HURUNUI District Council

Race Course Road Water Treatment Plant, Amberley

INFRASTRUCTURE STRATEGY 2024-2054

Contents

1 Introduction

The Infrastructure Strategy provides information on the key aspects of the Council's infrastructure services and assets, how those are managed and what significant future events will or may occur that will adjust how Council delivers and funds services over the next 30 years.

This focus of this strategy is primarily on the services being delivered by Council, more than on Council's assets, although it also contains summary information about Council assets. This has led to the central focus being on levels of service (LoS) and how they are met. The Council has focussed on what its customers want, considering affordability and the regulatory structure within which the Council operates.

This strategy outlines the Council's approach to managing and investing in the district's infrastructure, with the infrastructure being categorised as either Core infrastructure or Community infrastructure. In developing the strategy, the Council has considered:

- Population/demographic and land use changes
- Natural hazards, climate change and sustainability initiatives
- Fit for purpose services
- Changing regulation and/or legislation

All of these being balanced against a variety of factors, such as affordability and community outcomes.

This Strategy is an indicative assessment of Council's future infrastructure needs as well as existing and potential challenges to meeting those needs. It is a statement of what Council currently knows and how it proposes to deal with those current and future challenges.

This strategy is not intended to serve as a budgetary statement but provides an estimate of what the significant works may cost. It includes many assumptions and risks that may or may not be realised. However forecasting has been provided. The accuracy of the forecasting inevitably decreases as the planning horizon or timelines increase.

Activity Management Plans (**AMP**) are in place for both Core and Community infrastructures. They are a representation of the intended service and asset management programmes for maintenance and project work for their entire lifecycle, while meeting community expectations.

2 Statutory Context

Under section 101B of the Local Government Act 2002, the Council is required to have an Infrastructure Strategy which covers a period of at least 30 years. The purpose of the strategy is to identify significant infrastructure issues over the period covered by the strategy and to identify the options for managing those options, including the implications of those options.

The infrastructure strategy must outline how the local authority intends to manage its infrastructure assets, taking into account the need to:

- renew or replace existing assets;
- respond to growth or decline in the demand for services reliant on those assets;
- allow for planned increases or decreases in levels of service provided through those assets;
- maintain or improve public health and environmental outcomes or mitigate adverse effects on them; and
- provide for the resilience of infrastructure assets by identifying and managing risks relating to natural hazards and by making appropriate financial provision for those risks.

3 Terminology

Activity Management Plan (AMP)	A plan to describe the activities required to deliver a set of services. It develops the current and future view of how the services will be delivered and contemplates the risks and issues that will be encountered and how the activities will be delivered with associated costings.
Core infrastructure	Infrastructure used for the provision of roading, water, wastewater and/or stormwater services
Community infrastructure	Other infrastructure which is used to support achievement of the four community wellbeings. In some cases it is managed by community members and/or groups.
Financial strategy	
Levels of service/service levels	The amount or quality of a service or activity that is provided to the community.
Long term plan (LTP)	Is the key planning tool for Council. It describes the Council's activities and the community outcomes it aims to achieve. Provide integrated decision-making and coordination of the resources, as set out in section 93 (6)(c) of the Act.
Maintenance	The work carried out on equipment in order to avoid its breakdown or malfunction. It is a regular and routine action taken on equipment but can also mean the action taken to remediate an unplanned breakdown.
Renewal	Replacement of an existing asset at the end of its useful economic life.

4 Hurunui District Council's Strategy

The Vision of the Hurunui District Council is that:

> *Hurunui is a thriving, dynamic and resilient district shaped by our rich and diverse heritage. We relentlessly pursue social and economic prosperity for all, creating a future where our residents and communities enjoy a high quality of life in harmony with our environment and each other.*

In order to move towards that vision, the Council's mission is that:

> *We act boldly and innovatively, to enable communities to achieve their social, economic, cultural and environmental goals, supported by sustainable, resilient infrastructure.*

This Infrastructure Strategy serves as a key enabler for delivering on that vision and mission.

The Council has identified five strategic objectives for Council activities as a whole. It has also identified drivers which will support the achievement of the strategic objectives. Those most relevant to the Infrastructure Strategy are as follows:

Strategic objective	Key drivers identified by Council
Deliver good quality services supported by sustainable, resilient infrastructure	*Roading*: ▪ Improve levels of service delivered by roading network. ▪ Improve resilience of roading network. *Three Waters:* ▪ Continue to advocate for community ownership of three waters assets ▪ Ensure any centralisation of three waters services continues to deliver good levels of service to the Hurunui district ▪ Meet quality standards for water services ▪ Ensure sufficient volumes and quality to support growth *Built Environment:* ▪ Ensure community facilities are safe and fit for purpose *Waste:* ▪ Deliver district wide waste services that meet community needs.
Support communities to develop and shape their own direction	▪ Work with communities to ensure key community infrastructure is appropriate for the future ▪ Deliver key services where funding is available, and the services meet the needs of the communities
Respect the foundations of our shared history as we build the future	▪ Forge strong and respectful relationships with Ngāti Kuri and Ngāi Tūāhuriri as tangata whenua. ▪ Respect the natural environment and work to facilitate good environmental outcomes
Focus on ensuring financial decisions result in tangible outcomes for residents and ratepayers	▪ Deliver value for money outcomes on time, to specification and in budget

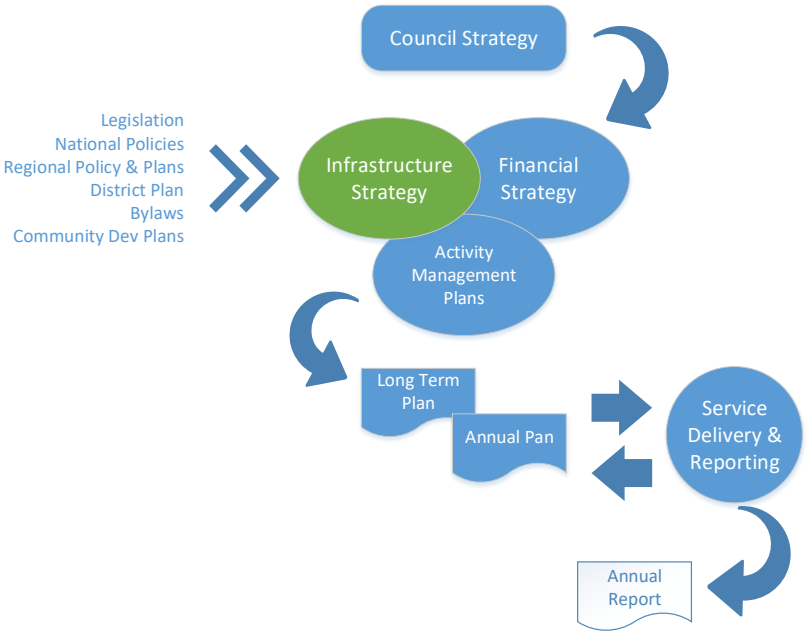
4.1 Linkage with Other Documents

Under the Local Government Act 2002, the Council is required to adopt various plans and documents. In addition, it has adopted the Council Strategy

- Council Strategy sets the path and the vision for Council. The applicable aspects of that strategy relating to infrastructure are they key considerations when compiling the Infrastructure Strategy.
- The Council's Long Term Plan details its planned work programme and budget for a 10 year period. The Long Term Plan incorporates the Infrastructure Strategy and the Financial Strategy, along with financial projections and specified policies.

- The Infrastructure Strategy identifies significant infrastructure issues and the options for managing those issues. It includes projections for capital and operating expenditure over a 10 year period.
- The Finance Strategy ensures that the Infrastructure Strategy is affordable and can be delivered within financial limits and generally accepted accounting principles.
- Activity Management Plans (AMPs) are created for each activity. These plans provide detail regarding the targeted level of service and how the service will be delivered.

In adopting strategies and plans, the Council endeavours to balance customer/stakeholder needs and expectations and affordability. Given the limited financial and other resources available and the extent and diversity of stakeholder needs and expectations, this is an ongoing challenge.



4.2 Activity Management Plans

Underpinning and delivering the Infrastructure Strategy is a series of Activity Management Plans (AMPs). AMPs provide the detail for each service within the Core and Community infrastructure suites.

Core infrastructure is made up of drinking water, wastewater, stormwater, and roading (which includes footpaths). While rural water schemes are considered drinking water, they have a very important role in delivering stock drinking water. On many schemes as much as 80% of the water pumped is for stock use rather than human consumption.

Community infrastructure comprises waste management, property, green spaces, and information services. Green spaces includes parks and reserves, playgrounds, cemeteries, and town amenities such as garden beds and landscaping. Information services includes customer services, customer advocacy and library services. Property activities include management of all Council owned properties, including office buildings, depots, swimming pools (other than the Hanmer Springs Thermal Pool and Spa which is operated as a separate business unit) and libraries.

AMPs are updated every three years to coincide with the long term plans and provide the detail as to how each discipline will deliver the Infrastructure Strategy. As well as this, the purpose of the AMPs is to detail how the services will be delivered, how the assets will provide the basis for that and what the associated costs over the next 10 years are likely to be.

As was the case in 2021, most of the Council's AMPs are written with a focus on the activity/service being provided. However, the roading AMP is prepared in an asset-centric manner to conform to Waka Kotahi NZ Transport Agency's format and specifications. The roading AMP uses a three year period as the focus, as it is used as the vehicle for securing the funding subsidy from Waka Kotahi.

5 Context

5.1 About the District

The land area of the Hurunui District is 8,646 km², making it one of the largest districts in the country. The Hurunui District extends from Leithfield Beach to beyond the Conway River. It is bordered on the west by the Southern Alps and on the east by the coast of the Pacific Ocean.

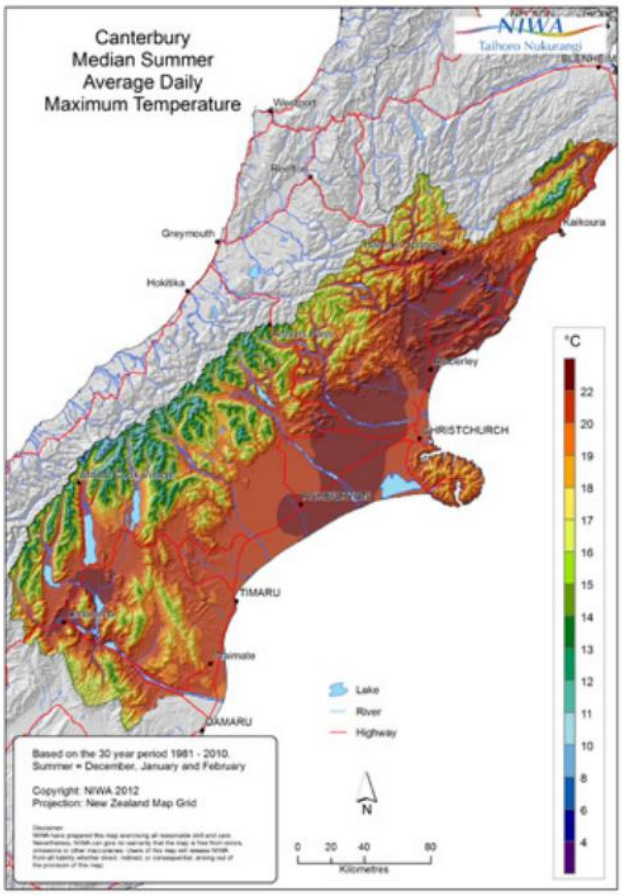
The District is predominantly rural. The largest urban areas are Amberley and Hanmer Springs. The District also has a number of smaller urban areas, villages and beach settlements.

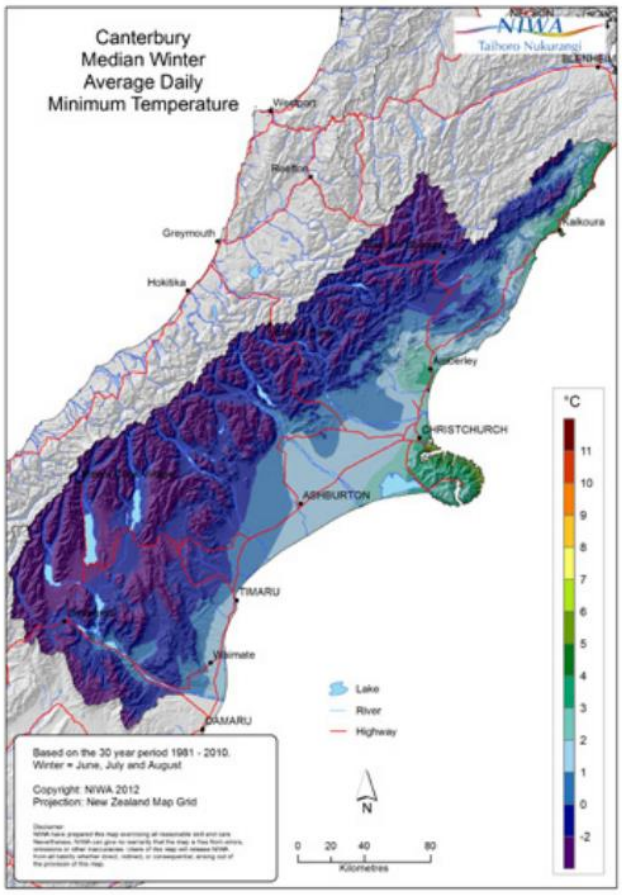
Source: Googlemaps

The District has a small rating base of over 8,800 rateable properties. This contributes to the ongoing challenge of funding quality services and facilities.

The District offers lifestyle, adventure, and a chance to experience the rich history and culture of rural New Zealand. Its small towns offer a window into the rural heartland.

Weather patterns vary between locations within the District, reflecting location and proximity to geographical features and terrain. For example, temperature variation between summer and winter is greater inland than for the coastal communities.



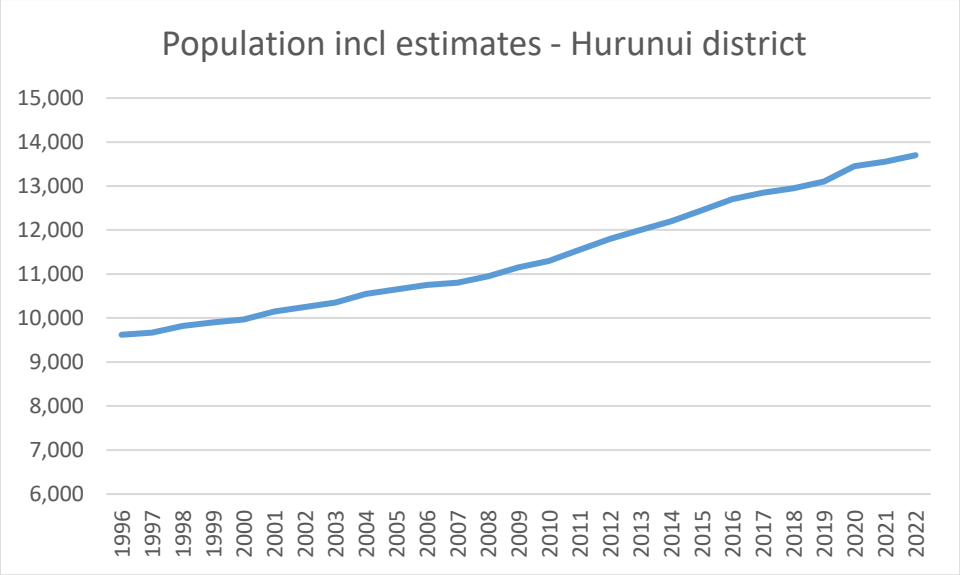


Source: NIWA: The Climate and Weather of Canterbury (2016)

5.2 Population and Demographics

Statistics New Zealand estimates for the population of the Hurunui District vary slightly over time. As at 4 January 2024, Statistics New Zealand estimated the District had a population of 13,800 in 2023. While a census was carried out in 2023, the results were not available at the time of writing.

The following chart shows population growth over the past 25 years. It is expected that population growth will continue during the period covered by this infrastructure strategy, with Amberley and Hanmer Springs experiencing higher rates of growth than the rest of the district.



The following table provides the Council's estimates of growth over the 10 year period to 30 June 2034 and the 30 year period to 30 June 2054 respectively:

	Estimate 1 July 2024	Estimate 30 June 2034	Estimate 30 June 2054	10 yr growth	30 yr growth%
Hanmer Springs	1,188	1,504	2,413	2.39%	2.39%
Amuri/Hanmer Range	2,844	3,320	4,525	1.56%	1.56%
Parnassus	1,360	1,392	1,457	0.23%	0.23%
Omihi/Hurunui	2,873	3,020	3,337	0.50%	0.50%
Amberley	2,989	4,056	7,325	3.10%	3.03%
Balcairn/Ashley Forest	3,480	4,213	6,175	1.93%	1.93%
TOTAL	**14,734**	**17,505**	**25,232**	**1.74%**	**1.81%**

This indicates that the population of the district is expected to increase by almost 19% over the next year 10 years and 72% over the next 30 years. The urban areas are expected to experience the fastest rates of growth over the next 30 years, while some of the rural districts are expected to have little or no growth.

Statistics New Zealand estimated the average of District residents in 2023 at 45.7 years, compared with the national average of 38 years. It is expected that the average age of residents will increase in future years. Of the 2023 population of 13,800, Statistics New Zealand reported that 3,200 were at least 65 years old, compared with 2,550 in 2018. The growth in the number of people aged at least 65 years old has been taken into consideration in preparing the AMPS and this strategy.

6 Overview of Infrastructure Assets

6.1 Roading and Footpaths

Asset overview:

Description	Quantity
Sealed pavement	622.8km
Unsealed pavement	827.9
Culverts, sumps, catch pits and soak pits	5,577
Kerb and channel	4.06km
Footpaths	70.16km
Bridges and major culverts	282
Retaining walls	204
Sight and guard rails, barriers, and hand rails	141
Signs	7,715
Street lights	1,004

The following table summarises the District's sealed and unsealed roading network based on the One Network Framework. It excludes state highways, as these are not managed by Council.

Unrban/Rural	ONF Category	Total Length (km)	Total Length (%)	Sealed (km)	Unsealed (km)	Lane (km)	Vehicle Journeys (m vkt)
Urban	Urban connectors	4.4	0.3	4.4	0	8.8	2.5
	Activity Streets	2.2	0.2	2.2	0	4.4	1.3
	Local Streets	68.6	4.7	66.1	2.6	136	8.1
	Total Urban Network	**75.2**	**5.2**	**72.6**	**2.6**	**149.1**	**11.9**
Rural	Rural Connector	318.5	22	310.3	8.2	636.2	59.4
	Peri-urban Roads	5	0.3	4.8	0.2	9.8	0.4
	Rural Roads	1035.6	71.4	231.1	804.5	1994.8	28.2
	Total Rural Network	**1359.1**	**93.7**	**546.2**	**812.9**	**2640.7**	**88.1**
Unclassified	Unclassified	16.5	1.1	4	12.5	32	0.4
TOTAL NETWORK		**1450.8**	**100**	**622.8**	**827.9**	**2821.9**	**100.4**

6.2 Water

Most urban properties are on an on-demand water supply, i.e. water is usually provided to properties directly from pipes in a road. Most rural properties are on a restricted supply, which means water is trickle fed to the customer's privately owned storage tank(s). Properties use water for a range of reasons including drinking, stockwater and horticulture.

As at January 2024, there were 16 water supplies and a water tanker (which is deemed to be a water supply):

Type of scheme	Scheme
Large schemes	Amberley, Amuri, Ashley Rural, Cheviot, Hanmer, Hurunui #1, Waikari Basin
Medium schemes	Balmoral, Culverden, Kaiwara, Lower Waitohi, Parnassus, Waiau Town, Waiau Rural, Waipara
Small schemes	Blythe

There are 25 water sources supplying water to these supplies.

Scheme	Source(s)	Treatment	Reservoir sites	Pump stations (includes intakes)	Total number of pumps in scheme	Break-pressure tanks
Amberley (incorporates rural areas to north and east of the township)	Racecourse Rd bores Kowai River Rd bore Leithfield Beach bore SH1 (emergency) bore	Chlorination U.V.	6	9	25	6
Amuri	Mouse Point wells	Filtration U.V Chlorination	1	2	5	0
Ashley Rural	Ashley bores Leithfield Beach bore	Filtration U.V Chlorination	4	10	21	4
Balmoral	Awatui Stream Pahau River gallery	Chlorination	2	2	4	0
Blythe	Hurunui River bore for Blythe	Cartridge Filtration Chlorination	2	2	4	2
Cheviot	Waiau River bores	Chlorination	8	6	12	6
Culverden	Culverden bore	Filtration U.V Chlorination	1	2	3	0
Hanmer Springs	Dillons Creek Rogerson River	Coagulation Media filtration U.V Chlorination	3	2	5	0
Hurunui #1	Hurunui River gallery for Hurunui #1	Chlorination	13	12	26	35

Scheme	Source(s)	Treatment	Reservoir sites	Pump stations (includes intakes)	Total number of pumps in scheme	Break-pressure tanks
Kaiwara	Hurunui River gallery for Kaiwara	Chlorination	10	6	13	9
Lower Waitohi	Lower Waitohi bore	Chlorination	8	6	15	9
Parnassus	Parnassus well	MIOX	6	5	9	6
Waiau Rural	Waiau Home Stream	Chlorination	6	10	18	3
Waiau Town	Waiau River gallery	Media filtration Ultra-filtration Chlorination U.V.	1	1	6	0
Waikari Basin (incorporates Hawarden-Waikari, Peaks & Upper Waitohi)	Bishells Rd bores	U.V Chlorination	8	6	1	4
Waipara	Waipara bore	U.V Chlorination	1	1	3	0

Asset overview:

Description	Quantity	Non-Depreciated replacement cost	Depreciated replacement cost
Water intakes	23	5,998,509	3,417,709
Wells#	34	1,488,469	1,106,984
Water treatment plants	18	7,515,429	6,723,214
Pump stations (excluding water treatment plants)	62	5,519,445	2,027,682
Reticulation (Km)	2,214	104,700,240	60,388,367
Reservoirs (excluding those located at intakes/pump sheds)	78	4,434,806	2,319,651
Water meters (for on demand connections)	3914	456,988	149,571
Hydrants	838	2,406,610	1,163,601

6.3 Wastewater

Asset overview:

Description	Quantity	Non-Depreciated Replacement Cost	Depreciated Replacement Cost
Wastewater treatment plants	7	10,763,291	8,473,919
Pump stations	15	783,265	289,727
Reticulation (Km)	152	34,436,385	19,841,303

The seven sewerage schemes are as follows:

Wastewater	Address of treatment plant
Amberley (servicing Amberley, Leithfield and the associated beach areas)	Newcombes Road, Amberley
Cheviot	91 Seddon Road/Mina Rd, Cheviot
Hanmer Springs	219 Hanmer Springs Road, Hanmer Springs (Irrigation field in River Road)
Hawarden	High Street, Hawarden
Motunau Beach	1667 Happy Valley Road, Motunau Beach
Greta valley	102 Scargill Valley Road, Greta Valley
Waikari	161 Karaka Road, Waikari

These schemes are primarily gravity fed with some low lying areas being pumped for short sections. As at 2023, there were 17 discharge consents associated with the wastewater activity.

