

30 Year Infrastructure Strategy

Water, Transport, Waste and Social

2024 - 2054

Section 1

About this strategy

This Infrastructure Strategy sets the strategic direction for the provision of infrastructure in the Queenstown Lakes District.



Social

This strategy identifies significant infrastructure issues for the district over the next 30 years, the principal options for managing those issues, and the implications of those options. This strategy draws together information from Queenstown Lakes Spatial Plan 2021, national guidance, Council's strategic framework, Asset Management Plans, Master Plans, Long Term Plan and other key strategic documents. The strategy fulfils the requirements of section 101B of the Local Government Act 2002 (LGA 2002) and sits alongside Council's Financial Strategy.

INFRASTRUCTURE INCLUDED IN THIS STRATEGY

This strategy outlines the key considerations for management of, and investment in, the following infrastructure types:

Social infrastructure plays an important role in developing strong and inclusive communities. It provides opportunities to bring different groups of people together, contributing to social integration and the desirability of a place. Social infrastructure enables locals and visitors to connect, socialise, play, learn and participate in a wide range of social, cultural, art, sport and recreational activities. This has a direct impact on the lives of the community and on its wellbeing.

In the context of this strategy social infrastructure includes the community spaces/libraries, reserves, parks and playgrounds, sports fields, and sports and recreation facilities provided by Council. Council takes a network approach, and as such the social infrastructure provided by others (e.g. schools and health providers) informs what Council needs to provide. Council also provides a wide range of programmes and services using this infrastructure that enable strong and inclusive communities, which are not the subject of this strategy.

DID YOU KNOW THIS IS THE FIRST TIME SOCIAL INFRASTRUCTURE HAS BEEN INCLUDED IN THE INFRASTRUCTURE STRATEGY?



Transport

The transport system is an integrated network that enables the movement of people and goods. The types of transport assets Council manages include local roads, intersections, bus stops, footpaths and cycleways, parking, signs and road markings, traffic signals, lighting, bridges, retaining walls and waterways infrastructure like wharves and jetties.

Note that: NZ Transport Agency Waka Kotahi manages the state highways within the district, and Otago Regional Council operates the district's public transport service.



Waste minimisation and management

Waste minimisation and management encompasses waste reduction (reducing the production of waste materials at source), resource recovery (diverting waste from landfill) and waste disposal (collecting, transporting and disposing of waste products).

Key waste management assets include rubbish bins and transfer and recycling facilities. Waste services are supported by other assets that contractors own and maintain, including collection vehicles, the landfill and its associated assets.



Three Waters

‘Three Waters’ is the collective term for the three main types of water infrastructure Council provides: water supply, wastewater and stormwater.

WATER SUPPLY

Water supply provides people with safe drinking water and firefighting flows. The service involves the abstraction, treatment, storage, distribution and ongoing management of most of the district’s water supplies. Water supply assets include water mains, bores, treatment plants, pump stations and reservoirs.

WASTEWATER

Wastewater (or sewage) is used water that has been affected by domestic, industrial and commercial use. Council is responsible for the collection, transfer, conveyance, treatment and disposal of the district’s wastewater and trade waste. Wastewater assets include wastewater mains, pump stations, treatment plants and disposal fields.

STORMWATER

Stormwater is the water that runs off surfaces when it rains. Stormwater assets include stormwater mains, interceptors, detention basins and outlets.

FUTURE WATER SERVICE DELIVERY MODEL

By mid-2025, Council must submit a Water Service Delivery Plan (WSDP) to Government.²⁵ It is expected that the WSDP will be required to detail the current state of three waters assets and services, the type and level of investment required to ensure services are compliant and respond to projected growth, and how services will be organised and funded to ensure ongoing financial sustainability.

Key considerations of the WSDP will include:

- > what organisation is best placed to provide water services to the community (Council, local or multi-authority CCO, other)
- > the type and standard of water services to be provided
- > the approach to maintaining and operating existing and new three waters infrastructure

- > the extent to which proposed investment will respond to the challenges described in this strategy
- > mechanisms for funding three waters service provision, including what user and other charges will be amended or introduced to ensure the ongoing financial viability of service provision
- > the level of public consultation required in the development and adoption of the WSDP and
- > the environmental and economic regulatory standards set for local government by new and planned independent regulators.

Council plans to update this strategy to reflect the outcome of the WSDP process.

²⁵ This statement is based on indications from Government and assumes that the necessary legislation will be passed to establish this requirement.



Other infrastructure

Te Waihanga estimates local government collectively owns and operates about 26% of New Zealand's infrastructure.²⁶ While Council has an important role to play in building and operating the infrastructure types outlined above, there are a range of other enabling infrastructure networks and services that are not addressed within this strategy but are equally as important to supporting community outcomes. Some of the key infrastructure networks and services owned and operated by other providers include energy, telecommunications, state highways, public transport, healthcare, education, justice, emergency management, private three waters schemes, and flood, drainage and river control.

AIRPORTS AND AIRFIELDS

The district has two airports (Queenstown and Wānaka) and one aerodrome (Glenorchy).

QUEENSTOWN AIRPORT

Queenstown Airport is one of the busiest airports in New Zealand. Queenstown Airport Corporation (QAC) is a council-controlled trading organisation of which Council is the majority shareholder. QAC's investment activities are guided by its ten year strategic plan.

WĀNAKA AIRPORT

Wānaka Airport is owned by Council, and currently operated by QAC under a Management Services Agreement. With more than 50,000 movements per year, the Wānaka Airport is one of the busiest non-certified airports in New Zealand. In the short- to medium-term, Council plans to invest in the airport's infrastructure, ensuring compliant and safe operations, fit-for-purpose facilities and general good stewardship of the existing asset base (culminating in the airport becoming Qualified under Civil Aviation Rule Part 139). Concurrently, a master planning exercise will consider the strategic purpose and future role of the airport in providing air transportation services to the Upper Clutha community.

GLENORCHY AERODROME

The Glenorchy Aerodrome provides for small private and commercial fixed wing and helicopter operations. Its use is governed by the Glenorchy Airstrip Reserve Management Plan. There are no Council maintained facilities onsite.

²⁶ *Build or maintain? New Zealand's infrastructure asset value, investment, and depreciation, 1990-2022.* Te Waihanga, February 2024.

Section 2

Strategic context

IN THIS SECTION

- Strategic Framework
- Infrastructure Vision and Objectives
- Queenstown Lakes Spatial Plan
- Strategic Planning Environment
- Significant Issues

Council's Strategic Framework

Council's Strategic Framework outlines how the community's aspirations and wellbeing drive everything we do, as well as those areas that need to be prioritised to address district specific issues and make meaningful progress toward outcomes.

COMMUNITY OUTCOMES

Community outcomes were defined with the community, in Vision Beyond 2050, and reflect the community's aspirations for itself. These extend beyond the things that Council delivers and have been incorporated in many community-driven initiatives and strategies.

WELLBEING OUTCOMES FRAMEWORK









Community outcomes are supported by the wellbeing outcomes framework, which guides how Council contributes to the wellbeing of the district's people and environment. These are based on the Wellbeing Framework for Otago developed by Otago Regional Council in conjunction with Otago's district and city councils.

STRATEGIC PRIORITIES

Strategic priorities are those areas that require specific investment or partnerships over the next ten years to make meaningful progress towards achieving outcomes. These do not cover everything Council does, rather they are those areas where additional focus and attention is required.

Figure 1: Council's Strategic Framework



<p>OUR COMMUNITY OUTCOMES...</p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  Thriving people Whakapuāwai Hapori </div> <div style="text-align: center;">  Living Te Ao Māori Whakatinana i te ao Māori </div> <div style="text-align: center;">  Opportunities for all He ōhaka taurikura </div> <div style="text-align: center;">  Breathtaking creativity Whakaohoho Auahataka </div> <div style="text-align: center;">  Deafening dawn chorus Waraki </div> <div style="text-align: center;">  Zero carbon communities Parakore hapori </div> <div style="text-align: center;">  Disaster-defying resilience He Hapori Aumangea </div> <div style="text-align: center;">  Pride in sharing our places Kia noho tahi tātou katoa </div> </div>								
<p>...ARE SUPPORTED BY OUR WELLBEING OUTCOMES FRAMEWORK...</p>	<table border="0" style="width: 100%; text-align: center;"> <tr> <td style="width: 25%;">CROSS CUTTING</td> <td style="width: 25%;">PEOPLE</td> <td style="width: 25%;">PLACE</td> <td style="width: 25%;">COMMUNITY</td> </tr> <tr> <td>Equity Mātauraka Kāi Tahu Resilience Sustainability</td> <td>Healthy and fulfilled people A good standard of living</td> <td>A healthy natural environment An enabling built environment</td> <td>Connected communities Belonging and identity Participation and governance</td> </tr> </table>	CROSS CUTTING	PEOPLE	PLACE	COMMUNITY	Equity Mātauraka Kāi Tahu Resilience Sustainability	Healthy and fulfilled people A good standard of living	A healthy natural environment An enabling built environment	Connected communities Belonging and identity Participation and governance
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<p>...AND DELIVERED EVERYDAY THROUGH OUR CORE ACTIVITIES...</p>	<p> Community Partnerships Libraries Sport & Recreation Community Facilities and Venues Parks and Reserves Property District Plan Planning Policy Resource Consents Water Supply Wastewater Stormwater Transport Waste Minimisation and Management Strategic Growth - Spatial Plan Economy Climate Action and Resilience Regulatory Functions and Services Local Democracy Emergency Management Finance and Support Services</p>								
<p>...AND THROUGH ADDITIONAL FOCUS ON OUR STRATEGIC INVESTMENT PRIORITIES.</p>	<table border="0" style="width: 100%;"> <tr> <td style="width: 33%; vertical-align: top;"> <p>GET THE BASICS RIGHT FIRST</p> <ul style="list-style-type: none"> Protect human and environmental health Maintain levels of service Undertake essential renewals Ensuring we're ready for the future </td> <td style="width: 33%; vertical-align: top;"> <p>DIRECTLY INVEST IN INFRASTRUCTURE & SERVICES</p> <ul style="list-style-type: none"> Create well designed communities Provide for growth Build resilience and ability to adapt to the future Enhance performance of the transport network Create thriving town centres Reduce carbon emissions </td> <td style="width: 33%; vertical-align: top;"> <p>INVEST THROUGH PARTNERSHIP WITH OTHERS</p> <ul style="list-style-type: none"> Diversify the economy Build a sustainable tourism system Improve housing affordability </td> </tr> </table>	<p>GET THE BASICS RIGHT FIRST</p> <ul style="list-style-type: none"> Protect human and environmental health Maintain levels of service Undertake essential renewals Ensuring we're ready for the future 	<p>DIRECTLY INVEST IN INFRASTRUCTURE & SERVICES</p> <ul style="list-style-type: none"> Create well designed communities Provide for growth Build resilience and ability to adapt to the future Enhance performance of the transport network Create thriving town centres Reduce carbon emissions 	<p>INVEST THROUGH PARTNERSHIP WITH OTHERS</p> <ul style="list-style-type: none"> Diversify the economy Build a sustainable tourism system Improve housing affordability 					
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Infrastructure vision and objectives

Council’s infrastructure assets and services should enable everyone in the district to maximise their wellbeing. Infrastructure services are essential for healthy and connected neighbourhoods and communities. Services must be resilient and safe, and protect the natural environment for generations to come. Council will work in partnership with iwi, communities, central government, funders and other infrastructure providers to plan and build for this future.

The cross-cutting wellbeing principles – Equity, Mātauraka Kai Tahu, Resilience, and Sustainability – are embedded within the objectives that guide Council’s investment in infrastructure and its approach to planning, delivering and operating assets and services.

THREE WATERS, TRANSPORT, AND WASTE INFRASTRUCTURE

Rautaki Hanganga o Aotearoa is New Zealand’s infrastructure strategy; its vision is “infrastructure lays a foundation for the people, places and businesses of Aotearoa New Zealand to thrive for generations”. Council’s three waters, transport and waste infrastructure plays a critical role in realising this vision by enabling people to live healthy lives, supporting a stable and prosperous local economy, growing resilience to sudden natural events, and respecting and protecting the natural environment’s mauri.

The following objectives guide how investment in, and management of, Council’s three waters, transport and waste infrastructure give effect to the wellbeing outcomes and Spatial Plan:

OUTCOME	OBJECTIVE	ABBREVIATED TO...
Healthy and fulfilled people	Provide infrastructure services that reliably protect people from harm.	Protect people from harm
	Leverage investment in infrastructure to create opportunities for people to increase activity, recreation and social connection.	Leverage investment
A good standard of living	Sustain timely infrastructure investment to support and strengthen the district’s growing complex economy and associated employment opportunities.	Sustain timely investment
	Pursue efficiency, effectiveness, and funding opportunities that support the sustainability of infrastructure services.	Sustainable infrastructure
A healthy natural environment	Prevent contaminants associated with infrastructure services from entering the natural environment.	Prevent contaminants from entering environment
	Reduce the impact of infrastructure on global emissions and resource extraction.	Reduce emissions and resource extraction
	Identify and prioritise opportunities for environmental regeneration.	Environmental regeneration
An enabling built environment	Optimally sequence infrastructure interventions to maximise servicing capability for the district’s growing population.	Optimise infrastructure servicing
	Enable access to essential services following a natural hazard event, and optimise the recovery of all services thereafter.	Natural hazard response and recovery

Social Infrastructure

The Queenstown Lakes district is geographically dispersed and is made up of multiple smaller settlements that have been developed over time, and often from historically informal holiday localities. This means that some areas of the district are better supported than others with social infrastructure. There are some elements of social infrastructure that can be retrofitted into already developed areas, but this will be area specific and won't always be possible. Council wants to ensure that future development in key development areas is done with social infrastructure needs in mind so that these communities can benefit from more connected communities. The district's social infrastructure also forms part of the regional and sub-regional infrastructure, and so in some cases wider needs of the broader area must be taken into account when planning.

The *Queenstown Lakes Spatial Plan* sets out that future key development areas will be within and around the existing urban areas of Queenstown and Wānaka. This approach builds on locations that are already fully or partially urbanised. Concentrating growth in the existing urban areas will

mean more people live in areas where public transport, cycling and walking is an easy and attractive transport option. However, due to regional topography and a small, dispersed population base, it is not affordable, or efficient, to have all types of social infrastructure replicated across individual neighbourhoods. Accordingly, Council needs to balance neighbourhood needs with the need to invest in certain social infrastructure that is centrally, strategically placed, multipurpose and integrates different community needs.

As the district continues to grow and intensify ensuring access to a variety of quality public open spaces is increasingly important, as is delivering this in a way that benefits both people and nature. Ensuring residents have easy access to open space enhances quality of life, provides recreational opportunities, preserves natural resources, promotes community identity and fosters social equity within a community. The blue-green network²⁷ also needs to be designed with future climate change and hazard adaptation in mind.

The following objectives guide how investment in, and management of, Council's social infrastructure give effect to the wellbeing outcomes and Spatial Plan:

OUTCOME	OBJECTIVE	ABBREVIATED TO...
Healthy and fulfilled people	Create opportunities for people to increase physical activity, play and recreation and social connection.	Opportunities for increased activity and connection
	Deliver social infrastructure that is diverse, fit-for-purpose and provides for community, mana whenua and visitor need.	Diverse, fit-for-purpose facilities
	Provide social infrastructure that meets many everyday (non-work) needs within a short walk, cycle or bus ride of home.	Meet everyday needs within a short walk, cycle or bus ride
A healthy natural environment	Ensure natural and heritage features of open spaces are protected and treasured.	Protect natural and heritage features
	Improve social infrastructure impact on biodiversity, water quality, embodied carbon and carbon emissions.	Improve environmental impacts
An enabling built environment	Plan for sufficient social infrastructure to accommodate the district's growing population.	Plan for growth
	Develop a network of strategically placed, multipurpose facilities that ensures accessibility, maximises efficiencies and are fit-for-purpose.	Strategically placed, multipurpose facilities

²⁷ Blue-green network is the grouping of all the parks, open spaces, connections and accessible waterway that deliver a variety of educational, recreational, ecological, cultural, landscape and health benefits.

