



Part D – Key Strategies

179 Financial Strategy

189 30-Year Infrastructure Strategy

Financial Strategy

This document is prepared in accordance with the requirements of section 101A of the Local Government Act 2002.

Purpose

The purpose of the financial strategy is to:

- a) facilitate prudent financial management by providing a guide for Westland District Council to consider proposals for funding and expenditure against; and
- b) provide a context for consultation on the Council's proposals for funding and expenditure by making transparent the overall effects of those proposals on the local authority's services, rates, debt, and investments.

The Council's financial strategy has been formulated with regards to Council's vision:

"We work for the people of Westland to grow and protect our communities, our economy and our unique natural environment".

The strategy provides a framework within which these objectives can be delivered through financially prudent and sustainable principles throughout the 10-year period of the Long Term Plan 2018-2028.

Significant Factors

This financial strategy is influenced by key assumptions about the factors that are expected to have a significant impact on Council's ability to achieve its vision.

Population Changes

Westland have used information from the Infometrics 2020 Westland District Economic Profile as Stats NZ 2018 Census data is not yet available.

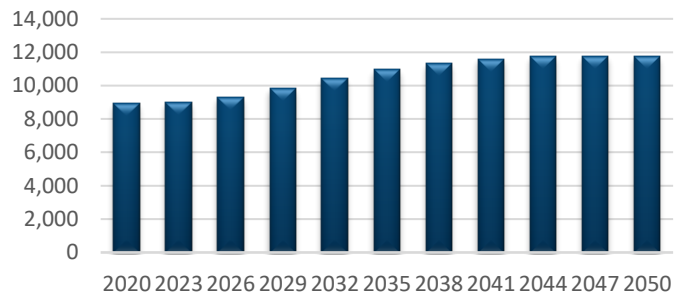
The forecast number of rating units each year, including the comparative 2021, is shown below:

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Rating units	6,554	6,620	6,686	6,753	6,820	6,888	6,957	7,027	7,097	7,168	7,240

This data shows that the population has not changed significantly over the last 3 years. The population of Westland in 2020 was 8,920 and is expected to increase until 2046 when the population will start to decline.

**Westland projected population
30 June 2020 – 30 June 2050**

Population Growth



The effect of COVID-19 on these projections is subject to significant variations at this time unknown. The population of some of the tourist reliant towns are likely to reduce whilst there is a loss of international tourism. At this stage, it is unknown how these towns will rebound in future years. This will impact the whole district as the cost of infrastructure will be borne by a lower population for potentially some time.

There were changes in the way that Māori freehold land has been valued at September 2020 as directed by the Valuer-General. A discount rate is now included which has reduced the value of the land for rating purposes. This will come into effect from July 2021. This has the impact of increasing the rates for all ratepayers in the district.

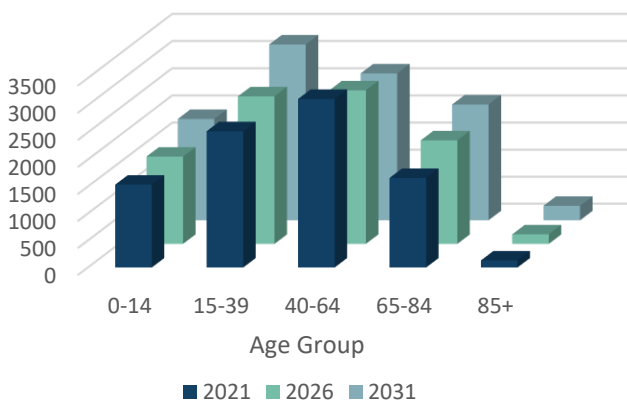
However, the forecast profile of Westland’s population brings some inherent challenges:

1. Operating and renewal costs will inevitably rise, and these costs will need to be affordable to a sparse and static population.
2. Council services in Westland are subject to high seasonal tourist demand, which means that some service capacity must be built into our asset management and operational plans. This strategy interlocks with Council’s infrastructure strategy. Council have decided to upgrade rather than renew these assets to include extra capacity.
3. As illustrated below, Westland is predicted to experience an ageing population over the life of this Long Term Plan. It is forecast that the number of residents aged over 65 will increase by 29% over the 10 year period of this plan and those 85+ will increase by 104%. Residents aged 15-39 are also expected to increase by 29% as younger people replace retiring workers.