Other areas within the District are managed via septic systems.

In most, but not all cases, wastewater is discharged to land. However, some treatment plants have secondary pathways to water. Where treated wastewater is discharged to water, alternative treatment options are likely to be required prior to the expiry of current consents.

6.4 Stormwater

Asset overview:

Description	Quantity	Non-Depreciated Replacement Cost	Depreciated Replacement Cost
Reticulation (Km)	20	10,982,492	7,909,184
Stormwater Treatment Ponds	19	469,807	467,793

The stormwater network is largely within the township boundaries only and is primarily an open channel system. However, there are some pipes, most of which are located in Hanmer Springs and under roads.

Amberley and Hanmer Springs each have a global discharge consent. This means that, as long as work meets the consent activities, these can be controlled by the Council, without the need for Regional Council intervention. At the time of writing this Infrastructure Strategy, the Council is engaging with Environment Canterbury regarding a new global consent for 13 other urban areas (Amberley Beach, Leithfield, Leithfield Beach, Cheviot, Motunau Beach, Gore Bay, Greta Valley, Waipara, Waikari, Hawarden, Culverden, Waiau, Rotherham).

In the past, the following towns have had a serviced stormwater network: Amberley, Hanmer Springs, Hawarden, Waikari, Culverden, Cheviot, Gore Bay, Waiau and Motunau Beach. Some urban areas which are likely to be included in the new global consent, which have not previously received Council stormwater services, including Greta Valley, Rotherham, and Waipara.

6.5 Waste Management and Minimisation

Asset overview:

Description	Quantity	Locations
Transfer stations	5	Amberley, Cheviot, Culverden, Hanmer Springs, Waiau
Clean fill site	1	Amberley
Consented closed landfills	6	Cheviot, Culverden, Hanmer Springs, Waiau, Waikari, Waipara

The Council provides a weekly kerbside refuse and recycling collection service (household and commercial) in 18 urban areas using a single truck and trailer. People living in rural areas are also able to buy official Council refuse and recycling bags and leave the filled bags at designated locations for collection. Residents may also take waste, including Council refuse and recycling bags, to transfer stations.

6.6 Green spaces

The assets listed below are collectively referred to as “green spaces”.

Asset overview:

Description	Quantity
Parks and recreation reserves	67
Playgrounds	24
Cemeteries	9
Township amenities, e.g. garden beds or landscaped areas of road reserve	In 10 urban areas

The Council runs a mixed operating model for maintenance. The Council contracts out large scale repeatable work, such as mowing. For smaller and/or specialised work, an in-house team operates out of Amberley and Hanmer Springs, covering the whole District. Many volunteers contribute to keeping the reserves in good condition.

6.7 Property

The Council owns, operates, and manages a range of properties throughout the District.

Asset overview:

Description	Quantity
Halls/pavilions	16
Community buildings	17
Public toilets	30
Council owned officers, libraries, and service centres	4
Depots (used for three waters and green spaces)	7
Dog pound	1
Medical centres	4
Social housing units	34 at 7 sites
Residential houses	5
Commercial properties	6
Local purpose reserves	76
Recreation reserves	50
Camp grounds	11
Swimming pools	3
Car parks	7
Unformed legal roads	

The Council has recently conducted a review of the condition of Council owned buildings, and has identified maintenance requirements for each property. The Council is establishing a way forward for earthquake prone buildings.

A key function is ensuring that all Council properties meet compliance obligations. The team also enters into and manages leases of Council properties.

6.8 Information Services

Information Services activities include Customer Services, Customer Advocacy and Library Services.

Customer Services provide a first point of contact for customers engaging with the Council. The Customer Advocacy function seeks to promote positive customer experiences. The team monitor service requests and customer complaints, helping to achieve effective resolution of outstanding matters. They also recommend and provide input into system and process improvements.

Libraries contribute to social, economic, environmental, and cultural community wellbeing outcomes, by providing a collective resource that is greater than families or individuals might otherwise afford. Physical resources (books, magazines, DVDs, talking books etc) are rotated around the library network. The Council provides online access to e-books and e-audio books, comics and magazines. In some communities, volunteers provide a library book home delivery service. Some libraries offer meeting spaces for public use.

Location	Service information
Amberley Service Centre	Customer services and customer advocacy
Amberley (Hurunui Memorial Library)	Library and public space
Amuri (in Culverden)	Library and service centre
Cheviot	Library and service centre
Greta Valley (based at Greta Valley School)	Community library
Hanmer Springs	Library and service centre
Hawarden (based at Hurunui College)	Community library
Leithfield	Community library
Omihi (based at Omihi School)	Community library
Waiau	Community library

6.9 Hanmer Springs Thermal Pools and Spa

One of New Zealand's premier tourist attractions, Hanmer Springs Thermal Pools and Spa (HSTPS) attracts more than 500,000 customers each year.

HSTPS was vested in the Council by the Crown and became a recreational reserve in 1990. In 2010 additional reserve land was added to the original footprint as HSTPS expanded its offering to cope with customer demand.

The HSTPS complex includes 22 pools, including thermal pools, private pools, and a 25 metre freshwater pool. There are also two steam rooms, two sauna rooms, a children's aqua play area, three water slides, a day spa, a tea kiosk, café and grill and supporting facilities.

HSTPS provides a substantial revenue stream to the Council and has made an important financial contribution toward the funding of other reserves in the District through the profits generated.

HSTPS has its own strategic management which sits outside of this strategy. This is primarily due to commercial sensitivities and the importance of maintaining its competitive edge.

7 Infrastructure Challenges and Emerging Issues

7.1 Population and Demographic Change

The population of the Hurunui District grew by 3,340 (35 %) between 1996 and the 2018 census. The rate of growth since 2006 has been higher than in the preceding years.

Period	End of period population	Average per annum growth
1996-2001	9,885	0.54%
2001-2006	10,476	1.17%
2006-2013	11,529	1.38%
2013-2018	12,960	2.37%

The Council's estimates that growth over the 10 year period to 30 June 2034 and the 30 year period to 30 June 2054 will be as follows:

	Estimate 1 July 2024	Estimate 30 June 2034	Estimate 30 June 2054	10 yr growth	30 yr growth%
Hanmer Springs	1,188	1,504	2,413	2.39%	2.39%
Amuri/Hanmer Range	2,844	3,320	4,525	1.56%	1.56%
Parnassus	1,360	1,392	1,457	0.23%	0.23%
Omihi/Hurunui	2,873	3,020	3,337	0.50%	0.50%
Amberley	2,989	4,056	7,325	3.10%	3.03%
Balcairn/Ashley Forest	3,480	4,213	6,175	1.93%	1.93%
TOTAL	**14,734**	**17,505**	**25,232**	**1.74%**	**1.81%**

This indicates that the population of the district is expected to increase by almost 19% over the next year 10 years and 72% over the next 30 years. The urban areas are expected to experience the fastest rates of growth over the next 30 years, while some of the rural districts are expected to have little or no growth.

Factors which support these projections:

- The District has seen significant development over the past three years, particularly in Amberley, and to a lesser extent in Hanmer Springs The Council projections also reflect information currently known about short term growth.
- The growth estimates used in preparing the 2021-2031 Activity Management Plans were higher than the Statistics NZ projections. Nevertheless, the growth projections for the district in the intervening period were still understated. .
- The population in the Waimakariri district has increased dramatically over the past 10 years. It is expected that there will continue to be some flow on impacts to the Hurunui District, particularly in the South Ward.

Based on projected growth, Council anticipates various core infrastructure developments over the next 30 years, particularly in Amberley and Hanmer Springs. For example, it is anticipated that additional water will need to be sourced in the Amberley area to accommodate growth. Some mains, including those in Amberley, Ashley and Lower Waitohi, are likely to require upgrades. More water storage is planned in Hanmer Springs. District growth is also a factor in the planned implementation of AMD/SBR wastewater treatment systems in some locations. Higher traffic volumes on some roads may also contribute to the need for development.

Growth in visitor numbers also has an impact on the need for infrastructure in some parts of the district, most notably Hanmer Springs.

Changing demographics can contribute to changing expectations regarding levels of service. For example, those moving into the area from urban or peri-urban areas may be used to higher levels of service. Also, expectations can arise from information shared online. Given the small population of the district, and existing pressure on services, it is necessary for the Council to continuality consider requests for changes in levels of service taking into account affordability. Due to limited resources, it is not feasible to meet all customer expectations all of the time. In such circumstances, it is important that the Council communicates with customers regarding the level of service which it expects to provide.

Summary of Council's strategic response to this issue:

- The Council will continue to monitor growth and review growth projections based on available information to ensure that infrastructure is able to meet the needs of the growing population
- Spatial planning, including community engagement, will continue to inform infrastructure planning and development
- With projected and actual growth rates exceeding those previously anticipated, some growth related projects have been brought forward in the Long Term Plan 2024-2034

7.2 Regulatory obligations and regulatory change

Many aspects of local government activities are authorised and/or regulated by legislation and other regulatory instruments. Impacts may be either direct or indirect (such as where legislative changes impact funding sources).

Some other key legislation and other documents which play an important role in the Council's management of core infrastructure include:

7.2.1 National Policy Statement on Freshwater Management

The National Policy Statement for Freshwater Management 2020 provides local authorities with updated direction on how they should manage freshwater under the Resource Management Act 1991. Requirements of the Freshwater Management NPS include:

- Managing freshwater in a way that 'gives effect' to Te Mana o te Wai:
  - through involving tangata whenua
  - working with tangata whenua and communities to set out long-term visions in the regional policy statement
  - prioritising the health and wellbeing of water bodies, then the essential needs of people, followed by other uses.
- Improving degraded water bodies, and maintain or improve all others using bottom lines defined in the Freshwater NPS.
- Establishing an expanded national objectives framework:
  - two additional values - threatened species and mahinga kai - join ecosystem health and human health for recreation, as compulsory values
  - Councils must develop plan objectives that describe the environmental outcome sought for all values

- new attributes, aimed specifically at providing for ecosystem health, include fish index of biotic integrity (IBI), sediment, macroinvertebrates (MCI and QMCI), dissolved oxygen, ecosystem metabolism and submerged plants in lakes; Councils will have to develop action plans and/or set limits on resource use to achieve these attributes
- tougher national bottom lines for the ammonia and nitrate toxicity attributes to protect 95% of species from toxic effects (up from 80%).

- Avoiding any further loss or degradation of wetlands and streams, map existing wetlands and encourage their restoration.
- Identifying and working towards target outcomes for fish abundance, diversity and passage and address in-stream barriers to fish passage over time.
- Setting an aquatic life objective for fish and address in-stream barriers to fish passage over time.
- Monitoring and reporting annually on freshwater (including the data used); publish a synthesis report every five years containing a single ecosystem health score and respond to any deterioration.

7.2.2 National Environmental Standards for Freshwater

The Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (Freshwater NES) regulates activities that pose risks to the health of freshwater and freshwater ecosystems. The Freshwater NES set requirements for carrying out certain activities that pose risks to freshwater and freshwater ecosystems.

The standards are designed to:

- Protect existing inland and coastal wetlands.
- Protect urban and rural streams from in-filling.
- Ensure connectivity of fish habitat (fish passage).
- Set minimum requirements for feedlots and other stockholding areas.
- Improve poor practice intensive winter grazing of forage crops.
- Restrict further agricultural intensification until the end of 2024.
- Limit the discharge of synthetic nitrogen fertiliser to land, and require reporting of fertiliser use.

7.2.3 Canterbury Water Management Strategy (CWMS)

This Environment Canterbury strategy seeks to 'to gain the greatest cultural, economic, environmental, recreational and social benefits from our water resources within a sustainable framework both now and for future generations'. It seeks to manage the flows and levels in water bodies and control the taking, use, damming and diversion of water and the allocation of water and control of discharges. The CWMS may impact existing consents for water use.

7.2.4 Taumata Arowai – Water Services Regulator Act 2020

The Taumata Arowai – Water Services Regulator Act 2020 established Taumata Arowai as the regulator of the three waters services (drinking water, wastewater and stormwater). Its 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 wastewater and stormwater networks. (Regional Councils will remain the primary regulators of wastewater and stormwater).

7.2.5 Government Policy Statement on Land Transport 2024

The Government Policy Statement on Land Transport (GPS) sets out how money from the National Land Transport Fund is allocated towards achieving the Government's transport priorities. The GPS is a 10-year strategy which is reviewed every three years. The GPS 2024 is currently out for consultation. Changes to the GPS directly impact the level of funding and the range of activities available to the Council to undertake its roading activities.

7.2.6 National Policy Statement on Urban Development

Urban areas in New Zealand are growing quickly. To support productive and well-functioning towns and cities, it is important that there are adequate opportunities for land to be developed to meet community business and housing needs. Within the Hurunui District, growth is not so much of a factor over the period of the Long Term Plan. As and when the forecast shows a period of growth outside of the norm, Council will investigate and address constraints in our planning system to ensure our system enables growth and supports well-functioning urban environments.

7.2.7 Regulations established under the Waste Management Act 2008

A Gazette notice issued under section 48 of the Waste Minimisation Act 2008 provides that Hurunui District Council is required to add glass to its dry recycling collection for Amberley by 1 January 2027. It is also expected that the Council will be required to provide a food scrap collection service for Amberley.

Following the change in government in October 2023, the incoming government announced a number of expected regulatory changes, some of which would reverse legislative reforms introduced by the previous government. These changes demonstrate the importance of a nimble approach.

7.2.8 Resource Management Act 1991 (RMA) reforms

During December 2023, the Natural and Built Environment Act 2023 was repealed. That Act had been expected to be the first of a set of new legislation which would eventually replace the RMA.

7.2.9 Three Waters Reforms

The previous government had introduced the Water Services Entities Act 2022 and subsequent amendments, which established water services entities and provided for three waters assets to be transferred from territorial authorities to the water services entities by 1 July 2026. The incoming government has announced that it will repeal this legislation early in 2024. It is not yet known what the next steps will be in respect of three waters reforms. However, it is anticipated that there will be further change at some stage.

Summary of Council's strategic response to this issue:

- Enhancements to both infrastructure and operations will reduce the risk of three waters consent breaches
- For sites where treated wastewater is currently discharged to waterways, the Council will investigate and implement alternative approaches to the discharge of treated wastewater
- A feasibility study will investigate options for kerbside collection of various classes of waste. While the future direction is not yet known, it will incorporate requirements arising under the Waste Management Act 2008
- The Council will continue to monitor regulatory developments.

7.3 Affordability

The Council is facing increasing challenges in ensuring that services are able to be provided to the community in an affordable manner. These reflect both increasing cost pressures and funding constraints.

7.3.1 Cost pressures

Some factors contributing to increasing cost pressures include:

- The large geographic area of the Hurunui District means that a significant length of assets (pipes and roads) are needed to service the population's demands and needs. Separate water and wastewater schemes are required to service the widely dispersed Communities. Similarly the Council seeks to provide community infrastructure which is reasonably accessible to as many residents as possible. This means that the Council owns and/or manages a significant number of libraries/customer service centres, green spaces and other properties given the relatively small population.

- The past three years have seen significant cost escalations due to the national inflationary context. In some cases, the expiry of contracts for service provision and the subsequent re-tendering for those services has resulted in significant cost increases, e.g. roading, mowing green spaces.

- As indicated above, there are both regulatory pressures and changing customer expectations which contribute to pressure for further infrastructure development. An example of the impact of regulatory change has been the recent introduction of infrastructure to provide protozoa protection for each of the water schemes. It is expected that all but one of the Council's water schemes will be protozoa compliant (or close to it) by 30 June 2024.

- One impact of the significant investment in three waters assets over the past three years has been that the Council is now in a net debt position. Hence the Council is incurring external interest expense on this debt, and is also required to repay the debt over time. Notwithstanding the Council partially hedges its exposure to interest rate movements, increasing interest rates between 2021 and 2023 have also contributed to cost pressures.

  At the time that the Council commenced the significant upgrades to three waters assets, it was expected that both the assets and the associated debt would transfer to water services entities on 1 July 2024. In addition to the regulatory requirements underpinning the work, the Council recognised that it was in the best interests of the community to ensure that three waters assets were in a good condition on transition to the water services entities.

- Financial pressures have been ongoing for many years. In some cases, it has not been possible to maintain some infrastructure to the extent required to maintain its existing condition.

  - As a result of additional central government funding (e.g. Covid-19 stimulus funding), over the past three years there has been significant progress in addressing the backlog of pipeline renewals for water services. However, further work is required.
  - During 2023, the Council conducted an assessment of maintenance needs for many of its buildings. While it is not possible to proceed with the programme as quickly as desired for reasons of affordability, provision has been made for maintenance requirements which would otherwise impact safety or weathertightness.

7.3.2 Funding constraints

Because the Council does not have a credit rating, under its agreement with the New Zealand Local Government Funding Agency, the Council is restricted to borrowing no more than 175% of its annual rates revenue. In addition, in the past, the Hurunui District Council treasury policy limited net debt to no more than 125% of annual rates revenue. Hence, an increase in rates revenue will result in a corresponding increase in the debt cap.

Where possible Council accesses other funding sources, such as subsidies and grants. In the past, the Council has assessed some Special Purpose Roads (SPR) funding from Waka Kotahi. In situations where this subsidy was available, the Council was funded for the full cost of designated work on the roads. The Council has been advised that SPR funding will not be available for the next three years. The Council is hoping to access Ministry for the Environment funding to enable a feasibility study into how the new mandatory recycling activities will be delivered.

Rates increases are always unwelcome and the Council seeks to keep these to a minimum. However, increasing costs mean that it is necessary to fund additional costs through a mix of operating revenue (including rates) and debt.

7.3.3 Historic issues

In an effort keep rates as low as possible, in recent years, some activities have not been funded to the extent necessary to avoid additional costs in the future. For example:

- To date, infrastructure depreciation has not been fully funded for three waters activities. In 2015, the Council indicated its intention to move towards fully funding depreciation over a 10 year period. However, the impact of the 2018 North Canterbury Earthquakes was such that this was not feasible without causing considerable hardship to communities which were already facing challenging times. It is the Council's current intention to implement its earlier intention of fully funding depreciation over the 2024-2034 period. Funding depreciation is important, both to ensure intergenerational equity and to ensure funds are available to repay debt associated with asset acquisition.

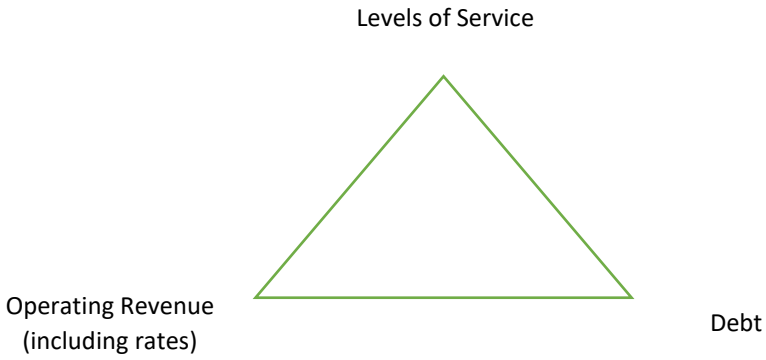
- In 2023-24, water services operated at a small deficit. The shortfall was required to be debt funded. It is intended that water services will be fully funded (other than depreciation) effective from 2024/25, and that depreciation is fully funded by 2034.

- Some years ago, the Council moved from a system whereby rubbish bags were funded by rates revenue to one for which rubbish bags were purchased by users. As some households had supplies of rubbish bags already on hand, the sale of rubbish bags in the first year of the new system was much lower than expected, resulting in a deficit for waste services which was debt funded. To date, that debt has not been repaid and hence has incurred interest expense. The Long Term Plan 2024-34 includes provision for the repayment of that debt.

While these measures have helped limit rate increases, they are not sustainable in the long term. Accordingly the Council is taking steps to move towards more financially sustainable approaches. In some cases that is likely to present increased challenges for affordability.

7.3.4 Affordability challenge

The above factors mean that the preparation of the Council's Infrastructure Strategy and Long Term Plan 2024-2034 has required difficult choices.



It is not possible to meet all expectations regarding levels of service (including those arising from the changing regulatory context) while maintaining low levels of rate increases and operating within the mandatory debt cap. Hence, it is necessary to make choices. In some cases, this means that work will still be programmed, but will not be carried out as soon as desired. In other cases, some work may not be feasible.

Summary of Council's strategic response to this issue:

- The Council endeavours to manage infrastructure and operations in an efficient and effective manner
- Funding mechanisms take into account intergenerational equity
- In order to balance the budget the Council adopts a combination of approaches:
  - Limiting or delaying some desired increased in levels of service
  - The debt cap is reviewed as part of the review of the Financial Strategy and Treasury Policy
  - While efforts are made to keep rates increases low, the above cost pressures and limited alternative sources of revenue mean that some rates increases will be necessary.

7.4 Climate Change

The global climate has been changing in recent decades. While some variation occurs normally (e.g. due to the El Niño Southern Oscillation), much of the change has been attributed to the effects of rising greenhouse gas emissions. There are high levels of agreement regarding the nature of many climate change impacts, and for some impacts there is reasonable agreement about the extent of the impact for specified greenhouse gas emissions levels.

Based on six models, NIWA estimate that, under the RCP8.5 global emissions scenario, the following effects are expected to be observed in Canterbury region (Macara et.al. (2020)):

	Average 2031-2050	**Average 2081-2100**
Annual mean temperature change	+0.5 - 1.5°C	+1.5 - 3.5°C
Additional hot days	10 – 40	20 – 60
Additional dry days	(5) – 10	(15) – 20
Increased winter rainfall	≤ 15%	15 – 40%
Fewer frost days	≤ 20	≤ 70
Mean sea level (MSL) rise	0.3 m	0.8 m

There is reasonable unanimity regarding the 2031-2050 projections, but as could be expected there is more variability among the longer term projections. The effects are expected to vary for different parts of the region, with the greatest annual mean and maximum temperature changes being expected to the west of the region.

It is expected that there will be more extreme weather events as the planet warms. At warmer temperatures, the atmosphere can hold more water vapour. NIWA projects that, in fifty years, one degree of warming in New Zealand (as a whole) may result in an average 13.5 per cent increase in rainfall per hour (MfE 2018, p.100).