Queenstown Lakes Spatial Plan

The Queenstown Lakes Spatial Plan 2021 ('Spatial Plan') sets out the strategic growth plan for the district, with key priorities aimed at ensuring future growth happens in the right places and is supported by the right infrastructure and services – those within the control of the Council and wider utility and service providers. This covers a broad range of services and requirements, including pipes in the ground, ways of getting around, access to schools, housing, energy, healthcare, telecommunications, waste, and community facilities. The Spatial Plan helps Council understand how and where the district will grow and is a key influence on this strategy, in particular:

- > **The Spatial Plan identifies where and in what manner the district will grow** and what infrastructure will be required to support this growth. The delivery of responsive and cost-effective infrastructure that is delivered in a staged manner, linked in a sequenced way to growth, is critical to achieving the outcomes of the Spatial Plan and ensuring that growth is adequately provided for. This strategy responds to the need to develop infrastructure in line with how and where the district is going to grow.
- > **The delivery of an integrated transport network that is focussed on moving goods and people, is critical to achieving the outcomes of the Spatial Plan and ensuring that growth is adequately provided for.** This means increasing the level of investment in new infrastructure and optimising the use of road space for all road users and to support

better public transport services and active travel. This is a key input in to determining the focus areas for transport investment. This strategy outlines the choices needed about transport and social infrastructure to transform neighbourhoods and transport networks to respond to this.

- > Much of the recent growth has been in housing developments that sometimes lack local shops, services and adequate parks and community facilities. **Ensuring well-designed neighbourhoods, particularly in new development areas, will mean more everyday needs can be met locally, improve connections and a feeling of belonging, helping to improve the health and wellbeing of communities now and into the future.** This strategy outlines the infrastructure required to enable more everyday needs to be met close to home.

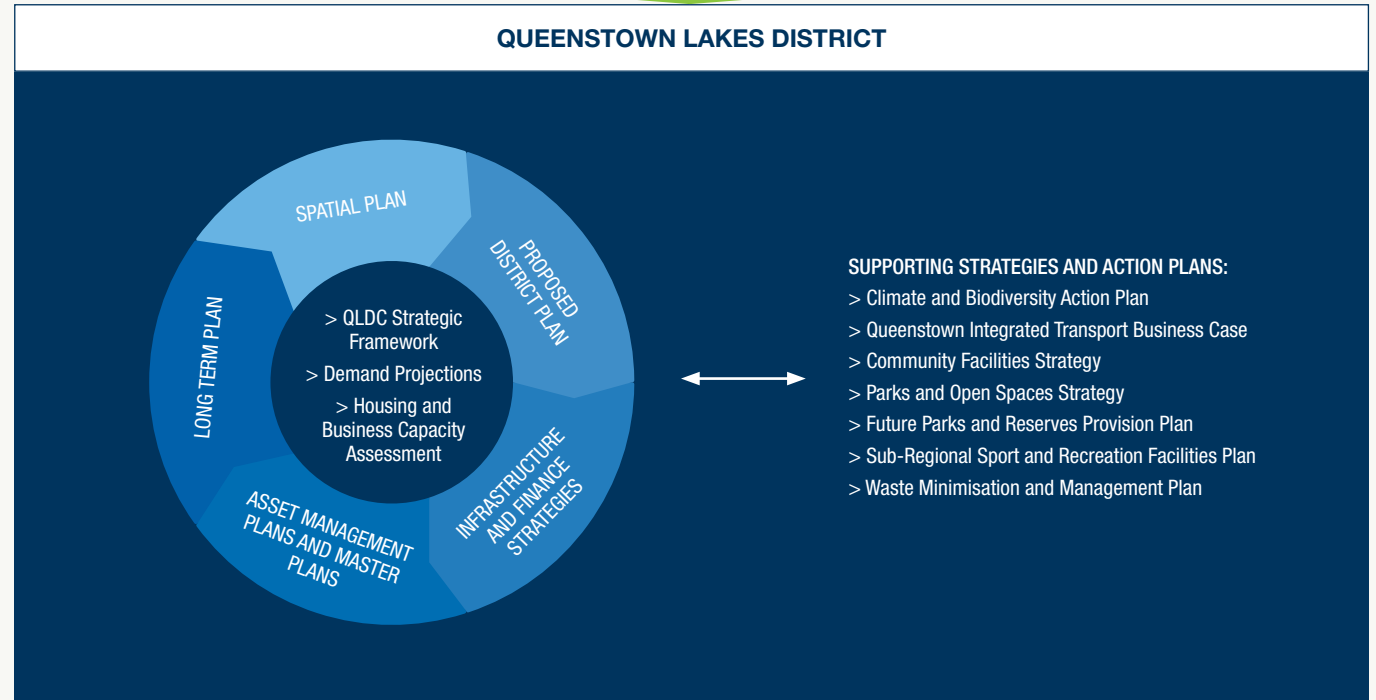
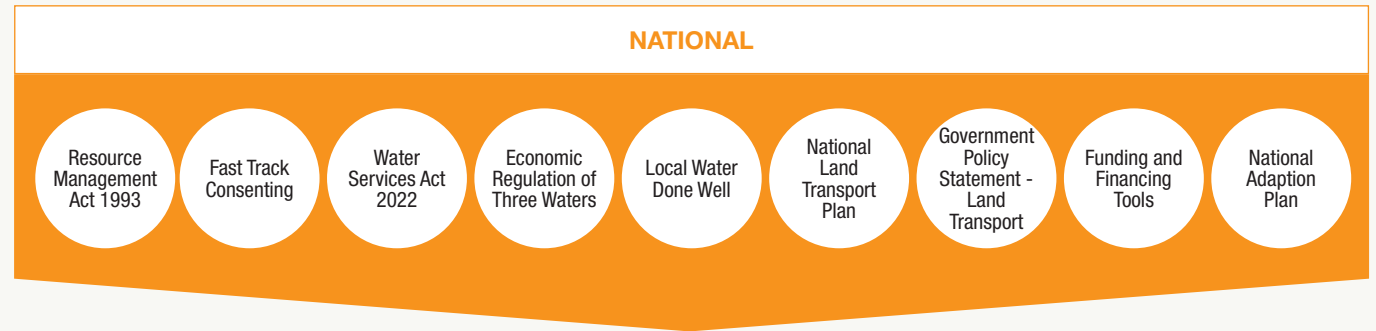
- > Including mana whenua perspective across Council activities is essential to creating thriving communities. **Council, as a crown entity, honours its commitment to its Te Tiriti o Waitangi partners (Kāi Tahu) by acknowledging and adopting Kāi Tahu values and aspirations as a shared responsibility.** This strategy has considered Kāi Tahu's aspirations in options for future infrastructure interventions.

The next iteration of the Spatial Plan is currently being developed, alongside the development of this strategy, and this will be informed by revised demand projections. In a high-growth environment, it is important that these strategies inform each other and are updated with a clear understanding of thresholds for change and the potential for timeline acceleration. Details on population projections and demand for services can be found here: www.qldc.govt.nz/community/population-and-demand.

Strategic planning environment

Local government is facing a complex and uncertain future. There are Government reforms underway, and yet to come, that will have a significant impact on how to plan for and fund infrastructure and services for the future.

Outlined here are the key external influences on this strategy; most of these are currently under review, or signalled as planned for review, by the Government. Each of these changes would likely have a significant impact on specific parts of the strategy, all of these changes together will likely have a material impact on the strategy as a whole. As reforms progress, it is anticipated that significant replanning will be required within the next three years.



Significant issues

The Queenstown Lakes District is a highly desirable place to call home due to the attractive scenery and climate, clean environment, outdoor lifestyle, strong economic opportunities and strong national and international connectivity. Over the past 30 years, the Queenstown Lakes has almost tripled in size, alongside significant growth in visitors to the area. The economy has performed very strongly, with GDP growth over double the New Zealand average and there has been very low unemployment. The 2023 Quality of Life survey results demonstrate a solid commitment to, and pride in, the district amongst its residents. Respondents generally reported having a high quality of life with over half likely to recommend working and living in the district to others.

However, people who live, work, and visit Queenstown Lakes District are also experiencing wide-ranging challenges that are driven from a national level as well as those that are district specific. Some of these challenges can be directly

influenced by actions Council takes, many others are outside of the control of Council. These have been distilled into five significant issues that the district is facing that this strategy aims to address through the provision of improved infrastructure over the next 30 years.

RAPID AND SUSTAINED POPULATION GROWTH

The Queenstown Lakes District is one of the fastest growing areas in Aotearoa, with resident and visitor growth that has consistently exceeded predictions. Growth has had benefits and caused some challenges. Urban development has often been developer-led, spreading out over large areas of land putting pressure on both the environment and infrastructure. Areas in the district are already zoned to enable greater than 30 years' worth of housing growth, before considering key development areas that have not yet been zoned. Much of the district's growth is demand led with high levels of inward migration from both NZ and overseas. This demand places considerable price pressure on the market and an ongoing demand for additional supply of both land and housing.

Queenstown Lakes faces a disproportionately high number of visitors relative to its population compared to other centres in New Zealand. Average day populations, which are over 30% higher than the resident population, must be considered when planning for infrastructure needs. There is national economic dependence on a positive visitor experience, but the district has a relatively small population, and workforce, that are required to plan, fund, and deliver infrastructure on a large scale.

This means there is significant demand for new servicing capacity across the district's infrastructure both within and beyond current zoned / serviced areas. Council must find innovative ways to make best use of existing infrastructure and expand the networks to respond to this.

INCREASED AND INCREASING STANDARDS

Central Government and Otago Regional Council have both made changes in recent years that have resulted (or will result) in obligations to deliver new infrastructure and services at a higher standard than

in the past, and to upgrade existing infrastructure and services to meet these higher standards. These standards have been increasing over recent years and further changes are expected, but it is unclear where central Government will focus future changes, and this adds uncertainty to planning.

This means that infrastructure upgrades must be made earlier, and the cost of new infrastructure continually increases. Responding to increasing standards will also require the community to play its part, for example drinking water will need to be used more efficiently as the cost to treat increases.

RESILIENCE TO SHOCK EVENTS

The Queenstown Lakes district is in an inland mountainous environment exposed to climatic extremes in terms of high and low temperatures, extreme rainfall, drought and heavy snowfall. The likelihood of more severe and frequent weather events will increase with a warming climate.²⁸ The most likely natural hazards for the region are major storms (with associated flooding, high winds and landslides – as was experienced in September 2023)

²⁸ *Climate change implications for the Queenstown Lakes District*. Bodeker Scientific, April 2019. See https://www.qldc.govt.nz/media/cabftw34/24-4-19_bodeker_final_report_qldc.pdf

and earthquakes (with associated ground shaking, liquefaction, rockfall and landslides).

These events can cause major damage to local infrastructure and regional connectivity (roading, power and telecommunications). Infrastructure therefore needs to be functional and resilient to the district's alpine climate and seismically active terrain, whilst protecting the outstanding natural landscapes on which the district's reputation is predicated. Infrastructure investments need to be approached from an integrated systems perspective that ensures that the engineering design, supporting services, network connections and the community that the asset serves are all resilient and prepared for the shocks and stresses that can occur. Opportunities to build resilience into existing infrastructure assets and networks also need to be considered.

CLIMATE EMERGENCY

On 27 June 2019, Council declared a climate and ecological emergency as well as approving the release of the Council's first Climate Action Plan 2019-2022²⁹ for public feedback. In June 2022 the second Climate and Biodiversity Plan 2022-2025³⁰ (CBP) was adopted which recognised the need to address both the climate and ecological emergencies together. The CBP is one of Council's core strategies, influencing across all work streams, programmes and plans.

Infrastructure plays a fundamental role in determining carbon emissions for a district. The extent of infrastructure can guide and shape the physical layout and design of a district and therefore be a key source and enabler of both emission production and reduction. Embodied carbon and emissions must be accounted for at every stage of the lifecycle for infrastructure, including design, supply chain, construction, operations and maintenance.

INFRASTRUCTURE DEFICIT

The issues outlined above put pressure on existing services and require Council to do more. But the ability to do more is constrained by:

- > continued escalating costs due to increasing interest rates, high inflation, high demand, and supply chain issues (often due to macro-economic and international geo-political issues)
- > limited capacity to deliver due to the size of both Council's workforce and the contractor / professional services market in the district
- > long project incubation periods and barriers to implementation make it difficult and costly to respond to changing requirements
- > the timing and investment of other infrastructure and service providers that are also critical to meeting demand and maintaining levels of service within the district

- > limited funding availability exacerbated by settlement of large defective building claims, debt associated with a major capital delivery programme in recent years, and ratepayer affordability limitations.

Like many councils around Aotearoa New Zealand, Council has been facing these constraints for some time and resulting infrastructure and service deficits must now be addressed alongside responding to the other issues outlined above. This is consistent with Te Waihanga's (Infrastructure Commission) view that there is currently a large infrastructure deficit across New Zealand.

²⁹ <https://www.qldc.govt.nz/your-council/climate-change-and-biodiversity#climate-action-plan-2019-2022>

³⁰ https://www.qldc.govt.nz/media/1e3jk5bb/qldc_climate-and-biodiversity-plan_jun22-web.pdf

Section 3

Meeting the challenge

IN THIS SECTION

The 'most likely' scenario

Making infrastructure services sustainable

Significant decisions

The ‘most likely’ scenario

This strategy is underpinned by a ‘most likely scenario’ for the next 30 years. This scenario is a combination of assumptions about a wide-ranging suite of drivers that will influence how the future unfolds. To provide definition to the most likely scenario, the two common drivers that are most influential to the provision of Council’s infrastructure activities have been identified and tested to determine how plausible differing combinations of these key drivers are (ref. figure 2).

KEY DRIVERS:

POPULATION GROWTH

The extent to which resident and visitor populations grow is a critical determinant of the type and scale of infrastructure required. In addition to providing for high and sustained growth in the district’s resident population, Council’s infrastructure also needs to be able to support considerable population peaks when visitor numbers are high. These variable demand patterns exacerbate the servicing challenges associated with providing infrastructure that meets the demands of a growing district. Growth itself is not directly within the control of Council and Government direction is clear that we must plan to support projected growth. Council is required to estimate the likely growth in the district over the next 30 years, zone for it, and plan for investment in infrastructure that services it.

ABILITY TO FUND

Ability to fund infrastructure is determined by a range of assumptions made in the Finance Strategy about currently known external funding streams, the size of rates increases, and Council debt to revenue ratio requirements from Local Government Funding Agency (LGFA). Combined, this means the expected ability to fund infrastructure will likely not keep pace with the need to fund infrastructure to desired levels, without significant changes to the funding models and tools used by Council.

Council is planning for a future where the district’s attractiveness and desirability remains strong. As a result, resident and visitor population growth continues at high levels, and so too does the need to provide enabling infrastructure. It is likely that demand for infrastructure will continue to outpace and exceed Council’s ability to fund, and as a result there will be a need to continually balance service levels with risk and cost. Development that is dependent on enabling infrastructure will be delayed beyond optimal timeframes without alternative funding and delivery approaches. This is Council’s ‘most likely scenario’.

The significant decisions, options, and timing of investment set out in this Strategy reflect the most likely scenario. This scenario gives regard to current constraints, and the likelihood of those constraints materially changing over the next 30 years.

THE MOST LIKELY SCENARIO IS NOT THE PREFERRED SCENARIO.

Current fiscal constraints mean Council is unable to invest at the optimal quantum and pace required to respond to issues and realise Council's vision. This strategy outlines a realistic 30-year plan that makes meaningful progress towards outcomes, and acknowledges there will be trade-offs and challenges along the way.

COUNCIL WILL PROACTIVELY WORK TOWARDS A MORE PREFERABLE SCENARIO.

Although this strategy is predicated on a most likely scenario, Council will actively seek out opportunities to shift the district towards a more preferable scenario. The introduction of new funding and financing tools and/or significant shifts in user demand patterns will enable Council to refocus towards future-focussed infrastructure (closing the infrastructure deficit and getting ahead of the demand curve earlier). If fiscal constraints are alleviated, Council will bring forward key projects that move the district materially closer to its desired outcomes. Further information on how Council will proactively respond to these constraints is included in the 'making infrastructure services sustainable' section of this Strategy.

COUNCIL IS CRITICALLY DEPENDENT ON INVESTMENT OTHER PROVIDERS MAKE OVER THE NEXT 30 YEARS.