More aged care facilities and Elderly Housing will be required as well as providing facilities that encourage the younger workers to migrate to the Westland District with their families. This will affect affordability thresholds as it can be expected that rates will become a higher proportion of average household income.

4. COVID-19 impacts on population has not yet been determined, Council will need to be flexible to adapt to any changes in these forecasts.

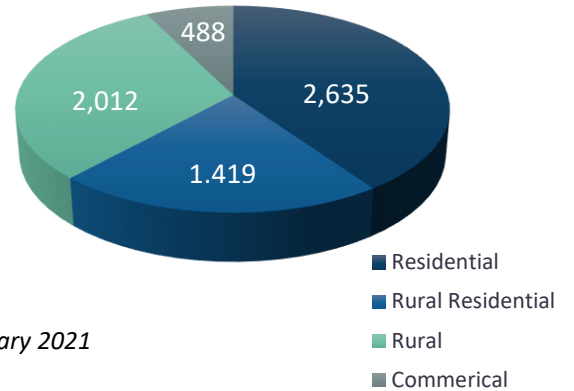
Westland Age Demographic Forecast



Land Use

Council’s rating base is represented by the following property types:

Westland Ratepayers by Differential



At February 2021

The main enterprises in the district are tourism and dairy farming. The proportions are not expected to change significantly during the life of this plan.

These property types determine the differentials used in Councils rating system.

Operating Costs

The cost of maintaining current levels of service is forecast to increase over the life of the plan. Legislative changes have had an impact on costs, however Council has been underfunding the cost of providing activities in the past in order to keep rate increases low. Council now needs to be realistic in budgeting for the actual cost of providing services. It is unsustainable to continue to subsidise rate increases into the future.

The impact of Covid-19 also affects the costs of providing services, as materials and services are more difficult to source.

The main impact of legislative changes relate to 3 Waters and Solid Waste services as shown below.

Item	Cost for the LTP
Cost of maintaining public toilets has increased to facilitate new toilets in the district	Additional \$45,000 per annum for the first year with approximately \$20,000 for each year after.
Changes in legislation have resulted in forecast increases for the Solid Waste activity.	During the life of the plan costs are forecast to increase approximately \$100,000 each year, the main increases are based on Emissions Trading Scheme legislative changes and the cost of roadside collections.
Forecast operating costs for the 3 waters activities to meet legislative requirements*.	The cost of Drinking Water and Wastewater services is forecast to increase in year one by \$130,000 with a further increase of \$220,000 in Year 2, and moderate increases in future years. Stormwater costs are forecast to increase at approximately \$50,000 each year. *dependent on Council still providing these activities.

Capital Expenditure

Over the last three years, data about the condition of Council's assets has improved. Council is committed to continue to further improve the quality of the data.

Affordability has been a challenge to replace and renew assets. Trying to keep rate increases as low as possible means that depreciation has not been fully funded for several years, depleting asset renewal reserves. This has resulted in reactive maintenance and asset failures.

Since 2018, depreciation has been fully funded except for the portion of Land Transportation where Council receives a subsidy from Waka Kotahi, and landfills.

Over the next 10 years Council's Infrastructure Strategy is to carry out upgrades and enhancements, this will support growth in the district from both higher population and tourism. This will increase our

environmental and legal compliance, particularly where new legislation requires this.

The intention is then to concentrate on Council's aging assets through the renewals programme.