Based on these projections, it is anticipated that climate change will present various challenges for the District, including:

- Increased frequency and severity of severe rainfall events will increase the risk of inundation and flooding to housing.
- Increased severity of severe rainfall events will put pressure on Council infrastructure (e.g. increase inflow and inundation of the wastewater system).
- Increased drought conditions and low flows in the District's rivers will lead to decreased water quality and quantity, increased algal blooms and will put pressure on ecosystems.
- Consecutive drought years are likely to place financial pressure on some farmers.
- Prolonged drought conditions contribute to pipe breakages and reduce the expected life of pipes.
- The District's unique biodiversity may struggle to adapt to new conditions.

- Strong wind events may result in damage to trees and, possibly, some Council infrastructure.
- The combined impact of hotter temperatures and strong wind events could result in significant damage from wildfires.
- Sea level rise is expected to contribute to coastal inundation, coastal erosion and rising groundwater for some coastal communities. In some cases, these effects may put selected Council infrastructure at risk.
- Higher temperatures and more frequent hot days may increase the incidence of heat stress, illness and potentially even death, especially among vulnerable people such as the elderly and outdoor workers.

In 2020, the Council commissioned a report from Jacobs New Zealand regarding the expected impacts of climate change on six coastal communities (Amberley Beach, Claverley, Conway Flat, Gore Bay, Leithfield Beach and Motunau Beach). The report focused on the impacts of coastal erosion, coastal inundation and rising groundwater on these communities. The nature and extent of those impacts varies between the six communities.

Since that time, the Council has been engaging with the communities, and in some cases, the Council has supported the community to develop a Coastal Adaptation Plan (CAP). The CAPS include options for future actions, and triggers which may spark decisions regarding the future direction for those communities. However, the CAPs do not bind those communities to specific actions at any point in time. The current expectation is that the communities will fund any infrastructure required to provide flood protection.

Some events which may be climate change have already impacted some coastal communities:

- Coastal erosion, exacerbated by a storm event, resulted in damage to a segment of Claverley Road during 2023. While repairs have been carried out, it is recognized that there is a risk of further damage to the road in future events.
- A segment of the cliff at Motunau Beach collapsed during 2023, resulting in two houses being assessed as unsafe for occupation. Depending on where it occurs, further major cliff collapse could impact Council infrastructure.
- There have been several instances in which Golf Links Road, Amberley, has been inundated by sea water. The Council has been engaging with the Amberley Golf Club and others regarding the way forward.

These examples demonstrate that while the nature and timing of climate change impacts may not be known, the potential impacts on levels of service and costs may be significant.

Damage at Claverley Road 2023

Summary of Council's strategic response to this issue:

- Land use planning and infrastructure development and maintenance take into account anticipated changes in climate
- For reasons of affordability, at this time, it is expected that large scale emergency works arising from climate change related events will be debt funded in the first instance
- Council will continue to engage with coastal communities regarding their preferred options for the future
- Provision has been made in the Long Term Plan 2024-2034 for the acquisition of a block of land for the possible relocation of the Amberley Beach community, and for community funding of that acquisition

7.5 Natural Hazards

Natural hazards, other than those associated with climate change, which could adversely impact District infrastructure include:

- Earthquakes – The 2016 North Canterbury earthquake caused significant damage to infrastructure in disrupted services in the Hurunui District. An Alpine Fault magnitude 8 earthquake (AF8), or an earthquake involving the Hope Fault or the Hikurangi subduction zone could have a massive effect on the Hurunui District. The AF8 website states there is a 75% chance of an AF8 event in the next 50 years. Hence it is important that the Council takes appropriate measures to promote resilience in the event of a major earthquake.

- Flooding – While some flooding may be linked to climate change, there have been major flooding events in the past, most notably the 2008 floods. A number of components of the infrastructure strategy and Long Term Plan 2024-2034 seek to reduce the risk and impacts of major flooding events, e.g. work relating to the Leithfield stormwater outfall, modelling to ensure appropriately sized infrastructure, and infiltration and inundation work which will reduce the risk of sewage overflows in major rainfall events.

- Wind storm – Some parts of the district are prone to wind storms. The resulting damage to trees can result in loss of power due to damage to lines. While generators have been acquired for some critical infrastructure, there are other areas where power disruption may result in loss of pumping capacity. Falling trees may also cause damage to buildings and other assets. In addition, there is the potential for some water storage tanks to be dislodged.

- Drought – Some parts of the District are prone to drought in the event of extended period of hot weather and minimal precipitation. In terms of water supplies, droughts are likely to have a more significant impact on shallower wells. Hot weather may also contribute to the deterioration of roads due to bitumen bleeding.

- Tsunami – While the risk of a major tsunami affecting infrastructure along the Hurunui coastline is low, the coastline is shown as an area of possible risk on the Environment Canterbury hazard maps.

Various steps have already been taken to support the continuity of Council services in the event of a natural disaster event. Asset redundancy and resilience is taken into account in designing and developing changes to infrastructure networks. For example, in the context of three waters, some developments in recent years have included:

- Installation of generators at some critical sites
- Maintaining spares of critical supplies and entering into agreements with some suppliers
- Increasing the rate of reticulation renewals (made possible due to receipt of Covid stimulus funding) to reduce the risk of pipe breakage and leaks
- Developing an additional water source for Amberley
- Water intake protection engineering to reduce the risk of damage from flood debris
- Relocating the lower Waitohi treatment plant outside flood prone areas
- Pruning of trees around key infrastructure to reduce the risk of damage and power outages in severe wind events.

In the context of roading, the Council has previously developed a list of “vulnerable roads” in the District. To date, it has not been possible to take action to reduce the vulnerability of these roads.

Summary of Council's strategic response to this issue:

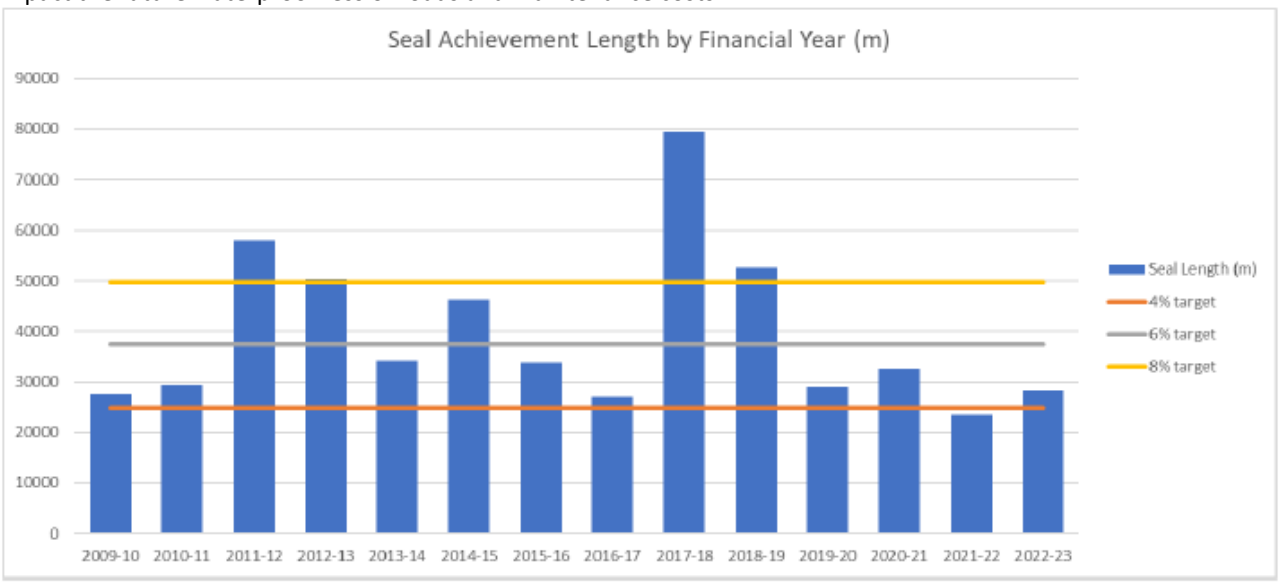
- Land use planning and infrastructure developments takes into account known natural hazards
- Further work relating to increasing access to water sources
- Enhancing the resilience of infrastructure, such as through acquisition of additional generators and spare pumps
- Remote monitoring of water and wastewater activities to ensure early identification and rectification of any malfunctions associated with natural hazards
- Develop and implement a plan (subject to finance) in respect of vulnerable roads
- Provision of civil defence services

7.6 Age and condition of infrastructure

Some core and community infrastructure is coming to the end of life. Both age and performance based renewals have been provided for as part of the Long Term Plan 2024-2034 period. However, due to reasons of affordability, it is not possible to renew some assets as quickly as could be desired.

7.6.1 Roading

Over the past four years, around 4% of the sealed network has been resealed each year. However, the rate of resealing required based on the expected average seal life would be around 6%. At 6%, each sealed road would be surfaced on average at least once in 16.7 years. If the current low rate of resealing of roads were to continue, this will impact the future waterproofness of roads and maintenance costs.



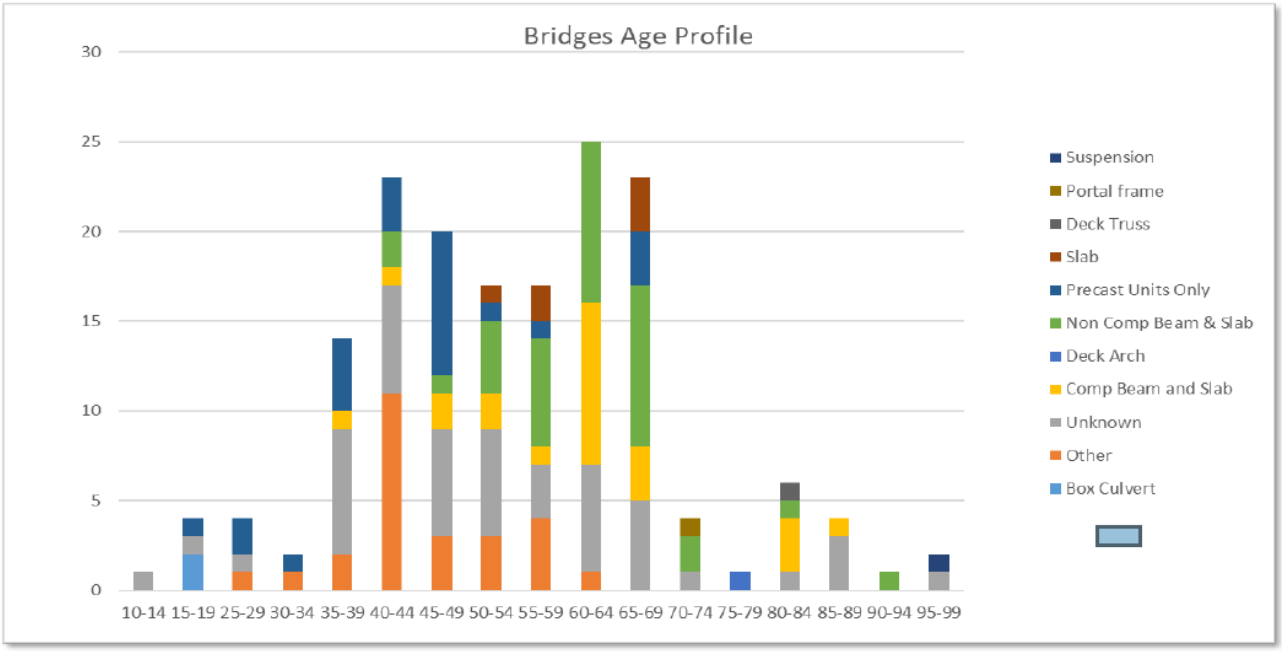
Hurunui District Council resealing rates since 2009

The high level of resealing in 2017/18 reflected the sealing of the Inland Kaikoura Road in 2017, which was funded by NZTA following the road's previous use as an alternative to State Highway 1 following the North Canterbury Earthquakes.

As at 2023, 92% of road sealed area was less than 15 years old. There is currently a backlog of 134 km of chipseal length. This represents 22 percent of the chipseal network. Generally a 10-20 percent backlog is considered acceptable.

In 2023/24, 21,747 m3 of aggregate was applied to the unsealed roading network. This was considerably lower than the target of 32,000 m3 of aggregate set out in the Activity Management Plan 2018-2028. Given the 3.6M m2 of unsealed road on the Hurunui roading network, this represents an average of 6mm over the full network. Unsealed roads lose around 10-15mm of aggregate per annum. Hence, recent aggregate application has been insufficient to maintain the unsealed roading network at its current condition. It is also noted, however, that more data is needed in order to assess this in the context of this District. For example, in addition to traffic volumes, it Is good practice to take into account rainfall, gradient, geometry and material characteristics.

Most of the Council's bridge stock is in relatively good condition. A general bridge inspection undertaken in 2022 summarised the overall condition of Council's bridge and large culvert stock as being very similar to the last round of general bridge inspections which was done in 2019. This reflects the large number of maintenance and renewal works that has been undertaken since that previous round of inspections.



However, there are a large number of structures that are nearing end of life (23% in the next 30 years), so the number of high and urgent priority structural maintenance works and bridge replacements/renewals is expected to increase in coming years.

Due to affordability, it is unlikely that the bridge replacement programme will be able to keep pace with the deterioration of the bridging stock beyond the short-term and therefore bridges will need to be kept in service for longer than may be desired. This could be through increased maintenance intervention (placing further pressure on funding) or by acceptance of a downgrade in level of service (i.e. an increased number of load restricted bridges).

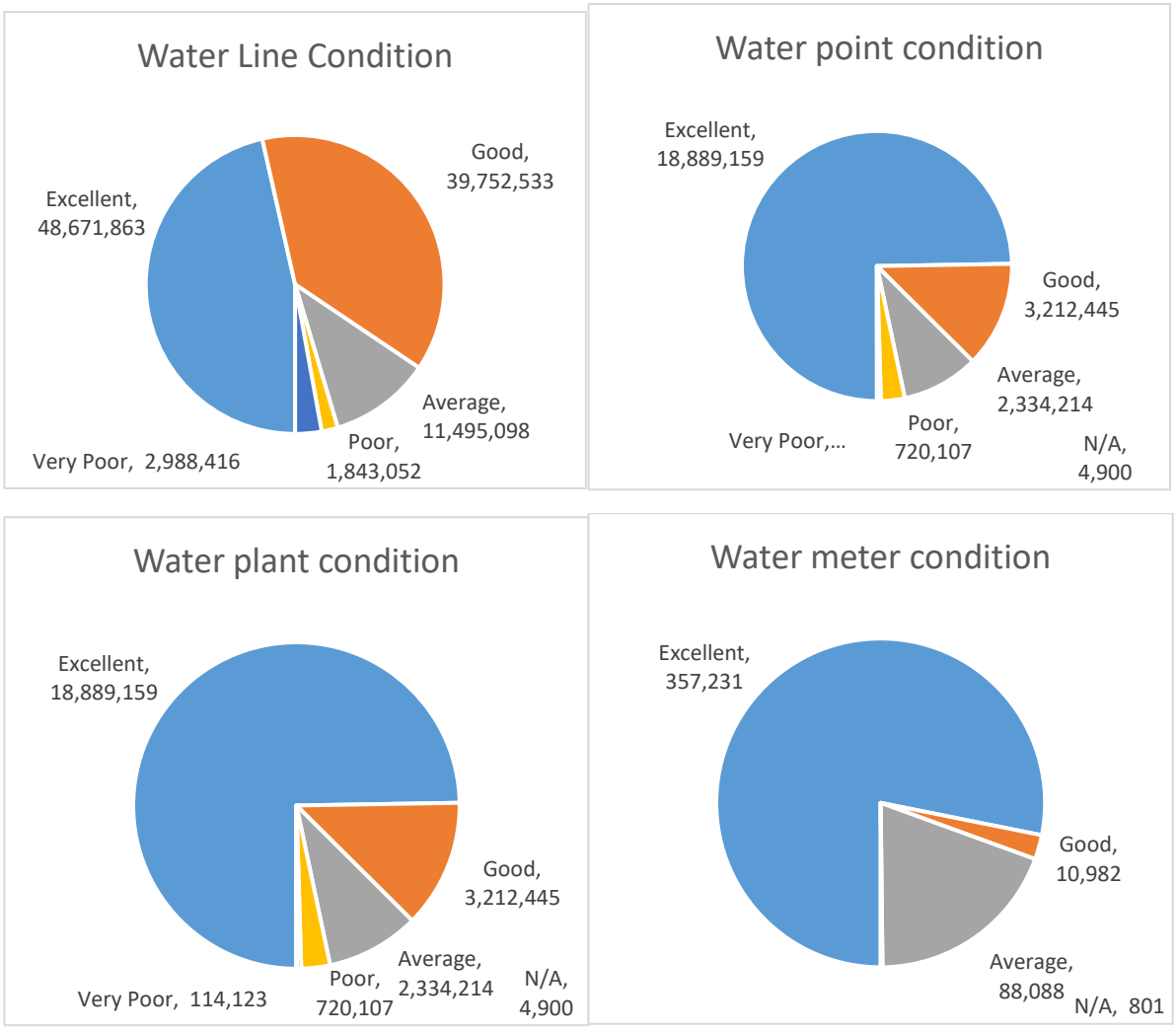
7.6.2 Water Services

Three waters assets are recorded in the AssetFinda system. The condition of assets is recorded as being excellent, good, average, poor, or very poor. These are approximately equivalent to the five International Infrastructure Management Manual (IIMM) condition ratings.

There is some degree of uncertainty regarding the condition of some assets, e.g. underground assets which are not usually visible. The Council records the level of "accuracy" associated with asset details in the AssetFinda system

(approximately equivalent to the IMM confidence ratings). The ratings given to accuracy are excellent, good, average, poor and very poor.

For the more recent data held, particularly that recorded since 2004, the data is likely to be of good quality. All the data older than 2004 was imported to AssetFinda from other sources, and the accuracy ratings for that data are less reliable. However, over time, some of those assets are being replaced and more data is being collected and analysed about condition. Accordingly, both the condition data and the accuracy ratings are gradually becoming more reliable.



The quality of data relating to the condition of assets installed since 2010 is very high as there has been more scrutiny over both the installation of those assets and the accuracy of what is known about them. However, data about the condition of assets which were installed prior to 2004 was automatically categorised as excellent but records of repairs have been made since. For pipe assets in particular this has been consistently collated but not analysed until recently. In the past few years, the pipe repair data has been used to update the condition of pipes within Assetfinda. The method used was crude but gives us more nuanced data and improves the accuracy of it overall. In parallel, we are recording more field data about the condition of all plant assets (in particular reservoirs) and this has allowed us to accurately update the condition data in Assetfinda. With continuing condition data capture and further analysis, over time, it is expected that the quality of condition data will improve.

There has been significant investment in water plant since the last infrastructure strategy was prepared. This was necessary in order to meet compliance obligations and to promote water safety. As a result of this, some of the old

inaccurate data held in the asset register about water plant has been removed (as the real-life assets have been) subsequently improving the overall accuracy of this dataset. Operations and Maintenace Manuals for the new plant specify the need to capture the maintenance performed on these new assets. This process will improve the accuracy of the asset data.

In general, the Council's policy is to renew high and very high criticality three waters assets on an age basis, adjusted for performance as necessary. Medium, low and very low criticality assets are generally renewed based on performance. There is some risk related to the latter approach which Council has borne for a number of years, namely that by sweating the asset you lose performance and increase maintenance costs in order to keep the level of service. Council has used and will continue to use several methods to reduce that risk.

The majority of medium, low and very low criticality pipes are in rural networks and there is a substantial budget each year to replace those pipes that have been identified as performing badly whether due to condition or a loss of level of service. These pipes are identified by the field operator in the field and engineers in the office. This budget was based on the overall pipe renewal budget for the LTP period and averaged as an acknowledgement of both affordability and the ability to complete the projects within a financial year due to the availability of both contractor and the landowner to allow access.

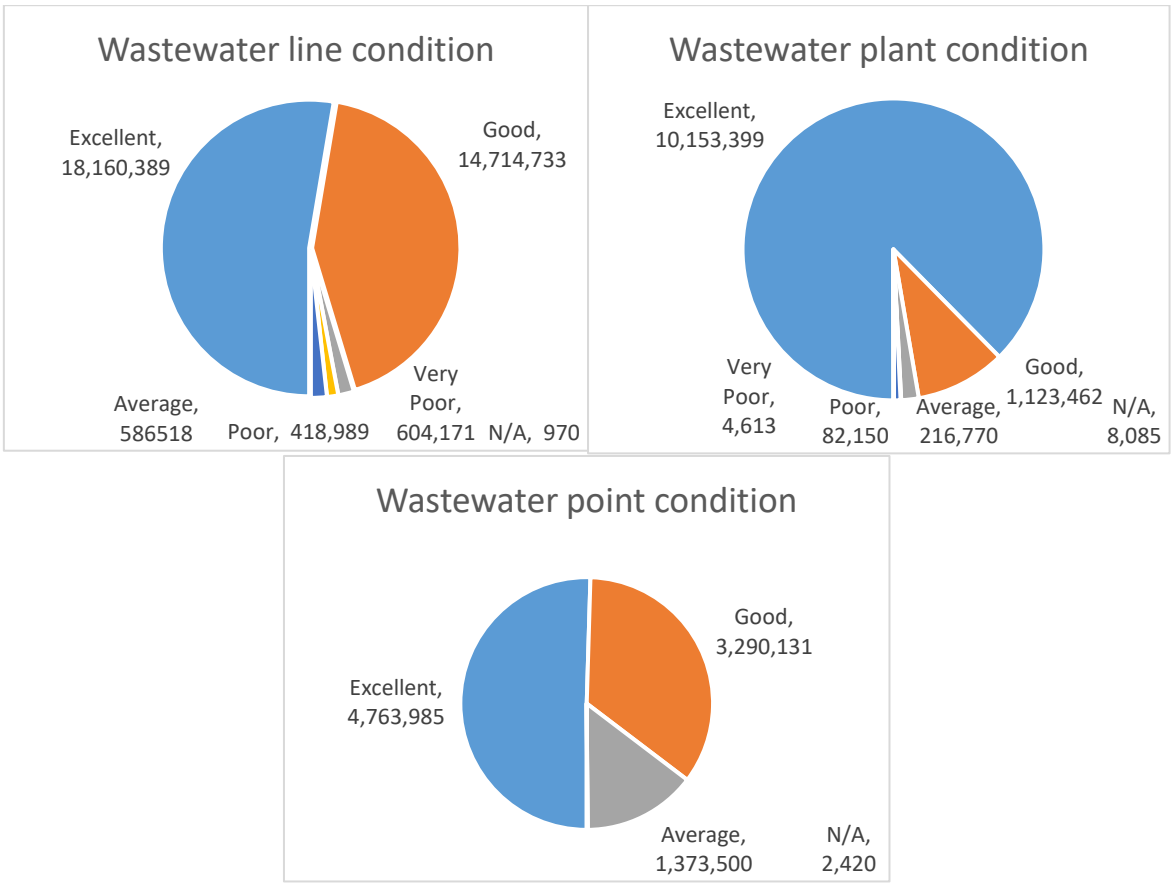
The condition and performance of these pipes is often linked with the ability to provide level of service and for growth. Many of these pipes are high pressure and at the extent of their level of service so that the pipe is under the near maximum pressure it can stand. Subsequently the pipe replacement is not just a renewal but an upgrade for both level of service and growth. The replacement of these pipes is also affected by the land use as the old pipes were laid in largely open fields across a few larger farm blocks. In many areas of our District the farm blocks have been split up or the land use has changed so new pipe routes are required. In some cases, the upgrade of the pipe for a pumping main will require a change in pump at the pump station as this will improve the performance of both pump and pipe. In more complicated pipe renewal projects where a multitude of factors is included a separate project has been identified in the IS. An example would be the upgrade of Browns Rising Main (programmed for 2024/25) where the old pipe is too small under high pressure and the land above is also now covered by a vineyard.