Council is not the only infrastructure provider in the district. NZ Transport Agency Waka Kotahi is responsible for the state highways, Otago Regional Council for public transport services, Transpower for electricity, Ministry of Education for schools, and Te Whatu Ora Health New Zealand for healthcare facilities – amongst many others. Like Council, these other infrastructure providers are facing similar issues and constraints; accordingly, it is assumed investment in third-party provided infrastructure in the district will follow a similar trajectory to Council's for the foreseeable future.

LEVELS OF SERVICE WILL BE PERIODICALLY REVIEWED OVER THE LIFE OF THIS STRATEGY.

Levels of service (LoS) define the type and standard of services the community can expect. These LoS inform when and to what extent investment in new and existing infrastructure is required, what services will cost to operate and maintain, the standard to which developers must build new infrastructure, and provide a basis on which Council measures its performance as a service provider. Council's infrastructure related LoS are articulated across a range of different publications and sources and are due for consolidation and review. In determining the most likely scenario for the next 30 years, it is assumed that differentiated LoS models will continue to be utilised across Council's infrastructure activity types.³¹

³¹ A differentiated LoS model seeks to balance user need and value. Under a differentiated model, service users can expect core and common minimum LoS, to which additional services and increased performance standards can be added where it makes sense to do so.

Figure 2: defining the most likely scenario for this strategy



Making infrastructure services sustainable

More investment in the district's infrastructure over the next 30 years is inevitable. Sometimes this investment will be driven by increasing demand for service or unmet need; in other instances, investment may be justified due to the social, environmental and economic benefits that can be generated.

Built solutions alone will not respond to the issues identified in this strategy, and it is no longer feasible to rely on traditional funding mechanisms to meet the district's infrastructure investment needs. With that in mind, difficult and complex choices must be made about where to invest and how to cover the associated costs, and smarter ways to use existing infrastructure will be required.

The approach to prioritising, funding and operating Council's infrastructure over the next 30 years will focus on optimising available resources, assets and services alongside making prudent investment.

RESPONSIBLE DECISION-MAKING AND STRONG RESOURCE MANAGEMENT

Council is committed to being a responsible steward of the district's infrastructure resources, and to ensuring every investment it makes extracts true value-for-money. Infrastructure planning and decision-making will always give regard to the principles and approaches described in Council's Financial Strategy to ensure the organisation continues to operate in a responsible and affordable way. In accordance with, and in support of, the Financial Strategy, Council will seek to:

Comprehensively forecast future infrastructure needs, set long-term investment priorities, manage trade-off decisions, and minimise the cost of change to ensure critical initiatives can continue to be funded.

Understand and value whole-of-life costs, opportunity costs, and intergenerational impacts – always giving regard to overall affordability and ensuring beneficiaries of investments Council makes, are reliably identified to ensure costs are apportioned in a fair way.

Develop and implement a continuous improvement programme that identifies opportunities to do more for the same, do the same for less, generate new revenue, and generally streamline and rationalise ongoing service provision.

Consider a mix of different funding mechanisms when determining how to meet the district's infrastructure resourcing needs over the next 30 years.

Retain sufficient funding agility within the infrastructure portfolio to be responsive to arising opportunities or unexpected needs without compromising other planned investments.

Be consistent and responsible resource managers - establishing and adhering to internal controls, expenditure targets, and savings plans.

Implement strategic procurement arrangements that make best use of market capacity and capability, minimise the interface burden to Council, and improve the reliability of costs.

CONSIDER NON-BUILT SOLUTIONS FIRST

Expenditure on new infrastructure is a critical component of responding to the challenges set out in this strategy, but it is not the only response. Sometimes, adapting existing assets or utilising them more efficiently, managing demand and/or customer expectations will yield lower-cost, better outcomes. Council will seek to:

Concurrently plan for integrated infrastructure and land use – this will enable Council to better coordinate the prioritisation of infrastructure servicing to new areas, optimise the functionality of existing networks, and manage the allocation of capacity where there are finite servicing constraints.

Identify and invest in low-cost actions that help achieve a more sustainable use of infrastructure, in particular, re-use or adaptation of existing infrastructure to increase effectiveness and performance.

Use behavioural and pricing interventions to influence how and when users engage with infrastructure assets and services.

Explore how planning and policy-based interventions can delay or negate the need for physical infrastructure solutions, in particular, scalable and differential service levels that are set in consultation with the communities Council serves.

Keep existing assets in good working order, minimising the need for expensive rehabilitations or replacements.

Support the use of emergent technologies and methodologies to improve the efficiency and effectiveness of infrastructure services, and to grow productivity and capability within the district's infrastructure sector.

PARTNER WITH OTHERS

To give effect to this strategy, support and participation from key partners including central government, the New Zealand Transport Agency, Kāi Tahu, Otago Regional Council, developers, not-for-profit organisations, funding trusts and the private sector. Council will seek to:

Plan in partnership with funders and providers to achieve common alignment, foster shared commitment, allocate risk fairly, and leverage each party's respective strengths.

Proactively look for opportunities to work with others in the delivery of new or expanded assets and services that move the district closer to long-term outcomes.

Advocate for the district's needs and opportunities on a national scale, acknowledging the material contribution the district makes to the national economy.

Foster mutually beneficial, high-performing, and dynamic relationships with Council's partners, contractors and suppliers that are underpinned by a 'best-for-district' approach.

Build strong relationships with current and potential funders to improve revenue assurance and flexibility.

Grow internal commercial capability to ensure the infrastructure deals Council makes are robust, affordable and deliver real value.

EMBRACE UNCERTAINTY AND CHANGE

This strategy provides for a ‘most likely’ (or most probable) scenario which contains embedded assumptions around core drivers – some assumptions are conscious and explicit, others less so. In reality, the core drivers have varying degrees of uncertainty which provide for a range of possible futures; this means the magnitude, sequencing, and timing of investments set down in this strategy will need to change over time. Being open to, and ready for, change will ensure Council remains agile, prepared and responsible infrastructure providers. Council will seek to:

Document and track assumptions over time, building in explicit trigger points to revisit and recalibrate this strategy and infrastructure planning in line with new information and changing probabilities.

Use scenario and adaptive planning methods to explore how Council will respond to change – favouring more dynamic and flexible plans over the more traditional approach of ‘predict and provide’ where possible, and exploration of multiple scenarios that allow for assessing the likelihood of differing strategic options succeeding over time.

Prioritise resource towards initiatives that transform the way infrastructure assets and services are delivered – rethinking, redesigning, or rapidly accelerating investments that deliver on community outcomes.

Invest confidently and quickly in assets and services that are beneficial in any scenario (“no/low regrets infrastructure”).

Embrace ambiguity and prioritise agility in investments where the future need is less certain; for example, asking whether a response can be staged over time, future-proofing assets for emergent technologies, or changing the way users interact with infrastructure services.

Significant decisions

Eight significant infrastructure decisions required over the next 30 years have been identified. Options for responding to these decisions are set out in this section.

The key initiatives associated with giving effect to the most likely option are also included. In this context, key initiatives are included where they are of notable scale, cost and complexity, and will fundamentally influence the way Council plans, delivers, and operates its infrastructure.

Of the options presented, one is associated with the ‘most likely scenario’.

Description of the option.

The extent to which the option **responds to significant issues and delivers on investment objectives** (both abbreviated from section 2 of this strategy), using a coloured continuum to show relative contribution to the relevant significant issues and infrastructure objectives:



Outline of the key implications of the option.

OPTION #	MOST LIKELY
NAME OF OPTION	
Description of the option appears here. Description of the option appears here.	
Responds to these significant issues:	
Resilience	LOW IMPACT
Delivers on these objectives:	
Plan for growth	MODERATE IMPACT
Implications:	
Outline of the key implications of the option. Outline of the key implications of the option.	

Responding to natural hazard risks and the effects of climate change

Preparing the district for natural disasters and a changing climate (shocks and stressors) is a priority for Council. The extent to which resilience is built into infrastructure networks and services will be a key determinant of the type and level of investment required over the next 30 years. The physical resilience of infrastructure assets will also influence the level of individual and community preparedness required for shocks and stressors.

Work is underway with the Otago Regional Council and the community to develop a complete picture of key risks across the district, along with potential responses. A global good practice approach known as dynamic adaptive pathways is being used for this work. This strategy will be reviewed and updated as this risk identification and planning exercise develops.

Four principal options for infrastructure investment in response to natural hazard risks and climate change have been identified. Over the next 30 years, Council expects to maintain the current pace of risk assessment and response, with an increased focus on strengthening critical infrastructure assets that are at high-risk of failure in a disaster event.

OPTION 1

MAINTAIN EXISTING ASSETS & REACT TO SHOCK EVENTS

This response-based option means Council would continue to invest in a regular programme of renewals with some resilience benefits, and plan to reprioritise resources towards rebuilding assets/networks if major disaster strikes. Individuals and communities will need to ensure they are prepared for protracted service outages.

Responds to these significant issues:

Resilience	LOW IMPACT
------------	------------

Delivers on these objectives:

Diverse, fit-for-purpose facilities	LOW IMPACT
-------------------------------------	------------

Implications:

As the effects of climate change worsen over the next 30 years, an overall decline in the resilience of infrastructure networks and services is likely – particularly wildfire, stormwater management, with flooding and uncontrolled wastewater overflow events likely to become more frequent and impactful. The community will need to be aware of, and prepared for, the impacts of shocks and stressors.

OPTION 2

SUSTAIN THE CURRENT PACE OF RISK ASSESSMENT AND RESPONSE

While remaining largely dependent on reactive responses to major shock events, this option directs some resources toward better understanding network vulnerabilities, development of a long-term resilience-based investment plan, targeted low-cost interventions, and inclusion of increased asset resilience standards as part of major infrastructure upgrade projects triggered by other business needs.

Responds to these significant issues:

Resilience	LOW IMPACT
------------	------------

Infrastructure deficit	LOW IMPACT
------------------------	------------

Delivers on these objectives:

Diverse, fit-for-purpose facilities	LOW IMPACT
-------------------------------------	------------

Natural hazard response and recovery	LOW IMPACT
--------------------------------------	------------

Implications:

While mitigating actions are identified, they are not invested in until the longer term resulting in risks associated with shocks and stressors being carried for longer. As the impacts of a changing climate become more pronounced, there may be an overall decline in network and service resilience over time. The community will need to be aware of, and prepared for, the impacts of shocks and stressors that cannot be fully mitigated with this level of investment.

OPTION 3

MOST LIKELY

STRENGTHEN CRITICAL ASSETS AND SERVICES

In addition to maintaining the current programme of risk assessment and response, targeted investment in at-risk assets will be prioritised over the medium-long term. This option focusses on initiatives that require specific investment in infrastructure to make further progress on the Climate and Biodiversity Action Plan outcomes and in line with the Otago Regional Councils hazard assessment programme.

Responds to these significant issues:

Resilience	MODERATE IMPACT
Infrastructure deficit	MODERATE IMPACT

Delivers on these objectives:

Diverse, fit-for-purpose facilities	MODERATE IMPACT
Natural hazard response and recovery	MODERATE IMPACT

Implications:

This option prevents decline in the resilience of infrastructure networks and services and takes additional mitigating actions for risks associated with shocks and stressors. The strengthening of some critical assets will require significant capital expenditure, at times limiting Council's ability to make investment in other outcome areas. The community will need to be aware of, and prepared for, the impacts of shocks and stressors that cannot be fully mitigated with this level of investment.

OPTION 4

HIGH LEVEL OF INFRASTRUCTURE RESILIENCE TO SHOCKS AND STRESSORS

All of major assets will be strengthened/replaced/protected to withstand disaster events, and n+1 redundancy will be achieved across all critical assets wherever possible. Ongoing investigations, planning and low-cost interventions will also continue. Delivery of interventions identified through a resilience investment plan (to be developed) will be accelerated.

Responds to these significant issues:

Resilience	HIGH IMPACT
Infrastructure deficit	MODERATE IMPACT

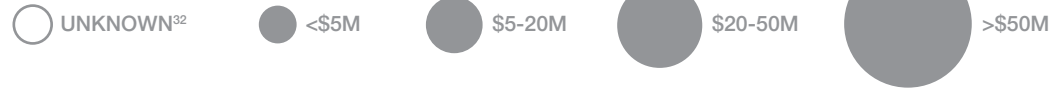
Delivers on these objectives:

Diverse, fit-for-purpose facilities	HIGH IMPACT
Natural hazard response and recovery	HIGH IMPACT

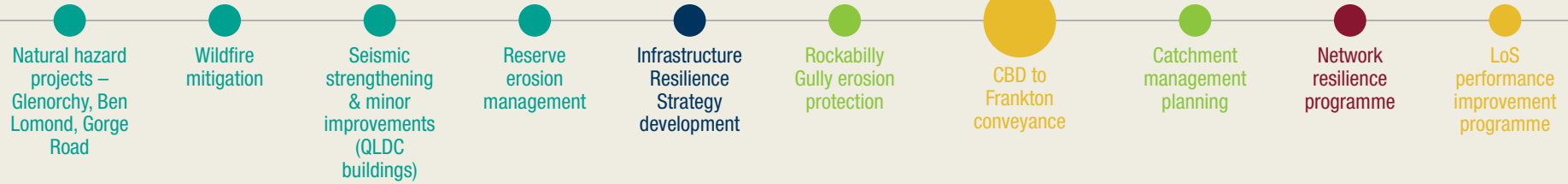
Implications:

Building high levels of resilience into infrastructure assets and services will come at a high cost, materially impacting Council's ability to fund other investment priorities and core services.

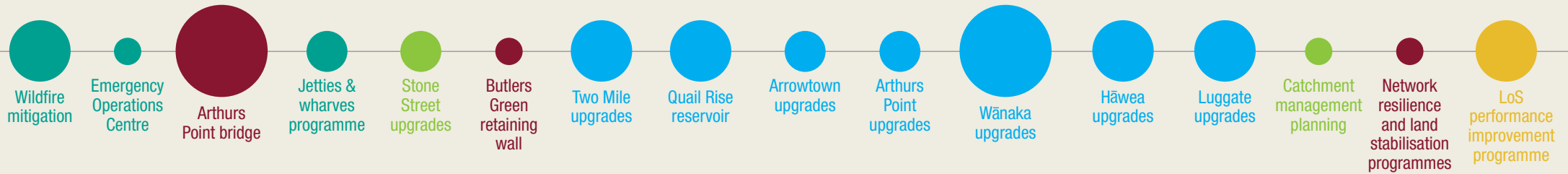
KEY INITIATIVES ASSOCIATED WITH THE MOST LIKELY SCENARIO



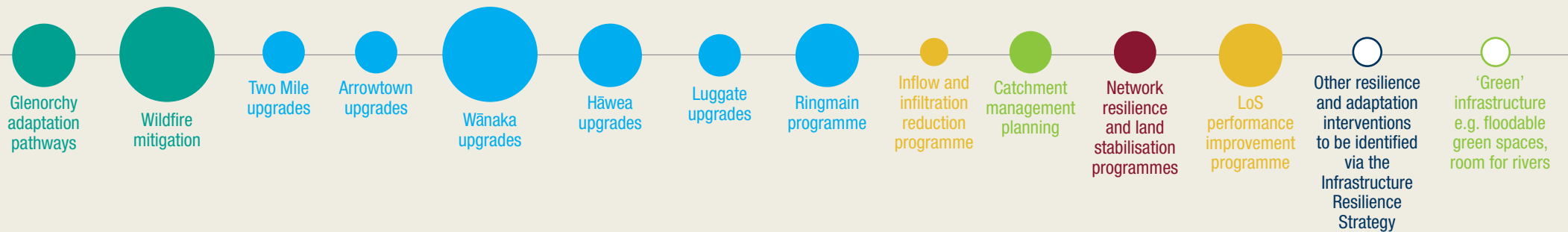
SHORT-TERM (Y1-3)



MEDIUM-TERM (Y4-10)



LONG-TERM (Y11-30)



SOCIAL INFRASTRUCTURE TRANSPORT STORMWATER WASTEWATER WATER SUPPLY WASTE MULTIPLE ACTIVITIES

³² Initiatives where Council does not yet have a readily available indication of scale or cost.

