the best possible life cycle asset condition and performance within the available budget. This may mean leaving some assets to decline in condition to the stage that they require more expensive remedial action later.
- Assess the effects of the revised programmes on achievement of the Council's performance targets
- Report the anticipated effects on the targets to senior management and elected members
- Manage the Water, Wastewater, Stormwater and Roads and Footpaths activities at a level in accordance with Council's assessment of appropriate asset management practice and asset management policy

6.3 Sustainable Service Delivery

Council's assets and services contribute to the social, economic, environmental, and cultural wellbeing of the community in accordance with the agreed community outcomes.

6.3.1 Response to Affordability

The affordability of services in a small, rural, agricultural economy based community is always a challenge. Council continues to meet this challenge by conventional and innovative programmes that:

- Focus on the critical assets and activities
- Use of a widely consulted rating system that uses targeted rates where appropriate
- Grow the rating base - attracting new industries and developments that benefit the district
- Partnering with community and sponsors to fund major community assets. For example, the Whitehorse Development
- Partnering with developers to achieve mutual goals to the community's benefit
- Partnering with government for funding – NZTA and Three Waters Funding
- Engaging and responding to government changes in regulation and policy to optimise associated cost issues for district ratepayers
- Keep rates affordable and sustainable for the community
- Contribute to representative groups such as Taituarā and Local Government New Zealand who lobby central government
- The Government's 'Local Water Done Well' programme presents opportunities to address affordability across the district. These opportunities present through pricing structures that are difficult to define in a conventional rating structure.

6.3.2 Response to Four Wellbeings

The Local Government (Community Wellbeing) Amendment Act, 2019 moved away from the previous efficient, effective and appropriate service delivery focus by restoring the four community wellbeings of:

- Cultural
- Economic
- Environmental
- Social

This was to acknowledges Councils' broader role in looking after our communities than simply providing core services.

More recently the coalition government has signalled the removal of the four wellbeings from the Local Government Act. These changes are yet to manifest.

6.3.3 Summary Of Wellbeing Contribution

Council is committed to ongoing improvement in the quality of the Water, Wastewater, Stormwater and Roads and Footpaths services management practices. This is reflected in the implementation of asset management systems and associated data collection and maintenance requirements.

The Infrastructure Strategy Improvement Plan is integral to that approach, quantifying current business practice and measuring progress toward an identified future position. The Improvement Plan is focused on the following key areas:

- Scheme Knowledge and Asset Condition
- Demand Management
- Project planning and coordination
- Communications

While reappraisal is an ongoing process, the Improvement Plan will form the basis of the Water, Wastewater, Stormwater and Roads and Footpaths services annual business planning. An overarching Improvement Plan for this Infrastructure Strategy is presented in the table below:

Table 6-1: Improvement Projects

Strategy Component	Specific Asset Management Improvements
Scheme Knowledge and Asset Condition	Ongoing data collection to ensure assets are understood and condition information is sufficient to develop robust future renewal programmes
Demand Management	Collect traffic data (including heavy traffic) to identify level of service gaps, model pavement renewals and prioritise works. The Three Waters hydraulic model has recently been updated and is used for capacity upgrades and growth planning.
Project planning and coordination	Prepare robust forward programmes and improve co-ordination between renewal programmes across asset types and other projects
Communication	Develop communication tools to engage the community and explain the prioritisation that will be required. WDC utilises Engagement HQ for communications planning and implementation.

These items are discussed in further detail in each of the Activity Management Plans.

6.3.4 Response to the Levels of Service

This Infrastructure Strategy provides a guide to Council's long term service provision over a thirty year period based on the current service levels provided by Council and known and agreed changes in Councils service levels.

This Infrastructure Strategy does not provide commentary on annual service levels or current service level performance measurement of the services that Council currently provides. This Infrastructure Strategy forms part of Councils Long Term Plan document suite that includes the Long Term Plan, Financial Strategy, Infrastructure Strategy and Consultation Document. This Infrastructure Strategy should be read in conjunction with the other documents in the Long Term Plan document suite, and the Asset Management Plans, for full disclosure of Level of Services information.

6.3.5 Response to the Legislative Environment

Council continues to remain updated and engaged with changes in the legislative environment. The current and proposed changes are far reaching and will impact most areas of Council's activities.

Additional staff resources, equipment, external consulting support and compliance costs have been budgeted to meet known and anticipated costs associated with the Taumata Arowai (water regulator) requirements and drinking water standard compliance changes.

Given the uncertainty surrounding service delivery under Local Water Done Well legislation this Infrastructure Strategy includes the Three Waters. Council is currently working on its "Delivery Plan" which, once approved, will provide a road map for the aforementioned activities. Initial modelling is underway at the time of preparing this Infrastructure Strategy.

Council will remain engaged with the proposed water industry reforms to ensure district community outcomes are achieved in a cost-effective and sustainable manner – a core requirement of the legislated Water Services Delivery Plan.

6.4 Cost Effective Delivery of Services

In terms of LGA Section 10 (Purpose of local government) there is a clear requirement to meet the current and future needs of communities for good-quality local infrastructure, local public services, in a way that is most cost-effective for households and businesses.

(2) In this Act, good-quality, in relation to local infrastructure, local public services, and performance of regulatory functions, means infrastructure, services, and performance that are—

(a) efficient; and
(b) effective; and
(c) appropriate to present and anticipated future circumstances

In order to demonstrate that the delivery of services is efficient, effective and appropriate; Waimate District Council has reviewed its procurement processes, undertaken service delivery reviews, and has systems and policies in place that include:

6.4.1 Customer Services

Council has determined customer expectations through formal and informal consultation with the community over many years. This survey methodology is no longer available, and Council currently utilises "Key research" as a replacement. In 2024 Council introduced "Engagement HQ" as another tool for engaging with the wider community. Monitoring of key performance

indicators set against achieving Levels of Service puts Council asset management practices into context in terms of effectiveness.

6.4.2 Procurement Policy

The Waimate District Council Procurement Strategy was revised on 15 August 2023. The objectives are:

- Supporting the achievement of Council's Community Outcomes and the Waimate District Council Long Term Plan programme, through efficient and realistic procurement processes to meet Waimate District's needs
- Integration of Council's organisational goals into the procurement process
- Delivery of the agreed levels of service to the community that represent value for money
- Encouraging appropriate and equitable levels of competition across suppliers
- Ensuring procurement is fair and transparent with effective accountability measures
- Ensuring procurement is efficient and appropriate to the scale of the activity

6.4.3 Asset Management Practices and Processes

Services are managed in accordance with Council's Asset Management Policy. Practices and processes are reviewed and assessed against guidance and best practice provided in the International Infrastructure Management Manual (IIMM), Edition 2015, the more recent 2020 Edition and the Āpōpō Guide 2023.

6.4.4 Asset Management Policy

The objective of this policy is to ensure that service delivery is optimised against agreed community outcomes and Levels of Service, manage related risks, and optimise expenditure over the entire lifecycle of the service delivery. The policy also ensures that the management of the assets is a systematic process, and that service delivery is sustainable in the long term.

6.4.5 Service Delivery

Roading

There was extensive collaboration between Timaru District Council and Waimate District Council staff on development of this contract. This included a re-development of the Management Specification and revision of the Technical Specification for the contract. The Councils went to market with similar documentation and going forward it will mean we have a similar framework being applied to the management and supervision of our road maintenance contracts.

Historically there has been joint procurement of road resurfacing in South Canterbury with Timaru and Mackenzie Districts 2015 to 2024. Council has procured alone for the 2024-26 programme (Mackenzie District is not resealing this season and Timaru District has tendered on their own due to accounting/audit reasons.)

Other works such as pavement rehabilitations and Kerb and Channel Replacement delivered under the "Road Network Operations and Maintenance Contract".

Bridge Renewals and Component Replacement and large renewal and improvement projects are let as competitively priced contracts on a project basis.

Three Waters

The Three Waters operations and maintenance services are provided primarily using in-house resources. This has proven to be an appropriate fit for Council and also provided an excellent alignment between management and operations staff. Staffing has increased to meet the legislative challenges associated with compliance and asset management.

The teams remain relatively small and are adaptable enough to undertake minor capital works alongside their planned and unplanned maintenance works.

The recent February 2021 DIA-led WICS review of Councils Three Waters operations, renewals and capital noted that Waimate District Council was efficient in operational service delivery.

6.4.6 Capital Programme Delivery

Council has an ambitious capital programme driven by a number of factors:

- Continuation of the active renewal programmes
- Capital works required to meet the current Drinking Water Standards for New Zealand (DWSNZ) and the Water Services Act
- Future capital works associated with compliance through the Water Services Act
- Capital works associated with the Better Off Funding programme

In order to mitigate risks associated with programme delivery, Council has implemented a number of tactical responses:

i. Engaging with industry and providing updates on potential work packages (particularly in relation to treatment plant upgrades)
ii. Packaging like works to create procurement efficiency
iii. Engaging consultants to produce procurement documentation early
iv. Sourcing materials early creates efficiency as compared to supply and install. This has proved a good tactic since the Covid related supply chain issues
v. Procurement is now completed through the Government Electronic Tenders System (GETS). This affords the ability to notify the wider contracting/consulting market of upcoming projects and will undoubtedly maximise submissions received once projects are tendered

- Adopting Cotiss as a procurement and contract management solution

The Waimate district is fortunate to have significant contracting resource located within the boundaries and at varying scale. In fact, one of the largest contractors in the South Island has its head office located within the Waimate town. Further afield, council is able to draw on further resource located to the north in Timaru and to the south in Oamaru.

As with any capital programme risks will always remain, even if mitigation has been employed. Known risks include:

- Dependent projects – some proposed capital works are dependent on either technical investigations or other capital works. Delays in the latter could impact deliverability.
- There is still significant uncertainty surrounding the necessary upgrades of trickle fed rural water supplies. Taumata Arowai is currently reviewing the compliance settings, and this may manifest in reduced Capital commitments and/or significant change (both Capex and Opex).
- Material Sourcing – whilst proactive in sourcing materials, the risk associated with slow supply chains remain, particularly where materials are sourced from overseas.
- Compliance risks – a number of water supply compliance projects have been budgeted (2025/26 and 2026/27) to meet compliance requirements as defined in the current Water Services Act, the associated rules and the DWSNZ. The adoption of Acceptable Solutions for rural water supplies is still uncertain as a result.
- Delay in increased levels of service associated with the upgrade of individual water schemes for compliance with the Water Services Act and the DWSNZ. Whilst it is

unlikely that the level of service will reduce, the current LoS will be extended until upgrades are commissioned.
- Delays (or cancellation) of projects reliant on third party funding sources such as NZTA co-funding or other funding agencies. Grants and subsidies can represent just a proportion of a particular project. Funding is often dictated by the current Government Policy Statements.

6.5 Addressing Resilience

Resilience is the ability to cope with and recover from adverse events. It requires active planning to cope with a disaster, restore functionality, and rebuild the societal and economic fabric. Communities that actively plan for resilience are less prone to disaster, recover faster, and endure less hardship than those that do not.

