



ATTACHMENTS

**Audit and Risk Committee
Under Separate Cover**

Tuesday, 28 January 2025

Table of Contents

25.1.2	The consultation document and supporting material for the 2025-34 Long-term Plan	
	Appendix 12 Infrastructure Strategy.....	4
	Appendix 13 Development and Financial Contributions Policy.....	104
	Appendix 14 Draft Consultation Document	194

Issue Information	
Issue Purpose	For council review
Issue Date	24 January 2025
Version Number	1.0

Contents

Preface	4
Executive Summary	4
What is the Infrastructure Strategy?	5
Key issues and future challenges:	6
Strategic priorities & response	9
Section 1 - Overview	13
Central Otago Snapshot	14
Our Infrastructure Assets	15
How We Deliver Infrastructure Services	16
The Policy Context	18
Section 2 – Current Issues & Future Challenges	23
Compliance with changing legislation	23
Meeting greater expectations around environmental impacts	24
Population growth and demographic change	25
An aging and deteriorating bridge network	27
Water source reliability	27
A shortage of technically skilled people	28
Affordability of infrastructure services	29
Resilience	30
Section 3 – Strategic Priorities	32
Organisational Framework	32
Community Well-beings	32
Community Outcomes	33
Well-being commitments	33
Infrastructure Vision and Overarching Principles	34
Infrastructure Level of Service Outcomes	37
Prioritisation	50
Summary of strategic priorities and response	53
Section 4 Summary of Significant Infrastructure Projects	55
Section 5 Combined Infrastructure Financial Estimates	58
Section 6 – Activity Summaries	60
Roads and Footpaths	60
Water Supply	71
Wastewater	78

Stormwater 85

Section 7 Assumptions and Risk..... 91

Quality of Asset Data 99

Preface

Council has taken the approach that it will transfer its three waters assets into a Council Controlled Organisation (CCO) and may see Councils across the region joining. If other Councils do not join, then the CCO will be operated by CODC alone. This has been reflected in year two and year three of the LTP with the water activities being transferred at the end of year two and no longer being reflected in the operations of Council from year three onwards.

Despite this future direction for three waters this strategy has been prepared with these activities included for the full 30 years of the strategy. In the future the new water organisation will have to prepare a Water Strategy and at that point the three water activities will be removed from council's infrastructure strategy.

Executive Summary

The provision of fit for purpose and functioning infrastructure provides the foundation on which our communities are built.

Infrastructure directly shapes the way we live, travel, recreate and work. Council owned infrastructure includes water supply, wastewater, stormwater and our local transport network, and is essential to delivering the activities that keep our communities connected, healthy and functioning.

Core infrastructure has considerable physical size, a long life span and significant financial cost, which means that getting it right is important, not just for our current population, but generations to come.

Central Otago District Council (Council) owns, manages and maintains an infrastructure portfolio worth over \$1.2 billion. This includes assets such as 1,926km of roads, 188km of footpaths, 173 bridges, 468km of water supply reticulation, 284km of sewer mains, 81km of stormwater mains, 56 pump stations and 15 treatment plants.

Central Otago covers an area of 9,969 square kilometres and, due to our rural nature, we have one of the lowest population densities in New Zealand. Our relatively small and disperse population means providing and improving infrastructure, while ensuring it remains affordable can be difficult.

Our district has experienced a prolonged period of population growth, which continues today. Between the 2018 and 2023 censuses, the resident population grew by 3.2% p.a. (from 22,200 to 26,000) and in 2024 the estimated population of the district is projected to be 26,500 people.

Ensuring our communities have access to safe, reliable infrastructure is a core priority for our council. At the same time, we need to provide for growth and fund essential maintenance and improvements across the district.

While this can be a challenging mix to get right, the following infrastructure strategy seeks to outline the key issues and challenges faced, our strategic priorities across the infrastructure networks and how we plan to deliver our goals over a 30 year work programme.

Council has developed a comprehensive approach to navigate the intersecting challenges of aging infrastructure, financial constraints, increased demands, and the necessity for sustainable, resilient community infrastructure

What is the Infrastructure Strategy?

All Councils are required to develop an Infrastructure Strategy under Section 101B of the Local Government Act 2002.

This Strategy identifies and provides information about the significant infrastructure issues that the Central Otago District will face over the next 30 years and outlines the principal options and implications for managing those challenges.

The Strategy is an indicative estimate of Council's future infrastructure needs and a statement of current assumptions and thinking on what infrastructure will be required to address the major issues facing the district over the next 30 years. It includes what to prioritise, and identifies risks associated with infrastructure provision and investment.

The infrastructure strategy aligns to and should be read alongside other strategic documents such as the financial strategy and the Long-Term Plan. Together they provide the strategic framework for the more detailed activity management plans.

This Infrastructure Strategy has been structured as shown in the diagram below.

Figure 1: Infrastructure Strategy Components



Key issues and future challenges:

The current issues and future challenges for Central Otago's three waters and roading infrastructure include:

Compliance with changing legislation

Council is required by legislation to continue compliance with the Water Services Act and investment in assets and resources to meet the Drinking-water Standards for New Zealand (DWSNZ) and environmental standards.