Reducing infrastructure’s impact on the environment

Council has a major role to play in leading the district-level response to the climate and ecological emergency. This role extends to the decisions made about the district’s assets and services; for example, the effectiveness of the transport network and type of waste services provided will directly impact the district’s emissions, three waters infrastructure will determine how impactful extreme rainfall events are on the community and environment³³ and the blue green network of open spaces has a key role to play in both climate change preparedness and ecological restoration.

Council works closely with the community and local organisations to partner in the delivery of climate and biodiversity actions. This includes funding a wide variety of community groups and projects that are focussed on district-level emission reduction, climate change education, biodiversity regeneration, and helping communities to be prepared and resilient for a just and equitable transition.

The Kāi Tahu climate change strategy, He Rautaki mō te Huringa Āhua o Te Rangi, speaks to creating a legacy for those whānau to come in response to the effects of climate change. Council shares Kāi Tahu’s aspiration to secure the best possible outcomes for future generations.

Council is partnering with Kāi Tahu to develop a common understanding of the blue-green network requirements for the future, with the connectedness of all resources at the centre.

Three principal options for reducing infrastructure’s impact on the environment have been identified. Over the next 30 years, Council expects to maintain the current pace of efforts to reduce its infrastructure’s impact on the environment. This option reinforces Council’s continued commitment to protecting and respecting the natural environment and reflects the substantial progress underway.

OPTION 1
SLOW CURRENT EFFORTS
A wide range of initiatives (as set out in the Climate and Biodiversity Action Plan) are already underway to address the climate and biodiversity emergency for the district. This option pulls back on previously indicated investment in infrastructure that makes progress on the CBAP including investment in the blue-green network plan.
Responds to these significant issues:
Nil
Delivers on these objectives:
Nil
Implications:
This option will slow efforts and will likely result in further biodiversity degradation and increasing global emissions within the district. This would be out of step with commitments made in the Climate and Biodiversity Action Plan and with expectations of the community, Kāi Tahu and Government.

³³ Wastewater network capacity needs to be able to cope with surge events to mitigate the risk of untreated wastewater overflows, secure water sources and reliable treatment mechanisms are critical for mitigating the risk of contaminants entering the public water supply, and the capacity of stormwater conveyance systems determines where, and for how long, areas of the district may be in flood.

OPTION 2		MOST LIKELY	
MAINTAIN/SUSTAIN CURRENT EFFORTS			
<p>A wide range of initiatives (as set out in the Climate and Biodiversity Action Plan) are already underway to address the climate and biodiversity emergency declared for the district. Many of these initiatives involve partnering with the community to achieve better environmental outcomes – and will continue as planned. This option focusses on initiatives that require specific investment in infrastructure to make further progress on the Climate and Biodiversity Action Plan outcomes as well as progressing the development of a blue-green network plan in partnership with Kāi Tahu. The pace at which these activities occur is driven by capacity to delivery and funding availability.</p>			
Responds to these significant issues:			
Climate emergency		MODERATE IMPACT	
Delivers on these objectives:			
Improve environmental impacts		MODERATE IMPACT	
Prevent contaminants from entering environment		MODERATE IMPACT	
Reduce emissions and resource extraction		MODERATE IMPACT	
Implications:			
<p>This option will sustain Council's contribution to biodiversity regeneration and global emission reduction within the district, ensuring the current situation does not worsen as the impact of a warming climate become more pronounced. Some improvement or change opportunities will be delivered later than optimal or desired as Council seeks to balance competing demands for investment.</p>			

OPTION 3	
ACCELERATE CURRENT EFFORTS	
<p>This option delivers the same programme of interventions but on an accelerated timetable.</p>	
Responds to these significant issues:	
Climate emergency	HIGH IMPACT
Delivers on these objectives:	
Improve environment impacts	HIGH IMPACT
Prevent contaminants from entering environment	MODERATE IMPACT
Reduce emissions and resource extraction	HIGH IMPACT
Implications:	
<p>With this option the benefits associated with environmental regeneration and emissions reduction will be felt by the community on a more timely basis. Implementing the option will require more funding, sooner – this means that Council would need to scale back investment in other areas.</p>	

KEY INITIATIVES ASSOCIATED WITH THE MOST LIKELY SCENARIO

○ UNKNOWN³⁴

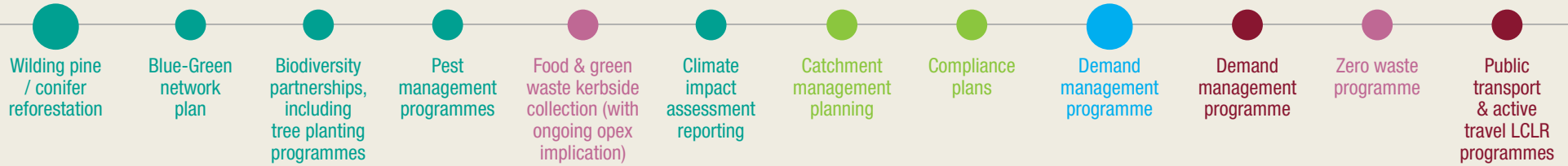
● <\$5M

● \$5-20M

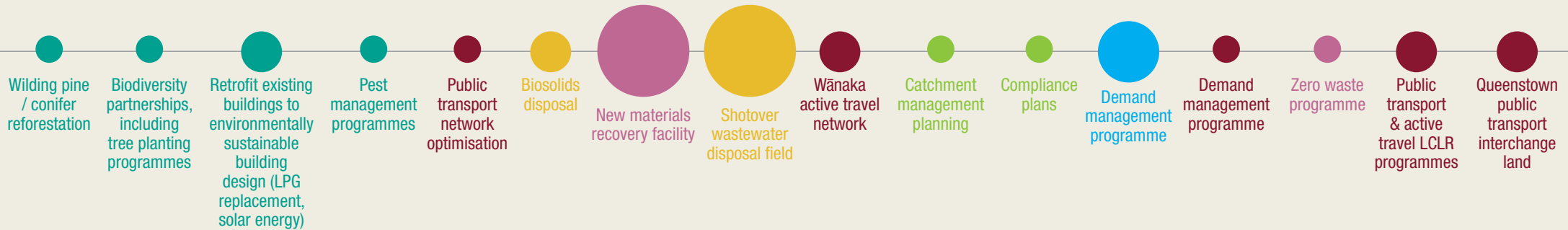
● \$20-50M

● >\$50M

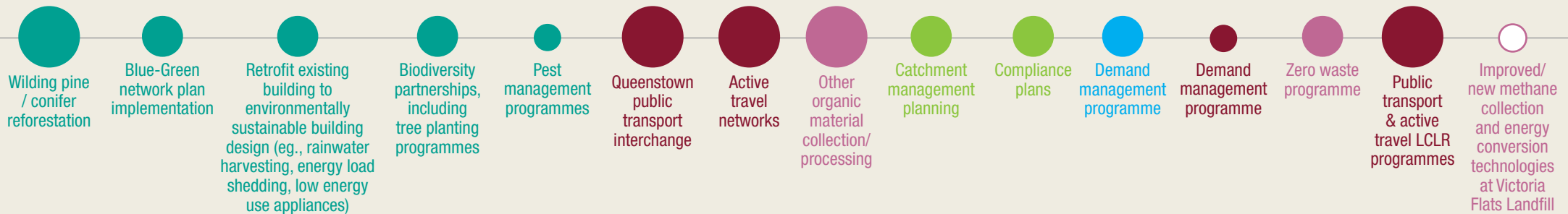
SHORT-TERM (Y1-3)



MEDIUM-TERM (Y4-10)



LONG-TERM (Y11-30)



SOCIAL INFRASTRUCTURE TRANSPORT STORMWATER WASTEWATER WATER SUPPLY WASTE MULTIPLE ACTIVITIES

³⁴ Initiatives where Council does not yet have a readily available indication of scale or cost.

03

Well-designed neighbourhoods with social infrastructure that provides for everyday needs

Having places for people to connect is important for growing strong, healthy and inclusive communities. It provides opportunities to bring different groups of people together, contributing to community identity, social integration, a sense of belonging and the desirability of a place. A connected and healthy community is one that can live, work and play together.

The everyday needs of the community need to be considered upfront when new neighbourhoods are designed. Increasing densities and the redevelopment of sites can often make it difficult for social infrastructure to be provided retrospectively. This highlights the need for areas to be planned in their entirety to ensure the everyday needs of the community are met close to home.

The Spatial Plan aims to create more connected neighbourhoods and improve access to the everyday needs of communities in a number of ways. The consolidated approach to managing growth concentrates population in settlements and neighbourhoods of a scale that can sustain more local services, such as parks and community spaces. It will also support improved public transport services. The plan also proposes several new centres that will improve access to everyday needs by walking and cycling for many residents.

The district is made up of a combination of larger centres, supporting settlements, self-contained villages, and small remote settlements. Each of these areas experience a range of social infrastructure provision, with some of their needs met locally and some requiring a short or longer bus ride or drive. Supplying a consistent level of service for a population spread over such a large geographical area presents a challenge. It is not always achievable to deliver social infrastructure to the same level, particularly for existing neighbourhoods. However, Council should aspire to achieve this in key development areas and where significant intensification is planned in existing settlements where possible.

Council has developed a service model that provides a guide on the number and type of facilities that should be available in communities of different sizes. The model combines settlement population size with a hierarchy of travel means to access social infrastructure, and provides a graphical way of showing the tipping points where a settlement is large enough to warrant its own local asset or service.

Many existing settlements already have access to social infrastructure consistent with this model. The district is also well provisioned with natural features that complement the social infrastructure provided by Council, and others, and is readily accessible to all. The amount and quality of natural reserves and open spaces available to the community are high compared to many other urban centres across Aotearoa. Many people move to this region for this experience and Council proactively works, individually and with a network of partners, to maintain a grow these experiences.

Four principal options have been identified that build on each other, demonstrating an increasing extent of implementation of the service model. The most likely scenario is based on applying the model to key development areas over the next 30 years and existing settlements where this is practical.

		<2,500 people	2,500 – 6,250 people	6,250 – 12,500 people	> 12,500 people
Parks	Local park				
	Community park				
	Destination park				
Sports fields	Sportsground park (community)				
	Sportsground park (premier)				
Sports and recreation facilities	Indoor courts	single	single	multiple	multiple
	Outdoor courts	single	single	single	multiple
	Local pool				
	Aquatic facility				
Community spaces	Community centre	small hall	small hall	community centre	community centre
	Event and function centre				
	Local library service				
	Destination library				

<15 minute walk
 <15 minute bus ride (or drive)
 15-30 minute bus ride (or drive)
 >30 minute bus ride (or drive)

OPTION 1

MAKE BEST USE OF EXISTING ASSETS

Council will maintain existing facilities and spaces and invest in improving the capacity and quality of existing social infrastructure. This option involves getting the most value out of existing assets, without extending the network of social infrastructure over time.

Responds to these significant issues:

Growth	LOW IMPACT
--------	------------

Infrastructure deficit	LOW IMPACT
------------------------	------------

Delivers on these objectives:

Opportunities for increased activity and connection	LOW IMPACT
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Diverse, fit-for-purpose facilities	LOW IMPACT
-------------------------------------	------------

Meet everyday needs within a short walk, cycle or bus ride	LOW IMPACT
--	------------

Plan for growth	LOW IMPACT
-----------------	------------

Implications:

Social infrastructure will not respond effectively to growth and this will likely have flow on implications for community wellbeing, housing availability and affordability.

OPTION 2

PROTECT THE NETWORK FOR FUTURE DEVELOPMENT

In addition to making the best use of existing social infrastructure, Council will also protect the ability to apply the service model in key development areas in the future. This means Council will invest in early design and land acquisitions for social infrastructure in key development areas.

Responds to these significant issues:

Growth	LOW - ENABLER
--------	---------------

Infrastructure deficit	LOW - ENABLER
------------------------	---------------

Delivers on these objectives:

Opportunities for increased activity and connection	LOW IMPACT
---	------------

Diverse, fit-for-purpose facilities	LOW IMPACT
-------------------------------------	------------

Meet everyday needs within a short walk, cycle or bus ride	LOW IMPACT
--	------------

Plan for growth	LOW IMPACT
-----------------	------------

Implications:

While the ability to improve services in the future is protected, the implications associated with not having everyday needs met locally will still be experienced by the community.

OPTION 3 MOST LIKELY

DELIVER GOOD PRACTICE SOCIAL INFRASTRUCTURE FOR KEY DEVELOPMENT AREAS

In addition to making the best use of existing social infrastructure and protecting the network for future development, Council will actively work towards delivering social infrastructure in line with the service model for key development areas, but this may lag housing development. Council will also work to retrofit the service model to existing settlements, but only where it is practical to do so.

Responds to these significant issues:

Growth	MODERATE IMPACT
Infrastructure deficit	MODERATE IMPACT

Delivers on these objectives:

Opportunities for increased activity and connection	MODERATE IMPACT
Diverse, fit-for-purpose facilities	MODERATE IMPACT
Meet everyday needs within a short walk, cycle or bus ride	HIGH IMPACT
Plan for growth	MODERATE IMPACT

Implications:

This option ensures that good practice social infrastructure is built into planning and delivered for high growth areas and also provides for an increase in social infrastructure for some existing settlements. While not giving all residents an ideal level of access to social infrastructure, this provides an increase in the proportion of residents who would experience a good practice level of access.

OPTION 4

DELIVER GOOD PRACTICE SOCIAL INFRASTRUCTURE FOR ALL SETTLEMENTS

In addition to making the best use of existing social infrastructure and protecting the network for future development, Council will actively work towards delivering the service model for all settlements.

Responds to these significant issues:

Growth	HIGH IMPACT
Infrastructure deficit	HIGH IMPACT

Delivers on these objectives:

Opportunities for increased activity and connection	HIGH IMPACT
Diverse, fit-for-purpose facilities	HIGH IMPACT
Meet everyday needs within a short walk, cycle or bus ride	HIGH IMPACT
Plan for growth	HIGH IMPACT

Implications:

All communities would have improved social infrastructure, but this would come at considerable upfront and intergenerational cost with costs being disproportionately borne by smaller communities.

KEY INITIATIVES ASSOCIATED WITH THE MOST LIKELY SCENARIO

○ UNKNOWN³⁵

● <\$5M

● \$5-20M

● \$20-50M

● >\$50M

SHORT-TERM (Y1-3)

● Resurfacing QEC outdoor courts

● New playgrounds across the district

● New sports fields across the district

● New public toilets across the district

● Reserve development planning – Arrowtown, Widgeon Place

MEDIUM-TERM (Y4-10)

● New sports fields across the district

● New playgrounds across the district

● New public toilets across the district

● Community Park upgrades – Arrowtown skatepark, Luggate outdoor courts

● Destination Park upgrades – Queenstown Gardens

● Reserve development planning – Kingston Lakeside, Warren Park

● Reserve development implementation – Wānaka lakefront stage 4

LONG-TERM

● New Wānaka library

● Wānaka Pool extension

● Southern Corridor integrated hub

● Ballantyne Road sports hub development plan

● Wānaka Recreation Centre development plan

● QEC development plan

● New Frankton library

● New Queenstown library

● Mt Iron infrastructure development plan

○ Reserve development implementation (Arrowtown, Widgeon Place, Kingston Lakeside, Warren Park)

SOCIAL | INFRASTRUCTURE | TRANSPORT | STORMWATER | WASTEWATER | WATER SUPPLY | WASTE | MULTIPLE ACTIVITIES

³⁵ Initiatives where Council does not yet have a readily available indication of scale or cost.

Servicing of key development areas

There are a number of key development areas within the district. Significant investment in infrastructure is required over the next 30 years to unlock these areas for the district's rapidly growing population. The sequence, pace, and capacity of infrastructure provided to service these areas will be a key determinant of the quantum and locality of new housing released within the district.

The Queenstown Lakes Spatial Plan has been developed to provide a long-term framework for managing growth. It directs growth in a way that will make positive changes to the environment, housing, access to jobs and opportunities, and the wellbeing of the community and the experience of visitors. The next iteration of the Spatial Plan is being developed, along with a programme of structure planning for key development areas (as identified in this strategy).

While planning for these key development areas continues to take shape, Council has and will continue to invest in the capacity and performance of its centralised infrastructure, for example major capacity upgrades at the district's two major wastewater treatment plants (Project Shotover and Project Pure), in preparation for future projected growth.