Planning for every disaster scenario is impossible, so the next step is to plan to contain damage. Planning involves understanding the chaos, the pressures and the trauma, then building redundancy, preparing for insurance, training and improving. Bouncing back to recover the social and economic soul of the community is the next component in planning for resilience.

Finally, a culture of improvement and learning develops resilience. This is achieved through commitment, understanding and training.

In order to improve resilience Council's approach will continue to:

- Actively participate in Civil Defence Emergency Management planning and activities, at both regional and local levels
- Investigate and instigate options for alternative service provision and system redundancy
- Promote design and construction standards (where cost effective) that ensure infrastructure is able to withstand natural hazards and long term changes in circumstances such as those resulting from climate change
- Obtain insurance where this is deemed to be the most cost effective approach
- Invest in business continuity succession planning and training
- Identify critical assets within Roading, Water, Wastewater and Stormwater activities and in development of management regimes based around criticality
- Work collaboratively with neighbouring authorities
- Look at more joint procurement opportunities and establish staff resource sharing arrangements

6.6 Evidence Base

The asset data held for Water supply and Wastewater had been a focus for improvement over the last nine years. This was reflected in the positive peer reviews undertaken of the 2017, 2020 and 2024 valuations.

Road and footpaths data continues to be sound, based on thirty three years of RAMM use. An increase in data analysis as part of the One Network Framework and capture of pavement performance data has improved knowledge of the asset further.

The 2022 Road Asset Valuation identified the accuracy of most roading asset data as "B" or "Reliable". (Data based on sound records, procedures, investigations and analysis, which is properly documented but has minor shortcomings, for example, the data is old, some documentation is missing, and reliance is placed on unconfirmed reports or some extrapolation.) Bridge data is of higher accuracy, "A-B" or "Highly reliable - Reliable". (Data

based on sound records, procedures, investigation, and analysis which is properly documented and recognised as the best method of assessment).

Confidence Grading					
Asset	ORC		ODRC		Overall Value
	Quantity	Unit Cost	Life	Remaining Life	
Land	B	A	-	-	A-B
Formation	B	B	-	-	B
Unsealed Pavement Structure	B	B	-	-	B
Sealed Pavement Structure	B	B	B	B	B
Sealed Pavement Surface	A	A	B	B	B
Bridges	A	B	A	B	A-B
Drainage	A	B	B	B	B
Drain Fords	A	A	B	B	B
Footpath	A	B	B	B	B
Signs	B	A	B	B	B
Street Lights	A	B	B	B	B
Surface Water Channel	B	A	B	B	B
Traffic Facilities	B	B	B	B	B
Overall					B

The overall accuracy of the confidence grading for roading assets has been assessed to be approximately ±15%, this is based off the average confidence grading of **B**.

The 2024 valuation has indicated (for Three Waters):

Table 6-2: Asset Data Confidence Ratings

Confidence Level	Description	Accuracy	Condition	Quantity	Unit Cost	Base Life
A	Highly Reliable and Accurate	100%				
B	Reliable with Minor Inaccuracies	±5%		B	B+	B+
C	50% estimated	±20%	C			
D	Significant data estimated	±30%				
E	All data estimated	±40%				

From a valuation perspective the data reliability is considered (for all assets covered by the IS) to be “B” or +/- 5%. Council acknowledges that the reduced reliability associated with less accurate condition ratings (+/- 20%) could impact future financial forecasting. However, this is currently mitigated by empirical assessment of assets proposed for renewal. Active programmes to improve the data held for assets will improve this further.

Council acknowledges there are limitations with its data that affect decision-making. A commitment to improving data collection and analysis is indicated below. Additional part-time and full-time roles have been added to the Council team to address data limitations and accuracy.

Table 6-3: Data Improvements

Activity	Data to be collected	Data to be analysed	Value this data provides
Roading	Traffic counts	Classified vehicle counts	Allows council to assess and report on utilisation of the asset and review whether the asset actually provides sufficient capacity for current and future use.
	Falling Weight Deflectometer/Multi-Speed Deflectometer Testing	Pavement deformation (strength) / SNP	Assists with identifying where there may be pavement risk should there be a change in traffic demand or weakening ground conditions. Testing indicates areas where stronger pavements may be needed (informing renewals programme) or where attention should be given towards drainage provision.
	Consistent Condition Data Collection (CCDC)	Pavement Condition	Robust consistent data of current road conditions.
	Data available from other organisations (e.g. NIWA NZ Flood Stats)	Flows of our rivers against our bridge capacity	Compare our existing bridge capacity against flood and river flow. Identifying what our bridge is capable to handle during flood events.
Water supply		Water demand information	Universal metering provides a comprehensive data set which is currently not leveraged to understand peak demands
Water supply and Wastewater	Pipe condition Above ground asset condition	Pipe condition information Above ground asset condition Hydraulic Models	Validate renewal programmes Additional staff recruited to assist with pipe asset and condition data improvements

The approach to data collection, management and reliability is discussed in the respective asset management plans and budgets included where appropriate.

The Government Policy Statement on Land Transport 2024-34 has a reduced focus on footpaths and consequently reduced available funding.

The theoretical backlog for Roads and Footpaths indicates approximately a $35M shortfall over the ten-year period. For the same period, the Three Waters theoretical / budgeted renewal shortfall is negligible. The end-of-life assets are still being utilised and are performing adequately.

Whilst there is a theoretical backlog of renewals in both the Three Waters and Roading activities, the following improvements will help to reduce this in future iterations of this strategy, correcting useful lives by completing the following:

- Componentisation of bridges and footpaths where there is significant variance in the useful lives of beams, decks and piles, and between sealed surfaces and basecourse respectively. Individual component renewal can extend the useful lives of assets through capitalised maintenance.
- Condition and Performance grading. The inclusion will allow more detailed assessment of proposed renewals and enable the theoretical backlog to be reduced as a result.
- Reassess useful lives. Where condition and performance records are adequate and failures are not being observed, useful lives for some assets can be extended.

Council currently utilises empirical assessment to achieve the above and to ensure investment / intervention is appropriate.

6.7 Significant Infrastructure Decisions

Taking a long-term management view of infrastructure assets, Waimate District Council needs to make key decisions in a timely manner. In addressing Community desires and priorities the following key decisions have been identified.

Table 6-: Significant Infrastructure Decisions

Key Decision	Indicative Timeframe
Roading and Footpaths Review investment in Roading to provide a satisfactory level of service and provide for large and heavier vehicles. Historically, the level of investment required to keep roads to a 'fit for purpose' level in Waimate District has been the lowest in the country. However, as land use changes the demands on the network increase; so does the amount of work to keep them to the required standard. A comprehensive planning and maintenance approach to ensure this level of service is achieved will require more investment. For the next three years an increase in renewal investment includes investment in pavement rehabilitation, and drainage renewals. It is envisaged that these investment levels will continue into the future.	Review investment level every three years in conjunction with the National Land Transport Programme and any current Government Policy Statement (GPS). Changes to the GPS will inevitably affect where and how much funding will be available for particular Work Categories.
Roading and Footpaths WDC's Bridge Replacement/Upgrade Strategy lists the bridges which have been identified for component replacement, or upgrades, to re-establish appropriate levels of service for vehicles (including heavy vehicles) crossing these structures. Overall risks associated with asset failure have been assessed to be moderate and are acknowledged to be the determining factor in network resilience. There are some critical routes, bridges and demand issues pending. Council's bridge stock enables components of the bridges to be renewed independently (structure component replacement). This allows Council to replace parts of the bridges that have deteriorated and allow bridges to be "sweated" and extend remaining useful life.	Review investment level every three years in conjunction with the National Land Transport Programme The timing for replacement and upgrade works is indicated in the strategy for some bridges but is generally left to the Council to decide based on the information given and forecast budgets.
Water Supplies The renewal programme is considerable and will extend well into the future. Council will need to commit to this to maintain satisfactory levels of service and to provide increased levels of service required for compliance with the Water Services Act, associated rules and the DWSNZ. The proposed renewal programme is well underway, and budgets included in the 2025-2027 horizon.	Renewal programmes are continually updated as asset knowledge and asset management practices are improved. Programmes are revised to align with Council planning processes (Long Term and Annual Plans) with detailed reviews occurring prior to the production of each respective Long Term Plan.
Wastewater With the completion of the I&I investigation, council staff need to investigate the source of inflow on a prioritised basis. The Northeast catchment is a focus for ground survey, smoke testing, CCTV work and targeted renewals.	2025/27 – Policies and Bylaws to be updated prior to embarking on this work. 2036 WWTP Upgrade

Key Decision	Indicative Timeframe
A key decision is whether property owners will be responsible for rectifying faults or whether council funds these works as an offset to expensive pipeline upgrades. The WWTP consents and subsequent upgrades are a significant investment; this has been budgeted in the 2034/35 financial year. Initial investigations and the legislative environment will inform exactly what is required closer to that time.	
Wastewater The renewal programme is considerable and will extend well into the future. Council will need to commit to this to maintain satisfactory levels of service. The renewal programme budgets have been forecast over the 10 year horizon and beyond. Sewer network extensions have also been forecast to cater for growth	Renewal programmes are continually updated as asset knowledge and asset management practices are improved. Programmes are revised to align with Council planning processes (Long Term and Annual Plans) with detailed reviews occurring prior to the production of each respective Long Term Plan.
Wastewater The WWTP upgrade is scheduled for the latter part of the 10 year timeframe. This will be affected by the outcomes of national wastewater treatment standards currently being developed.	2034/35 funding for the WWTP upgrade. Planning and treatment options to commence prior to this.
Stormwater The forward works programme is relatively small and provision over the next ten years caters for asset replacement, increased levels of service and to provide the necessary capacity for growth and infrastructure resilience. It should be noted that more significant renewals are expected towards the end of the thirty year timeframe.	Stormwater investment programmes have been refined to align with the requirements of the global discharge consent.

The related financial requirements and forecasts of these key decisions are detailed in Section 7 and 8.

7.0 SIGNIFICANT INFRASTRUCTURE ISSUES

The Local Government Act 2002 Section 101B – Infrastructure Strategy states:

(2) The purpose of the infrastructure strategy is to —

"(a) identify significant infrastructure issues for the local authority over the period covered by the strategy; and

"(b) identify the principal options for managing those issues and the implications of those options.

In developing this 30 Year Infrastructure Strategy Council has identified the anticipated significant infrastructure issues over the 30 year horizon and considered each significant action and their costs and benefits. These issues are detailed in the following sections.

(Note where projects have been identified for level of service, these projects seek to either maintain the existing level of service, or to ensure that level of service targets are obtained in the future.)

