Otago Regional Council Draft Long-term Plan 2021-2031

Supporting information to the

'Have Your Say On Our Future - 2021-2031 Long-term Plan Consultation Document

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Forward

See the LTP Consultation Document

Audit Report

See the LTP Consultation Document

Part 1 Overview

Why does this document matter?

The purpose of the Long-term Plan is to provide direction for Council decision-making and set Council priorities and a detailed work program for the first three years and in less detail to ten years and beyond for infrastructure. Importantly this document reflects the results of a process that considers community aspirations within our region and what is practical from a resource perspective. Being prudent with the resources provided by the community is crucial as is the ability to assess Council's delivery.

As a country we value democracy and associated principles of transparency, accountability and public participation and this document underpins our consultation document. Identifying and explaining to the people of Otago the issues and choices facing Council and the consequences is of value to us all.

In summary this document provides a framework that enables the Council to connect with and demonstrate important matters to the community, and for the community to participate and give feedback on these matters.

The Otago Region

Otago is the second largest physical region in New Zealand, making up 12% of New Zealand's land mass. It spans from the eastern coastline, across the vast central plains, to the Southern Alps that border the western regional boundary. There are five territorial authorities in Otago: Dunedin City Council, Queenstown Lakes, Waitaki District, Central Otago and Clutha district councils.

Otago's population at the 2018 Census was 225,186,¹ a regional increase of 11% since the 2013 Census. Dunedin City has the largest population of the territorial authorities at 126,255, followed by Queenstown Lakes District at 39,153, Waitaki District at 22,308, Central Otago District at 21,558 and Clutha District at 17,667. The fastest growing district between 2013 and 2018 was Queenstown Lakes, increasing 28% from 28,224 people in 2013 to 39,153 in 2018, making it one of New Zealand's fastest growing urban areas.

Otago's economy centres around agriculture, tourism, historical gold and mineral mining, and education. Tourism usually contributes roughly a quarter of the region's gross domestic product. This is typically the highest of any region in New Zealand and primarily concentrated in the Queenstown Lakes District.

Hydroelectric dams and wind farms² provide a large portion of regional energy requirements. Additional secondary sources of power include steam, liquid fuel, biomass and solar. Substantial rivers with high flow periods make the region ideal for hydroelectric generation. Significant hydroelectric generation facilities are located in Central Otago, Clutha, and Queenstown Lakes districts. These facilities provide the national grid with significant renewable energy and have also altered the hydrology of the rivers in places, including the creation of large lakes such as Lake Dunstan and Lake Roxburgh. Additionally, Otago has three wind farms, in Dunedin, Clutha and Central Otago.

<u>Climate</u>

The Otago region experiences two distinct climates due to the geographic variety between the temperate coastal areas, and the almost continental inland areas. The coastal settlements experience a cyclic weather pattern that alternates frequently between a warmer and drier climate, and a cooler, damper climate. Central Otago's climate in particular is famously characterised by hot, dry summers and contrastingly cold, frosty winters.

General temperature ranges for the entire Otago region fall between 18°C to 24°C on summer afternoons, and -2°C to 3°C during winter nights.³ The average summer temperatures in Central Otago range between 10°C and 30°C,

¹ 2018 Census place summaries: Stats NZ. (n.d.). Retrieved June 29, 2020, from https://www.stats.govt.nz/tools/2018-census-place-summaries/otago-region

² Fitzgerald, W. (2019). *Dunedin Energy Study 2017-2018*. University of Otago.

³ Macara, G. R. (2015). The Climate and Weather of Otago, Second Edition. NIWA SCIENCE AND TECHNOLOGY SERIES, 67th ser.

while the average winter temperatures range from -6°C to 15°C. ⁴ Central Otago has held national records for both New Zealand's hottest and coldest temperature readings.

The heaviest regional rainfalls occur typically over western areas of Otago such as around the Lakes District and the Southern Alps, averaging 2000 mm per year. In contrast, the average rainfall in Central Otago is the lowest in New Zealand averaging around 400-500 mm per year.

<u>Coast</u>

The Otago coastline stretches for 480 km and is extremely diverse – with environments ranging from pebble beaches, basalt formations, rolling farms, striking cliff heads and sandy beaches. Significant coastal settlements include Dunedin and Oamaru, with Otago's port based in Port Chalmers, Dunedin. Dunedin harbour is the region's only commercial freight handling harbour, however there are commercial fishing ramps in Oamaru, Moeraki, Karitane and Taieri Mouth. The ecology of the Otago coast is varied and diverse.

Coastal erosion and the steady decline of the regional coastline is well documented, posing a long-term threat to residential and commercial coastal developments. Additionally, the dumping of wastewater into the ocean, including pollution in Otago Harbour and sedimentation, is cause for concern.

Water Bodies

The Otago region has significant freshwater resources: surface water, natural and artificial lakes, groundwater, and wetlands. Otago's communities are reliant on these water resources for their social, cultural, national and economic wellbeing. Rivers and lakes make up most of the regional surface water. Otago's lakes constitute about 23% of New Zealand's total lake surface area. The primary catchments are Lakes Wanaka, Wakatipu and Hāwea, all of which feed into Otago's largest river, the Clutha River/Mata-Au. Underground geological formations, capable of trapping and holding water, create groundwater sources. Many of the regional groundwater sources contain useable water. Wetlands make up many significant landscape and ecosystem elements in Otago, including blanket and string bogs, saline areas, swamp forest remnants, shallow lake complexes, estuarine saltmarshes, and valley floor swamps.

Natural Character and Landscapes

Otago's environment captures the spiritual and cultural significance of water flowing from the mountains to the sea. Otago's natural character is diverse and reflects the region's striking natural, wild beauty and more modified yet rich cultural heritage. The character of the coast ranges from untouched imposing coastal cliffs to long stretches of sandy beaches; to river mouths, estuaries and inlets; to urbanised and developed pockets, and harbourside waterfronts such as in Oamaru and Dunedin. Moving inland, the natural character and landscapes change dramatically. Rolling plains in central Otago are separated by mountain block ranges, while steep hillsides of tussock, deep gorges and farmland feature in south and central Otago. This land is dissected by flowing bodies of water, towering mountains, and fascinating geological formations. The natural barrier of the Southern Alps forms Otago's western regional boundary.

<u>Urban Form</u>

Urbanised areas in Otago only cover about 1% of total land area, however 87% of the regional population resides in urban settlements. There are variations in the levels of urbanisation – 58% of Clutha's population is urbanised, compared with 95% in Dunedin.⁵

The Queenstown Lakes District urban population is roughly 91%, however the location's outstanding landscape has determined how the urban form has developed and will continue to restrict options for how it evolves and create challenges.

⁴ Central Otago Climate. (n.d.). Retrieved June 24, 2020, from https://www.centralotagonz.com/living-here/central-otago-climate

⁵ The figures and rural/urban area definitions in this paragraph are taken from Statistics New Zealand Urban/Rural Classification at the SA2 geographic level from the 2018 Census.

In the remainder of the region, smaller urban settlements are geographically scattered, maintaining clear distinctions between rural and urban forms, and with significant variability in growth pressures and infrastructure capacity. Population growth is not the only driver of urban change pressures in Otago. Many areas face low or no growth, and all areas are expected to have an aging population. Maintaining infrastructure and services as well as accommodating changing needs and preferences will be a challenge for almost all urban areas.

Elected Representation

Twelve Otago Regional Council members are elected to represent the region's four constituencies—Dunedin, Dunstan, Moeraki, and Molyneux. They in turn elect a chairperson who facilitates decisions about the committee structure that Council uses for decision-making, the appointment of a Chief Executive Officer, and chairing the Council meetings that sits over the recommending committees. Importantly the elected arm of Council employs a Chief Executive Officer (CEO) to lead the Council organization and its staff. The CEO is responsible for the delivery of advice to the elected arm and ultimately services to the community. An election is planned for late 2022 being year 2 (every three years) of this LTP along with the CEO's contract (initial 5 years).

The Dunedin Constituency is represented by six Councillors and is comprised of Central Dunedin and the Waikouaiti Coast, West Harbour, Otago Peninsula and Saddle Hill community board areas located within the Dunedin City territorial area.

The Dunstan Constituency is represented by three Councillors and is comprised of the Central Otago District and Queenstown Lakes District territorial areas.

The Moeraki Constituency is represented by one Councillor and is comprised of the Otago portion of Waitaki District territorial area (part of the Ahuriri and Corriedale wards) and the entirety of the Oamaru and Waihemo wards.

The Molyneux Constituency is represented by two Councillors and is comprised of the Clutha District territorial area and the Mosgiel-Taieri and Strath-Taieri community board areas located within the Dunedin territorial area.

Partnering with Mana Whenua

The Otago Regional Council values its relationship with Kāi Tahu Papatipu Rūnaka. We continue to work with our iwi partners, to give effect to the Treaty of Waitangi partnership, strengthen it and acknowledge the unique, enduring relationship iwi have with this land.

For LTP 2021/31, the Otago Regional Council is committed to work in partnership with mana whenua to incorporate Te Ao Māori in our work. Working in partnership will deliver better outcomes for Otago, and fulfil on the principles and requirements for engaging with iwi under the Local Government Act and Resource Management Act i

For Council, these legislative requirements are considered a bottom line. We aspire to go beyond these statutory responsibilities to ensure meaningful engagement with Mana Whenua which recognises the principles of partnership of The Treaty. This also recognises the value that engagement with Māori adds through the sharing of their knowledge and wisdom as Mana Whenua.

Te Rūnanga o Ngāi Tahu is the tribal representative body of Ngāi Tahu Whānui, a body corporate established 24 April 1996. The takiwā (area) of Ngāi Tahu Whānui includes the entire area of Otago Region, as set out in section 5 of the Te Rūnanga o Ngāi Tahu Act 1996.

Te Rūnanga o Ngāi Tahu encourages consultation in the first instance with the Papatipu Rūnanga. There are four Kāi Tahu ki Otago Rūnaka being:

- Te Rūnaka Moeraki;
- Kati Huirapa Rūnaka ki Puketeraki;
- Te Rūnaka o Ōtākou; and
- Hokonui Rūnaka.

There are three Ngāi Tahu ki Murihiku rūnanga with interests in the region as well, which are:

- Awarua Rūnanga
- Waihopai Rūnanga
- Ōraka-Aparima Rūnanga

The Otago Regional Council has current processes and initiatives that give effect to the principles and requirements set out in national legislation. These facilitate participation and building of capacity of Kāi Tahu Papatipu Rūnaka. These include:

- Mana to Mana: Kāi Tahu ki Otago Rūnaka Chairs and Councillors meet to discuss governance related issues of interest to either side
- Two iwi representatives from Kāi Tahu ki Otago are members of the ORC Strategy and Planning Committee
- Memorandum of Understanding and Protocol (2003) between Otago Regional Council, Te Rūnanga Ngāi Tahu and Kāi Tahu ki Otago for Effective Consultation and Liaison
- Charter of Understanding (2016) signed with Te Ao Marama Inc. and Southland Rūnanga
- Co-Governance: Land and Water Regional Plan Governance Group, with two iwi representatives and two ORC councillors to guide the development of the Land and Water Regional Plan
- Partnership approach with iwi, Aukaha and Te Ao Marama in policy development to ensure that iwi views are being incorporated. The Papatipu Rūnaka consultancy services, Aukaha, representing Otago Rūnaka, and Te Ao Marama Inc, representing the Southland Rūnaka, provide a first point of contact and faciliate engagement in resource management processes.
- Partnership funding to support Aukaha to deliver and participate in Council processes.
- Regular liaison with Aukaha at a Council staff level.

What we plan to do over LTP 2021/31

Council is giving effect to the points above via our planned LTP work program, including:

- Otago Regional Council and Kāi Tahu ki Otago Rūnaka Chairs have agreed to commence discussions on establishing a Mana Whakahono Agreement under the Resource Management Act 1991 in the future (timing to be confirmed)
- Refresh ORC's Significance and Engagement Policy in 2021/22 to confirm how we work in partnership with iwi and to make the priority of the partnership more visible
- Give effect to the ORC 'Strategic Directions 2020', including working with mana whenua to establish a project to implement:
 - Our vision for Otago: Te Ao Māori and Mātauranga Kāi Tahu are embedded in Otago communities
 - Our commitments: Partner with mana whenua and make Mātauranga Kāi Tahu an integral part of our decision-making
- Commit to sustainable funding of Aukaha and Te Ao Marama to assist with business planning in both organisations

- Encourage a sense of connection, partnership, and engagement, by building the cultural competence of ORC staff and supporting diversity through Te Reo, Treaty of Waitangi and Tikanga workshops over 2021-2025
- Build cultural awareness and integration of Te Ao Māori (the Māori world view) into the ORC's work and culture.

Financial and Infrastructure Strategies – overview

The Local government Act 2002 requires Council to adopt both a Financial Strategy and an Infrastructure Strategy (IS) as part of the LTP process. These strategies are included in the body of this document with this section providing the respective executive summaries.

They provide oversight to elected and executive leadership about how Council will deliver its services in a financially sustainable and prudent way.

Financial Strategy

Purpose

This strategy sets out how the Otago Regional Council will manage its finances over the next 10 years. It outlines the financial direction Council wishes to take on matters such as levels of future rating, borrowings and investments and discusses factors that influence those areas. These matters have a significant influence on Council's ability to deliver on its strategic priorities including: aligning with national direction on fresh water reform; strengthening our leadership on strategic issues such as climate change, urban development and community wellbeing; and ensuring our operational response to maintaining and improving Otago's natural environment and public transport is appropriate. Delivering on these priorities must be done in consideration of what is affordable to the community and this Financial Strategy sets out a path for the prudent and sustainable funding of this Long-Term Plan.

Overview of the Strategy

Council faces a significant financial challenge in this Long-term Plan. Central government requirements have increased as have community expectations. In the 2020-21 Annual Plan Council was required to respond to external reviews and increased its work programme by \$10M. Council was cognisant of the unplanned rates increase this would create and decided to fund \$3.9M of this increase from general reserves with a view to reviewing and accessing how this could be funded when the Long-term Plan was prepared.

Subsequent to that decision Council also decided to reserve fund a further \$1M to reduce rates increases further in light of Covid-19. Since the 2020-21 Annual Plan was adopted further legislative requirements has meant further unbudgeted expenditure has been necessary in the current year as additional staff and resources are added in regulatory, planning and environmental monitoring areas to meet Councils increased statutory obligations.

These increases and the funding shortfall in the current year means Council is facing a significant increase in rates before any new activity is even contemplated in the Long-Term Plan itself. On top of that many targeted rate reserves are already in deficit and increases as indicated in previous Long-Term Plans remain necessary to ensure those deficits are repaid.

Over the next 10 years the key financial challenges and how Council is proposing to address them in this financial strategy are:

• There is a significant increase in planned and unplanned expenditure occurring in the current 2020-21 year and that requires a corresponding increase in funding in year 1 of the Long-Term Plan. Where

possible expenditure has been phased over the first 3 years, but a lot of the increase is required immediately meaning there will be a significant step up in expenditure in year 1.

- To reduce the rates increase, Port Otago dividends are forecast to increase from current levels and provide \$13M in year 1 rising to \$20M in year 10.
- There will also be an increased use of reserves over the life of this plan including using general reserves to permanently fund the 2020-21 general rates offset rather than adding that amount to the rate requirement.
- New targeted are rates being introduced for biosecurity and Lake Hayes remediation which will allow the increases or up-front expenditure in these activities to be deficit funded and funding increases smoothed over following years.
- Council is proposing to rename and repurpose river management targeted rates to include other water body activity. This will now include funding certain lake and water body remediation initiatives within each river and water management within each district.
- The use of external borrowing is proposed in this 10-year plan. This will reduce the interest cost for reserves that are in deficit and will allow cashflow to be managed efficiently as internal borrowing is forecast to exceed the level of Council's financial assets.

Infrastructure Strategy

This 10 year Long-term Plan provides for the delivery of flood protection and drainage schemes to protect people and property from flood events and to maintain the productive capability of land. It also provides a programme of river and waterway management to maintain river and stream channel capacity and stability.

Importantly these activities form the basis of the Otago Regional Council Infrastructure Strategy (IS) that provides the rationale for the 10 year programme of work described in the LTP. As a minimum it looks across the next 30 years focusing on issues of relevance to the community, the available options or requirements to manage those issues, and importantly the region's infrastructure assets.

Providing and maintaining infrastructure requires good asset management practices and strategic thinking. ORC regularly undertakes asset condition and performance monitoring of its flood protection and drainage infrastructure. Combined with modelling and other investigative activities, this informs asset maintenance, renewal and replacement programmes.

The IS identifies planning assumptions and uncertainties that underpin the work programme and associated projects included in the LTP. There is a higher degree of certainty about the expenditure forecast for the first three years. The level of certainty decreases over the planning horizon with projects and programmes identified in the subsequent two decades (years 11-30) likely to change in response to new information, changes in demand, and future needs.

The IS recognises the need and urgency to make better use of information systems and tools in managing assets, and to develop new thinking to assist in making decisions about what is required for the future.

Critical infrastructure assets

Most of Otago's flood protection schemes have been built to protect local communities and agriculture on adjacent floodplains. Their benefits also include providing access to key transport infrastructure and protecting critical lifeline networks such as electricity substations. The schemes are essential to managing communities' natural hazard risks, empowering economic prosperity and contributing to community resilience and well-being.

ORC's critical infrastructure assets (as identified in asset management plans) are:

- The flood banks that protect Outram, Mosgiel, Balclutha, Alexandra, the Silver Fern Farms Finegand Plant, and Dunedin International Airport.
- The Waipori Pump Station which drains 95% of the West Taieri Drainage Scheme.
- In the Leith Flood Protection Scheme, the protection works through the university area (Dundas St to Forth St). Failures in these assets would cause flooding in much of Dunedin's CBD, including State Highway 1.
- The Shotover Training Line is critical to the performance of the Shotover Delta infrastructure. If this did not function properly then Lake Wakatipu would be affected and there would be flooding in surrounding townships, including Queenstown's CBD.

ORC owns and manages three flood protection schemes and three drainage schemes as well as a combined flood protection and drainage scheme. They are the Alexandra Flood Protection Scheme, the Leith Flood Protection Scheme (mentioned above), the Lower Clutha Flood Protection and Drainage Scheme, the Lower Taieri Flood Protection Scheme, the West Taieri Drainage Scheme, the East Taieri Drainage Scheme and the Tokomairiro Drainage Scheme. ORC also owns but commissions external management for parts of the Lower Waitaki River Control Scheme.

Key issues

Six significant issues have emerged for ORC's infrastructure work programme over the next 10 years.

Condition of Infrastructure

ORC's infrastructure has been constructed over 150 years. As it ages, it can degrade, may need replacing or the technology it relies on may become redundant. This signals a bow wave of asset renewals, repairs and upgrades that will require investment and funding within the next 30 years. Improved asset condition information will be required to achieve this.

Preferred management approach - to adopt a risk-based approach to prioritise and schedule asset renewals to proactively manage renewals and investment over the lifetime of this strategy.

Funding

Flood protection and drainage infrastructure is fundamental to the continuing economic prosperity of Otago. It protects many residential, commercial, and agricultural assets. Significant investment is needed to maintain these infrastructure networks.

Preferred management approach - to maintain the current funding policy but establish future reviews to align services with sustainable sources of funding.

Climate change

If current and improved levels of service are to be delivered, significant investment will be required to address climate change impacts on scheme infrastructure.

Preferred management approach - to adopt a more planned and integrated approach by providing for the efficient installation of increased flood capacity, incorporating resilience into the future design of new infrastructure or renewals, and investing in improved understanding of future climate change effects.

Legislation and Regulatory

Community values and central government's expectations for environmental outcomes have changed and continue to change at pace. Examples that will impact on ORC schemes are the national freshwater improvement programme, fish passage requirements, biodiversity opportunities, tracks and trials on or around assets, and co-benefits.

Preferred management approach - to seek improved environmental performance and integrate asset diversification by achieving multiple outcomes wherever possible, including adopting a more natural and adaptable approach by integrating environmental enhancement. This will be progressed by continuing to actively manage scheme effects and working with local landowners to achieve full regulatory outcomes across activities, including those associated with biodiversity and recreational opportunities.

Natural Hazards

Otago's diverse landscape spans flat coastal lowlands and intensively used alluvial floodplains, to large sparsely populated and steep mountainous areas. Otago is exposed to a broad range of natural hazards that can include flooding, landside, seismic activity, coastal erosion, tsunami and storm surge. All are major hazards to flood protection and drainage infrastructure.

Preferred management approach - to maintain and improve current practice around hazard readiness, response and recovery as ORC continues to learn from past events. This will include increased efforts to raise awareness and educate communities on local natural hazard risks. ORC will continue to increase understanding and plan for risks related to natural hazards.

Growth and Development

Changes to the RMA (Section 6) in 2017 highlighted the increasing level of natural hazard risk and the need to ensure growth and development does not increase these risks and associated costs. While household projections for Dunedin City are estimated to decelerate, some growth is proposed in areas of high or increasing natural risk, and there is a need for information to be available to assist in decision-making and managing community expectations. Over the longer term there is potential for some acceleration of land use change outside urban areas, placing additional pressures on flood protection and drainage services to provide protection. A better understanding is needed of the likely distribution of growth and the additional demands this could place on flood management services.

Preferred management approach - to maintain current practice but to consider innovative approaches to address population growth or decline and to manage demand through land use controls. Collaboration with territorial authorities will need to continue to effectively mitigate the impact of increased runoff through land use change and development. This will include identifying areas of potential risk and may also include opportunities for innovative approaches to manage the impacts of development. There is an ongoing need to ensure sufficient information is available to assist in informing where there may be risks associated with development. Subject to further discussion and agreement with the relevant territorial authorities, ORC aspires to take an integrated, multi-agency approach to land use planning.

In addition to this ORC will seek to better understand the impact a failure of its assets and levels of service would have on other key infrastructure in an immediate and wider region. Work is required to develop a sound understanding of the strategic importance that these other key assets hold socially and economically, and how the performance of ORC schemes and assets may directly or indirectly affect their function.

Scheme Performance

Each of the significant issues outlined above will have an impact on a scheme's overall performance. Levels of service are currently based on a scheme's existing design standards (related to an historical flood event).

Preferred management approach - to maintain levels of service to current standards while noting there will be instances where intervention will be required, and standards will need to be increased. Scheme performance reviews of the Lower Taieri and Lower Clutha, which will include consultation with benefiting communities, landowners and other affected stakeholders, are due to begin within the first five years of this strategy. Options will look at increasing the level of service while allowing for climate change either now or in the future. Increasing levels of service, with or without climate change adaption, will result in increased costs for the beneficiaries and wider communities.



Part 2 Community Outcomes

This section reflects what outcomes the Council seeks to achieve and its approach to achieving these outcomes. More details are available in ORC's Strategic Directions, which are available online (add link).

What ORC seeks to achieve

The purpose of local government under the Local Government Act (2002) is to:

- [1] Enable democratic local decision-making and action by, and on behalf of, communities and
- [2] Promote the social, economic, environmental, and cultural well-being of communities in the present and for the future.

The Council has identified these aspects of the four wellbeings it can most contribute to. The community outcomes below capture what Council seeks to achieve, through the range of its activities over the next 10 years. These community outcomes were developed in consultation with the community.



Communities that connect with, and care for, Otago's environment

Otago's people are included in decisions made about the environment, and feel empowered to act for the environment, through a community group, or by themselves.

Our natural world and how we care for it contributes to how Otago's communities connect. All residents and visitors in Otago have access to nature, and to Otago's outstanding landscapes, and to its rivers and lakes and coast, be it for fishing, swimming, boating, or for Kāi Tahu customary uses.

Otago's people have a deep appreciation of Otago's heritage, and its natural and cultural landscapes (wāhi tupuna).



An environment that supports healthy people and ecosystems

All living things depend upon the health of the ecosystem they are a part of:Otago's ecosystems are diverse, healthy and resilient, and we protect and restore our

- threatened and indigenous species and ecosystems.
- The mauri of Otago's natural environment is restored.
- Otago people enjoy healthy air quality, good water quality, and all the other "ecosystem services" nature provides to enhance the community's health, and its social, cultural, economic wellbeing.



Communities that are resilient in the face of natural hazards & climate change and other risks Our communities are aware of climate change and are adapting to its effects on the region. Otago communities, like most of New Zealand, are exposed to the possibility of a wide range of natural hazards: floods, droughts, earthquakes and landslides. Vulnerability to those risks is reduced by building in low risk areas or designing buildings and infrastructure to cater for these risks. Otago's people and communities are well equipped to respond to emergency events, be they a pandemic, a natural disaster, or other man-made emergencies.



A sustainable way of life for everyone in Otago

Otago's people enjoy quality of life, and make environmentally sustainable choices, so that future generations can also enjoy a healthy environment. As a community, we minimise, re-use and recycle waste effectively, and adopt 'best" environmental practices to reduce our environmental footprint.

Our communities are built to accommodate environmentally sustainable choices and our industries and economy are viable for the long term while taking responsibility for their environmental impacts. We all play our part in reducing our greenhouse gas emissions.



Te Ao Māori and Mātauranga Kāi Tahu are embedded in Otago communities

Kāi Tahu whānui are the tangata whenua of and have mana whenua over Otago. Otago is whenua tūpuna (a cultural landscape), treasured for its wāhi tapu (sacred places), spiritual values, traditions, waterways, places and place names, mahinga kai, cultural values and associations and associated mātauranga.

As first peoples of the land the iwi established creation traditions and ancestral associations with land, water and sea, with rights to the resources being based on whakapapa and a kinship with the natural world. With rights came the responsibility to manage and maintain values and resources in a manner that future generations would enjoy the same benefits, responsibilities and knowledge. Mātauranga is the accumulated knowledge and observations, codified for example in waiata, pepeha, customs and traditions transferred across the generations to inform and guide resource use and protection. In traditional times the kaitiaki were the Ātua (supernatural beings), the children of Rakinui and Papatūānuku, the advent of new people (settlers) to the land caused tangata whenua to take on the role of kaitiaki due to the rapid change and impacts that were occurring to the natural world.



Sustainable, safe & inclusive transport

People travel safely in Otago, on land and on water. Otago's people transition away of fossil-fuel private cars, and increasingly choose to travel by bus, on foot or on a bike.

Public transport is accessible, and offers a sustainable, safe and inclusive means of transport.

Achieving Community Outcomes

Everything ORC does and will be doing in the next years contributes to achieving the six outcomes below. This is highlighted at the start of each section of Part 3 of this document.

It is the Council's intention to establish a community outcome monitoring and reporting approach. During year 1 of this LTP measures based on information available to Council and indeed its partners will be considered and where appropriate included in the approach.

It is hoped that over time the results of this approach will provide insight into Council's performance and assist future decision-making about priorities and allocation of resource.

Part 3 – What we will deliver

In this section you'll find an outline of our work represented as ten activities grouped under four key headings:

Our work activities:

- Regional Leadership
 - o Governance and Community Engagement
 - Regional Planning
 - Regulatory
- Environment
 - Land and Water
 - Biodiversity
 - o Air
- Safety and Resilience
 - Climate Change and Hazards
 - Flood Protection, Drainage and River Management
 - Emergency Management
- Transport
 - Regional Land Transport
 - Public Transport

Regional Leadership

This Group of Activities include the following council activities:

- Governance and Community Engagement
- Regional Planning
- Regulatory

Contribution to community outcomes



The Regional Leadership group contributes to the achievement of all the community outcomes as described in Part 2. It provides direction and influence over all matters that Council is required and expected to be involved with. The Regional Planning and Regulatory activities provide important levers to elected regional councilors to establish high level direction on resource management for Otago and to influence how individuals and communities contribute.

Significant Negative Effects

The Council has not identified any significant negative effects associated with this group of activity.

Annual Plan 2020/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
5,920	Governance and Community Engagement	5,728	6,336	6,193	6,463	6,912	6,811	6,987	7,464	7,352	7,537
1,925	Regional Planning	3,581	3,300	3,808	3,476	3,570	3,664	3,758	3,856	3,955	4,055
8,904	Regulatory	12,313	13,280	13,847	14,585	14,992	15,405	15,719	16,152	16,584	17,023
16,749	Expenditure	21,621	22,917	23,848	24,524	25,474	25,879	26,464	27,472	27,891	28,615
11,589	General rates	15,556	16,115	17,038	17,370	17,847	18,329	18,713	19,217	19,722	20,234
188	Targeted Rates	188	200	210	220	230	240	250	260	270	280
4,554	Fees & Charges	5,300	5,818	6,269	6,593	6,776	6,961	7,146	7,340	7,535	7,731
75	Grants	75	75	75	75	75	75	75	75	75	75
296	Other Income	270	276	282	288	295	302	308	315	321	328
47	Reserves	233	433	(26)	(22)	251	(26)	(28)	265	(32)	(33)
16,749	Revenue	21,621	22,917	23,848	24,524	25,474	25,879	26,464	27,472	27,891	28,615

Group Revenue and Expenditure (10yrs) - Regional Leadership

Governance and Community Engagement

What we do

This activity includes work to support Otago's elected regional council representatives to complete their duties. It also ensures the council can enable and strengthen democracy at a regional level through our support of structures and process. Examples include:

- elected member committee structure, council meetings,
- secretariat support for the 'Otago Mayoral Forum'
- partnership with Kāi Tahu and Iwi liaison

 council communications and engagement capacity and expertise to assist with connecting council and the community

Why we do it

Supporting governance, good decision-making, and connecting and engaging with our communities are essential features of a civilized society. Connecting the community in a timely and accessible way to decision-making and the work of Council is critical. Legislation also enshrines principles, powers, duties and functions that underpin this activity and the need for it.

Key work for years 1 to 3

This LTP maintains the level of capacity associated with council's activity to date, albeit with a modest increase associated with capacity to support partnership with Kāi Tahu and Iwi liaison. Planned projects are identified above in Part 2 'Partnering with Manu Whenua'.

Level of Service Statements, Measures and Targets

The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

LOS: Provide and promote governance processes and democratic decision making that is robust and transparent for the community.

Performance measures	Baseline	Targets					
	results	2021/22	2022/23	2023/24	2024-2031		
Percentage of council agendas that are publicly available two working days or more before a meeting	2019-20: Achieved	100%	100%	100%	100%		
Attendance by elected members at council meetings, committee meetings and workshops.	new measure	Average of ≥90% attendance	Average of ≥90% attendance	Average of ≥90% attendance	Average of ≥90% attendance		
Percentage of official information requests responded to within 20 working days of being logged.	2019-20 98.5%	100%	100%	100%	100%		

LOC: Provide satisfactory support for the Otage Mayoral Forum through agreed provision of Secretariat convises	
LOS: Provide satisfactory support for the Otago Mayoral Forum through agreed provision of Secretariat services.	

Performance measure	Baseline	Targets				
	results	2021/22	2022/23	2023/24	2024-2031	
Feedback from Mayoral Forum Chair		Satisfactory	Satisfactory	Satisfactory	Satisfactory	
indicates the support provided, and the	new	feedback	feedback	feedback	feedback	
Secretariat's contribution to progressing	measure	received by 30	received by 30	received by 30	received by 30	
the Forum's objectives.		June.	June.	June.	June.	

LOS: Develop and deliver robust and effective corporate planning and reporting.
I US: Develop and deliver robust and effective corporate planning and reporting.

Performance measure	Baseline	Targets				
	results	2021/22	2022/23	2023/24	2024-2031	
Work with our external auditor and independent Audit and Risk Chairperson to provide acceptable process and deliverables to decision-makers and the community.	2019-20: Achieved	Unmodified audit reports received	Unmodified audit reports received	Unmodified audit reports received	Unmodified audit reports received	

LOS: Build mana whenua participation in Council decision making through a treaty-based partnership approach in our engagement.

	Baseline	Targets				
Performance measures	results	2021/22	2022/23	2023/24	2024-2031	
Number of mana whenua representatives on ORC committees and governance groups.	2020-21: Four	Increase numbers	Increase numbers	Increase numbers	Maintain or increase	
Implement programme to build the bicultural competency of ORC staff and councillors.	new measure	≥50 participants per year	≥50 participants per year	≥50 participants per year	≥30 participants per year	

LOS: Provide relevant, timely and accessible communications and engagement activities which enable the community to understand and participate in ORC's programmes and decision making.

Dorformonoo moocuroo	Baseline	Targets					
Performance measures	results	2021/22	2022/23	2023/24	2024-2031		
Survey is conducted to establish community satisfaction with ORC's public engagement.	new measure	Establish baselines	Increase engagement	Increase engagement	Increase engagement		
Customer satisfaction survey is completed annually	new measure	Conduct customer survey and establish baseline	Increase customer satisfaction	Increase in customer satisfaction	Increase in customer satisfaction		

Regional Planning

What we do and why

This activity includes work that provides overarching strategic direction and support across all Council activity and particularly work under the 'Environment' section of this LTP. It provides leadership with an important lever to effect change where needed.

The Regional Policy Statement (RPS) is a critical component of this activity that umbrella's the various plans required under the Resource Management Act. These plans include water (fresh water, land and coast), air, and waste.

There is also a requirement for strategic direction on non-RMA plans, such as biodiversity, and for issues that council deems important such as climate change and understanding community wellbeing to support better decisions impacting Otago communities.

As part of this activity we work with our partners to give effect to strategic direction. An important component is working with Otago's city and district councils on resource management matters and urban development. Foundational work to develop an efficient transition to integrated catchment action planning to form the basis of planning, engagement and operational investment, will also be undertaken as part of this activity.

Much of work under this activity is required by national legislation and also assist the council and Otago community to align with national direction, including various standards.

Key work for years 1 to 3

This LTP reflects a stepped increase in capacity to provide direction on non-RMA plans, important regional issues, and urban development. We will do more to develop our understanding of broader regional wellbeing issues and what that means for Council and its partners. Leadership will be provided with better advice to make decisions and respond to community needs.

Level of Service Statements, Measures and Targets

The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

LOS: Collect information on Otago regional wellbeing (economic, social, cultural, and environmental) and identify
significant issues.

Performance measure	Baseline	Targets				
	results	2021/22	2022/23	2023/24	2024-2031	
Report on community wellbeing indicators (annual)	new measure	Develop baseline wellbeing indicators and report	on wellbeing	Annual report on wellbeing indicators and issues	on wellbeing	

LOS: Develop and maintain an environmental planning framework that aligns with national directions and enables sustainable management of natural and physical resources.

	Baseline	Targets					
Performance measures	results	2021/22	2022/23	2023/24	2024-2031		
Complete review of existing Regional Policy Statement (RPS), and variations to the RPS as required.	2020-21: on track	Respond to hearing recommendations within specified timeframes	Make RPS operative by 30 June 2023	no target	no target		
Lead the development of Integrated Catchment Action Plans, in collaboration with iwi and community	new measure	no target	no target	Establish organisational capacity and capability to develop and deliver Integrated Catchment Action Plans.	Commence development of Integrated Catchment Action Plans		

LOS: Support Otago's councils and communities to manage environmentally sustainable urban growth.									
Performance measure	Baseline		Tar	gets					
	results	2021/22	2022/23	2023/24	2024-2031				
Develop an integrated planning framework that enables well managed urban growth across Otago	new measure	Establish partnership agreements with DCC and QLDC by 30 June	Develop draft regional Urban Development Strategy by 30 June	completed and FDS**	no target				

*Housing and Business Capacity Assessment (HBA)

** Future development strategy (FDS)

LOS: Collect and make publicly available accurate, relevant and timely information on climate change in Otago.									
	Baseline	Targets							
Performance measure	results	2021/22	2022/23	2023/24	2024-2031				
Information on climate change impacts in Otago is shared with the community and stakeholders.	new measure	Otago Climate change risk assessment report is made available to public through ORC website.		TBC	ТВС				

LOS: Lead a regional approach to climate change in partnership with local councils and iwi.

	Baseline	Targets					
Performance measure	results	2021/22	2022/23	2023/24	2024-2031		
Report on regional stakeholder engagement and collaboration on climate change	new measure	Develop baseline report on climate change collaboration	Annual report on regional climate change collaboration	on regional climate change collaboration	Regional partnership approach formalised by 30 June 2025. Regional climate change responses developed by 30 June 2026. Regional adaptation risk assessment updated by 30 June 2026		

Regulatory

What we do and why

As a regulatory authority we provide services to ensure that activities in Otago are consistent with both national and regional rules. This activity gives effect to the Council's Regional Plans under the Resource Management Act, and other specific requirements under Maritime Transport Act, and Building Act. Our regulatory work includes:

- Consent processing
- Compliance monitoring (with consents) and contaminated sites
- Incident response, investigations and enforcement
- Harbours and waterway management

A common theme across this work is our role of applying the rules developed under the various legal/ planning frameworks, and how we work with the communities and individuals to achieve desired results for Otago.

Judgement is required on what the appropriate balance is between enforcement (that can result in legal proceedings), and influencing via advice, education and sometimes support. It provides elected leadership with an important lever to effect change where needed and in an appropriate way. The desire for this dual approach is reflected in our regional plans and bylaws.

We have already taken significant steps with implementing an internal review that recommended substantive improvement in Council service. The steps have included additional staffing for: consent processing, increasing compliance audits, input into plan changes, and incident response coverage to better reflect the demand across the region. The focus of this additional capacity is on Land and Water and reflects Council's broader priority to implement a freshwater framework that aligns Otago with national objectives on freshwater reform.