Through the Long Term Plan 2024-2034, Council plans to invest in the critically enabling infrastructure and new schemes required to unlock the identified key development areas. It is important that other utility providers also invest in the new assets and services required to meet projected growth in these areas.

Whakatipu

Key development areas extend to the west, south, and east of the established Frankton metropolitan area. Development of an integrated investment programme is a priority action for 2024/25 to determine the optimal mix and sequence of infrastructure interventions across these areas.



QUEENSTOWN TO FRANKTON CORRIDOR	
ZONED CAPACITY:	5,000 – 7,000 dwellings
	Moderate potential for more zoned capacity/ zone changes
CERTAINTY OF SERVICING SOLUTION:	MODERATE/HIGH
KEY COUNCIL SERVICING CONSTRAINTS:	Wastewater reticulation

TE PŪTAHI EASTERN CORRIDOR	
ZONED CAPACITY:	3,000 – 3,400 ³⁶
	Moderate potential for more zoned capacity/ zone changes
CERTAINTY OF SERVICING SOLUTION:	MODERATE
KEY COUNCIL SERVICING CONSTRAINTS:	Water intake, storage, reticulation Wastewater reticulation, treatment Stormwater management Social infrastructure

TE KIRIKIRI FRANKTON	
ZONED CAPACITY:	6,600 – 7,400 dwellings
	Moderate potential for more zoned capacity/ zone changes
CERTAINTY OF SERVICING SOLUTION:	HIGH
KEY COUNCIL SERVICING CONSTRAINTS:	Water storage, firefighting flows Wastewater reticulation

TE TAPUAE SOUTHERN CORRIDOR	
ZONED CAPACITY:	4,500 dwellings
	Significant potential for more zoned capacity/ zone changes
CERTAINTY OF SERVICING SOLUTION:	LOW
KEY COUNCIL SERVICING CONSTRAINTS:	Water treatment, storage, reticulation Wastewater reticulation, treatment, disposal Stormwater reticulation, disposal Social infrastructure

³⁶ This includes the capacity that forms part of the Te Pūtahi Ladies Mile Plan Variation

Upper Clutha

Key development areas within the Upper Clutha span the central, western, and southern areas of Wānaka, as well as the emerging development area of Hāwea (following a recent extension to the Urban Growth Boundary). Council's structure planning will determine a high-level integrated infrastructure servicing approach, following which detailed integrated infrastructure investment programmes will be developed.

LAKE HĀWEA

ZONED CAPACITY:

6,400

Moderate potential for more zoned capacity/
zone changes

CERTAINTY OF SERVICING SOLUTION:

MODERATE/HIGH

KEY COUNCIL SERVICING CONSTRAINTS:

Wastewater reticulation, treatment, disposal

Water intake, reticulation, +/- storage

Land for social infrastructure

SOUTHERN / WESTERN WĀNAKA

ZONED CAPACITY:

1,000 – 1,900 dwellings

Significant for more zoned capacity/zone
changes

CERTAINTY OF SERVICING SOLUTION:

LOW / MODERATE

KEY COUNCIL SERVICING CONSTRAINTS:

Water intake, storage, reticulation

Wastewater reticulation

WĀNAKA CENTRAL TO THREE PARKS

ZONED CAPACITY:

4,600 – 7,000 dwellings

Moderate to significant potential for more
zoned capacity/zone changes

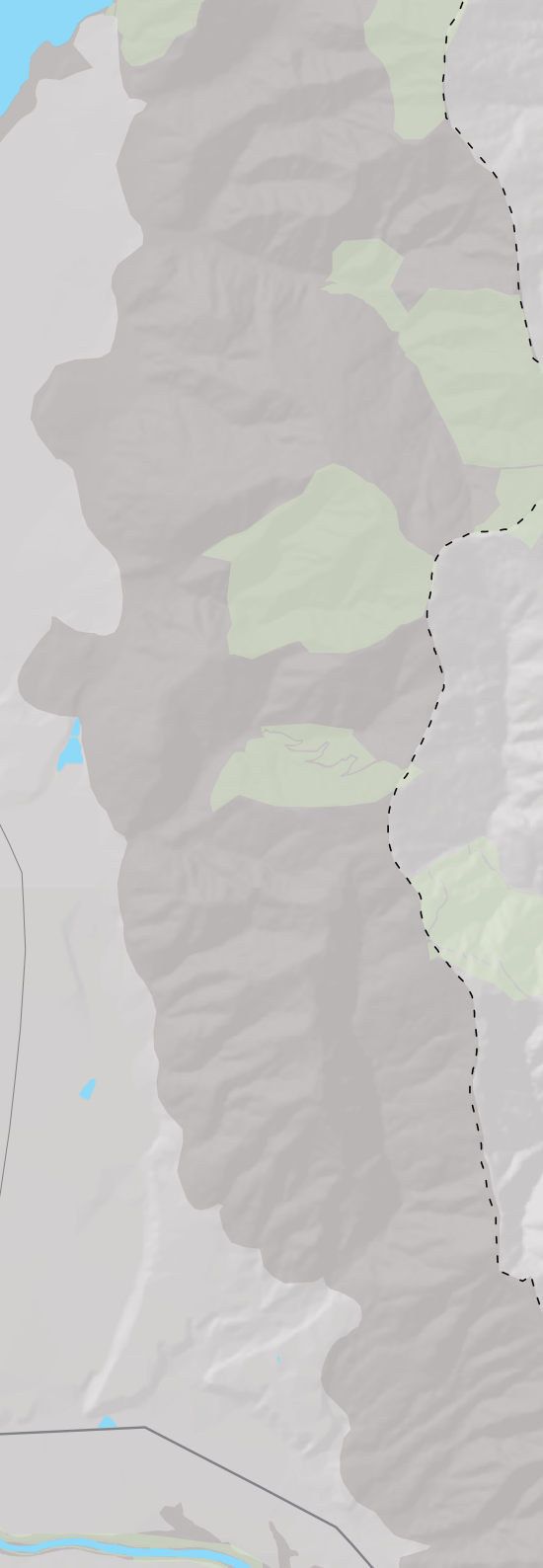
CERTAINTY OF SERVICING SOLUTION:

MODERATE

KEY COUNCIL SERVICING CONSTRAINTS:

Water intake, storage, reticulation

Wastewater reticulation



Five principal options for servicing of key development areas have been identified. Over the next 30 years, Council expects to adopt a servicing approach that balances the potential for development with predicted population growth and any constraints associated with the size and operations of infrastructure. Priority will be given to infrastructure types that must precede development (e.g. three waters), with other infrastructure types following as and when development or funding enable (e.g. social infrastructure, active transport).

Although the options identified involve elements of a more traditional ‘predict and provide’ approach to infrastructure servicing, adaptive plans and agile solutions will be favoured wherever possible; ensuring Council remains responsive to inevitable changes in population projections and demand/usage patterns.

OPTION 1

ON DEMAND, DEVELOPMENT-LED SERVICING

This option relies on developers to implement infrastructure that supports individual developments to a standard set by Council. The cost and delivery of the infrastructure development is the responsibility of the developer.

Responds to these significant issues:

Rapid and sustained population growth

MODERATE IMPACT

Delivers on these objectives:

Nil

Implications:

While this option may appear to address requirements for individual settlements, it would lead to an overall inefficient network that is difficult and expensive for Council to manage and maintain into the future. As development is often undertaken on a piecemeal basis, this means that individual developments might not be of a size to trigger specific requirements, but in aggregate they might; this has led to a growing infrastructure deficit.

OPTION 2

SERVICE EXISTING ZONED CAPACITY ONLY

This option involves extracting the maximum possible effectiveness from existing infrastructure as the population grows within existing zoned areas. Investment will be made in demand management initiatives and then optimisation of existing infrastructure. The success of this option will be dependent on the community being motivated to make material changes to the way they interact with infrastructure services.

Responds to these significant issues:

Growth	LOW IMPACT
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Delivers on these objectives:

Opportunities for increased activity and connection	LOW IMPACT
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Diverse, fit-for-purpose facilities	LOW IMPACT
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Meet everyday needs within a short walk, cycle or bus ride	LOW IMPACT
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Plan for growth	LOW IMPACT
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Optimise infrastructure servicing	LOW IMPACT
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Implications:

It is unlikely that increasing infrastructure servicing capacity to currently zoned levels alone will meet the needs of the district's growing population. Housing development, particularly large-scale development that offers economies of scale, will be constrained by the lack of supporting infrastructure – exacerbating the current challenges of housing availability and affordability. Additionally, the capacity increases required within existing schemes will be unable to leverage the infrastructure that would be created to support these development areas, potentially resulting in a higher servicing cost per user relative to more growth-enabling options.

OPTION 3

PROTECT FOR FUTURE DEVELOPMENT ONLY

This option is about preserving options into the future only, and is an important consideration now as private development rapidly encroaches on land that could be used to develop key infrastructure. This option is still dependent on 'service existing zoned capacity only' to manage demand and service levels.

Responds to these significant issues:

Growth	LOW IMPACT
--------	------------

Delivers on these objectives:

Opportunities for increased activity and connection	LOW IMPACT
---	------------

Diverse, fit-for-purpose facilities	LOW IMPACT
-------------------------------------	------------

Meet everyday needs within a short walk, cycle or bus ride	LOW IMPACT
--	------------

Plan for growth	LOW IMPACT
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Optimise infrastructure servicing	LOW IMPACT
-----------------------------------	------------

Implications:

While the ability to deliver infrastructure for these development areas is preserved into the future, without provision of the infrastructure itself, the implications of this option remain the same as in Option 1.

SERVICE AREAS TO PROJECTED GROWTH LEVELS AND / OR OPTIMAL SERVICING CAPACITY

The maximum capacities that could be achieved within these development areas, combined with potential for infill and redevelopment of established areas, is greater than the demand associated with the district’s projected population growth over the next 30 years. This option seeks to strike a balance between ensuring sufficient development capacity is serviced to keep pace with the needs of the growing population, without investing too far ahead of where and when growth occurs. The option recognises that there are certain infrastructure types that must lead development, and some that can lag – and focusses on accelerating critically enabling infrastructure to unlock the identified areas at a pace that is aligned with the increasing demand for housing within the district. It also seeks to preserve the necessary land and permissions required to develop other supporting infrastructure as and when funding allows or demand requires.

In implementing this option, Council will seek to work closely with developers, leveraging their capability and funding to provide supporting infrastructure in a way that is consistent with the overarching servicing strategy to be developed as part of this option. It also requires Council to investigate and establish new funding and financing models to make the delivery of required infrastructure achievable and affordable to the community.

Responds to these significant issues:		Implications:
Growth	MODERATE IMPACT	
Infrastructure deficit	MODERATE IMPACT	
Delivers on these objectives:		<p>Over the next 30 years, infrastructure servicing constraints on these development areas will markedly reduce – aligning the timing, location and capacity of infrastructure across these areas to best match demand growth. The timing and sequence of these infrastructure interventions may not always align with the development community’s preferred timelines or approaches, potentially constraining the ability and willingness to develop in the short to medium term.</p> <p>The indicative staging of key initiatives is reflective of readiness to advance development (status of structure planning/zoning, certainty of solution, ability to fund and deliver, etc). There will continue to be short-term constraint on development of these areas while the necessary planning, design, and consenting activities required to shift these areas into a high state of readiness are advanced.</p>
Opportunities for increased activity and connection	MODERATE IMPACT	
Diverse, fit-for-purpose facilities	MODERATE IMPACT	
Meet everyday needs within a short walk, cycle or bus ride	HIGH IMPACT	
Plan for growth	MODERATE IMPACT	
Optimise infrastructure servicing	MODERATE IMPACT	

OPTION 5

SERVICE AREAS TO MAXIMUM POSSIBLE CAPACITY

The maximum capacities that could be achieved within these development areas, combined with potential for infill and redevelopment of established areas, is greater than the demand associated with the district's projected population growth over the next 30 years. In this option, supporting infrastructure will be developed to support an area's maximum possible capacity. For this option to be feasible, one development area would need to be advanced at a time, consolidating most growth to a single area until servicing capacity is utilised, following which the next development area would be advanced. In practice, some elements of this location-based, staged approach to servicing development areas are reflected in Option 3 as a result of the differing levels of certainty and readiness associated with developing and servicing the respective areas.

Responds to these significant issues:

Growth	HIGH IMPACT
Infrastructure deficit	LOW IMPACT

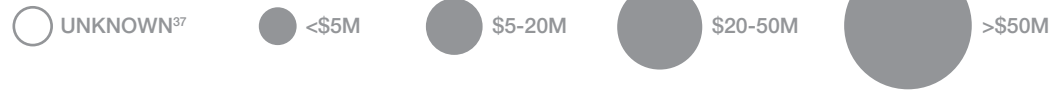
Delivers on these objectives:

Opportunities for increased activity and connection	MODERATE IMPACT
Diverse, fit-for-purpose facilities	MODERATE IMPACT
Meet everyday needs within a short walk, cycle or bus ride	MODERATE IMPACT
Plan for growth	HIGH IMPACT
Optimise infrastructure servicing	HIGH IMPACT

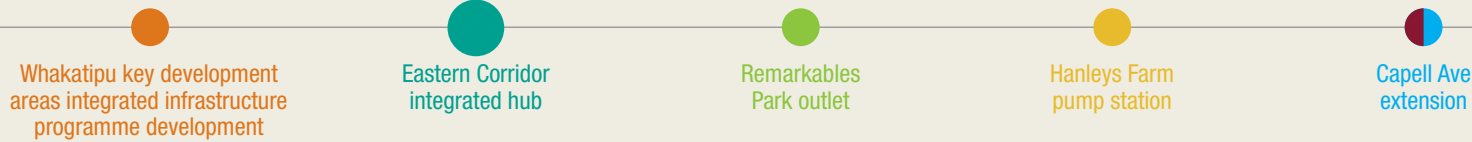
Implications:

This option is dependent on the growing population consolidating in a designated development area. The option risks oversizing infrastructure, resulting in expenditure levels that are unaffordable for the community and sub-optimal asset performance.

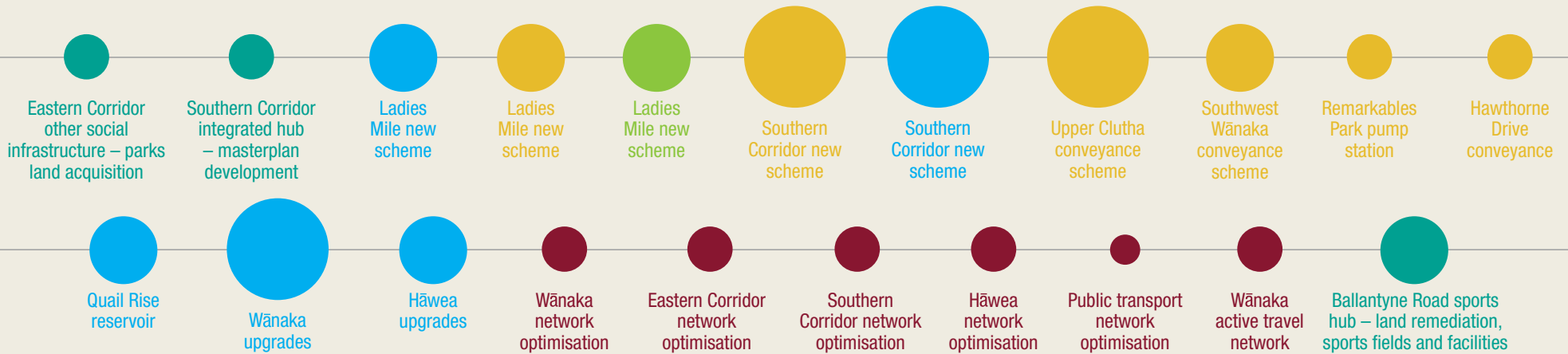
KEY INITIATIVES ASSOCIATED WITH THE MOST LIKELY SCENARIO



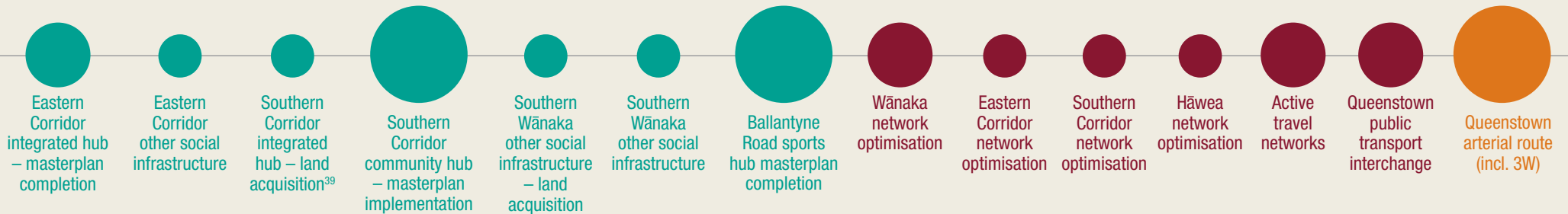
SHORT-TERM (Y1-3)



MEDIUM-TERM (Y4-10)



LONG TERM (Y11+)³⁸



SOCIAL INFRASTRUCTURE TRANSPORT STORMWATER WASTEWATER WATER SUPPLY WASTE MULTIPLE ACTIVITIES

³⁷ Initiatives where Council does not yet have a readily available indication of scale or cost.