Council has also used growth to continuously update and improve its rural network and has money set aside in the budgets for this purpose. For instance, in the Ashley Rural Water Supply network, as the larger farms have been split up into lifestyle blocks, we have abandoned the pipes running through paddocks and tried to limit our infrastructure to the public space/road network as much as possible. As well as replacing a poorly performing pipe, this has an ongoing impact of reducing potential damage to and theft of water from pipes within private property.

The use of telemetry allows us to monitor the performance of the networks and keep the levels of service but also give us the ability to identify poorly performing networks. It has been proposed to install several zonal flow meters connected to telemetry within the rural network to improve this visibility. This will allow both the field operators and assets planning team to focus their efforts.

As at 30 June 2023, there were 217 kilometres of Asbestos Cement (AC) water pipes remaining in the District. The AC pipe was installed in the 1950s and 1960s and is reaching the end of its expected life. The Council has been working towards replacement of these pipes because failure to replace AC pipes increases the risk of water leaks and pipe breaks and could potentially lead to health issues. Some MRI analysis of AC pipe was performed in the early 2010s and show varying results across the district relating to the condition, which lead to asset ages being changed. Since then, the condition of these pipes has been analysed using repair data and from talking with our experienced operators. It is known that AC pipe performs less well over time in damp conditions, and this is largely the case within our network. Similarly, the lower pressure networks have less impact on the pipe condition. Some of the AC pipe in areas analysed by MRI has performed better than expected due to these factors.

7.6.3 Wastewater infrastructure



Again, the quality of data relating to the condition of assets installed since 2010 is very high andthe data about the condition of assets which were installed prior to 2004 was initially categorised as excellent which is not the case. CCTV data of older pipelines has been completed over the last ten years but not analysed until recently. As this analysis is used to update the condition data in Assetfinda the quality of this data will improve.

As with water plant, much of the wastewater plant, especially those around treatment, has been upgraded in recent years. As new data has been added to the asset register the older less accurate data has been identified or removed thus improving the accuracy of what we know about our networks.

7.6.4 Community Infrastructure

Social housing, residential housing and medical centres are maintained to a suitable standard. All Council owned buildings which are required to have a Building Warrant of Fitness hold a warrant.

During 2023, Council commenced a condition assessment of its community buildings. To date, around half of Council community buildings have been assessed. Work is continuing on this project. While the data is still being collected, initial findings indicate that considerable maintenance is required to ensure community buildings are an appropriate standard and fit for purpose.

In the past, for reasons of affordability, maintenance has largely been reactive. While it is recognised that a more proactive approach to maintenance would be more cost-effective on a long term basis and would provide a better level of service to communities, this is not affordable in the first instance. Hence it is proposed to introduce scheduled maintenance in just a few locations initially.

Council has been engaging with some communities and is planning to engage with others regarding the future of some community buildings. It appears that the retention of all current community buildings may not be feasible and/or cost-effective going forward. The recent condition assessment of community buildings will provide useful input for further community engagement.

Summary of Council's strategic response to this issue:

- Seeking Waka Kotahi subsidy funding to support roading renewals and maintenance at a more sustainable level, recognising the associated requirement for rates co-funding
- Continued implementation of a renewals and maintenance programme for three waters infrastructure based on age and/or performance (depending on criticality of assets)
- As feasible, rationalise community buildings and implement a scheduled maintenance programme (subject to affordability)

8 Capital Works Programme

The following section details some possible ways of responding to some of the key issues facing the Council. These are options, some of which are preferred by the Council and some of which are not (indicated on the table). The options are generally not mutually exclusive, and hence a number of options may be applied in responding to a single issue.

At the time of writing, the Council has not yet carried out community consultation on the draft Long Term Plan. Consultation is scheduled for 27 March – 29 April 2024.

The options included in the final Long Term Plan 2024-2034 are not yet finalised and may change following community consultation and subsequent Council meetings prior to 30 June 2024.

The following schedules indicated the proposed timelines for implementation of the proposed activities. The date by which a decision must be made regarding any capital expenditure is the 30th of June in the financial year prior to the year in which implementation commences.

8.1 Roading Capital Works Programme

Some key issues affecting the roading programme include:

1. **The impact of escalating costs on ratepayers –** It is necessary to consider the level of investment in roading alongside impacts on ratepayers. Due to concerns regarding impacts on ratepayers, there has been historical underinvestment in roading and hence there is a backlog of renewal works.
2. **Approaches to maintenance -** Due to customer concerns, there has been a focus on maintaining running surfaces rather than other aspects of maintenance, which may be more cost effective on a long term basis. There has been limited investment in roading drainage, which can also increase the long term costs of roading activities.
3. **Customer expectations regarding levels of service –** Changing demographics are expected to contribute to expectations of higher levels of service. In particular, an increase in the number of people moving into the district is expected to contribute to increases in requests for sealing of unsealed roads.
4. **Climate change –** Climate change is expected to contribute to more extreme weather events and various impacts on coastal assets (due to rising groundwater, coastal erosion and coastal inundation). Both the effects and the responses to climate change are likely to be multifaceted.

These issues are intertwined.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	Level of Service	Renewal
Increase investment in reseals and metalling of unmetalled roads in order to maintain the current state of	√	* Not increasing investment will result in gradual deterioration in road surfaces, and is likely to result in the need for more road rehabilitations (which cost significantly more than reseals and re-metalling)	$26.2m for first 10 years and continuing thereafter	2024 – 2054			√

the roading surfaces		* Some customers have expressed dissatisfaction with roading surfaces * Increased Council investment is needed in order to attract additional subsidies for this work (If the subsidies are not granted, then the Council will be required to fund a greater average share of the work) * Increasing investment in roading, including reseals and metalling will require additional rates income					
Increase investment in roading drainage	√	* Good drainage reduces the deterioration in roads associated with major rainfall events * A pilot is underway regarding one option for enhancing roading drainage	$26.5m for first 10 years and continuing thereafter	2024 – 2054			√
Fund emergency works associated with weather events by collection of an annual rate (prior to the event)	X	* In recent years, there have been some emergency works every year, and hence it can be projected that some funding would be needed most years, even if the amount is not known * Increases rates prior to emergencies occurring * Not funding emergencies in advance may delay some emergency works as Council approval is needed for additional expenditure outside budget. (However, extraordinary Council meetings are held from time to time) * In the absence of rates funding in advance, emergency works would be debt funded in the first instance, and subsequently recovered from rates and (probably) subsidies	Varies between events	N/a			√
Bridge renewals	Some √	* A number of bridges are expected to be due for renewal in the next 30 years in order to prevent loading restrictions (impacting levels of service) * The renewal of Conway Bridge is recognised as a priority by Waka Kotahi, but is not currently expected to be renewed in the next 3 years * While subsidies may be available for some bridge	$46.2m	2034-2054			√

		works, the timing and level of any subsidies is not known * Bridge renewals are likely to cost at least $1 million per bridge and for some bridges, several times that amount. Given the current population of the district, this would place a heavy burden on ratepayers.					
Sealing of highly used unsealed roads	Limited √	* Sealed roads provide a higher level of service than metalled roads, e.g. a smoother ride, less dust impacting adjoining houses * The costs of maintaining sealed roads are higher than for maintaining metalled roads. * The costs of sealing unsealed roads are significant, and even with a significant increase in rates funding and subsidies, the length sealed would probably be minor. Hence it would be necessary to have a robust process for prioritisation of requests for sealing	$14m	2034-2054		√	

8.2 Water Supply Capital Works Programme

The Council's key issues relating to the water supply capital expenditure programme are as follows:

1. Water Safety and Compliance
2. Water Network Resilience
3. Growth
4. Climate change

Several of these issues are intertwined. Some improvement activities may assist in responding to more than one of the key issues. However, each capital programme is only shown once below.

8.2.1 Water Safety and Compliance

The consents held by Hurunui District Council specify diverse compliance obligations. The Council endeavours to comply with these obligations at all times. Some compliance obligations also support water safety and contribute to the aesthetic quality of water.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	Level of Service	Renewal
Balmoral water supply protozoa protection	√	* Required for compliance	$0.9m	2024/25		√	

		* Reduces the risk of protozoa infection * Significant expenditure item for the number of connections to this scheme * In addition to the initial capital costs, there will be ongoing operating costs associated					
Water softening plants at the Kowai water source and Leithfield	√	* Required for compliance * Reduces the risk of damage to UV water treatment assets, potentially reducing renewal/maintenance costs * Improves the aesthetic quality of water * In addition to the initial capital costs, there will be ongoing associated operating costs	$0.8m	2024/25		√	
pH correction for several schemes	√	* Required for compliance * Reduces the risk of damage to water assets * In addition to the initial capital costs, there will be ongoing associated operating costs	$0.2m	2027/28		√	
Fencing of key assets, e.g. intakes	√	* Required for compliance * Reduces the risk of contamination	$0.3m	2024/25-2030/31		√	
Establishment of filler points	√	* Required for compliance in respect of water for fire fighting	$0.4m	2024/25-2026/27		√	
Fluoridation of water supplies	X	* If the Minister were to direct the Council to fluoridate water, then, based on current legislation, there would need to be a Council decision to approve expenditure for this purpose in order to ensure compliance * It is not known whether the incoming government will adopt the previous government's approach to fluoridation, but it appears that some members do not support that approach	N/a			√	

One of the challenges in ensuring compliance with regulatory obligations is that the sector experiences significant regulatory change from time to time:

* The water services reforms introduced by the Labour government in 2022 and 2023 have been reversed by the incoming National coalition government, and it is not yet known what future reform might look like.
* The National Policy Statement for Freshwater Management requires freshwater to be managed in a manner which gives effect to Te Mana o te Wai, including through engagement with tangata whenua and communities and prioritising the health and wellbeing of water bodies. Some implications of Te Mana o te Wai are still being worked through.
* The Department of Internal Affairs is currently leading a review of the National Engineering Design Standards.

Due to uncertainty regarding the implications of these developments, this Infrastructure Strategy does not include associated capital works. It is possible that the developments could result in capital works in future Infrastructure Strategies.

8.2.2 Water Network Resilience

Water network resilience can be adversely impacted where assets are ageing or in poor condition. Natural hazards, such as earthquakes, floods, tsunamis and droughts can have either short or long term impacts on the water network. Resilience can be enhanced through timely renewals and maintenance.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Critical assets are renewed based on age (or earlier if needed due to condition and performance), and assets with medium, low or very low assets are renewed based on condition and performance	√	* Timely renewals reduce water leakage and can reduce the risk of sudden failure of critical assets * Timely renewals of reticulation may reduce the risk of contamination * There is a residual risk of interruptions to levels of service, particularly in regard to some medium, low and very low criticality assets where assets	$15.9m for pipe renewals $1.9m for reservoir and tank renewals Et. al.	2024/25 – 2033/34			√
All major water assets are renewed based on age (or earlier if needed due to condition and performance),	X	* The risk of interruptions to levels of service may be lower * For some assets, earlier renewals may reduce maintenance costs * Urgent reactive work is considerably more expensive than proactive work and hence the lifetime costs of the assets may be higher than they otherwise would be	N/a				√
All water assets are renewed based solely on condition and performance	X	* There would be a significantly higher risk of failure of a highly critical asset giving rise to a failure in level of service * While annual renewal costs may be higher, a catastrophic failure in a critical asset could give rise to safety, access to water and additional costs	N/a				√

		associated with a major repair at short notice					
Increasing water storage/pumps for some schemes, e.g. Hawarden-Waikari, Hanmer Springs	√	* Reduces the risk of interruptions to water availability in the event of intermittent high demand, failure of some types of assets and/or some type of contamination * Further information is required to determine whether the additional storage planned for Hanmer Springs during the Long Term Planning period will be feasible	Hanmer Springs $5.2m Hawarden -Waikari $3.02m	2030/31 - 2031/32 2024/25 2025/26 2030/31		√	
Installation of smart water meters across the district	√	* Smart water meters can be read more rapidly by driving along the street. Hence it would be possible to read the meters more frequently. This would assist in early identification of significant leaks, reducing water loss. * Frequent meter reading would also reduce the risk of unexpectedly high water bills for users * Smart water meters would reduce the cost of meter reading activities * There are upfront costs associated with the installation of water meters and associated systems costs	$2.2m	2024-2034		√	
Renewing water meters with standard (non-smart) water meters	x	* The cost of replacing the current water meters would be lower than for smart meters * It would not be possible to significantly reduce the time taken to read water meters and hence it is likely the Council would continue to read meters annually	N/a			√	

8.2.3 Growth

While growth is often considered in the context of population numbers, changing land use is also a key consideration in the Hurunui District. Water requirements for stock and horticulture (particularly viticulture) also affect the demand for water. In addition, visitor numbers can swell at some times of the year.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Development of additional water supplies for Amberley, and associated infrastructure (mains, pump stations etc)	√	* Necessary for further growth to occur in Amberley * There have been historical challenges in accessing additional water for Amberley, including a dry bore and issues with water hardness. Hence there may be unexpected additional costs as this work proceeds.	$1.5m	2031/32	√		

As the time of consent renewals, seek consent for increased water take from existing water sources	√	* This may be possible for some water sources, and will need to be assessed on a case by case basis ahead of consent renewals	N/a		√		
Upgrades to water mains including the Cheviot main, Blyth booster main, upgrade of the Lower Waitohi main from Karaka, and a main to the new Seadown reservoir	√	* Provides for current and future growth	Cheviot main $3.56m; Blyth main $0.72m; Bulk main to Seadown $2.10m; Upper Waitohi upgrades $2.51m	2025/26-2027/28 2026/27 2024/25	√		
Council funds the first 20 meters of new water connections for two years and thereafter those seeking connections pay the full cost of connection to water services	√	* It is not possible to change the current approach sooner than 2026/27 because it requires a change in a bylaw * Those seeking new water connections are the primary beneficiaries of the connections and hence it is appropriate that they meet the cost of connection * Some customers seeking new water connections will be required to pay more than others based on the location of the property concerned	$0.02m	2026/27	√		
Council funds the first 20 meters of new water connections on an ongoing basis (status quo)	X	* This option reduces the cost of connecting to Council water supplies for some users * The cost of funding the first 20 meters of new water connections is currently borne by everyone in the District who is connected to a water supply	N/a		√		
Data and modelling enhancements	√	* Quality data and modelling is essential to understanding the impacts of growth and assessing the potential need for infrastructure development	$0.5m	2024-2034	√		

8.2.4 Climate change

As indicated above, it is expected that there will be more hot days (over 25 degrees), particularly in summer and more days with low soil moisture, potentially increasing the risk of pipe breakages and of fire. It is also expected there will be more extreme rainfall events and more windy days.

Climate change is expected to increased demand for water resources, and in some cases, may impact supply. Extreme rainfall events may also decrease surface water quality, impacting water treatment and potentially presenting risks to compliance.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Development of water infrastructure at a potential new site for the Amberley beach community	√	* This is dependent on the Amberley Beach community choosing to relocate to a new site	$5.2m	Beyond 10 years		√	

The installation of smart water meters will also assist with reducing water loss, potentially helping reduce the expected impacts of climate change.

8.3 Wastewater Capital Works Programme

The following are the Council's key priorities for the wastewater activity at this time.

1. Minimising environmental impacts
2. Regulatory change, including impacts for consent management and compliance
3. Climate change
4. Growth

Because the issues are inter-related, in some cases, the Council's approach to working through one of these issues assists with one or more of the other issues.

8.3.1 Minimising adverse environmental effects

Some of the key issues which may contribute to adverse environmental effects include:

- Inflow and inundation - When significant volumes of stormwater enter the wastewater network, there is a risk that total volumes will exceed network capacity. Impacts may include wastewater overflows, costs associated with using contractors to take proactive action during severe weather events, potential pond overtopping and greater treatment costs.

- Unauthorised inflows - Unauthorised inflows to the wastewater system contribute to unplanned pressures on the wastewater network. Occasionally, contaminated inflows may adversely impact wastewater treatment systems and processes, potentially resulting in discharges which breach consent obligations and/or have environmental impact. Unauthorised inflows may also result in increased operating costs. Some contributing factors include illegal connections to the wastewater network and unauthorised trade waste discharges. While the Council has a water bylaw and a trade waste bylaw, to date enforcement has been limited.

- Natural hazards (detailed above) - The Hurunui District was significantly impacted by the 2016 earthquake and, as is the case for most of New Zealand, there remains an ongoing risk of future earthquakes. Information provided by Environment Canterbury indicates that the district's coastal communities could be at risk of damage in the event of a tsunami. Any of these hazards could put at risk the continuity of wastewater services.

- Operational sustainability - Environmental impacts associated with the operation of this activity include those associated with the production of materials used in the course of the activity and the

use of vehicles. Waste may be generated in the course of repairing or replacing plant, reticulation and/or vehicles. In addition, there are energy costs associated with the occupation of Council buildings.

This issues is closely aligned to resilience of the wastewater network.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Critical assets are renewed based on age (or earlier if needed due to condition and performance), and assets with medium, low or very low assets are renewed based on condition and performance	√	* Timely renewals reduce water leakage and can reduce the risk of sudden failure of critical assets * Timely renewals of reticulation may reduce the risk of contamination * There is a residual risk of interruptions to levels of service, particularly in regard to some medium, low and very low criticality assets where assets	Retic. Renewals $7.06m Other renewals also	2024-2034			√
All major wastewater assets are renewed based on age (or earlier if needed due to condition and performance),	X	* The risk of interruptions to levels of service may be lower * For some assets, earlier renewals may reduce maintenance costs * Urgent reactive work is considerably more expensive than proactive work and hence the lifetime costs of the assets may be higher than they otherwise would be					√
All water assets are renewed based solely on condition and performance	X	* There would be a significantly higher risk of failure of a highly critical asset giving rise to a failure in level of service * While annual renewal costs may be higher, a catastrophic failure in a critical asset could give rise to safety, access to water and additional costs associated with a major repair at short notice					√
Establishment of Sequencing Biological Reactor (SBR) treatment in Amberley	√	* Will reduce the amount of land required for discharge of treated wastewater for Amberley * Will prevent sludge buildup in the wastewater treatment ponds, enhancing operational sustainability * Work on this project is already underway and there would be financial disadvantage in discontinuing at this stage	$3.31m	2024/25		√	

Establishment of AMD treatment at wastewater treatment ponds	√	* Will prevent sludge buildup in the wastewater treatment ponds, enhancing operational sustainability * Limited initial capital outlay. However, will involve ongoing operating costs. These are expected to be more than offset by the reduced desludging costs	$0.05m Capex + annual operating costs	2024-2034		√	
District Wide Critical Infrastructure Improvements (Aprons up to McBern's lids)	√	* Will reduce the risk of inflow and inundation of wastewater systems	$0.21m	2024/25 - 2028/29		√	
Acquisition of vehicle and equipment for carrying out in house CCTV screening	√	* Ongoing CCTV will assist in the identification of damaged reticulation, resulting in more timely repairs, reducing potential environmental impacts * CCTV work will also contribute to a reduction in inflow and inundation * This activity will involve modest initial capital outlay and ongoing operating costs	$0.06m	2024/25			

8.3.2 Regulatory change, including impacts for consent management and compliance

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Design and implement wastewater solutions which do not result in discharges of treated wastewater to waterways	√	* Likely to be needed to comply with consent conditions once current consents expire * Likely to be consistent with Te Mana o te Wai * In some cases it may be necessary to purchase land for disposal of treated wastewater. The costs are likely be significant, and will need to be funded by debt in the first instance	Cheviot $3.63m; Greta Valley $1.01m; Motunau Beach $1.88m; Hawarden $5.47m; Hawarden /Waikari $1.89m	Various dates prior to 2029/30		√	
Wait to see what the new consent conditions are and then decide on whether to act and, if so, how	x	* Likely to result in non-compliance with consent conditions and potentially could lead to infringement notices, fines etc * If it is necessary to buy land, the land could be more expensive at that time. * Would reduce Council debt in the short term				√	

8.3.3 Climate change

The responses to potential environmental impacts are also relevant for climate change. For example, any measures to reduce inflow and inundation are likely to assist in the event of more frequent significant rainfall events.

Modelling is also key to planning for and implementing appropriately sized wastewater network assets. Modelling services are provided for in the draft Long Term Plan.

If the Amberley Beach community decides to proceed with proactive relocation, then it is likely that at some stage (beyond the 10 year Long Term Plan period), wastewater reticulation will need to be established in a new location.

8.3.4 Growth

The most significant impacts growth are expected to occur in the South Ward. For new subdivisions, the development of wastewater assets is usually the responsibility of the developer, and are then vested in Council on completion. The Council subsequently becomes responsible for maintenance and renewal.

Modelling is also important in ensuring that wastewater network assets are appropriately sized for growth.

Depending on the size and rate of growth, at some stage it may be necessary to review the size of some treatment plant assets, and potentially to acquire more land for disposal of treated wastewater.

8.4 Stormwater Capital Works Programme

Key issues impacting the stormwater activity include:

1. **Risks of flooding to habitable floors or damage to Council infrastructure** – Many of the projects being proposed for inclusion in the Long Term Plan seek to reduce these risks. In some cases, the situation already causes concern for property owners, while in others the risk has not yet caused any issues but could do so in the future.
2. **Regulatory compliance, including changing obligations** – There are likely to be additional obligations arising from the acquisition of a new global stormwater consent covering 13 urban areas. A potential issue is the need to treat contaminated soil in stormwater filtration ponds. In addition, stormwater work is required in respect of a Hanmer Springs project (Argelins Road/Jacks Pass), but has not previously been doable due to regulatory matters.
3. **Climate change** – Anticipated climate change impacts in the coastal communities may include coastal erosion, coastal inundation and/or rising groundwater. While not expected in the near future, it is expected that rising groundwater will have impacts on stormwater management in Leithfield.