Key work for years 1 to 3

A significant step in capacity (staff) occurred in 2020/21 as a result of an internal review. This LTP is focused on completing the implementation of that review, and importantly delivering the desired and increased service

associated with the additional staff. Completing the internal review has involved including additional compliance staff in this LTP.

Service delivery over this LTP will reflect the Council's desire to assist those involved in consent activity with understanding the changes, the requirements, and overarching reasons. There is clearly a lot of change that will continue to occur on how Otago manages its fresh water resource – this activity is crucial piece of the integrated delivery jigsaw.

Level of Service Statements, Measures and Targets

The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

LOS: Provide effective, efficient and customer centric consenting processes under the Resource Management Act (RMA) 1991 to enable the lawful use of natural and physical resources.								
Performance measures	Baseline	Targets						
	results	2021/22	2022/23	2023/24	2024-2031			
Percentage of resource consent applications processed in accordance with Resource Management Act 1991 legislative timeframes.	2019-20: 98.9%	≥98%	≥98%	≥98%	≥98%			
Percentage of public inquiries for consent information responded to within 7 working days.	new measure	establish baseline	maintain or increase	maintain or increase	maintain or increase			

LOS: Provide effective and efficient compliance monitoring, investigations and enforcement services and take appropriate actions to ensure the lawful use of natural and physical resources.

Performance measures	Baseline	Targets					
	results	2021/22	2022/23 2023/24		2024-2031		
Percentage of performance monitoring returns completed each year, as per the Compliance Plan.	new measure	≥90%	≥90%	≥90%	≥90%		
Percentage of programmed inspections/audits completed each year, as per the Compliance Plan.	new measure	≥85%	≥90%	≥90%	≥90%		
Percentage of significant non- compliance incidents identified where action is taken in accordance with Compliance Policy.	new measure	100%	100%	100%	100%		

LOS: Provide effective and efficient environmental response services to pollution incidents or notifications of noncompliant activities.

Dorformance measures	Baseline	Targets					
Performance measures	results	2021/22	2022/23	2023/24	2024-2031		
		Pollution	Pollution	Pollution	Pollution		
Maintain 24-hour/7 day a week	2019-20:	hotline staff	hotline staff	hotline staff	hotline staff		
response for environmental incidents.	Achieved	available/on	available/on	available/on	available/on		
		call 24/7	call 24/7	call 24/7	call 24/7		
Maintain adaquata numbers of		20 responders	20 responders	20 responders	20 responders		
Maintain adequate numbers of appropriately trained responders for	new	attend 3	attend 3	attend 3	attend 3		
	measure	exercises per	exercises per	exercises per	exercises per		
maritime oil pollution incidents.		year	year	year	year		

LOS: Develop and maintain robust regulations and procedures to enable safe use and navigation of our region's ports, harbours, coastal areas and inland waterways.

Performance measure	Baseline	Targets					
Performance measure	results	2021/22	2022/23	2023/24	2024-2031		
Navigational bylaws are current and comply with national and local legislation.	Bylaws reviewed and merged September 2020	Achieved	Achieved	Achieved	Achieved		

LOS: Promote and encourage safe use of ports, harbours, coastal areas and inland waterways and take appropriate action in response to non-compliance and incidents.

Performance measure	Baseline	Targets					
	results	2021/22 2022/23 2023/24 2		2024-2031			
Major incidents on Otago's harbours and waterways will be responded to promptly and appropriately once notified.	2020-21.	Major incidents and ORC's response are reported quarterly					

Funding Impact – Regional Leadership Group

2020/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
	Sources of operating funding:										
11,589	General rates, UAGC and rate penalties	15,556	16,115	17,038	17,370	17,847	18,329	18,713	19,217	19,722	20,234
188	Targeted rates	188	200	210	220	230	240	250	260	270	280
75	Subsidies and grants	75	75	75	75	75	75	75	75	75	75
4,554	Fees and charges	5,300	5,818	6,269	6,593	6,776	6,961	7,146	7,340	7,535	7,731
260	Fines, infringement fees and other receipts	260	266	272	279	285	292	298	305	312	318
16,667	Total operating funding	21,379	22,474	23,864	24,537	25,213	25,896	26,482	27,197	27,913	28,638
	Application of operating funding:										
11,036	Payments to staff and suppliers	15,080	15,727	16,245	16,143	16,809	16,925	17,315	18,016	18,127	18,533
5,386	Internal charges and overheads	6,352	6,994	7,435	8,212	8,494	8,780	9,072	9,376	9,686	10,000
8	Other Operating funding applications	. 8	. 8	. 8	9	9	9	9	. 9	10	10
16,430	Total applications of operating funding	21,440	22,729	23,688	24,363	25,311	25,714	26,396	27,402	27,822	28,543
237	Surplus (deficit) of operating funding	(61)	(255)	177	173	(98)	182	85	(205)	90	95
	Application of capital funding:										
207	Increase/(decrease) in reserves	(111)	(306)	156	152	(120)	159	62	(228)	66	70
0	Capital expenditure to improve level of service	30	0	0	0	0	0	0	0	0	0
30	Capital expenditure to replace existing assets	20	51	21	21	22	23	23	24	24	25
237	Application of capital funding Total	(61)	(255)	177	173	(98)	182	85	(205)	90	95
237	Surplus (deficit) of capital funding Total	(61)	(255)	177	173	(98)	182	85	(205)	90	95

Environment

This Group of Activities include the following council activities:

- Land and Water
- Biodiversity and Biosecurity
- Air quality

Contribution to Community Outcomes



The Environment group contributes to the achievement of all the community outcomes as described in Part 2 with the exception 'sustainable, safe and inclusive transport'. Land and water is our priority with biodiversity woven into the outcome of 'a sustainable way of life for everyone on Otago'. Working to maintain and improve this priority aspect of the environment in a way that 'Mātauranga Kāi Tahu are inbedded' and 'connects communities' with Otago's environment is important.

The outcome 'an environment that supports healthy people and ecosystems' is also embodied in this activity group with pest management supporting people's livelihoods (eg. achieve productive land) and air quality having a direct link to people's health (eg. air emissions).

Overall direction

Environmental management is at the heart of what the regional council does. Our focus is to enhance the overall effectiveness of environmental management by:

- Increasing our science capacity with a focus on environmental monitoring to better inform our Regional Plan: Land and Water review, and to better understand Otago's environment
- Continuing the review of our regional plans (for water, air and coast), while still working with community groups, stakeholders and land managers to promote good environmental outcomes
- Transitioning towards integrated catchment management, to create synergies in our activities that seek to protect freshwater, land, the coastal environment, or ecosystems
- Increasing our level of work in biosecurity management
- Continuing to promote well-coordinated and cross-agency biodiversity initiatives across the region.

Due to funding pressures, we're pausing most of our air quality work – except for monitoring - over the next two years. Beyond that, we'll be striving to develop more effective solutions to manage air pollution in Otago.

Significant negative effects

The Council has not identified any significant negative effects associated with this group of activity.

Annual Plan 2020/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
10,888	Land & Water	15,834	17,336	18,128	18,256	18,235	18,700	19,503	20,002	20,319	20,817
4,153	Biodiversity & Biosecurity	9,109	9,359	9,601	10,839	11,106	11,397	11,690	11,995	12,301	12,608
518	Air	482	816	772	1,662	2,767	4,590	4,636	4,746	4,928	4,974
15,560	Expenditure	25,425	27,512	28,501	30,756	32,107	34,687	35,829	36,743	37,548	38,399
11,793	General rates	13,875	16,593	17,873	18,400	18,474	18,993	19,525	20,074	20,624	21,151
890	Targeted Rates	3,309	5,149	6,351	6,735	6,964	7,195	7,428	7,668	7,909	8,152
5	Fees & Charges	200	205	210	215	220	225	230	236	241	247
905	Grants	3,877	2,536	2,179	4,218	5,420	7,237	7,404	7,577	7,751	7,924
629	Other Income	964	364	364	364	364	364	364	364	364	364
1,338	Reserves	3,200	2,664	1,524	825	665	672	877	823	658	561
15,560	Revenue	25,425	27,512	28,501	30,756	32,107	34,687	35,829	36,743	37,548	38,399

Group Revenue and Expenditure (10yrs) - Environment

Land and Water

What we do

- We assess and monitor the health of Otago's fresh- and coastal water and their ecosystems and investigate the risks and issues likely to affect their values;
- We prepare, assess, and review the Regional Plan: Water and Coast
- We carry out non-regulatory interventions that support sustainable land management practices and environmental initiatives that enhance Otago's water bodies and coast.

Why we do it

Otago's water bodies and its coast are highly valued by the community:

- 82%⁶ of Otago's rivers and lakes are swimmable; and support a wide range of recreational activities
- Freshwater is a key resource for domestic use, agriculture and electricity;
- Otago's waters provide the habitats for 25 species of indigenous freshwater fish, of which 18 are classified as Threatened or At Risk; and for a large range of marine life and sea birds.

Water also plays a significant role in Kāi Tahu spiritual beliefs and cultural traditions. When the natural environment is strong and healthy, the people are strong and healthy and so too is their mana.

Degrading freshwater quality is a key community concern in the region. Although parts of the region have good or excellent water quality, some catchments have degraded water quality; and there have been a greater number of degrading water quality trends than improving trends across ORC's monitoring sites between 2006 and 2017. There have also been strong pressures on water allocation in some parts of the region.

ORC has a key role to play to ensure Otago's water bodies and coast support healthy ecosystems, and a healthy community:

• Only ORC has the power to control the use of water, land, and the coast under the Resource Management Act (1991)

⁶ This estimate applies to larger rivers and lakes, defined as "rivers that are fourth order in the River Environment Classification system and lakes with a perimeter of 1.5km or more" – ORC Policy Committee Report – 29 Nov 2018

⁻ PPRM1843

- It must engage with the region's communities to define visions and objectives for the region's freshwater bodies, and identify the methods to achieve these visions and objectives (National Policy Statement for Freshwater (2020))
- It has the technical expertise and knowledge to advise on the region's environmental health, issues and risks, and to monitor the health of Otago's water.

Key projects

While we will strengthen ORC's state of the environment monitoring, and keep supporting catchment groups and land managers in delivering good environmental outcomes, we will also deliver key projects to support long-term improvements.

Preparation of the Land and Water Regional Plan

- Notified in 2023
- Will define clear and measurable freshwater objectives, as required by national legislation
- Will set policies and rules, for more transparent, effective and efficient decision-making

Review of the Regional Plan: Coast for Otago

- Notified by 2025-2026
- Update existing rules and policies based on latest information and legislation
- Will set policies and rules, for more transparent, effective and efficient decision-making

Environmental Enhancement

- From 2021 to 2024
- Focus on Lake Hayes, Tomahawk Lagoon and Lake Tuakitoto

Preparation of Integrated Catchment Action Plans

- From 2024-2025 onwards
- Integrates actions for water, ecosystems, biodiversity, and biosecurity, and natural hazards mitigation

Level of Service Statements, Measures and Targets

The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

LOS: Monitor the state of Otago's freshwater resources and coastal environment and make accurate, relevant and timely information publicly available.									
Defermente	Baseline	Targets							
Performance measures	results	2021/22	2022/23	2023/24	2024-2031				
Percentage of data captured that is available to public through web portal.	new measure	95%	95%	95%	95%				
Implement a regional coastal environment monitoring programme.	Programme developed 2020-21	P Programme implemented TBC TBC by 30 June		ТВС	ТВС				

LOS: Monitor Otago's land use and make accurate, relevant and timely information on sustainable land use publicly available.

	Deceline	Targets				
Performance measure	Baseline results	2021/22	2022/23	2023/24	2024-2031	
Develop and implement a regional land use monitoring programme.	new measure	Develop regional monitoring programme	Implement regional monitoring programme	TBC	TBC	
Percentage of data captured that is available to public through web portal.	new measure	no target	no target	95%	95%	

LOS: Provide a robust and integrated environmental planning framework for Otago's land, water and coast resources.

	Baseline	Targets				
Performance measures	results	2021/22	2022/23	2023/24	2024-2031	
Complete a review of the Land and Water Regional Plan (LWRP) and create any subsequent variations as required.	new measure	Commence development of region-wide Land and Water provisions	no target	Notify LWRP by 30 December	no target	
Complete a review of the Regional Plan Coast and create any subsequent variations as required.	new measure	no target	Review commences with issues and options papers developed by 30 June	development	Notify Regional Coastal Plan for Otago by 30 June 2026	

LOS: Support Catchment Groups in Otago to deliver their environmental outcomes and objectives.						
Performance measure	Baseline	Targets				
	results	2021/22	2022/23	2023/24	2024-2031	
Otago Catchment Communities meets deliverables and targets of funding agreement.	new measure	Deliverables and targets achieved and reported by 30 June				

LOS: Promote and enable best practice land management for soil conservation, water quality preservation, the
efficient use of water and to enhance Otago's biodiversity and ecosystems.

Performance measure	Baseline results	Targets				
		2021/22	2022/23	2023/24	2024-2031	
Community projects promoting best		Three	Three	Three	Three	
practice land management for soil	2014	community	community	community	community	
conservation, water quality and the	new measure	projects	projects	projects	projects	
efficient use of water are identified and		delivered per	delivered per	delivered per	delivered per	
delivered.		year	year	year	year	

LOS: Collaborate with iwi, communities and landowners to develop and deliver a programme of actions to improve water quality and indigenous biodiversity in selected degraded waterbodies.

Performance measures	Baseline	Targets				
	results	2021/22	2022/23	2023/24	2024-2031	
		projects	projects	projects	projects	
	new measure	confirmed and	confirmed and	confirmed and	confirmed and	
		priority actions	priority actions	priority actions	priority actions	
Cite specific action plans are developed		identified by	identified by	identified by	identified by	
Site specific action plans are developed, prioritised, and implemented.		30 September	30 September	30 September	30 September	
phontised, and implemented.		90% of priority	90% of priority	90% of priority	90% of priority	
	new	actions	actions	actions	actions	
	measure	undertaken as	undertaken as	undertaken as	undertaken as	
		scheduled	scheduled	scheduled	scheduled	

Biodiversity and Biosecurity

What we do

- We lead and facilitate collaboration on biodiversity programmes and initiatives in the region.
- We investigate, monitor and provide information about Otago's biodiversity, including improving our understanding of its vulnerability to climate change
- We lead pest and biosecurity management in the region
- We promote and support community and farmer initiatives to protect and enhance Otago's biodiversity and ecosystems

Why we do it

Otago's biodiversity is under threat as a result of both past and current human activities. Recent mapping has shown that some ecosystem types are as low as 3% of their historical distribution and there are 10 ecosystems (of 62) with a distribution of less than 10 ha. At the species level, some 44% of Otago's bird species are threatened or at risk; 88% of lizard species; and 72% of indigenous fish species. Current threats to biodiversity include invasive species (both weeds and predators), vegetation clearing, habitat fragmentation and grassland "improvement", poor water quality (nutrients and sediments), dredging and overfishing. Climate change adds significantly to the risks of continuing decline.

There are many agencies and stakeholders across different land tenures involved in and/or with an interest in biodiversity in Otago. Knowledge and data to inform development of programmes and initiatives for protection and restoration is not collated or coordinated across the region.

At a national level the 2020 *Te mana o te Taieo*, National Indigenous Biodiversity Strategy, articulated the urgency of addressing biodiversity decline in New Zealand and the draft National Policy Statement on Indigenous Biodiversity identified a key role for regional government in leading collaboration and coordinating efforts.

ORC is the only agency with a remit across all of Otago to promote biodiversity protection and enhancement. It has a key role in facilitating regional collaboration, including both developing a monitoring approach and seeking to partner in projects and initiatives. While ORC currently has its own Biodiversity Strategy and Action Plan, these need

to be refined and updated alongside development of the regional strategy, to reflect new knowledge about Otago's biodiversity values which is now available, and which can provide priorities to better target action.

Key work for years 1 to 3

• Development of a regional partnership approach to indigenous biodiversity

We are taking more of a leadership role in the region by facilitating and coordinating a regional biodiversity hui and working with TA's, other regional agencies and Kai Tahu to develop a regional strategy to inform partnerships and future regional investment in biodiversity protection, restoration and enhancement.

Increase indigenous biodiversity knowledge and develop a monitoring approach

We will be investing more in our biodiversity knowledge base over the LTP. In the short term this will fuel the development of our monitoring framework for indigenous biodiversity and the longer term the focus will be on better understanding the vulnerability of Otago's biodiversity to climate change.

• Implementing the regional pest management strategy and the ORC biosecurity strategy

We will continue to lead the implementation of the regional pest management strategy and our biosecurity strategy. We will increase our investment in biosecurity data and information systems to ensure that progress is monitored and that actions are as effective and efficient as possible.

Our investment for economic outcomes through rabbit control will substantially increase. Increased inspections, monitoring and support of local rabbit control groups will provide a step-change in rabbit management for Otago. Management of other biosecurity threats, for example in marine ecosystems, will need to be progressively developed over time as resources permit.

Current regional-scale pest and predator projects addressing biodiversity threats, such as wilding conifer and possum control (e.g. Predator Free Dunedin) will continue to be supported and their coverage over time will increase. However, to improve the effectiveness and efficiency of these operations strategies will be progressively developed to inform on-ground investment for the future.

• Supporting on-ground biodiversity restoration, enhancement and protection initiatives

Investment in local on-ground restoration/enhancement and biodiversity protection initiatives such as the Yellow-Eyed Penguin, will continue. The Eco Fund grants programme will gradually expand over the LTP providing increasing opportunity for local groups to access support for their activities.

Otago Catchment groups and their environmental enhancement initiatives will continue to be supported and increasingly ORC will be looking to invest in landscape restoration and enhancement as an integrated part of our regional pest and predator control programmes.

Education and awareness about Otago's biodiversity and how to protect/restore it will be progressively integrated into our farm support programmes and in the longer term into our approach to farm plans.

Level of Service Statements, Measures and Targets

The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

LOS: Monitor the state of Otago's indigenous biodiversity ecosystems and make accurate, relevant and timely						
information publicly available						
Measure	Baseline		Tar	gets		
	results	2021/22	2022/23	2023/24	2024-2031	
Develop and implement a regional indigenous biodiversity ecosystems monitoring programme	new measure	No target	Develop monitoring programme by 30 June	Implement regional monitoring programme in accordance with NPS IB*	TBC	
Percentage of data captured that is available to public through web portal.	new measure	No target	No target	No target	95%	
*National Policy Statement on Indigenous Biodiversity						

lational Policy Statement on Indigenous Biodiversity

LOS: Collaborate with iwi, DOC and other key organisations to develop, coordinate and deliver a programme of actions to enhance indigenous biodiversity.

Performance measures	Baseline	Targets				
	results	2021/22	2022/23	2023/24	2024-2031	
Priority actions listed in the Biodiversity Action Plan (BAP) are achieved as per schedule	ТВС	Priority actions identified by 30 September	identified by	Priority actions identified by 30 September	Priority actions identified by 30 September	
					Priority actions achieved by 30 June	
Partnerships established in line with the Biodiversity Action Plan and joint projects developed.	new measure	projects scoped and milestones identified	projects developed and progress against milestones publicised	projects developed and progress against milestones publicised	projects developed and progress against milestones publicised	

LOS: Provide support and funding to selected initiatives and organisations across the region which deliver biosecurity, biodiversity and environmental outcomes that align with our strategic objectives.						
Performance measure	Baseline results	Targets				
		2021/22	2022/23	2023/24	2024-2031	
Percentage of completed projects that have achieved their key deliverables.	new measure	80%	85%	90%	95%	

LOS: Develop and deliver practices and programmes that give effect to the Regional Pest Management Plan (RPMP)						
Performance measures	Baseline	Targets				
i enormance measures	results	2021/22	2022/23	2023/24	2024-2031	
Priority targets within the Biosecurity Operational Plan (BOP) are achieved as per schedule	ТВС	Priority actions identified by 30 September	identified by	identified by	Priority actions identified by 30 September	
					Priority actions achieved by 30 June	

Air

What we do

- We monitor air quality and pollutant emissions, and investigate emission sources;
- We prepare, assess, and review the Regional Plan: Air
- We carry out non-regulatory interventions that support clean heating and warm homes; and the reduction of other harmful emissions.

Why we do it

Some of Otago's communities have among the worst air quality in New Zealand. Unlike in many other countries, air pollution in Otago is mostly driven by emissions from home heating, and thus is seasonal and mostly observed in winter. Arrowtown, Clyde, Cromwell, Alexandra and Milton are the pollution hotspots of the region. Outdoor burning is an additional factor to air pollution.

The link between air quality and human health has been well established. The pollutant of most concern in Otago is particulate matter (PM). Particulate matter can result in a range of health effects depending on where it ends up in the human body. Fine particles can penetrate deep into the lungs, and ultrafine particles can find their way into the bloodstream. The most vulnerable are the very young, the elderly, and people with pre-existing respiratory or cardiovascular disease.

Air pollution in Otago is closely linked to home heating and to the quality of Otago's housing.

ORC has a key role to play to protect Otago's people from the risks of air pollution. Only ORC has the power to control discharges of pollutants to air under the Resource Management Act (1991) and must implement the National Environmental Standards for Air Quality (2004);

Key projects

While we will keep monitoring air quality over the next 10 years, we will pause our air quality activities over the first 2 years (2021-2022/2022-2023). From July 2023, we will swing back into actions and carry out the following projects:

Review of the Regional Plan: Air for Otago

- Notified by 30 June 2025
- Update existing rules and policies based on latest information and legislation

Air quality programmes

- Developed & implemented from 2023-2024
- Suite of actions that support clean heating and warm homes

Level of Service Statements, Measures and Targets

The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

Performance measure	Baseline		Tar	gets	
	results	2021/22	2022/23	2023/24	2024-2031
Monitor daily ambient air quality* at locations across the region.	ТВС	Four continuous monitoring sites and four winter monitoring sites.	Four continuous monitoring sites and four winter monitoring sites.	Four continuous monitoring sites and four winter monitoring sites.	Four continuous monitoring sites and four winter monitoring sites.
Percentage of data captured that is available to public through web portal.	new measure	95%	95%	95%	95%

LOS: Provide a robust and integrated environmental planning framework for Otago's air resource.								
Performance measure	Baseline		Targets					
	results	2021/22	2022/23	2023/24	2024-2031			
Complete review of the Regional Plan Air and update as required.	new measure	no target	Review commences with issues and options papers developed by 30 June 2023.		Regional Plan - Air notified by 30 June 2025.			

LOS: Develop and implement partnerships and programmes to reduce harmful emissions and support clean heating, warm homes and clean air.							
Performance measure	Baseline		Tar	gets			
	results	2021/22	2022/23	2023/24	2024-2031		
Clean heat, clean air implementation programme has a high level of local engagement in targeted air sheds.	new measure	no target	no target	Establish engagement levels in all targeted air sheds	Engagement levels improve in all targeted air sheds		

Funding Impact – Environment Group

		Fund	ding Impac	t Statemer	nt – Enviro	nment					
2020/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
	Sources of operating funding:										
11,793	General rates, UAGC and rate penalties	13,875	16,593	17,873	18,400	18,474	18,993	19,525	20,074	20,624	21,151
890	Targeted rates	3,309	5,149	6,351	6,735	6,964	7,195	7,428	7,668	7,909	8,152
905	Subsidies and grants	3,877	2,536	2,179	4,218	5,420	7,237	7,404	7,577	7,751	7,924
5	Fees and charges	200	205	210	215	220	225	230	236	241	247
364	Fines, infringement fees and other receipts	964	364	364	364	364	364	364	364	364	364
13,958	Total operating funding	22,225	24,847	26,977	29,931	31,442	34,015	34,952	35,920	36,890	37,838
	Application of operating funding:										
10,894	Payments to staff and suppliers	19,232	19,925	21,045	22,776	24,020	26,277	26,884	27,514	28,144	28,774
3,563	Internal charges and overheads	4,412	5,351	6,192	6,823	7,058	7,294	7,533	7,783	8,037	8,296
14,457	Total applications of operating funding	23,644	25,277	27,237	29,599	31,078	33,571	34,417	35,297	36,181	37,070
(499)	Surplus (deficit) of operating funding	(1,420)	(429)	(260)	332	364	444	535	623	708	769
	Application of capital funding:										
(1,089)	Increase (decrease) in reserves	(2,850)	(2,209)	(1,017)	(276)	(116)	(73)	(220)	(108)	111	238
135	Capital expenditure to improve level of service	1,090	1,293	537	441	260	180	236	189	193	197
	Capital expenditure to replace existing assets	340	486	220	166	220	338	518	542	404	333
(499)	Application of capital funding Total	(1,420)	(429)	(260)	332	364	444	535	623	708	769
(499)	Surplus (deficit) of capital funding Total	(1,420)	(429)	(260)	332	364	444	535	623	708	769

Safety and Resilience

This Group includes the following council activities:

- Natural Hazards and Climate Change
- Flood Protection, Drainage and River Management
- Emergency Management

Contribution to Community Outcomes



The Safety and Resilience group of activity contributes primarily to the achievement of the outcome 'communities that are resilient in the face of natural hazards & climate change and other risks' as described in Part 2. The outcome of 'a sustainable way of life for everyone in Otago' is also shown because the choices our communities make about how they live with, and utilise the natural environment have consequences over the long term.

Overall Direction

This LTP further builds on the additional expenditure for natural hazards and climate change adaptation work program as included in the previous 2018 LTP. This growing program of work reflects government and community understanding of climate change and the need act.

Our draft Infrastructure Strategy explains the Council's direction on its Flood Protection, Drainage and River Management activity. This LTP provides continuity to the existing planned program and includes work to understand and plan for issues including climate change. This LTP maintains the existing level of capacity for emergency management response.

Significant Negative Effects

The Council has not identified any significant negative effects associated with this group of activity.

Annual Plan 2020/21 \$000s		2021/2 2 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
2,131	Natural Hazards & Climate Change	2,732	3,766	3,491	3,282	3,575	3,694	3,616	3,732	3,614	3,715
11,371	Flood Protection, Drainage & River Management	12,010	12,409	11,744	11,864	11,920	11,351	13,396	11,015	11,269	12,322
2,658	Emergency Management	2,759	2,801	2,868	3,008	3,091	3,174	3,256	3,343	3,431	3,520
16,161	Expenditure	17,500	18,976	18,103	18,155	18,585	18,218	20,269	18,090	18,314	19,557
2,952	General rates	3,116	3,863	4,096	4,189	4,018	4,108	4,629	4,384	4,232	4,624
8,848	Targeted Rates	9,611	10,007	10,588	11,292	11,939	12,517	13,164	13,826	14,378	15,031
249	Fees & Charges	408	463	475	471	483	494	505	517	529	541
0	Grants	1,700	1,558	613	434	208	213	36	37	38	39
245	Other Income	736	833	857	893	917	941	965	990	1,015	1,040
3,866	Reserves	1,929	2,253	1,474	875	1,020	(54)	969	(1,663)	(1,878)	(1,718)
16,161	Revenue	17,500	18,976	18,103	18,155	18,585	18,218	20,269	18,090	18,314	19,557

Group Revenue and Expenditure (10yrs) – Safety & Resilience

Natural Hazards and Climate Change

What we do

- We set directions on the management of (lead?) natural hazard risks and support decision making for the mitigation of natural hazards, climate change and other risks.
- We provide information and warnings about natural hazards, climate change and other risks.
- We engage with people, communities, iwi partners, and other stakeholders in the region to develop partnerships and implement projects to address natural hazards, climate change and other risks and to increase awareness and understanding.

Why we do it

The Otago region is exposed to a wide variety of natural hazards that impact on people, property, infrastructure and the wider environment. The natural hazards threats range from coastal erosion and flooding in lowland coastal areas to alluvial fan deposition, landslip, rock fall, and river breaches in alpine areas of the region. There is a need to consider all of these and their interactions as well as the additional risk and uncertainty created by climate change. The RMA requires that natural hazards risks and climate change are addressed as part of regional scale planning.

While high risk places have been identified there is a need to have comprehensive spatial mapping of the risks to provide clear direction for future planning and decision making. Within communities and businesses there also are different levels of awareness and risk tolerance to hazards, including the implications of climate change and the need for adaptation. Community engagement and communication, including as part of planning for natural hazards and climate change adaptation, is needed to inform the community, and facilitate the awareness and planning necessary to ensure resilient communities.

Key work for years 1 to 3

- Develop comprehensive risk mapping of natural hazards across Otago
- Continue to lead the South Dunedin climate change adaptation project in partnership with DCC
- Planning and strategy development for managing flood risk for Lindsay Creek and Clutha Delta.
- Managing natural hazard and climate adaptation risk for Roxburgh and the Head of Lake Wakatipu in conjunction with District Councils
- Continue to monitor and provide information on natural hazards and events, including making improvements to the coastal hazard monitoring network.

Level of Service Statements, Measures and Targets

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The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

LOS: Provide information on natural hazards and risks, including the effects of climate change, so that communities and stakeholders can make informed decisions.								
Performance measures	Baseline		Tar	gets				
	results	2021/22	2022/23	2023/24	2024-2031			
Relevant and up to date natural hazards information is available via the web- based Otago Natural Hazards Database	2019-20: Achieved	Database information is checked and updated monthly	Database information is checked and updated monthly	Database information is checked and updated monthly	Database information is checked and updated monthly			
Percentage of flood warnings at pre- determined levels that are issued in accordance with the methods and timeframes specified in the flood warning manual.	new measure	100%	100%	100%	100%			

LOS: Collaborate with communities and stakeholders to develop and deliver natural hazards adaptation strategies.							
Dorformanco moacuro	Baseline	Targets					
Performance measure	results	2021/22	2022/23	2023/24	2024-2031		
Develop the Otago natural hazards risks adaptation plan	new measure	no target	Systematic approach for natural hazards risks identification and adaptation is completed	ТВС	Complete adaptation plan by 30 June 2025 and implement 2025-2031		
The first Head of Lake Wakatipu natural hazards adaptation strategy Is complete	new measure	no target	Adaptation strategy is completed by 30 June	update the adaptation strategy	Implement and update the adaptation strategy		
Co-lead the South Dunedin and Harbourside natural hazards adaptation strategy	new measure	Collaboration framework with DCC is approved	no target	Adaptation strategy is completed by 30 June	Implement and update the adaptation strategy		

Flood Protection, Drainage and River Management

What we do

Council operates and maintains seven flood protection and drainage schemes throughout Otago. The schemes, associated infrastructure assets and more specific detail such as the issues, service standards and work programmes are provided in our Infrastructure Strategy (IS).

Core functions include:

- Maintenance, renewal, and development of infrastructure
- Investigation, development and renewal of amenity projects
- Operation of flood protection and drainage schemes during floods
- Bylaw processing and monitoring of technical compliance with bylaws
- River management including the control of channel erosion, willow maintenance, vegetation control, removing obstructions, and repairing critical erosion works.
- Management of gravel extraction through third party consents.
- Processing of consents in conjunction with Council's Natural Hazards activity where consent applications may affect flood protections assets and/or rivers.

Why we do it

While there is a relationship between the purpose of our flood protection and drainage work there is also a fundamental difference. Flood protection schemes are intended to protect people and property from flood events. Drainage schemes are designed to maintain the productive capability of land on an ongoing basis but within the limitation of the flood protection schemes.

River and waterway management works are carried out to maintain river and stream channel capacity, channel stability and environmental outcomes in scheduled rivers and waterways.

Council also has responsibilities under the Soil Conservation and Rivers Control Act 1941, and other requirements such as ensuring our infrastructure is appropriately managed, and the management and maintenance of Otago rivers.

Operational and Capital Work Programme - 10 years LTP, 30 years Infrastructure Strategy

The Council has 'up to date' information on its Long-term Plan website page that details the proposed operational and capital works programme. The figures presented for years 1 to 3 represent a more detailed level of planning, years 4 to 10 is more indicative, and years 11 to 30 are more subject to changes in strategic direction. An example of the latter planning horizon is the impact completing the year 1-2 scheme performance reviews will have on future services.

Level of Service Statements, Measures and Targets

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The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

LOS: Provide the standard of flood protection and control agreed with communities.							
Dorformana magning	Baseline	Targets					
Performance measures	results	2021/22	2022/23	2023/24	2024-2031		
Major flood protection and control works are maintained, repaired, and renewed to the key standards defined in relevant planning documents.	new measure	80% of planned maintenance programme completed	90% of planned maintenance programme completed	100% of planned maintenance programme completed	100% of planned maintenance programme completed		
	new measure	Schemes function to their constructed design standards	Schemes function to their constructed design standards	Schemes function to their constructed design standards	Schemes function to their constructed design standards		
	new measure	100% of renewals programme completed	100% of renewals programme completed	100% of renewals programme completed	100% of renewals programme completed		

LOS: Respond efficiently and effectively to damage from natural hazard events.							
Performance measure	Baseline results	Targets					
renormance measure		2021/22	2022/23	2023/24	2024-2031		
Damage identified, prioritised and a repair programme communicated with affected communities in a timely manner.		communicated within 3		communicated within 3	Programme developed and communicated within 3 months of the event		

LOS: Maintain channel capacity and stability, while balancing environmental outcomes and recognising mana whenua values in rivers.

Performance measures	Baseline	Targets					
	results	2021/22	2022/23	2023/24	2024-2031		
Percentage of identified and reported issues that have been investigated and appropriate action determined and communicated to affected landholders within 20 working days.	2019-20: 100%	100%	100%	100%	100%		

Percentage of planned maintenance actions achieved each year	new measure	100%	100%	100%	100%	
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Emergency Management

What we do and why

This activity is responsible for the co-ordination of hazard reduction, readiness, response and recovery for emergency events. It is provided in partnership with councils, emergency response organisations and other stakeholders of the Otago region.

The work of the Otago CDEM Group is administered and co-ordinated by the Otago Regional Council, while governance and operations are overseen by the Coordinating Executive Group (CEG) and the Otago CDEM Joint Committee.

This Committee has the statutory responsibility for civil defence emergency management in Otago. It is a statutory committee of Council under the Civil Defence Emergency Management Act 2002 (the Act) and the Local Government Act. Ultimately it is responsible for:

- Integrating and coordinating civil defence emergency management planning and activities
- Ensuring the response to and management of the adverse effects of emergencies within Otago
- Overseeing the coordination of the response and recovery activities across a range of agencies.

Key work for years 1 to 3

In response to the COVID-19 pandemic Council included additional funding in the 2020-21 Annual Plan for a fixed term increase in emergency management staffing in the Queenstown area. The Council maintaining its staffing levels for this activity.

Level of Service Statements, Measures and Targets

The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

LOS: Support the Otago CDEM Group in improving the resilience of Otago to civil defence emergencies.							
Performance measure	Baseline results	Targets					
		2021/22	2022/23	2023/24	2024-2031		
		Fulfil all	Fulfil all	Fulfil all	Fulfil all		
Support is provided to the Otago CDEM	new	requirements	requirements	requirements	requirements		
Group as per the CDEM Act and Otago	-	of the Act and					
CDEM Partnership Agreement	measure	the Partnership	the Partnership	the Partnership	the Partnership		
		Agreement	Agreement	Agreement	Agreement		

LOS: Provide resources to coordinate an efficient and effective region-wide response to a civil defence emergency.												
Dorformanco moacuros	Baseline	Targets										
Performance measures	results	2021/22	2022/23	2023/24	2024-2031							
An adequate* Emergency Coordination Centre (ECC) facility and staffing are available	new measure	An ECC facility and staffing are ready and available for activation at all times	and staffing are ready and available for	An ECC facility and staffing are ready and available for activation at all times	An ECC facility and staffing are ready and available for activation at all times							
ECC activated in a timely manner	new measure	ECC activated within 1 hour of Group Controller's decision to activate	ECC activated within 1 hour of Group Controller's decision to activate	ECC activated within 1 hour of Group Controller's decision to activate	ECC activated within 1 hour of Group Controller's decision to activate							

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*An adequate ECC facility is an IL4 rated building (67% of building code) with power and communication contingencies. Adequate staffing consists of staff who are trained (two staff trained as leads across each of the six functions) and available (a minimum of four staff per function) for any activation of the ECC.

Funding Impact Statement – Safety and Resilience

		Funding	g Impact St	tatement –	- Safety & F	Resilience					
2020/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
	Sources of operating funding:										
2,952	General rates, UAGC and rate penalties	3,116	3,863	4,096	4,189	4,018	4,108	4,629	4,384	4,232	4,624
8,848	Targeted rates	9,611	10,007	10,588	11,292	11,939	12,517	13,164	13,826	14,378	15,031
	Subsidies and grants	1,700	1,558	613	434	208	213	36	37	38	39
249	Fees and charges	408	463	475	471	483	494	505	517	529	541
245	Fines, infringement fees and other receipts	245	251	257	263	270	276	283	289	296	302
11,347	Total operating funding	15,081	16,142	16,029	16,650	16,918	17,608	18,617	19,053	19,473	20,538
	Application of operating funding:										
8,769	Payments to staff and suppliers	9,338	10,638	11,252	10,645	10,386	10,648	11,009	11,291	11,338	11,728
2,579	Internal charges and overheads	2,565	2,733	2,926	3,209	3,317	3,427	3,538	3,655	3,773	3,893
11,347	Total applications of operating funding	11,903	13,371	14,178	13,854	13,703	14,075	14,548	14,946	15,112	15,621
947	Surplus (deficit) of operating funding	3,177	2,771	1,851	2,795	3,215	3,533	4,069	4,107	4,361	4,916
	Application of capital funding:										
(2,934)	Increase/(decrease) in reserves	(918)	(1,187)	(358)	216	129	1,258	141	2,786	3,000	2,880
680	Capital expenditure to improve level of service	100	102	105	0	1,650	1,126	576	1,179	603	0
3,201	Capital expenditure to replace existing assets	3,995	3,855	2,104	2,580	1,436	1,149	3,352	141	759	2,037
(947)	Application of capital funding Total	3,177	2,771	1,851	2,795	3,215	3,533	4,069	4,107	4,361	4,916
(947)	Surplus (deficit) of capital funding Total	3,177	2,771	1,851	2,795	3,215	3,533	4,069	4,107	4,361	4,916

Transport

The Transport Group includes the following council activities:

- Regional Land Transport
- Public Transport (Dunedin and Queenstown)

Contribution to community outcomes



The Transport group contributes to the achievement of the community outcomes 'Sustainable, safe & inclusive transport' and 'a sustainable way of life for everyone in Otago' as described in Part 2. Council provides direction and influence over public transport matters within the central government strategic and investment framework. The decisions council takes about the services it provides, in particular to the Dunedin and Queenstown

Significant Negative Effects

The Council has not identified any significant negative effects associated with this group of activity.