³⁸ Once enabling infrastructure for key development areas is established, continued investment is then contemplated through significant decisions for the respective infrastructure activities/services e.g. ongoing water supply upgrades to maintain service levels within growth areas is addressed as part of the 'investing in three waters schemes' significant decision and associated options.

³⁹ No expenditure is included for other social infrastructure in key growth areas as it is assumed that this will be provided by developers through reserve contributions.

Investing in existing three waters schemes

In addition to the growth anticipated in key development areas, the demand for three waters servicing within existing and imminently planned schemes will continue to increase over time. Council will continue to work with local communities to address both infrastructure needs and the funding and recovery mechanisms to support significant shifts in existing and historic levels of service, which have been barriers to community uptake in the past. As part of prioritising these investments Council will also work with Kāi Tahu to give effect to Te Mana o te Wai, having regard to the cultural mauri of water as well as its functional protection.

Council has made considerable investment in its existing networks and services. Funding for the maintenance and renewal of current assets has remained a top priority, along with technology improvements to lift service performance, and capacity upgrades to maintain service levels in line with growth.

New schemes and services have been progressively introduced across the district to ensure the district's growing population has access to high-quality infrastructure that protects and respects the natural environment. Notably, Luggate has been connected to Wānaka's wastewater treatment plant, the Cardrona settlement now has new reticulated wastewater and water supply schemes, and arrangements are in place to introduce the same for Kingston.

A key consideration for Council in giving effect to this decision will be how and where wastewater is treated and disposed across the district. Historically and where realistic, Council has pursued a strategic approach of centralising wastewater management; this has resulted in two major wastewater treatment and disposal sites within the district (Project Shotover and Project Pure), accompanied by investment in modern localised facilities for Cardrona (operational) and Kingston (planned) where it is not feasible to connect to a central system. As growth within the district continues, and consents for existing operations come up for renewal, Council will need to reassess this predominantly centralised approach to wastewater management – either reconfirming and expanding the existing arrangements, or pursuing additional treatment and disposal locations within the district. An adaptive planning pathways approach is being deployed to understand and confirm how Council can best manage the additional wastewater volumes and

increasing standards into the future; this work will be completed in close collaboration with mana whenua, and will influence the nature and timing of major investment in wastewater infrastructure beyond the 2024-2034 Long Term Plan.

Another key influence on this decision is the level of demand for treated water. The district's water usage rates are amongst the highest in New Zealand. Council must ensure water usage is efficient and sustainable in order to support future generations within permitted abstraction levels. Reducing per person demand will enable Council to reduce or defer costly and carbon-intensive network capacity increases, and demonstrates respect for the lakes, rivers, and aquifers from which freshwater is abstracted. Reducing indoor water use also has the benefit of reducing wastewater flows for conveyance, treatment, and discharge back to the natural environment.

Four principal options for ongoing investment in existing three waters schemes have been identified. All options identified are underpinned by an assumption that Council will continue to invest in the maintenance and renewal of existing assets at a level that optimises their performance and useful life. Over the next 30 years, Council expects to drive more sustainable infrastructure service provision through the introduction of demand management and other efficiency-based initiatives. In addition, ongoing investment in asset-based solutions that increase network capacity and service performance will be made in line with projected growth, and the breadth of serviced areas will be expanded through the extension of established schemes.

OPTION 1

MAINTAIN EXISTING ASSETS AND INVEST ONLY IN LOW/NO BUILD INFRASTRUCTURE SOLUTIONS

This option seeks to primarily respond to growing demand for service through low/no build solutions only. It recognises that there are efficiencies and alternative management approaches that can be deployed to mitigate the effects of growth – but relying on these approaches alone comes with considerable risk and limitations.

The key focus of this option is to implement a water demand management programme across the district, with a target of reducing average water consumption per person per day to below 300L by 2031 (a 40% reduction from 2020 usage levels) – bringing the district in line with the national average and providing a more sustainable water supply service for a growing population. Even with the success of water demand management, growth within the district will continue to place pressure across the three waters networks. A focus on inflow and infiltration will be required to help preserve wastewater network capacity. Stormwater hazard mapping to identify areas at risk of flooding will continue, enabling affected property owners to be prepared and supporting future planning/consenting decisions with the most up-to-date information.

Responds to these significant issues:

Nil

Delivers on these objectives:

Sustainable infrastructure	MODERATE IMPACT
Reduce emissions and resource extraction	LOW IMPACT

Implications:

While demand management is a critical component of providing sustainable three waters services into the future, pursuing a low/no build only pathway for existing schemes will rapidly constrain growth and/or result in a significant deterioration in service levels over time as growth erodes available capacities. Compliance with standards and regulations will become increasingly difficult, and it is unlikely environmental protections will be provided to a level reasonably expected by residents, mana whenua, and regulators. It will not be feasible to extend current scheme boundaries to connect adjacent settlements or facilitate further new development.

OPTION 2

MAINTAIN EXISTING AND BUILD TO MEET DEMAND

This option provides infrastructure assets and services that support an extrapolation of current network demands in line with projected population growth. Under this option, major capacity increases across water supply and wastewater networks will continue over the next 30 years, and the extent of Council's stormwater network will continue to expand in response to more houses, roads, and other built environment activities. Demand management and behaviour change initiatives will be deprioritised in favour of accelerating built capacity solutions.

Responds to these significant issues:		Implications:
Growth	HIGH IMPACT	
Increasing standards	LOW IMPACT	
Resilience	MODERATE IMPACT	
Infrastructure deficit	MODERATE IMPACT	
Delivers on these objectives:		
Protect people from harm	MODERATE IMPACT	
Leverage investment	MODERATE IMPACT	
Sustainable infrastructure	LOW IMPACT	
Prevent contaminants from entering environment	MODERATE IMPACT	
Optimise infrastructure servicing	MODERATE IMPACT	
Natural hazard response and recovery	MODERATE IMPACT	

Major infrastructure capacity increases will accommodate high levels of growth within existing schemes; however, these infrastructure solutions will be costly and carbon intensive, challenging affordability and diverging from environmental outcomes and objectives. Consenting and other necessary planning permissions required for ongoing operations may become increasingly difficult.

OPTION 3

MAINTAIN EXISTING AND MEET DEMAND THROUGH A BALANCE OF BUILT AND NON-BUILT SOLUTIONS

This option seeks to sustainably support growth and maintain service levels within existing scheme boundaries by investing in a balanced programme of built and non-built initiatives. Over the next ten years capacity increases will be made to respond to any existing infrastructure deficits and provide for projected demand growth, and efficiency-based initiatives will also be pursued to change demand patterns on network over time – meaning future capacity upgrades can be of a smaller scale or later than would otherwise be required. The scope of this option is confined to established scheme boundaries; Council does not invest in infrastructure to connect adjacent areas (established settlements or new developments) to existing networks.

Responds to these significant issues:		Implications:
Growth	HIGH IMPACT	
Increasing standards	MODERATE IMPACT	
Resilience	MODERATE IMPACT	
Climate emergency	LOW IMPACT	
Infrastructure deficit	HIGH IMPACT	
Delivers on these objectives:		
Protect people from harm	MODERATE IMPACT	
Leverage investment	MODERATE IMPACT	
Sustainable infrastructure	HIGH IMPACT	
Prevent contaminants from entering environment	HIGH IMPACT	
Reduce emissions and resource extraction	LOW IMPACT	
Optimise infrastructure servicing	HIGH IMPACT	
Natural hazard response and recovery	MODERATE IMPACT	

Established schemes will continue to attract investment that maintains or improves service levels, alongside an expectation that efficiency-based initiatives make better use of existing and new assets. Settlements that are adjacent to established or planned schemes (in particular, the existing townships of Kingston and Luggate) will remain dependent on alternative arrangements.

MAINTAIN EXISTING, MEET DEMAND THROUGH A BALANCE OF BUILT AND NON-BUILT SOLUTIONS, AND EXTEND CURRENT NETWORKS TO INCREASE BREADTH OF SERVICE

Council has made significant investment in lifting the performance of existing schemes, and development of new schemes, to continuously increase the availability of high-quality three waters services across the district. This option continues to invest in these schemes as outlined in Option 3 (i.e. a balanced programme of built and efficiency-based initiatives), but provides for their expansion to leverage existing infrastructure to further increase the number of existing and new residents that can be supported by Council's three waters services. In addition to the improved public health and environmental standards that can be achieved through scheme expansions, the fixed costs associated with scheme operations can be spread across a broader user base, providing overall affordability benefits.

Possible additions to this option are the provision of reticulated wastewater schemes for Glenorchy and Gibbston. These would be a new standalone schemes as there are no existing Council wastewater services in the area to leverage.

Responds to these significant issues:		Implications:
Growth	HIGH IMPACT	
Increasing standards	HIGH IMPACT	
Resilience	MODERATE IMPACT	
Climate emergency	LOW IMPACT	
Infrastructure deficit	HIGH IMPACT	
Delivers on these objectives:		
Protect people from harm	HIGH IMPACT	
Leverage investment	MODERATE IMPACT	
Sustainable infrastructure	HIGH IMPACT	
Prevent contaminants from entering environment	HIGH IMPACT	
Reduce emissions and resource extraction	LOW IMPACT	
Optimise infrastructure servicing	HIGH IMPACT	
Natural hazard response and recovery	MODERATE IMPACT	

Expanding existing networks will require upfront investment in expensive and carbon-intensive infrastructure; however, overtime the environmental and public health benefits, combined with the broader user base to spread fixed operational costs across, could outweigh the upfront investment required. Proposed network extensions will be subject to rigorous analysis and community consultation before confirming.

KEY INITIATIVES ASSOCIATED WITH THE MOST LIKELY SCENARIO

○ UNKNOWN⁴⁰

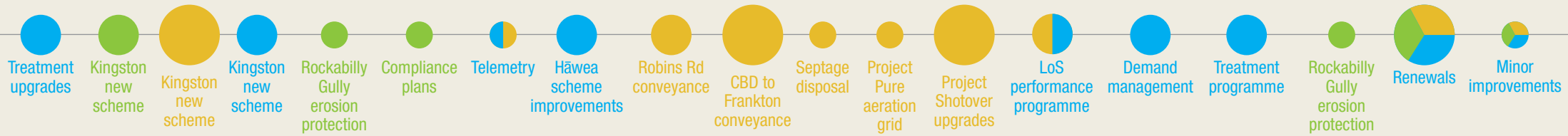
● <\$5M

● \$5-20M

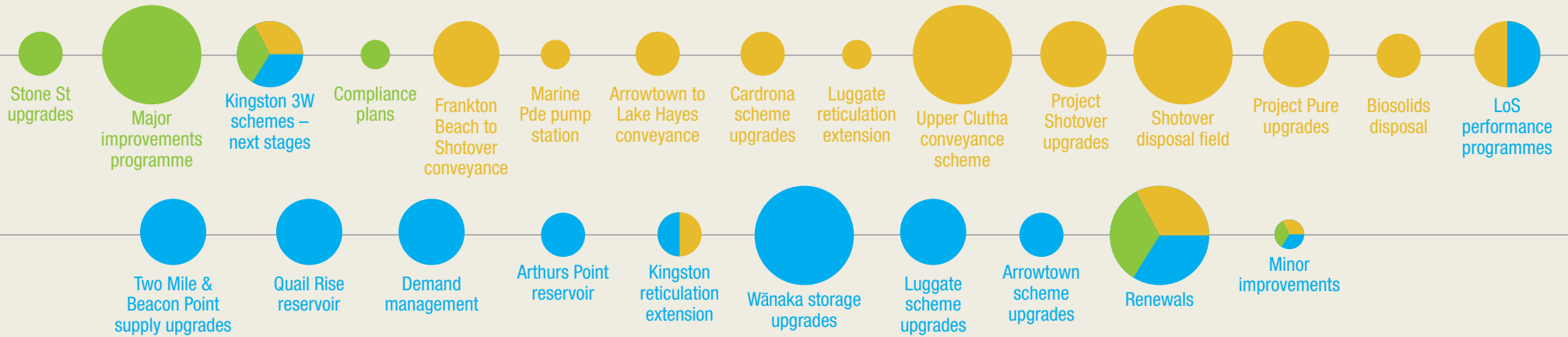
● \$20-50M

● >\$50M

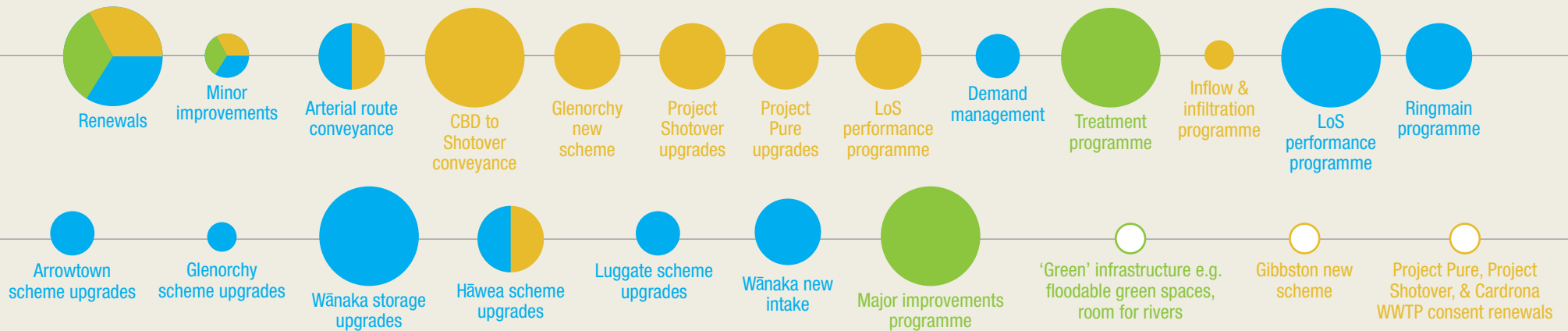
SHORT-TERM (Y1-3)



MEDIUM-TERM (Y4-10)



LONG-TERM (Y11+)



⁴⁰ Initiatives where Council does not yet have a readily available indication of scale or cost.

Providing for the transportation network's capacity, functionality and transformation

The delivery of an integrated transport network that focusses on moving people and goods is critical to sustainably providing for the district's growth and achieving the outcomes of the Spatial Plan. The district's transportation assets and services are provided in partnership with the New Zealand Transport Agency (NZTA) and Otago Regional Council (ORC); this collective partnership is known as Way To Go (W2G), and recognises all three agencies have an important role to play in realising the district's transport and broader outcomes.

The W2G partnership continues to collectively and comprehensively plan for the future needs of the district's transportation network (see Way to Go for further information). Investment across the district is underway for transportation initiatives that give effect to the Queenstown Lakes Spatial Plan. These major upgrades and service expansions are supported by Council's ongoing investment in the transport network's maintenance, renewal and targeted low-cost improvement programmes.

Investment in Whakatipu's transport network is well advanced with a low-cost frequent public transport service operational, recently completed upgrades to primary active travel routes and the Queenstown CBD, construction of the first stage of Queenstown's arterial bypass route underway, the planned New Zealand Upgrade Programme works package on State Highway 6 and 6A, and a full suite of detailed planning documents for the ongoing evolution of the area's transport networks and services.