8.4.1 Risks of flooding to habitable floors or damage to Council infrastructure

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Implement improvements to Dock Creek (e.g. upgrade, bank stabilisation,	√	* The proposed upgrade will enable higher flows down Dock Creek * Motorisation of the Dock Creek gate will make it easier to	$0.4m			√	

motorisation of gate)		respond quickly to major rainfall events * Bank stabilisation will reduce the risk that bank collapses may impinge water flows					
Implement improvements in respect of the Stanton Road stormwater assets	√	* Development at/near this site will enable more stormwater to be channelled down the Eastern Drain, reducing the risk of flooding in Amberley township	$0.3m			√	
Implement improvements in Leithfield Beach including upgrading culvert sizes, addressing Penfold Square issues, a possible river stop bank, and planning for the future of the outfall	√	* Will help to address existing stormwater issues in Leithfield Beach * Likely to help mitigate some of the early impacts of climate change * Out beyond 30 years, climate change impacts, particularly those associated with rising groundwater, may still have a significant on this community * The package of works is likely to require significant investment	$2.5m			√	
Implement some, but not all of the proposed enhancements in Leithfield Beach	x	* Would still assist with existing stormwater issues, but the longevity of the benefits could be shorter	$1m			√	

8.4.2 Regulatory compliance

Non-compliance with consent conditions would be potentially risky and could lead to infringement notices and fines. In connection with the proposed new global discharge consent for the 13 urban areas, it is expected that the Council will be required to undertake additional sampling. Provision has also been made in the Long Term Plan for possible capital works (not yet identified) which may be required to meet consent conditions for this consent.

Acquiring and renewing stormwater consents is a significant process and provision has been made for the expected costs in the Long Term Plan. The Argelins Road/Jacks Pass stormwater project has been in the pipeline for some time, awaiting the outcome of regulatory matters. Depending on the outcome, this project may be required for regulatory compliance.

8.4.3 Climate change

In order to plan for the potential impacts of climate change, the Council is proposing install Raven flow meters to better monitor flows, continue CCTV work and continue modelling the stormwater network.

Some of the works planned for the Long Term Plan period in order to address the risk of flooding to habitable floors and/or damage to infrastructure may be considered relevant for managing some climate change impacts also.

Beyond the ten year period, other interventions may be needed, such as increasing the size of some drains/culverts.

8.5 Waste Management and Minimisation Capital Works Programme

Key issues which are expected to impact Waste Management and Minimisation over the next 30 years include:

1. Regulatory and technological change
2. Customer expectations regarding levels of service
3. Growth
4. Compliance regarding closed landfills

8.5.1 Regulatory and technological change

Changes to the regulatory environment may impact both the Council's duties as the providers of waste management and minimisation services and as a producer of waste.

A new performance standard established under section 48 of the Waste Minimisation Act 2008 requires the Hurunui District Council to add glass to its existing dry recycling conditions for Amberley by 1 January 2027. It is also expected that there will mandatory collection of food waste in Amberley within a similar period.

The regulatory environment may be influenced by technological change and changing customer expectations. There is considerable uncertainty as to what these changes might look like beyond the short term and how they might impact waste volumes and waste processing.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Implement mandatory changes to waste collection services (Amberley and possibly Hanmer Springs)	√	* Implementation of mandatory changes reduces the risk of penalties * The regulatory provisions provide for an increased level of service in the larger urban areas * This would reduce the amount of waste taken to landfill, potentially reducing adverse environmental impacts of waste * The increased level of service is likely to involve increased cost, both capital (e.g. waste containers) and operating	Implementation cost $0.07m, and operating costs for the new collections (External funding is anticipated to support implementation)	2026/27 (or possibly 2025/26)		√	
Also implement new glass recycling and food scrap waste collection services in urban areas where not mandatory	x	* MfE funding is available for an initial feasibility study * This would reduce the amount of waste taken to landfill, potentially reducing adverse environmental impacts of waste * The increased level of service would involve increased cost, both capital (e.g. waste containers) and operating	N/a			√	

Establish a new transfer station in Cheviot	√	* It will be possible to address existing constraints associated with the small size of the current transfer station, e.g. the current provider is not able to access to the transfer station with their preferred trucks. Remedying this is likely to reduce operating costs slightly * This would help future proof the transfer station service for further regulatory and technological change, such as those resulting in additional recycling streams * It would be possible to repurpose the current transfer station site * Where there is an increased level of service in one part of the District, customers in other parts of the District may expect a similar level of service * There would be up front costs associated with the design and construction of the new transfer station.	$0.7m	2024/25		√	

8.5.2 Customer expectations regarding levels of service

Recent engagement on the Waste Minimisation and Management Plan 2023 has confirmed that some customers would prefer a higher level of service with regard to kerbside waste collection services. In particular, there is some interest in establishing wheelie bin system.

Since the adoption of that Plan, a preliminary study has been carried out, which highlighted some matters the Council should consider in designing a possible wheelie bin service. Initial indications are that a comprehensive three bin wheelie service would require a significant increase in rates for waste management services. However, there are many possible options and a more detailed study would be necessary if the Council were to progress a wheelie bin service.

It is expected that customer expectations will change over time, including in response to technological change.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Commission a feasibility study of kerbside wheelie bin services	√	* Would provide detailed information which could be valuable in engaging with communities to determine preferences * There would be a cost associated with the feasibility study	$0.05m	2024/25		√	

Commence a multi-bin kerbside waste collection service at an early stage prior to conducting a feasibility study	X	* Would mean the increased level of service could commence immediately * It is not possible to assess the community's preferences regarding a potential increase in level in service until some options for the design of the service have been developed and costed * If a service were to be implemented early and subsequently the design of the service changed, it is likely there would be added costs, e.g. re-contracting service providers, changing waste receptacles. * There continues to be regulatory and technological change in this area. It is possible that subsequent changes may render some aspects of a wheelie bin development obsolete. However, this is true of many Council improvements.	N/a			√	

8.5.3 Growth

As indicated above, most population growth is expected to occur in the South Ward.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Acquisition of additional land for the Amberley transfer station (land banking), but deferral of development	√	* Amberley is expected to grow. However, there is no immediate need for additional space at the transfer station * Land prices usually increase over time and it is likely to be cheaper to acquire the land now, rather than a later date * Suitable land is less likely to be available if the purchase is deferred for a number of years. * There would be a holding cost associated with the early purchase of the land.	$0.7m for land acquisition, fitout, fencing and consenting	2026/27	√		

8.5.4 Compliance regarding closed landfills

There are six consented closed landfills in the District. The consents for these landfills expire in 2032 and will need to be renewed. The sites were closed around the year 2000. At this time, there is limited information about the capping materials. Inspection of the capping at some of sites by Environment Canterbury has raised questions about the type of capping material and the shape of the caps. One of the landfills is in close proximity to a river.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
After care of closed landfills - Assessment of landfill caps, potential impacts on river. Capital works as required. Consent renewal.	√	* The assessment will ensure the work carried out is appropriate * If needed, the capital works will reduce the risk of environmental harm * If needed, the works will help ensure ongoing consent compliance * As the assessment has not yet been carried out, it is possible the costs could be greater than estimated	$0.3m	2024/25-2026/27		√	
Delaying action until close to consent expiry and/or environmental impacts are observed	X	* Delaying action could result in environmental harm * Reactive works carried out under urgency usually cost more than planned works * If the work required for consent compliance is substantial, it may not be possible to complete it prior to expiry of the consent * May delay the associated rating impacts	N/a			√	

8.6 Green Spaces Capital Works Programme

The key issues associated with the green spaces activity which may have significant capital implications:

1. Growth
2. Cemetery capacity

8.6.1 Growth

As the District grows, it is likely that the number/size of green spaces will also increase. For example, the Council may acquire additional green spaces following the vesting of assets in new developments. This increases ongoing operating costs, and potentially renewals if there are physical assets on the land.

There are a large number of green spaces in the district, and it is anticipated that there will be an assessment of green spaces at a future date, with potential impacts for the renewals programme. This may have implications for capital works, but these will not be known identifiable until the assessment has been carried out.

8.6.2 Cemetery capacity

Based on the current average internment rate per year, all but one of the District's cemeteries are expected to have capacity until at least 2060. Balcairn cemetery is currently at over 91% capacity. Based on the current average interment rate, it is expected to reach capacity around 2036 (i.e. beyond the period of the Long Term Plan).

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Buy land to extend the Balcairn cemetery	√	* The Balcairn cemetery is the main cemetery for the interment of residents of Amberley, Leithfield, and surrounding areas * Some residents value being able to inter relatives in the same location as other deceased family members * There has been a trend towards alternative options for remains e.g. burial or dispersal of ashes. Hence the rate of interment at Balcairn cemetery may decrease over time * It is not known if/when suitable land will become available	$0.2m	Beyond 10 years		√	
Buy land in an alternative location in the South Ward	X	* Some District residents may prefer to be interred close to family members * It would be more cost effective to maintain the land if the additional land was close to the current cemetery * The closed Balcairn cemetery would still be maintained and accessible to visitors	$0.2m			√	

8.7 Information Services Capital Works Programme

Some issues associated with the Information Services capital works programme do not involve significant capital expenditure, e.g. Ensuring staff health and safety. Other than the acquisition of library materials, there is only one significant capital item currently being proposed during the 30 year planning period – a possible new district library in Amberley.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Development of a new district library or a library extension in Amberley	√	* The additional space will provide facilities to meet the needs of the growing population. * There are a higher proportion of older people in the Hurunui district than the national library and this percentage is expected to increase over time. On average older people are more likely to use physical library resources	$2.2m	2033/34	√		

		* There is existing demand for physical space for use by community groups and others * Land was previously acquired to enable a library extension at a later date * There should be more information available about demand for library services prior to any work progressing * The development would be funded from development contributions * It is likely there would be additional operating costs associated with a larger library, e.g. staff, electricity, additional books and other resources					
Do not develop a new district library or library extension in Amberley	X	* The range of online library services is increasing, which reduces the need for some users to visit the library * A library development would have a lifespan extending well into the future, and there is less certainty regarding future demand for physical resources beyond the next 10 years * It may be possible to address the demand for community spaces in other ways	N/a		√		
Develop a new district library in another part of the district, rather than in Amberley	X	* There are currently 8 locations other than Amberley where it is possible for District residents to access physical library materials * Depending on location, some may find an alternative location for a district library to be more convenient than Amberley * Most growth is in Amberley and the surrounding areas * Resourcing a new district library separately from the Amberley library would be less cost effective, including in terms of the acquisition of library materials and staffing	N/a		√		

8.8 Property Capital Works Programme

Key issues affecting the property capital works programme over the next 30 years include:

1. Ensuring the right community facilities in the right place
2. Levels of service for property maintenance
3. Climate change
4. Property development

8.8.1 Ensuring the right community facilities in the right place

A number of community facilities have deteriorated over time, as the maintenance required in order to prevent deterioration has been unaffordable. Affordability is a particular concern in some of the communities with small rating bases. One consideration is the large number of community facilities in the district. Some are used frequently, while other facilities have few bookings.

Over the past couple of years, the Council has been engaging with communities in Hawarden, Waikari and Scargill regarding the future of their community halls. There has also been discussion with some communities regarding sports facilities. Both matters have confirmed the strong affiliation some community members feel for their community facilities. It is likely that some difficult decisions will be required in the future.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Assess the need for community facilities and, following community engagement, reduce the number of facilities	√	* It is likely there will be a smaller number of community facilities and that they will be better maintained * Some community members will be distressed by the disposal of some facilities * There will be costs associated with the assessment, community engagement, and disposal processes * Future maintenance costs will be lower than would otherwise be the case * There is insufficient information to know what options might be available for the disposal of some community facilities	N/a			√	
Retain the current stock of community facilities	X	* Some communities will not be able to afford the maintenance required to ensure the facilities remain fit for purpose * Efforts to maintain facilities to the desired level of service may place a financial burden on some communities, especially those which are smaller * Continued deferral of maintenance may result in increased lifetime costs for the asset * In some cases, ongoing deferral of maintenance may result in the building eventually becoming unfit for purpose	N/a			√	

Develop a sports pavilion at the Queen Mary South site, Hanmer Springs	√	* Would provide a new sports facility for the community * It is not expected to be viable to have two sports pavilions in Hanmer Springs, so this would free up the Jacks Pass Road site for other development * Some of the green space at Queen Mary South is not suitable to residential/commercial development due to earthquake risk. It is, however, suited to green space and recreational activities. * While the Community Board feels that it would like to limit ratepayer contribution to $0.5m, it is likely to be necessary to seek funding from other sources in order to develop a suitable facility	$0.4m from amenity rates [Likely more, and will seek external funding]			√	
Renovate/rebuild the existing sports pavilion at the Hanmer Springs Sports Reserve, Jacks Pass Road, Hanmer Springs	x	* The existing sports pavilion is not in good condition and substantial would be required. The cost is likely to be similar to that of a new build at the Queen Mary South site * As it is unlikely to be feasible to have 2 sports pavilions in Hanmer Springs renovating/rebuilding the existing pavilion would mean it would not be possible to build a pavilion at the Queen Mary South site.	N/a				√

8.8.2 Levels of service for property maintenance

At present social housing, residential housing and medical centres are maintained to a good standard, and there is a programme of planned maintenance for these sites.

In the past, community buildings have been maintained on a reactive basis. A condition assessment has been carried out and is continuing. It is proposed to gradually move towards a programme of planned maintenance for community buildings.

Based on the condition assessments to date and records regarding building usage, it is currently anticipated that it will not be possible to retain all community buildings in a satisfactory condition on a long term basis. A report has been commissioned regarding the future of the Hurunui halls (e.g. Hawarden, Waikari and Scargill). It is anticipated that there will need to be a reduction in the number of Council owned community buildings over the planning period.

8.8.3 Climate change

Some property related projects associated with climate change are outlined in section 8.9.
In addition, climate change may have an adverse impact on some Council properties. Over the next three years, it is proposed to investigate the potential impacts and identify any protective measures which may be required. In carrying out property activities, including renovating/improving existing Council properties, regard will be had for the potential impacts of climate change.

8.8.4 Property development

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Initial development the Queen Mary South site.	√	* Involves demolition of existing buildings and the development of a new sport field to enable further commercial and residential development. * The overall project would require capital investment * There is potential for the development to generate a profit which could be used to reduce debt * The level of profit could differ from expected based on market conditions. While unlikely, there is the risk of a loss or that it could take longer than expected to realise a profit	$3.2m	2024-2026	√		
Sell the parts of the site not needed for other Council purposes to a developer	x	* Other than the initial subdivision, there would be few development costs * It would still be possible to use parts of the site for sports and a spiritual garden * There would be the loss of the potential to generate a profit from the development (opportunity cost)	N/a	Not known	√		
Retain the Queen Mary South site, but do not develop it	x	* There would be ongoing costs associated with maintaining the whole site, particularly if the whole site were made accessible to the public for recreational use * This option would not assist in providing spaces for retail, commercial and/or residential development	N/a			√	

8.9 Climate change adaptation

As indicated above, climate change is expected to have impacts across the District.

In the past, the Council has assisted the Amberley Beach community by levying rates to enable the community to maintain a coastal bund. It is expected that, over time, climate change impacts will increase the work required to maintain the effectiveness of the bund, and that the location and construction of the bund may need to change.

Principal Options	Preferred or Not	Implications	Cost estimate (price adjusted)	Timing	Driver		
					Growth	LOS	Renewal
Continue to levy rate to enable the community to maintain a coastal bund, and to monitor the effectiveness of the bund	√	* The bund has previously been effective in protecting houses in the Amberley Beach area from coastal inundation * Costs associated with maintaining/renewing the bund are expected to increase * The current proposal is that the bund will gradually move inland. At some stage, it is likely that it will not be feasible for the bund to move further inland * It is possible that a catastrophic event could result in the sea breaching the bund resulting in severe damage to multiple houses	$0.5m	2024/25, 2030/31			√
If/when agreed by the community, discontinue bund maintenance and support the Amberley beach community to relocate	√	* With increasing renewal costs, the community could decide that it is no longer cost-effective to continue to renew the bund * Depending on the size of the development and the ability to sell surplus sections to others, the development could be cost neutral * Significant additional infrastructure would be required for the new subdivision * Some Amberley Beach residents may prefer not to relocate. One option would be for it to become possible to sell the new site at some stage in the future.	$1m for land purchase Additional money for new subdivision offset by sale of excess sections	Not known at this time		√	
Develop a site close to Motunau Beach for sale to the public	√	* Some members of the Motunau Beach community who are affected by climate change may wish to purchase a new property inland from their current properties * Initially there would be costs associated with the development, e.g. legal, infrastructure. However, it is expected that these would be recoverable on sale of the sections * Depending on how the project is designed, there may be commercial opportunities associated with the development	$0.9m	2024/25		√	

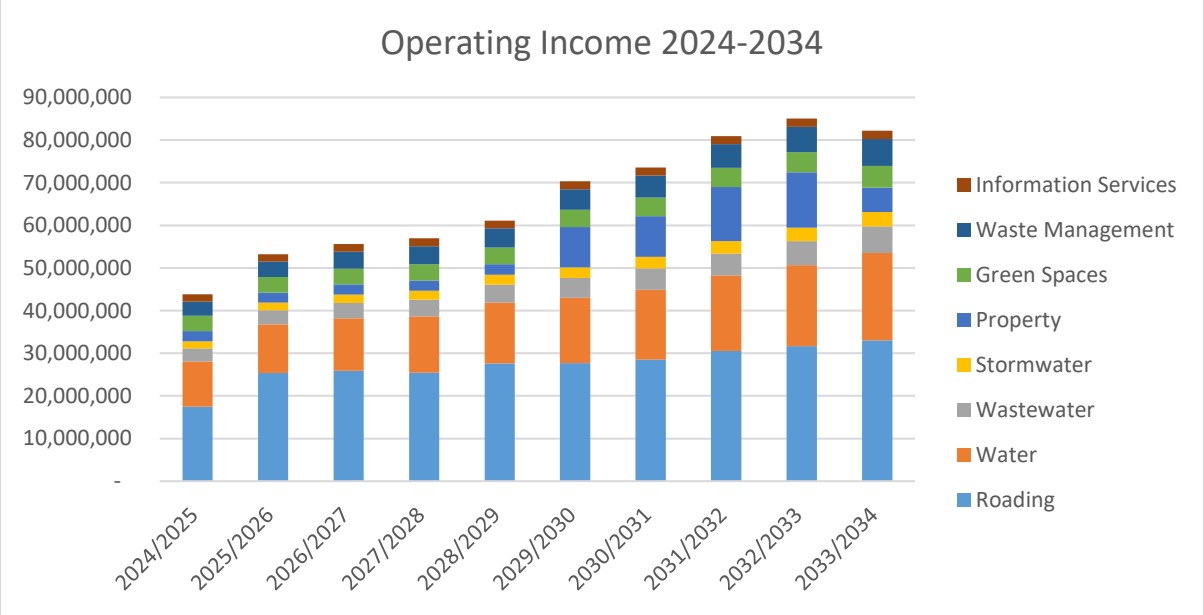
Over the past couple of years, the Council has been engaging with six coastal communities regarding longer term options for the future. While three communities have agreed Coastal Adaptation Plans, these plans are not specific and the nature and timing of any associated capital works is not known. However, the costs could be significant.

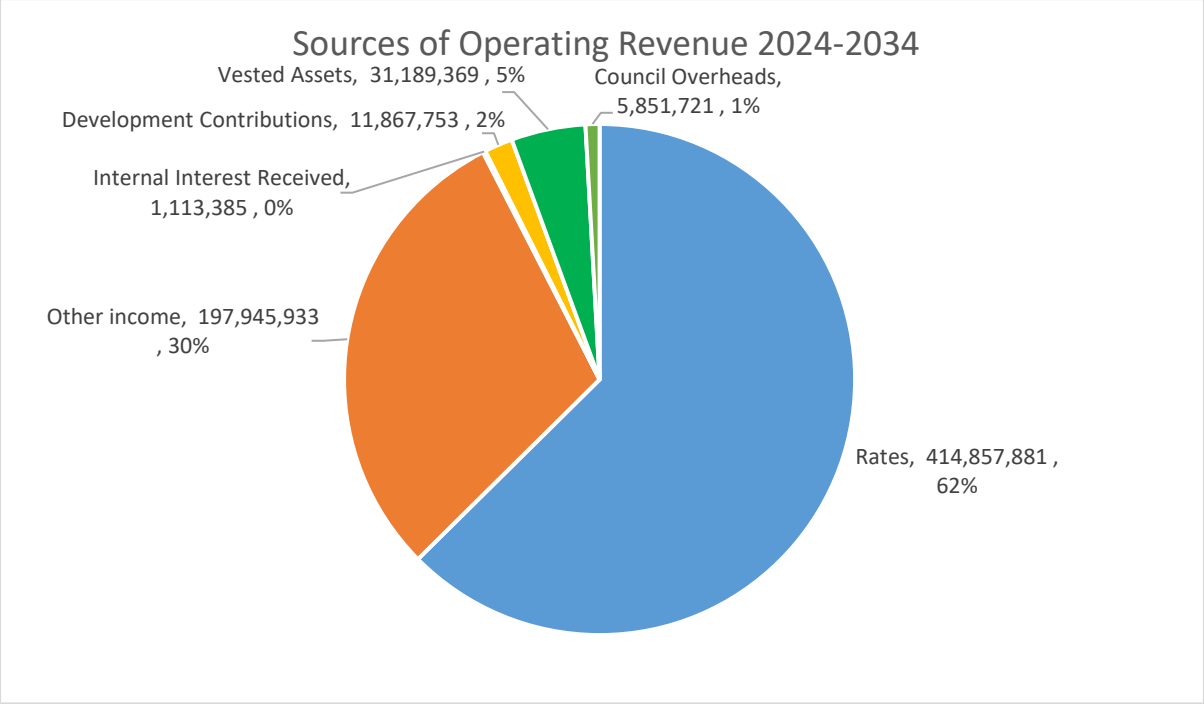
9 Financial Estimates

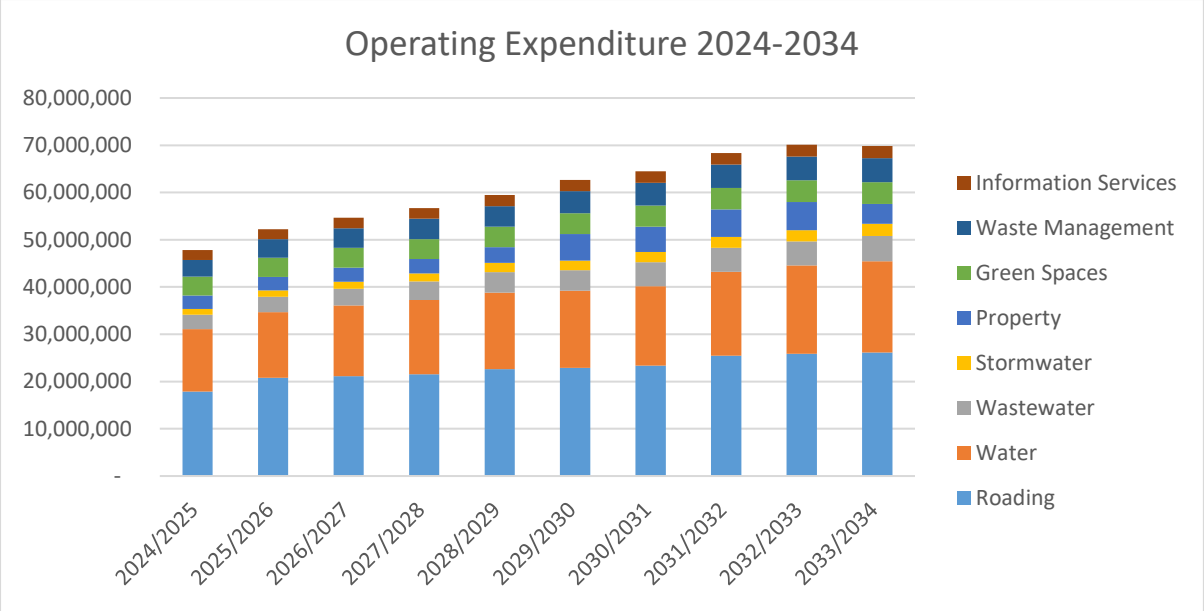
The first three years of the strategy is considered to be in detail, whereas the following seven years is in outline only. Following the LTP period the costs are meant to serve as an indication only.