Annual Plan 2020/21		2021/2 2	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
\$000s 403	Regional Land Transport	\$000s 407	418	543	459	472	597	497	510	644	537
28,405	Public Transport	32,044	34,988	36,712	43,934	42,103	41,978	43,718	43,802	44,783	45,791
28,808	Expenditure	32,451	35,406	37,255	44,393	42,575	42,575	44,215	44,312	45,428	46,328
743	General rates	745	764	841	816	836	912	876	898	978	941
5,852	Targeted Rates	7,290	8,755	10,390	11,718	13,774	14,239	15,417	15,270	15,772	16,019
241	Fees & Charges	250	256	262	268	275	281	288	295	301	308
10,493	Grants	12,985	14,119	14,623	17,861	16,855	16,640	17,258	17,076	17,419	17,632
9,600	Fares & Other Income	8,517	9,294	10,203	10,955	11,409	11,875	12,355	12,860	13,379	13,914
1,879	Reserves	2,664	2,218	936	2,775	(574)	(1,374)	(1,980)	(2,087)	(2,422)	(2,486)
28,808	Revenue	32,451	35,406	37,255	44,393	42,575	42,575	44,215	44,312	45,428	46,328

Group Revenue and Expenditure (10yrs) - Transport

Regional Land Transport

What we do and why

Transport features strongly in our changing world, with climate change, technology and our expectations of lifestyle all in the mix. We are already seeing the opportunities of non-fossil fuelled and autonomous vehicles, along with the use of smart technology in the provision of transport services. Embracing change will require significant decisions about the transport network and how it's used and will provide positive benefits over the long run.

For ORC's part we need to be responsive to Government Policy Statement on Land Transport 2018, Government direction on climate change and urban development. Our regional transport system is an enabler of economic growth and social cohesion, connecting businesses, providing access to and between communities, and ensuring that we can import and export goods. The LTP provides for a Regional Land Transport Programme that co-

ordinates transport planning across the region. It enables a resilient, multi-modal transport system for the safe efficient and effective movement of people and goods around the region. The Otago and Southland Regional councils share this planning function through the support of a Regional Transport Committee.

Key work for years 1 to 3

By statute, the Committee is responsible for the preparation, review and implementation of the Regional Land Transport Plan. A new Regional Land Transport Plan must be developed every 6 years and the plan reviewed after 3 years of operation. A new plan must be prepared by 30 June 2021 for the period 2021-2031.

Level of Service Statements, Measures and Targets

The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

LOS: Advocate for Otago's regional transport planning priorities and aspirations at a national level											
Performance measures	Baseline		Target	S							
	results	2021/22	2022/23	2023/24	2024-2031						
The Regional Land Transport Plan (RLTP) is reviewed and submitted in line with the Land Transport Management Act 2003 and any guidance issued by the New Zealand Transport Agency (NZTA)	ТВС	RLTP implementation progress reported annually to Regional	RLTP implementation progress reported annually to Regional	and adopted by Council by	Council by 30						
		Transport Committee	Transport Committee	30 June 2024	June 2027						

Public Transport

What we do and why

This work programme covers the operation of the buses (Dunedin and Queenstown) and ferries (Queenstown), as well as the 'Total Mobility' scheme.

This programme faces challenges including:

- Patronage numbers for the Queenstown are not expected to return to pre-COVID levels in the shortterm.
- A large number of residents are opting to use alternative modes of travel, largely single occupancy
 private car trips. This means the Otago region, particularly the areas paying the targeted transport rate,
 isn't benefiting from public transport to the degree possible. Higher patronage provides more funding
 for more public transport service improvement a virtuous cycle that reduces traffic volumes, reduces
 greenhouse emissions, reduces the need for infrastructure to accommodate private vehicles (eg
 carparking, roading), improves safety, and encourages more active lifestyles.
- Funding of public transport over recent years has not been sustainable with COVID being part of the reason. The service has been operating with a shortfall supported by reserve funds and additional one-off grants. The transport reserves are in deficit. Without the services making a positive contribution (via fares), there is reduced funds to invest in new technologies, routes and transport infrastructure. The Dunedin Public Transport Joint Committee consisting of Otago Regional Council and Dunedin City Council and NZTA will need to consider funding, including fares over this LTP cycle.

While more patronage is desirable many people currently utilise and rely on the network for social and work travel and are satisfied with the service. Car ownership is relatively high albeit expensive as reflected in the average vehicle age of 14 years, the economy is stronger than expected, and parking is heavily utilised. The challenge

facing Otago Regional Council during this Long-Term Plan period is, in the short term, to agree a sustainable funding approach of Public Transport. This approach will underpin the regions ability to maintain service improvements and in particular implement longer-term visions on future services in Dunedin and Queenstown championed by the respective Joint Committees. Importantly this LTP signals, during this10 year planning horizon, significant decisions on public transport infrastructure, particularly Queenstown. At this stage the Council is working with its partners to bring this vision to life for future community consideration.

Key work for years 1 to 3

Over the next three years the Otago Regional Council work programme has included:

- Dunedin bus service contract renewals in year 2 that will provide opportunity for further service improvements
- Assumptions on fare revenue for Dunedin services are based on pre-COVID levels
- Assumptions on Queenstown bus services are based on a delayed recovery of patronage due to COVID. Contract renewals with associated service improvements are planned in year 4 of this LTP and development of Queenstown public transport in Year 7 and 8.
- Assumptions on changes in the bus fleet to low greenhouse emission are based on the timing of contract renewals, Government funding and procurement process, and an open mind regarding the type of technology.
- Targeted rating (i.e. those in the areas where there is direct benefit for the services provided) has increased by \$1.5M in Year 1 LTP compared to the current year (from \$5.8M to \$7.3M).
- The maximum Total Mobility fare subsidy remains unchanged with Council currently subsidizing 50 percent of the total fare up to a maximum of \$25 per trip.

Level of Service Statements, Measures and Targets

The service statements (LoS), measures and targets for this activity are defined in the table(s) below.

LOS: Provide efficient, reliable and accessible public transport services that meet community needs.											
Performance measures	Baseline	Targets									
	results	2021/22	2022/23	2023/24	2024-2031						
Annual public transport boardings in Queenstown per capita	ТВС	increase	increase	increase	increase						
Annual public transport boardings in Dunedin per capita	ТВС	increase	increase	increase	increase						
Overall passenger satisfaction with Wakatipu Public Transport system at annual survey.	ТВС	97%	97%	97%	97%						
Percentage of Dunedin bus-users who are satisfied with their trip overall	ТВС	91%	94%	97%	97%						
Percentage of scheduled services delivered (reliability)	ТВС	95%	95%	95%	95%						
Percentage of scheduled services on- time (punctuality – to five minutes)	ТВС	95%	95%	95%	95%						
Percentage of users who are satisfied with the provision of timetable and services information	new measure	establish baseline	maintain or increase	maintain or increase	maintain or increase						
Percentage of users who are satisfied with the overall service of the Total Mobility scheme	new measure	establish baseline	maintain or increase	maintain or increase	maintain or increase						

Funding Impact Statement – Transport Group

			nding Impa								
2020/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
	Sources of operating funding:										
743	General rates, UAGC and rate penalties	745	764	841	816	836	912	876	898	978	941
5,852	Targeted rates	7,290	8,755	10,390	11,718	13,774	14,239	15,417	15,270	15,772	16,019
10,493	Subsidies and grants	12,985	14,119	14,623	17,861	16,855	16,640	17,258	17,076	17,419	17,632
241	Fees and charges	250	256	262	268	275	281	288	295	301	308
9,600	Fines, infringement fees and other receipts	8,517	9,294	10,203	10,955	11,409	11,875	12,355	12,860	13,379	13,914
26,929	Total operating funding	29,787	33,188	36,319	41,618	43,149	43,948	46,194	46,399	47,850	48,814
	Application of operating funding:										
27,159	Payments to staff and suppliers	31,144	33,978	35,724	38,376	39,965	41,022	42,626	42,682	43,780	44,637
766	Internal charges and overheads	727	848	1,015	1,122	1,160	1,200	1,240	1,281	1,323	1,367
2	Finance Costs										
27,926	Total applications of operating funding	31,871	34,827	36,740	39,498	41,125	42,222	43,865	43,963	45,103	46,003
(996)	Surplus (deficit) of operating funding	(2,084)	(1,639)	(420)	2,121	2,024	1,727	2,329	2,436	2,747	2,811
	Application of capital funding:										
(1,596)	Increase/(decrease) in reserves	(2,084)	(1,639)	(420)	(2,175)	924	1,727	2,329	2,436	2,747	2,811
600	Capital expenditure to improve level of service	0	0	0	1,074	1,100	0	0	0	0	0
0	Capital expenditure to replace existing assets	0	0	0	3,222	0	0	0	0	0	0
(996)	Application of capital funding Total	(2,084)	(1,639)	(420)	2,121	2,024	1,727	2,329	2,436	2,747	2,811
(996)	Surplus (deficit) of capital funding Total	(2,084)	(1,639)	(420)	2,121	2,024	1,727	2,329	2,436	2,747	2,811
)							

Part 4 – Financial Information (including planning assumptions)

Planning Assumptions

This section includes the significant forecasting assumptions and the more detailed non-financial assumptions that the Council has used to inform the completion its draft financial estimates and work programmes.

Significant Forecasting Assumptions

The significant forecasting assumptions made in preparing this Long Term Plan are set out below. Actual results achieved are likely to vary from the information presented and these variations may be material.

Sources of Funds for Future Replacement of Significant Assets

Sources of funds for the future replacement of significant assets are in accordance with Council's financing policy. For scheme related assets, these are funded through scheme depreciation, reserves, targeted rates from defined scheme areas, grants where possible and where necessary, borrowings. Council assets are funded from the asset replacement reserve and where necessary, general reserves and borrowings. This assumption is assessed as having a low level of risk.

Growth Change Factors

Economic growth in Otago is dominated by tourism, primary production and education. Economic growth is not expected to impact directly on the level of work carried out by Council, given the nature of its activities.

Primary production growth is dependent on the availability of water. Council has included in this plan increased work on water management issues in this regard.

Population within certain areas of Otago is forecast to grow over the next 10 years, more significantly in the Queenstown Lakes and Central Otago.

Changes in population will impact on the level of certain activities carried out by Council, such as transport, demand on resource use, environmental incidents, civil defence and emergency management and natural hazards.

Council's work programmes have considered the projected growth in the region, with new initiatives and resources being provided to address the impacts of population growth. This assumption is assessed as having a medium level of risk.

Inflation

The financial information is based on the following adjustments for inflation, the BERL forecasts being used as the basis for price level changes:

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Staff rates	-	2.4%	2.5%	2.5%	2.6%	2.6%	2.6%	2.7%	2.7%	2.7%
Other	-	2.4%	2.5%	2.5%	2.6%	2.6%	2.6%	2.7%	2.7%	2.7%

The risk of this assumption is assessed as having a medium level of uncertainty. Reliance is placed on the Reserve Bank's use of monetary controls to keep inflation within 3%.

NZ Transport Agency Subsidy Rates

The following rates of subsidy used are based on rates currently advised by the NZ Transport Agency:

- Transport planning and public passenger transport to receive 51% subsidy;
- Total Mobility to receive 60% subsidy;
- Total Mobility flat rate payments to receive 100% subsidy.

The risks of these assumptions are assessed as having a low to medium level of uncertainty. The NZ Transport Agency has given no indication that the rates may change during the period. If the subsidy for total mobility was to decrease, the impact would be directly on general rates. Any changes in subsidy for public passenger transport would impact directly on targeted rates.

Useful Lives of Significant Assets

The useful lives of significant assets are as recorded in asset management plans or based upon current financial standards. Depreciation has been calculated in accordance with current accounting policy. This assumption is assessed as having a low level of risk.

Revaluation of Non-Current Assets

The non-current assets that are revalued annually are Council's investment properties and its shareholding in Port Otago Limited. With respect to the Port Otago Limited investment, the actual results are dependent on factors outside the control of Council and the management of Port Otago Limited. For the purposes of this plan, an assumption has been made that the value of Council's investment in Port Otago will grow in value by around 4% every year of the plan.

Investment properties are assumed to increase in value by 1%.

The risk of these assumptions is assessed as having a high level of uncertainty. However, the revaluation of noncurrent assets does not directly impact rates.

Forecast Return on Investments

Forecast returns used in the estimates are as follows:

- Rate of return of 2% per annum on cash balances and the managed fund.
- All Port Otago Limited dividends will be received fully imputed and accordingly no taxation liability will arise in respect of them.

The risk of this assumption is assessed as having a low to medium level of uncertainty because Port Otago Limited has a stable trade base. Shipping trends over past years have been consistent, as are predictions for future trade, allowing for stable dividend payments. With respect to earning rates, the Statement of Investment Policy and Objectives for Council's managed fund estimates Council's rate of return at between 1.5% - 2.3% plus inflation. As investment income is used to reduce general rates, any change in return on investments will impact directly on the level of general rates.

Capital Expenditure

Various projects require spending of a capital nature. The estimates are prepared using actual costs, adjusted for inflation, where known, or "Rough Order of Costs". These have been determined using methods such as current known costs.

The risk of the assumptions made on capital expenditure are assessed as having a medium level of uncertainty due to risks outside of Council control, such as the cost of construction materials, freight etc. over long timeframes.

Capital purchases in respect of flood and drainage schemes are funded by those schemes and so any variation in costs will impact on their depreciation and reserves. Variations in other capital expenditure will impact on Council's Asset Replacement Reserve.

Investment Properties

This plan assumes that Council will not sell any of its investment properties over the next 10 years.

Legislation

This plan assumes that there will be some changes in the legislation under which Council operates that will impact on its work programmes over the next 10 years. Council is aware of new requirements from central government. Council's work programme has taken account of the known changes coming. The risk of this assumption is low. Changes in Government policy may directly impact the responsibilities of Council.

Climate Change

The assumption is made that climate change will have impacts on parts of Otago over the next 10 years. The infrastructure strategy notes the climate context over next 30 years. To help address this assumption, Council has incorporated some work programmes in the Flood Protection and Control works activity and in the Safety and Hazards activity to address the risk of potential additional flooding. The risk of this assumption being incorrect is low.

Natural Disasters and Adverse events

The assumption is made that there could be major natural disasters over the next 10 years that could cause widespread and significant damage to Council's infrastructural assets, i.e. our flood and drainage schemes. What, when, where and how big are impossible to predict, but this Long Term Plan provides for us to be ready to respond. Such initiatives include Council's civil defence and emergency management work programme, the retention of Council's Emergency Response Fund and a proactive approach to managing asset resilience through renewals. This assumption has a high level of uncertainty.

Fare Revenue

Covid-19 has had an impact on patronage for both Dunedin and Queenstown public transport networks. Dunedin patronage is expected to reach pre-covid levels in year 1 and grow 2% per annum. The Queenstown network is impacted more so due to the tourism downturn, patronage to expected to be 70% of pre covid levels in year 1, 80% in year 2, 90% in year 3 and back to pre-covid levels in year 4. This assumption has a medium level of risk

Non Financial Assumptions

Demographic cha	-
An increasing and	aging population
What we know	 Statistics New Zealand subnational population estimates (as at 30 June 2020) suggested that Otago's population in 2020 was 245,300. Between 2019 and 2020, Otago's population grew by 5,600 people or 2.4%, which was the third highest growth rate amongst New Zealand's regions and higher than New Zealand average of 2.1%. In terms of population by age group, Otago's under-15 age group was estimated to be 15.8% of the total population, which was estimated to be 16.5% of total population, which was higher than the New Zealand average of 19% while Otago's over-65 age group was estimated to be 16.5% of total population, which was higher than the New Zealand average of 15.6%; The annual peak numbers of visitors to the region in recent times has been estimated to be around 141,000, which is more than half of the resident
Assumptions	 population. In the next 10 years (2020-2030), the region's population is projected to increase by 10% (24,590 people) to reach 264,855 residential population under the most likely growth scenarios provided by the district councils. Otago's districts are projected to continue to have different population growth rates. Queenstown-Lakes and Central Otago are projected to have the highest growth rates of 27% and 18% respectively; Clutha district is to have the lowest growth rate of 3%; while Waitaki and Dunedin's population are to grow by 7% and 5% respectively.
Uncertainty level	High
Sources of Uncertainty	 The regional population projection is based on district level projections done by the district councils via consultancy companies. There are some discrepancies between Statistics NZ and district council's 'base year (2020)' data. The next official subnational population projection by Statistics NZ is due out in March 2021. The currently available projections may not reflect regional or district residential location choices due to unforeseeable international and domestic events/trends (such as COVID-19), and outcomes of future planning processes at the district or regional levels. The region's population growth in the short (1-3 years) to medium term (3-5 years) faces uncertainty and could vary from the projections. In the longer term (5-10 years) population growth could recover due to pent-up demand. On one hand, the observed population growth might be lower than the projections due to a lack of international migration. The net international migrants for Otago in 2020 was 3,240 compared to the natural population increase of 590 (total birth numbers minus death numbers). On the other hand, the observed population growth in the region might be higher than the projection from stronger internal migration and attracting a high share of returning New Zealanders, as a result of the ease of remote working, Otago's relative affordability, and a diverse range of well serviced and connected urban, semi-urban and rural living choices at an overall lower density than the rest of NZ. The net internal migrant number of Otago in 2020 was 1,860 people. The theme for visitor numbers is similar to that for the resident population. Visitor numbers also could be volatile in the short to medium term. While international visitor numbers are down, domestic visitors have made up for some gaps in some parts of the region.

	In the long term, visitor numbers are expected to recover due to New Zealand's
	stable political environment as well as attractive outdoor activities.
Potential	• In the next 10-years, Otago's population is projected to grow by 10%, i.e. 2,459
impacts/ effects	more people will be residing in the region every year on average. Almost half of this
	increase will be in the Queenstown-Lakes district, where its average annual
	population is projected to increase by 1,200.
	Accommodating increasing numbers of people will require greater use of and
	investment in infrastructure, public transport, and housing; and place greater
	demands on ecological services to meet those needs and dispose of waste.
	• Depending on the locational choices (and the planning systems ability to modify
	these), impacts on air quality, public transport, water use and quality and coastal
	areas could occur in a minor or significant way.
	Population ageing related social and economic issues (e.g., decrease of labour
	supply, increase of health care and social assistance demand) may become
	increasingly prominent.
Data sources	Statistics NZ subnational population estimation: at 30 June 2020
	https://www.stats.govt.nz/assets/Uploads/Subnational-population-
	estimates/Subnational-population-estimates-At-30-June-2020/Download-
	data/subnational-population-estimates-at-30-june-2020.xlsx
	Statistics NZ population estimates
	http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7510#
	District council population and demand projections from various consultation
	companies.
Challenges,	Population and visitor number growth will put pressure on housing provision,
Opportunities &	infrastructure, public transportation, amenities, services provision and the
Risks	environment/natural resources.
	Rising house prices could have both negative and positive effects on the economy:
	On the negative side, it becomes more difficult for non-homeowners to get in
	to the property market; increasing mortgage and rental payments could crowd
	out spending on goods and services (e.g., entertainment and holidays) for new
	homeowners; it can also impacts on social wellbeing and health though
	inducing higher hours worked, overcrowding and lack of options to move to
	more desirable locations;
	On the positive side, higher housing price promotes consumer confidence and
	encourages spending/borrowing/investing and hence encourages economic
	growth; In the very short term, homeowners are also taking advantage of
	historical low interest rates and enjoy having more disposable income.
	Population ageing could affect productivity.
	 Population growth could also provide growth opportunities for smaller rural
	communities.
Implications for	In the short to medium term, international migration and tourism might still be slowly
ORC	recovering.
	• Public Transport: lower public transport patronage growth, driven mainly by a
	moderate population increase and elderly population increase but which might be
	offset by the lack of international visitors and students.
	 Queenstown-Lakes District feedback suggested that the district could
	experience more public transport use due to the Council's proposed plan to
	change behaviour.
	• Harbours: Slowing population growth means that shipping movements might not
	increase in the next couple of years as international trade slowly recovers back to
	pre-COVID level for New Zealand.

• Environment: Growth in demand for environment monitoring, planning and compliance programs, such as for water, air and waste (especially those driven by residential development or increased use and exposure to particular environment.
 In the longer term, international migration and tourism could recover to pre-COVID levels and put increased pressure on the region's natural and built environment. Public transport: There could be an increasing demand for public transport due to an increasing in ageing population and increasing awareness of need for emission reduction in daily lives. Harbours: investment in harbour facilities for increased shipping movements may be required to cope with increasing international trade. Environment: Growth in demand for environment monitoring, planning and compliance programmes continues. Population growth will put increasing pressure on the environment, such as increased demand for waste management and higher demand for water.

Financial Statements

Statement of Comprehensive Revenue and Expense

20/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
	Revenue from non-exchange transactions										
26,957	Rates revenue	39,762	46,519	51,460	53,812	56,155	57,606	60,575	61,670	63,457	65,504
11,474	Grant revenue	18,637	18,288	17,490	22,587	22,558	24,165	24,773	24,766	25,283	25,670
14,074	Other revenue	12,649	13,081	14,162	17,991	15,509	16,041	16,586	17,159	17,746	18,350
	Revenue from exchange transactions										
10,100	Dividends	13,000	14,000	15,000	16,000	17,000	18,000	18,500	19,000	19,500	20,000
1,000	Interest & Investments	750	750	750	750	750	750	750	750	750	750
2,678	Other revenue	4,740	5,083	5,401	5,672	5,829	5,987	6,147	6,313	6,480	6,648
66,282	Total Revenue	89,538	97,721	104,263	116,812	117,801	122,549	127,330	129,657	133,216	136,922
22,743	Employee Benefits	27,417	30,683	33,174	33,964	34,787	35,609	36,431	37,285	38,139	38,993
2,967	Depreciation	3,574	4,013	4,418	4,740	4,593	4,856	4,918	5,160	5,453	5,611
2	Finance Costs	250	256	262	269	275	270	253	236	217	197
46,156	Operating Expenses	60,145	63,928	66,561	71,373	74,245	77,537	80,099	81,351	82,822	84,689
71,868	Total Expenditure	91,387	98,880	104,416	110,346	113,900	118,271	121,701	124,032	126,631	129,489
417	Other Gains/Losses	740	1,006	1,029	1,052	1,076	1,225	1,254	1,282	1,437	1,470
(5,168)	Surplus/(Deficit)	(1,110)	(153)	875	7,518	4,977	5,503	6,882	6,907	8,022	8,903
	Other Comprehensive revenue and expenditure										
7,000	Revaluation Gain/(Loss)	20,935	21,772	22,643	23,549	24,490	25,470	26,489	27,548	28,650	29,796
1,832	Total Other Comprehensive revenue and expenditure	19,825	21,619	23,518	31,066	29,467	30,973	33,371	34,455	36,673	38,700

Depreciation by Activity

20/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
271	Environment	375	480	533	576	576	626	673	730	785	815
898	Flood Protection	961	999	1,042	1,016	1,064	1,107	1,021	1,032	1,029	1,066
13	Safety & Hazards	25	42	47	49	58	71	74	76	78	80
206	Regulatory	121	126	129	129	130	133	34	36	34	37
282	Transport	580	580	516	600	350	353	349	349	324	325
1,297	Corporate	1,512	1,786	2,151	2,371	2,415	2,567	2,767	2,936	3,203	3,288
2,967	Total	3,574	4,013	4,418	4,740	4,593	4,856	4,918	5,160	5,453	5,611

Statement of Financial Position

20/24		2024/22	2022/22	2022/24	2024/25	2025/20	2026/27	2027/20	2020/20	2020/20	2020/24
20/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
<i></i>	Current assets:	<i>Queen</i>	çooos	çoooo	<i></i>	çoooo	40000	<i><i>v</i></i>vvvv	<i><i>v</i></i>vvvv	<i></i>	
(604)	Cash and cash equivalents	8,789	3,830	(4,776)	5,865	2,413	3,844	4,550	3,051	7,825	12,921
23,436	Other financial assets	34,022	34,872	35,744	36,638	42,554	43,618	44,708	50,826	52,096	53,399
9,405	Trade and other receivables	11,398	12,390	13,383	13,375	13,367	13,359	13,351	13,343	13,334	13,325
-	Inventories	-	-	-	-	-	-	-	-	-	-
-	Property intended for sale	-	-	-	-	-	-	-	-	-	-
514	Other current assets	514	514	514	514	514	514	514	514	514	514
32,751	Total current assets	54,723	51,606	44,865	56,392	58,848	61,335	63,123	67,734	73,769	80,159
	Non-current assets:										
95,176	Property, plant and equipment	97,646	100,094	107,431	102,847	104,224	104,222	106,361	105,739	104,926	104,603
15,365	Investment property	15,519	15,674	15,831	15,989	16,149	16,310	16,474	16,638	16,805	16,973
543,364	Shares in Port Otago Ltd	564,299	586,071	608,713	632,262	656,752	682,222	708,711	736,260	764,910	794,707
5,392	Intangible assets	6,687	8,046	9,168	9,586	10,569	11,426	12,218	12,972	13,605	14,273
98	Deferred tax asset	98	98	98	98	98	98	98	98	98	98
659,395	Total non-current assets	684,248	709,983	741,242	760,782	787,793	814,279	843,862	871,707	900,344	930,654
692,146	Total assets	738,971	761,589	786,107	817,173	846,641	875,614	906,985	939,441	974,114	1,010,813
	Current liabilities:										
10,318	Accounts payable	11,918	12,718	13,518	13,518	13,518	13,518	13,518	13,518	13,518	13,518
1,815	Employee entitlements	2,215	2,415	2,615	2,615	2,615	2,615	2,615	2,615	2,615	2,615
12,133	Total current liabilities	14,133	15,133	16,133	16,133	16,133	16,133	16,133	16,133	16,133	16,133
-	Non-current liabilities:	-	-	-	-	-	-	-	-	-	-
-	Other financial instruments	25,000	25,000	25,000	25,000	25,000	23,000	21,000	19,000	17,000	15,000
-	Total non-current liabilities	-	-	-	-	-	-	-	-	-	-
12,133	Total liabilities	39,133	40,133	41,133	41,133	41,133	39,133	37,133	35,133	33,133	31,133
680,013	Net assets	699,838	721,456	744,974	776,040	805,508	836,481	869,852	904,308	940,981	979,680
	Equity:										
115,015	Public equity	122,468	123,656	132,306	139,369	144,721	150,463	157,691	164,826	172,782	181,566
523,364	Available for sale reserve	544,299	566,071	588,713	612,262	636,752	662,222	688,711	716,260	744,910	774,707
3,309	Asset replacement reserve	2,316	1,060	828	1,316	974	770	459	267	371	527
13,776	Building reserve	7,235	7,343	0	0	0	0	0	0	0	0
8	Environmental enhancement reserve	0	0	0	0	0	0	0	0	0	0
3,999	Emergency response reserve	4,059	4,119	4,181	4,244	4,308	4,372	4,438	4,504	4,572	4,640

919	Water management reserve	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
6,318	Kuriwao endowment reserve	6,003	5,594	5,176	4,922	4,664	4,404	4,140	3,873	3,602	3,328
13,304	Asset revaluation reserve	13,458	13,613	13,770	13,928	14,088	14,249	14,413	14,577	14,744	14,912
680,013	Total equity	699,838	721,456	744,974	776,040	805,508	836,481	869,852	904,308	940,981	979,680
	Statement of Changes in Not Assots (Equity										

Statement of Changes in Net Assets/Equity

20/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
678,181	Balance at 1 July	680,013	699,838	721,456	744,974	776,040	805,508	836,481	869,852	904,308	940,981
1,832	Net Comprehensive Income	19,825	21,619	23,518	31,066	29,467	30,973	33,371	34,455	36,673	38,700
680,013	Balance at 30 June	699,838	721,456	744,974	776,040	805,508	836,481	869,852	904,308	940,981	979,680
	Net Movements										
(5,586)	Net surplus transferred to Public Equity	(1,849)	(1,159)	(153)	6,466	3,901	4,278	5,629	5,625	6,585	7,433
69	Public Equity	9,302	2,347	8,803	597	1,451	1,464	1,599	1,511	1,370	1,352
7,000	Available for Sale Revaluation Reserve	20,935	21,772	22,643	23,549	24,490	25,470	26,489	27,548	28,650	29,796
(447)	Asset Replacement Reserve	(993)	(1,257)	(232)	488	(342)	(204)	(311)	(193)	104	156
98	Emergency Response Reserve	60	61	62	63	64	65	66	67	68	69
(79)	Kuriwao Reserve	(315)	(409)	(419)	(254)	(257)	(261)	(264)	(267)	(271)	(274)
417	Asset Revaluation Reserve	154	155	157	158	160	161	163	165	166	168
22	Water Management Reserve	(920)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
336	Building Reserve	(6,541)	109	(7,343)	0	0	0	0	0	0	0
0	Environmental Enhancement Reserve	(8)	0	0	0	0	0	0	0	0	0
1,832	Net Comprehensive Income	19,825	21,619	23,518	31,066	29,467	30,973	33,371	34,455	36,673	38,700
680,013	Balance at 30 June	699,838	721,456	744,974	776,040	805,508	836,481	869,852	904,308	940,981	979,680

Statement of Reserves

Reserve	Opening Balance 1 July 2021 \$000s	Transfers in \$000s	Transfers Out 100s	Closing Balance 30 June 2031 \$000s
Public Equity	68,238	269,278	(233,116)	104,399
Available for Sale Revaluation Reserve	523,364	251,343	0	774,707
Asset Replacement Reserve	3,309	36,907	(39,690)	527
Emergency Response Reserve	3,999	642	0	4,640
Kuriwao Reserve	6,318	1,979	(4,969)	3,328
Asset Revaluation Reserve	13,304	1,608	0	14,912
Water Management Reserve	919	(20)	(900)	(0)
Building Reserve	13,776	(6,433)	(7,343)	0
Environmental Enhancement Reserve	8	2,778	(2,786)	0
River Management Dunedin	1,264	3,952	(4,847)	368
River Management Clutha	100	4,655	(4,702)	53
River Management Central Otago	373	4,053	(4,525)	(99)
River Management Wakatipu	571	3,514	(4,135)	(50)
River Management Wanaka	428	3,077	(3,581)	(76)
River Management Waitaki	536	4,101	(3,966)	671
Emergency Management	(666)	32,584	(31,234)	684
Alexandra Flood Protection	190	3,190	(2,706)	673
Leith Flood Protection	(15,185)	16,406	(6,455)	(5,234)
Lower Clutha Flood Protection & Drainage	(880)	18,953	(16,861)	1,211
Lower Taieri Flood Protection	(494)	18,017	(17,089)	434
West Taieri Drainage	(2,270)	17,016	(17,031)	(2,285)
East Taieri Drainage	161	11,203	(12,660)	(1,296)
Tokomairiro	197	1,954	(2,170)	(18)
Shotover Delta	223	2	(225)	0
Stoney Creek	154	1	(155)	0
Lower Waitaki Flood Protection & River Control	4	2,118	(2,117)	5
Public Transport Dunedin	(5,544)	258,913	(252,125)	1,244
Public Transport Wakatipu	(708)	127,932	(128,331)	(1,107)
Dairy Compliance	85	2,349	(2,707)	(273)
Lake Hayes Remediation	(169)	3,946	(3,306)	472
Biosecurity	0	45,311	(44,996)	315
Wilding Pines	(208)	2,229	(2,262)	(241)
Rural Water Quality	1,207	25,099	(26,272)	33
Infrastructure Assets	67,409	24,611	(10,337)	81,684
Total	680,013	1,193,265	(893,598)	979,680

Statement of Cashflows

20/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
	Cashflows from Operating Activities										
	Cash provided from:										
26,957	Rate Receipts	39,762	46,519	51,460	53,812	56,155	57,606	60,575	61,670	63,457	65,504
16,759	Other Receipts	17,396	18,172	19,571	23,670	21,346	22,036	22,741	23,480	24,235	25,006
11,474	Grant Income	18,637	18,288	17,490	22,587	22,558	24,165	24,773	24,766	25,283	25,670
10,100	Dividends	13,000	14,000	15,000	16,000	17,000	18,000	18,500	19,000	19,500	20,000
1,000	Interest	750	750	750	750	750	750	750	750	750	750
66,290	Total Income	89,545	97,728	104,270	116,820	117,809	122,557	127,338	129,665	133,225	136,931
	Cash Applied to:										
68,899	Payments to Employees & Suppliers	87,563	94,610	99,735	105,337	109,031	113,145	116,530	118,636	120,961	123,682
2	Interest	250	256	262	269	275	270	253	236	217	197
68,901	Total Expenditure	87,813	94,866	99,997	105,606	109,306	113,416	116,783	118,872	121,178	123,879
(2,611)	Net Cash from Operating Activities	1,732	2,861	4,273	11,214	8,502	9,142	10,555	10,793	12,047	13,052
	Cashflows From Investing Activities										
	Cash provided from:										
410	Property, Plant & Equipment Sales	410	420	430	7,440	451	462	472	483	494	506
-	Term Investment Maturity	-	-	-	-	-	-	-	-	-	-
-	Deferred Tax Asset realised		-	-	-	-	-	-	-	-	-
-	Managed Fund Withdrawal	-	-	-	-	-	-	-	-	-	-
410	Total Cash	410	420	430	7,440	451	462	472	483	494	506
	Cash Applied to:										
0	Managed Fund	10,000	0	0	0	5,000	0	0	5,000	0	0
5,401	Property, Plant & Equipment	6,224	6,347	11,289	6,295	4,958	3,666	5,758	3,152	3,084	3,718
900	Intangible Assets	1,525	1,894	2,019	1,718	2,448	2,505	2,563	2,623	2,683	2,743
6,301	Total	17,749	8,241	13,308	8,014	12,405	6,172	8,321	10,775	5,768	6,462
(5,891)	Net Cash from Investing Activities	(17,339)	(7,821)	(12,878)	(573)	(11,954)	(5,710)	(7,849)	(10,292)	(5,273)	(5,956)
	Cashflows From Financing Activities										
	Cash provided from:										
0	Borrowings	25,000	0	0	0	0	0	0	0	0	0
	Cash Applied to:										
0	Repayment of Borrowings	0	0	0	0	0	2,000	2,000	2,000	2,000	2,000
0	Net Cash from Investing Activities	25,000	0	0	0	0	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)

(8,502)	Net Increase/ (Decrease) in Cash Held	9,393	(4,960)	(8,605)	10,640	(3,452)	1,432	706	(1,499)	4,774	5,096
15,487	Cash at 1 July	(604)	8,789	3,830	(4,776)	5,865	2,413	3,844	4,550	3,051	7,825
6,985	Cash at 30 June	8,789	3,830	(4,776)	5,865	2,413	3,844	4,550	3,051	7,825	12,921

Reconciliation of Net Surplus to Net Cash from Operating Activities

	· · · · · · · · · · · · · · · · · · ·		0								
20/21		2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
\$000s		\$000s									
(5,168)	Net surplus/(deficit) from Activities	(1,110)	(153)	875	7,518	4,977	5,503	6,882	6,907	8,022	8,903
	Add/(deduct) non-cash items:										
2,967	Depreciation	3,574	4,013	4,418	4,740	4,593	4,856	4,918	5,160	5,453	5,611
(417)	Other (gains)/losses	(740)	(1,006)	(1,029)	(1,052)	(1,076)	(1,225)	(1,254)	(1,282)	(1,437)	(1,470)
7	Bad Debts	7	7	7	8	8	8	8	8	9	9
(2,611)	Net Cash from Operating Activities	1,732	2,861	4,273	11,214	8,502	9,142	10,555	10,793	12,047	13,052

Schedule of Capital Expenditure

20/21		 2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
\$000s	Environmental	\$000s	\$000s	\$000s	\$000s	\$000s	\$000s	\$000s	\$000s	\$000s	\$000s
		45			10	47	70	47	10		
60	Air Monitoring	45	92	73	48	17	79	17	18	84	18
5	Pest Management	0	0	0	0	0	0	0	0	0	0
525	Water Monitoring Sites	1,295	1,595	590	463	364	338	634	607	404	401
30	Harbour Management	 20	51	21	21	22	23	23	24	24	25
0	Biodiversity	 90	92	94	97	99	101	104	106	109	111
0	Hazards	470	650	52	54	330	338	58	59	60	62
0	Compliance	30	0	0	0	0	0	0	0	0	0
	Transport										
600	Transport	0	0	0	4,296	1,100	0	0	0	0	0
	Flood Protection & Control Works										
0	Alexandra Flood Protection	0	20	21	0	0	0	0	0	0	0
680	Leith Flood Protection	0	154	105	0	385	0	576	0	603	0
740	Lower Clutha Flood & Drainage	1,000	799	336	118	83	84	52	0	41	46
1,600	Lower Taieri Flood Protection	1,020	973	157	1,611	0	0	2,304	0	0	1,850
563	West Taieri Drainage	1,195	1,157	1,234	709	1,100	1,216	52	1,238	30	55
218	East Taieri Drainage	380	184	178	67	1,166	614	864	0	603	0
80	Tokomairiro	30	20	21	21	22	23	23	24	24	25
0	Wanaka River Management	0	0	105	0	0	0	0	0	0	0
	Council										
100	Property	100	102	7,448	107	110	113	115	118	121	123
675	Vehicles	675	691	708	725	743	760	778	796	814	832
955	Computers & Software	1,625	1,997	2,124	1,826	2,558	2,618	2,678	2,741	2,804	2,867
20	Plant	20	20	21	21	22	23	23	24	24	25
50	Sundry	50	51	52	54	55	56	58	59	60	62
6,901	Total capital expenditure	8,045	8,651	13,341	10,238	8,174	6,384	8,358	5,812	5,806	6,500

Summary of Accounting Policies

Overview

Reporting Entity

The Council is a regional local authority governed by the Local Government Act 2002.