7.1 Three Waters Reform

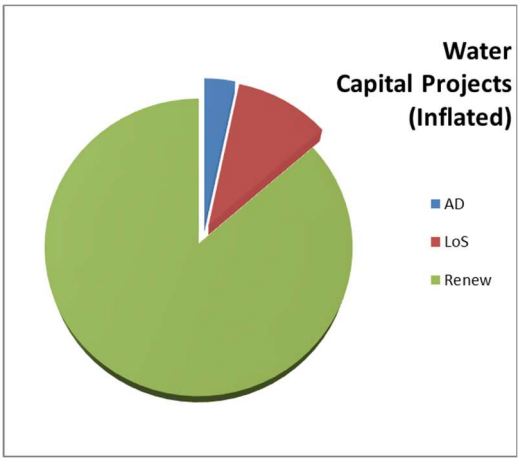
Issue - The Government water reform programme 'Local Water Done Well' is ongoing		
Main Options	**Implication of Options**	
The future Water Servicing options are currently being developed as part of the Water Services Delivery Plans (WSDP) as required by legislation. These Plans are required to be submitted to the Secretary for Local Government by 3 September 2025.	The outcomes of the WSDP process will help determine the future WDC Three Waters management and delivery arrangements.	
Time period	2025-2030	
Cost	To be determined	To be determined
What is the benefit	Yet to be determined	
Assumption	The WSDP process will detail future service delivery options and a preferred option for WDC.	

7.2 Water Supply Significant Issues

Strategic Goals for the Water Supply are:

- To ensure the delivery of safe drinking water that meets the requirements of DWQARs and the DWSNZ
- To ensure that adequate water schemes are provided and maintained for the wellbeing of the public both now and in the reasonably foreseeable future
- To ensure that the long-term operation and maintenance of the water treatment facilities are environmentally sustainable

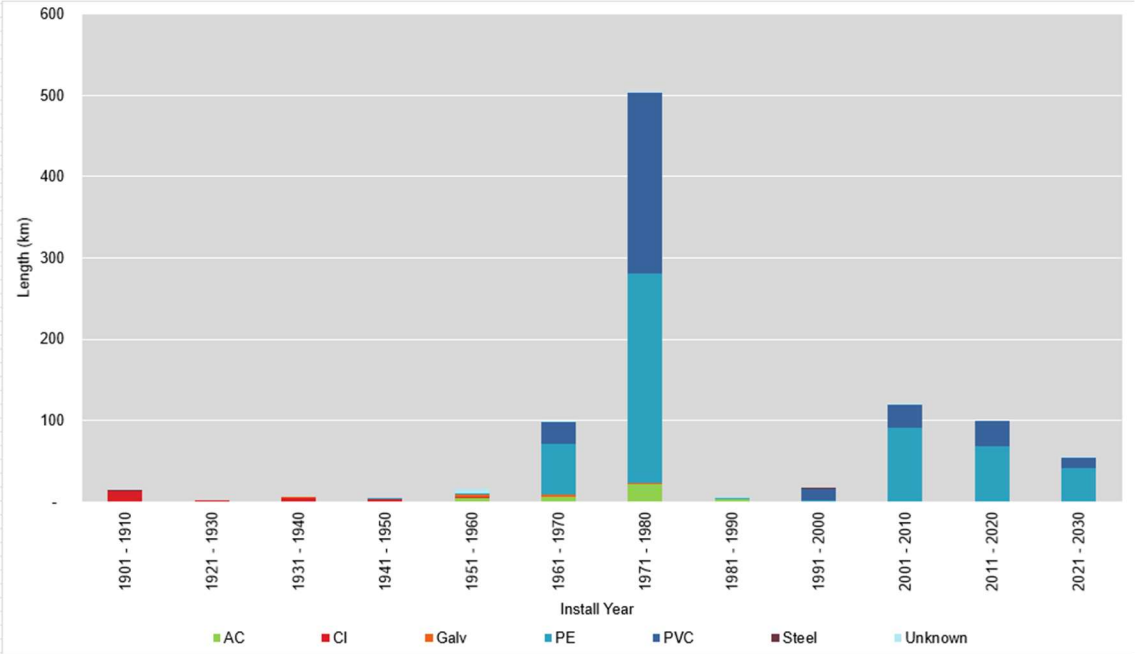
To demonstrate responsible management in the operation, maintenance, renewal and disposal of Council-owned water assets



Issue - A significant percentage of aged and poor condition water mains (cast iron and asbestos cement within the urban reticulation) will need replacement in the next 20 years		
Main Options	**Implication of Options**	
Option 1 - Embark on a renewal plan of all original cast iron pipes in Waimate Town	This is a costly option and is likely to have a significant impact on customers during replacement. This could be the most cost-effective approach as there would be economies of scale.	
Option 2 - Replace pipes on an as-needed basis.	This is likely to have severe impacts on the level of service provided. Outages would become common and replacing pipes in an 'emergency' situation would be expensive and difficult to coordinate.	
Option 3 - Undertake replacement over a period of time	Apply a prioritised approach ensuring that the impact on customers is limited. Comprehensive planning is required to maintain a satisfactory level of service	
Time period	Ongoing – continually reviewed as information becomes available	
Cost	~$15.5M (2025 10 Years)	~$66M (years 11-30, Budget to be refined based on condition assessments and further planning)
What is the benefit	LoS/Renewal	
Assumption	Funding and delivery capacity is available.	

The following figure illustrates the age profile of the water supply pipes:

Figure 7-1: Water Pipe Length by Installation Year and Material



Issue – A number of the district's water sources require upgrade to achieve compliance with the DWQARs and NZDWS.	
Main Options	**Implication of Options**
Option 1 - Embark on an accelerated plant upgrade programme in the very short term.	This is a costly option and is likely to have a significant financial impact on both existing and future customers. Whilst cost effective (economies of scale etc.) it will require significant resourcing.
Option 2 – Continued monitoring of the legislative environment and Upgrade WTP as required, this will enable the most cost-effective solutions to be implemented	Works programme is underway and budgets are in place to meet the current legislative framework and the expectations of both consumers and Taumata Arowai.
Time period	2025/26
Cost	$7.77M (2025 – 10 Years - ongoing programme)
What is the benefit	LoS/Renewal
Assumption	Indications are that some relaxation of requirements is likely to occur in the near term. This relaxation may manifest in reduced capex and opex investment and potentially delays in implementation

Initial work was completed during the period 2018-2021. Currently there are different levels and forms of water treatment across the district schemes as illustrated below.

Table 7-1: Water Quality Issues

Supply	Service Connections	Population served (WINZ)	Source	Existing Treatment						Proposed treatment	
				No treatment/ disinfection	Coagulation	Flocculation	Filtration	Ultra Violet Irradiation	Chlorination	Method	Completed/ Completion Due
Waimate Urban	2,010	3,416	Ground water[1, 2]		-	-	1	1 & 2	1 & 2		Completed
Cannington Motukaika	49	90	Surface water		-	-				Filtration, UV & Chlorina-tion upgrade. Potential for Acceptable Solutions	2025/26, subject to compliance changes
Hook Waituna	551	962	Surface water		-	-				Connect scheme to compliant supply	2025/26
Lower Waihao	257	700	Ground water		-	-					Completed
Otaio Makikihi	232	422	Ground water		-	-				Upgrade to be confirmed	2025/26 as part of project with Hook-Waituna Scheme
Waihaorunga	43	99	Surface water		-	-				Filtration & UV. Potential for Acceptable Solutions	2025/26, subject to compliance changes
Waikakahi	173	344	Surface water		-	-				Filtration, UV & Chlorina-tion upgrade. Potential for Acceptable Solutions	2025/26, subject to compliance changes

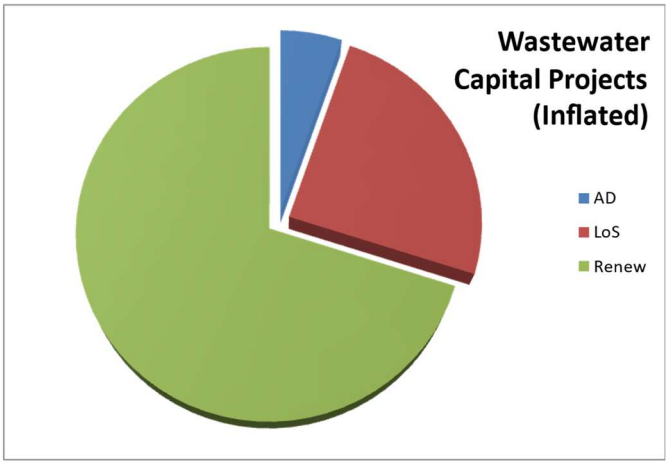
1 = Timaru Road only / 2 = Manchester Bore

Issue – The rural townships are experiencing water loss, increased demand and associated pipework capacity deficiencies	
Main Options	**Implication of Options**
Option 1 - Repair leaks	Repairing leaks as they occur will be required where assets are not being replaced and capacity is required. However, this will become more difficult as the state of the pipes deteriorates.
Option 2 - Do not repair leaks	This is likely to have severe impacts on the level of service provided. Outages would become common. Additional, new connections would be impossible
Option 3 - Renew existing pipes, optimise renewals to facilitate growth, allow for online compliance monitoring, relocate difficult to access pipework.	Given the age, condition and location of the pipes, a renewal programme is required to address difficult to detect leakage, provide future access to water services for growth and enhanced management of the schemes.
Time period	2026 - 2035
Cost	$15.5M (Renewals 2025 – 10 Years)
What is the benefit	LoS/Renewal
Assumption	Water loss in the rural schemes is well managed

7.3 Wastewater Significant Issues

Strategic Goals for the Wastewater Activity are:

- To ensure that adequate Wastewater Services are provided and maintained for the wellbeing of the public both now and in the reasonably foreseeable future
- To ensure that the long-term operation and maintenance of the Wastewater treatment plant is environmentally sustainable
- To demonstrate responsible management in the operation, maintenance, renewal and disposal of Waimate District Council-owned assets

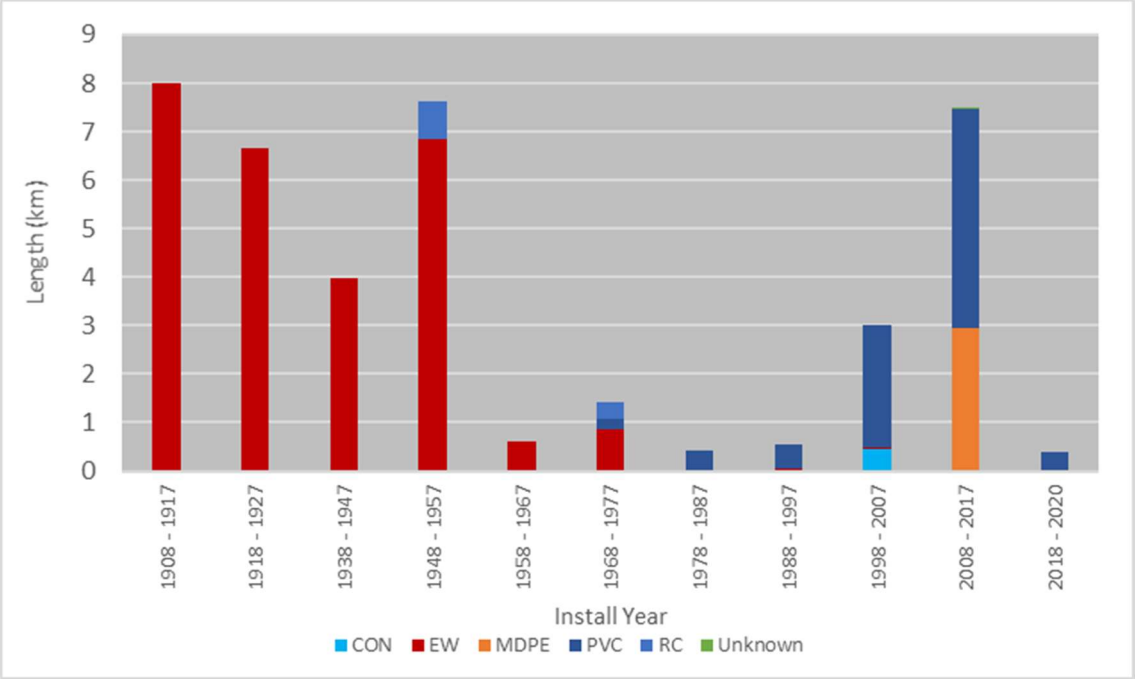


Significant infrastructure issues are tabled below. The highlighted option is the preferred approach for addressing the identified issue.