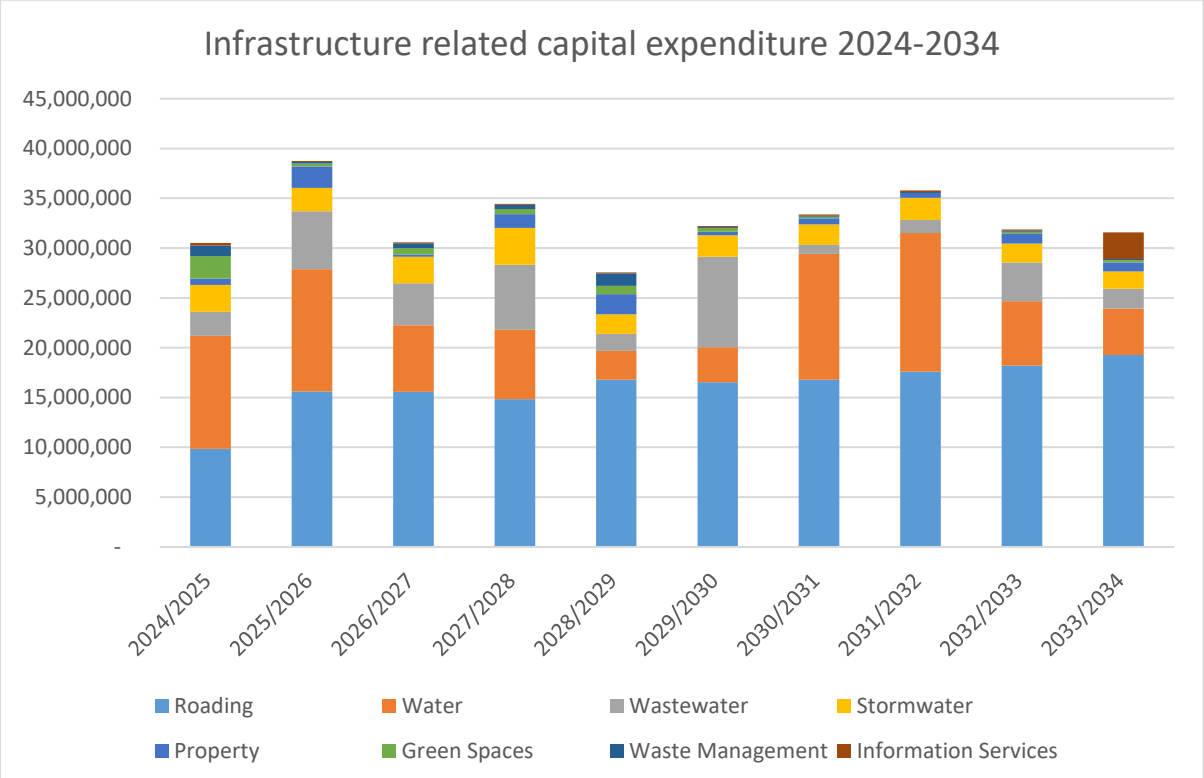
9.1 First 10 years (2024-2034)

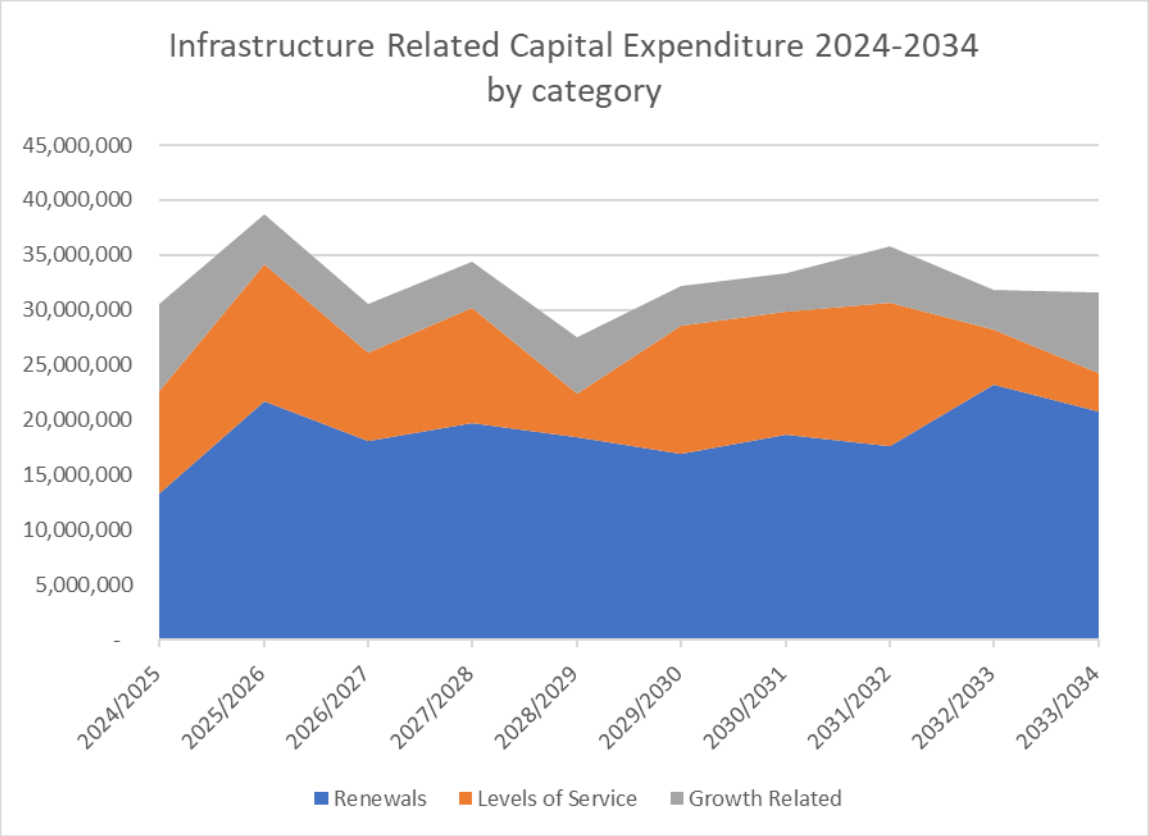
The following estimates reflect the draft Long Term Plan 2024-2034. The figures may change prior to adoption of the Long Term Plan 2024-2034 following community consultation.






Operating Expenditure 2024-2034
80,000,000
70,000,000
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
-
2024/2025
2025/2026
2026/2027
2027/2028
2028/2029
2029/2030
2030/2031
2031/2032
2032/2033
2033/2034
Information Services
Waste Management
Green Spaces
Property
Stormwater
Wastewater
Water
Roading

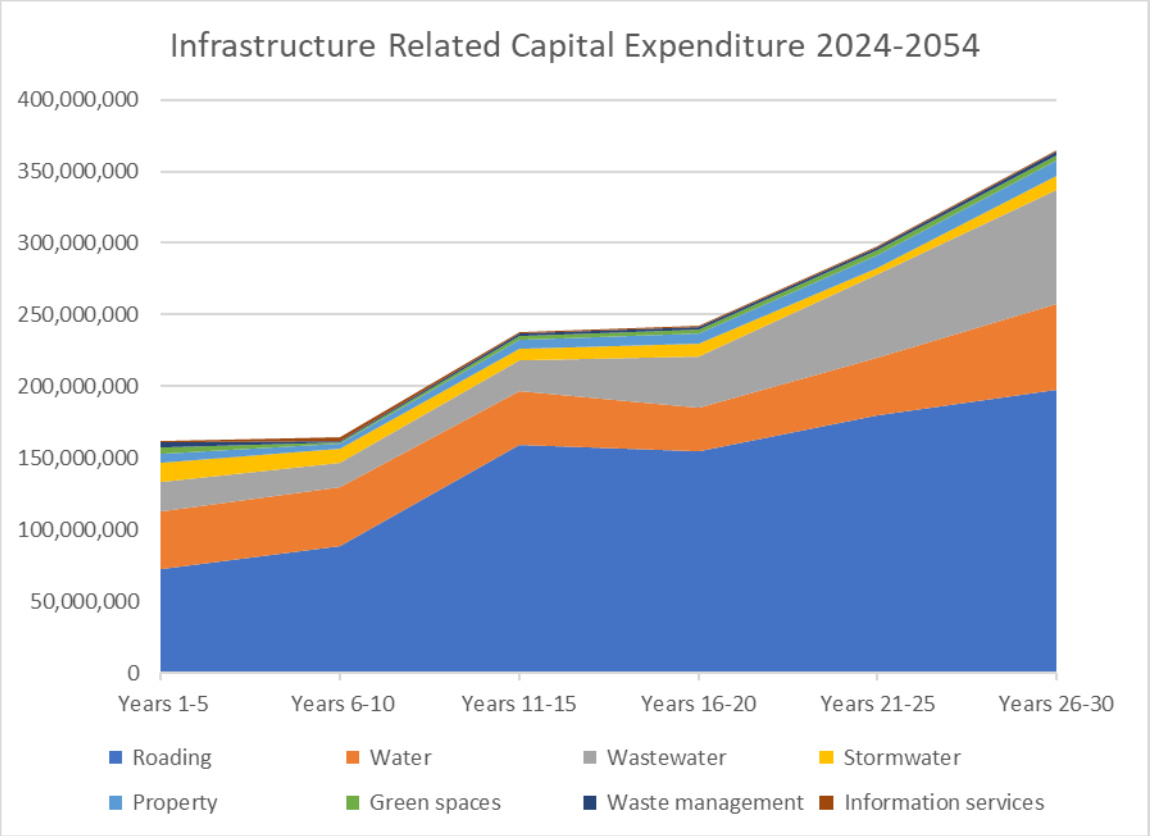

Infrastructure related capital expenditure 2024-2034
45,000,000
40,000,000
35,000,000
30,000,000
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
-
2024/2025
2025/2026
2026/2027
2027/2028
2028/2029
2029/2030
2030/2031
2031/2032
2032/2033
2033/2034
Roading
Water
Wastewater
Stormwater
Property
Green Spaces
Waste Management
Information Services



9.2 Years 1-30

Capex (Inflation adjusted)	Years 1-10	Years 11-15	Years 16-20	Years 21-25	Years 26-30	Total
Roading	160,057,129	159,040,423	155,066,230	179,817,869	197,699,370	**852,681,021**
Water	81,275,174	37,560,323	30,019,454	40,179,159	59,508,105	**248,542,215**
Wastewater	37,947,580	21,974,674	35,411,976	58,014,262	79,422,241	**232,770,733**
Stormwater	23,386,096	7,891,367	9,209,394	5,000,294	10,511,491	**55,998,642**
Property	9,847,910	6,345,317	7,492,545	8,862,593	10,500,619	**43,048,984**
Green spaces	5,405,079	2,511,488	2,305,563	2,773,183	3,337,836	**16,333,150**
Waste management	3,944,160	1,580,263	1,849,053	2,167,979	2,546,967	**12,088,422**
Information services	3,782,867	831,928	1,001,967	1,207,433	1,455,778	**8,279,973**
TOTAL	**326,645,995**	**237,735,782**	**242,356,183**	**298,022,772**	**364,982,407**	**1,469,743,139**

* *Climate change adaptation is incorporated into property initially and later into other activities after year 10*



The significant increase in roading expenditure from years 11 onward reflects various activities including:

* Some key bridge renewals, including the Conway Bridge (years 11-15)
* Sealing some high use unsealed roads
* Road rehabilitation associated with use by heavy vehicles.

The expected increase in costs for water in the later years primarily relate to renewals and cost movements. Growth is another consideration. These factors also contribute to the marked increase in capital expenditure associated with wastewater. In addition in years 21-25, consideration is being given to assessing and potentially implementing a reticulated wastewater service in one or more locations which are not currently serviced. There are also expected to be significant costs associated with renewing consents for three waters activities.

10 General Assumptions

The Infrastructure Strategy has been prepared using the following overall assumptions which are consistent with the significant forecasting assumptions contained in the Long Term Plan.

CATEGORY	SIGNIFICANT ASSUMPTIONS	UNCERTAINTY	IMPACT	MITIGATION MEASURES
Population and Demographic Change	It is assumed that the population of the District will grow between 1.7% and 1.9% per annum during the planning period. Most growth will occur in the urban areas in the South Ward and Hanmer Springs areas. Growth in those areas will exceed the Statistics NZ 'High' projection. Population growth in other parts of the district will be modest. A key contributor to growth will be people moving into the district from other places, including urban areas such as Christchurch. The average age of district residents will continue to exceed that of New Zealand as a whole. The average occupancy per household will decrease slightly during the planning period.	**Medium** Growth projections have been determined by interpolating past growth, and incorporating information about growth which is known at this time. However, it is possible that actual growth may differ. For example, if a Woodend bypass is constructed, this could eventually lead to more rapid development in the South Ward.	There will continue to be increasing demand for infrastructure related services, e.g. access to sufficient water. Some people moving into the district from other urban areas may have expectations of higher levels of service than are currently provided in the district, e.g. more sealed roads, availability of footpaths, water quality, additional options for waste recycling. If growth rates differ from projections, revenue from development contributions will also differ. If growth is significantly higher than expected, some infrastructure development projects may need to be brought forward. The age profile of district residents may affect the demand for some services, e.g. older residents may be more likely to use physical library resources.	Infrastructure planning and development takes into account expected growth. The Council will continue to monitor population growth and demographic changes and assess potential impacts on infrastructure requirements. It will also continue hydraulic modelling for water and wastewater activities, which will assist in understanding when and where capacity issues may occur. As part of its planning processes, Council will intermittently engage with customers regarding desired levels of service for specified activities and willingness to pay for those levels of service. The Long Term Plan and Infrastructure Strategy incorporates provision for the acquisition, maintenance and renewal of vested infrastructure assets.
Major Disaster Events (e.g. earthquake, flood, tsunami, drought, fire)	While Council will respond to minor disaster events, it is assumed that external support will be available for response and recovery from a significant disaster event.	**High** While the risks have been identified, it is not known if/when a major disaster	The impacts of a major natural disaster event would depend on the nature and location of the event. Some could cause significant damage to infrastructure assets, disrupt access to assets, and impact the ability to maintain and renew assets. There may also be	The Long Term Plan includes provision for normal Council activities associated with ordinary weather events. The Council holds insurance in relation to some infrastructure assets. Above ground assets are

		event may occur and what impacts it may have.	environmental impacts, e.g. due to sewerage overflows or damage to the caps of closed landfills. A major disaster event could have significant financial impacts, which could have a flow on impact for infrastructure related activities.	insured as part of the material damage insurance and below ground assets are insured with LAPP. However, it would be required to pay an excess. The following infrastructure is not insured: roading and footpaths (including bridges), and above ground stormwater assets. In a major event, the Council would need to seek external financial support. Resilience is a consideration in infrastructure planning. For example, there are some generators available in the event of power failures to some critical assets. Council participates in the Canterbury Lifeline Utilities group. The Council offers some services online, e.g. some library services, service requests, sometimes meetings with Council staff, bill payment
Climate change	It is assumed that climate change impacts will include: - A gradual increase in average air temperatures, along with an increased risk of drought - An increase in the frequency and extent of severe weather events - Some coastal communities may be impacted by the impacts of coastal inundation, coastal erosion and/or rising groundwater. However, it has been assumed that the impacts on these communities are not catastrophic during the planning period.	**High** While there is general agreement in the scientific community that climate change is occurring, there are varying views about the timing/extent of future impacts. The various climate change scenarios are based on assumptions about the trajectory for the release of greenhouse gases.	Climate change is expected to have wide reaching impacts on infrastructure needs such as those arising from: - Damage to coastal roads and other Council infrastructure associated with coastal erosion or coastal inundation - Deterioration to roads associated with an increase in the number of hot days - Increased demand for water due to hotter temperatures and risk of drought - Potential impacts of severe storms on the operation and integrity of infrastructure assets - The risk of pipe breaks associated with dry ground conditions - Potential inundation of wet wells in some coastal communities, particularly due to rising groundwater - Rising groundwater is also likely to contribute to stormwater issues, particularly in Leithfield Beach	Infrastructure developments will take into account anticipated climate change impacts, e.g. locations for development, building designs, planting resilient plants in reserves. Hydraulic modelling will continue to be carried out to understand and monitor the potential impacts of climate change. Expected impacts of climate change will continue to be taken into account in planning infrastructure developments. Some projects specifically target climate change impacts, such as those relating to Leithfield Beach stormwater issues. Work on minimising water leaks and reducing stormwater inflow and inundation to sewerage systems will assist in mitigating some of the anticipated impacts of climate change. It is expected that additional water sources will be

			- Potential interruptions to infrastructure related services associated with wind damage (e.g. to powerlines). There is the potential for some climate change related impacts to have sudden and severe impacts on some communities, e.g. Severe coastal inundation due to a storm event combined with higher sea levels could result in inundation of coastal properties. The impacts on Council infrastructure would depend on the location and severity of the event.	needed over the planning periods. Council will continue to engage with coastal communities regarding future directions. The Amberley Beach community may decide to proactively relocate to another site. If so, it is expected that there will be associated investment in infrastructure assets, primarily funded by the sale of additional sections.
Land Use Change	It is assumed that changes in land use which affect infrastructure assets will be gradual and largely foreseen at network level. Nevertheless, they will have an impact on planning and implementation of infrastructure projects	**Medium** The District Plan is the overarching document governing land use. Applications for changes in land use are usually signalled well in advance of actual land use. It is possible to identify trends in changing land use based on past development. However, there remains the possibility of an unexpected application.	There will be increased demand for stock water, which will see rural property owners seek additional water allocations from Council. In some locations there may be challenges in meeting such requests. More intensive farming may result in more runoff to waterways, affecting downstream water quality and, in some cases, potentially increasing the risk of downstream flooding. Changes in land use can affect individual roads or sections of roads. Such changes are often unforeseen and result in rapid asset degradation.	The Council seeks to incorporate aspects of the District Plan relating to land use and information about consenting into its infrastructure planning. In some cases, infrastructure constraints may also inform planning. The Council monitors the use of infrastructure related services, e.g. water connections and usage, water treatment volumes, and road traffic volumes. Trends in usage can help assess the impacts of changes in land use.
Asset Ownership	It is assumed all Council owned infrastructure assets will remain in Council ownership throughout the planning period. Under 2022 legislation, the debt	**High** The National Party previously signalled its intention to "repeal and	There could be structural changes impacting the ownership and management of infrastructure during the planning period (particularly for three waters). As there are no specific proposals at this time, it is difficult to assess the impact.	The Council continues to monitor the regulatory environment. The Council will review its infrastructure assets, including property assets, from time to time. The

	associated with three waters assets was expected to transfer to the Water Service Entity. It is now assumed that the debt will remain on the books for the foreseeable future.	replace" three waters legislation if it were elected. A coalition government has been elected and it is not known what, if any, structural change may occur. Another matter which might later impact asset ownership is the "Future for Local Government" review.	Due to debt associated with investment in three waters assets remaining on the books, the Council is needing to prioritise and manage future infrastructure expenditure in order to remain within the debt cap.	Council will dispose of any surplus assets in accordance with its Assets Disposal Policy. Where it is in the best interests of the district, the Council will be open to conversations as to how it can work with others to promote efficiency and effectiveness, while retaining asset ownership. The Council has reviewed its Treasury Policy. The previous "soft cap" for debt of 125% of rates revenue has been disestablished. The Council continues to manage assets and operations in order to remain within the LGFA cap of 175% of rates revenue.
Regulatory change	There is likely to be ongoing regulatory change throughout the planning period. However, as there is insufficient information to make an alternative assumption, it has been assumed that there are no changes in the regulatory context during the planning period other than those which have previously been signalled by central government.	**High** The nature and timing of future regulatory change is highly unpredictable, reflecting changes in the political, social and economic context.	Depending on what the changes are, the impacts could be significant for infrastructure management, operations and finance. Future regulatory change could result in a requirement for changes in infrastructure, such as might be needed for different water or wastewater treatment requirements (e.g. a requirement for viral protection of water supplies). Regulatory change could also impact funding for infrastructure assets. Failure to comply with new legislation/ regulations could have adverse impacts, such as infringement notices, fines or, in a serious instance, prosecution. Where the Regional Council does not grant/renew a consent for ratepayer owned septic tanks, there may be increased demand for the establishment of a reticulated sewerage system.	The Council will continue to monitor the regulatory environment and endeavour to incorporate relevant changes into its planning processes. It will seek to comply with relevant regulatory changes.