The Council Group (Group) consists of the Council and its subsidiary Port Otago Limited (100% owned). The Port Otago Limited Group consists of Port Otago Limited, its subsidiaries, associates and joint ventures.

The primary objective of the Council is to provide goods or services for the community or social benefit rather than making a financial return. Accordingly, the Council has designated itself and the Group as public benefit entities for financial reporting purposes.

The prospective financial information contained in this Long Term Plan relates to the Council only as the group parent. The Council has not presented group prospective financial statements because the Council believes that the parent prospective financial statements are more relevant to users. The main purpose of prospective financial statements in the Long Term Plan is to provide users with information about the core services that the Council intends to provide ratepayers, the expected cost of those services and as a consequence how much the Council requires by way of rates to fund the intended levels of service. The level of rate funding required is not affected by subsidiaries except to the extent that the Council obtains distributions from those subsidiaries. Distributions from the Council's subsidiary Port Otago Limited are included in the prospective financial statements of the Council.

The Prospective Financial Statements of Council are to be adopted by Council on 27 June 2018.

Statement of Compliance

The prospective financial statements have been prepared in accordance with PBE FRS 42, Prospective Financial Statements, and in accordance with Tier 1 PBE Standards appropriate for public benefit entities, as it relates to prospective financial statements.

The actual financial results are likely to vary from the information presented in these prospective financial statements, and the variations may be material.

No actual results have been incorporated in these prospective financial statements.

Council is responsible for the prospective financial statements presented, including the appropriateness of the assumptions underlying the prospective financial statements and all other required disclosures.

Basis of Accounting

The prospective financial statements have been prepared on the historical cost basis, except for the revaluation of certain assets. They are presented in New Zealand dollars, rounded to the nearest thousand.

Significant Accounting Policies

Revenue Recognition

Revenue from Exchange Transactions

Fees received for the following activities are recognised as revenue from exchange transactions.

- Resource consent processing.
- Audits of resource consent conditions.
- Pest animal contract work.
- Grazing leases and licenses.
- Enforcement work.
- Dividends, interest and rental income.

All other revenue is recognised as revenue from non-exchange transactions.

Rates Revenue

Rates are recognised as income when levied.

Other Revenue

(a) Rendering of Services

Revenue from the rendering of services is recognised by reference to the stage of completion of the transaction at balance date, based on the actual service provided as a percentage of the total services to be provided. Fees and charges are recognised as income when supplies and services have been rendered.

Revenue relating to contracts and consent applications that are in progress at balance date is recognised by reference to the stage of completion at balance date.

(b) Interest Revenue

Interest revenue is recognised on a time proportionate basis using the effective interest method.

(c) Dividend Revenue

Dividend revenue is recognised when the right to receive payments is established on a receivable basis.

Other Gains and Losses

(a) Sale of Investment Property, Property, Plant and Equipment, Property Intended for Sale and Financial Assets Net gains or losses on the sale of investment property, property plant and equipment, property intended for sale and financial assets are recognised when an unconditional contract is in place and it is probable that the Council will receive the consideration due and significant risks and rewards of ownership of assets have been transferred to the buyer.

(b) Assets Acquired for Nil or Nominal Consideration

Where a physical asset is acquired for nil or nominal consideration, the fair value of the asset received is recognised as revenue. Assets vested in the Council are recognised as revenue when control over the asset is obtained.

Grant Expenditure

Non-discretionary grants are those grants that are awarded if the grant application meets the specified criteria and are recognised as expenditure when an application that meets the specified criteria for the grant has been received.

Discretionary grants are those grants where the Council has no obligation to award on receipt of the grant application and are recognised as expenditure when a successful applicant has been notified of the Council's decision.

Leasing

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

(a) Council as Lessor

Amounts due from lessees under finance leases are recorded as receivables at the amount of the net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the net investment outstanding in respect of the leases.

Rental income from operating leases is recognised on a straight line basis over the term of the relevant lease.

(b) Council as Lessee

Assets held under finance leases are recognised at their fair value or if lower, at amounts equal to the present value of the minimum lease payments, each determined at the inception of the lease. The corresponding liability to the lessor is included in the Statement of Financial Position as a finance lease obligation.

Lease payments are apportioned between finance charges and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly against income, unless they are directly attributable to qualifying assets, in which case they are capitalised.

Rentals payable under operating leases are charged to income on a straight line basis over the term of the relevant lease.

(c) Lease Incentives

Benefits received and receivable as an incentive to enter into an operating lease are also spread on a straight line basis over the lease term.

Goods and Services Tax

Revenues, expenses, assets and liabilities are recognised net of the amount of goods and services tax (GST), except for receivables and payables which are recognised inclusive of GST.

Cash flows are included in the cash flow statement on a gross basis. The GST component of cash flows arising from investing and financing activities which is recoverable from, or payable to, the taxation authority is classified as operating cash flows.

Statement of Cash Flows

For the purpose of the statement of cash flows, cash and cash equivalents include cash on hand and in banks and investments in money market instruments, net of outstanding bank overdrafts.

The following terms are used in the statement of cash flows:

• Operating activities are the principal revenue producing activities of Council and other activities that are not investing or financing activities;

- Investing activities are the acquisition and disposal of long term assets and other investments not included in cash equivalents; and
- Financing activities are activities that result in changes in the size and composition of the contributed equity and borrowings of the entity.

Financial Instruments

Financial assets and financial liabilities are recognised on the Council's Statement of Financial Position when the Council becomes a party to contractual provisions of the instrument.

Investments are recognised and derecognised on trade date where purchase or sale of an investment is under a contract whose terms require delivery of the investment within the timeframe established by the market concerned, and are initially measured at fair value, net of transaction costs, except for those financial assets classified as fair value through profit or loss which are initially valued at fair value.

Financial Assets

Financial Assets are classified into the following specified categories: financial assets 'at fair value through profit or loss', 'held-to-maturity' investments, 'available-for-sale' financial assets, and 'loans and receivables'. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition.

(a) Effective Interest Method

The effective interest method is a method of calculating the amortised cost of a financial asset and of allocating interest income over the relevant period. The effective interest rate is the interest rate that exactly discounts estimated future cash receipts through the expected life of the financial asset, or where appropriate, a shorter period.

(b) Financial Assets at Fair Value through Surplus or Deficit

Financial assets are classified as financial assets at fair value through surplus or deficit where the financial asset:

- Has been acquired principally for the purpose of selling in the near future;
- Is a part of an identified portfolio of financial instruments that the Council and Group manages together and has a recent actual pattern of short-term profit-taking; or
- Is a derivative that is not designated and effective as a hedging instrument.

Financial assets at fair value through profit or loss are stated at fair value, with any resultant gain or loss recognised in the Statement of Comprehensive Revenue and Expense. The net gain or loss is recognised in the Statement of Comprehensive Revenue and Expense and incorporates any dividend or interest earned on the financial asset. Fair value is determined in the manner described later in this note.

Council has classified its managed funds as financial assets held for trading. This fund includes cash, fixed interest deposits, bonds and equities. Financial assets held for trading purposes are classified as current assets and are stated at fair value, with any resultant gain or loss recognised in the surplus/(deficit).

(c) Available-for-Sale Financial Assets

Shares in subsidiary (Port Otago Limited) and certain equity investments held by the Council are classified as being available-for-sale and are stated at fair value. Fair value is determined in the manner described later in this note. Gains and losses arising from changes in fair value are recognised directly in the available-for-sale revaluation reserve, except for impairment losses which are recognised directly in the surplus/(deficit). Where the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously recognised in the available-for-sale revaluation reserve is included in the surplus/(deficit) for the period.

(d) Loans and Receivables

Trade receivables, loans and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as 'loans and receivables'. Loans and receivables are measured at amortised cost using the effective interest method less impairment.

Trade and other receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less provision for impairment. A provision for impairment is established when there is objective evidence that the Council will not be able to collect all amounts due according to the original terms of the receivables. The amount of the provision is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the effective interest rate. The amount of the provision is expensed in the surplus/(deficit).

Deposits are included within this classification.

(e) Impairment of Financial Assets

Financial assets, other than those at fair value through profit or loss, are assessed for indicators of impairment at each Statement of Financial Position date. Financial assets are impaired where there is objective evidence that because of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been impacted. For financial assets carried at amortised cost, the amount of the impairment is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets, except for trade receivables, where the carrying amount is reduced through the use of an allowance account. When a trade receivable is uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in the surplus/(deficit).

With the exception of available-for-sale equity instruments, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed through the surplus/(deficit) to the extent the carrying amount of the investment at the date of impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised.

Financial Liabilities

(a) Trade and Other Payables

Trade payables and other accounts payable are recognised when the Council becomes obliged to make future payments resulting from the purchase of goods and services.

Trade and other payables are initially recognised at fair value and are subsequently measured at amortised cost, using the effective interest method.

(b) Borrowings

Borrowings are recognised initially at fair value, net of transaction costs. Borrowing costs attributable to qualifying assets are capitalised as part of the cost of those assets.

Subsequent to initial recognition, borrowings are measured at amortised cost with any difference between the initial recognised amount and the redemption value being recognised in the surplus/(deficit) over the period of the borrowing using the effective interest method.

Fair Value Estimation

The fair value of financial instruments traded in active markets (such as available-for-sale equities) is based on quoted market prices at the balance date. The quoted market price used for financial assets held by the Council is the current bid price; the appropriate quoted market price for financial liabilities is the current offer price.

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques. The Council uses a variety of methods and makes assumptions that are based on market conditions existing as each balance date. The fair value of Shares in Port Otago Limited is determined by a valuation performed at each balance date by an independent professional firm with the relevant expertise and experience in performing such valuations. Quoted market prices or dealer quotes for similar instruments are used for long-term investment and debt instruments held. The fair value of interest rate swaps is the estimated amount that the Council would receive or pay to terminate the swap at the reporting date, taking into account current interest rates. The fair value of forward exchange contracts is determined using forward exchange market rates at the balance date.

Property Held for Sale

Property classified as held for sale is measured at:

- fair value for items transferred from investment property, and
- fair value less estimated costs of disposal, measured at time of transfer for items transferred from property, plant and equipment.

Property is classified as held for sale if the carrying amount will be recovered through a sales transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable, and the property is available for immediate sale in its present state. There must also be an expectation of completing the sale within one year from the date of classification. Property is not depreciated or amortised while it is classified as held for sale.

Property, Plant and Equipment

Property, plant and equipment consist of the following.

Operational Assets

Operational assets include Council owned land, endowment land, buildings, and plant and vehicles.

Infrastructural Assets

Infrastructural assets deliver benefits direct to the community and are mostly associated with major flood protection and land drainage schemes. Infrastructural assets include flood banks, protection works, structures, drains, bridges and culverts, and in the passenger transport, Dunedin bus hub and associated shelters.

Restricted Assets

Endowment land is vested in the Council by the Otago Regional Council (Kuriwao Endowment Lands) Act. The Act restricts disposition of this land to freeholding initiated by lessees.

(a) Cost

Land and Buildings are recorded at cost or deemed cost less accumulated depreciation and any accumulated impairment losses.

Other property, plant and equipment are recorded at cost less accumulated depreciation and any accumulated impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the assets. Where an asset is acquired for no cost, or for a nominal cost, it is recognised at fair value at the date of acquisition. When significant, interest costs incurred during the period required to construct an item of property, plant and equipment are capitalised as part of the asset's total cost.

(b) Depreciation

Operational assets with the exception of land, are depreciated on a straight-line basis to write-off the cost of the asset to its estimated residual value over its estimated useful life.

Infrastructural assets including flood banks, protection works and drains and culverts are constructions or excavations of natural materials on the land and have substantially the same characteristics as land, in that they are considered to have unlimited useful lives and in the absence of natural events, these assets are not subject to ongoing obsolescence or deterioration of service performance, and are not subject to depreciation. Other infrastructural assets are depreciated on a straight-line basis to write off the cost of the asset to its estimated residual values over its estimated useful life.

Expenditure incurred to maintain these assets at full operating capability is charged to the surplus/(deficit) in the year incurred.

Asset	Life
Operational Assets	
Buildings – Council	10-50 years
Plant and vehicles – Council	3-20 years
Infrastructural Assets	
Floodbanks	Unlimited
Protection works	Unlimited
Drains	Unlimited
Culverts	Unlimited
Structures	33-100 years
Bridges	33-100 years

The following estimated useful lives are used in the calculation of depreciation:

The estimated useful lives, residual values and depreciation method are reviewed at the end of each annual reporting period.

(c) Disposal

An item of property, plant and equipment is derecognised upon disposal or recognised as impaired when no future economic benefits are expected to arise from the continued use of the asset.

Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the surplus/(deficit) in the period the asset is derecognised.

Investment Property

Investment property, which is property held to earn rentals and/or for capital appreciation, is measured initially at cost and subsequently at fair value. Fair value is determined annually by independent valuers. Revaluation gains or losses arising from changes in the fair value of investment property are reported in the surplus/(deficit) in the period in which they arise.

Intangible Assets

Computer Software

Computer software assets are stated at cost, less accumulated amortisation and impairment. The amortisation periods range from 1 to 10 years.

Other Intangible Assets

Other intangible assets represent the excess of the cost of acquisition of the cost of Council's interest in the fair value of assets of any jointly controlled entity. Other intangibles are reassessed and reclassified to the cost of investment property and investment property inventories.

Impairment of Non-Financial Assets

At each reporting date, the Council reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated to determine the extent of the impairment loss (if any). Where the asset does not generate cash flows that are independent from other assets, the Council estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs to sell and value in use. Value in use is depreciated replacement cost for an asset where the future economic benefits or service potential of the asset are not primarily dependent on the assets ability to generate net cash inflows and where the entity would, if deprived of the asset, replace its remaining future economic benefits or service potential. In assessing value in use for cash-generating assets, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. An impairment loss is recognised in the surplus/(deficit) immediately, unless the relevant asset is carried at fair value, in which case the impairment loss is treated as a revaluation decrease.

Where an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but only to the extent that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior years. A reversal of an impairment loss is recognised in the surplus/(deficit) immediately, unless the relevant asset is carried at fair value, in which case the reversal of the impairment loss is treated as a revaluation increase.

Employee Benefits

Provision is made for benefits accruing to employees in respect of wages and salaries, annual leave, long service leave, and sick leave when it is probable that settlement will be required, and they are capable of being measured reliably.

Provisions made in respect of employee benefits expected to be settled within 12 months, are measured at their nominal values using the remuneration rate expected to apply at the time of settlement.

Provisions made in respect of employee benefits which are not expected to be settled within 12 months are measured as the present value of the estimated future cash outflows to be made by the Council in respect of services provided by employees up to reporting date.

Superannuation Schemes

Defined Contribution Schemes

Contributions to defined contribution superannuation schemes are expensed when incurred.

Defined Benefit Schemes

The Council belongs to the Defined Benefit Plan Contributors Scheme (the Scheme), which is managed by the Board of Trustees of the National Provident Fund. The Scheme is a multi-employer defined benefit scheme.

Insufficient information is available to use defined benefit accounting as it is not possible to determine from the terms of the Scheme the extent to which the surplus/(deficit) will affect future contributions by individual employers, as there is no prescribed basis for allocation. The Scheme is therefore accounted for as a defined contribution scheme.

Equity

Equity is the community's interest in Council and is measured as the difference between total assets and total liabilities. Equity is disaggregated and classified into a number of reserves.

Reserves are a component of equity generally representing a particular use to which various parts of equity have been assigned. Reserves may be legally restricted or created by Council.

Restricted and Council Created Reserves

Restricted reserves are those subject to specific conditions accepted as binding by the Council and which may not be revised by the Council without reference to the Courts or a third party. Transfers from these reserves may be made only for certain specified purposes or when certain specified conditions are met.

Also included in restricted reserves are reserves restricted by Council decision. Council may alter them without references to any third party or the Courts. Transfers to and from these reserves are at the discretion of Council

Allocation of Overheads

Direct costs are charged directly to significant activities. Indirect costs are charged to significant activities based on the cost drivers and related activity/usage information.

Direct costs are those costs that are directly attributable to a significant activity. Indirect costs are those costs that cannot be identified in an economically feasible manner with a specific significant activity.

Other Disclosures

Balancing of Budget

The Council has resolved, under section 100(2) of the Local Government Act 2002, that it is financially prudent to not balance its operating budget in the first 3 years. The primary reason is to allow Council to use reserves to fund certain one-off operating expenditure.

Reserves are to be used to fund Environmental Enhancement initiatives, research and development for improving Otago's water quality, water management initiatives, climate change adaptation, flood protection designations and lakes monitoring equipment.

Dunedin transport reserves are also used to implement bus service improvements and to complete the bus hub for Dunedin City.

The impact of this decision is that both general rates and the Dunedin transport rate will be kept at appropriate levels, as reserves are available to fund these works.

Rating base information

The projected rating base information for the Otago region is as follows:

	Projected Rating Units
2018/19	115,871
2019/20	116,746
2020/21	117,630
2021/22	118,523
2022/23	119,426
2023/24	120,338
2024/25	121,260
2025/26	122,193
2026/27	123,135
2027/28	124,088

Prudence Disclosures

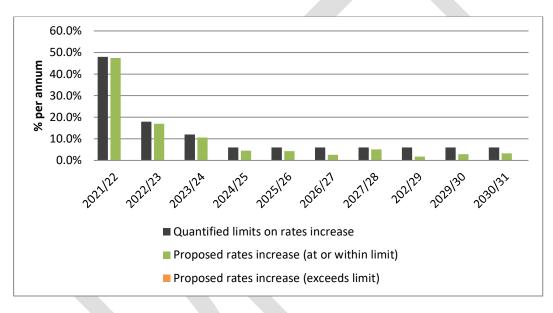
The purpose of this statement is to disclose the Council's planned financial performance in relation to various benchmarks to enable the assessment of whether the Council is prudently managing its revenues, expenses, assets, liabilities, and general financial dealings.

The Council is required to include this statement in its Long Term Plan in accordance with the Local Government (Financial Reporting and Prudence) Regulations 2014 (the regulations). Refer to the regulations for more information, including definitions of some of the terms used in this statement

Rates (Increases) Affordability

The following graph compares the Council's planned rates increases with a quantified limit on rates increases contained in the financial strategy included in this Long Term Plan.

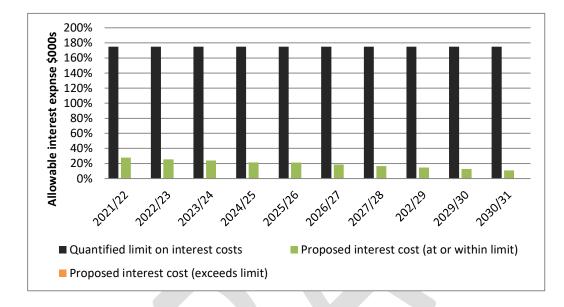
The quantified limit is 48% for 2021/22, 18% for 2022/23, 12% for 2023/24 and subsequently 6% in 2024/25 to 2030/31.



Debt Affordability

The Council meets the debt affordability benchmark if its planned borrowing is within each quantified limit on borrowing.

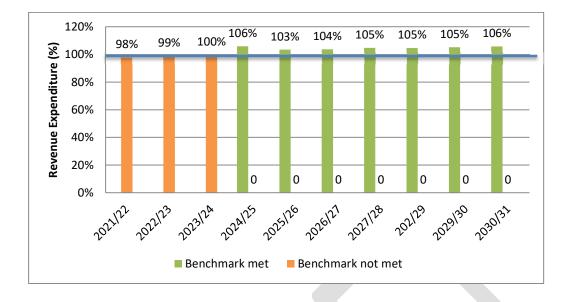
The following graph compares the Council's planned debt with a quantified limit on borrowing contained in the financial strategy included in this Long Term Plan. The quantified limit is that debt cannot exceed 175% of the total revenue.



Balanced Budget Benchmark

The following graph displays the Council's planned revenue (excluding financial contributions, vested assets, gains on derivative financial instruments, and revaluations of property, plant, or equipment) as a proportion of planned operating expenses (excluding losses on derivative financial instruments and revaluation of property, plant, or equipment).

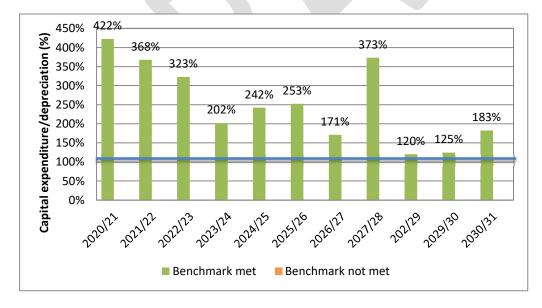
The Council meets the balanced budget benchmark if its planned revenue equals or is greater than its planned operating expenses.



Essential Services Benchmark

The following graph displays the Council's planned capital expenditure on network services as a proportion of expected depreciation on network services. The Council's network services comprise flood protection and control works.

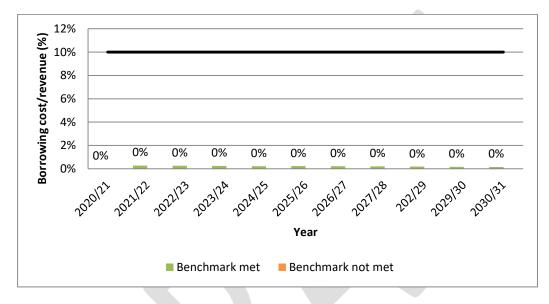
The Council meets the essential services benchmark if its planned capital expenditure on network services equals or is greater than expected depreciation on network services.



Debt Services Benchmark

The following graph displays the Council's planned borrowing costs as a proportion of planned revenue (excluding financial contributions, vested assets, gains on derivative financial instruments, and revaluations of property, plant or equipment).

Because Statistics New Zealand projects the Council's population will grow more slowly that the national population is projected to grow, it meets the debt servicing benchmark if its planned borrowing costs are equal to or less than 10% of its planned revenue.



Rate Funding and Funding Impact Statements

Funding Impact Statement

20/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
	Sources of operating funding:	<i></i>	40003		<i></i>	<i></i>	<i></i>		<i></i>		
11,180	General rates, UAGC and rate penalties	19,365	22,407	23,920	23,847	23,248	23,415	24,316	24,646	25,128	26,022
15,777	Targeted rates	20,398	24,112	27,539	29,965	32,908	34,191	36,259	37,024	38,329	39,483
11,474	Subsidies and grants	18,637	18,288	17,490	22,587	22,558	24,165	24,773	24,766	25,283	25,670
11,702	Fees and charges	11,231	11,423	12,347	16,115	13,584	14,067	14,563	15,084	15,620	16,170
5,050	Fines, infringement fees and other receipts	6,158	6,741	7,216	7,548	7,754	7,961	8,170	8,387	8,606	8,827
11,100	Interest & dividends from Investments	13,750	14,750	15,750	16,750	17,750	18,750	19,250	19,750	20,250	20,750
66,282	Sources of operating funding: Total	89,538	97,721	104,263	116,812	117,801	122,549	127,330	129,657	133,216	136,922
	Application of operating funding:										
68,732	Payments to Staff and suppliers	87,397	94,441	99,562	105,160	108,850	112,960	116,340	118,442	120,762	123,478
104	Finance Costs	350	358	367	376	385	383	369	354	338	321
651	Other Operating funding applications	465	494	546	212	284	353	490	673	773	1,070
69,487	Application of operating funding: Total	88,213	95,294	100,475	105,748	109,519	113,696	117,198	119,468	121,873	124,868
(3,204)	Surplus (deficit) of operating funding Total	1,325	2,427	3,788	11,064	8,282	8,854	10,132	10,189	11,344	12,054
	Sources of capital funding:										
410	Gross Proceeds from sale of assets	410	420	430	7,440	451	462	472	483	494	506
410	Sources of Capital Funding total	410	420	430	7,440	451	462	472	483	494	506
	Application of capital funding:										
(9,695)	Increase / (decrease) in reserves	(6,310)	(5,804)	(9,123)	8,266	559	2,931	2,247	4,860	6,032	6,059
1,965	Capital expenditure to improve level of service	1,995	2,676	1,901	2,321	4,495	2,826	2,367	2,959	2,424	1,862
4,936	Capital expenditure to replace existing assets	6,050	5,975	11,440	7,918	3,680	3,558	5,990	2,853	3,382	4,639
(2,794)	Application of capital funding: Total	1,735	2,847	4,218	18,505	8,733	9,315	10,604	10,672	11,838	12,560
(3,204)	Surplus (deficit) of capital funding Total	1,325	2,427	3,788	11,064	8,282	8,854	10,132	10,189	11,344	12,054

20/21 \$000s		2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
(3,204)	Surplus/(Deficit) of operating funding per funding impact statement	1,325	2,427	3,788	11,064	8,282	8,854	10,132	10,189	11,344	12,054
	Add/(Deduct):										
(2,967)	Depreciation	(3,574)	(4,013)	(4,418)	(4,740)	(4,593)	(4,856)	(4,918)	(5,160)	(5,453)	(5,611)
417	Other Gains/(Losses)	740	1,006	1,029	1,052	1,076	1,225	1,254	1,282	1,437	1,470
586	Other	400	427	477	142	212	280	415	596	695	989
(5,168)	Surplus/(Deficit) from activities per Statement of Comprehensive Revenue and Expense	(1,110)	(153)	875	7,518	4,977	5,503	6,882	6,907	8,022	8,903

Reconciliation of Funding Impact Statement to Statement of Comprehensive Revenue and Expense

Funding Impact Statement – Calculation of Rates for the 2021/2022 Year

Effect of Rating

20/21 \$000s	-	2021/22 \$000s	2022/23 \$000s	2023/24 \$000s	2024/25 \$000s	2025/26 \$000s	2026/27 \$000s	2027/28 \$000s	2028/29 \$000s	2029/30 \$000s	2030/31 \$000s
\$000s 11,180	General Rates	19,365	22,407	23,920	23,847	23,248	23,415	24,316	24,646	25,128	26,022
680	Rural Water Quality rate	523	1,268	1,781	2,104	2,163	2,223	2,283	2,345	2,408	2,472
080	Air Quality rate	525	1,208	210	2,104	2,103	2,225	2,285	2,345	2,400	2,472
188		188	200	210	220	230	240	250	260	270	280
	Dairy Inspection rate					3,191					
2,658	Emergency Management rate	2,959	3,001	3,068	3,108	,	3,274	3,356	3,443	3,531	3,620
210	Wilding Pines rate	200	205	210	215	220	225	230	236	241	247
	Biosecurity	2,436	3,393	3,864	4,266	4,431	4,597	4,765	4,937	5,110	5,284
	Lake Hayes	150	150	150	150	150	150	150	150	150	150
	Targeted River Management rates:										
300	Central Otago	320	340	360	380	400	420	440	460	460	460
330	Clutha	360	390	420	450	480	510	510	510	510	510
250	Dunedin	280	313	346	370	400	430	460	490	520	550
150	Wakatipu	200	220	240	270	300	330	360	400	450	500
180	Wanaka	200	220	240	260	280	300	320	340	360	380
400	Waitaki	400	400	400	400	400	400	400	400	400	400
149	Lower Waitaki river control	171	175	179	184	188	193	197	202	206	211
	Targeted Transport rates:										
4,862	Dunedin Public Transport	6,000	7,018	8,339	9,192	11,016	11,153	11,713	11,426	11,587	11,745
990	Wakatipu Public Transport	1,290	1,737	2,051	2,526	2,759	3,086	3,704	3,844	4,184	4,274
	Targeted Catchment rates:										
1,461	Leith Flood Protection	1,461	1,461	1,461	1,461	1,461	1,461	1,461	1,461	1,461	1,461
750	Lower Clutha Flood Protection & Drainage	850	950	1,050	1,150	1,250	1,250	1,250	1,250	1,250	1,250
850	Lower Taieri Flood Protection	950	1,050	1,150	1,250	1,350	1,450	1,550	1,650	1,750	1,850
650	West Taieri Drainage	730	820	920	1,030	1,150	1,300	1,500	1,700	1,800	2,000
500	East Taieri Drainage	580	640	720	800	900	1,000	1,150	1,300	1,450	1,600
140	Tokomairiro Drainage	150	160	170	180	190	200	210	220	230	240
80	Shotover Delta										

Schedule of Fees and Charges

See the Council website for the proposed schedule of Fees and Charges from 1 July 2021

Part 5 – Policies and Strategy

Financial Strategy

Purpose

This strategy sets out how the Otago Regional Council will manage its finances over the next 10 years. It outlines the financial direction Council wishes to take on matters such as levels of future rating, borrowings and investments and discusses factors that influence those areas. These matters have a significant influence on Council's ability to deliver on its strategic priorities including: aligning with national direction on fresh water reform; strengthening our leadership on strategic issues such as climate change, urban development and community wellbeing; and ensuring our operational response to maintaining and improving Otago's natural environment and public transport is appropriate. Delivering on these priorities must be done in consideration of what is affordable to the community and this Financial Strategy sets out a path for the prudent and sustainable funding of this Long-Term Plan.

Executive Summary

Council faces a significant financial challenge in this Long-term Plan. Central government requirements have increased as have community expectations. In the 2020-21 Annual Plan Council was required to respond to external reviews and increased its work programme by \$10M. Council was cognisant of the unplanned rates increase this would create and decided to fund \$3.9M of this increase from general reserves with a view to reviewing and accessing how this could be funded when the Long-term Plan was prepared.

Subsequent to that decision Council also decided to reserve fund a further \$1M to reduce rates increases further in light of Covid-19. Since the 2020-21 Annual Plan was adopted further legislative requirements has meant further unbudgeted expenditure has been necessary in the current year as additional staff and resources are added in regulatory, planning and environmental monitoring areas to meet Councils increased statutory obligations.

These increases and the funding shortfall in the current year means Council is facing a significant increase in rates before any new activity is even contemplated in the Long-Term Plan itself. On top of that many targeted rate reserves are already in deficit and increases as indicated in previous Long-Term Plans remain necessary to ensure those deficits are repaid.

Over the next 10 years the key financial challenges and how Council is proposing to address them in this financial strategy are:

- There is a significant increase in planned and unplanned expenditure occurring in the current 2020-21 year and that requires a corresponding increase in funding in year 1 of the Long-Term Plan. Where possible expenditure has been phased over the first 3 years, but a lot of the increase is required immediately meaning there will be a significant step up in expenditure in year 1.
- To reduce the rates increase, Port Otago dividends are forecast to increase from current levels and provide \$13M in year 1 rising to \$20M in year 10.
- There will also be an increased use of reserves over the life of this plan including using general reserves to permanently fund the 2020-21 general rates offset rather than adding that amount to the rate requirement.

- New targeted are rates being introduced for biosecurity and Lake Hayes remediation which will allow the increases or up-front expenditure in these activities to be deficit funded and funding increases smoothed over following years.
- Council is proposing to rename and repurpose river management targeted rates to include other water body activity. This will now include funding certain lake and water body remediation initiatives within each river and water management within each district.
- The use of external borrowing is proposed in this 10-year plan. This will reduce the interest cost for reserves that are in deficit and will allow cashflow to be managed efficiently as internal borrowing is forecast to exceed the level of Council's financial assets.

Background

For the 10 year period of this plan, work programmes and initiatives have been developed that will contribute to achieving Council's overall vision, ensuring the sustainable use of its natural resources, water, air and land, and to protect them now and future generations.

The process we used to develop our work programme was to firstly consider and review our core business programme of work and provide for the continuation of those activities. This work is all about maintaining our existing services and continuing funding on programmes already underway and committed to. To prioritise new expenditure, we undertook a review to identify any gaps in our work programme for activities that we must undertake as they are required under legislation and then we considered those activities that would be desirable to do to meet our community's expectations.

These programmes and initiatives come at a cost. Affordability for ratepayers is a key aspect of this strategy and Council is mindful of the potential burden on ratepayers to fund the proposed work programme. Council's Revenue and Financing Policy details how each of its activities should be funded, whether through rating, fees and charges, or some other funding tool and in doing so, has given consideration to who will benefit from each activity and how much they will benefit.

Council holds a number of investments and most of the income derived from those investments is used to contribute to the cost of our work. All ratepayers benefit from this income, as the contribution is used to reduce the general rate requirement each year. Council's Treasury Management Policy covers borrowing and investment terms, including a Statement of Investment Policy and Objectives for our financial investments.

Council has a strong balance sheet. Its aim is to use its balance sheet strategically to preserve the financial stability it currently enjoys. Historically Council has preferred to use internal borrowing, that is, to lend from its general reserves to fund certain activities, as the cost of internal borrowing has been lower to the ratepayers than if Council were to borrow externally. Over the next 10 years Council will use external borrowing where the cost of doing so is more cost effective and efficient than utilising internal borrowing.

Principles

This financial strategy and the associated Revenue and Financing Policy are based on the following financial principles:

Prudence

Council will not take undue financial risks and aims to ensure spending and funding requirements are affordable and sustainable.

Fairness

Council will ensure spending reflects the needs of the community and that those who enjoy the benefit of that spending or are responsible for that spending occurring pay a fair share to fund that spending. That includes providing for intergenerational and community equity in both expenditure and funding decisions.

• Value for money

Council will ensure that all expenditure provides the best possible value for money in terms of impact and effectiveness. That includes considering the lifetime cost and most efficient form of funding for that expenditure.

• Transparency

Council aims to provide clear information to the community on its financial direction and decision-making framework Council is undertaking around that financial direction.

Key issues that have a significant financial impact

There are key issues associated with the Long-Term Plan 2021-31 that have significant financial impacts. They include:

- The tension between land use intensification, both rural and urban, and national direction to maintain and improve our fresh water resource.
- The need for a collaborative and inclusive approach for achieving acceptable environmental, economic and social outcomes in particular for land and water issues.
- Planning for and responding to the risk associated with providing flood protection and drainage schemes.
- Ensuring our operational response to maintaining and improving Otago's natural environment is appropriate.
- Meeting the need for effective public passenger transport services in Dunedin and the Wakatipu Basin.

Council is addressing these issues in the following ways:

- The Councils regional planning framework formed a critical component of a 2019 central government review of Council's approach to fresh water management. The recommendations of that review have already been acted on and this LTP further consolidates the provision for this on-going programme of work. It includes: Regional Policy Statement, Regional Land and Water Plan review, and increased capacity for consenting and consent monitoring activity. To support the delivery of the regional planning work this LTP makes further substantive provision for science and monitoring resource. This is largely staff who design, collect, manage, analyse and report information requirements for the planning process. A planning conversation that is based on relevant and quality science is more likely to result in a better result for the community.
- In conjunction with regional planning the Council is signalling support in this LTP for achieving desired results through working with community at a catchment level. While new funding provision is modest over years one to three, there is an expectation that over the medium-long term activity at the catchment level will increase.
- Our Infrastructure Strategy is an important component of deciding how Otago communities adapt to change and it signals a commitment to explore and communicate options relating to flood and drainage activity. While the achievement of fresh water outcomes is the top priority for Council, this LTP also includes immediate and substantive increase in the provision of core Biosecurity services.
- The LTP currently does not include provision for any substantive Air implementation programme. There is an expectation that over the medium-longer term that this will need to be addressed. Given the scale of the issue substantive funding may be required.
- Council has the expectation that national direction on climate change will continue to strengthen and that transport will be a significant part of achieving desired outcomes. As such this LTP, despite the COVID impact on Queenstown patronage, is investing to grow patronage and provide quality public passenger transport services over the long term. Sufficient provision is made in years one to three to complete business case work that will inform decisions in the medium-long term on substantive service development in Queenstown. It is anticipated that during years 1-3 consideration and decisions on

expenditure and funding will be required to achieve both service improvements and affordability for users and the community.