This strategy will see a gap in the renewals programme in the first 10 years, where depreciation reserves will accumulate at a higher rate than renewals spend. This gap will be addressed after year 10. By continuing to accumulate reserves, Council will have more financial capacity to address the renewals programme.

The plan also contains funding for further condition assessments on Councils Infrastructure in order to gain further information on the assets and to carry out a physical stocktake.

Council works with various strategic partners such as Waka Kotahi, and has successfully increased the subsidy rate to 62% for the first 3 years of this plan. Future unknown changes in legislation may affect the subsidy rate going forward.

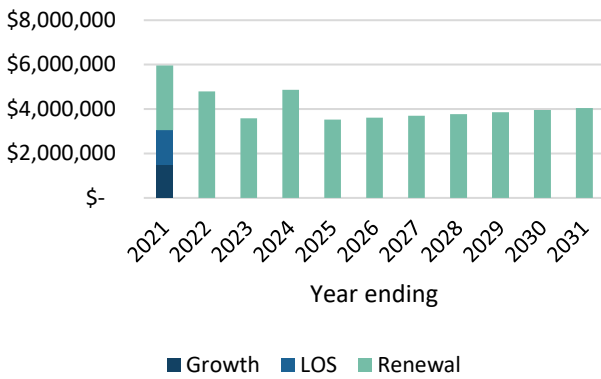
A regional approach and collaboration are essential in order to ensure consistency of service throughout the remote West Coast and to respond collaboratively to legislative changes. Council works with the other West Coast Councils and there are currently initiatives including the Three Waters reform, Solid Waste and Waste Minimisation where a regional approach could be taken to reduce cost and address environmental issues.

The expected capital expenditure on network infrastructure is illustrated below:

Land Transport

These items are included as part of the Waka Kotahi total roading capital programme which is viewed as maintaining levels of service.

Land Transport

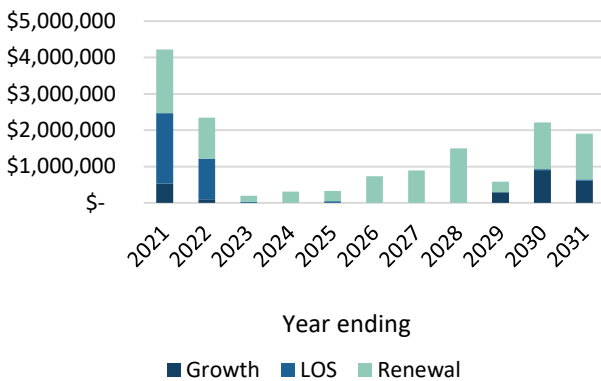


The increased spend in Year one of the plan relates to low cost/low risk improvements for safety improvements and structure upgrades amounting to an extra \$1.3 million. In Year three \$900,000 has been forecast for bridge repairs with a further \$200,000 for further low cost/low risk improvements. The rest of the plan is forecast to remain static.

Drinking Water

The projects included in Water Services include Renewals expenditure, Level of Service increases and Growth. The expenditure is consistent with the Infrastructure Strategy.

Drinking Water

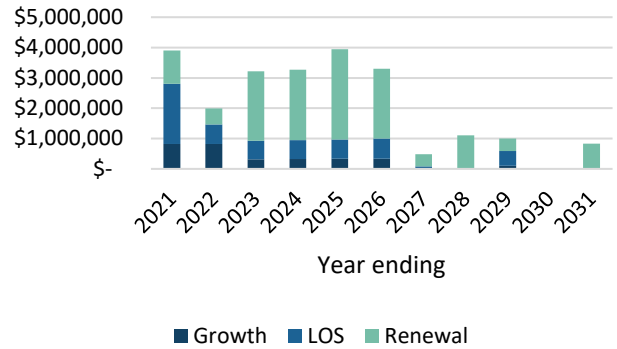


The peaks in water supply in Year two relates to Water Treatment Plant upgrades to meet drinking water standards, this work is a continuation from 2021, and mains replacements throughout the district \$350,000. After Year one, Council is providing emphasis on the renewals programme With a gradual increase to Year seven of the plan with mains renewals throughout the district and replacement of modules at the water treatment plants. Years nine and ten see Council planning requirements for changes in the Franz Josef township.