Issue - A significant percentage of aged and poor condition Wastewater mains will need replacement in the next 20 years		
Main Options	**Implication of Options**	
Option 1 - Embark on a renewal plan of all original earthenware in Waimate Town	This is a costly option and is likely to have a significant impact on customers during replacement. This could be the most cost-effective approach as there would be economies of scale.	
Option 2 - Replace pipes on an as-needed approach.	This is likely to have severe impacts on the level of service provided. Blockages would become common and replacing pipes in an 'emergency' situation would be expensive and difficult to coordinate.	
Option 3 - Undertake replacement over a period of time	Apply a prioritised approach ensuring that the impact on customers is limited.	
Time period	Ongoing – continually reviewed as information becomes available	
Cost	$11.8M (2025 10 Years)	$54.7M (11-30 Years, to be refined based on ongoing condition information)
What is the benefit	LoS/Renewal	
Assumption	Funding and delivery capacity is available.	

The following figure illustrates the age profile of the Wastewater pipes.

Figure 7-2: Wastewater Pipe Length by Installation Year and Material



Issue – There is a high level of inflow into the Wastewater network	
Main Options	**Implication of Options**
Option 1 - Replace all pipes	Not all pipes in the network are subject to infiltration. Even if all infiltration was eliminated, inflow would continue to be a source of peak wet weather flows.
Option 2 - Identify the worst pipes and replace them	The age and condition of reticulation pipes suggest some replacement is required. The impact of the worst pipes on levels of service, infiltration and potential leakage into the environment needs to be addressed.
Option 3 - Implement property surveys to identify inflows. Use bylaw to seek rectification	This is required to reduce illegal discharges and bring wet weather flows under control. As part of its Wastewater resource consent council is required to improve its management of the scheme and reduce the amount of treated waste that required disposal. The cost of rectification would lie with the party with illegal drainage. Council still needs to consider whether rectifying unintentional inflow would lie with the property owner or as part of a wider council programme.
Option 4 - Combination of replacement (option 2) and addressing inflow (option 3)	The issue to be addressed is a combination of inflow and pipe condition assessment and renewals. To be a responsible operator all factors need to be addressed. I&I survey results are informing works planning and prioritisation.

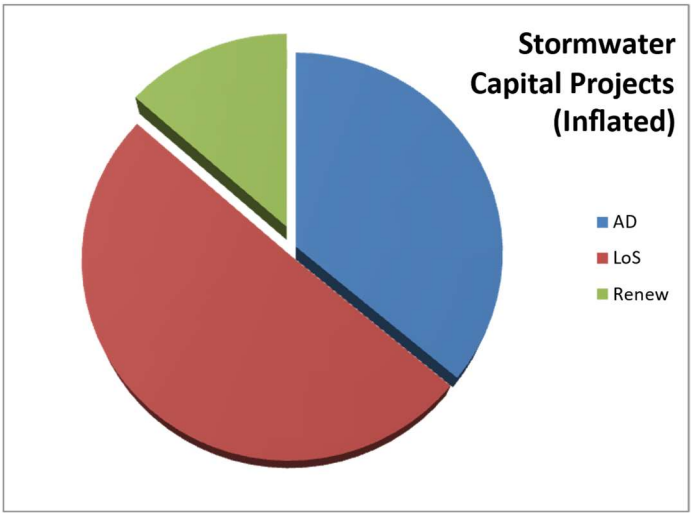
Issue – There is a high level of inflow into the Wastewater network		
Main Options	**Implication of Options**	
Time period	2025 onwards, renewals ongoing	
Cost	$11.8M (Same budget as Renewals 2025 10 Years)	I&I investigations will be funded from operations and maintenance budgets.
What is the benefit	LoS/Renewal	
Assumption	I&I improvement will be achieved by the wider wastewater pipeline renewals programme.	

Issue – Upgrade of the WWTP		
Main Options	**Implication of Options**	
Option 1 – Apply for a replacement consent prior to 2036	The successful application for resource consent will likely result in an associated upgrade of the WWTP. Improvements will be sought to further protect the receiving environment.	
Option 2 – Do nothing and risk non-compliance	This is not a feasible option for Council due to the risks related to non-compliance.	
Time period	2034-2052	
Cost	$24.25M (2034-2052)	Costs to be refined as detailed investigations and planning is undertaken
What is the benefit	Improved compliance and capacity	
Assumption	Modular compliance pathway as prescribed by central government.	

7.4 Stormwater Significant Issues

Strategic Goals for the Stormwater Activity are:

- To ensure that adequate Stormwater drainage is provided and maintained for the wellbeing of the public
- To demonstrate responsible management in the operation, maintenance, renewal and disposal of Council owned Stormwater assets



There are no significant Stormwater issues. Isolated flooding occurs from time to time, and this can be addressed with small 'fit for purpose' solutions. These include works to identify, protect and improve overland flow paths.

Issue - Compliance with the Land and Water Regional Plan requirements		
Main Options	**Implication of Options**	
Option 1 – Plan and implement activities to meet the requirements of the Land and Water Regional Plan	Compliance with the Land and Water Regional Plan is required. This may see increased levels of compliance for discharges (treatment), especially as it relates to industrial discharges. Currently these are very few in the district.	
Option 2 – Do nothing and risk non-compliance	This is not a feasible option for Council due to the risks related to non-compliance.	
Time period	2025-2055	
Cost	$409.1k (rapid soakage 2025-2035)	$5.28M over the 11-30 year horizon has been forecast for long-term network extension, capacity and quality improvements
What is the benefit	Yet to be determined	
Assumption	Council can fund the required works within the specified timeframes.	

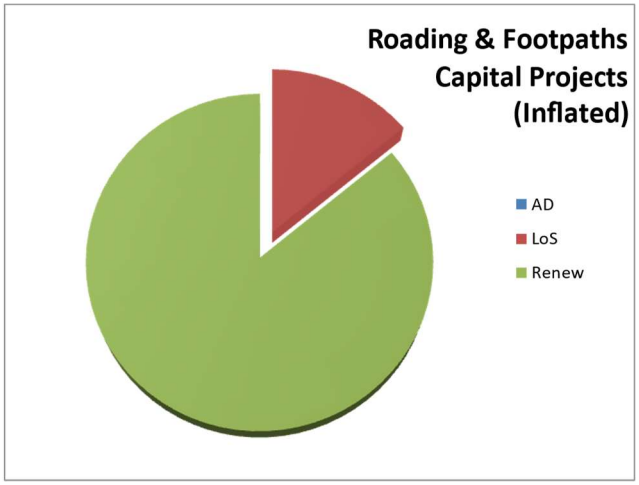
Issue – Implementation of the Urban Stormwater Management Plan		
Main Options	**Implication of Options**	
Option 1 – Plan and implement activities detailed in the SMP in order to help ensure stormwater discharge requirements are met.	The global stormwater discharge consent requires changes to how we receive and convey stormwater and flood flows. Conditions of the consent and actions within the stormwater management plan require resourcing and associated budgets. The Stormwater programme development will be further refined as a result.	
Option 2 – Do nothing and risk non-compliance	This is not a feasible option for Council due to the risks related to resource consent non-compliance.	
Time period	2025 onwards	
Cost	$17,817 (2025 10 Year)	$606.2k (to be refined based on further planning)
What is the benefit	Protection of the receiving environment, refined management of stormwater and climate change adaptation.	
Assumption	Council can fund the required works within the specified timeframes.	

Issue – Three Water Reform and inclusion of Stormwater		
Main Options	**Implication of Options**	
Option 1 – As noted in Section 7.1 the future Water Servicing options (including Stormwater) are currently being developed as part of the Water Services Delivery Plans	Future Stormwater management and delivery arrangements will be included in the WSDP	
Option 2 – Retain the stormwater management and delivery status quo	The WSDP outcomes will determine future Stormwater delivery options.	
Time period	Direction understood by 3 September 2025	
Cost	To be determined	To be determined
What is the benefit	Yet to be determined	
Assumption	The WSDP process will detail future service delivery options and a preferred option for WDC.	

7.5 Roads and Footpaths Significant Issues

Strategic Goals for Roading and Footpaths are stated in the Transportation Policy.

The purpose of road assets is to provide a sustainable, safe, convenient, comfortable and cost-effective road network for the movement of people, goods and vehicles throughout the Waimate District.



Issue - Some road assets are failing due to the age of the asset (asset past their useful life)		
Main Options	**Implication of Options**	
Option 1 – Increase renewals	Some road assets are past their expected useful life and have deteriorated and renewal of assets (pavements, kerb and channels, and footpaths) are required to prevent the 'bow-wave'.	
Option 2 – Pre-empt the failure of the assets and renew asset on their end of useful life.	This is an expensive option that could not be justified on the less trafficked routes. Upgrading roads progressively across the district could mean that the community would have a higher level of service provided, and savings on maintenance work.	
Time period	Programme for increased pavement rehabilitation, and drainage renewals implemented from 2024.	
Cost	$23M (2025-2035 10 Years)	Includes pavement renewals, and drainage renewals
What is the benefit	LoS/Renewal	
Assumption	NZTA will provide funding at the required level to meet LoS requirements.	

Issue – Network vulnerable to storm events due to lack of capacity of drainage and structure assets	
Main Options	**Implication of Options**
Option 1 – Maintain drainage renewal programme	Maintaining drainage renewal and increasing the capacity of the drainage asset allows for maintaining pavement useful life.
Option 2 – Increasing drainage renewal programme and creating new assets	Building larger capacity assets and new assets (including relocating assets, e.g. shifting road away from river). This is an expensive option and should only be considered for high use roads and where there is demonstrated benefit.
Time period	Programme is to maintain drainage renewal and to investigate resilience projects.
Cost	$6.4M (2025-2035 - 10 years)
What is the benefit	LoS/Renewal
Assumption	NZTA will provide funding at the required level to meet LoS requirements.