Planning for the Upper Clutha network is rapidly advancing, with particular emphasis on the development of business cases for an Upper Clutha public transport service and the optimisation of Wānaka's transport network. A range of network safety improvements have been delivered, along with a number of high-quality primary active travel connections throughout Wānaka.

Four principal options for investment in the transport network’s capacity, functionality and transformation have been identified. Over the next 30 years, Council expects to achieve targeted network expansions and provide more transport choices for people. The most likely scenario assumes that W2G partner agencies will continue to invest in the district’s state highways, transportation networks, and public transport services in a way that is consistent with agreed plans and arising network needs. Council will continually collaborate with, and advocate to, the W2G partners to ensure future investment plans remain aligned and right for the district.

The investment priorities of W2G partners are guided by the Government Policy Statement (GPS) on Land Transport. Changes to the GPS directly influence the level of funding support Council’s transportation investments attract; this means that, while the initiatives defined in the most likely scenario are all expected to advance over the life of this strategy, the timing of delivery will continue to be realigned to current funding priorities to ensure the greatest level of funding assistance can be uplifted for the district.

OPTION 1

MAKE BEST USE OF EXISTING ASSETS

This low-build option involves extracting the maximum possible effectiveness from the existing asset base (do more for the same). Investment will be made in travel demand management initiatives and optimisation of established transportation networks and services. The success of this option will be dependent on W2G partners also investing in the optimisation of their respective assets and services (in particular ORC’s public transport service), and the community being motivated to make material changes to the way they interact with transportation networks and services.

Responds to these significant issues:

Growth	LOW IMPACT
Climate emergency	LOW IMPACT

Delivers on these objectives:

Sustainable infrastructure	LOW IMPACT
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Implications:

Extracting the most from Council’s existing assets and services will support the more effective use of the network; however, this alone will not deliver the level of capacity and functionality required to keep pace with growth. As a result, travel times are expected to worsen, driving up emissions, hampering productivity and compromising user experience. Development activity will likely encroach on strategic roading corridors, precluding their use for future network improvements.

OPTION 2

PROTECT THE NETWORK FOR FUTURE DEVELOPMENT

Investment will focus on protecting key transport corridors and other strategic locations/assets, but won't extend to the physical assets that enable their utilisation. This option is about preserving options into the future only, and is an important consideration now as private development rapidly encroaches on important transportation corridors. This option is still dependent on 'making best use of existing assets' to manage demand and service levels and includes associated investment. In addition, investment will be directed towards early design and land acquisitions that enable/ maintain designations and inform the planning of other dependent activities.

Responds to these significant issues:

Growth	LOW IMPACT
Climate emergency	LOW IMPACT
Infrastructure deficit	LOW IMPACT

Delivers on these objectives:

Sustainable infrastructure	LOW IMPACT
Optimise infrastructure servicing	LOW IMPACT

Implications:

The implications associated with this option as per option one; however, strategic land acquisitions will protect some strategic future transport investment options.

OPTION 3

MOST LIKELY

TARGETED EXPANSIONS & MORE TRAVEL CHOICES

This option builds on protection of the network by targeting major investment in the development of key corridors and services. Investment will deliver the formation of critical bypass routes in the hubs of Queenstown and Wānaka, major upgrades to public transport networks, and expansion of active travel networks. A concurrent focus on 'making the best use of existing assets' will continue to make the evolving transportation network more efficient, and strategic planning will continue to explore what new and innovative initiatives can change the way the network operates.

This option is underpinned by an assumption that new funding mechanisms will be introduced over the life of this strategy to enable investment at this level.

Responds to these significant issues:

Growth	MODERATE IMPACT
Climate emergency	MODERATE IMPACT
Infrastructure deficit	MODERATE IMPACT

Delivers on these objectives:

Protect people from harm	MODERATE IMPACT
Leverage investment	MODERATE IMPACT
Sustainable infrastructure	MODERATE IMPACT
Reduce emissions and resource extraction	LOW IMPACT
Optimise infrastructure servicing	MODERATE IMPACT

Implications:

Targeted expansions will enable the network to better keep pace with demand growth and support greater effectiveness of existing assets and services. Levels of service are mostly expected to be maintained over the next 30 years, although there may be some interim deterioration until Council is able to fund the major interventions planned in later years.

OPTION 4

TRANSFORM THE WAY THE TRANSPORTATION NETWORK OPERATES

New high-capacity high-frequency public transport modalities, major streetscape upgrades, and secondary cycle networks feature in this option, in addition to the targeted expansions and network effectiveness interventions described in previous options. Blue-sky thinking will be an underpinning principle, investing in new and innovative technologies that fundamentally transform how the network operates and the way users engage with it. The extent to which this option could be given effect is critically dependent on the pace of behaviour change, technological advancements, and the availability of new funding. It is also highly dependent on similar levels of investment in, and support from, key transportation partners and central government.

Responds to these significant issues:		Implications:
Growth	HIGH IMPACT	Levels of service would change considerably through this option with the introduction of new modalities and broad improvements to network amenity. Some interventions are likely to come with high upfront cost and risk; however, may have the potential to deliver greater benefits and cost efficiencies over the long term. The level of funding, partnership, and approvals associated with implementing this option mean that, like with option 3, material changes would be given effect in later years, resulting in the likelihood of a near term reduction in service levels as population growth outpaces interventions. Investing and delivering at this level may require Council to deprioritise expenditure in other activities.
Climate emergency	MODERATE IMPACT	
Infrastructure deficit	HIGH IMPACT	
Delivers on these objectives:		
Protect people from harm	MODERATE IMPACT	
Leverage investment	HIGH IMPACT	
Sustainable infrastructure	HIGH IMPACT	
Reduce emissions and resource extraction	HIGH IMPACT	
Optimise infrastructure servicing	MODERATE IMPACT	

KEY INITIATIVES ASSOCIATED WITH THE MOST LIKELY SCENARIO

○ UNKNOWN⁴¹

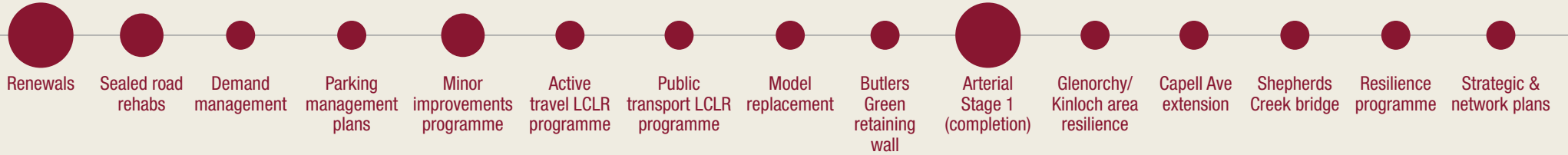
● <\$5M

● \$5-20M

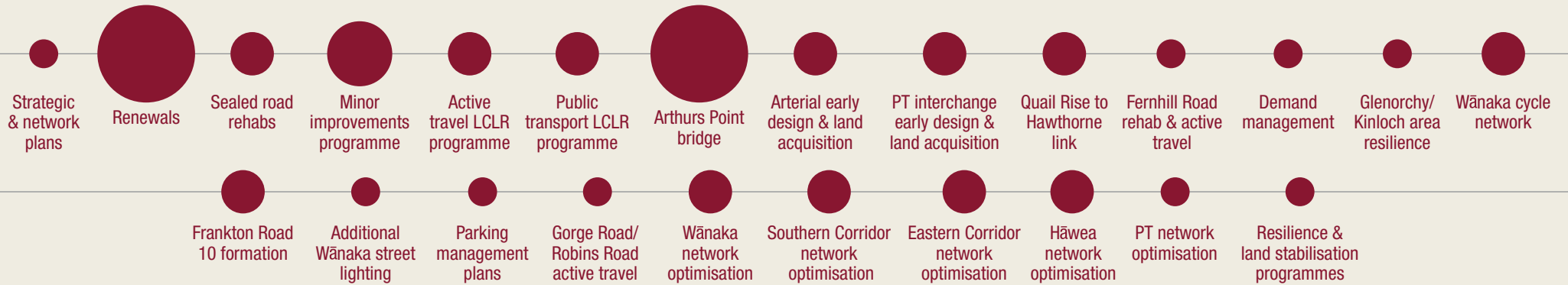
● \$20-50M

● >\$50M

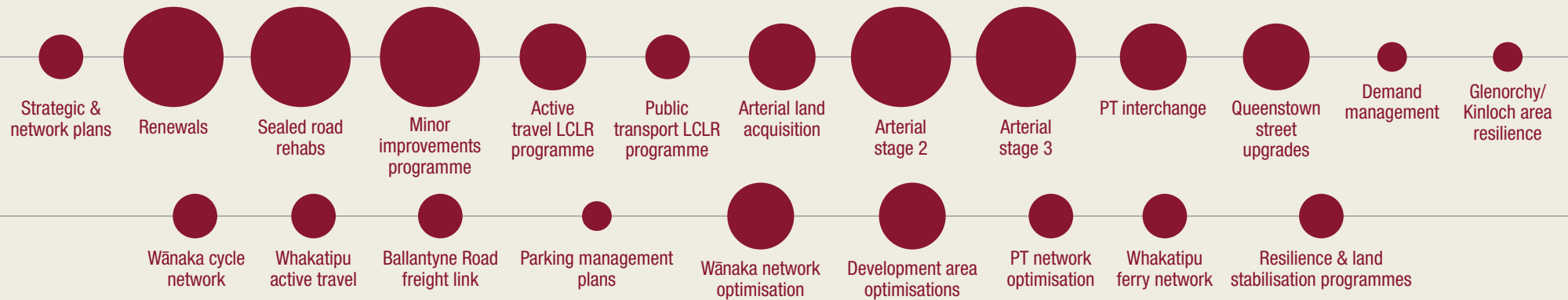
SHORT-TERM (Y1-3)



MEDIUM-TERM (Y4-10)



LONG-TERM (Y11+)



SOCIAL INFRASTRUCTURE TRANSPORT STORMWATER WASTEWATER WATER SUPPLY WASTE MULTIPLE ACTIVITIES

⁴¹ Initiatives where Council does not yet have a readily available indication of scale or cost.

07

Extent of investment in strategically placed, integrated facilities

Due to regional topography, climatic conditions, and a small, dispersed population base, it is not affordable, or efficient from a transport and people resource perspective, to have all types of social infrastructure replicated across individual neighbourhoods. This can be managed by having certain social infrastructure for each ward centralised in a strategically placed, multipurpose facility that integrates different community needs, including sports, play, recreation, libraries, events and other community activities. As key development areas continue to grow, additional smaller scale integrated hubs in these areas will also be developed, complementing the centralised facilities, to meet local sports, play, recreation and community needs.

Council has developed key strategic facilities in Whakatipu and the Upper Clutha that are high quality, heavily used and easily accessible to a large portion of the population. These facilities are strategically placed in central locations and have been designed with the needs of the community in mind. These strategic facilities have been built to enable future development and the Community Services team regularly engage with the community to understand changing needs and service gaps.

Two principal options have been identified; the most likely scenario suggests that over the next 30 years shared, centrally located, multipurpose facilities will be invested in over a decentralised network of facilities.⁴²

⁴² Refer to "servicing of key development areas" significant decision for key initiatives related to integrated hubs in key development areas

OPTION 1

DECENTRALISED FACILITIES

Current centralised facilities are maintained but not expanded, instead capacity required to service the district’s growing community is built in multiple locations across the district.

Responds to these significant issues:

Growth	LOW AS INEFFICIENT
Infrastructure deficit	LOW AS INEFFICIENT

Delivers on these objectives:

Opportunities for increased activity and connection	MODERATE IMPACT
Diverse, fit-for-purpose facilities	MODERATE IMPACT
Plan for growth	LOW AS INEFFICIENT
Strategically placed, multipurpose facilities	LOW IMPACT

Implications:

Enables local use of facilities but will impact on ability to host ward, district and regional competition and events particularly as the population grows. Result is a disjointed network that doesn’t effectively support ward-wide events and activities and is inefficient from a travel perspective, although does enable access for local community events and activities.

OPTION 2 MOST LIKELY

STRATEGICALLY PLACED, INTEGRATED, MULTIPURPOSE FACILITIES

Council invests in strategically placed, integrated and multipurpose facilities that maximise efficiencies in meeting user needs of the entire community within each ward. These facilities are expanded to accommodate the growing population, provide shared facilities to support a range of community, recreation and sporting groups and are supported by smaller scale hubs in settlements with high populations. At least one of these facilities should be able to host district and regional/international sporting tournaments and events.

Council will continue to invest in three strategically placed, multi-purpose, integrated community hubs that service each ward:

- > Wānaka Recreation Centre (Upper Clutha)
- > Queenstown Events Centre (Whakatipu)
- > Ballantyne Road Sports Hub (Upper Clutha).

The Southern Corridor and Eastern Corridor in the Whakatipu and Southern Wānaka are predicted to reach the population where additional smaller scale community hubs are warranted.

Council also aims to support the development of specific community hubs for the following purposes:

- > Creativity and culture – for use by groups delivering creative and cultural activities including performing arts, visual arts, mana whenua heritage storytelling.
- > Social service – for use by organisations providing social services to the community
- > Environmental hub – for use by organisations working to improve environmental outcomes for and with the community.

Responds to these significant issues:

Growth	MODERATE IMPACT
Infrastructure deficit	MODERATE IMPACT

Delivers on these objectives:

Opportunities for increased activity and connection	MODERATE IMPACT
Diverse, fit-for-purpose facilities	HIGH IMPACT
Plan for growth	HIGH IMPACT
Strategically placed, multipurpose facilities	HIGH IMPACT

Implications:

The combination of strategically placed, integrated, multipurpose hubs, together with smaller hubs in high population areas, means Council is investing efficiently in quality facilities that can provide for the district’s diverse and expanding population.

KEY INITIATIVES ASSOCIATED WITH THE MOST LIKELY SCENARIO

○ UNKNOWN⁴³

● <\$5M

● \$5-20M

● \$20-50M

● >\$50M

SHORT-TERM (Y1-3)



Eastern Corridor integrated hub

MEDIUM-TERM (Y4-10)



Wānaka Recreation Centre – replacement flooring, pool extension



Queenstown Events Centre – indoor court extension, shared clubrooms, fitness centre expansion



Ballantyne Road Sports Hub – land remediation, sports fields and facilities



Southern Corridor integrated hub – masterplan development

LONG-TERM (Y11+)



Eastern Corridor integrated hub



Wānaka Recreation Centre masterplan completion



Queenstown Event Centre masterplan completion



Ballantyne Road Sports Hub masterplan completion



Southern Corridor integrated hub



Social Infrastructure land acquisition



Creativity and cultural hub – Wānaka and/or Queenstown



Social Service hub – Wānaka and/or Queenstown



Environmental hub – Wānaka and/or Queenstown

SOCIAL | INFRASTRUCTURE | TRANSPORT | STORMWATER | WASTEWATER | WATER SUPPLY | WASTE | MULTIPLE ACTIVITIES

⁴³ Initiatives where Council does not yet have a readily available indication of scale or cost.

The type of waste management services and facilities provided

The amount of waste entering the district's landfill is driving up emissions and exhausting finite disposal capacity. Council is committed to working with mana whenua, central Government, businesses and communities to change this.

Distributed community solutions will play an important part in reducing, avoiding and managing waste within the district. Examples of community-based solutions include container return schemes, repair cafes and community composting hubs – all of which can help build resilience and community ownership into waste minimisation models. Council has, and will continue to support, community-led waste reduction initiatives through its successful Zero Waste grant funding programme.

Four principal options for the types of waste management services and facilities provided for the district have been identified. Over the next 30 years, Council will invest in moving the district towards a circular economy by increasing rates of waste diversion, influencing how materials are managed and processed, leveraging no and low build solutions where possible, and empowering the community to take ownership of waste minimisation models and outcomes.

OPTION 1

MAINTAIN ESTABLISHED SERVICES AND INITIATIVES

To maintain current service levels in line with demand growth and legislative change, end-of-life Materials Recovery Facility and Transfer Station facilities will be replaced with new fit-for-future facilities. Investment in the established programme for community-led zero waste initiatives will also continue.