Consents held by the Hurunui District Council	It is assumed resource consents will be able to be renewed on expiry. In some cases, changes in resource consent conditions may require significant additional capital investment in order to ensure compliance. New consent conditions will reflect Te Mana o te Wai.	**High** The changing regulatory environment may impact the ability to renew consents, and consent conditions. There is uncertainty regarding some of the implications of Te Mana o te Wai.	If consent conditions differ from expected, then there is a risk that the cost of infrastructure renewal may exceed expectations. Failure to renew a consent could result in disruptions to service provision and/or financial penalties. For example, if it is not possible to obtain/renew gravel consents in a timely manner (or at all), this is likely to impact the Council's ability to re-metal unsealed roads, resulting in a decreased level of service. Iwi concerns regarding river extraction may also impact access to gravel.	Capital expenditure budgets include provision for significant capital expenditure where the need for this has been signalled by government, e.g. wastewater disposal. Because growth and changing land use are expected to place pressure on water sources, the Long Term Plan includes measures to reduce water leakage. Work on reducing stormwater infiltration and inundation will be prioritised to help minimise the costs associated with renewing wastewater consents. Work with the Regional Council and local Iwi to obtain resource consents with appropriate conditions which are both environmentally and financially sustainable. Investigate alternatives to river sourced gravel, in order to reduce the risk of reductions in the level of service due to inability to access river based gravel. Ensure there are sufficient resources to meet consent conditions.
Useful lives of significant assets	It is assumed that useful lives, as reflected in the Statement of Accounting Policies are approximately correct.	**Low** There is considerable historical information available about the useful lives of many infrastructure assets. However, there is less historical information about	The age of infrastructure may not be a good proxy of condition and performance. Where infrastructure deteriorates earlier than expected, it may be necessary to carry out emergency maintenance or renewals. Reactive works tend to be more expensive than planned works. If the useful lives of assets are not correct, then depreciation expense will be either over or understated. Where depreciation of infrastructure is fully funded, the Council	Useful lives are based on historical information. Age based data is used to determine the timing of renewals for high and very high criticality assets. However, where possible, data about age and condition is also taken into consideration in determining the infrastructure renewal programme. Ongoing maintenance of Council infrastructure assets helps ensure that they remain in good condition for as long as possible.

		the useful lives of the new water treatment plants.	would be either over or under-funding infrastructure.	
Technology advances	While significant technological advancement is highly likely over the next 30 years, the nature and timing of technological change is highly uncertain. Accordingly, it is assumed technological advancements do not significantly alter infrastructure requirements (other than those provided for in the Long Term Plan and Infrastructure Strategy)	**Medium** Technological advances are likely to impact how Council manages its infrastructure but are unlikely to change the purpose of infrastructure. Technological advances may have positive/negative impacts/both.	Some existing infrastructure may become obsolete, and might need to be replaced earlier than planned. Some technological advances may result in infrastructure cost decreases, while others may initially result in increases in capital expenditure (presumably accompanied by enhancements in levels of service and/or reductions in operating costs). For example, investment in remote monitoring equipment may reduce the need to visit remote sites.	The Council continues to monitor technological change to identify changes which may be pertinent to the management of infrastructure assets in this district. Some technological advancements are provided for in Council's planning documents, such as: - Installation and use of smart water meters - Enhancement of communications technology for monitoring and controlling some water infrastructure - Establishment of the Amberley Sequencing Biological wastewater plant - Introduction of RFID at the libraries which will enable self-issuing of materials and easier data collection regarding library usage. Where appropriate (e.g. cost effective) relevant developments may be included in future planning documents.
NZTA Waka Kotahi transport subsidies	The NZTA Waka Kotahi transport subsidies have been advised for the next three year period. It is assumed that the current contribution which is based on 52% of the cost of the agreed programme will continue for the foreseeable future.	**Medium** The transport subsidy is known for three years. However, there is no information available about the value of subsidies beyond that date.	A decrease in the subsidy would result in either a decrease in the level of service and/or an increase in funding from other sources, particularly rates.	If the subsidy were to decrease, the Council would have various options, including: - Decreasing its contribution to the programme proportionally; - Continuing with same Council contribution as if the NZTA Waka Kotahi contribution had not changed; or - Increasing the Council's funding contribution to offset the decrease in the subsidy so as to maintain the same level of service. In the event of a subsidy decrease which was not offset by an increase in the Council's funding, the Council would need to review its programme plan in order to work within the revised funding envelope.

Inflation rates/price movements	It is assumed prices move in line with the Local Government Cost Index (LGCI) projections provided by BERL (Business and Economic Research Limited) for use by local authorities assuming they retain responsibility for three waters activities.	**High** Historically price movements have differed significantly from index movements	Increased or decreased inflation could have a material impact on the accuracy of financial forecasts. This could impact funding requirements and/or future levels of service.	In preparing the Long Term Plan and Infrastructure Strategy, the cost of infrastructure assets has been adjusted by the BERL cost indices. The Council monitors expenditure against budget and takes mitigating actions as required.
Asset revaluations	It is assumed that infrastructure assets are revalued on a three yearly basis to comply with the New Zealand equivalent of the International Financial Reporting Standards. Council owned land on which there are infrastructure assets is not revalued in the financial statements. This is because it is not depreciated and revaluation of land would not impact funding requirements.	**Low** The Council is able to determine the timing of asset revaluations, providing it complies with the three yearly revaluation requirement	The revaluation of infrastructure assets is likely to result an increase in depreciation charges over time, and hence increases in funding requirements. If changes in valuation differ from expected then depreciation and funding requirements may differ from expected. If the Council does not fully fund depreciation, then it is likely that renewals will need to be at least partly debt funded.	As above.
Interest rates	It is assumed that average interest rates over the planning period are in line with the cost of capital at the time of planning.	**High** Interest rates are volatile. While some of the interest rate risk is able to be hedged, it is not currently Council's policy to fully hedge interest rate risk.	Increases in interest rates may significantly increase the funding costs for infrastructure development. Interest rate fluctuations may also impact the cost structures impacting Council suppliers, including contractors.	The Council regularly reviews its Treasury Management Policy. It has the ability to amend its hedging strategy if it considers that to be appropriate. The Council uses a range of interest rate hedging products, including interest rate swaps, to fix interest rates in respect of part of its debt.

11 Useful Lives of Assets

The following assumptions have been made regarding the useful lives of Council owned assets. These have been applied in the calculation of depreciation.

11.1 Water

ASSET GROUP	USEFUL LIFE (YEARS)
Backflow Devices	10
Meters	25
Hydrants	50
Pipes	
Asbestos Cement	35-66
PVC	80
MDPE/HDPE	80
Stainless Steel	50
Galvanised	58
Valves	50
Reservoirs	
Tanks	50-80
Building	10 – 60
Pipework	80
Electrical and Mechanical	10 – 50
Treatment Plant	
Civil – Tanks, Building, Pipework, Metalwork	15-60
Electrical Services	20
Instrumentation	10 – 30
Mechanical Services	25 – 50
Pumps and Motors	10-25

11.2 Wastewater

ASSET GROUP	USEFUL LIFE (YEARS)
Pipes	
Asbestos Cement	60
Earthenware, PVC	80
HDPE	80
Reinforced Concrete	80
Stainless Steel	50
Manholes	80
Valves	50 - 80
Pump Station	
Electrical Cabinet and Level Control	10-30
Wetwell	30-80
Storage and Valve Chambers	30-80
Lids, Valves and Pipework	25-80
Pumps	10-25
Treatment Plant	
Civil – Tanks, Building, Pipework, Metalwork	60-80
Electrical Services	10-30
Pumps and Motors	10-25

11.3 Stormwater

ASSET GROUP	USEFUL LIFE (YEARS)
Channels	60
Inlets and outlets	80
Pipes (Gravity)	
Asbestos Cement	60
Earthenware, PVC, MDPE	80
Reinforced Concrete/RCRRJ	80

Novaflo	50
Manholes	80
Soakage Trench	40-80

11.4 Roading

ASSET GROUP	USEFUL LIFE (YEARS)
Roads	
Basecourse	20 – 100
Subbase and Subgrade	Not depreciated
Chipseal Surface	6 – 20
Asphalt Surface	5 – 30
Concrete Roads	50 - 100
Interlocking Blocks	30 - 50
Footpaths/cycleways	
Tactiles	5
Asphalt and Timber	15 - 30
Metal	5 - 30
Interlocking Blocks	50 - 100
Concrete	50 - 100
Bridges	
Steel and Concrete Bridges	80 – 150
Concrete Culvert	80
Armco Culvert	40
Other Culverts	60
Minor Structures	
Bus shelters and Fences	20
Underpasses	80 - 120
Guardrail and Railing	20 – 25
Retaining Walls	
Block wall, cantilever, crib wall, rock	100
Post and Rail, Sheet Pile	50
Drainage – Kerb and Channel, Swales and Drains	60 –80
Electronic Signs	10
Other Signs	15
Street Lights	
Pole and Bracket	25
Light – LED	50
Light – non-LED	25
Street Furniture	
Bins	10 - 15
Seats and Public Information sign	20
Bollards	25
Cycle Stand	20 – 30
Concrete Block	100
Islands	
Raised Platform – Infilled	60 - 80
All Others	35
Carparks	
Basecourse	20 – 100
Subbase and Subgrade	Not depreciated
Surface	10 – 20
Concrete	60 - 100
Parking Equipment	15

11.5 Property

ASSET GROUP	USEFUL LIFE (YEARS)
External Fabric	
External Walls	15– 75
Roof	15– 75
Windows and Doors	15– 50
External Work	5 – 75
Internal Finishes	
Ceiling	15 – 75
Fittings and Fixtures	3 – 50

Floor	7 – 75
Interior Doors	10 – 50
Interior Walls	15 – 50
Wall Finishes	15 - 50
Services	
Electrical	5 – 45
Fire Services	15 - 50
Lifts/ Hoists	25 – 40
Mechanical	10 – 75
Sanitary Plumbing	5 – 50
Special Services	5 – 25
Structural	
Floor	50 - 120
Residual – Heritage Buildings	100 – 200
Residual – Other Buildings	25– 100
Roof	50– 100
Walls	50- 100

11.6 Green Spaces

ASSET GROUP	USEFUL LIFE (YEARS)
Artwork	20 – 50
Carparks	10 – 40
Cemetery Burial and Ash Lawn	100
Crematorium Equipment	10 – 30
Electrical	10 – 45
Entry Points	10 – 50
Fences	10 – 100
Furniture	20 – 50
Gates	10 – 50
Gardens	5 – 15
Hardscapes	25 – 70
Irrigation Systems	10 – 30
Lights	15 - 25
Landscapes	Not Depreciated
Monuments	100
Playground Equipment	25 – 70
Plaques	50 – 80
Paths	10 – 50
Roads	10 – 50
River Structures	10 – 50
Security System	10
Sportsfields	7 – 100
Signs	10 – 30
Structures	8 – 100
Stormwater	15 – 80
Turf Drainage	5 – 25
Water Features	10 – 50
Walls	5 - 100
Youth Facility Equipment	10 - 30

11.7 Waste and Recycling

ASSET GROUP	USEFUL LIFE (YEARS)
Amberley Transfer Station	
Electric gates	10 – 15
Fencing surrounding the site	15 – 25
CCTV cameras x 9, computer and software	3 – 15
Sewerage pump and alarm system	10 – 20
Sealed driveway areas and rear bin pad	15 – 25
Weighbridge and Portacom	
Weighbridge office	30 – 50
Public weighbridge and display panel	10 – 20

Remote controlled barrier arms x 2	10 -20
Portacom	25 – 25
Concrete Pads and Retaining Walls	
Cleanfill concrete pad and retaining walls	30 – 50
Pit Area	
Transfer station building – one side open	30 - 50
Retaining wall – pit area	30 - 50
Concrete floor	15 – 50
Wall – between pit area and compactor	15 – 50
Scarlett's compactor and remote-control unit	5 – 10
Under-bin weighbridge and display panel	10 – 20
Recycling, Hook Bins and Storage Containers	
Compactor bins	5 – 15
Hook bins	8 – 12
Dry waste recycling containers	10 -15
Cheviot Transfer Station	
Sealed driveway	5 – 10
Sealed transfer station site	5 -10
24/7 glass recycling bin and 4 x 240 litre bins	10 -15
24/7 recycling bin concrete pad	20 – 30
Fencing and gate	10 – 20
Compactor concrete pad	15 – 25
Compactor retaining wall	5 -10
Dry waste recycling concrete pad	15 – 25
Agrecovery bin - corner concrete pads x 4	15 – 25
Culverden Transfer Station	
Sealed transfer station site	15 – 25
Closed shed on concrete pad	30 - 50
Open bay shed	15 - 50
Compactor concrete pad	20 - 30
Compactor and glass bin retaining wall	20 - 50
Glass bin concrete pad	20 - 30
Dry waste recycling concrete pad	20 – 30
Hanmer Springs Transfer Station	
Fencing and gates x 2	10 – 20
Wooden open-ended shed	5 – 10
Scarlett's compactor on concrete pad	0 – 5
Retaining wall adjacent to the compactor	15 – 25
Under-bin weighbridge	0 – 10
Control tower and display panel	3 - 15
Remote cameras x 2; wooden and metal post	3 – 15
Glass and dry waste concrete pad – upper level	20 -30
Scrap metal concrete pad	15 - 30
Waiau Transfer Station	
Sealed transfer station site	15 - 25
Closed shed on concrete pad	30 - 50
Open shed on concrete pad	30 - 50
24/7 recycling bin concrete pad	15 - 30
Fencing and two gates	10 – 20
Glass bin concrete pad	20 -30
Dry waste recycling concrete pad	20 -30
Concrete pad drop off area on upper level	20 -30
Agrecovery bin 4 x concrete corner pads	15 - 25
Street and Township Bins	
Street litter bins	5 - 10
Township recycling bins	10 -12
Big belly solar waste compactor street bins	7 – 10

11.8 Information Services

ASSET GROUP	USEFUL LIFE (YEARS)
Libraries	
Lending Collection	3 - 8
Heritage Collection	Held in perpetuity

12 Renewals and replacements

12.1 Roading

For sealed pavements, renewal treatments such as pavement rehabilitation and resurfacing are programmed and carried out as a yearly planned activity, subject to affordability. Rehabilitation includes reconstruction or renovation of existing pavements. The balance of work is maintenance and when maintenance costs get high this may trigger renewal.

Over the past 5 years, the chipseal average annual achievement has been 33 km per annum, which is equivalent to a 19-year renewal cycle. If this level of renewal were to continue, this would result in a generally increasing age of the top surface. It is possible to maintain the current levels of surface age distribution (including average age and age-based backlog) at a renewal rate of around 40km per annum. The Council is currently seeking subsidies from NZTA Waka Kotahi which would enable renewals of 38km per annum and rehabilitation of 2.3km per annum.

In the context of unsealed roads, in recent years, funding constraints have meant that the rate of re-metalling has equated to 6mm per annum. However, roads lose between 10 and 15mm per annum due to traffic and environmental factors. The Council is currently seeking funding to increase the level of re-metalling.

There are a large number of bridge and large culvert structures that are nearing end of life (23% in the next 30 years). Funding considerations mean that it is unlikely it will be possible to renew all of these structures based on age. Accordingly, some bridges are likely to be kept in service for longer than may be desired in order to maintain current or future levels of service for road users. This may be achieved through increased maintenance or by establishment of load restrictions for bridges. To ensure safety, general inspections are carried out by the roading contractor annually, and external bridging engineers review the bridging stock triennially.

The condition of footpaths is assessed by an external consultant approximately biannually. Concrete is used for all footpath renewals.

Roading drainage maintenance and drainage renewal work is based on the available budget. Culverts are inspected biannually for condition and this information informs the renewal programme.

Most roading, footpath and drainage renewals are carried out as part of the Road Maintenance and Renewals Contract. Exceptions include:

- The Council's Programme Management Office provides designs for reseal rehabilitation activities.
- Packages of bridge renewal works are tendered approximately annually.
- Routine street light maintenance and renewal work is carried out as part of a combined delivery contract with Waimakariri District Council and Waka Kotahi.

12.2 Water and wastewater

High criticality assets and very high criticality assets are renewed based on age, condition and performance. For some assets, availability of standby plant and risk are also taken into account. These assets are considered for renewal when:

- They near the end of their expected installed life (which may vary up or down from manufacturer's design life, depending in part on local environmental factors)
- They can no longer provide the required hydraulic performance or level of service
- The cost of maintenance becomes uneconomic and the whole-of-life costs are less to renew the asset than keep up maintenance

- The risk of failure of critical assets is unacceptable.

Medium, low and very low criticality assets are renewed based on condition and performance.

Condition of above ground assets, including pumps, pressure control devices and filtration and treatment devices, is assessed during routine maintenance. There is an inspection programme in place for reservoirs, with safety a key consideration.

For buried pipe stock, condition assessment is impractical and expensive. Hence, breakage data is used as an indication of poor condition. In addition, limited condition assessments are carried out at the time of repairs to underground pipes. If the failure is determined to be pipe material related and is likely to be extensive, a decision may be made to replace the section of pipe rather than make a repair.

As a general rule, when mains are replaced, any point assets on the main (such as such as manholes, valves, hydrants and manifolds) are replaced at the same time. However, where valves can be accessed reasonably easily, they are run to failure (or shortly prior).

12.3 Stormwater (excluding roading stormwater assets which are managed as part of roading)

Creeks, open drains, and the majority of open channels are maintained in perpetuity.

For other assets, where practicable, condition inspections are currently undertaken by Council staff during or following large rainfall events. During the inspections, the cause of flooding, e.g. blockage, asset failure or under- capacity of the stormwater system is assessed.

To identify pipe failures and to assess the need for renewals, it is necessary to clean and film some pipes. The Council is moving towards developing an in house CCTV programme to enable condition assessments to occur in a systematic manner.

12.4 Property

Over the past year, condition assessments have been carried out for around 50% of Council buildings. Maintenance and renewal programmes have been developed out for many of these buildings. At this time, condition assessments are yet to be carried out for approximately 100 buildings.

For the following property assets, it is planned that scheduled maintenance, renewals and replacements will be undertaken in accordance with the maintenance plan, with reactive maintenance occurring as needed:

- Offices

- Medical centres
- Social housing
- Residential housing
- Commercial premises
- Halls and pavilions
- Amberley swimming pool (It is hoped to develop maintenance plans for Waiau and Rotherham pools in conjunction with the community).

At this time, there are no specific renewal and replacement programmes in place for:

- Three waters depots (many in poor condition)
- Public toilets
- Reserves.

Once condition assessments have been carried out for the remaining community buildings, it is planned to develop a maintenance and renewal programme for the remaining buildings also.

Because the recent condition assessments have identified a large number of matters to be rectified, due to affordability, it is expected that the introduction of the scheduled maintenance and renewal programme will take some time to be rolled out in full.

It is also expected that the deeper understanding of property assets which has been obtained, both through community engagement and through the condition assessments, is likely to result in the rationalisation of some property assets at a future date. Ensuring all property assets are safe, watertight and fit for purpose requires significant resources, and some buildings are only used infrequently. However, it is too early to know how many or which properties might be affected.

12.5 Green Spaces

Currently, there is no scheduled renewal programme in place for Green Space assets. Renewals are currently undertaken on the following basis:

Cemeteries

- Gazebos are replaced when they fail.
- Seating and signage are replaced when they fail and when uneconomic to repair.

Parks, Reserves and Township Amenity Areas

- Any items within parks and reserves and any township amenity areas requiring renewal (for example seats, water fountains, rubbish bins) are determined by the relevant community committee through the annual planning process (for amenity reserves) or by the Council (for District reserves), following a recommendation from the community committee.

- The Reserves Management Plan directs that high maintenance gardens that fall into a state of neglect are replaced by low maintenance native gardens or returned to grass.

Playgrounds

- Renewals of playground equipment are undertaken on an ad hoc basis when identified through playground audits. However, playground equipment is not necessarily replaced with like for like, and where an item requires replacing a decision would be made about whether to replace it with the same item or replace it with different item. The Reserves Management Plan directs that any playground equipment renewal must meet the standards specified.
- The Reserves Management Plan includes criteria for determining priority for replacement of playground equipment.

The development of a renewal plan for parks and reserves for all assets located within these areas, including park benches, fitness equipment, barbeques, shade sails and sports equipment is included in the Green Spaces Improvement Plan.

12.6 Waste and Recycling

In general, renewals are undertaken based on condition assessments, rather than age, although age may be taken into consideration. It is important to monitor condition frequently as the handling of waste and recycling products is hard on assets. Safety is a key consideration.

Where practicable and safe to do so, planned renewal works at transfer stations are avoided between September and April, as this is the period of highest usage for the transfer stations. Likewise, where possible, renewal activities are carried out on days the transfer stations are closed in order to avoid service disruptions and/or to minimise any risk to customers.

Having due regard for these considerations, unplanned renewal works are undertaken as and when required.

12.7 Information Services

There is no formal renewal and replacement plan for library assets other than for buildings at this time. It is proposed to establish a plan for renewal of library furniture and fittings at a later date.

The budget for acquisition of furniture and fittings is based on historical expenditure. At present, replacements occur where an asset fails or where a need arises for which there is sufficient budget.

13 Growth in services reliant on infrastructure assets

Population growth rates are highly variable within the Hurunui district. Based on historic growth and other information, it is currently projected that the populations of the larger urban areas will continue to grow. Between 2024 and 2034, it is anticipated that the population of Amberley will grow by around 36% and that of Hanmer Springs will grow by 27%.

13.1 Roading

In the context of roading, growth takes a number of forms. Depending on where growth occurs and the nature of the associated increase in the population, growth in the population is likely to lead to an increase in vehicle movements in some parts of the district. Growth in freight transport associated with changes in land use may increase pressure for bridge renewals as a means of avoiding bridge weight restrictions. Forestry trucking is recognised as contributing to wear and tear on roads, particularly in connection with harvesting.

In connection with roading, planning for growth recognises that:

- Development in the existing urban areas will largely be serviced through the current network
- New developments may result in the need for capacity and safety improvements to existing arterial/collector roads
- New residential development may result in additional roading assets vesting in Council which will require maintenance and renewal at a future date
- Due to affordability, it has not been possible to provide for major bridge renewals in the Long Term Plan 2024-2034. However, the Council will continue to advocate for support for key projects.

13.2 Water

Infrastructure that is required to provide for growth is determined by analysing a combination of:

- Population and demographic projections
- Anticipated changes in land use
- Hydrological modelling of growth impacts
- Monitoring of existing infrastructure, particularly during times of peak pressure on infrastructure such as heavy rainfall and holiday periods
- Legislation and other regulations and standards.

Key water infrastructure projects that are anticipated to provide for growth include:

- Network extensions for new developments
- Investigations and development of new/supplementary water sources
- Renewals and other activities which contribute to leak reduction help reduce the growth related demand for supplementary water sources
- Growth related upgrades of water treatment plants
- New reservoirs to support growth or changing needs
- Specific network capacity improvements within the localised pipe network
- Integration of new vested infrastructure into Council network
- Associated consenting.

13.3 Wastewater

Depending on location, wastewater assets from new developments will be added to the existing reticulated network and treated at existing wastewater treatment plants.

Key wastewater infrastructure developments associated with growth include:

- Enhancing/increasing wastewater treatment capacity - It is planned to construct a Sequencing Biological Reactor (SBR) at the Amberley Wastewater Treatment Plant, and to introduce Advanced Microbial Digestion (AMD) for sludge management in other locations. These technologies will significantly reduce sludge build up in wastewater treatment ponds, helping to maintain/maximise the capacity of the ponds and avoiding the need for additional/larger ponds in the near future. Capacity will continue to be monitored alongside growth.
- Infrastructure activities which reduce stormwater infiltration and inflow help reduce the need for additional wastewater treatment facilities arising from growth
- In the short term it is expected that the Council will continue to meet the cost of the first 20m of reticulation for new connections. However, this approach may be reviewed during the planning period.
- New residential development may result in additional wastewater assets vesting in Council which will require maintenance and renewal at a future date
- In some cases, it may be necessary to seek variations to resource consents to reflect increases in wastewater discharges arising from growth. Consent conditions could give rise to a need for further infrastructure development.