Issue – Some bridges are not suitable for the demands on the network	
Main Options	**Implication of Options**
Option 1 - No replacements or upgrading	There are very few portions of the network that cannot be accessed by Class 1, 50MAX or HPMV vehicles. Some long routes cannot be used during flood conditions.
Option 2 – Upgrade all bridges to 50MAX/HPMV	This is a costly option, and while it would provide an excellent level of service it would be likely to take considerable time to implement.
Option 3 – Upgrade key bridges to provide cost effective travel options	Applying the ONF hierarchy and looking at key routes for improving freight connections where cost benefit is demonstrated. Bridges that are regarded as the priority and can be improved under NZTA's 'structural component replacement' Work Category.
Time period	Ongoing
Cost	$2.8M (2025-35 - 10 years)

Issue – Some bridges are not suitable for the demands on the network	
Main Options	**Implication of Options**
What is the benefit	LoS/Renewal
Assumption	NZTA will provide funding at the required level to meet LoS requirements.

Issue – Road safety is important to keep our road users alive	
Main Options	**Implication of Options**
Option 1 – Carry-out an enhanced programme of safety improvements to remove deficiencies, especially for SH detour routes	This is a costly option, and while it would provide an excellent level of service it would be likely to take considerable time to implement and require NZTA buy-in and funding.
Option 2 – Modest ongoing safety improvement projects	Intersection upgrades, guard railing, and pavement widening. Focusing on SH detour routes on local roads that are inadequate for the volume and the heavy vehicles. Implement delineation Strategy.
Time period	Ongoing
Cost	~$4.5M (2027-2034 Years 3-10)
What is the benefit	LoS/Safety
Assumption	NZTA will provide funding at the required level to meet LoS requirements.

7.6 Significant Infrastructure Issues and Response Timeline

Aging assets, addressing changing transport demands and improving water supplies are all challenges for Waimate District Council. Over the next ten years investments to improve levels of service will be the priority, and renewal programmes will ramp up for Water and Wastewater activities.

Roading investment levels are reviewed every three years in line with the government priorities for financial assistance.

The following chart illustrates the key issues and responses.

Table 7-2: Significant Infrastructure Issue and Response Timeline

Core Infrastructure	Years 1-3	Years 4-10	Years 11-20	Years 21-30
Roading and Footpaths	Improved drainage Drainage Renewals Flood resilience Reseals Pavement Rehabilitation	Improved drainage Drainage Renewals Flood resilience Reseals More Pavement Rehabilitation Reseals Safety improvements	Improved drainage Drainage Renewals Flood resilience Reseals Increased Pavement Rehabilitation Safety improvements	Improved drainage Drainage Renewals Flood resilience Reseals Increasing Pavement Rehabilitation Safety improvements
Water Supplies	Treatment upgrades Pipe renewals Govt. water reform Consenting	Pipe renewals/LoS Improvements Consenting	Pipe renewals/Growth/LoS improvements	Pipe renewals/Growth/LoS improvements
Wastewater	Reduce Inflow Pipe renewals Network Extensions Govt. water reform	Reduce inflow Pipe renewals Network Extensions	Monitor I&I Pipe renewals Network Extensions Consenting WWTP and necessary upgrades Construction WWTP	Monitor I&I Pipe renewals Network Extensions

Core Infrastructure	Years 1-3	Years 4-10	Years 11-20	Years 21-30
Stormwater	Urban improvements Action Global Consent Govt. water reform	Urban improvements	New Global Consent Network Extensions Capacity and Quality Improvements	Network Extensions Capacity and Quality improvements

7.7 Significant Infrastructure Projects

7.7.1 Water

The significant Water projects (Budget > $500,000) are summarised in the table below:

Table 7-3: Significant Water Projects (Inflated)

	2025/26 to 2029/30	2030/31 to 2034/35	2035/26 to 2039/40	2040/41 to 2044/45	2045/46 to 2049/50	2050/51 to 2054/55
LOS	**8,861,890**	**777,123**	**119,778**	**146,430**	**949,012**	**218,845**
Cannington - Drinking Water compliance upgrade	1,140,000	-	-	-	-	-
Cannington - 80mm Line "Slip Line" (700m x 125mm PE)	-	542,770	-	-	-	-
Hook / Waituna - Drinking water compliance upgrade	686,400	-	-	-	-	-
Hook / Waituna - PVC Tavistock Hook supply link	2,390,900	-	-	-	-	-
Otaio / Makikihi - Makikihi township mains renewal	384,281	132,346	-	-	-	-
Waihaorunga - Pump replacements	38,064	102,007	119,778	146,430	179,012	218,845
Waihaorunga - Drinking water compliance upgrade	1,056,000	-	-	-	-	-
Waikakahi - Drinking water compliance upgrade	2,581,000	-	-	-	-	-
Urban - Upsize Timaru Road Delivery Main 200mm to 300mm. See Hydraulic Modelling	-	-	-	-	770,000	-
Urban Water - Pressure management High Street rising mains	585,245	-	-	-	-	-

	2025/26 to 2029/30	2030/31 to 2034/35	2035/26 to 2039/40	2040/41 to 2044/45	2045/46 to 2049/50	2050/51 to 2054/55
REN	**6,204,614**	**8,487,565**	**17,936,243**	**23,461,705**	**25,661,939**	**26,310,973**
Cannington - Renewals	126,400	238,242	246,858	301,788	368,939	451,033
Hook / Waituna - Renewals	235,140	235,950	195,572	239,089	292,290	357,328
Hook / Waituna - Drinking water compliance upgrade	633,600	-	-	-	-	-
Otaio / Makikihi - Renewals	145,696	1,516,837	2,940,418	3,594,701	4,394,570	5,372,421
Waihaorunga - Pump replacements	27,564	94,989	86,736	106,035	129,630	158,474
Waikakahi - Renewals	113,663	1,490,147	2,837,846	3,469,304	4,241,271	5,185,011
Downlands Rural Water scheme various renewals	2,461,927	1,262,922	1,413,278	1,727,751	2,112,199	2,582,192
Urban Water - Rising main renewals	2,437,532	3,575,732	4,198,644	5,132,898	6,275,037	7,671,318
Urban Water - AC water main renewals	23,092	72,745	72,006	170,112	-	170,112
Longterm Water Renewals	-	-	5,694,885	6,113,237	4,410,981	3,256,294
Storage /Reservoir renewals and improvement	-	-	-	1,500,000	3,187,022	-
Water Treatment Renewals (Equipment telemetry and control)	-	-	250,000	1,106,789	250,000	1,106,789
AD	**1,917,556**	**-**	**300,000**	**637,404**	**-**	**937,404**
Urban Water - Te Kiteroa Main, Booster and Reservoir	708,000	-	-	-	-	-
Longtern network Extensions	-	-	300,000	637,404	-	937,404
Urban Water - Extension Bakers/Court/Hunts/Fitzmaurice Road	1,209,556	-	-	-	-	-

7.7.2 Wastewater

The significant Wastewater projects (Budget > $100,000) are summarised in the table below:

Table 7-4: Significant Wastewater Projects (Inflated)

	2025/26 to 2029/30	2030/31 to 2034/35	2035/26 to 2039/40	2040/41 to 2044/45	2045/46 to 2049/50	2050/51 to 2054/55
LOS	**168,136**	**13,436,917**	**2,021,882**	**2,026,751**	**3,032,704**	**3,039,981**
WWTP Electrical/control renewal	20,000	15,054	21,882	26,751	32,704	39,981
Allan Street extension	148,136	-	-	-	-	-
Manchester Street extension	-	116,453	-	-	-	-
Hunts Road extension	-	135,409	-	-	-	-
Modular Treatment Option (inc. Pivot Irrigation)	-	13,170,000	2,000,000	2,000,000	3,000,000	3,000,000
REN	**6,268,681**	**5,439,540**	**11,214,067**	**16,951,848**	**14,514,625**	**13,492,878**
Waimate Urban renewals	6,188,681	4,405,924	6,765,013	8,270,320	10,110,577	12,360,317
WWTP Electrical/control renewal	80,000	60,216	87,529	107,005	130,815	159,923
Investigate and Reconsent Urban Wastewater Treatment Plant (Multiple Consents)	-	263,400	-	374,962	-	-
Long term WWTP Equipment and Control renewals	-	10,000	74,272	94,987	116,765	54,272
Longterm Wastewater Renewals	-	700,000	3,954,770	7,818,216	3,868,702	918,366
Minor Pump Station renewals	-	-	50,000	221,358	-	-
Rising Main Renewal?	-	-	282,484	65,000	287,765	-

	2025/26 to 2029/30	2030/31 to 2034/35	2035/26 to 2039/40	2040/41 to 2044/45	2045/46 to 2049/50	2050/51 to 2054/55
AD	**555,863**	**587,679**	**1,050,000**	**1,250,000**	**650,000**	**1,400,000**
552074534 - Sewer - Edinburgh, Victoria and Nelson Streets infill	210,213	-	-	-	-	-
552074535 - Sewer - Allan Street extension	345,650	-	-	-	-	-
552074536 - Sewer - Manchester Street extension	-	271,725	-	-	-	-
552074537 - Sewer - Hunts Road extension	-	315,955	-	-	-	-
Future Network Extension	-	-	1,050,000	1,250,000	650,000	1,400,000

7.7.3 Stormwater

The significant Stormwater projects (Budget > $75,000) are summarised in the table below:

Table 7-5: Significant Stormwater Projects (Inflated)

	2025/26 to 2029/30	2030/31 to 2034/35	2035/26 to 2039/40	2040/41 to 2044/45	2045/46 to 2049/50	2050/51 to 2054/55
LOS	**175,000**	**-**	**1,020,500**	**1,148,036**	**-**	**425,279**
LGC overland flow path Queen Street	100,000	-	-	-	-	-
Rapid soakage devices Park Road	75,000	-	-	-	-	-
Global Consent Renewal	-	-	-	75,000	-	-
Predicted Global Consent Projects	-	-	-	531,196	-	-
Stormwater capacity and quality improvements	-	-	1,020,500	541,841	-	425,279
REN	**-**	**-**	**-**	**75,000**	**-**	**542,716**
Global Consent Renewal	-	-	-	75,000	-	-
Storm Water longterm renewals	-	-	-	-	-	542,716
AD	**75,000**	**-**	**937,404**	**-**	**1,093,638**	**-**
Rapid soakage devices Park Road	75,000	-	-	-	-	-
Storm Water network extension	-	-	937,404	-	1,093,638	-

7.7.4 Roads and Footpaths

The significant Roading and Footpath projects (Budget > $10M) are summarised in the table below:

Table 7-6: Significant Roading Projects (Inflated)