Central Government's three waters reform programme has changed from 'Affordable Water' to 'Local Water Done Well'. This requires Council to focus on:

- Providing financially sustainable water services
- Ensuring water quality i.e. safe, reliable drinking water
- Improved management of wastewater and stormwater services

A core part of the 'Local Water Done Well' reform programme requires Council to develop a plan on how we will transition to a new water services model that meets water quality and infrastructure investment rules, while being financially sustainable in the long term.

Similarly, with transport there is unpredictability in funding priorities due to changes in Government and subsequent changes to the Government Policy Statement on land transport (GPS). Shifting national priorities impacts local budgets, timelines, and strategic planning create ongoing uncertainties for Council budgets.

Meeting greater expectations around environmental impacts

Public expectations regarding how we manage the environmental impacts from infrastructure services have increased over the past decade and this is supported by government freshwater reforms, supporting legislation, changes to regional policies and plans, and increased compliance reporting and monitoring. Improved outcomes and increasing compliance expectations come with an increased cost.

Council operates our wastewater systems under resource consents granted by the Otago Regional Council. These consents apply to wastewater collection and discharge and require significant sampling, monitoring, operation and maintenance methodologies and regular reporting.

Population growth and demographic change

Central Otago district has experienced a period of rapid and prolonged population growth since 2013. This places ever increasing demands on existing infrastructure, and requires us to provide greater capacity for an increasing population.

Growth in the number of dwellings appears to be following growth in our resident population, although at a slightly lower rate.

At present, 60.8% of Central Otago District's population is of working age (15-64), 15.4% are aged 0-14, and 23.8% are aged 65 and over. The proportion of those aged over 65 is expected to increase over the next 30 years.

An ageing population may result in demand for additional smaller properties such as single person units and retirement villages. As a result, the demand for individual water connections is likely to increase. Single person households have a higher per capita water consumption as economies of scale are lost. As a result, demand for water is likely to increase.

An aging and deteriorating bridge network

We are facing significant challenges in maintaining the affordability and resilience of the district's aging bridge network.

The district's network comprises 173 bridges, with 58 expected to reach their economic end of life in the next 30 years, many situated on less-travelled roads with alternative routes available.

At least 30 of the bridges (representing 17% of the network) across the district will reach the end of their useful lives within the next 10 years. This presents a significant cost and a substantial funding gap.

An estimated \$20 million is required for full replacement of these bridges, which is considerably more than the \$7.6 million currently allocated in the budget and further burdened by a \$3.9 million bridge maintenance backlog.

Compounding this, the increasing number and weight of trucks, spurred by regulatory changes and agricultural productivity improvements, are adding to the strain on these structures.

Water source reliability

Our District has an arid climate and limited sources of water. The demand for water is very high and is closely associated with development. Industrial, agricultural, business and residential development all depend on the availability, quantity and quality of water.

Development in one sector ultimately has a flow on effect onto other sectors. This needs to be balanced to ensure there is adequate water across the district. Both for existing sectors, and to provide for growth.

The sustainable and efficient management of water in the District is expected to become increasingly important. There is a high demand for water as it is essential for human consumption, economic activity and stock habitation.

It is anticipated that the effects of climate change will result in increased frequency and intensity of severe weather events such as severe droughts and floods. It is essential that Council understands the effects of climate change and integrates these into the standard council considerations to provide a resilient water supply network. In particular, Council has seen a number of increased boil water notices due to turbidity events:

- Omakau/Ophir Water Treatment Plant Upgrade - The raw water for Omakau/Ophir is a surface water source and is vulnerable to turbidity following rain. High turbidity events result in plant shut down and the issuing of a boil water notice. The supply is also vulnerable to low river flow during summer when water restrictions may be required. The treatment upgrade will provide a more a resilient and compliant water supply.
- Ranfurly Water Supply - There is no protozoal treatment in the Ranfurly supply, and it is frequently impacted by elevated turbidity caused by weather events. During a wet weather event the treatment plant inhibits for extended periods until the source water is back within treatable limits. These events can result in a Boil Water Notice for the community. Since 2022 the Ranfurly community has eight days of boil water requirements.
- Patearoa Water Supply - In April 2023 a rain event caused increased organic matter in the source water. A boil water notice was put in place for seven days as a response to non-compliance with chlorine levels.

It will remain critical to ensure water supplies are resilient to frequent natural events, adequate response plans are in place for less frequent events, and water supply is reliable at a consistently adequate pressure, flow and quality.

A shortage of technically skilled people

The technical nature of infrastructure means it can be difficult to find the highly skilled people to help manage it on Council's behalf.

CODC's 3 Waters Unit has traditionally been under-resourced. The Three Waters reform programme and ever-expanding environmental compliance requirements continues to place increased demand on our team. Internal changes and efforts to attract suitably qualified candidates have been successful, but finding and maintaining our team remains a challenge.

It is likely that a shortage of technically skilled people to design, construct and manage water assets will continue to have an impact on this activity in future years. This is a global issue which is also affecting other local authorities as this is a highly competitive market. Council will have to compete with other Councils and companies for a limited pool of suitably skilled and experienced engineers.

Affordability of infrastructure services

The industry has seen increased costs as a result of inflation, increasing standards, operations and maintenance requirements, monitoring costs and training and qualification requirements.

The value of Council's water and roading infrastructure increased from \$895 million in 2021, to over \$1.2 billion in 2025.

Roading costs have surged by 10-20% within the last three years. Rising traffic demands and material shortages are driving up costs, with a backlog in renewals and heavy vehicle traffic adding further strain.