Wastewater

The projects included in Wastewater include Renewals expenditure, Level of Service increases and Growth. The expenditure is consistent with the Infrastructure strategy.

Wastewater

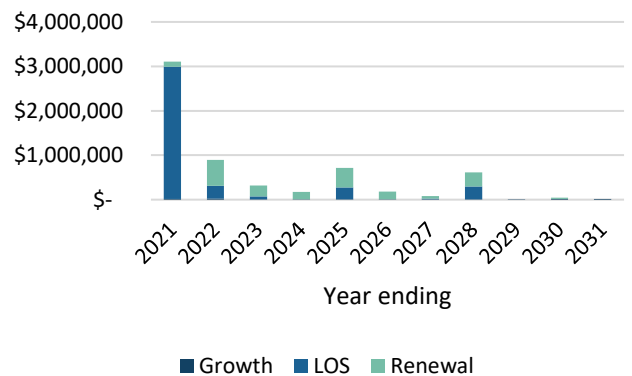


Main replacements are forecast for the first year of the plan, then ongoing until 2026. Planning, design and build for the Hokitika Wastewater Treatment Plant will be undertaken. Due to the resource consent expiring in 2026 this work will be priority whilst carrying out the renewals programme throughout the district.

Stormwater

The projects included in Stormwater include Renewals expenditure, Level of Service increases and Growth. The expenditure is consistent with the Infrastructure strategy.

Stormwater



Upgraded pump stations are planned for Year one of the plan, \$600,000 of which is a continuation of the projects undertaken in 2021. Through the rest of the plan there will be further upgrades to pump stations and renewals of the reticulated system.

Other Factors

It is assessed that other factors affecting Council's ability to maintain existing levels of service and to meet additional demands for services will be regulatory, national policy and macroeconomic.

Activity plans have been formulated with consideration of known and anticipated regulatory developments in their respective areas, such as drinking water standards.

The policies of national governing bodies are a major determinant of the affordable levels of service that can be provided, for example the Funding Assistance Rate administered by Waka Kotahi.

Interest rates and inflation are factored into Council's financial forecasts. The former are derived from Treasury forecasts using Council's current cost of finance as a baseline and are used to ensure that Council's debt position and debt servicing capability remain within policy parameters. These are examined further below and in detail in the Liability Management Policy.

Council recognises that different types of expenditure have varying inflation factors. Asset management plans have been prepared at the component level using the Local Government Cost Adjuster Forecasts from BERL. Similarly, separate inflation rates have been calculated for specific types of expenditure within operational budgets.

Sources of Funding

Operating Revenue

The expected revenues by major source are shown in the table below:

Year ended 30 June	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Rates	18,030	20,215	22,449	23,296	23,481	24,120	24,406	24,940	25,744	26,090
Subsidies & grants	10,750	6,251	6,627	5,265	5,664	5,724	5,218	5,549	6,585	6,830
Fees & charges	1,801	1,844	1,924	1,997	2,062	2,105	2,150	2,196	2,243	2,289
Interest & Dividends	228	477	477	477	477	477	476	476	476	476
Others	789	699	712	683	625	637	651	664	678	691
TOTAL	31,598	29,486	32,189	31,718	32,309	33,063	32,901	33,825	35,726	36,376

Rates

While Council will seek to maximise all other income sources in preference to rates, this will remain by far the greatest proportion of income. Within its rating methodology, Council seeks wherever possible to achieve an appropriate link between the types and amounts of rates and the delivery of benefit. The ratios and factors affecting the differentials are reviewed annually.