Other assumptions that have a financial impact

Population growth

Statistics New Zealand subnational population estimates (as at 30 June 2020) suggested that Otago's population in 2020 was 245,300. Between 2019 and 2020, Otago's population grew by 5,600 people or 2.4%, which was the third highest growth rate amongst New Zealand's regions and higher than New Zealand average of 2.1%.

In terms of population by age group, Otago's under-15 age group was estimated to be 15.8% of the total population, which was lower than the New Zealand average of 19% while Otago's over-65 age group was estimated to be 16.5% of total population, which was higher than the New Zealand average of 15.6%;

The annual peak numbers of visitors to the region in recent times has been estimated to be around 141,000, which is more than half of the resident population.

In the next 10 years (2020-2030), the region's population is projected to increase by 10% (24,590 people) to reach 264,855 residential population under the most likely growth scenarios provided by the district councils. Otago's districts are projected to continue to have different population growth rates. Queenstown-Lakes and Central Otago are projected to have the highest growth rates of 27% and 18% respectively; Clutha district is to have the lowest growth rate of 3%; while Waitaki and Dunedin's population are to grow by 7% and 5% respectively.

Currently there are approximately 120,000 ratepayers in Otago. The forecasted growth outlined above will translate into an increase in the ratepayer base. Over the ten period the population growth could translate to growth of the ratepayer base of 10,000 to 12,000 (ie approx. 10%). This level of growth will impact on the level of activity undertaken by Council over the 10-year period, including in the areas of public passenger transport and urban development, and management of natural resources such as fresh water and land. This LTP makes provision for a programme of work that builds into the requirements of growth alongside other non-growth related issues.

Natural Hazards

Otago is exposed to a large range of natural hazards including floods, landslides, debris flows, droughts, earthquakes and tsunamis. These pose a risk to the well being of Otago through impacts on public safety, housing, infrastructure and the economy. Most of the region's population lives within five kilometres of this coastline and several communities along the coast have a level of exposure to hazards from elevated sea level and coastal erosion.

Otago will experience adverse events. For the purpose of this LTP, it is assumed that:

- There will be one flood event impacting on ORC's flood and drainage infrastructure every year;
- There will not be any droughts/low flows event should one happen, it will likely lead to a reprioritisation
 of work and resources.

Otago's climate is changing, and these changes will continue for the foreseeable future. Climate change projections for the Otago region include warmer temperatures, with more hot days and fewer frosts. Winter and spring are expected to be wetter, but with significant decreases in seasonal snow likely. More severe extreme rainfall events are anticipated, as is the severity and frequency of windy days. Even with intervention, sea level rise is expected for the next 100 years and more. Hazards associated with these changes in climate are likely to include increased flooding and landslides, drought, coastal inundation and erosion, and increased instances of wildfire.

Land use change

How land use may change in Otago is unknown. With population growth, there will be a need for more urban development, farming may change because of climate change effects, and there may a switch from intensive farming to more cropping. Whatever those changes may be, there will be likely impacts on the demand for water, and the need for greater efficiency in water use and changes in land use practice to achieve water quality objectives. Future decisions by the community about protecting property and maintaining land productivity from flooding and inundation will also be an important factor

Covid-19

Council has been fortunate that Covid-19 has not had a material impact on its commercial revenue streams. Port Otago has been impacted but maintains diversified revenue streams and forecast dividends over the life of this plan are not expected to be impacted. Likewise, investment returns via the managed fund were impacted in the short term but have subsequently recovered and are not expected to be materially impacted in the financial forecasts.

Bus fare revenue was impacted in the short term however lost fare revenue was underwritten by NZTA. Decreased fare revenue is expected to continue in Queenstown in the early part of this 10-year plan. Council will maintain its existing levels of service and will continue to provide contracted public transport services. Any shortfall in fare revenue will be funded by increased NZTA grants and transport reserves.

Expenditure

Operating expenditure

Council's strategy is that operating expenditure is to be funded from operating revenue, being rates, fees and charges, grants, investment and other income. Council's strategy is also that it will not use reserves to fund day to day, business as usual type operating costs, as this is not considered a prudent use of reserves. There are, however, special cases where Council's revenue policy does allow for operating expenditure to be funded from general reserves, for example, research and development costs, or specific one-off activities or projects and activities have benefits that continue over the following years.

In the 2020-21 Annual Plan Council decided to use general reserves to offset a significant increase in general rates with a view to recovering that amount over the early years in this 10-year plan. With significant additional expenditure now required in the next 10 years, Council has decided to fund the 2020-21 shortfall as a one-off from general reserves. Going forward over the next 10 years Council is not proposing to offset general rates in this way as the uncertainty that further expenditure increases may compound future year rates increases is too great.

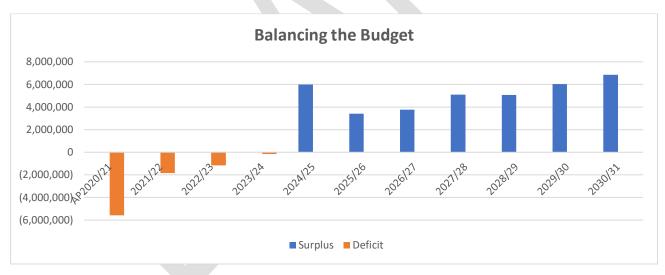
Council has a number of activities which are funded by targeted rates, such as public passenger transport, flood and drainage schemes, and river and water management. Reserves are maintained for activities funded by targeted rates. There are times when these reserves may be used to fund scheme operating costs, to allow certainty around the level of rates that are required from year to year. Expenditure in these activities can be volatile in nature, with some years spend being very high, and other years very low. Targeted rate reserves are used to help smooth the impacts of these variations in expenditure. Targeted rate reserve deficits may be internally or externally debt funded.

The graph below shows estimated operating expenditure over the 10-year period of the Long-Term Plan, by significant activity.



Operating surplus and balancing the budget

Council is required to ensure that for each year, estimated revenue is sufficient to cover its estimated operating costs. Council is however allowed to set its revenue at a different level if it resolves that it is financially prudent to do so. It is estimated that in the first three years of this plan, the estimated revenue will not cover estimated operating costs.



The primary reason for the shortfall in revenue is that Council plans to use reserves to fund one-off operating expenditure. This has been planned for several activities of Council as follows:

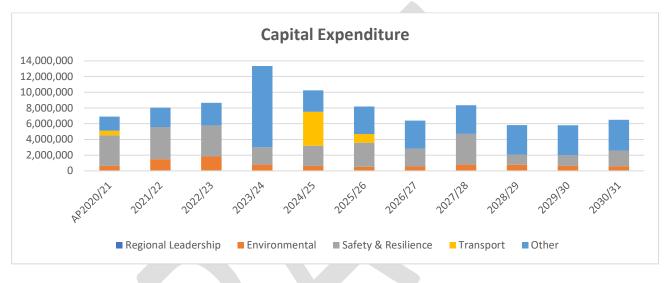
- Eco Fund;
- Climate Change Adaptation; and
- FMU water modelling.

The 2020-21 Annual Plan deficit includes the use of a general rates offset. This amount is not being recovered via rates in the Long-term Plan and will be permanently funded from general reserves.

Capital expenditure

Most infrastructural assets, such as floodbanks, pumping stations and drains, belong to flood and drainage schemes. Ratepayers within these schemes fund the depreciation on these assets through targeted rates. Each scheme has its own reserves made up of funded depreciation, unspent targeted rates and interest earned on reserve balances. These reserves are used to fund capital expenditure. If there are insufficient reserves available to fund the capital expenditure, then either internal or external borrowing will be used.

The graph below shows estimated capital expenditure over the 10-year period of the Long-Term Plan, by significant activity.



Scheme Infrastructure Asset Investment

Significant expenditure is required during the life of this plan on flood and drainage scheme infrastructure. Generally, capital works in established schemes are funded by the depreciation reserve built up for each of the schemes, and maintenance work is funded by targeted scheme rates. However, depreciation reserves are not always sufficient to cover capital investment so increases in targeted rating have been planned where appropriate, along with the utilisation of internal and external borrowings.

The planned capital expenditure for each scheme over the 10-years is as follows:

	Increase in Levels of Service \$000s	Renew / Replace \$000s	Total 10-Years to 2031 \$000s
Alexandra Flood	0	41	41
Leith Flood Protection	0	1,823	1,823
West Taieri Drainage	3,405	4,581	7,986
East Taieri Drainage	1,729	2,327	4,056
Lower Taieri Flood Protection	0	7,915	7,915
Lower Clutha Flood and Drainage	307	2,251	2,558
Tokomairiro	0	233	233
Total	5,441	19,170	24,611

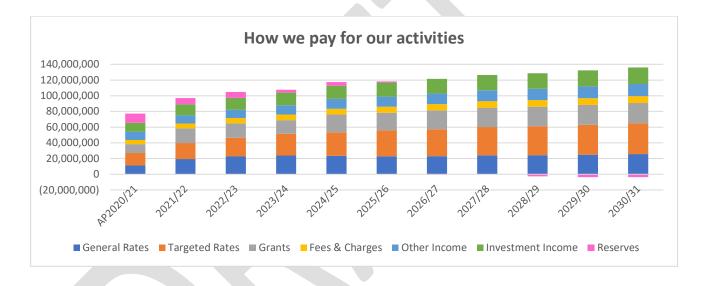
Each scheme has its designed level of service (or protection). Climate change risk assessment work for the Taieri Plain, Clutha Delta and South Dunedin continues within this LTP. This work will influence future decisions on infrastructure and associated levels of service for existing flood and drainage schemes and non-scheme areas.

The expansion of Mosgiel and Wingatui within the boundaries of the Taieri Scheme will result in a need to address and manage the stormwater/land drainage interface.

Other scheme works involves implementing an on-going and planned renewal and asset replacement to maintain the current levels of services. This work is outlined in the ORC Infrastructure Strategy.

Revenue

Council pays for its services through a variety of revenue sources. The graph below shows the mix of sources for each year of this 10-year plan.



General Rates

General rates are charged where there is a wider community benefit or where a defined benefit area or group cannot be determined, or it is uneconomic to separately rate or charge that area or group.

Each year general rates are subsidised by dividends received from Port Otago Limited, and by income earned on council's managed fund, cash balances and investment properties. Generally, investment income subsidies reduce the general rate requirement by around half of the gross rate requirement.

The amount of general rates we collect is low, currently contributing around 14% towards Council's total expenditure although this will increase over this 10-year plan to around 20% of total expenditure. This low general rate means that any general rate increases, whilst small in monetary terms, are generally high in percentage terms. A 1% increase in general rates equates to approximately \$128,500 (including GST). This, spread across 120,000 ratepayers, averages out to an increase of around \$1.07 per annum, per ratepayer.

The average amount of general rates payable across the region is also low at \$107. The proposed increase in general rates will increase this by \$79 to \$186 on average.

Over the past few years, general rate increases have been higher than we have historically experienced. Council has recognised that with additional demands from central government and a growing work programme to meet

community expectations, we need to increase our general rates to a sustainable level. This will continuebeing done over the first three years of this Long-Term Plan.

To help us do this, our subsidiary company, Port Otago Limited, is increasing the forecast level of dividends significantly. Despite this, general rates will also need to increase significantly over the first three years of this Long-Term Plan to cover our estimated expenditure.

These increases will bring our general rates to around \$24 million at the end of year three. Any increases after 2024/25 in our general rates will be modest, generally taking account of inflation. The movement in general rates from year to year ranges from an average rate increase of 31.9% in the first three years of the plan, to and average increase of 1.0% for the remaining seven years of the plan.

This plan provides for inflation each year of between 2.4% and 2.7% over the 10-year period on its expenses.

Of the total general rate to be collected each year, 25% is to be charged as a uniform annual general charge (UAGC).

If a specific project shows major fluctuations in the level of rate from year to year, council may smooth the impacts of those charges over a longer period of time, ensuring that the full contribution is achieved. It is not proposed to do this in the 10-years of this plan.

Targeted Rates

Targeted rates are used where there is a defined area of benefit, or a defined group benefiting from an activity.

Council has around 23 targeted rates established for emergency management, air quality, wilding tree control, rural water quality, dairy inspections, river management works, flood and drainage schemes and public transport services provided in Dunedin and the Wakatipu Basin.

Each targeted rate has its own reserve. So, any unspent rating is allocated to the appropriate reserve and used to fund expenditure applicable to that targeted rate in future years.

For river and water management, Council aims to have reserves in funds equating to approximately one year's worth of operating costs. This provides some financial security, should a flood event occur, so that additional work can be undertaken as necessary without the need for a significant rate increase in any one year.

In this Long-term Plan Council is renaming and repurposing the river management rate and reserve to utilise that as the funding mechanism for river and water management generally. This will now include funding certain lake and other water body remediation initiatives within each river and water management district.

Where significant capital expenditure is required on our flood and drainage schemes, Council will not support the repayment of scheme works over a period longer than 20 years. The interest expense associated with longer repayment terms is not considered justifiable in terms of future rate payments. The 20-year term however, appropriately recognises the spread in benefits to future generations.

The movement in targeted rates from year to year ranges from an average rate increase of 20.6% in the first three years of the plan, to and average increase of 5.3% for the remaining seven years of the plan. These increases are required to ensure current deficits and operating expenditure is funded over the 10 years of this plan.

Total Rates

Total rates to be charged over the 10-year period are as follows:



Rate Limits

Total rates increases will be limited to 48% in year 1, 18% in year 2, 12% in year 3 and 6% for years 4 to 10.

Borrowing

External Borrowing

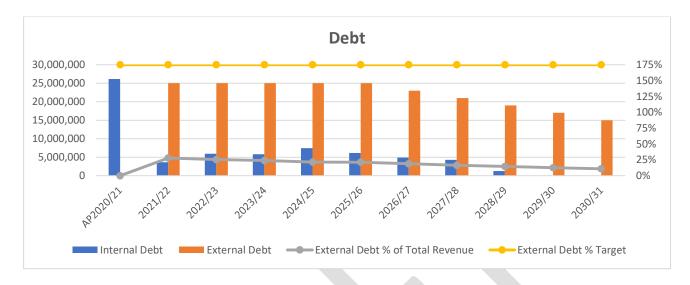
Council currently has no external borrowing however this is proposed to change from year one of this Long-Term Plan.

Council may borrow for the following primary purposes:

- To fund special one-off type projects.
- To fund expenditure for items of an intergenerational nature.
- Short term borrowing to manage timing differences between cash inflows and outflows.
- To replace an unexpected loss in dividend or investment income.

Borrowing limits are set as follows:

- Interest expense cannot exceed 20% of the total rates per annum.
- Interest expense shall not exceed 25% of total revenue.
- Debt shall not exceed 175% of total revenue.



Total graph below shows proposed external debt over the 10-year period of the Long-term Plan:

It is Council policy to offer security for any borrowing by way of a charge over its rates. In the normal course of business, Council policy is not to offer security over any of the other assets of the Council. However, in special circumstances and if it is considered appropriate, Council may resolve to offer such security on a case by case basis.

Internal Borrowing

When considered appropriate, Council uses accumulated reserves as a borrowing mechanism primarily for the flood and drainage and transport schemes, thereby reducing the level of external borrowings required. The following operational guidelines apply to the use of reserves for funding rather than external borrowings:

- Interest is charged on the month end loan balances.
- The interest rate charged is equivalent what Council would earn if it had been invested.
- Reserves available for internal borrowing are limited to 50% of total reserves.

The interest earned from internal borrowing is used in the same way as interest earned on investments, that is, to fund interest on reserve balances in funds and to subsidise general rates.

Investments

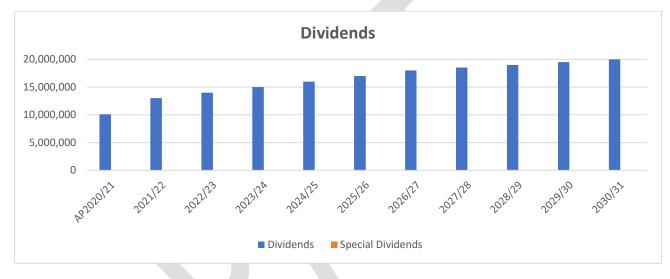
Council's primary objective when investing is to earn a return whilst protecting its initial investment. Accordingly, the risk profile of all investment portfolios must be conservative. Within approved credit limits, Council seeks to maximise investment returns, and manage potential capital losses due to interest rate movements, currency movements and price movements. Council's investments are discussed below.

Port Otago Limited

Council holds 100% ownership of Port Otago Limited. Each year, dividends are received from Port Otago Limited that significantly reduce the general rate requirement. Council is of the view the this is a strategic asset held on behalf of the Otago community and through subsidising general rates, every ratepayer enjoys the benefit of that ownership. Port Otago's dividend policy aims to provide a dividend of between 50-70% of normalised operating profit after tax. This allows Council to receive an acceptable and sustainable return while still allowing the Port to retain capital for reinvestment in the long-term future of the business.

Dividends are forecast to increase significantly in the next 10 years. This increases Council's funding reliance on the Port which comes with additional risk should the Port be unable to maintain this level of dividend. Over the 10-years of this plan Council aims to mitigate this risk by holding sufficient financial reserves to cover an unexpected dividend shortfall. While this may reduce the rates impact of reduced dividends in the short term, it will impact other investment income and significant rates increases are likely to be required if dividend levels reduce.

From time to time, special dividends may be received from Port Otago Limited for specific purposes. Before requesting special dividends, Council will discuss with Port Otago its ability to pay such dividends, taking account of factors such as the company's own programme of capital expenditure. No special dividends are proposed in the 10 years of this Long-term Plan.



Over the next 10-years, dividends are estimated to be as follows:

Investment Property

Council doesn't generally invest in property but does own investment property within Dunedin City that was vested to it when Council was established. Some of this is land leased by the University of Otago and the Otago Polytechnic. Council also owns property on the Dunedin harbour basin, being the Custom House building and the Monarch building.

The return by way of rentals on all these properties is at commercial rates and is used to subsidise general rate funding each year.

Managed Funds

Council holds a long-term managed investment fund incorporating classes of cash, fixed interest bonds and equities (New Zealand and international). Council's primary investment objectives when investing is the managed fund are:

- To protect and maintain the purchasing power of the current investment assets and all future additions to the investment assets.
- To maximise investment returns within reasonable and prudent levels of risk.
- To maintain an appropriate asset allocation in order to make distributions as required while preserving the real value of the Council's capital from the effects of inflation.

Investment in the managed fund is based on an investment horizon of greater than seven years. Council is risk adverse in its investments and has a low willingness to accept risk but seeks to achieve return equivalent to inflation plus 2.3% to 3.1% (net of fees).

Based on Council's required return and risk appetite the managed fund incorporates an asset allocation that allows for 40% to 60% of the portfolio to be invested in growth assets. Accordingly, the aim is to achieve a 50% income assets, 50% growth assets split.

Our assumption in this plan is that the managed fund will achieve an overall return of 4.5% per annum. This income is used to pay interest on reserve balances that are in funds and the remaining balance is used to subsidise general rates.

Reserves

Restricted and Council Created Reserves

Restricted reserves are a component of public equity generally representing a particular use to which various parts of equity have been assigned. Reserves may be legally restricted or created by the Council.

Restricted reserves are those subject to specific conditions accepted as binding by the Council and which may not be revised by the Council without reference to the Courts or a third party. Transfers from these reserves may be made only for certain specified purposes or when certain specified conditions are met.

Also included in restricted reserves are reserves restricted by Council decision. These Council created reserves may altered by Council without references to any third party or the Courts. Transfers to and from these reserves are at the discretion of the Council.

The majority of Council's reserves relate to the revaluation of assets and therefore do not represent cash reserves available for Council's use.

• Available-for-Sale Revaluation Reserve The available-for-sale revaluation reserve arises on the revaluation of the shares in Council's subsidiary company, Port Otago Limited. This is an unrealised non-cash reserve.

• Asset Revaluation Reserve This reserve arises on the revaluation of investment property. This is an unrealised non-cash reserve.

• Kuriwao Endowment Reserve – Restricted

This reserve represents the accumulation of sale proceeds and net income from Kuriwao Endowment land less any distribution of that income. The reserve is available to fund works for the benefit of the Lower Clutha District.

• Asset Replacement Reserve

This reserve represents funds held for the replacement of Council operational assets (excludes targeted rate scheme assets). It is funded by rating for depreciation on those operational assets.

• Emergency Response Reserve

This is a contingency reserve to enable Council to respond appropriately to emergency situations. It was initially established to provide funds for assets that Council is self-insuring its terms of use have been expanded to cover any emergency event.

The reserve was created from transfers from general reserves and accumulated interest income. If the reserve is used for any non-general rate activity it is expected that scheme will repay this reserve. If it is used for general rate funded activity, then it may be replenished through general rates or a transfer from general reserves.

Water Management Reserve

The purpose of this reserve is to provide funding for water management initiatives in Otago.

This reserve was established to provide funding for water management investigations including irrigation scheme feasibility. It has also been used to fund water allocation work. In year 1 of this plan it will be used to fund FMU water modelling work. This is expected to fully exhaust this reserve at which stage any remaining funds will be incorporated back into the general reserve and this this reserve will be closed.

• Building Reserve

The purpose of this reserve is to set aside funding for the development of a new head office for the Council.

Council has indicated it is unlikely to pursue investment in a new Council owned head office. Despite that the challenge of housing increasing levels of Council's staff both in Head Office and throughout the region remains. This financial strategy assumes Council will required to spend approximately half of the building reserve in year 3 to facilitate a move to new leased premises and or to redevelop and expand existing sites.

Setting aside this amount, the remainder of the reserve is being transferred back to general reserves where it will be used to fund the 2020-21 general rates offset and assist with funding other general rate activity.

Environmental Enhancement Reserve

The purpose of this reserve is to provide funding for the maintenance or enhancement of areas of the natural environment within the Otago region.

General Reserve

The balance of Council public equity after accounting for restricted reserves is the general reserve. This reserve can be used for the planned funding one-off activities. It also provides contingency funding for emergency events and a source of funding for essential unbudgeted expenditure.

The general reserve will be replenished in year 1 of the LTP as internal borrowing is repaid and replaced by external borrowing. Further funds will be added to the general reserve following relocation to a new head office when any other surplus operational property will be sold.

Targeted Rate Reserves

Reserves are maintained for each targeted rate. This allows any unspent rating expenditure to be allocated to the appropriate reserve and used to fund expenditure applicable to that targeted rate in future years. Expenditure in these activities can be volatile in nature, with some years spend being very high, and other years very low. Targeted rate reserves are used to help smooth the impacts of these variations in expenditure.

Targeted rate reserves may go into deficit to allow significant expenditure to occur immediately and rate funding to repay that expenditure over time. Where significant capital expenditure is required on flood and drainage schemes, Council will not support the repayment of scheme works over a period longer than 20 years. Repay, of operation

• River and Water Management Reserves

Targeted rating has been used to fund river management works across the city and districts within Otago. In this Long-term Plan this reserve will be extended and also used for other water management

implementation activities. That will include restoration and remediation initiatives of an operational nature including clearing, planting and smaller one-off works.

Council aims to maintain these reserves in surplus equating to approximately one year's worth of operating costs. This provides some financial security, should a flood event occur, so that additional work can be undertaken as necessary without the need for a significant rate increase in any one year.

• Flood and Drainage Scheme Reserves

Targeted rating is used to fund the costs associated with maintaining the level of flood protection and drainage provided by these schemes. This includes funding both operating and capital expenditure.

• Transport Reserves

Targeted rating is used in Dunedin and Queenstown to fund the Council's costs associated with the provision of public transport services including buses, ferries and the associated infrastructure.

• Clean Heat Clear Air Reserve

The purpose of this reserve is to fund costs associated with the provision of funding associated with the improvement of insulation and heating in homes located within the targeted rating district.

Rural Water Quality Reserve

The purpose of this reserve is to fund costs associated with rural liaison and integrated catchment functions within the water quality implementation activity.

• Dairy Monitoring Reserve

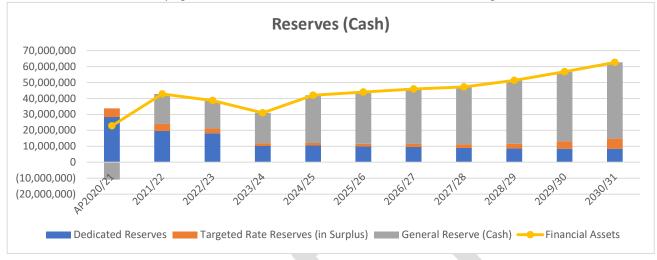
This reserve is primarily used to smooth rates increases and reallocate any under or over spent funding to future years.

Wilding Pines Reserve This reserve is primarily used to smooth rates increases and reallocate any under or over spent funding to future years.

Emergency Management Reserve

This reserve is primarily used to smooth rates increases and reallocate any under or over spent funding to future years.

• Lake Hayes Remediation Reserve The purpose of this reserve is to fund costs associated with the restoration of Lake Hayes.



The graph below shows Councils reserves of the 10-years of the Long-Term Plan. The General Reserve has been balanced to reflect the underlying reserve amount available in cash on hand an in the managed fund.

Insurance

Council holds comprehensive insurance through a range of policies to manage the financial risk of loss due to unforeseen events. Operational assets such as buildings, vehicles and plant are fully insured.

Infrastructure assets are not fully insured due to the nature of the assets and the low probability that all assets would be affected by a single event. These assets are either fully or partially self-insured. Included in self-insured assets are flood protection and drainage infrastructural assets including floodbanks, protection works and drains and culverts. Assets of this nature are constructions or excavations of natural materials on the land and have substantially the same characteristics of land.

Council does not maintain separate self-insurance funds and considers that the level of reserve funds held is sufficient for the purpose of self-insuring assets that are not covered by insurance contracts. Operational budgets also provide for repairs of a smaller scale and amount.

Infrastructure Strategy

Introduction

Otago is administered by the Otago Regional Council. Situated in the southern half of the South Island, and with an area of approximately 32,000 square kilometres, it is the second largest local government region in the country.

Council provides flood protection and land drainage to approximately 43,000ha of rural and urban land in Otago. This is achieved through managing infrastructural assets that include 218km of floodbanks, 12 pumping stations, 55 bridges, culverts, and various other assets, across the region's rivers and a total of seven flood protection and/or drainage schemes.

Different types of assets are situated within our rivers to maintain river and stream channel capacity, and bank stability in targeted areas, as well as satisfying environmental needs. These assets may include rock buttresses, groynes and floodbanks, outside of those within Council's flood protection and drainage schemes.

Council's flood protection schemes are designed to protect people, property and stock during a flood event. These schemes typically consist of floodbanks, flood pumps, ponding areas, gravity gates and floodways. Council's drainage schemes are designed to drain land so that it remains viable for farming activities. Drainage schemes are located on the low-lying plains in parts of Otago and typically consist of pump stations and a network of open drains.

The context within which Council's infrastructure must operate is ever-changing as influenced by several factors:

- Demographics The Otago region has been experiencing very high growth and this is projected to remain strong into the future.
- Economy Different economic structures across the Otago region with the economies of the Clutha and Waitaki districts focussed heavily on the primary sector and bigger manufacturing sector than other districts; Dunedin and Queenstown Lake economies heavily reliant on the tertiary sector (food and accommodation, retail, health and social services); and Central Otago reliant on both the primary and tertiary sectors.
- Physical environment Management of infrastructure within an ever-changing physical environment brought about by the dynamic geomorphology of the Otago region e.g. over 2,000 alluvial fans across the region.
- Climate Variable impact of climate change likely across the region, with sea level rise and shoreline retreat near our coasts, and more frequent and high intensity rainfall events across the region.

The community are dependent on the effective performance of Council's infrastructure for their safety and economic wellbeing. This infrastructure has a key role to play in the protection of non-Council assets and businesses, including KiwiRail, Waka Kotahi, Dunedin's Central Business District, University of Otago, Dunedin International Airport, Finegand Freezing Works, and the townships of Balclutha, Alexandra and Mosgiel. ORC acknowledges that collaborative working arrangements will be required with other asset owners to ensure synergies in infrastructural function is achieved.

Strategic planning positions council to make informed decisions about the management of assets. This enables council to optimise asset performance to meet the level of service to the customer, with consideration and a balance of expenditure and risk in the long term. This document describes that planning process and the resulting approaches that Council intends to pursue in managing its assets. This planning has a 30-year horizon which enables consideration of the entire lifecycle of assets as well as accounting for external factors and changes over time.

Purpose

The purpose of this Infrastructure Strategy (Strategy) is to provide to Council and the Otago community with information about what significant issues the flood protection and drainage infrastructure face over the next 30 years and beyond, and to identify the principal options for managing those challenges, including the implications

of those options, before presenting the most likely scenarios for each issue and when any significant decisions will need to be made.

When setting out how the Otago Regional Council (Council) intends to manage the flood protection, land drainage, and river asset infrastructure in accordance with the requirements of the Local Government Act⁷, Council needs to consider how:

- To manage the renewal or replacement of existing assets over their lifetime;
- To respond to growth or decline in demand;
- Increases or decreases in levels of service will be planned for;
- Public health and environmental outcomes will be maintained; and
- Natural hazard risks and resilience will be addressed.

Each of these are discussed and addressed within the Strategy.

The high-level direction presented in this Strategy has formed the basis of infrastructure planning decisions included in the Long Term Plan 2021-2031. In doing so it links with the Council's Financial Strategy to provide an integrated approach to providing value for money for Otago communities.

The Strategy is a statement of current assumptions and thinking on what infrastructure is required to address the major issues facing the flood protection, land drainage and river management activities over the next 30 years. It presents a clear picture of where we are now, where we are going and how we intend to get there.



Statutory Requirements

In August 2014, the Local Government Act introduced a new requirement for infrastructure strategies and asset management planning. *Table 1* below sets out the relevant requirements of this Act and outlines the corresponding section of this Strategy where it is addressed.

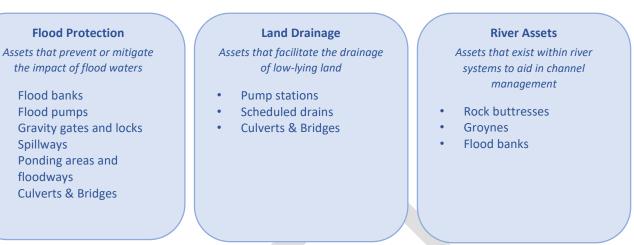
LGA 2	002 Section 101B	Strategy Section
1	A local authority must, as part of its long-term plan, prepare and adopt an infrastructure strategy for a period of at least 30 consecutive financial years.	1.3
2(a)	The purpose of the infrastructure strategy is to identify significant infrastructure issues for the local authority over the period covered by the strategy.	5
2(b)	The purpose of the infrastructure strategy is to identify the principal options for managing those issues and the implications of those options	5
3	The infrastructure strategy must outline how the local authority intends to manage its infrastructure assets, considering the need to: a. renew or replace existing assets; b. respond to growth/decline in the demand for services reliant on those assets; c. allow for planned increases or decreases in levels of service provided through those assets; d. maintain or improve public health and environmental outcomes or mitigate adverse effects on them; e. provide for the resilience of infrastructure assets by identifying and managing risks relating to natural hazards and by making appropriate financial provision for those risks.	5
4	The infrastructure strategy must outline the most likely scenario for the management of the local authority's infrastructure assets over the period of the strategy and, in that context, must:	5
4(a)	show indicative estimates of the projected capital and operating expenditure associated with the management of those assets: i. in each of the first 10 years covered by the strategy; and ii. in each subsequent period of 5 years covered by the strategy	6.3
4(b)	 identify: i. the significant decisions about capital expenditure the local authority expects it will be required to make; ii. when the local authority expects those decisions will be required; iii. for each decision, the principal options the local authority expects to have to consider; and iv. the approximate scale or extent of the costs associated with each decision 	5
4(c)	Include the following assumptions on which the scenario is based: i. the assumptions of the local authority about the life cycle of significant infrastructure assets: ii. the assumptions of the local authority about growth or decline in the demand for relevant services: iii. the assumptions of the local authority about increases or decreases in relevant levels of service	6.2
4(d)	if assumptions referred to in paragraph (c) involve a high level of uncertainty: i. identify the nature of that uncertainty; and ii. include an outline of the potential effects of that uncertainty	6.2

Table 1. LGA 2002 Amendment Act 2014 requirements for Infrastructure Strategy.

Strategy Scope

•

Providing and maintaining infrastructure requires good asset management practices and strategic thinking. This Strategy has been prepared for the flood protection, land drainage, and river asset infrastructure of ORC as required under the LGA 2002 Amendment 101B. It covers the following infrastructural assets:



This Strategy outlines the key issues, implications and most likely scenarios for how Council intends to manage its flood protection, land drainage and river asset infrastructure over the next 30 years.

The Infrastructure Strategy fits within a decision-making and operational framework that ultimately provides direction for the Long Term Plan (LTP). This is depicted in Figure 1.

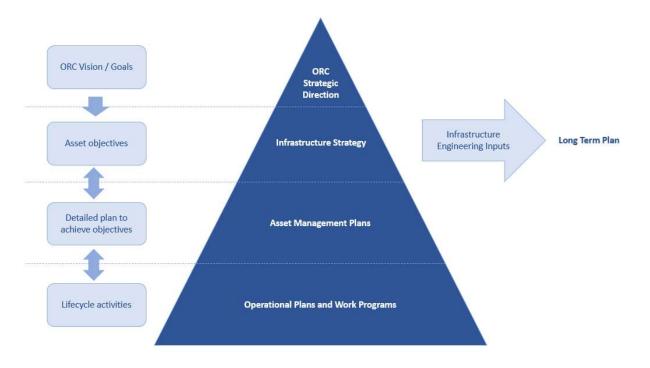
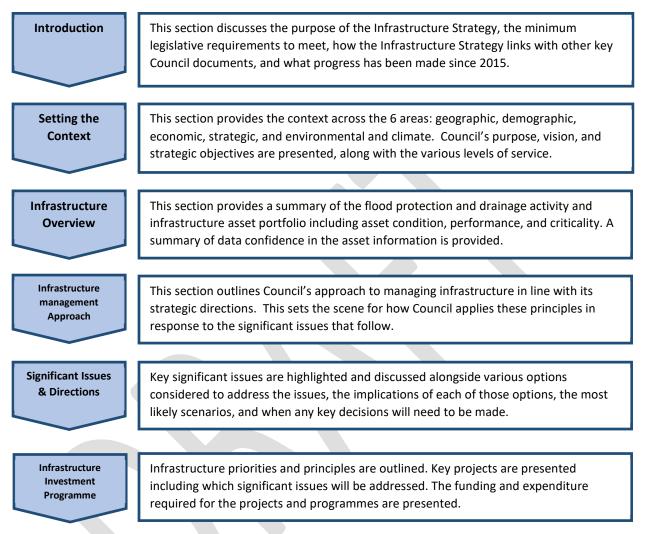


Figure 1 Linkages between the Infrastructure Strategy and other key Council documents.

This Strategy has a 30-year planning horizon and will be reviewed every three (3) years. The planning horizon extends well beyond the more detailed planning included in the Long-Term Plan as a longer time horizon is required to consider the whole life cycle of the infrastructural assets. This helps the Council and the community to see the longer-term approaches planned and what can be expected for Otago up to 2050, and beyond.

The Strategy is structured into the following six sections:



Progress and milestones between 2015 and 2021

The year 2021 marks the Council's third Infrastructure Strategy since the inaugural strategies were developed in 2015. Throughout this time various reviews and reports, outlined below, have disseminated best practice in infrastructure management in the Local Government Sector. As well as these reports, best practice has been pulled from other Local Authorities who have set great examples in developing their infrastructure strategies.

The main updates from Council's previous strategies include:

- Incorporating appropriate recommendations and learnings from Audit NZ's report "Asset management and long-term planning: Learnings from audit findings 2015 to 2017";
- Incorporating appropriate recommendations and learnings from the Office of the Auditor General's report, "Matters arising from the 2015-25 local authority long term plans"
- Major structural changes and development to the overall strategy document;
- Addition of asset information and current state of the flood and drainage infrastructure;
- Updates to asset and demographic data to reflect the most recent information available; and
- Addition of significant infrastructure issues, principal options, and their implications.

ORC understands that providing and maintaining the Council's infrastructure requires good asset management practices and strategic thinking. In response to this ORC have also:

- Updated the Flood Protection and Drainage Asset Management Plans (previously completed in 2014).
- Carried out an asset management maturity assessment of flood protection and drainage assets.



Figure 2 River channel asset, Albert Town (Clutha River/ Mata-Au) Rock Buttress flood repair works completed in February 2021.

Setting the Context

Geographic Context

The Otago region is located in the southern half of the South Island (Figure 3) and is the second largest region in New Zealand by land area; covering approximately 32,000 km². The region incorporates the full extent of the coastline stretching approximately 470 km from the Waitaki River in the north to Wallace Beach in the south; the coastal marine area extends 22.2 km (12 nautical miles) out to sea. To the west the region is largely bounded by the high alpine mountains and catchment watersheds of the Clutha/Mata-Au River and its tributaries, and also the Taieri River which rises in the Lammerlaw Ranges.

The Otago region is made up of five territorial authorities:

- Queenstown Lakes District Council
- Central Otago District Council
- Clutha District Council
- Waitaki District Council
- Dunedin City Council

It should be noted that while Waitaki District lies across both the Otago and Canterbury regions (predominant river catchment area), around 90% of its population live within the Otago region.

Major centres include Dunedin, Oamaru, Balclutha, Alexandra, Cromwell, Wanaka and Queenstown.