Responds to these significant issues:

Growth	LOW IMPACT
Increasing standards	LOW IMPACT
Climate emergency	LOW IMPACT
Infrastructure deficit	MODERATE IMPACT

Delivers on these objectives:

Protect people from harm	HIGH IMPACT
Leverage investment	MODERATE IMPACT
Sustainable infrastructure	LOW IMPACT
Reduce emissions and resource extraction	LOW IMPACT

Implications:

Current service levels will be maintained, with the replacement of end-of-life facilities delivering a material reduction in risk levels. Without the introduction of additional diversion activities, volumes of waste to landfill will increase in line with population growth, resulting in a material worsening of emissions over time and increased likelihood of exhausting finite landfill capacity. As the cost of disposal increases, so too will the cost of service.

OPTION 2

FOCUS ON EMISSIONS REDUCTION

In order to meet incoming standards around emission reduction, more organic waste will be diverted from landfill. In addition, other initiatives and technologies that minimise the emissions generated by waste management activities will be explored.

Responds to these significant issues:

Growth	MODERATE IMPACT
Increasing standards	MODERATE IMPACT
Infrastructure deficit	MODERATE IMPACT

Delivers on these objectives:

Protect people from harm	HIGH IMPACT
Leverage investment	MODERATE IMPACT
Sustainable infrastructure	LOW IMPACT
Reduce emissions and resource extraction	MODERATE IMPACT

Implications:

The material implication of this option is the introduction of a kerbside food and green waste collection service. This service will significantly increase the volume of waste diverted from landfill.

OPTION 3

MOST LIKELY

MOVE TOWARDS A CIRCULAR ECONOMY

Building on the ‘focus on emissions reduction option’, further steps will be taken towards a circular economy by providing more opportunities and incentives to divert more product from landfill – particularly construction sector waste which accounts for 50% of all landfill waste in New Zealand.⁴⁴

In addition to key investment initiatives, Council will work closely with the hospitality and tourism sectors to reduce industry waste. National behaviour change programmes will be leveraged, and commercial opportunities with other waste service providers (in particular neighbouring councils) will be pursued.

Responds to these significant issues:

Growth	HIGH IMPACT
Increasing standards	HIGH IMPACT
Climate emergency	HIGH IMPACT
Resilience	LOW IMPACT
Infrastructure deficit	HIGH IMPACT

Delivers on these objectives:

Protect people from harm	HIGH IMPACT
Leverage investment	HIGH IMPACT
Sustainable infrastructure	HIGH IMPACT
Reduce emissions and resource extraction	HIGH IMPACT

Implications:

The implications of this option are similar to option 2, with the addition of an enhanced focus on programmes that support sectors to reduce their waste, and the provision of additional organic waste management capability in later years (most likely timber).

OPTION 4

PROTECT FOR ALL POSSIBILITIES

This option retains a focus on achieving a circular economy, but provides additional landfill capacity for a scenario where diversion levels are insufficient to manage within existing landfill capacity in perpetuity.

Responds to these significant issues:

Growth	HIGH IMPACT
Increasing standards	MODERATE IMPACT
Climate emergency	MODERATE IMPACT
Resilience	LOW IMPACT
Infrastructure deficit	HIGH IMPACT

Delivers on these objectives:

Protect people from harm	HIGH IMPACT
Leverage investment	HIGH IMPACT
Sustainable infrastructure	HIGH IMPACT
Reduce emissions and resource extraction	MODERATE IMPACT

Implications:

The implications of this option are similar to option 3; however, new landfill capacity will be created. Providing this new capacity is expected to be a costly and complex activity, and may also reduce the imperative to achieve desired diversion levels.

⁴⁴ How do we stop throwing so much away? New Zealand Infrastructure Commission Te Waihanga. <https://tewaihanga.govt.nz/the-strategy/issues/how-do-we-stop-throwing-so-much-away> (retrieved Dec 2023)

KEY INITIATIVES ASSOCIATED WITH THE MOST LIKELY SCENARIO

○ UNKNOWN⁴⁵

● <\$5M

● \$5-20M

● \$20-50M

● >\$50M

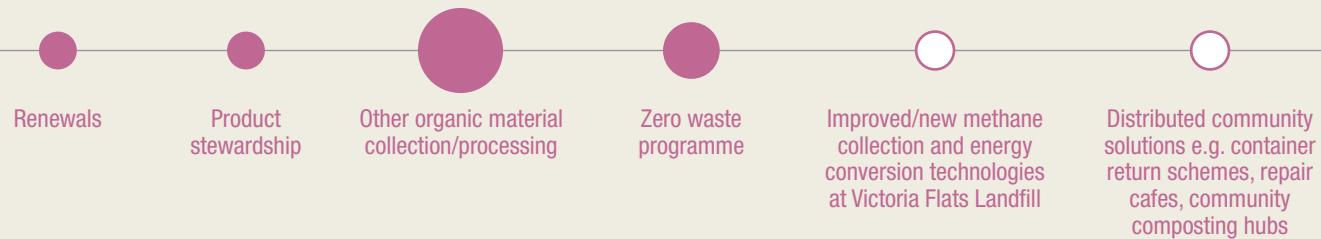
SHORT-TERM (Y1-3)



MEDIUM-TERM (Y4-10)



LONG-TERM



SOCIAL | INFRASTRUCTURE | TRANSPORT | STORMWATER | WASTEWATER | WATER SUPPLY | WASTE | MULTIPLE ACTIVITIES

⁴⁵ Initiatives where Council does not yet have a readily available indication of scale or cost.

⁴⁶ Although introduction of a kerbside food & green waste collection service has a relatively low capital outlay, there is a notable increase in annual operating costs associated with the new service. This impact is reflected in the forecast increase in waste management operating expenditure in FY28 (Y4) shown in Section 4 of this strategy.

Section 4

Managing and investing in Council's assets

IN THIS SECTION

Council's asset management approach

Relationship between this strategy and the
asset management system

Indicative 30-year expenditure requirements

Council's asset management approach

Council is continually working to lift its asset management capability and performance. Elevating asset management performance and capability offers the potential for significant value creation, including improved service delivery, cost savings and long-term sustainability. Effective asset management and investment is fundamental to, and a key component of, Council's Strategic Framework.

COUNCIL'S ASSET MANAGEMENT	
Vision	To deliver fit-for-purpose integrated asset management that supports the wellbeing of an evolving community, whilst balancing service, risk and cost efficiency.
Objectives	The asset management system is fit-for-purpose and is integrated with other management systems.
	To comply with the relevant legal, regulator and stakeholder requirements.
	The organisation is committed to asset management at the highest level with responsibilities, roles and authorities defined.
	The planning to achieve the asset management objectives considers life cycle costs, performance and risks.
	To provide adequate support for the asset management system.
	To implement operational and control processes and ensure expected outcomes are achieved.
	To evaluate the performance of assets, asset management and the asset management system.
	To continually improve asset management capability and asset management performance.
To support long-term objectives and sustainable outcomes.	
System	Council's asset management system is comprised of a Strategic Asset Management Plan SAMP (in development) ⁴⁷ , Asset Management Policy, Asset Management Plans, asset portfolio and systems, and the elements associated with the continual implementation, review and improvement of the system (e.g. performance evaluations, improvement plan, people, etc).
	Generally, Council aims to review its asset management system every three years. Triennial review ensures risks and opportunities are determined and corresponding responses are planned.
Portfolio	Council's asset management portfolio is predominantly comprised of community services and facilities, transport, three waters, and waste minimisation and management. It also includes other activities such as environmental management, regulatory functions and services, local democracy and economy-based activities, and financial and support services.
	The Long Term Plan (updated every three years) provides a summary of Council's key asset activity types, the extent and median age of Council's assets, proposed ten-year investment profiles, performance indicators, and approach for managing any significant negative effects associated with operating and investing in Council's assets.
Plans	An Asset Management Plan (AMP) is developed for each of Council's key activity types. These AMPs translate the strategic direction set through Council's Strategic Framework, this strategy, and the SAMP, into detailed plans that prioritise asset management activities and resources in order to deliver on overarching asset management objectives.
	Council's AMPs include detailed information about the operating environment, key challenges and risks, service levels, and the age, condition, performance and valuation of Council's assets. The AMPs also define Council's corresponding asset lifecycle management approach, including the level of investment Council proposes to make in assets and services (and associated financial management arrangements), how Council plans to manage risk, the commercial models Council plans to use for the procurement and delivery of services, and Council's plans for ongoing improvement.

⁴⁷ The SAMP will align the asset management system with organisational strategic objectives and priorities – serving as a comprehensive road map for achieving the asset management vision across Council's asset portfolio.

Relationship between this strategy and the asset management system

Council's asset management system translates the strategic investment direction set out in this strategy into asset-based investment considerations and programmes. The AMPs define Council's investment needs and opportunities, strategic responses, and ultimately, a proposed asset investment programme. Accordingly, Council's AMPs build on, and are an extension, to this strategy – providing the detailed information about how Council plans to manage and invest in its assets over time.

COUNCIL'S APPROACH TO

Replacement of existing assets	Renewals programmes are optimised to ensure that best whole-of-life value is achieved. Critical assets (as identified under Council's Risk Management Framework) are prioritised for investment. Council's renewals programmes are developed strategically alongside capital improvement programmes to ensure best use is made of Council's resources in responding to significant issues and delivering on strategic objectives.
Responding to changes in demand	Council measures, updates, and confirms demand for services on an annual basis to ensure future projections for infrastructure are based on the best available information. Any necessary adjustments are made to proposed expenditure via the Annual Plan process, and AMPs are reviewed and updated triennially and the Long Term Plan is recalibrated.
Planned changes in service levels	Council will research, monitor and engage on the setting of service levels to best balance service efficiency and effectiveness, customer expectations, legal requirements and community affordability.
	Council's projected expenditure over the next 10 and 30 year horizons reflects any reasonably quantifiable impacts of anticipated changes to service levels (in particular those associated with the significant decisions detailed in this strategy) and the approach for managing the associated assets is captured in the respective AMP.
Providing resilient infrastructure assets and managing risks	<p>Council's strategic renewals and improvement investment programmes seek to deliver a balanced approach to asset reinforcement, relocation, and de-risking; this approach informs and underpins insurance and other financial provisions as detailed in Council's Finance Strategy. To support continual improvement in this area, Council:</p> <ul style="list-style-type: none"> > has commenced a programme of work to identify and assess natural hazard risks across the district. The findings of this programme, along with any required responses, will be progressively reflected through updates to this strategy, the Long Term Plan and AMPs as the knowledge base in this area grows > will continue to periodically complete asset criticality assessments. The output of this work informs ongoing long-term network and service planning processes > has established a dedicated internal risk and assurance function. Risks are now being systematically identified, categorised and planned for through a single risk management framework and system > has provisioned dedicated funding to support the development of an Infrastructure Resilience Strategy.
Asset optimisation	As much as practicable, Council optimises and extends the effective life/capacity of its existing infrastructure to reduce investment in new infrastructure. Council's proposed renewals expenditure reflects the level of maintenance required to keep existing assets in good working order – particularly where the cost of remediation or replacement is expensive (e.g. Council plans to steadily increase expenditure on pavement resurfacing and rehabilitation to ensure the network doesn't deteriorate as the cost associated with these activities increases). To achieve this level of expenditure on critical assets, Council makes informed trade-offs in other areas (e.g. Council plans to utilise footpath assets beyond optimal renewal timeframes).
	<p>A critical component of optimising Council's existing asset base is reducing and or shifting per capita demand on services. Key behaviour-change programmes Council plans to invest in include:</p> <ul style="list-style-type: none"> > travel demand management: reducing the need to travel, changing the time of travel, and facilitating/incentivising uptake of public transport and active transport modalities > water demand management: smart meters, software, and potentially the introduction of volumetric charging, will support a reduction in demand for water supply. Achieving reduction targets will enable Council to defer investment in costly and capital intensive infrastructure that is otherwise required due to capacity/supply constraints > zero waste programme: Council's investment in community-led waste minimisation initiatives has been a highly effective method of diverting waste from landfill.

What this means for Council's likely expenditure over the next 30 years

Investment planned through the 2024/25 – 2033/34 Long Term Plan responds materially to Council's historical infrastructure deficit, recognises the incoming three waters requirements and also provides the necessary new infrastructure required to unlock key development areas. This ambitious ten-year investment plan creates

a foundation for lower and more steady levels of investment in three waters and waste infrastructure through years 11 to 30, providing funding and delivery capacity for major social and transport infrastructure through that same period. This investment approach builds on the track record Council has of investing first in maintaining

existing assets and services, and providing for established communities where there have historically been barriers to servicing uptake in the past.

All figures are present day (uninflated), rounded to the nearest \$100k. Operating expenditure excludes income, depreciation, overheads and interest.

WASTE MINIMISATION AND MANAGEMENT																	
	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11-15	Y16-20	Y21-25	Y26-30	CAPEX COST DRIVERS (30 YEARS)		
CAPEX	\$6.3M	\$12.9M	\$19M	\$25.3M	\$14.8M	\$4.6M	\$0.8M	\$1.2M	\$1.9M	\$1.1M	\$4.4M	\$5.1M	\$4.8M	\$41.8M	Growth	Renewal	LOS
OPEX	\$17.8M	\$17.8M	\$17.8M	\$19.5M	\$19.5M	\$19.5M	\$19.7M	\$19.7M	\$19.7M	\$19.7M	\$98.5M	\$98.5M	\$98.5M	\$98.5M	5% ⁴⁸	37%	57%

TRANSPORT																	
	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11-15	Y16-20	Y21-25	Y26-30	CAPEX COST DRIVERS (30 YEARS)		
CAPEX	\$38.3M	\$21.4M	\$21.6M	\$25.3M	\$35.1M	\$40.4M	\$40.5M	\$27.9M	\$42.5M	\$53.6M	\$189.8M	\$193.2M	\$227M	\$154.9M	Growth	Renewal	LOS
OPEX	\$12.5M	\$12.5M	\$12.6M	\$12.6M	\$12.7M	\$12.7M	\$12.7M	\$12.8M	\$12.9M	\$13.0M	\$65.7M	\$67.1M	\$68.6M	\$70.1M	37%	29%	34%

THREE WATERS																	
	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11-15	Y16-20	Y21-25	Y26-30	CAPEX COST DRIVERS (30 YEARS)		
CAPEX	\$77.4M	\$100.3M	\$116.2M	\$139.4M	\$144.6M	\$161.5M	\$130.6M	\$131.8M	\$105.9M	\$113.3M	\$244M	\$385.6M	\$303.5M	\$266.6M	Growth	Renewal	LOS
OPEX	\$20.9M	\$20.9M	\$21.6M	\$22.0M	\$22.2M	\$22.5M	\$22.8M	\$23.7M	\$24.6M	\$24.1M	\$126.2M	\$136.7M	\$148.1M	\$160.4M	38%	17%	45%

⁴⁸ Through the replacement of the district's Materials Recovery Facility, and upgrade of Queenstown and Wānaka transfer stations, Council will have the facilities and technology required to cater for increased volumes resulting from population growth. Growth remains a relatively low driver for capital investment relative to renewal and LoS for this reason, and because Council anticipates relatively low capital cost initiatives such as the new food and green waste kerbside collection service and continuation of the zero waste programme to divert a higher proportion of the district's waste as the population grows. Accordingly, the most likely scenario for waste services responds strongly to growth without requiring significant growth-specific capital investment.

SOCIAL

This is the first time Council has included social infrastructure in this strategy; Council is early in its maturity journey for 30-year planning for social infrastructure. Detailed planning has been undertaken for the first ten years, and this is reflected below and in the Long Term Plan. Council has identified critical strategic initiatives for years 11-30, however does not yet have a fully planned programme for the full 30 years. Council is investing in building capability in this area and plans to mature its planning further over the next three years, for inclusion in the next iteration of this strategy.

SOCIAL													
	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	CAPEX COST DRIVERS (FIRST 10 YEARS ONLY) ⁴⁹		
CAPEX	\$14.8M	\$17.7M	\$35.7M	\$41.0M	\$50.7M	\$28.7M	\$30.1M	\$36.0M	\$44.6M	\$80.3M	Growth	Renewal	LOS
OPEX	\$38.8M	\$42.9M	\$43.8M	\$45.6M	\$46.9M	\$50.6M	\$54.4M	\$55.1M	\$56.9M	\$59.6M	28%	36%	36%