The rates system contains the following features:

Capital Value Based General Rate

The general rate is used to recover the cost of those services that benefit the entire district and cannot be attributed to specific groups or users. Council set and assess the general rate using capital value because it believes this naturally identifies the use of land, and hence its demand for services and resources, rather than just its location.

Uniform Annual General Charge

In setting a level for the Uniform Annual General Charge, Council recognises that a rating system with a high proportion of rates charged on a uniform basis can be regressive and compromises the benefits of employing a capital value based general rate. Council seeks to attain a balance in its rating system where everyone pays a reasonable share. Therefore, the proportion of the general rate that is applied through the UAGC will be reviewed annually subject to the limits prescribed by the Local Government (Rating) Act 2002.

Community Rates

Nine community zones have been created with targeted rates attached for local amenities, projects and services. This gives each township community the opportunity to directly influence the levels of service provided in their area, and at what cost.

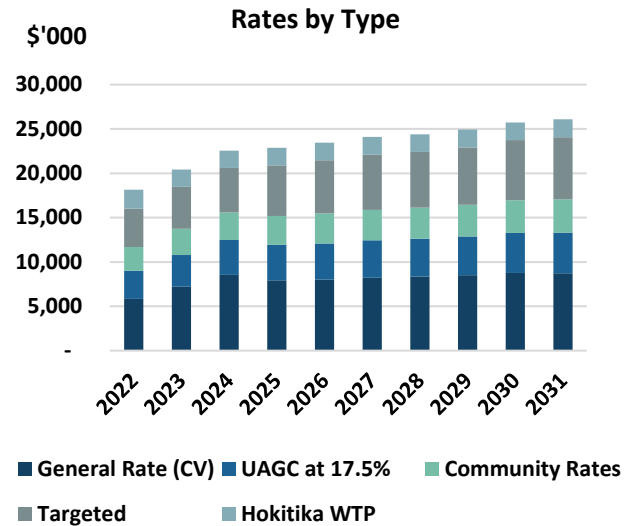
Differentials

Council has identified four sectors, based on land use, for which differentials are applied to both the General Rate and the Community Rates. These are used to determine what proportions of each rate should be applied to each sector.

Targeted Rates

Where specific users can be readily identified, for example utilities and refuse collection, the costs of providing these services are recovered through targeted rates. This includes the rate associated with the debt repayment in Year one, and demand driven increased running costs of the Hokitika Water Treatment Plant Upgrade over the first four years of the plan.

The graph illustrates the forecast rates by type:



Subsidies & Grants

The largest single area of expenditure is on the transportation network. Council optimises the Waka Kotahi Funding Assistance Rate (FAR) by satisfying the requirements for an approved roading programme. The District receives 62% funding on qualifying expenditure in 2021/2022 with 100% on special purpose roads. These factors are set for three years, after which these rates may change. For the purposes of this plan, these rates have been carried over the 10 years.

Other grants where Council may qualify, are from Ministry of Health towards the upgrade of Water Treatment Plants, and certain community activities also qualify for grant funding.

Included in Grants and Subsidies is funding for responsible camping, this is assumed through the life of the plan, however if this funding is not received Council will need to make a decision on how and if this activity is continued.

In the first year of the plan, the National Library has provided funding for two staff in the Library to concentrate on cultural activities. Once this funding ends Council has planned to continue with this service through the Library and fund through rates.

Fees & Charges

A 'user pays' philosophy is widely advocated. Where activities are sufficiently divisible to identify discrete user groups, some of the cost of provision is directly recovered through fees. Examples are solid waste management, licensing, consents and dog registration.

Solid waste management has two distinct components; being delivery to landfill and treatment on site. Where delivery is by kerbside collection a targeted rate is applied, with the total cost divided equally among the number of bins deployed. On-site treatment is homogenous but is allocated between the general rate and gate fees by estimating the ratio of volumes delivered through kerbside collection against the volumes delivered by users.