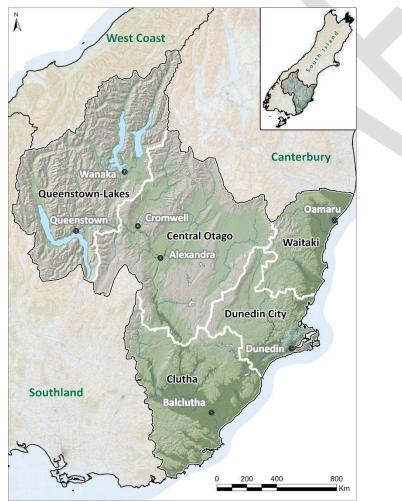


Figure 3 Map of the Otago Region and territorial authorities

Demographic Context

The population of Otago is 245,300⁸, approximately 4.8% of New Zealand's total population. The Otago region has been experiencing very high growth and the current population is already ahead of the growth projections based on the 2013 census (Figure 4). This figure also demonstrates that growth is projected to remain strong through until 2043 (no projections beyond this).

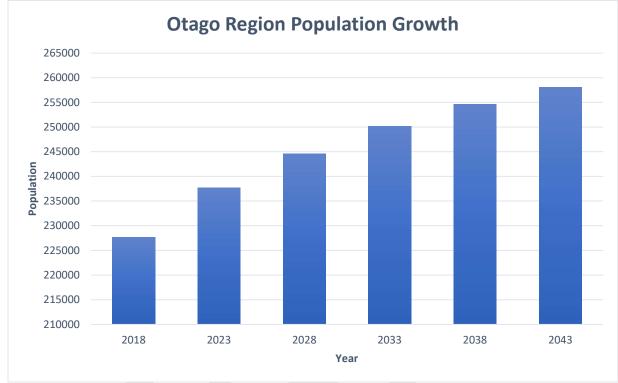


Figure 4 Projected population growth in Otago from 2018-2043⁹ .n.b. 2013 consensus used as based figures. Projection figures using 2018 consensus not available. Population projection beyond 2043 not available.

Dunedin City (including Taieri) and Clutha districts contain the majority of flood protection and drainage schemes that the ORC manages and maintains. Changes in population are projected to differ in both areas as follows:

- Dunedin City Population numbers are projected to increase from 2018 to 2028 by 6% and to 2048 by 10%, however the rate of change is projected to decrease¹⁰.
- Clutha District Population numbers are projected to increase from 2021 to 2031 by 3% and to 2051 with no change of population¹¹.

The Otago region also has an ageing population. In 2020 around 16.5% of the region's population was aged 65 and over; this is above the national average of 15.6%. This population trend is projected to continue with the number of people aged 65 and over expected to more than double from 32,400 in 2013, to 65,800 in 2043. This projected figure will account for more than a quarter of the Otago population (25.7%) in 2043, which will remain higher than the national average of around 23%.

⁸ https://www.stats.govt.nz/assets/Uploads/Subnational-population-estimates/Subnational-populationestimates-At-30-June-2020/Download-data/subnational-population-estimates-at-30-june-2020.xlsx

⁹ //www.stats.govt.nz/assets/Uploads/Subnational-population-projections/Download-data/subnational-pop-projections-2013-43-update.xlsx

¹⁰ Dunedin City Council statistics

¹¹ Clutha District Council statistics

In developing this Strategy, it is important to consider population and demographic projections as they give insight into the future challenges, community drivers and desires that will influence the flood protection, drainage and river services provided.

Economic Context

While Otago region comprises the sixth largest regional economy in New Zealand, with the latest official estimates from Statistics New Zealand showing a regional gross domestic product (GDP) of approximately \$13.6 billion in the year to March 2019¹², which is 4.5% of New Zealand's national GDP, overall the income of residents across the Otago region is lower than for New Zealand. Otago's regional GDP per capita was estimated at \$57,974, which is \$4,195 below the national average of \$62,165 per capita.

Otago districts have different economic structures. Clutha and Waitaki's economies are focused heavily on the primary sector and bigger manufacturing sector than other districts; Dunedin's economy is relatively concentrated on tertiary sectors (e.g., food and accommodation, retail and health and social services); Central Otago's economy relies more on both the primary and the tertiary sector; and Queenstown-lake's economy has the highest tertiary sector concentration in the region. This makes up for a diverse range of economies across the district, as demonstrated in Figure 5 below.

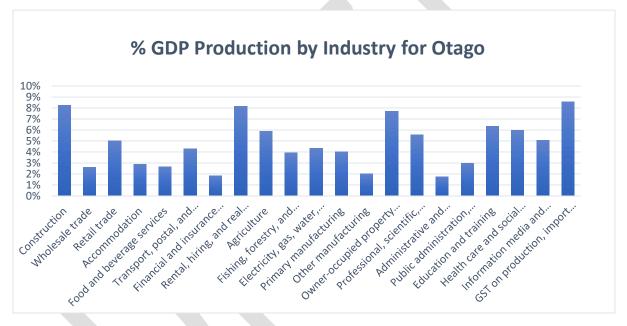


Figure 5 2018 percentage contribution to Otago GDP by Industry (Source: Statistics NZ 2019)

Whilst agriculture is one of the main sectors that benefits, the services provided by the flood protection and land drainage schemes have a variety of other quantifiable benefits which enables further contribution to the region's economy, including but not limited to:

- Protection of land/property, which reduces potential damage and increases the productive value of the land;
- Protection of regionally and nationally important infrastructure associated with activities such as transport (e.g. roads including state highways) and Dunedin International Airport;
- Avoided costs from flood damage that would otherwise result if the schemes were not in place (or maintained to the necessary standard).

Climate Context

The effects of climate change will impact the environment regionally, nationally, and globally. There will be changes in sea level rise, wind and weather patterns, and the frequency of extreme weather events are anticipated to increase. Furthermore, these changes will occur to differing extents in different places. Significant

¹² Regional gross domestic product: Year ended March 2019. Statistics NZ

upgrades of infrastructure are expected as a result, to maintain the current and future level of security from flooding.

In October 2019, the ORC commissioned the National Institute of Water and Atmospheric Research (NIWA) to undertake a review of climate change projections for the Otago region over the 21st Century¹³. The study states that changes to Otago's future climate are likely to be significant, with the key messages from this report being:

- Annual rainfall is projected to increase by between 0-10% for most of the region by 2040.
- Increases in winter and spring rainfall of between 5-20% are projected for many western and inland parts of Otago by 2040.
- Annual rainfall increases of 10-20% are projected for the majority of Otago by 2090 with smallest increases expected near Ranfurly (0-5%).
- Winter rainfall is projected to increase considerably by 2090, with 20-40% more rainfall projected for many parts of the region.
- Decreases in summer rainfall of 5-10% are projected around Ranfurly and Middlemarch by 2090.
- Mean annual flood is expected to become larger everywhere, with increases up to 100% in some locations by the end of the century.
- Extreme, rare rainfall events are likely to increase in intensity in Otago because a warmer atmosphere can hold more moisture.
- Short duration rainfall events have the largest relative increases.

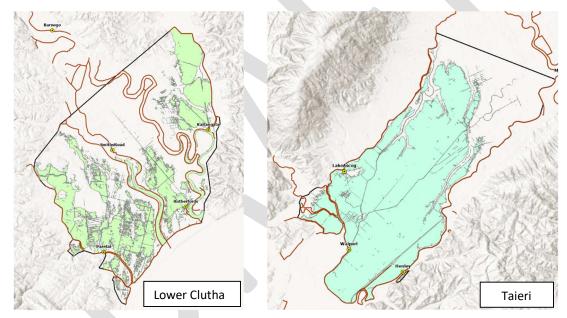


Figure 6 Lower Clutha & Taieri catchments, highlighting land areas less than 1 metre above mean sea level

Furthermore, other climate change studies and reports have indicated that New Zealand can expect sea levels to rise over the 21st Century. From 1899-2015 the annual mean sea level rise for Dunedin was 1.42mm (Ministry for the Environment, 2017), and this is predicted to not only continue throughout this century, but also increase.

Sea level rise has the potential to have a significant impact on the flood and drainage schemes. With 45,462 Ha of the land that relies on ORC's flood protection and land drainage infrastructure less than one metre above current mean sea level. This is demonstrated in

Figure 6 above.

¹³ <u>https://www.orc.govt.nz/media/7591/niwa_climatechangereport_2019_final.pdf</u>

Whilst the changes in climate are predicted to increase rainfall amounts/frequencies, coincided with sea level rise, this does not directly result in proportional increases in the peak flood flows. Relationships within and across catchments are complex, thus regular hydrodynamic modelling is required to assess changes in the performance of infrastructure and flood risk.

Environmental Context

Whilst there are a number of significant, positive contributions to social and economic outcomes from the flood protection and drainage activity, there are also a number of other consequences, such as:

- The construction of infrastructure assets, particularly flood banks and modified river channels, permanently alters the natural character and behaviour of a river, and may have adverse effects for the long-term character and quality of instream and riparian ecology and biodiversity;
- The provision of river infrastructure assets imposes on-going channel management works which have the potential to periodically disrupt recreational use, as well as instream and riparian ecology on an on-going basis; and
- The provision and management of river infrastructure assets has the potential to conflict with the traditional use of rivers and river margins by Mana Whenua.

Over recent times there has been a paradigm shift that has occurred in response to environmental regulation, community expectations, and an increasing awareness of the interrelationships between land use and water quality. Legislation such as the Resource Management Act (RMA) 1991 requires that any adverse effects of future modifications to the natural environment are avoided or mitigated, are pivotal elements of law driving parts of this change. The Local Government Amendment Act (May 2019) also reinstated the four aspects of community well-being – social, environmental, economic and environmental.



Figure 7 River Channel Tree defence assets, Lower Clutha River, February 2021

The National Policy Statement for Freshwater Management (2014) that came into effect in September 2020, provides local authorities with updated direction on how they should manage freshwater under the RMA 1991, including requirements such as:

- managing fresh water in a way that gives effect to the principles of Te Mana o te Wai;
- improving degraded water bodies, and maintaining or improving all others using minimum baselines; and
- working towards target outcomes for fish abundance, diversity and passage.

Otago's Regional Policy Statement (RPS) also sets the direction for future management of Otago's natural and physical resources. It provides the foundation for the development of regional plans and district plans. It also gives an overview of the significant resource management issues facing the region, sets out objectives, policies and methods to resolve those issues, and aims to achieve the integrated management of the natural and physical resources of Otago.

Infrastructure Overview

Existing Flood Protection and Drainage Schemes

Council owns and manages three flood protection schemes and three drainage schemes as well as a combined flood protection and drainage scheme. They are the Alexandra Flood Protection Scheme, the Leith Flood Protection Scheme, the Lower Clutha Flood Protection and Drainage Scheme, the Lower Taieri Flood Protection Scheme, the West Taieri Drainage Scheme, the East Taieri Drainage Scheme and the Tokomairiro Drainage Scheme. The council also owns but commissions external management for parts of the Lower Waitaki River Control Scheme.

The majority of the schemes were initially built to provide protection to local communities and agriculture on the adjacent floodplains. These benefits include access to key transport infrastructure such as Dunedin Airport and State Highways, and protection of critical lifeline networks such as electricity substations. The schemes are essential to managing risks to communities associated with natural hazards, empowering economic prosperity and contributing to community resilience and well-being.

Central Government investment into flood protection and drainage projects ceased after the 1989 local government reforms, leaving it up to local ratepayers to develop and maintain the schemes. The schemes developed and constructed prior to this were largely funded by central government. There remains an ongoing need to operate and maintain these assets, ensuring the benefits they provide remain to be utilised.

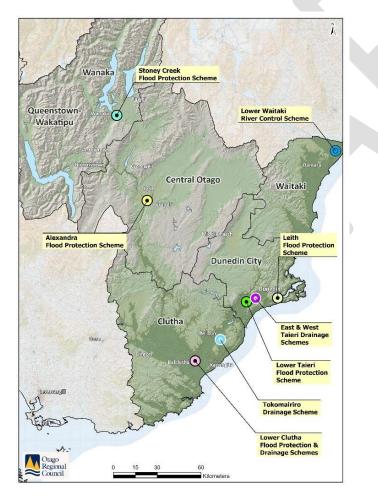


Figure 8 Location of Otago flood protection schemes.

Alexandra Flood Protection Scheme

The Alexandra Flood Protection Scheme was built in 2001 to protect Alexandra's central business area against flooding from the Clutha and Manuherikia Rivers. Stormwater drainage systems owned by the Central Otago District Council normally drain into the river by gravity, but in some events high river levels prevent the drains from discharging into the river. This is where the pumps in the flood protection scheme serve. The total length of floodbanks in this scheme is just over 1 km. Two roads penetrate the floodbanks, so the roads must be closed, and stoplogs installed, during severe floods.

Leith Flood Protection Scheme

The Water of Leith catchment is located to the north of (and includes) the Dunedin Central Business District (CBD), and has a catchment area of approximately 42 square kilometres. This scheme protects the area from the risk of steep headwaters overwhelming the shallower grade channels through the North Dunedin floodplain. Key Dunedin infrastructure such as the hospital, Otago University, Otago Polytechnic and stadium are protected by the scheme. Flood mitigation measures in the Water of the Leith include:

- Substantial lengths of concrete and stone wall to prevent bank erosion and facilitate urban development of the floodplain (e.g. University Campus);
- A boulder trap upstream of George Street (constructed in the 1950s) and a debris/boulder trap upstream of the Lower Malvern Street Bridge (constructed in 1963);
- Straightened channels including a high-velocity channel between George Street and Cumberland Street;
- Grade control weirs of varying heights along the Water of Leith;
- A double concrete-lined channel between Clyde Street and the Otago Harbour; and
- Channel enhancements downstream of Dundas St, constructed progressively since 2013.

Lower Clutha Flood Protection and Drainage Scheme

This scheme combines both flood protection and drainage works. Construction of this scheme started in 1960 and was completed in 1991. The area protected by the flood protection component is the Clutha Delta, which extends from 4km north of Balclutha to the sea. The Clutha is the second longest river in New Zealand, and the largest by mean flow. The Clutha's headwaters are in the Southern Alps above lakes Wakatipu, Wanaka, and Hawea. The Clutha River bifurcates (splits into two) just downstream of Balclutha. Between 60% and 70% of the flow goes down the Koau Branch and 30% to 40% down the Matau Branch. The island formed between the branches is called Inch Clutha. There is a floodway (area designed to carry floodwaters when the river level rises) at the top of Inch Clutha. As well as the Clutha River, water flows into the delta from several other sources including Lovells Stream and Lake Tuakitoto; Waitepeka River; Puerua River and Barrata Creek. Land drainage is provided by a network of 153 km of drains in four regions: Barnego; Stirling/Kaitangata; Inch Clutha; and Otanomomo/Paretai. Drainage in Balclutha and Finegand is not ORC's responsibility.

Tokomairiro Drainage Scheme

The Tokomairiro Drainage Scheme is located in the flat basin surrounding Milton, surrounded on three sides by inland hills, and by coastal hills to the southeast. It has no pumps or control structures. Many of the drains were originally creeks that have been realigned.

Lower Waitaki River Control Scheme

Some flood protection assets on the Waitaki river are owned by the council. This includes small floodways and river groynes within the Otago portion of the river. The management of these is contracted to Environment Canterbury as they manage other river assets in the area.

Lower Taieri Flood Protection Scheme

The Lower Taieri Flood Protection Scheme protects the Taieri Plain during flood events. It was the first to be developed, alongside the East and West Taieri Drainage Schemes, when works commence in 1870 (Figure 9). It is complex, with multiple rivers affecting the scheme. This means flows can increase dramatically in widespread and prolonged rainfall events. The Silver Stream is also a significant river in the scheme. It flows out of the Silverpeaks area and has a far quicker response time than the Taieri River. Other rivers managed in this scheme are Waipori River and Owhiro Stream.

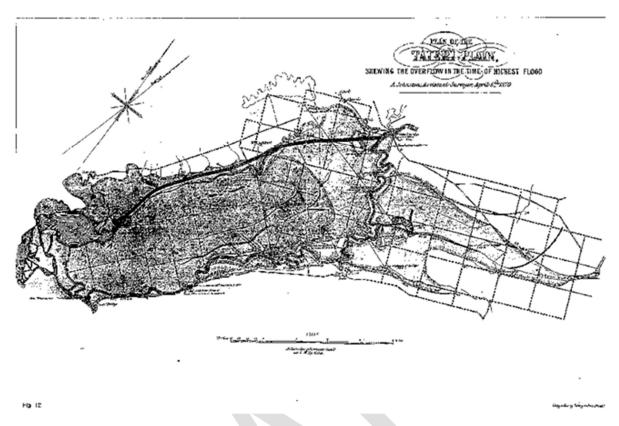


Figure 9 Early development of the Lower Taieri Flood Protection Scheme, showing the extent of a flood event in the late nineteenth century.

West Taieri Drainage Scheme

The West Taieri Drainage Scheme covers the area bounded by the Taieri River, Lake Waipori, and the West Taieri Contour Channel. A small part of the scheme lies in the Henley Floodway. The West Taieri area differs from the other drainage schemes in that water cannot drain out of the scheme under gravity: it must be pumped out. There are three pump stations in the West Taieri Drainage Scheme: Waipori; Henley; and Lake Ascog.

East Taieri Drainage Scheme

The East Taieri Drainage Scheme is physically divided into two areas by the Silver Stream, which flows across the Taieri Plain in a south-westerly direction. Drains on the northern side of the Silver Stream generally flow toward what is called the Upper Pond area. Drains on the Southern side of the Silver Stream flow toward the Lower Pond area. When the Taieri river is at low flow these drains flow out to the river by gravity, whereas when the Taieri is at high flows, gravity gates close and pumps must be used.

Stoney Creek Flood Protection Scheme

Stoney Creek has a steep alpine catchment that discharges into Lake Wanaka across an alluvial fan. Increased urban development of the alluvial fan in the early 2000's led to the need for infrastructure to be established to mitigate the risk of alluvial fan migration and flood risk. The work consisted of constructing debris traps and a rock drop structure. Some channel modifications were also made at the time.

Asset Summary by Scheme

The flood protection, river and drainage assets, and the schemes they make up, primarily consist of floodbanks, pump stations, floodgates and culverts. Table 2 provides a summary of the key flood protection and drainage infrastructural assets that are included within this strategy.

Scheme	Catchment Area	Area Protected	Assets
	(,000 ha)	(,000 ha)	
Alexandra Flood Protection	1,511	0.01	
Leith Flood Protection	4	0.2	
Lower Clutha Flood Protection and Drainage	2,110	9.3	110 153 5 189 5
Lower Taieri Flood Protection	565	13	
West Taieri Drainage	8	8.1	· 144 3 22 20
East Taieri Drainage	17	4.8	· 128 3 84 1
Tokomairiro Drainage	40	7.7	• 110 • 74 19
Total	4,256	43	218 535 14 369 55

Table 2 Asset portfolio summary for flood and drainage protection schemes across Otago.

Key

Length of floodbanks (km)

Length of drains (km)

No. of pump stations

- No. of culverts
- No. of bridges

In addition to the assets in the above there are other assets that form part of Councils infrastructure including:

- The training line that guides the river and sediment in the Shotover River.
- Smaller floodways and river groynes that make up the Lower Waitaki River Control Scheme.
- Trees and vegetation which is planted and maintained along river channels and margins are a defence asset which reduce erosion to river channels and adjacent floodbanks.
- Rock buttress and placed rock within rivers and flood protection schemes, such as Albert Town rock buttress.

Some of these assets are not fully captured in the asset management database and work is required over the next three years to ensure all of these assets are accurately recorded in the database.

Asset Infrastructure Condition

The assessment of asset condition is an essential part of infrastructure management, where primarily the collection of data is used to support and inform:

- Scheme and asset performance assessments.
- Annual maintenance work programmes; and
- Asset renewals/replacement programmes.

Asset condition is determined by undertaking a site visit and visually inspecting each asset, and then grading the physical condition using a 1-5 rating system as detailed in *Table 3*.

Table 3. Asset condition grading scale.

Condition Grading	Condition	Description for Floodbank
1	Very Good	Only planned maintenance required
2	Good	Minor maintenance required plus planned maintenance
3	Average	Significant maintenance required
4	Poor	Significant renewal/rehabilitation required
5	Very Poor	Physically unsound and/or beyond rehabilitation

In 2007 and 2017 an asset condition programme was undertaken across all floodbanks in the Lower Taieri, Lower Clutha, and Alexandra flood protection schemes. Historical and ongoing problems include stock damage, trees and features located in or adjacent to floodbanks, as well as minor erosion around culverts, and slumping on the outside of river bends. Of these, stock damage is considered to be the most common factor affecting condition of floodbanks, along with the quality of the initial construction.

A summary of floodbank condition is presented in Figure 10 below. There were 1288 floodbank inspections, 85% of those were in an Average to Very Good condition. A summary of floodbank condition is presented below.

Asset Condition	No. of Inspections	%	%	Floodbank Condition Summary
1 – Very Good	227	17.7		\$ 600 500 400 300
2- Good	511	39.8	85	g 400
3- Average	354	27.5		
4 - Poor	125	9.7	15	<u>ġ</u> 200
5 – very Poor	68	5.3	15	
Total	1288	100	100	Very Good Average Poor very Poor Good

Figure 10 Summary of floodbank condition by grade. Source T+T, 2018. N.b. Inspection frequency varies, average is one inspection every 170 metres of floodbank.

Data Confidence

The foundation of all asset management activities is asset data information. Knowing exactly what assets exist, where they are, and in what physical condition they are in is fundamental to infrastructure planning. Good quality asset data is required to achieve good quality asset management. This in turn provides clarity over the robustness of plans and provides decision-makers with confidence.

ORCs current data reliability has been scored in Table 4 based on data confidence and reliability gradings adapted from the International Infrastructure Management Manual (Table 5).

Table 4. Data confidence and reliability across various asset management criteria in 2021.

Data	Unknown	Very Uncertain	Uncertain	Reliable	Highly reliable
Asset Inventory:	•				
Location				✓	
Quantity				<	
Value ¹⁴		√			
Condition:					
Flood protection schemes				\checkmark	
Drainage schemes				~	
River Assets		✓			
Performance:					
Flood protection schemes				✓	
Drainage schemes				4	
Criticality:					
Asset Criticality				✓	

Table 5. Data confidence and reliability gradings and descriptions.

Confidence	Description
Grade	
Highly reliable	Data based on sound records, procedures, investigations and analysis, documented
	properly and agreed as the best method of assessment. Dataset is complete and estimated
	to be accurate ± 2%
Reliable	Data based on sound records, procedures, investigations and analysis, documented
	properly but has minor shortcomings, for example some of the data is old, some
	documentation is missing and/or reliance is placed on unconfirmed reports or some
	extrapolation. Dataset is complete and estimated to be accurate \pm 10%
Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete
	or unsupported, or extrapolated from a limited sample for which grade A or B data are
	available. Dataset is substantially complete but up to 50% is extrapolated data and
	accuracy estimated ± 25%
Very	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis.
Uncertain	Dataset may not be fully complete and most data is estimated or extrapolated. Accuracy \pm
	40%
Unknown	None or very little data held.

¹⁴ The ORC uses depreciated value.

In general, Council has a reliable understanding of its flood protection and drainage infrastructure, and regularly undertakes asset condition and performance monitoring, which in combination with modelling and other investigative activities, informs asset maintenance, renewal and replacement.

ORC is committed to working towards having a "highly reliable" asset management system in the next three years. Council acknowledges that it needs to make better use of asset management information systems and tools for managing its assets and in order to effectively deal with the extent of analysis required to support the size and complexity of its flood protection and drainage network and asset infrastructure. Furthermore, by better utilising information systems and tools, Council can make improvements to the optimised decision-making of asset renewals, maintenance and capital works programmes. As technology continues to advance, Council will need to be agile with changes but also be able to forecast when and how changes may impact on the way flood and drainage services are delivered, or any technology-related effects, positive or negative.

Asset Criticality

Central to managing risks, hazards and resilience is the criticality of assets. Critical assets are identified as those which have a high consequence of failure, such as a more significant financial, environmental and social cost to communities.

With regards to the flood protection and drainage schemes, critical assets are those that protect urban or high value areas or areas critical to effective operations of the schemes. The critical assets as identified in the asset management plans are:

- Flood banks that protect the towns and industrial areas of Outram, Mosgiel, Balclutha, Alexandra, the Silver Fern Farms Finegand Plant, and the Dunedin International Airport.
- The Waipori Pump Station drains 95% of the West Taieri Drainage Scheme.
- In the Leith Flood Protection Scheme, the protection works through the university area (Dundas St to Forth St). Failures to these assets would result in flooding of much of the Dunedin CBD, including State Highway 1.
- The Shotover Training Line critical to the performance of the Shotover Delta Infrastructure. If this did not function correctly then there would effects on to Lake Wakatipu and therefore flooding to the surrounding townships, including the Queesntown CBD.

Levels of Service

Overview

This section details the existing levels of service across Otago's flood protection schemes, drainage schemes, and rivers. The existing levels of service for Flood Protection, Drainage and River assets are defined in Table 6.

Table 6 Flood Protection and River Management Levels of service.

Levels of Service	Performance Measures
Provide the standard of flood protection and control agreed with communities.	Major flood protection and control works are maintained, repaired, and renewed to the key standards defined in relevant planning documents.
Respond promptly and effectively to damage from natural hazard events.	Damage identified, prioritised and a repair programme communicated with affected communities in a timely manner.
Maintain channel capacity and stability, while balancing environmental outcomes and	Percentage of identified and reported issues that have been investigated and appropriate action determined and communicated to affected landholders within 20 working days.
recognising mana whenua values in rivers.	Percentage of planned maintenance actions achieved each year.

Council will be looking to develop a strong line of sight from the corporate strategy, into asset management objectives, into level of service statements, into customer performance measures (customer experience based), into technical performance measures (asset based). These performance measures will then inform lifecycle decision making which will encompass capital, operating and maintenance works.

Scheme Performance Issues

ORC currently has the below known issues specific to a particular scheme and/or rivers that need decisions made in order to find a resolution. All of them are a consequence of one or more of the significant issues described in Section 5.1.

Scheme/Location	Issue
Clutha Delta	Flood protection and drainage schemes are in place. Natural Hazards are undertaking a risk assessment of climate change impacts to the Clutha Delta including consequences for levels of service. A Scheme performance review will follow the risk assessment which will assist in future infrastructure requirements of the flood and drainage schemes. This will help us to determine how, and when, to adapt the Lower Clutha Flood Protection and Drainage Scheme.
Dart/Rees Rivers	A collaborative project with QLDC, the current objective is to provide a framework to actively manage the risks associated with natural hazards for the long-term development of the area located at the head of Lake Wakatipu, including Glenorchy and Kinloch. This is in its early stages but will help determine whether and what form infrastructure is part of the adaptation options.
Roxburgh	Adequacy of the existing limited infrastructure on Reservoir Creek.
Lindsay Creek	Sections of the Lindsay Creek still have insufficient channel capacity to convey flood flows. A higher and more uniform standard of flood protection for these areas, to provide a standard of flood protection that is consistent with comparable urban areas across New Zealand, will need to be considered, again. The renewal of existing assets is necessary regardless of any enhanced standard of protection.
Water of Leith/Leith Flood Protection Scheme	Renewal of pre-existing assets (e.g. concrete-lined channel), completion of enhancement works downstream of Forth Street. Investigate options to increase the amenity value of the area downstream of Forth Street to the harbour.
Taieri Plains	Flood protection and drainage schemes are in place. Undertaking a risk assessment of climate change impacts to the Taieri Plain including consequences for levels of service and future infrastructure requirements of the flood and drainage schemes. The expansion of Mosgiel and Wingatui within the boundaries of the Taieri Scheme will result in a need to address and manage the stormwater/land drainage interface.
Lower Waitaki River Control Scheme	Repeat floods. Very dynamic river. Managing funding of unplanned works.
contror scheme	

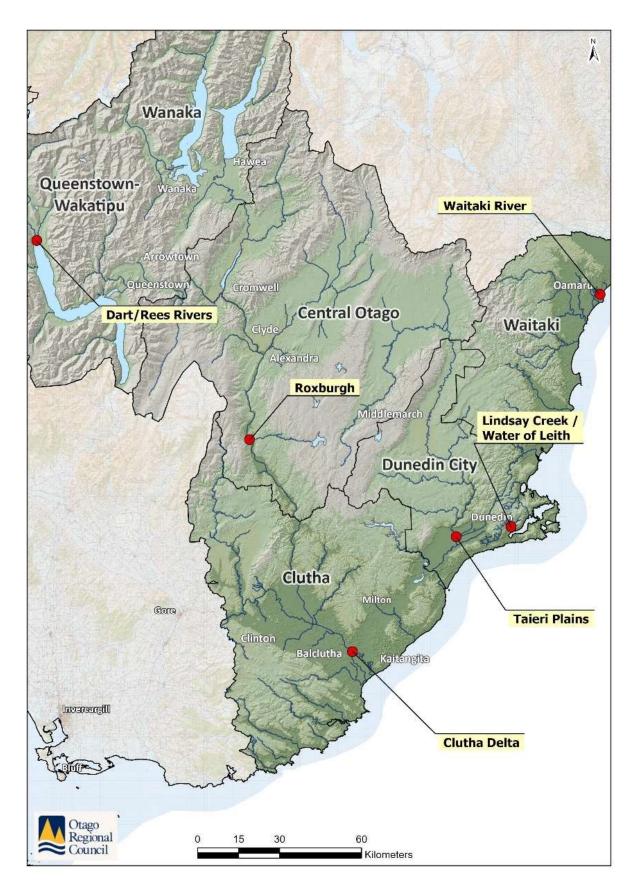


Figure 11 Location of known scheme performance issues.

Infrastructure Management Approach

While ORC's purpose, vision and strategic priorities provide an overarching framework to ensure Council are working on the things that matter, the following principles form how ORC manage infrastructural assets:

- 1. Decisions are aligned with the Council's strategic direction and priorities.
- 2. Partnership with Iwi.
- 3. Improving asset inventory data and information.
- 4. Maintaining existing and fit-for-purpose infrastructure.
- 5. Optimised decision-making on renewal and replacement of existing infrastructure.
- 6. Proactively monitoring the ever-changing physical environment and its consequential effects on levels of service.
- 7. Legislative requirements and consents.

These principles are applied in conjunction with community engagement and feedback, helping guide the infrastructural decisions, and ensures assets are managed in a consistent manner in alignment with the wider ORC strategic direction.

ORC Strategic Direction

ORCs Vision for Otago sets the direction for improving the social, economic, environmental and cultural wellbeing for the Otago communities now and into the future, through six community outcomes:

- Communities that connect with, and care for, Otago's environment.
- An environment that supports healthy people and ecosystems.
- Communities that are resilient in the face of natural hazards and climate change and other risks.
- A sustainable way of life for everyone in Otago.
- Te Ao Māori and Mātauranga Kāi Tahu are embedded in Otago communities.
- Sustainable, safe and inclusive transport.

Council seeks to meet the needs of the community and support the delivery of the flood protection, drainage and river services set out in the Council's Long-Term Plan. ORC will ensure that infrastructural services are managed in alignment with Council's strategic direction.

Iwi Partnership

Part of the ORCs vision is that Otago mana whenua have a strong voice in shaping Otago. ORC acknowledge the special position of tangata whenua within the region. Te Rūnanga o Ngāi Tahu is the tribal representative body for the entire area of the Otago Region. There are four Papatipu Rūnanga; Te Rūnanga o Moeraki; Kati Huirapa Rūnanga ki Puketeraki; Te Rūnanga o Ōtākou; and Hokonui Rūnaka. Otago's environment holds many values for Aukaha and Kāi Tahu, ranging from the spiritual to the practical. Its place-names are a record of the history, traditions, and customs. The region's coast is still a major source of food, livelihood, and recreation for many.

A 'Memorandum of Understanding and Protocol' is in place between Otago Regional Council and local iwi - Kāi Tahu and Aukaha. ORC are committed to the continuing process of consultation with Māori in the region, to try to achieve mutual understanding and agreement on those issues that concern us all.

Data and Information

Knowing exactly what assets exist, where they are, and in what physical condition they are in is fundamental to all asset management activities, and sound decisions are dependent upon the ongoing collection and management of appropriate information. Asset information will be improved across all schemes through fieldbased data collection and office-based data analysis and processing. Council places high importance on regular river surveys, condition and performance assessments and modelling investigations to inform work programmes and associated activities. This also enables us to identify and ensure appropriate management of the most critical assets. Continuously improving the quality and accuracy of data is an ongoing activity Council is committed to.

Maintaining Infrastructure

The existing flood protection and land drainage infrastructure has largely been developed over the last century and has contributed to regional economic growth and community wellbeing since 1870. This infrastructure underpins the regional economy by providing a level of protection from natural events. The operations and maintenance of infrastructure will continue throughout the lifetime of this Strategy.

The age of the flood banks means that in some areas there is some uncertainty associated with the risk posed by the construction methods that may have been employed at the time, the materials used, and the quality and availability of the documentation provided. This highlights the need for an ongoing improvement of ORC's data and information management capabilities, as well as continuous monitoring, maintenance and potential upgrade of this infrastructure as knowledge improves.

Renewal of Infrastructure

Some assets will require renewal during the 30 year duration of this Strategy. These assets include:

- Pump stations, including ancillary plant and equipment.
- Gravity gates and locks.
- Culverts.
- Bridges.
- Concrete flood walls and retaining walls.

Operating these assets beyond the end of their useful lives can result in a reduction in performance of the asset or overall scheme, and increased risk of failure, and/or increased maintenance requirements. Undertaking asset renewals is an appropriate way to extend an asset's working life, and these are planned to deliver the most efficient use of expenditure. Improvements in the data is managed and information pertaining to these assets will also improve the way ORC plan and budget for this expenditure over time.

Changing Physical Environment

Managing infrastructure within an ever-changing physical environment will continue to pose challenges and opportunities throughout the lifetime of this Strategy. ORC will proactively monitor the physical environment in order to adapt to the challenges and opportunities posed by:

- The dynamic geomorphology of the Otago region that contributes to the behaviour of the river catchments and ultimately how the flood and drainage schemes perform.
- The changing climate in Otago and the variable impact of climate change across the region, such as sea level rise, and more frequent and higher intensity rainfall events.

These changes and their consequences have the potential to compromise levels of service and will need to be understood and actively managed. The forward work programmes will therefore include monitoring and analysis to understand the impacts of the ever-changing physical environment on the infrastructure, including ongoing surveys to monitor channel morphology and participation in sea level rise studies to understand regional estimates and impacts. ORC will also continue the development of well-informed communication and adopt a consultative approach with the community as to the areas of natural risk and the measures in place to manage these risks.



Figure 12 Flood Protection asset, Waitepeka Floodbank during the February 2020 flood event

Significant Issues and Directions

This section summarises the significant issues facing the flood protection, river assets and drainage activities for the Otago Regional Council and the corresponding actions that are in place over the next 30 years and beyond. These issues are presented diagrammatically in Figure 13. All significant issues are inextricably linked to one another, with one common denominator being 'Scheme Performance'.



Figure 13 Significant issues and associated links.

The following pages in this section provide detail on why each issue has been identified, Council's preferred approach to managing the issue and the alternative scenarios identified. While Council has a preferred approach to managing the issues, the alternative scenarios are sometimes dependent on external factors outside of Council's control. Factors in the environment or economy can have unforeseen effects, such as Covid-19. However, the decision between the preferred approach and alternative scenarios often depends on the strategic direction the Otago Regional Council is heading. The Council needs to respond to some significant challenges, the status quo will not deliver the future the Otago region and communities are striving towards.

Significant Issue No.1: Infrastructure Condition

Why is it an issue?

ORC's infrastructure assets were constructed over a period of 150 years. As infrastructure ages the condition can degrade (flood banks), need replacement or the technology used become redundant. This signals a bow wave of asset renewals/repair/upgrade that will require investment, and funding of such, within the next 30 years.

Continuing to maintain assets beyond their intended life increases the risk of failure and will also increase the frequency and cost of operations and maintenance activities. Factors such as installation, operational environment and manufacturing defects can also reduce the useful lives of assets.

Council has good institutional knowledge of its assets, however, does rely on asset management systems and processes that are in some cases dated. This may reduce confidence in the data that informs operational and maintenance decisions, and the timing of renewal.

The age of an asset is only one indication of an asset's renewals and maintenance needs. Key to smart asset management is a sound understanding of asset condition, with regular and structured condition assessments of all assets. This allows asset renewals to be driven by the condition of the asset, not only its age.

It is imperative that Council has the confidence in its infrastructure to perform as designed. Allowing assets to decline would lead to reduced levels of service and increase the risk associated with their functioning as required.

Council's preferred approach to manage this issue

The preferred approach is to adopt a risk management approach to prioritise and schedule asset renewals to proactively manage this program of renewals and investment over the lifetime of this Strategy.

It is understood that improved asset management systems and processes, as well as undertaking effective planning to avoid/mitigate the effects of natural hazards, are necessary to understand risk and increase confidence in the decisions that are made in relation to operations, maintenance and renewal.

The implications of taking this approach are:

- Deferred renewals/maintenance.
- Decision making can be based on both asset condition and age
- Critical assets are maintained.
- Reduced level of service in low criticality areas.
- Short-term affordability.