Row Labels	2025/26 to 2029/30	2030/31 to 2034/35	2035/26 to 2039/40	2040/41 to 2044/45	2045/46 to 2049/50	2050/51 to 2054/55
LOS	**1,635,750**	**3,004,620**	**3,321,204**	**3,812,950**	**4,377,505**	**5,025,650**
Roading - Minor improvements	1,635,750	3,004,620	3,321,204	3,812,950	4,377,505	5,025,650
REN	**18,582,329**	**22,741,872**	**25,138,081**	**28,860,091**	**33,133,191**	**38,038,978**
Resealing	6,918,428	7,793,513	8,614,681	9,890,193	11,354,561	13,035,747
Drainage construction	1,366,813	1,857,348	2,053,048	2,357,028	2,706,016	3,106,676
Culvert replacement	1,242,690	1,684,545	1,862,038	2,137,737	2,454,256	2,817,639
Kerb and channel renewal	1,676,711	1,970,129	2,177,713	2,500,151	2,870,330	3,295,319
Pavement rehabilitation	5,107,354	6,282,060	6,943,972	7,972,115	9,152,487	10,507,628
Structures component rep.	1,186,791	1,411,270	1,559,969	1,790,942	2,056,114	2,360,548
Footpath renewal	1,083,542	1,743,006	1,926,659	2,211,925	2,539,428	2,915,423

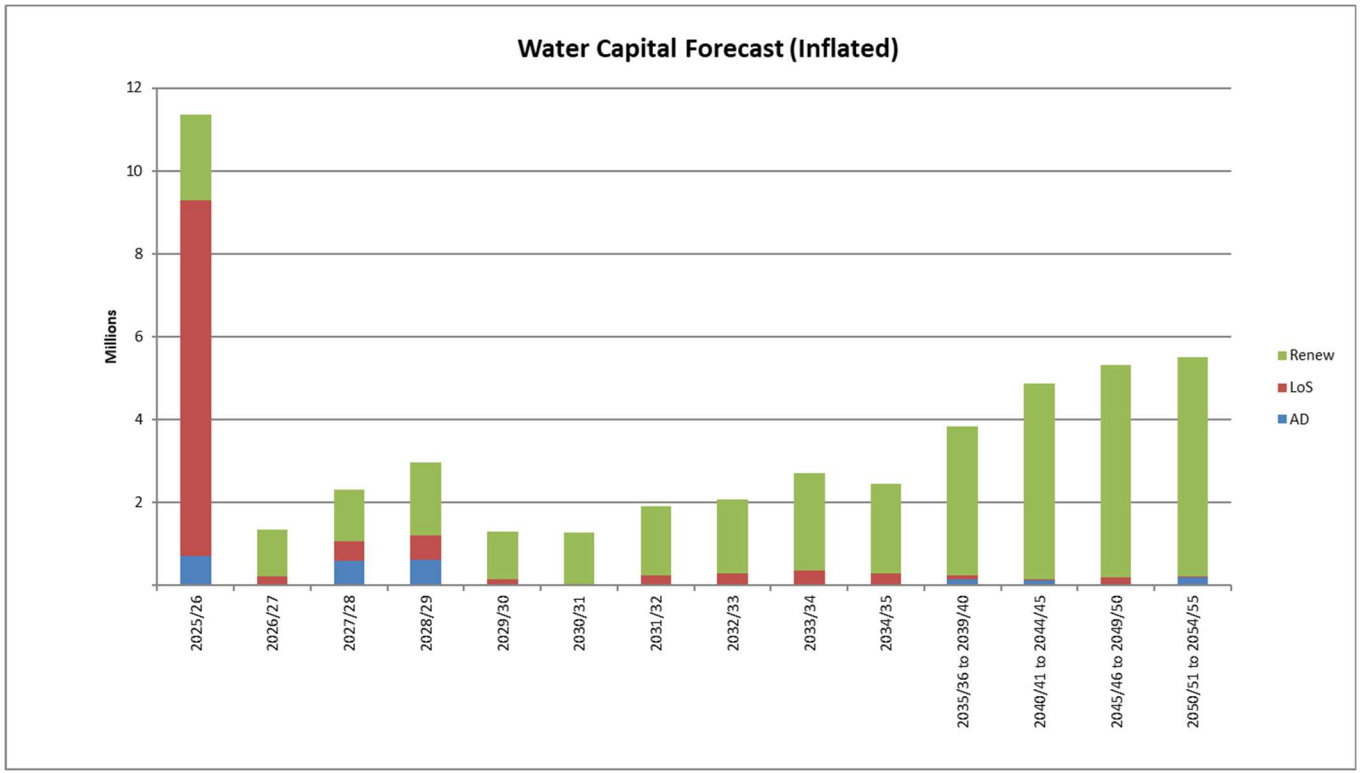
8.0 FINANCIAL ESTIMATES

8.1 Water

The projected capital expenditure associated with the water infrastructure assets are graphically represented below:

Renewing aging pipes (both urban and rural) is an ongoing programme. Early in the period, capital upgrades are required to complete the Waikakahi, Hook-Waituna, Cannington Motukaika and Waihaorunga upgrades.

Figure 8-1: Projected Capital Expenditure – Water (Urban and Rural)

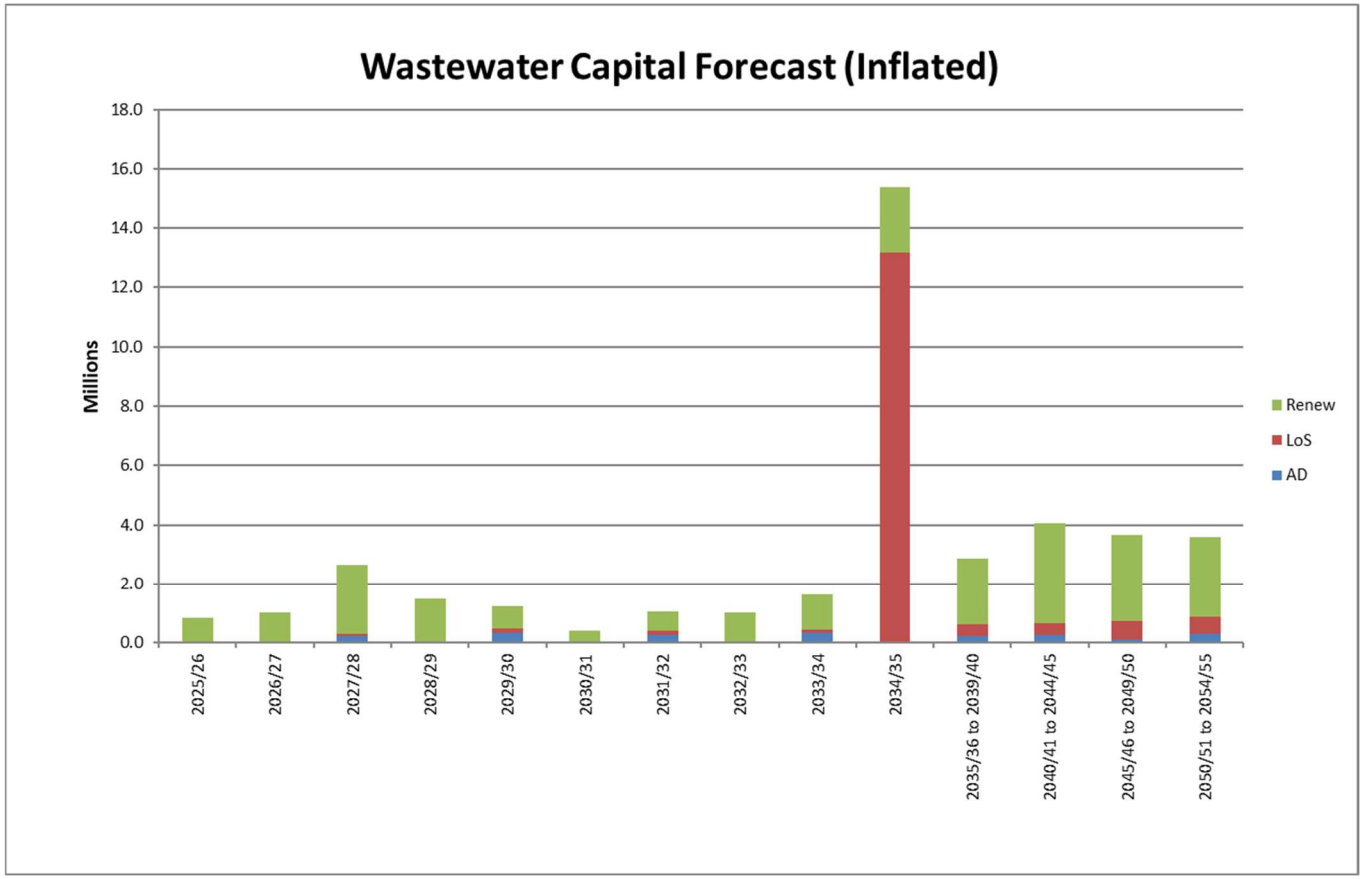


Note: the 2035-54 budgets are represented as the 5 yearly annualised average budgets.

8.2 Wastewater

The projected capital expenditure associated with the Wastewater infrastructure assets are graphically represented below. As illustrated below forecast expenditure relates to renewals, mostly reticulation, and the consenting and associated improvements at the WWTP.