Interest & Dividends

Council receives dividends from its CCO Westland Holdings Ltd and interest from bonds and cash deposits. The impact of Covid-19 has seen reduced interest rates and less revenue from investments, this is forecast to continue at lower levels for some time. The dividend received from Westland Holdings Limited is being maintained at similar levels over the life of the plan to support growth in the CCO's, because of the impact of Covid-19 there is no dividend forecast to be received in Year one of the plan.

Others

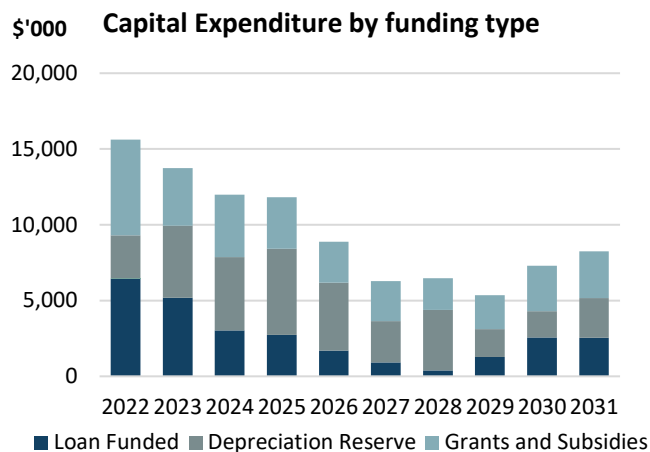
Additional income streams are explored and realised, including rental of office space, a share of regional petrol tax and retail income.

Capital Funding

When considering methods for funding capital renewals and upgrades Council considers the following factors:

- Period and area of benefit – this includes the concept of intergenerational equity, where today's users pay for their current consumption only.
- Availability and cost of funding sources – the infrastructure strategy guides when renewals are scheduled. Council's financial position is expected to improve year on year and so such factors as internal borrowing may become available in future years.
- Scale and duration of projects – the installation of shelving in the library would have a very different funding profile to the upgrade of a water plant.

The forecast capital expenditure by funding source is shown below:



Grants & Subsidies

As with operating revenue for qualifying expenditure transportation renewals also attract the Waka Kotahi FAR. It has been assumed that this will be available throughout the life of the plan.

Council intends to apply for all areas of external grants to fund infrastructure where upgrades and new assets are required through the impact of growth in tourism and for the potential cost of complying with the new drinking water standards. Council opted into stage one of the water reforms and has received some funding of \$6.9 million which is being used mainly towards the Wastewater upgrades.

Depreciation Reserves

Recovering depreciation costs as part of operating income generates cash surpluses that can be allocated to renewal funds for assets and loan repayments. This is most appropriate for long life assets where a fund can be steadily accumulated, and intergenerational equity is created because each generation of users pays for their consumption. Due to the policy of not fully funding depreciation until 2018 to keep rates increases affordable, the impact has resulted in some reserves not holding enough funding to undertake renewals. Where these funds are depleted, Council will firstly attempt to obtain funding from external sources, however, will then need to loan fund the shortfalls.

The effects are seen in the Wastewater, Buildings, and Parks and Reserves activity groups. The shortfall should not impact the overall debt limits over the life of the plan.

Special Reserves

Council maintains certain restricted reserves and special funds. These can be used, in limited circumstances with Council approval and in compliance with any covenants to fund specified local community projects.

Rates

Short life assets with relatively low cost are funded by rates. This is because they are renewed regularly and so a longer term funding option would not be appropriate. Intergenerational equity is not a consideration with these.

Loans

Loan funding is most appropriate for long life assets where insufficient depreciation reserves are available. This option is therefore preferred in the case of new assets or substantial upgrades. Council policy is to repay such borrowings over 20 years, linking to intergenerational equity because repayments will be spread over the estimated period of consumption. Council will fully fund depreciation and the loan repayments will be made from the depreciation reserves.

This approach provides affordable long term financing and a level of stability in budgeting and therefore rates.