The following option was considered as an alternative to the preferred approach identified above.

Renew assets at point of failure

Assets would be renewed before the end of their useful life.

The implications of this option are:

- Reduction of risk associated with continuing to operate assets beyond the end of their useful life.
- Level of service maintained.
- Increased capital costs as bow wave of asset renewals is struck within the period covered by this strategy.

Significant Issue No.2: Funding



Why is it an issue?

The Otago region's economic conditions have an impact on the ability of communities to pay for the services provided. There are increasing pressures on the current level of funding to deliver more. Furthermore, the affordability of levels of service are already being impacted by a number of the significant issues discussed earlier, such as changes to and effects of climate change, growth (or decline) of populations and development in surrounding floodplains, and increasing regulatory performance requiring higher operational and maintenance costs. Alternative funding mechanisms will need to be considered otherwise trade-offs in levels of service and risk will be necessary, the consequential effects of such being increased risk and reduced economic prosperity.

The flood protection and drainage infrastructure is fundamental to the continuing economic prosperity of the Otago region as it provides protection to a significant number of residential, commercial, and agricultural assets, including lifeline utilities, the Dunedin International Airport and state highways. Significant investment is needed to maintain infrastructure networks with consideration for the other significant issues raised previously.

Council's preferred approach to manage this issue

The preferred approach is to **maintain current practice while continuing to review and improve funding strategies**. Council will continue to engage through the Regional Council infrastructure sector to source Central Government funding.

The implications of this approach are:

- Risk that funding strategies do not come to fruition and there is a reduction in maintenance and decrease in level of service over time.
- Impact on property valuations.
- Increase in insurance costs.

The following option was considered as an alternative to the preferred approach identified above.

Reduced maintenance and decreased levels of service

Maintenance would be reduced and there would be a corresponding decrease in the level of service achieved by Council's flood and drainage infrastructure.

The implications of this option are:

- Reduced level of service.
- Increased risk and damage costs.
- Reduced short-term costs.
- Poor reputation.

Significant Issue No.3: Climate Change



Why is it an issue?

If current and improved levels of service are to be delivered, significant investment is required to address climate change impacts on scheme infrastructure.

In October 2019, the ORC commissioned NIWA to undertake a review of climate change projections for the Otago region over the 21st Century. The study concluded that changes to Otago's future climate are likely to be significant with increases in rainfall across the region, with subsequent increases in the scale of annual floods, means:

- The changes challenge the ability to achieve Levels of Service over time
- Changing climate in Otago
- Sea level rise in Otago
- Clutha shoreline retreat

The effects of climate change will impact the environment regionally and nationally. There will be changes in sea level rise, wind and weather patterns, higher water tables, and the frequency of extreme weather events. These climatic changes will put increased pressure on the schemes and challenge the Levels of service provided. Furthermore, climate change is likely to impact on the health and distribution of species, and pests will spread to new areas, habitats will change, and indigenous species may need to migrate.

Council's preferred approach to manage this issue

The preferred approach is to adopt a more planned and integrated approach by:

- Making provision for the efficient installation of increased flood capacity.
- Incorporating resilience into future designs of new infrastructure or renewals.
- Invest in improved understanding of future climate change effects.

How Council responds operationally and strategically to climate change will continue to evolve in parallel with climate science and policy. Climate change is currently being factored into the design of schemes through scheme reviews and design decisions. The actual costs related to climate change will be subject to decisions made by individual communities when considering their appetite for risk, costs of risk mitigation, and the timing of interventions as risks increase gradually over time.

The implications of taking this approach are:

- More planned and substantial provision for climate change, and reduction in risk as a result.
- Improved understanding of climate change in Otago.
- Opportunity for environmental enhancement.
- Improved reputation.

The following options were also considered as an alternative to the preferred approach identified above.

Maintain current design flow (flood) standards	Increase design standards	
Maintain scheme levels of service to original design standards.	Incrementally increase the capacity of floodbanks and pump stations to meet current climate change projections.	
The implications of this option are:		
• Avoiding increased costs in the short-term.	The implications of this option are:	
Accumulation of infrastructure debt.	Reduced risks with some residual risks.	
• Increased risks and costs to future generations.	Increased costs and debt.	
• Increased frequency of flood response and recovery.	Land purchase may be required.	

Significant Issue No.4: Legislation/Regulatory

Why is it an issue?

The flood protection and drainage schemes were designed and built at various times over the past 150 years and reflect the values, knowledge and understanding of that time. The majority of these schemes were developed and constructed in an era when economic growth and development were the primary focus of the time. Flood protection and land clearance for drainage enabled farmland and agricultural initiatives to develop and prosper.

Community values and Central Government expectations in relation to environmental outcomes have changed and continue to change at a significant rate. The following are examples of such changes that will impact the schemes:

- Freshwater improvement programme
- Fish passage requirements
- Biodiversity opportunities
- Tracks and trails on/around assets
- Co-benefits

Public perceptions now seek multiple values in addition to the original purpose from the time most schemes were established: flood protection/drainage. Flood protection infrastructure is often located in areas of high environmental, recreational or conservational value and these values may be impacted by, or maintenance of, that infrastructure.

Council's preferred approach to manage this issue

The preferred approach is to seek **improved environmental performance & integrate asset diversification** by achieving multiple outcomes wherever possible. Adopting a more natural and adaptable approach by integrating environmental enhancement wherever possible. This will be progressed by continuing to actively manage scheme effects and working with local landowners, to achieve full regulatory outcomes across a range of outcomes, including those associated with biodiversity and recreational opportunities.

There are a wide range of management options available for environmental enhancement. These include riparian planting, fish passage, and giving rivers and the ocean more room to behave naturally. The ORC will continue to endorse increased community and iwi engagement in improvement initiatives, as well as other stakeholder collaboration and partnership funding opportunities, wherever possible. There will inevitably be trade-offs between costs, risks and environmental performance.

The implications of taking this approach are:

- Sustainable long-term outcomes.
- Enhanced environment.
- Increased costs to meet standards.
- Improved reputation.

The following option was considered as an alternative to the preferred approach identified above.

Maintain current practice

Maintain current practice through the operation and maintenance of existing infrastructure while continuing to mitigate any adverse environmental effects of this infrastructure. There would be little to no improvement in environmental performance and outcomes.

The implications of this option are:

- Failure to meet public expectations.
- Declining environmental outcomes.

Significant Issue No.5: Natural Hazards

Why is it an issue?

The Otago region comprises a diverse landscape ranging from flat coastal lowlands and intensively used alluvial floodplains, to large sparsely populated and steep mountainous areas. Otago is exposed to a broad range of natural hazards such as:

- Flooding.
- Landslides.
- Seismic activity.
- Coastal erosion.
- Tsunami.
- Storm surge.

These all present major hazards to flood protection and drainage infrastructure. For example, major earthquakes could result in cracking, slumping and/or settlement of flood banks.

The potential effect of a natural disaster (including flood events) on the ORC's financial position is dependent upon the scale, duration and location of the event. Recovery/response reserves are being built up over time and (self) insurance cover is in place to fund up to 40% of qualifying expenditure in the event of a natural disaster/event, noting that the remaining 60% of funding is provided by the National Emergency management Agency (NEMA). Current LTP has no allowance for repairs to scheme assets resulting from flood events/natural disaster forecast in expenditure.

Council's preferred approach to manage this issue

The preferred approach is to maintain and improve current practice around hazard readiness, response and recovery throughout the lifetime of this Strategy as Council continues to learn from past events across the region and New Zealand. This will include increased efforts to raise awareness and educate communities around natural hazards they may be at risk from. Council will continue to undertake investigations to help understand and plan for risks related to natural hazards.

Council aims to minimise damage to flood protection and drainage infrastructure and will continue to develop plans and processes that will:

- Take a risk management approach.
- Incorporate climate change impacts into asset management.
- Seek to reduce the damage potential on the flood and drainage infrastructure.
- Develop strategies to enable timely response following a natural disaster.
- Ensure funding policies are robust and appropriate.
- Integrate with Civil Defence and Emergency Management (CDEM) readiness and response planning.

The following options were considered in relation to this significant issue. It is noted that Council's preferred approach is to adopt a combination of these options.

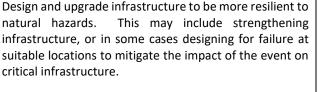
Maintain current practice	Build resilient infrastructure
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Maintain current practice by undertaking natural hazards investigations and carrying out effective planning to avoid/mitigate effects of natural hazards on flood and drainage infrastructure.

The implications of this option are:

- Localised damage and disruption.
- Pressure on flood response plans to be effective.
- Multi-agency collaboration.
- Reserve funding reliance.

Significant Issue No.6: Growth and Development



The implications of this option are:

- Decreased risk.
- Increased costs.



Why is it an issue?

In April 2017 changes were made to the RMA (Section 6) highlighting the increasing level of natural hazard risk and the need to ensure growth and development does not increase these risks and associated costs. While household projections for Dunedin City are estimated to decelerate, some growth is proposed in areas of high or increasing natural risk, and there is a need for information to be available to assist in decision-making and managing community expectations. For example, intensification of urban development along the right bank of the Silver Stream and some sections of the Owhiro Stream are likely to affect the runoff to, and consequently design capacity of East Taieri and Lower Taieri Schemes. Furthermore, this rising urban development is changing the public's expectations on the levels of service that should be provided.

Over the longer term there is potential to see some acceleration of land use change outside of urban areas, placing additional pressures on the flood protection and drainage services to provide protection. A better understanding is needed of the likely distribution of this growth and what additional demands this will likely place on flood management services.

Council's preferred approach to manage this issue

The preferred approach is to maintain current practice but consider innovative approaches to addressing population growth/decline and manage demand through land use controls. Collaboration with territorial authorities will need to continue to effectively mitigate the impact of increased runoff through land use change and development. This will include identifying areas of potential risk and may also include opportunities for innovative approaches to managing the impacts of development. There is an ongoing need to ensure sufficient information is available to assist in informing where there may be risks associated with development. Subject to further discussion and agreement with the relevant territorial authorities, the ORC aspires to take an integrated, multi-agency approach to land use planning.

In addition to this ORC will look to better understand what impact a failure of its assets and levels of service will have on other key infrastructure in the immediate and wider region. While ORC understands what other infrastructure surrounds its own assets, work is required to develop a sound understanding of the strategic importance that these hold socially and economically and how the performance of ORC schemes/assets may directly or indirectly affect their function.

The following options were considered in relation to this significant issue. It is noted that Council's preferred approach is to adopt a combination of these options.

Maintain current practice	Reactive response to demand as a result of development	Integrated multi-agency approach
Utilise existing planning controls to	Levels of service will be increased to	Work with territorial authorities to
mitigate impact of development.	the current 100-year design level of	take an integrated and multi-agency
Growth and development trends are	protection (or standard otherwise	approach to land use planning and
monitored and forecasts	agreed with the community).	District Plan review.
incorporated into forward work	Climate change will not be allowed	
programmes.	for.	

 The implications of this option are: Similar levels of expenditure. Some reduced risks. Difficult to forecast costs. Increased risks. 	 The implications of this option are: Multi-agency collaboration. Financial sustainability for schemes.
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Significant Issue No.7: Scheme Performance

Why is it an issue?

Scheme performance is at the centre of all other significant issues. Each issue will ultimately have a flow on effect to the overall scheme performance parameters.

Levels of service are currently based on the existing design standards for each scheme. These design standards are most commonly based on an historical flood event. For example, the design standard for the Lower Taieri scheme is based on the 100-year flood (1% Annual Exceedance Probability) event as determined in 1980, with a set flow rate (measured in cumecs) and drainage moduli (measured in mm/day) being used to define the level of service provided by the infrastructure (pump stations, flood banks and spillways) that makes up the scheme.

Over time several factors may affect the ability of a scheme to meet the standards that it was designed to, including:

- Changes in the climate that impact on the intensity of rainfall events and their duration.
- Changes in community tolerance and vulnerability.
- Changes in the geomorphology of the landscape within river catchments that prompts changes in river behaviour, such as increased build-up of sediment in the lower lying reaches of the schemes, that in turn leads to a reduction in capacity of a flood protection scheme during a flood event.
- Improved hydrological analyses and understanding of the behaviour of the natural environment in response to the environmental and geomorphological changes outlined above.

Council's preferred approach to manage this issue

The preferred approach is to maintain levels of service to current standards whilst noting there will be instances where intervention will be required, and standards will need to be increased. There are a number of options for improvement to levels of service and consideration will need to be given to other significant issues that are inextricably linked to the issue of scheme performance.

Scheme performance reviews of the Lower Taieri and Lower Clutha, which will include consultation with benefiting communities, landowners and other affected stakeholders, are due to commence within the first five years of this strategy. Options will look at increasing the level of service whilst providing allowance for climate change either now or in the future. Increasing levels of service, with or without climate change adaption, will result in increased costs for the beneficiaries and wider communities.

The following options were considered in relation to this significant issue. It is noted that Council's preferred approach is to adopt a combination of these options.

Maintain current scheme performance	Increase scheme performance (no climate change allowance)	Increase scheme performance (with climate change allowance)
Schemes will be maintained to	Scheme performance increased to	Scheme performance increased to
current design	provide a greater level of protection	provide a greater level of protection
standards/performance.		



	(Climate change will not be allowed	(Climate change will not be allowed	
	for.	for.	
The implications of this option are:			
Reduced expected levels of	The implications of this option are:	The implications of this option are:	
service.	 Increased cost to implement. 	• Increased cost to implemented.	
Similar levels of current	• Meet expected levels of service.	• Meet expected levels of service.	
expenditure.	Reduced risks.	• Greater reduction in risk.	
Increased risk from flood	Reduced level of service over		
events.	time.		

Infrastructure Investment Programme

Key projects and programmes are presented including the significant issues that will be addressed, accompanied by estimated expenditure over the next 30 years to deliver these programmes and how they relate to significant issues and drivers for change.

While the major projects and programmes identified in this 30-year investment programme reflect current assumptions and uncertainties, there is a higher degree of certainty about the investment forecast for the first 10 years. Projects and programmes identified in the subsequent two decades (years 11-30) are likely to change in response to new information, change in demand, and future needs.

A summary of the key projects and programmes that address some of the specific significant issues addressed in this Strategy is provided in Figure 14.

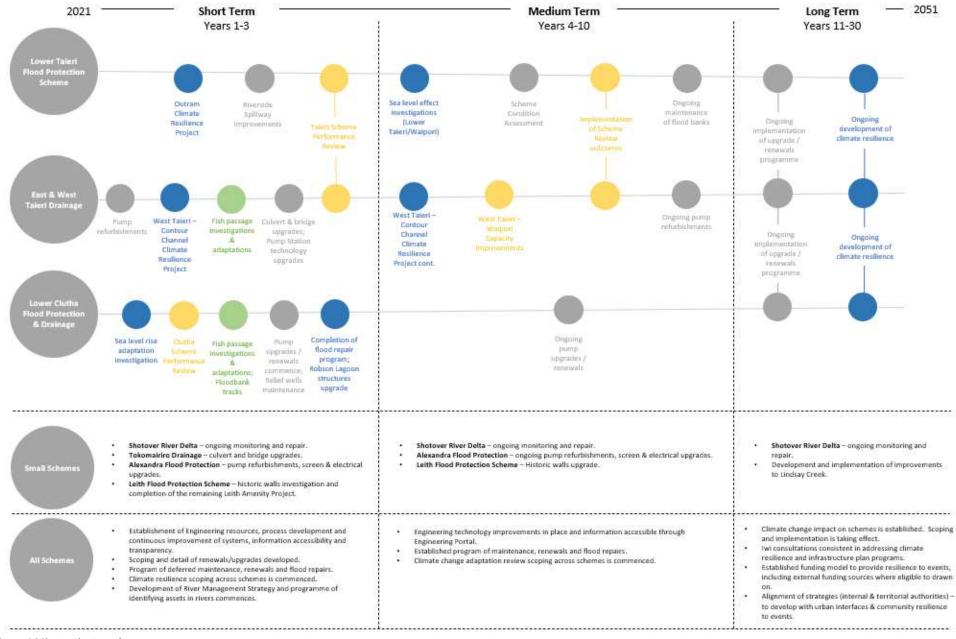


Figure 14 Key projects and programmes summary.

KEY

Infrastructure Condition



Legislative/Regulatory

Planning asset renewals

Council carries out routinely through its operations and maintenance program, cyclic inspections of all above ground assets, annually and as otherwise required. These inspections are required to ensure the resilience and performance of these assets are confirmed and not compromised with the assigned remaining life of the asset (asset lives are recorded in the management plans and in Councils information system, Conquest).

In addition to visual inspections Council has commenced a programme of structural audits. Those completed are summarised below:

- Structures on Water of Leith and Lindsay Creek, 2019
- Structures on Kaikorai Stream, 2020
- Rutherford Locks, 2019
- Alexandra Pump Stations, 2019
- Contour Channel Bridges, West Taieri, 2018
- Clutha and Taieri Floodbanks, 2018

These structural audits provide the Council with a detailed condition assessment of the above ground assets and contribute to setting asset renewals and risk management.

Infrastructure expenditure assumptions and uncertainty

The Council's Infrastructure expenditure programme is based on the following key assumptions and basis of assumption:

assumption:		
Infrastructure Category/Timeline	Key Assumption	Basis of Assumption
General	 Asset valuation is based on a combination of depreciation value, and subject to impairment losses as well in some cases. The Financial Strategy will detail this. Structures, and bridges are depreciated. Floodbanks, drains and culverts are not depreciated. Legislation changes may have an impact on the level of service, where changes in rules and requirements have an impact on planned expenditure programme. Insured assets are limited to pump station infrastructure only. Council does not self-insure all other above ground assets. No allowance has been made in expenditure for repairs to scheme assets resulting from flood events or other natural disasters. Responding to major weather events or other natural disasters is funded through insurance (where insurable) and scheme reserves in response to events. Increased renewals or maintenance due to natural disasters will be funded through scheme reserves and Councils ability to raise debt. Information contained in this Infrastructure Strategy is based on current known information which has been used to determine issues and understand the asset management requirement for a 30-year horizon. Asset lifecycle costs are based on useful remaining lives, condition assessments and replacement values as at 31st December 2020, which has been drawn from known information¹⁵ in Councils current systems. All capital renewal expenditure is based on current levels of service. Global crisis or pandemic, the Council has systems and procedures in please for staff to work remotely. The council may be required to drop many of its BAU activities to focus resources on essential services and any major civil defence response across the region 	 Existing schemes remain economic at current level of service. Management, systems, and processes are fit for purpose Flood protection schemes have been designed and constructed to provide a level of protection accepted by communities which is supported by relevant funding models. There is a possibility that new schemes may need to be developed in areas where currently no flood protection or drainage services are provided. This demand may be triggered by a flood event or an increase in activity in a flood prone area. Council may undertake investigations to determine the feasibility during the 30 year period, if there is a demand.

¹⁵ "known information" is drawn from Councils databases which record; inventory of assets, assessments, inspections, reports pertaining to assets. Council uses a computerised maintenance management system, Conquest along with other databases of source information relating to the operation and maintenance of schemes.

Infrastructure Category/Timeline	Key Assumption	Basis of Assumption
Years 1 to 10	 There is not expected to be an increase in demand that will significantly change the current level of design and service, as the overall projected population growth is not expected to exceed the scheme functionality. There are no planned increases or changes to level of service in Years 1 through to 10.¹⁶ The continued development of robust asset management systems including forecasting and modelling tools in Years 1 to 3 will provide Council an improved basis of determining capital renewals costs. No new schemes are provisioned for in Years 1 through to 10. Demand and vulnerability to managed through District Plan. Known asset performance deficiencies are addressed to provide scheme resilience. All future projects have been investigated, scoped and programmed into future LTPs (where projects exceed \$100,000 of renewal or replacement). All asset gradings of 'very unreliable' are transitioned into 'reliable' grading. Any health and safety deficiencies with operating infrastructure are identified by and addressed. Scheme Performance reviews for Taieri and Lower Clutha have been completed, investigated, scoped and programmed into proceeding LTPs. River channel assets are identified and updated on asset management system. Completion of flood repair program of works and climate resilience (MBIE funded) program of works. 	 No significant new schemes, investigations, scoping only. Major upgrades only if affordable and agreed with communities. Resilience restored in flood protection schemes through flood repair programs and climate resilience programs

¹⁶ The Scheme Performance reviews completed in Years 1 to 3 will provide an indication of any changes to levels of service which may be identified as a future requirement. This has been indicated in forecast expenditure in Years 4 to 10 as potential 'increased levels of service' resulting from scheme modifications, improvements and/or capacity increase.

Infrastructure Category/Timeline	Key Assumption	Basis of Assumption
Years 10 - 20	 Years 11 onwards show an indicative increase in levels of service required (land drainage New East Taieri Pump Station) and new works (Lindsay Creek). There is an anticipation for an increase on our flood protection and drainage scheme assets due to the increase of urban development on existing rural locations where the schemes are located. Consequently, a review of rating and development contribution may occur to contribute to the maintenance expenditure, and investigations around capacity of storm drainage impacts on existing land drainage infrastructure. Climate adaptation programmes developed and consulted with community. 	 Climate change impacts will become increasingly important over the 20 - 30-year period. Increase in cost and/or risk will become key consultation on resilience of existing schemes and/or new schemes.
Years 20 -30	 Climate adaptation programmes scoped, designed and implemented per community consultation. Lindsay Creek upgrades proceed with community approval and appropriate funding. 	Unqualified estimates have been indicated relating to climate resilience, assuming that the increased risks due to climate adaptation are not accepted and community requires investigation and/or adaption.

Further details on the key assumptions, associated uncertainty and the potential implications are shown below in Table 7:

Table 7 Infrastructure assumptions and uncertainty

Key Assumption	Risk	Level of uncertainty	Expenditure implication	Reasons and expenditure effect of uncertainty
Growth and Demand			-1	
There is expected to be a marginal increase in demand on the use of the flood protection and drainage scheme assets to convey stormwater drainage from urban development. This is predominately in the Taieri (Mosgiel and Outram) areas where urban development interfaces existing rural locations where the schemes are located.	The increase in demand may significantly change the current level of design and service. The overall projected population growth in the Taieri areas exceeds the projected scheme functionality and capacity.	Low	Low	 The scheme performance and capacity of existing flood protection and drainage assets will be assessed in the Taieri Scheme Review during Years 1 to 3. The current special rating districts do not include urban growth areas in the Taieri as rated areas that contribute the flood protection and drainage schemes. Options to provide for urban development and reliance on Councils existing flood protection and drainage assets will be determined during Years 1 to 3 which may result in infrastructural changes to cater for increased capacity. This may result in an increase of special rating districts to cater for an increased level of service and flood protection in the Taieri growth areas of Mosgiel and Outram.
Asset Lifecycle			1	
Sources of funds for future replacement of critical and significant assets are secure.	The Council has insufficient funds to replace significant assets at the end of their useful lives	Low	Low	

Key Assumption	Risk	Level of uncertainty	Expenditure implication	Reasons and expenditure effect of uncertainty
Information contained in this Infrastructure Strategy is based on current known information which has been used to determine issues and understand the asset management requirement for a 30-year horizon.	The Council has insufficient known information to support its asset lifecycle costs.	Low	Low	
The continued development of asset management systems including forecasting and modelling tools will continue through Years 1 to 3. It is expected that maturity in asset management systems and consolidation of known information will provide Council an improved basis of determining capital renewals costs.				
Asset lifecycle costs are based on useful remaining lives, condition assessments and replacement values as at 31st December 2020, which has been drawn from known information in Councils current systems.				
Climate & Hazards				
Increased significant weather events, or other natural hazard emergencies will occur. Infrastructure Strategy assumes there will	Council cannot accurately predict when and where large flood events will occur, or the damage that may result from any flood event. here will be increased frequency of weather events that cause	Medium	Medium	The effects of increased weather events that cause damage and potential other natural hazard events, on Councils financial position is dependent on the scale, duration and location of the event.
be an average of (1) significant event ¹⁷ per financial year.	damage to infrastructure assets.			

¹⁷ Significant event is defined as flood protection trigger levels are reached in a scheme and the event reaches repair cost threshold in accordance with NEMA guidelines

Key Assumption	Risk	Level of uncertainty	Expenditure implication	Reasons and expenditure effect of uncertainty
				The Council will manage the effect through its reserves to repair or replace infrastructural assets that are damaged and/or destroyed.
				The infrastructure strategy will focus on self- insurance reserves that are built up over time to ensure funding up to 40% of the expenditure is available across the schemes. ¹⁸
Climate change will be consistent with current national and regional projections. Future sea level rise does not exceed that projected by current climate science.	If climate change effects occur more quickly than expected, the adaption and response to climate change will change cost response.	Medium	Medium	Potential climate change impacts are being considered through scheme performance and detailed investigation as prediction and adaptation information becomes available.
				The infrastructure considers climate change and provides to investigate the impact on the management of flood protection and land drainage scheme assets.
Legislation/Regulatory				
Resource Consents	The necessary resource consents for infrastructural activities, including capital renewals/repairs, operations and maintenance will be obtained (and granted) as they are due or required.	Medium	Medium	
Land acquisition – land can be purchased when and where needed.	If land cannot be purchased as and when planned, projects would need to be deferred until land could be acquired. This may result in additional expenditure from damage prior to land acquisition.	Medium	Medium	

¹⁸ The Council has access to the National Emergency Management Agency (NEMA) which provides 60% funding of expenditure required to repair assets damage. This is dependent on the Council reaching its threshold which is 0.002% of the Rateable Value of Council infrastructure in the financial year in which the damage occurred.

Key Assumption	Risk	Level of uncertainty	Expenditure implication	Reasons and expenditure effect of uncertainty
Legislative changes will change marginally,	There will be no major changes to key	High	High	There is a high level of uncertainty because
however current forecast allows for	legislation that effects the ORC's strategy			legislative change is likely over the next 30 years.
adaptation.	or has funding implications. Key legislation			The potential effect of any new changes
	under this Infrastructure Strategy			environmental or resource management will be
	includes, Local Government Act 2002,			determined on the response required, and the
	Resource Management Act, and Soil			timing to effect such changes. Legislative
	Conservation and River Control Act 1941.			changes may result in additional required
				expenditure to comply with new standards.
Cultural & Community Values				
Iwi and Maori expectations	Expectations and management of how	Low	Low	
	infrastructural assets are managed in			
	conjunction with Iwi and Maori values			
	may require adjustment and			
	implementation of key projects and			
	programme.			
Community expectations	Level of community engagement and	Low – Short	Low – Short term	Expectations and addressing outcomes into
	evolving expectations on current levels of	term (1 – 5	(1 – 5 years)	implementation plans, are largely included in the
	service as urban and rural demographic's	years)		Short term.
	merge may cause for key projects and			
	programmes of work to be adjusted.		Medium – Longer	Long term as detailed investigations around
		Medium –	term (6 – 20	scheme performance and climate resilience /
		Longer term (6	years)	adaptions progresses may result in forecast
		– 20 years)		adjustment to reflect community consultation
				and request for levels of service.
Level of Service				
All capital renewal expenditure is based on	Levels of service are not adequate	Low	Low	
current levels of service. ¹⁹				
			1	

¹⁹ Current levels of service are based on agreed flood management and land drainage infrastructure that has been developed and agreed to specifically with local communities when constructed (>50 years ago) as a defence. These levels of service remain relevant.

Key Assumption	Risk	Level of uncertainty	Expenditure implication	Reasons and expenditure effect of uncertainty
No new schemes are provisioned for in Years 1 through to 5. ²⁰				
Years 11 onwards indicate an increase in levels of service (land drainage) and new a scheme (Lindsay Creek).				
Weather events and Natural disasters			·	
No allowance has been made in expenditure for repairs to scheme assets resulting from flood events or other natural disasters.	Multiple weather event and natural disasters occur and exceeds forecast expenditure.	Medium	Low	Responding to major weather events or other natural disasters is funded through insurance (where insurable) and scheme reserves in response to events. Increased renewals or maintenance due to
				natural disasters will be funded through reserves.
				Council also has the ability to raise funding for the cost of unexpected works in response to weather events and natural disasters such as floods or earthquakes.

²⁰ Additional new schemes will likely to be identified over the next 30 years, they will be developed and included in revisions of this strategy.

Total expenditure

Over the next 30 year period Council has forecast to spend a total of \$392 million. \$281 million will be invested in ongoing maintenance and operations of schemes, including an asset depreciation allowance. Capital investment will be \$111 million, this expenditure will enable periodic replacement of existing assets and provide asset upgrades or additions to address significant issues. Forecast expenditure by scheme/area is shown in Table 8. This is depicted graphically in Figure 15.

Scheme/Area	Capital Expenditure	Operational Expenditure	Total Expenditure
F 1 Alexandra Flood Protection Scheme	\$5M	\$9M	\$14M
F 2 Leith Flood Protection Scheme	\$33M	\$23M	\$53M
F 3 Lower Clutha Flood Protection and Drainage Scheme	\$17M	\$46M	\$62M
F 4 Lower Taieri Flood Protection Scheme	\$18M	\$29M	\$45M
F 5 West Taieri Drainage Scheme	\$33M	\$31M	\$62M
F 6 East Taieri Drainage Scheme	\$5M	\$25M	\$29M
F 7 Tokomairiro Drainage Scheme	\$1M	\$5M	\$6M
F 8 Shotover River SRA			-
F 9 Scheme Oversight & Bylaws	-	\$26M	\$26M
M 1 River Management - Dunedin	·	\$14M	\$14M
M 2 River Management - Clutha	-	\$15M	\$15M
M 3 River Management - Central	-	\$14M	\$14M
M 4 River Management - Wakatipu	-	\$13M	\$13M
M 5 River Management - Wanaka	\$0.105M	\$11M	\$11M
M 6 River Management - Waitaki	-	\$13M	\$13M
M 7 Lower Waitaki Flood Protection Scheme	-	\$7M	\$7M
M 8 Non Scheme Management	-	\$1M	\$1M
Total	\$111M	\$281M	\$392M

Table 8 Capital and operational expenditure by scheme area for the 30-year period 2021 - 2051

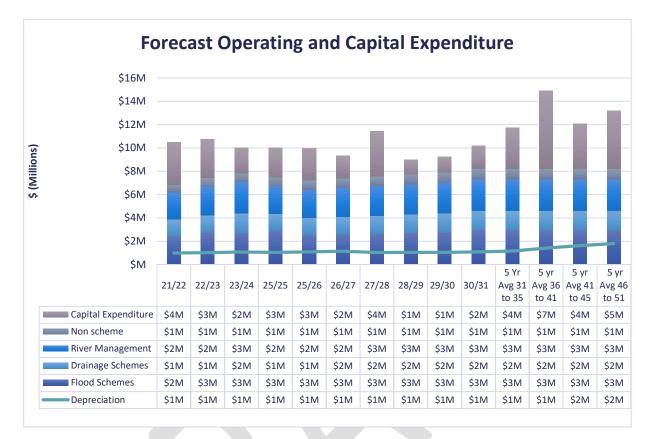


Figure 15 Forecasted operational and capital expenditure 30-year period 2021 – 2051. N.b units in table are rounded to the nearest million dollars.

Capital expenditure

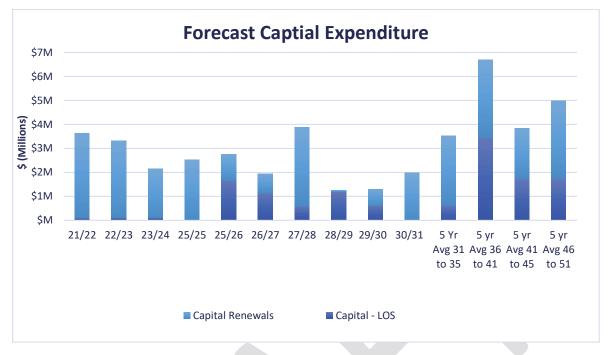
The most significant driver of capital expenditure is the infrastructure renewals and replacement.

The four key drivers for making capital investment across the flood and drainage schemes are:

- 1. The need to renew/replace existing assets;
- 2. The need to adapt to changing environment to maintain (as a minimum) the level of service that the schemes currently provide;
- 3. The need to increase a level of service that the schemes currently provide in the areas required; and
- 4. The requirement to meet a new need or demand for flood or drainage scheme protection.

There will be an on-going requirement to make decisions including through consultation on renewals expenditure on a cyclical basis as part of the processes associated with the Councils LTP and Annual Plan processes.

Figure 16 shows the forecast renewal expenditure profile for the infrastructure assets associated with flood protection and land drainage. The expenditure forecast has been developed in line with the assumptions detailed in section 6.2.





Operational expenditure

Operation expenditure provides for the maintenance and operations works associated with each scheme and includes depreciations and other running costs.

In years 1 to 4 a number of scheme reviews will be undertaken, otherwise operational expenditure remains relatively consistent with some increases for inflation accounted for. It is not anticipated that scheme reviews would have a significant impact on future operational costs/needs.

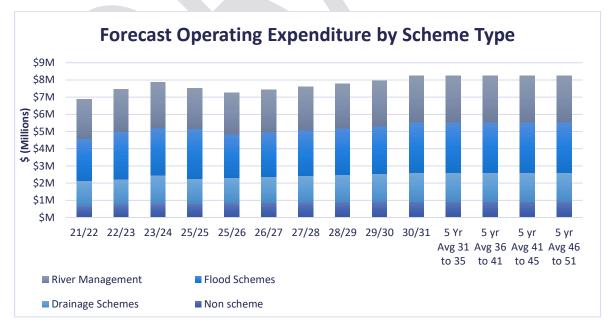


Figure 17 Forecast operating expenditure split by scheme

Key projects and programmes

A summary of the key projects and programmes that are planned over the next 3 years are presented in Table 9 below. A description for each is provided including the significant issues that will be addressed, the estimated expenditure required, and the timing for delivery. Key projects are defined where the project or programme of works exceeds \$100,000 in a financial year cycle.

Table 9 Key projects and programmes for flood protection and drainage services 2021 – 2051

Project/	Description	Addresses Significant Issue(s)	Timing
Programme			
Taieri Scheme Performance Review	Assessment of performance and engineering options considered for scheme.		2021 -2024
Clutha Scheme Performance Review	Assessment of performance and engineering options considered for scheme.		2021 - 2022
Climate Change Adaptation investigation	Engineering options and resilience options developed.		2021 - 2023
Drainage Capacity investigations	Detailed assessment of drainage capacity, pump stations and drains.		2021 - 2022
Storm drainage assessment and principles	Development of storm drainage principles and effect of urban approach on rural land drainage assets.	()	2021 - 2022
Fish Passage adaptation investigations	Research and development for implementation of fit for purpose fish passage across pumping/outflow structures.		2021 - 2024
Asset Management improvements	System and technology assessment and implementation to coordinate critical assets data .		2021 - 2024
Investigation of use of ORC assets for trails	Investigation and development of design and standards to be constructed on ORC floodbanks.		2021 - 2022
Weed management of pump station inlets	Research and development of techniques to manage and remove weed blockages at pump stations.		2021 – 2023
Leith Historic Wall investigation	Detailed design and option for replacement program of historic channel walls.		2022 - 2024

The key used to represent the significant issues in this section is depicted below:



The following key projects (Table 10) are detailed in the long-term plan and reflect continued programs of work and projects resulting from key programmes of investigation and detailed design set out in this infrastructure strategy. The projects reflect the focus on on-going repairs to critical assets and the development of infrastructural renewals or upgrades because of identified issues for detailed design for solutions. Projects will be subject to community consultation and funding models where significant expenditure is signalled.

Table 10 Key projects,	including	canital	ronowalc	ronairc	2021 - 2051
TUDIE IU KEY PIUJELLS	, including (Lupitui	I CIIC WUIS/	repuirs	2021 - 2031

Project/	Description	Addresses Significant	Timing
Programme		lssue(s)	
Flood Repair programs: February 2020 event and January 2021 event	Completion of flood damage repair programs		2021 onwards
Climate Resilience Program: Outram	Ministry (64%) funded resilience renewal of flood protection assets		2021 - 2023
Climate Resilience Program: Contour Channel	Ministry (64%) funded resilience renewal of flood protection assets	\$	2021 -2024
Climate Resilience Program: Riverbank Road	Ministry (64%) funded resilience renewal of flood protection assets		2021 - 2022
Climate Resilience Program: Robson Lagoon	Ministry (64%) funded resilience renewal of flood protection assets	(2021 - 2023
Leith Amenity Project	Completion of the remaining Leith Amenity Project	**	2021 - 2022
Construction of a Shared Use Path (SUP) on Lower Clutha Foodbank	Construction of a SUP on ORC asset to provide an amenity use for community	**	2022 - 2024
Gordon Road and Silverstream improvements	Channel improvements in Silverstream		2022 - 2024
Riverside Spillway improvement	Spillway upgrade / improvement		2021 - 2022
Pump Station Technology improvements	Implementation of SCADA and link to asset management data portals		2022 - 2025
Asset Management improvements through technology system improvements	System implementation of data and metric monitoring of critical assets		2022 - 2025
Stoney Creek Debris Flow development of options	Upgrade of Stoney Creek to provide debris flow	0	2022 - 2025

Project/ Programme	Description	Addresses Significant Issue(s)		Timing	
Installation of increased monitoring for flows and levels across schemes and coastal mouths	Installation of monitors and link to asset management				2022 - 2025
Pump stations infrastructure upgrade	To meet safety, compliance and fit for purpose standards, including fish passage considerations and weed management			1	2023 - 2026

There are only three significant projects that are signalled in the Long Term Plan that are categorised as new capital expenditure.