Figure 8-2: Projected Capital Expenditure – Wastewater

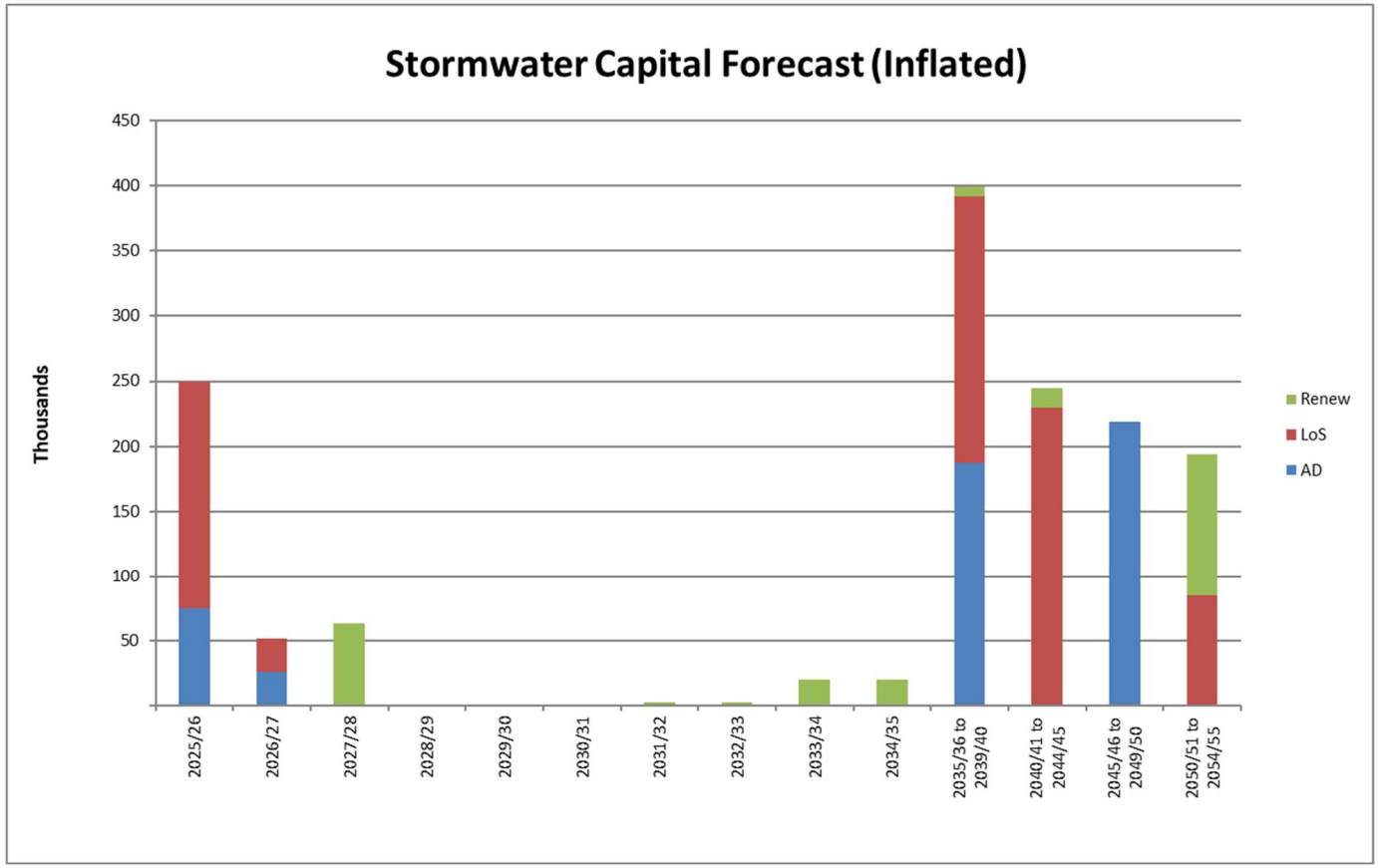


Note: the 2035-54 budgets are represented as the 5 yearly annualised average budgets.

8.3 Stormwater

The projected capital expenditure associated with the stormwater infrastructure assets are graphically represented below. The graph illustrates most significant investments are early in the planning period with growth infrastructure planned later. The bulk of renewals are expected after this planning period.

Figure 8-3: Projected Capital Expenditure – Stormwater

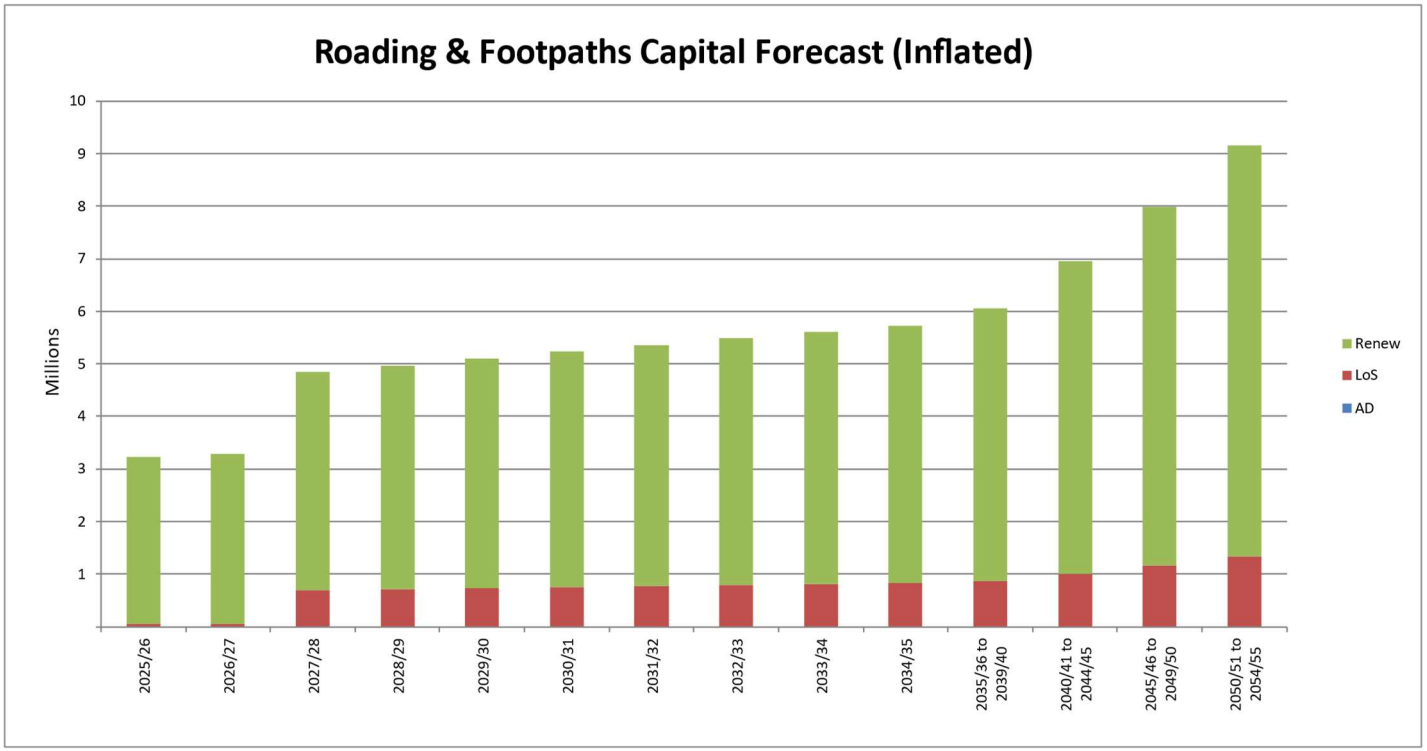


Note: the 2035-54 budgets are represented as the 5 yearly annualised average budgets.

8.4 Roads and Footpaths

The projected capital expenditure associated with the Roads and Footpaths infrastructure assets are graphically represented below. Renewal of assets is the greatest portion of the forecast - which includes sealed road resurfacing, drainage renewals and pavement rehabilitation. The overall programme of drainage renewals is also significant. Minor “Low Cost Low Risk” (NZTA work category) safety improvement capital expenditure is lower than each of these renewal Work Category investments. In the current NLTP 2024-2027, there is no NZTA co-investment funding allocated to Minor “Low Cost Low Risk” safety improvement, but Council has proposed to keep their share (non-subsidised) to do any work required for capital safety improvements projects. Council will continue to seek co-investment for these capital projects in future funding rounds.

Figure 8-4: Projected Capital Expenditure – Roads and Footpaths



Note: the 2035-54 budgets are represented as the 5 yearly annualised average budgets.

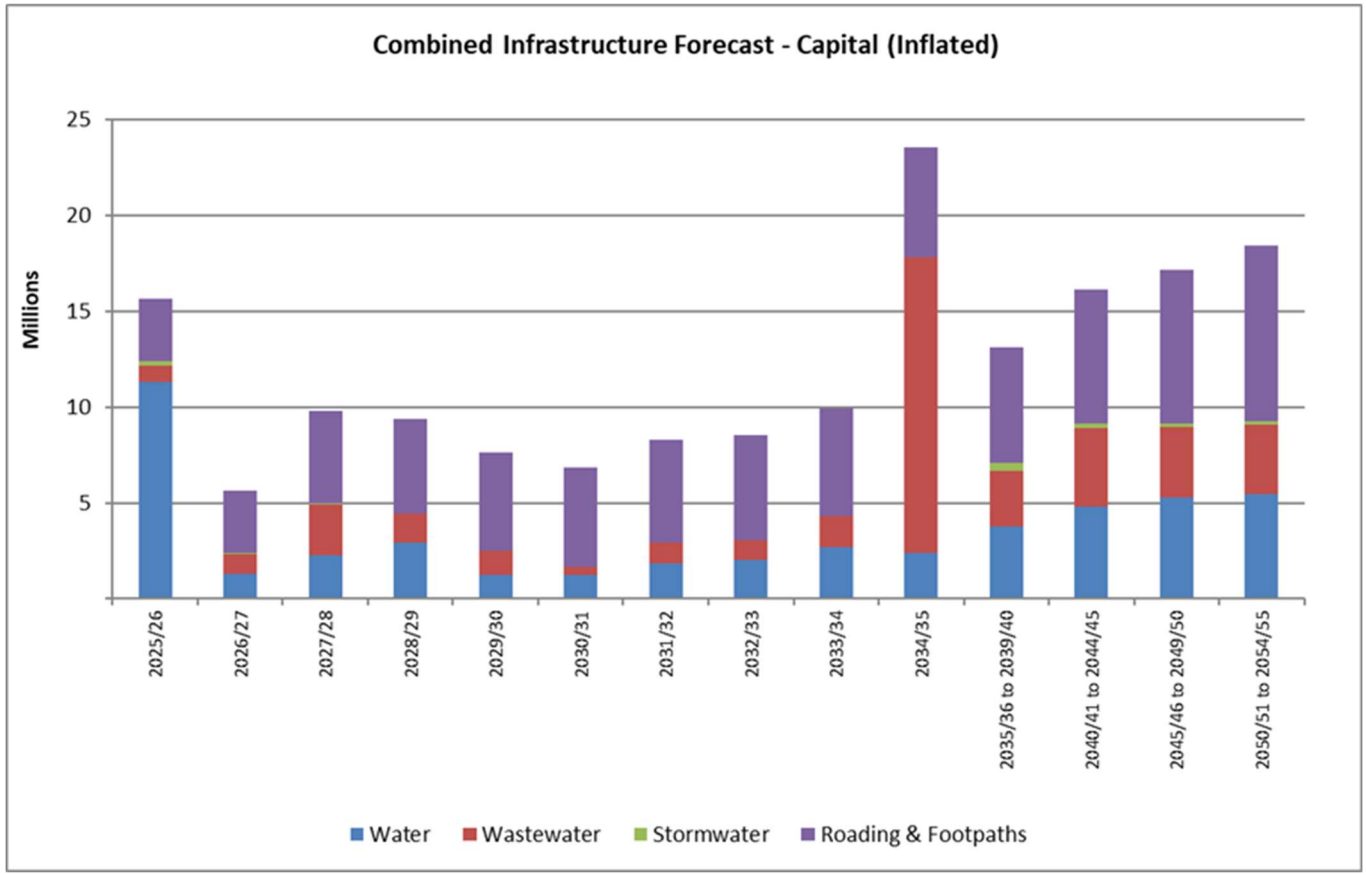
8.5 Total 30 Year Financial Investment Summary

The 30 year projected capital and operational expenditures associated with the core Infrastructure Assets are graphically represented in the figures below.

These expenditures come from Council's planned capital investments, predicted operations and maintenance cost and renewals forecasting. These expenditures take into account all 'significant' and 'non-significant' capital and operational expenditure due to Levels of Service, Growth, Operation and Maintenance or Renewal requirements.