13.4 Stormwater (excluding roading)

The extent to which growth impacts stormwater infrastructure depends on the nature and location of growth. Some new dwellings have limited impact on stormwater volumes due to a requirement to dispose of stormwater on site. However, some impacts of growth on stormwater infrastructure include:

- Where stormwater assets in a new subdivision vest in Council, there is usually a requirement for ongoing maintenance/renewal. A common scenario is the vesting of stormwater retention ponds, which may require mowing and other maintenance.
- Some customers moving into the district may have expectations of higher levels of service than are currently provided. For example, the specified level of service for flooding is that there will be no flooding of habitable floors. Another expectation is that there is no erosion or damage to infrastructure assets caused by flooding. However, some residents are concerned by surface flooding which does not cause flooding of habitable floors or other damage. Communication about levels of service is particularly important for stormwater due to differing expectations.
- Consent conditions may require the Council to treat contaminated stormwater. For example, it may be necessary to acquire land for use in filtration.

Key stormwater infrastructure related activities which assist in mitigating the effects of growth include:

- Ongoing modelling to assess impacts of growth
- Sampling of storm water discharges to water courses and establishing treatment as required.

13.5 Property

Spatial planning to support growth is underway in respect of the South Ward. It is likely that the Council will acquire additional properties as development progresses, either directly or through the vesting of assets.

The recent acquisition of the Queen Mary South site in Hanmer Springs will enable additional residential and commercial development in Hanmer Springs, while also supporting enhanced recreational facilities (including a new sports

pavilion) which is expected to replace the ageing facility at the Hanmer Springs Sports Reserve.

Community buildings are funded by the communities they serve. In some locations, there may be more buildings than may needed and/or are affordable for the community. In others, some properties may no longer be fit for purpose. In some cases, growth may mean that additional or different properties may be needed.

The Council is proposing to review all Council properties and to develop a plan for the way forward to ensure that the right facilities are in the right places and fit for purpose. At the time of writing, the following related activities are underway:

- An external review of community buildings (particularly halls) in Hurunui and Cheviot has commenced.
- The Council has drafted a Reserves Management Plan and will be consulting the community regarding the Plan in the near future.

The review of Council properties may result in proposals for acquisitions and/or disposals being included in future Infrastructure Strategies and Long Term Plans. However, it is too soon to know what might be needed, and hence this activity is not provided for in this Infrastructure Strategy.

The Council is currently supporting the Hurunui Community Development Trust to increase the social housing stock in Waiau through a loan to the Trust, which was funded by Department of Internal Affairs Better Off Funding.

13.6 Greenspaces

All but one of the Council managed cemeteries has sufficient capacity to meet expected growth over the next 30 years. The Balcairn cemetery is expected to reach capacity during the planning period and provision has been made in the Long Term Plan 2024-2034 for the acquisition of additional land for this purpose.

Increased diversity associated with growth in the Hurunui District community may result in the demand for additional facilities in cemeteries, such as a preference for cemeteries to have access to running water for tangis, or facilities associated with a range of different religions. The Council will continue to monitor community needs and preferences.

The South Ward spatial planning referred to above may result in additional Council reserves to support anticipated growth in that area.

The review of Council properties referred to above may result in some Council reserves being disposed of or repurposed. The Council is mindful of the need to follow due process, including adhering to statutory provisions and engaging with communities as per the Significance and Engagement Policy.

13.7 Waste and Recycling

When estimating the future volumes of waste and diverted materials, the following assumptions have been made:

- Waste and recycling quantities continue to grow in line with population growth, but providing markets exist at an affordable rate and there is community support, the Council will endeavour to increase recycling and decrease waste to landfill
- Kerbside collection services are provided to all townships and rural residents using drop off points
- The Council will comply with legal requirements regarding kerbside collection, which at this time is expected to include mandatory separate collection of glass and food scraps in Amberley.

The development of new subdivisions and/or expansion of township boundaries may result in the expansion of the areas covered by the kerbside collection service and a corresponding increase in waste volumes. This has flow on impacts for transfer stations. Depending on waste volumes, one option is the acquisition of additional land for transfer station use.

Capital works to increase recycling and reduce waste to landfill assist in offsetting the impacts of growth on waste volumes sent to land fill. For example, capital works which enable separate drop off of scrap metal, green waste and recycling products at the Hanmer Springs transfer station are likely to reduce waste to landfill.

13.8 Information Services

Notwithstanding the growth in the use of online services for accessing customer information and library materials, there is ongoing demand for in person services. In person library services (including meeting spaces) are particularly important to older residents and young people.

It has previously been identified that growth in the South Ward would increase the demand for additional space at the district library in Amberley. It is proposed to extend/develop the library in 2033/34. The additional space would enable a broader range of materials to be held, as well as providing for more meeting space for community groups and space for reading and studying.

14 Increases or decreases in levels of service

The Council's Long Term Plan is the key mechanism for the review and modification of planned levels of service provided through infrastructure assets.

Where a proposed change is material and there are options available, it is consulted on as part of the Long Term Planning process. In many cases levels of service are mandated by legislation, regulation or consent conditions. Wherever possible, the Council will modify its infrastructure and/or services to comply with regulatory obligations. If there are options as to how it will do so which have material implications affecting communities, the Council may seek community input.

14.1 Roading

In general, residents should be able to expect:

- The network will be safe to use
- Roads are fit for purpose
- The operation of the roading network will not harm the environment or public health
- The network will support the efficient movement of freight
- That customers can access business, shopping and tourism destinations
- The network to be kept in good operating condition
- Changes to the climate will not adversely affect the network.

Key issues relating to roading levels of service include that:

- In order to retain current levels of service for sealed and unsealed roads over the long term, it will be necessary to increase the length of reseals and area of re-metalling
- A number of bridges are likely to require renewal or major maintenance during the planning period. In the absence of external funding, bridge renewals are likely to be unaffordable. If renew is delayed, then a possible outcome would be the establishment of weight restrictions on bridges, a decrease in level of service for some network users.
- Expectations of some customers regarding levels of service, particularly for the sealing and resealing of roads and the re- metalling of roads, exceed levels of service currently being provided.

There are significant costs associated simply with maintain roading levels of service over the long term. The Council has applied for additional roading and footpath subsidy income from NZTA Waka Kotahi from 2024/27-2026/27. The outcome of that application will not be known for some months. In addition, there will be ongoing uncertainty about future roading subsidy levels throughout the 30 year planning period.

The Council is managing the short term uncertainty by developing a flexible approach to the roading work programme. Budgeting is carried out and rates are set on a "most likely scenario" basis. Once information about subsidies is received, the Council adapts the work programme accordingly.

14.2 Water Services

In general, customers of Council owned water infrastructure can expect:

- Water that is safe to drink
- The water network is well maintained
- The water supply is managed so that demand does not outstrip the available capacity
- A timely response if there is a problem with the water supply
- The Council complies with regulatory requirements and consent conditions.

Many of the Council's targeted levels of service for water reflect regulatory obligations. Required/agreed levels of service and risks to achieving those levels of service drive many infrastructure developments.

Over the planning period, it is expected that water infrastructure development and renewals will be impacted by Te Mana o te Wai and the incoming National Engineering Design Standards.

In recent years, there have been increases in the levels of service relating to protozoa protection for all but one water scheme (which will be protected in 2024/25). There has been significant investment in the infrastructure required to achieve this protection, and it is expected that the associated renewal programme carried out over the next 30 years will also be significant.

At present, there is no regulatory obligation to provide viral protection for water supplies. Accordingly, options for viral protection have not been investigated. If viral protection becomes mandatory, then investigation would be considered.

It is planned that there will be an enhancement to the aesthetic qualities of water for Amberley and Leithfield during 2024/25 as a result of the establishment of two water softening plants. This reflects community preferences.

At one stage, it was anticipated that there would be a regulatory requirement to introduce fluoridation of Council water supplies. To date, this has not eventuated, and it is assumed that fluoridation of water supplies will not occur during the planning period for this Infrastructure Strategy.

Across the life of this Infrastructure Strategy, a key risk to maintaining planned levels of service is access to sufficient quantities of water in some locations. Hence it is planned that there will be further investment in new/enhanced water supplies. In addition, timely renewals and other activities which will help minimise water leaks will assist with achieving planned levels of service regarding water quantity.

Council manages water supplies in accordance with water safety plans.

The Council's levels of service performance measures for water services reflect the Department of Internal Affairs mandatory performance measures.

14.3 Wastewater

In general, customers of Council owned wastewater infrastructure can expect:

- The wastewater system is adequately designed and maintained
- The wastewater system to be managed in a way that does not unduly impact on the environment
- A timely response if there is a problem with wastewater system
- The Council will comply with regulatory requirements and consent conditions.

During the planning period, it is expected that the following matters will impact wastewater infrastructure development and renewals:

- Over the planning period, it is expected that wastewater infrastructure development and renewals will be impacted by Te Mana o te Wai and the incoming National Engineering Design Standards.
- In some locations there is discharge of treated wastewater to waterways. On the expiry of current consents, it is expect that the Council will be required to implement solutions involving the discharge of treated wastewater to land. Over the Long Term Planning period, new resource consents will be required for Hawarden, Waikari, Cheviot, Motunau and Greta Valley. In some locations, the expected solution may include the purchase of land.
- In order to reduce the area of land required for discharge of treated wastewater, reducing the level of stormwater inflow and inundation will be a priority.
- The acquisition of generators for potential use in wastewater treatment plants will support continuity of service.

Some property owners in some urban areas (Culverden, Rotherham, Waiau, Waipara, Scargill) have been unable to renew their septic tank resource consents. One option would be for the Council to investigate the development of reticulated wastewater networks in these locations. However, given the small populations and the probable significant cost involved, these are not included in the plan at this time.

Again, the Council's levels of service performance measures for water services reflect the Department of Internal Affairs mandatory performance measures.

14.4 Stormwater

Council works on growth and development of its network to manage a 2% AEP or 1 in 50 year event. The community can continue to expect:

- The stormwater system to be adequately designed and managed
- The stormwater system to be managed in a way that does not unduly impact on the environment

Over the planning period, it is expected that stormwater infrastructure development and renewals will be impacted by Te Mana o te Wai and the incoming National Engineering Design Standards.

As with water and wastewater, the Council's levels of service performance measures for water services reflect the Department of Internal Affairs mandatory performance measures.

During the long term planning period, capital expenditure which will support the maintenance of current levels of service includes:

- Renewal of stormwater pipes
- Any capital works required to comply with the new global discharge consent
- Renewal of soil in stormwater filtration ponds
- Stabilisation of parts of the banks of open stormwater drains in urban areas.

14.5 Property

The Council seeks to ensure its properties are safe, fit for purpose and compliant with statutory requirements.

There are regular audits and inspections of public toilets and playgrounds to ensure that they meet public health requirements. Where required, the Council ensures that public buildings have a Warrant of Fitness. Some buildings are managed/monitored by local community groups, which helps ensure that expected levels of service are met.

A recent condition assessment of many Council properties has been used to develop a maintenance plan. However, due to affordability considerations, this will be staged in.

The proposed review and rationalisation of community buildings is likely to contribute to more consistent levels of service.

Some specific capital expenditure items over the period of the Long Term Plan 2024-2034 include:

- Renewal of some camping ground facilities, e.g. kitchens, ablution blocks
- Significant repairs to some commercial buildings which are currently in poor condition
- Repainting and internal renovation of social and residential housing and Council owned medical centres
- Internal and external repainting of halls, and in some cases, renovation of kitchens and/or bathrooms.

14.6 Green Spaces

In general, residents will continue to be able to expect:

- A network of parks for recreation and green space
- A distributed network of safe playgrounds
- Sports fields that are well-maintained and fit for purpose
- Public toilets which are safe, appropriately maintained and well located
- Cemeteries with sufficient capacity for the internment of the remains of those who wish to be interred there and where visitors can feel safe and able to reflect.

There are various capital works expected to help maintain current levels of service, such as:

- Landscaping and maintenance of reserves
- Playground equipment renewals
- Maintenance of sports facilities
- Renewal/upgrading of gazebos in cemeteries.

The development of the Queen Mary South in Hanmer Springs is expected to include the development of a new sports ground and pavilion to replace the ageing facility at the Hanmer Springs Sports Reserve at Jacks Pass Road.

There has been community interest in the development of a sports pavilion in Hawarden. This is not included in the Long Term Plan 2024-2034 at this time, pending the outcome of the review of hall facilities in the Hawarden/Waikari/Scargill area.

There is community interest in the development of a dog park in Leithfield. This development is included in the draft Long Term Plan 2024-2034.

14.7 Waste Management and Recycling

In general, residents will continue to be able to expect:

- Waste management activities will not give rise to public health risks
- There will be regular kerbside collection of household waste in designated urban areas
- There will be collection points for household waste in rural areas
- It will be possible to take household and commercial waste to transfer stations at specified hours
- Where practicable, waste will be diverted from landfill in an efficient, reliable and safe manner
- Efforts are made to maximise the economic benefits from recycling
- The provision of Council owned litter bins in designated locations (primarily townships and areas with large numbers of visitors) will help maintain amenity values
- The management of closed landfills will minimise the risks of environmental harm.

Infrastructure related activities which will support maintenance of current levels of service include:

- Timely renewal of transfer station assets, e.g. hook bins
- Capital expenditure to promote the safe and effective aftercare of closed landfills.

As a result of regulatory change, it is expected that, from 1 January 2027, the Council will be required to provide a separate glass recycling service and a separate food scrap collection service in Amberley. The details regarding the

new services, including any associated transfer station requirements, are still being investigated. However, it is currently expected that the Ministry for the Environment will provide/fund crates for the glass collection and caddies for the food scrap collection. It is expected that the food scraps will be sent to a processor outside the district. It is likely that the collection vehicle will be provided by a contractor as part of the terms of a contract. It is proposed that any other costs, primarily collection, will be funded by a new targeted rate(s).

The Council is proposing to carry out a feasibility study into options for providing a wheelie bin service in some locations. The feasibility study will take into consideration the new mandatory requirements referred to above. It is anticipated that a wheelie bin service would involve significant additional costs and there would be a need for community consultation prior to implementing a wheelie bin service.

14.8 Information Services

Customers expect Information Services activities to provide:

- An efficient, effective, accurate and timely service
- Easily accessible information
- Education and empowerment opportunities
- Opportunities for community connectedness.

In order to maintain the current level of service, it is necessary to undertake ongoing renewals of library materials (online and physical) and renewal of buildings and furniture and fittings.

15 Maintaining and improving public health and mitigating adverse environmental outcomes

Some key mechanisms for maintaining and improving public health and mitigating adverse environmental outcomes are listed below. Additional information is contained in the Activity Management Plans.

15.1 Roading

Public Health:

- Taking road safety, including diversity of use, into account when designing and implementing roading infrastructure
- Establishing appropriate speed limits which recognise regulatory obligations and, where practical, take into consideration community preferences
- Establishing road slowing devices in relevant locations
- Road safety education
- Ensuring that any work in the roading corridor is carried out with appropriate traffic management measures in place
- Supporting measures to address overgrowth of vegetation which is likely to impact road safety
- Through the Community programme, the Council assists some young people seeking to obtain a drivers' licence

Environmental Outcomes:

- The Council is aware of community concerns regarding the public health effects of dust associated with the use of unsealed roads. It considers this in setting speed limits for these roads. While rare, there is a mechanism for community members to seek approval for dust mitigation measures.
- Roading contributes to the contamination of stormwater. Accordingly, the Council monitors stormwater in identified urban areas.

15.2 Water services

Public Health:

- The Council has current water safety management plans in place for each water supply and seeks to implement these plans
- Ongoing monitoring of water supplies, including remote monitoring, e.g. free activated chlorine levels
- Ability to shut down most water supplies remotely in the event that something out of the ordinary is identified
- Standard operating procedures reduce the risk of contamination, e.g. process for cleaning the water tanker
- Fencing, locks and other mechanisms are used to secure and protect key assets, including water intakes and treatment sheds
- Addressing water leaks promptly reduces the risk of contamination of water supplies
- There are procedures in place in the event that a risk to public health is identified, e.g. boil water notices, shutting down some water sources.

Environmental Outcomes:

- Water treatment chemicals are stored in secured locations
- Water treatment staff are trained in the use of chemicals

15.3 Wastewater

Public Health and Environmental Outcomes:

- Designing sewerage systems with regard for public health and environmental outcomes, including Te Mana o te Wai
- Modelling to ensure that systems and equipment are appropriately sized
- Activities to reduce inflow and inundation play a key role in reducing the risk of sewage overflows, e.g. CCTV camera work, raising manhole covers
- Where inflow and inundation are identified as an issue, mitigation measures are in place in significant rainfall events, e.g. use of sucker trucks at wet wells to prevent sewage overflows
- Regular sampling of treated water at wastewater treatment plants.

15.4 Stormwater

Public Health and Environmental Outcomes:

- Stormwater activities are managed to reduce/minimise the risk of flooding of habitable floors. This helps mitigate public health risks.
- Stormwater treatment and disposal varies between locations, e.g. use of wetlands. There is a need to investigate and where appropriate invest in alternative discharge solutions and obtain/renew resource consents for identified locations
- Alarms are in place for some sites to enable early identification of any issues requiring action
- Regular sampling of stormwater at entry and exit points to urban areas helps identify any contamination arising from urban activities and assists in assessing options for treatment
- Assessment and maintenance of open stormwater channels helps reduce the risk of flooding
- There are procedures in place for river mouth openings in severe rainfall events, which reduces the risk of flooding.

15.5 Property

Public Health:

- Ongoing inspection and maintenance of community buildings reduces the potential for unidentified hazards, e.g. blocked toilets, tripping hazards
- There are cleaning arrangements in place for some sites
- Community buildings have appropriate fire protection, e.g. alarms, fire extinguishers, exit signs
- Standard operating procedures are in place to reduce the risk of harm to the public arising from hazards such as contamination of pool water, drowning, and slipping on wet services
- Accidents, incidents and near misses are reviewed and appropriate mitigation measures are put in place to reduce the risk of similar incidents occurring in the future.

Environmental Outcomes:

- Where practicable and cost-effective, environmentally friendly products are used for this activity
- A recent building assessment has identified those sites where potentially hazardous materials have been used, e.g. asbestos, lead paint. Any works at these sites will be carried out in a way which minimises associated risks, and ideally minimises or eliminates the risk for the future.

15.6 Green Spaces

Public Health:

- Cemeteries are one option for the safe disposal of human remains
- Signs at some green spaces help alert the public to potential hazards, e.g. hot water in the kitchens at camping grounds, warnings to watch for traffic
- Access to community facilities promotes connectedness, which contributes to mental health.

15.7 Waste Management and Minimisation

Public Health and Environmental Outcomes:

- The collection of waste in bags and the use of public litter bins reduces potential for access by vermin
- Transfer stations are managed with regard for both staff and public health and safety, including identification and signage of hazards, use of appropriate equipment
- There are standard operating procedures in place controlling the collection and disposal of any hazardous materials
- Transfer stations and closed landfills are managed in accordance with consent conditions and management plans
- In the event of any non-compliances, appropriate measures are taken rectify them.

15.8 Information Services

Public Health:

- Access to public spaces at some libraries can promote connectedness, and enhance mental health and wellbeing
- Likewise, access to library resources can provide opportunities for learning and recreation which contribute to mental health and wellbeing
- Library buildings are managed with regard for public health and safety, e.g. clearly marked exit signs, and management of any identified hazards.

16 Resilience of Council infrastructure assets

Resilience relates to the ability to cope with and recover from adverse events. Adverse events may range from local events with limited short term effects to district wide disasters causing widespread catastrophic damage to infrastructure. Examples of adverse effects affecting Council owned infrastructure include:

* The 2016 Hurunui-Kaikoura earthquake which caused significant damage to buried water assets and some above ground assets, particularly in and around Waiau. There was significant damage to Council buildings, including the Scargill Hall which was subsequently demolished.
* The Amberley floods in 2008 which caused damage to stormwater networks and some flooding of habitable floors, particularly at Amberley Beach. There was also associated damage to roading in the coastal area.
* The November 2023 wind event which caused moderately long lasting power outages impacting water supplies across much of the district. It also resulted in damage to trees in green spaces and impacted transport routes.

Some strategies applied by the Council which promote resilience include:

16.1 Assessing the risk of significant damage to infrastructure from adverse events

* Assessing infrastructure asset criticality in order to focus resilience activities where they are most needed and cost-effective
* Identification of assets which might be at risk of adverse events. For example, in 2020, the Council commissioned a report by Jacobs New Zealand which assessed (amongst other things) whether Council infrastructure might be at risk due to the expected impacts of climate change

16.2 Reducing the risk of significant damage to infrastructure

Examples include:

* Planning to ensure that new infrastructure development occurs in areas which are less susceptible to natural adverse events
* Applying approved engineering design and construction standards when designing and establishing new infrastructure
* Using appropriate materials in designing and constructing new infrastructure
* Ensuring appropriate security for buildings and other sites, including community buildings, pump sheds, halls, libraries, pools, transfer stations and others, e.g. locks, alarms, CCTV cameras, and fencing
* Assessing the need for drainage to protect roading assets and, developing a suitable drainage programme
* Monitoring asset performance can assist in early identification of failing asset components, e.g. roading audits, remote monitoring of pump performance
* Maintenance to prolong the life of infrastructure assets, e.g. timely resealing and re-metalling roads, timely re-painting of community buildings
* Posting restrictions on bridges which might be at risk from heavy vehicles
* Ensuring that those working on or around Council infrastructure are appropriately qualified and supervised, e.g. permits for road opening, tender processes, suitably qualified staff.

16.3 Infrastructure redundancy or alternatives

Examples include:

* The use of standby pumps alongside the main pumps at critical water intakes
* Holding spares of some items, particularly those required for the repair or replacement of critical assets
* Having agreements in place with key suppliers to be able to access critical parts quickly if required
* The availability of alternative roading routes
* In some cases, in cases where infrastructure is damaged, some services may be provided in other ways, e.g. online library services.

16.4 Planning for adverse events

Examples include:

* Engagement in Lifelines activities
* Planning for adverse weather events, e.g. snow plan for Hanmer Springs roading, procedures for river mouth opening in the event of severe rainfall events
* Making generators available at critical three waters sites (e.g. wastewater treatment ponds and water supply intakes) in the event of power outages
* Having a water tanker available to provide short term emergency water in the event of an issue with a Council water supply
* Planning for roading diversions
* Ensuring sufficient capacity in cemeteries
* Civil defence activities – both regionally and locally

16.5 Financial protection

Examples include:

* Holding insurance where this is feasible and cost-effective
* Identifying/establishing mechanisms for accessing additional funding in the event of major damage to Council infrastructure, e.g. additional NZTA Waka Kotahi subsidies