These projects are signalled to support investigations in preceding years that address climate adaptation, levels of service and growth and development. Additional projects may result as the definition of the renewals are developed over the next 30 years.

These will be developed and included during respective infrastructure strategy and long term plan revisions and other relevant planning documents.

Table 11 Key renewals/repairs 2021 - 2051

Project/ Programme ¹	Description	Addresses Sigr Issue(s)	Timing	
Lindsay Creek	Development, consultation and implementation ²¹ of the Lindsay Creek Scheme		1	2031 onwards
Climate Adaptation infrastructure transition Lower Clutha	Development and preparation of infrastructure options for climate adaption analysis		*	2025 onwards
Climate Adaptation infrastructure transition Lower Clutha	Development and preparation of infrastructure options for climate adaption analysis			2025 onwards

¹ These projects and expenditure assume community support through consultation and adoption of a funding policy to enable them to proceed.

Expenditure Forecasts

It is expected that with each review of the; Infrastructure Strategy (every 3 years), Asset Management, Long Term Plan, and Annual Plans, the cost estimates will be updated, particularly at the three year review of the Infrastructure Strategy and Long Term Plan. This will enable the forecast to be updated to reflect more detailed design and understanding of costs associated with key projects and programmes of work along with community consultation and expectation.

²¹ The viability of the Lindsay Creek Scheme will be determinate on Council and Community consultation.

Revenue and Financing Policy

GROUP ACTIVITY – REGIONAL LEADERSHIP					
Significant Activity – Governance and Community Engagement					
Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources	
Governance and Democracy	Run Council's democratic functions including holding triannual elections. Partnering with mana whenua. Contribute funding to activities that benefit the entire Otago community.	The whole of the community benefits from these activities.	The benefits are ongoing.	 Governance and democracy: 100% general rates regional. Elections costs may be rated evenly over each 3-year election period. Partnership with mana whenua: 100% general rates regional. Financial contributions: 100% general rates regional. 	
Public Awareness, Communication and Engagement	Provide community information and advice through customer services, media, website, public events, brochures etc. Provide regional co- ordinator role for Enviroschools in Otago.	The whole of the community benefits from these activities. Those requesting specific information from Council benefit from receiving that information.	The benefits are ongoing.	 Information requests that require more than ½ hour response time: 100% fees and charges. Communication and engagement: 100% general rates regional. 	

Significant Activity - Regional Planning and Strategy				
Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
Regional Planning and Strategy	Development, adoption, appeals, review and audit of ORC's regional policies, plans, and strategies.	The wider community benefits as these plans and strategies are developed to provide for the needs of the region as a whole. No individual or group benefits directly from this activity.	Benefits are ongoing over the life of the plans.	 Regional Land Transport Plan: Receipt of NZTA grants. Remaining costs: 100% general rates regional. Plans, policies and strategies: 100% general rates regional.
	Respond to issues such as national policy and legislative proposals, and city and district plans.	The whole of the community benefits from work aimed to help protect the regions resources.	The benefits are ongoing.	Response to external proposals: • 100% general rates regional.
Private Plan Changes	Request of third parties to make a change to a Council plan, policy etc.	Individuals and groups requesting a plan change benefit from this work.		 Private plan changes: 100% fees and charges.

	Signif	icant Activity – Regula	tory	
Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
	Process consent applications (RMA and Building Act) and hold hearings, Issue certificates, permits and transfers.	The applicant is the primary beneficiary.		 Processing consent applications: 100% fees and charges.
	Appeals This is determined by the courts.		 Appeals: Recoveries will be awarded by the courts. Other costs: 100% general rates regional. 	
Consent Processing, Reviews and Appeals	Administration	The community benefits from the database of information.	The benefits are ongoing.	 Information requests that require more than ½ hour response time: 100% fees and charges. Administration: 100% general rates regional.
	Review of consents, e.g. variation to consent - consent holder-initiated, or Council may initiate, e.g. on introduction of a minimum flow.	Consent holder benefits from processing requested review of consent. Wider community benefits from Council initiated review of consent.		Consent holder-initiated review of consent: • 100% fees and charges. Council initiated review: • 100% general rates regional.

Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
	Process performance monitoring returns from consent holders.	Consent holders benefit from their ability to exercise consents. Work arises from activities undertaken by identifiable	The benefits are ongoing.	 Performance Monitoring: 75% fees and charges from consent holders. 25% general rates regional.
Compliance	Undertake audits and complianceconsent holders.Public benefits arise from environmental compliance with consent conditions.Public benefits arise from environmental protection gained through compliance.	Undertake auditsand compliancePublic benefits arisereviews to ensurefrom environmentalcompliance withprotection gainedconsent conditions.through compliance.		 Audits and compliance reviews: 100% fees and charges from consent holders.
Monitoring	Administration	The community benefits from environmental protection gained through compliance.		 Information requests that require more than ½ hour response time: 100% fees and charges. Administration: 100% general rates regional.
	Dairy inspections re permitted activity rules.	Council work arises from activities undertaken by identifiable landholders.		 Dairy Inspections: 100% targeted rate on each dairy activity.

Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
	Promote navigation and safety in harbours and waterways.	Those using the harbour and waterways benefit directly, but it is not possible to identify them. Note that QLDC and CODC administer their own bylaws under transfer of responsibility agreements.	The benefits are immediate and ongoing.	Safety: • 100% general rate sub-regional from Clutha, Dunedin, Waitaki and Central Otago districts.
Harbour Management	Administer bylaws, the primary focus being safety on our waterways.	The actions of individuals on our waterways may cause the need for enforcement of our bylaws		 Enforcement: 100% fees and charges from those causing the incident. 100% general rates from Clutha, Dunedin, Waitaki and Central Otago for remaining costs.
	Be ready to and respond to oil spills.	Those creating the oil spill cause the need for this activity.		 Responding to incidents: Grants from Maritime NZ. 100% general rates regional for remaining costs. Enforcement action: 100% fees and charges where possible, from those causing the incidents. 100% general rates regional for remaining costs.

Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
	Respond to pollution incidents and resource management complaints.	The wider community benefits from clean up and protection.	The benefits are immediate, at the time	 Responding to incidents: Grants from central government agencies as available. 100% general rates regional for remaining costs.
Incident Response	Undertake enforcement action as appropriate.	The actions of those creating pollution incidents, breaching resource consent conditions etc., cause the need for this activity.	of responding to the incident.	 Enforcement action: 100% fees and charges where possible, from those causing the incidents. 100% general rates regional for remaining costs.

GROUP ACTIVITY - ENVIRONMENT						
	Significant Activity – Land and Water (including Coast)					
Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources		
Land and Water Planning and Strategy	Development, adoption, appeals, review and audit of ORC's Land and Water (including Coast) regional policies, plans, and strategies.	The wider community benefits as these plans and strategies are developed to provide for the needs of the region as a whole. No individual or group benefits directly from this activity.	Benefits are ongoing over the life of the plans.	 Plans, policies and strategies: 100% general rates regional. 		
Land and Water Monitoring and Reporting	Monitor quality and quantity of surface and groundwater. Monitor quality of coastal and estuarine water. EMaR / LAWA. Trend forecasting for future changes to our environment. Social, economic and environmental effects of low flows.	The wider community benefits from understanding the state of the Otago environment.	The benefits are ongoing.	 Monitoring and reporting: 100% general rates regional. EMaR / LAWA: Receipt of fees and grants from national office and other regional councils. 100% general rates regional for remaining costs. 		

Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
	Awareness of provisions and understanding of responsibilities through education and promotion.	The activities/practices of farmers, forestry and other rural landholders are the main contributors to degraded rural water quality. The wider community benefits from having good water quality.	The benefits of improved water quality are ongoing.	 Rural liaison and catchment groups: 75% targeted rate on all rural land use properties (all sizes), and lifestyle blocks 2 ha or greater. 25% general rates regional. All other awareness and education: 100% general rates regional.
Land and Water Implementation	Water quality remediation and improvement initiatives	Those living in the immediate area receive a greater benefit with lesser degrees of benefit accruing to the wider local community and across the region. Benefits diminish as proximity to the affected area increases. Activities of those in the local area are likely to have contributed to the degraded water quality.		 Significant on-going remediation activity: Targeted rates on local benefit area (% to be determined on a case by case basis). Remainder general rates regional and/or sub-regional. Non-significant one-off remediation activity: 100% targeted rates (on local river and waterway management district).
	Integrated catchment management	The wider community benefits from having good water quality.		Integrated catchment management: • 100% general rates regional.

	Significant Activity - Air					
Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources		
Air Quality Monitoring and Reporting	Monitor and report on air quality in Otago.	The wider community benefits from understanding the state of the Otago environment.	The benefits are ongoing.	Monitoring and reporting: • 100% general rates regional.		
Air Strategy	Promote and assist addressing air quality issues and improving air quality around the Otago region.	The whole community benefits from clean air.	The benefits of clean air are ongoing.	Localised air programmes: • 100% targeted rate on local area. Regional air initiatives: • 100% general rates regional.		
Implementation	Advancing the use of cleaner heating technologies through the provision of subsidies for the replacement of non-compliant burners in Air Zone 1 and Milton.	There is benefit to those living in areas where clean heating appliances are being installed.		Clean heat, clean air: • 100% targeted rates from Air Zone 1 and Milton.		

Significant Activity – Biodiversity and Biosecurity				
Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits (occur?	Current funding sources
Biodiversity Monitoring and Reporting	Monitor and report on biodiversity in Otago.	The wider community benefits from understanding the state of the Otago environment.	The benefits are ongoing.	 Monitoring and reporting: 100% general rates regional.
	Promote and support the protection of indigenous species and areas of biodiversity in Otago.	All of Otago benefits from protecting indigenous specie and areas of biodiversity and enhancing the region.	The benefits are ongoing.	 Biodiversity strategy implementation: 100% general rates regional.
Biodiversity Strategy Implementation	Administer a regional sustainability and environmental enhancement fund on agreed projects.	All of Otago benefits from protection areas of biodiversity and environmentally enhancing the region.	The benefits are ongoing.	ECO Fund: • 100% reserves.
	Promote and support the protection of areas of biodiversity in local communities.	Local communities benefit from protecting and enhancing biodiversity in their area.	The benefits are ongoing.	Predator Free Dunedin: • 100% general rates sub regional.
Wilding Trees	Actively support wilding conifer groups in Otago to control and reduce the spread of wilding conifers.	All of Otago benefits from the control of wilding trees in Otago.	The benefits of the work are immediate and ongoing when	 Supporting groups: 100% uniform targeted rates across the region
	Administer the funding from MPI for the control of wilding trees.		continued control is undertaken.	Administering MPI funding: • 100% grant funding from MPI

Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
Pest Management Plan Implementation	Manage pest plants and animals through inspections, education and promotion of landowner led initiatives. Undertaking control works for specified pests including rooks and wallabies.	The wider community benefits from the control of pest plants and animals. Rural landowners receive a higher benefit than urban landowners.	The benefits are ongoing.	 Pest management plan implementation: 100% targeted rates regional.
	Undertake enforcement action as required	Landowner's inaction has resulted in the need to undertake the activity.		 Enforcement: Where possible, 100% fees and charges, remaining costs from general rates.
	Research and development for new biocontrol agents for pest control, monitoring and applying.	All of Otago will benefit from new pest control tools.	The benefits are ongoing.	 Biocontrol of pests: 100% general rates regional.
Pest Contracting	Undertake rabbit contract work for third parties.	Landowners benefit directly from contract work undertaken on their private properties.	The benefits are ongoing.	 Pest contracting: 100% fees and charges.

	GROUP ACTIVITY – SAFETY AND RESILIENCE					
	Significant Activity – Flood Protection and Drainage Schemes					
Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources		
Alexandra Flood Protection	Maintenance of flood protection scheme.	Those living within the flood protection area receive a direct benefit. Power generation has contributed to the need for having a flood protection scheme in this area.		 2% general rates from the Central Otago District. 98% fees and charges from dam owners. 		
Leith Flood Protection	Construction and maintenance of the flood protection scheme.	Those living within flood protection area receive a direct benefit. The local community benefits from continued access to these areas. There is a regional benefit where continued access to regional services, e.g. hospital and CBD etc.	The benefits are ongoing.	 5% general rates regional. 2% general rates Dunedin City. 46.5% targeted rates Indirect Benefit Zone. 46.5% targeted rates Direct Benefit Zone. 		
Lower Clutha Flood and Drainage	Maintenance of flood protection scheme.	Those living within the flood protection area receive a direct benefit. The local community benefits from continued access to the area. The wider community benefits from continued access to regional services.		 After receipt of rental income and contribution from Kuriwao reserve: 4% general rates from the Clutha District. 12% general rates regional. 84% targeted rates on the scheme area. 		
	Maintain the productive capability of land within each scheme area.	The landowners within the drainage scheme area receive a private benefit.		 After receipt of rental income and contribution from Kuriwao reserve: 6% general rate Clutha District. 94% targeted rates. 		

	The local community benefits from continued access to the area.	
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Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
West & East Taieri Drainage	Maintain the productive capability of land within each scheme area.	Landowners within the drainage scheme area receive a private benefit. The local community benefits from continued access to the area.		 After receipt of rental income: 8% general rate Dunedin. 92% targeted rates.
Tokomairiro Drainage	Maintain the productive capability of land within each scheme area.	Landowners within the scheme area receive a private benefit.	The benefits are ongoing.	• 100% targeted rates.
Lower Taieri Flood	Maintenance of the flood protection scheme.	Landowners within the scheme on area receive a direct benefit. The local community benefits from continued access to the area. The wider community benefits from continued access to regional services, e.g. airport.		 After receipt of rental income: 4% general rates regional. 13% general rates Dunedin City. 83% targeted rates on scheme area.
Shotover Delta	Construction of the flood protection scheme.	Landowners within the scheme on area receive a direct benefit. The wider community benefits from continued access to regional services, e.g. airport.		 2% general rates regional. 98% targeted rate on scheme area.

Scheme Oversight and Bylaws	General management and planning for all schemes including regional infrastructure strategy and designations.	Benefits arise to each scheme and therefore indirectly to the landowners and communities who benefit from each scheme.	Scheme oversight: • 100% internal allocation to flood and drainage schemes.
	Processing applications for works under bylaws.	Those applying to do works are the primary beneficiary.	Bylaw processing: • 100% fees & charges.

	Significant Activit	y – Rivers and Waterw	ay Manageme	nt
Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
River Management: - Central Otago - Clutha	Routine monitoring and maintenance to ensure adequate fairway width, enhancement work to improve access etc. Monitor stability and alignment of rivers, through river cross section surveys, gravel surveys etc.	Communities within each district benefit from work completed in their areas.		 100% targeted rates (district river and waterway management rate) Note Queenstown Lakes District Council has two rating areas – Wanaka and Wakatipu.
- Dunedin - Waitaki - Wakatipu - Wanaka	Contribute to cost of river erosion work on private properties where wider benefit generated.	Landholders benefit from work done on properties. Some benefit to wider community.		 100% general rates regional. Maximum contribution in place of \$25,000 per landowner within a 5-year period.
	Monitor and inspect effects of Contact Energy consent.	Contact Energy consenting activities cause need for monitoring the effects of the consent.	The benefits are ongoing.	 100% fees and charges from Contact Energy in accordance with consent conditions. Remainder general rates regional.
Lower Waitaki River Scheme	Contribute funding to river management works undertaken by Environment Canterbury.	Local community benefits from work undertaken by ECan on the Lower Waitaki River. The wider community benefits from continued access to regional services, e.g. roads.		 10% general rates regional. 90% targeted rates on the scheme.
Non Scheme Waterways	Investigating /maintain where appropriate, assets not belonging to flood and drainage schemes around	Communities within each district benefit from work completed in their areas.		 100% general rates regional.

the region – minor		
works.		

	Significant	t Activity – Emergency M	anagement	
Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
Emergency Management	Administer the Otago Civil Defence Emergency Management Group.	The whole community benefits from Council's readiness to deal with a Civil Defence emergency. If an event occurs, those affected will benefit directly from any assistance provided.	The benefits are immediate at the time of an event occurring.	Readiness 100% uniform targeted rates. Response: For costs occurred in dealing with an event, recovery will be considered on a case by case basis.
	Significant Activ	vity – Natural Hazards an	d Climate Chan	nge
Natural Hazards	Investigate and provide information on the potential impacts of natural hazards and their mitigation. Purchase of LiDAR information to	Investigations of identifying and understanding hazards benefits the wider community Investigation works for specific districts such as flood risk strategies will directly benefit those districts. Whole community benefits from	The benefits are ongoing.	 Studies for districts: 100% general rates sub regional. All other work: 100% general rates regional. LiDAR:
	assist assessment of hazards.	investigations of natural hazards.		• 100% reserves.
Low Flow and Flood Risk Management	Respond to flood events, issue flood warnings and take action to reduce effects of flooding. Provide information on actual and expected rainfall, river flows and lake levels for low flow situations.	The whole community benefits from Council's readiness to respond to high and low flow situations	At the time of the event.	 Flood risk management: 100% general rates regional. Low flow management: 100% general rates regional.

Climate Change Adaptation	Provide understanding of the effects of climate change to enable communities to make informed decisions about being prepared and adapting to those effects.	The whole community benefits from being informed about the effects of climate change. Investigation works for specific districts will directly benefit those districts.	The benefit would be ongoing.	 South Dunedin Future: 100% general rate Dunedin City. Shoreline retreat Clutha Delta: 100% Kuriwao Reserve. Climate change other: 100% general rates regional.
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GROUP ACTIVITY – TRANSPORT							
Significant Activity – Transport							
Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources			
Public Passenger Transport	Provide public passenger transport services in Dunedin and Queenstown, including associated infrastructure.	Those living in the areas where transport services are provided receive a direct benefit.	The benefits are immediate and ongoing.	 Bus services: Receipt of fares and NZTA grants. Remaining costs: 100% targeted rates in areas where services are provided. 			
	Public transport planning.	Those living in the areas where transport services are provided receive a direct benefit.		 Planning: 100% targeted rates in areas where services are provided. 			
	Administer the Total Mobility Scheme.	Total mobility users benefit from this; however the scheme is to provide more affordable transport for those who cannot use public transport because of a disability.		 Total mobility: 100% general rates regional. 			
	Register services under the Transport Licensing Act.	Service providers benefit from being able to legally operate. Wider community benefits from information held.		 Registering services: 50% fees and charges from service providers. 50% general rates regional. 			

Group Activity	Description	Distribution of benefits and Exacerbator Considerations	When do benefits occur?	Current funding sources
Stock Truck Effluent Disposal	Investigation and planning of a regional stock truck effluent disposal network.	The wider community benefits from ensuring a region wide network is planned. Those living in areas where new sites are proposed benefit from the planning and installation of those sites.	The benefits are immediate and ongoing.	 Planning and investigation, regional network: 100% general rates regional. Planning and investigation, districts: 100% general rates sub regional.
	Maintain stock truck effluent disposal sites in Central Otago.	The Central Otago district benefits from this work.		 Maintenance: 100% general rates on Central Otago District.

General rates are charged on a capital value basis. General rates regional are charged on a differential basis based on where a property is situated, i.e., which district or city it is located in.

Finance Policy

Financing the Purchase of Fixed Assets (Excluding Infrastructural Assets)

Council finances its purchases of fixed assets from its Asset Replacement Reserve. Such assets include motor vehicles, plant and equipment and computers.

Depreciation on Council fixed assets is funded and this income is placed in the Asset Replacement Reserve, along with any proceeds from the sale of assets. This reserve also attracts interest income on the balance of the reserve. This reserve is used for the purpose of financing the purchase of fixed assets.

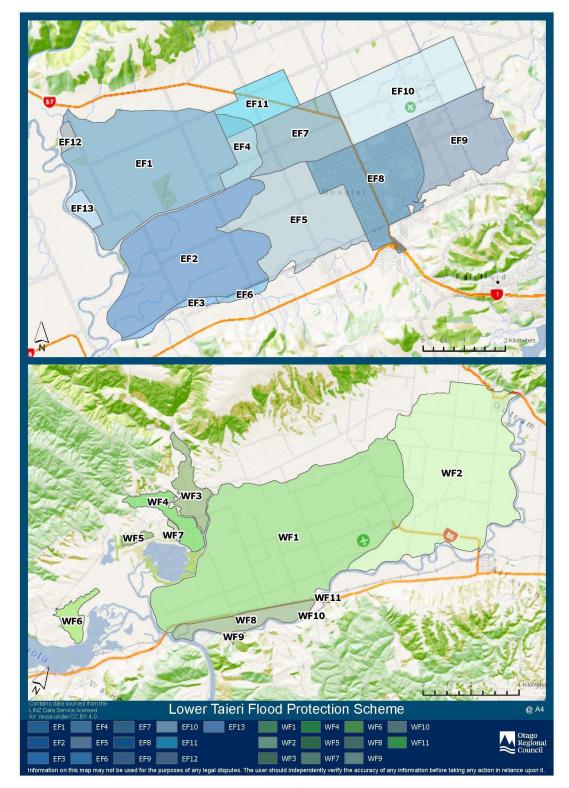
Financing Capital Expenditure on Infrastructural Assets

Most infrastructural assets (such as floodbanks, pumping stations and drains) are assigned to specific special rating districts. Ratepayers within these districts fund the depreciation on these assets. Each special rating district has a "Funded Depreciation Reserve" set up which represents the balance of the amount of depreciation revenue rates for, and any interest earned on reserve balances. The purpose of this reserve is the funding of capital expenditure and the cost of renewals on the infrastructural assets being depreciated.

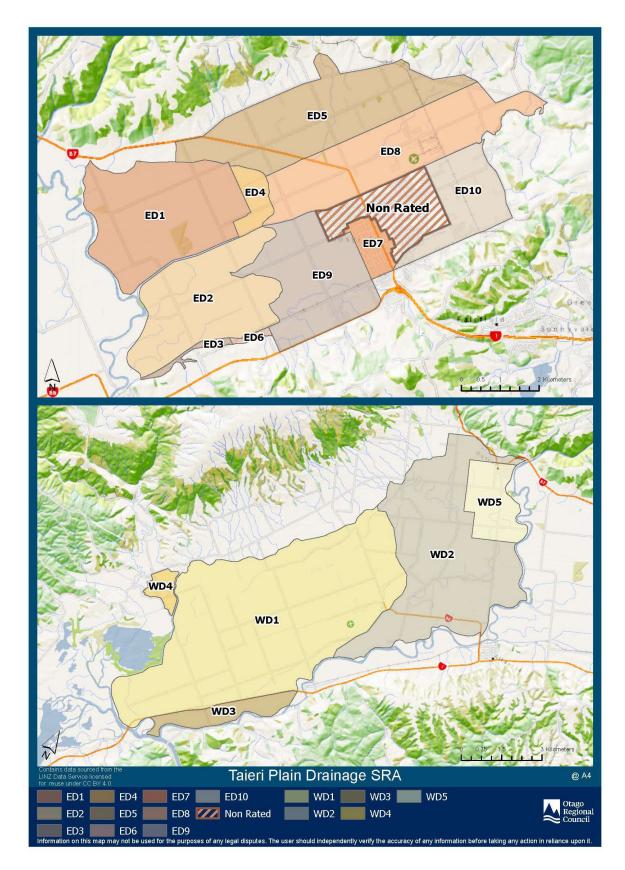
It is Council's policy that infrastructural assets be financed by the "Funded Depreciation Reserves", and if there are insufficient funds available in these reserves, borrowing (either internal or external) will be used.

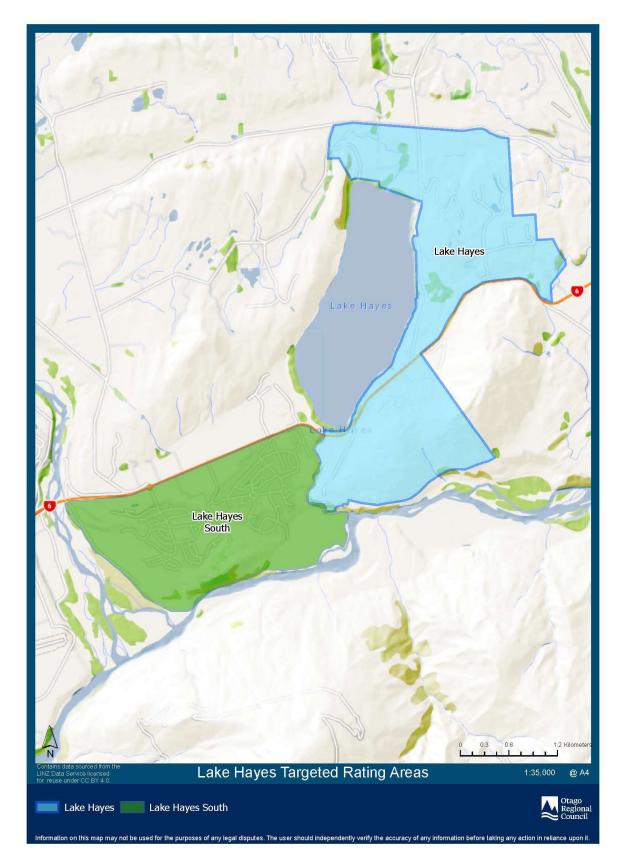
Financing Major Projects

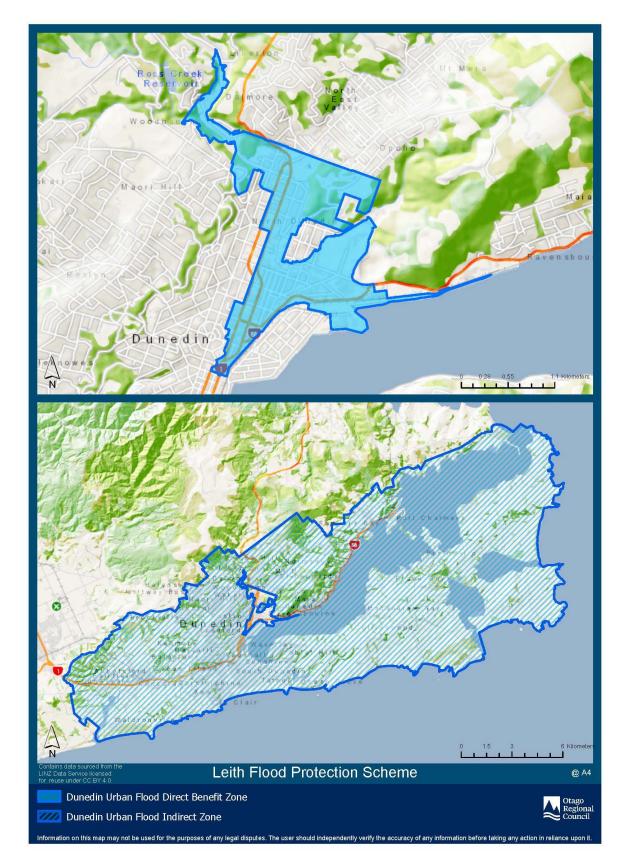
Tools to fund major capital projects will be considered on a case by case basis. Where necessary or appropriate, Council may borrow either internally or externally to fund a major project. Such projects (including the repayment of any associated borrowing) may be funded by any of the funding tools available to Council such as rating, dividend income, reserves, fees and charges and cash balances held by Council. In determining the appropriate funding tools, consideration will be given to matters such as the benefits arising from the project, the project costs, and the impacts and consequences of the project.

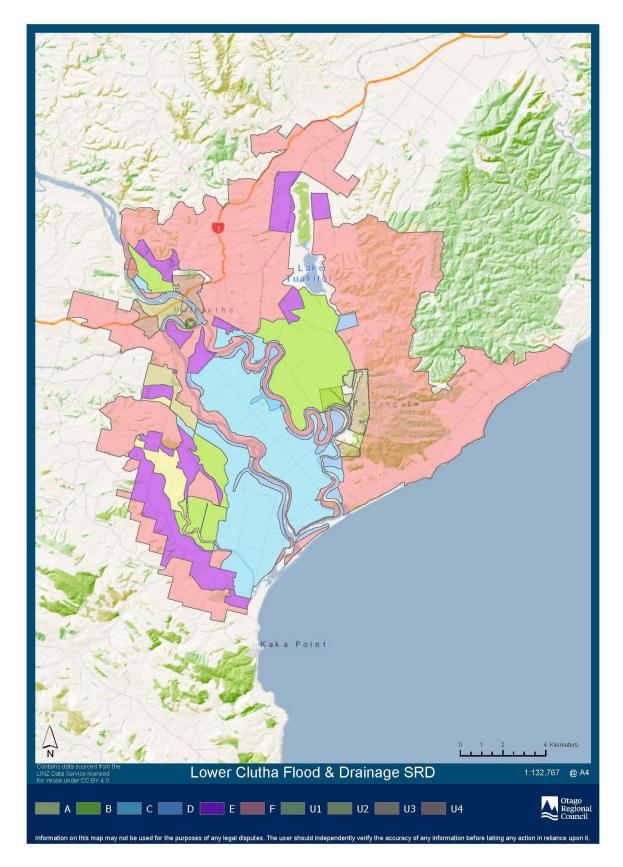


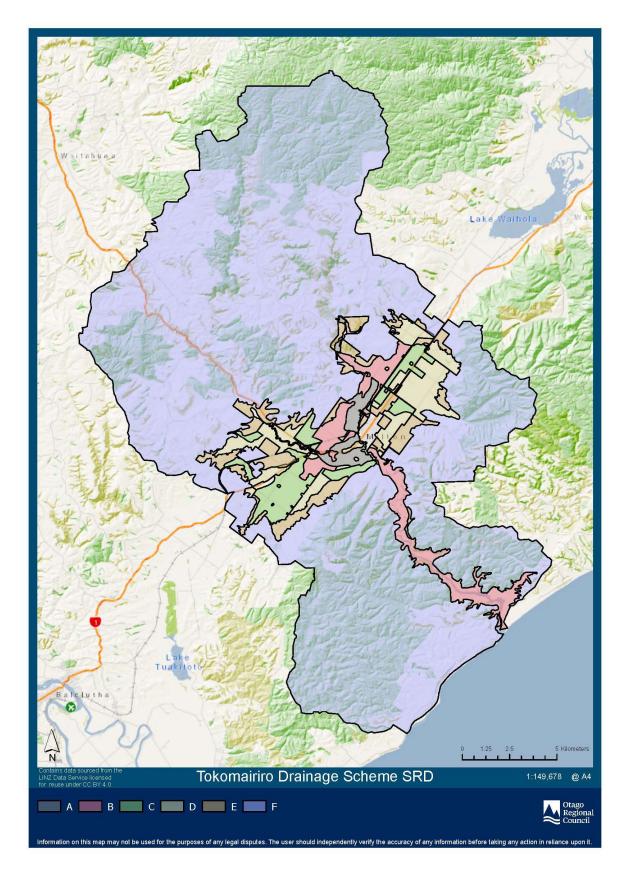
The following maps shows the geographic incidence of targeted rating

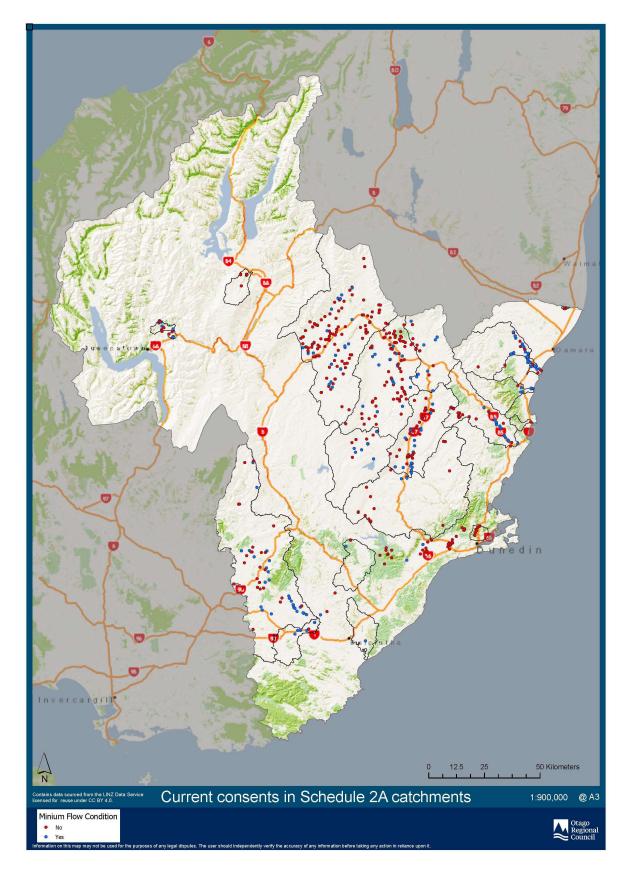












Summary Significance and Engagement Policy

The current and full Policy is available on the Council's website. The completion of a review of this policy is planned for the end of 2021.

This policy provides guidelines for determining the significance of proposals and decisions in relation to issues, assets or other matters affecting the Otago region, people likely to be affected and Council's capability to perform.

It sets out how Council may engage the Otago community in its decision-making processes and what types of decisions may be involved.

The policy also sets out those assets considered by Council to be strategic assets.

Significance

Assessing significance is essentially a matter of judgement. Council will consider each issue, proposal, decision, or matter, to determine the degree of significance attached to it. The degree of significance will influence our approach to decision-making. As the level of significance increases, the degree of community engagement carried out will also increase.

Degree of significance

When determining the degree of significance, Council will consider:

- the extent of any consequences or impacts on Otago residents and ratepayers, or stakeholders, including the consequences for, or impacts on, future generations. A moderate impact on a large number of residents or ratepayers, and a major impact on a small number of residents or ratepayers, will have higher degrees of significance than when there is a minor impact on any number of residents or ratepayers;
- the level of public interest likely to be generated within the region or New Zealand generally;
- any likely effect on the ability of Council to perform its role, carry out its existing activities and meet statutory timeframes;
- any financial and other costs or implications;
- the impacts on people's ability to use property or essential services; and/or
- if the issue, proposal, decision or other matter involves a strategic asset.

The level of community engagement and whether any impacts and consequences are of such a degree of importance as to require consultation on the issue, proposal, decision or other matter is a matter or judgement. The assessment will be documented, with reasons for conclusions reached.

To determine whether an issue, proposal, decision or other matter is significant based on its monetary value, its cost should be compared against an appropriate base amount.

The proportion of the community likely to be financially affected by the issue, proposal, decision or other matter will also be considered.

Issues, proposals, decisions or other matters that are part of the normal day to day council operations will not require formal consideration for significance.

Matters that are in Council's Long Term Plan and/or Annual Plan and other policies and plans that have been consulted on as a requirement of legislation, will not usually need further consideration under this policy.

Consultation will be required for any issue, proposal, decision, or matter that is determined to be significant.

Engagement

Engagement through this policy is about how Council will interact with the Otago community, interest groups, and its ratepayers, as part of its decision-making processes and how Council will respond to the community's preferences on issues.

Not all decisions will necessarily require specific engagement. As the level of significance of a decision increases, the degree of community engagement carried out will also increase.

Some engagement is carried out to provide information to the community, including about what Council is doing, and some to get feedback from the community on its preferences in relation to issues. This policy is in respect of the engagement carried out to seek community preferences.

The sorts of tools Council may use to engage with its community include:

- undertaking surveys;
- using social media;
- meeting with individuals, focus groups, and key stakeholders;
- holding public meetings; and/or
- undertaking consultation.

Consultation is just one tool of engagement. Both the Local Government Act and the Resource Management Act have provisions around consultation.

When choosing which engagement tool to use, the circumstances of the matter will be considered, including:

- who is being affected by the matter, i.e. is it a small focused group, or region wide and how are they being impacted;
- what information does Council already hold on community preferences in relation to the matter; and
- what is the level of significance of the matter and the level of urgency in making a decision on it.

In all cases where engagement has been carried out as part of Council's decision-making processes, community preferences will be considered prior to any decision being made. Reports to Council and Committees prepared by staff will provide details of any engagement carried out including the preferences of the community on the matter being decided.

Consultation with Maori

Council has in place a "Memorandum of Understanding and Protocol between Otago Regional Council, Te Rünanga o Ngäi Tahu and Käi Tahu ki Otago for effective consultation and liaison". The memorandum and protocol were first established in 2001 and are reviewed and updated as appropriate.

Council has statutory responsibilities to consult with Iwi and Maori on relevant management issues in the region and to consider the principles of the Treaty of Waitangi. These obligations are primarily under the Resource Management Act 1991, the Ngäi Tahu Claims Settlement Act 1998, the Ngäi Tahu Claims Settlement (Resource Management Consent Notification) Regulations 1999, the Biosecurity Act 1993 and the Local Government Act 2002.

Strategic Assets

The assets that Council holds and considers to be strategic are:

- Council shares held in Port Otago Limited, and
- flood protection and drainage schemes.

The flood protection and drainage schemes, managed as a whole, are strategic. However, not all trading decisions made about these assets are regarded as significant, nor do they affect the asset's strategic nature. For example, the Lower Taieri Flood Protection Scheme is strategic, but some bridges within the scheme area may not be and the purchase or sale of such bridges may not amount to a significant decision.

Acquiring or disposing of a component of a strategic asset will not trigger this provision, unless it is considered that the component is an integral part of the strategic asset and that acquiring or disposing of it would substantially affect the operation of the asset.