The projected capital expenditure associated with the core infrastructure assets are graphically represented below:

Figure 8-5: Projected Core Infrastructure Capital Investment - Infrastructure Assets



Total Core Infrastructure Capital Investment Summary:

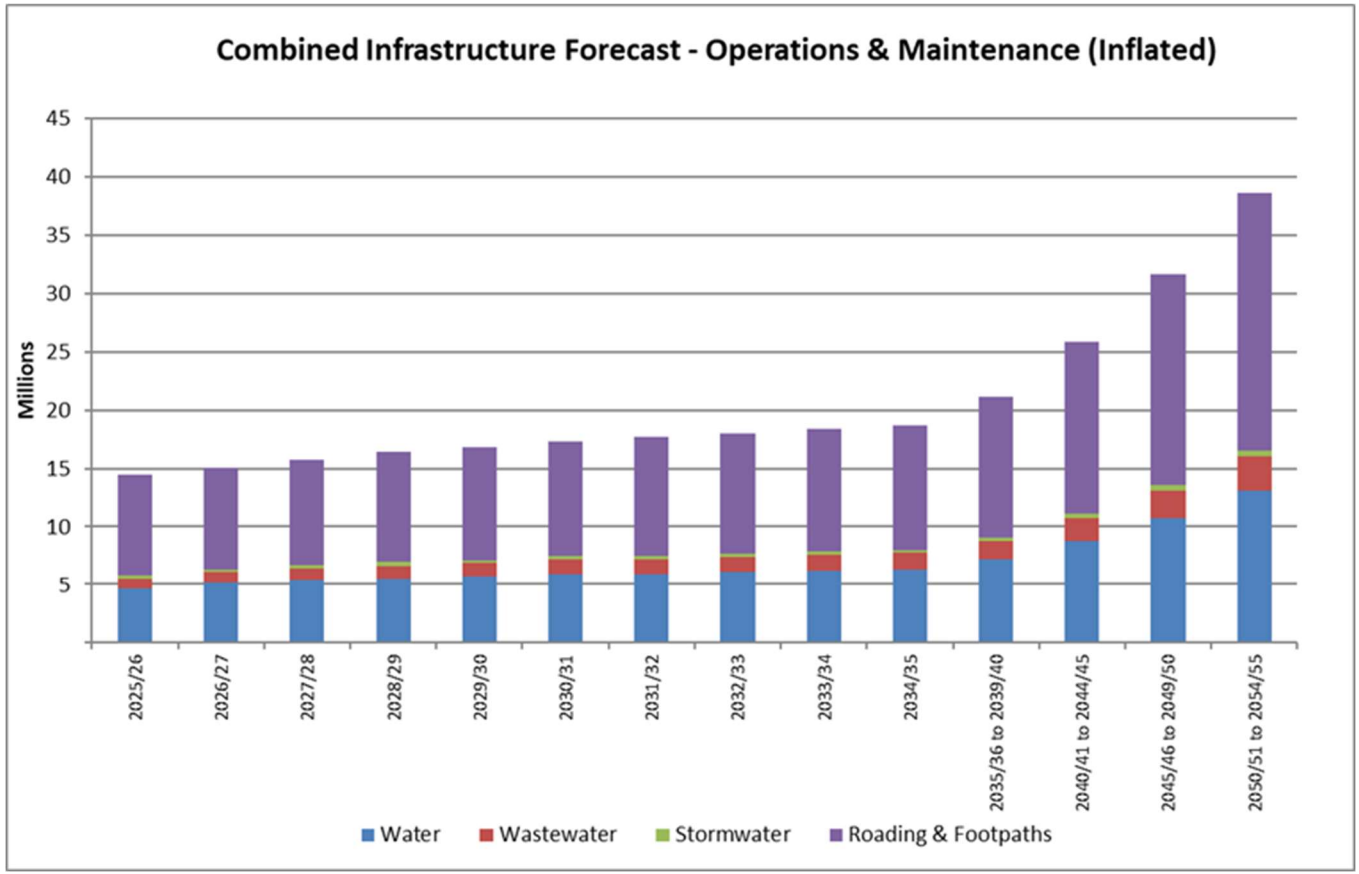
10 Year Total: $105.64M

30 Year Total: $430.21M

Note: the 2035-54 budgets are represented as the 5 yearly annualised average budgets.

The projected operational expenditure associated with the core infrastructure assets are graphically represented below:

Figure 8-6: Projected Operational Financial Investment Forecast – Infrastructure Assets



Total Core Infrastructure Operational Investment Summary:

10 Year Total: $168.50M

30 Year Total: $755.10M

Notes:

- *Operating expenditure includes internal expenditure*
- *2035-54 budgets are represented as the 5 yearly annualised average budgets*

8.6 30 Year Financial Investment Forecasts

The 30-year Infrastructure investment forecast (Inflated, $) is summarised below:

Table 8-1: 30 Year Infrastructure Investment Summary (Inflated) – ($M)

Activity	Type	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36 to 2039/40	2040/41 to 2044/45	2045/46 to 2049/50	2050/51 to 2054/55	30 Year Total
Water	**O & M**	**4.683**	**5.186**	**5.403**	**5.558**	**5.736**	**5.903**	**5.968**	**6.081**	**6.227**	**6.346**	**35.850**	**43.827**	**53.579**	**65.501**	**255.849**
Water	AD	0.708	0.000	0.599	0.611	0.000	0.000	0.000	0.000	0.000	0.000	0.714	0.637	0.000	0.937	4.206
Water	LoS	8.586	0.210	0.474	0.588	0.153	0.028	0.245	0.297	0.369	0.290	0.533	0.146	0.949	0.219	13.087
Water	Renew	2.067	1.140	1.232	1.766	1.150	1.242	1.661	1.771	2.335	2.163	17.936	23.517	25.692	26.311	109.982
Water	**Total Capital**	**11.361**	**1.350**	**2.304**	**2.965**	**1.303**	**1.270**	**1.906**	**2.068**	**2.704**	**2.453**	**19.183**	**24.301**	**26.641**	**27.467**	**127.275**
Wastewater	**O & M**	**0.870**	**0.905**	**1.048**	**1.094**	**1.164**	**1.324**	**1.268**	**1.311**	**1.387**	**1.413**	**7.986**	**9.762**	**11.935**	**14.590**	**56.058**
Wastewater	AD	0.000	0.000	0.210	0.000	0.346	0.000	0.272	0.000	0.316	0.000	1.050	1.270	0.650	1.400	5.514
Wastewater	LoS	0.020	0.000	0.090	0.022	0.148	0.000	0.120	0.004	0.139	13.174	2.022	2.047	3.033	3.040	23.858
Wastewater	Renew	0.815	1.007	2.346	1.473	0.740	0.410	0.676	1.008	1.195	2.191	11.241	17.020	14.556	13.573	68.250
Wastewater	**Total Capital**	**0.835**	**1.007**	**2.646**	**1.494**	**1.233**	**0.410**	**1.068**	**1.011**	**1.650**	**15.365**	**14.313**	**20.337**	**18.238**	**18.013**	**97.622**

Activity	Type	2025/ 26	2026/ 27	2027/ 28	2028/ 29	2029/ 30	2030/ 31	2031/ 32	2032/ 33	2033/ 34	2034/ 35	2035/36 to 2039/40	2040/41 to 2044/45	2045/46 to 2049/50	2050/51 to 2054/55	30 Year Total
Stormwater	**O & M**	**0.278**	**0.230**	**0.232**	**0.305**	**0.244**	**0.246**	**0.247**	**0.256**	**0.257**	**0.262**	**1.479**	**1.808**	**2.210**	**2.702**	**10.756**
Stormwater	AD	0.075	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.937	0.000	1.094	0.000	2.132
Stormwater	LoS	0.175	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.021	1.148	0.000	0.425	2.795
Stormwater	Renew	0.000	0.000	0.063	0.000	0.000	0.000	0.002	0.002	0.020	0.020	0.040	0.075	0.000	0.543	0.765
Stormwater	**Total Capital**	**0.250**	**0.051**	**0.063**	**0.000**	**0.000**	**0.000**	**0.002**	**0.002**	**0.020**	**0.020**	**1.998**	**1.223**	**1.094**	**0.968**	**5.692**
Roading & Footpaths	**O & M**	**8.638**	**8.707**	**9.074**	**9.471**	**9.636**	**9.795**	**10.187**	**10.349**	**10.507**	**10.707**	**60.489**	**73.949**	**90.404**	**110.520**	**432.433**
Roading & Footpaths	AD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**
Roading & Footpaths	LoS	0.040	0.041	0.701	0.720	0.739	0.757	0.775	0.794	0.811	0.829	4.384	5.033	5.778	6.634	**28.036**
Roading & Footpaths	Renew	3.183	3.255	4.141	4.252	4.363	4.472	4.580	4.689	4.793	4.898	25.900	29.735	34.138	39.192	**171.591**
Roading & Footpaths	**Total Capital**	**3.223**	**3.296**	**4.841**	**4.972**	**5.102**	**5.229**	**5.355**	**5.483**	**5.604**	**5.727**	**30.284**	**34.768**	**39.916**	**45.826**	**199.626**

8.7 Infrastructure Strategy & Financial Strategy Linkages

This Infrastructure Strategy, the Financial Strategy and Consultation Document have been developed in conjunction with each other and are closely linked. The issues outlined in this Infrastructure Strategy were well developed in 2018 and have been updated in 2021 and 2024. The Financial Strategy reflects the continued focus and development of these issues.

8.7.1 Financial Impacts of the Infrastructure Strategy

Waimate District Council faces the challenge of aging pipe assets that are due for replacement and a roading network that is under pressure. This infrastructure is vital to the economy of the district and beyond, along with the wellbeing of the community.

The combined forecast for operations and maintenance as well as capital identified is considerable. The Core infrastructure costs (total 10 Year Average $24M/year) is a challenge for a small community and smart planning is vital.

On the infrastructure side, a focus on criticality and prioritisation is key to investing where it will provide the greatest benefit. This will need to be communicated well as with a prioritised approach there could be differing views on what should be done and what should be delayed.

Alongside this infrastructure strategy, the financial strategy discussed the options for funding these infrastructural challenges. Council is focussed on continuing to support the district and its residents, and this means providing a fair balance of revenue methods and providing fit for purpose services.

GLOSSARY OF ACRONYMS AND OTHER TERMS

AC	Asbestos Cement
AEE	Assessment of Environmental Effects
AMIS	Asset Management Information System
AMP	Asset Management Plan
AP	Annual Plan
AVG Filter	Automatic Valve-less Gravity Filter
CI	Cast Iron
FAR	Funding Assistance Rate
GNS	Geological Nuclear Science
HCV	High Capacity Vehicle
HPMV	High Productivity Motor Vehicle
I&I	Inflow and Infiltration
Infrastructure	Roading, Footpaths and Three Waters
K&C	Kerb and Channel
LTP	Long Term Plan
LoS	Levels of Service
Normalising or Harmonising	Sharing
NZTA	New Zealand Transport Agency (Waka Kotahi)
NRRP	Natural Resources Regional Plan
O&M	Operations and Maintenance
ONF	One Network Framework
PLWRP	Proposed Land and Water Regional Plan
PWWF	Peak Wet Weather Flow
RAMM	Road Assessment and Maintenance Management
RTC	Regional Transport Committee
SCADA	Supervisory Control and Data Acquisition
SMP	Stormwater Management Plan
WWTP	Wastewater Treatment Plant