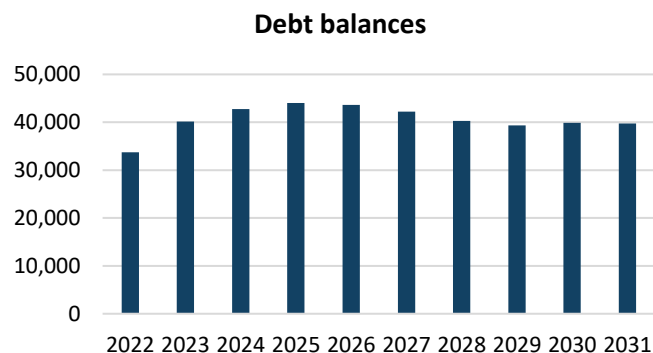
Where possible internal borrowing arrangements will be utilised in preference to external debt at rates not exceeding Council's cost of borrowing.

Council was accepted as a guarantor borrower in the Local Government Funding Agency (LGFA) in November 2020 and is able to access a greater level of borrowings from the agency with further savings to the cost of borrowing. Most of Council's debt is now held with the LGFA. The LGFA now also have a short-term funding instrument which can be utilised for periods of one month or more, this allows for any shortfall in cash reserves where there may be timing differences between funding and payments.

Council has further debt facilities with its banker Westpac up to \$4 million.

Debt is forecast to increase each year until 2025 when there will be a peak to \$44 million, and then will start

to reduce each further year of the plan. This is because Council must consider the potential impact of new drinking water standards on existing infrastructure, if these enhanced standards are required and 3 Waters activities are still carried out by Council, there will need to be significant upgrades to existing infrastructure.



Interest rate ceilings are fixed by a portfolio of swaps through Westpac, with the transition of borrowing to LGFA, this will allow Council to utilise more competitive rates from institutions other than Westpac.

Financial Management

Council's financial philosophy for this long term plan is one of resilience and sustainability, as in its vision to 'grow and protect our communities'.

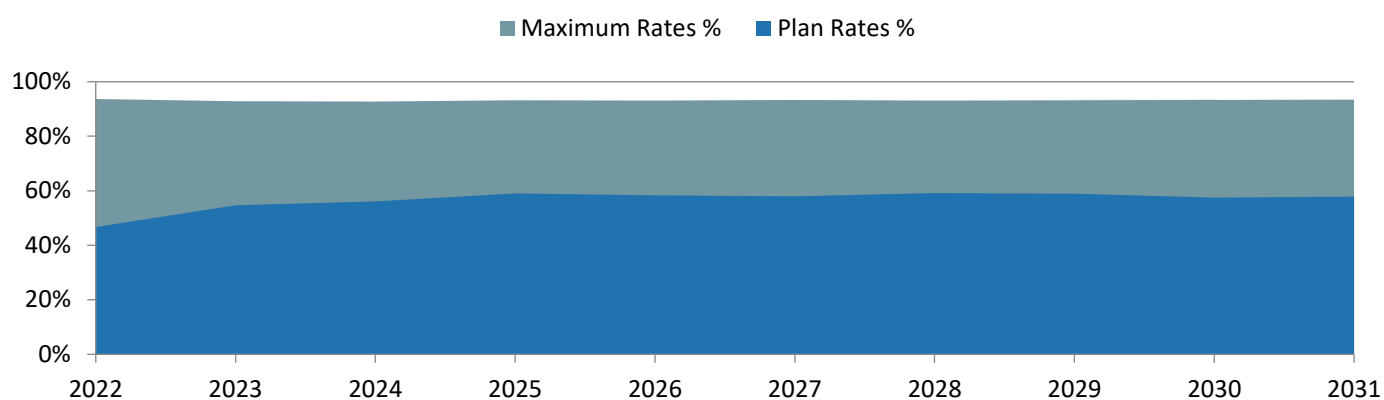
However, the financial strategy also provides for increases in level of service based on the projected growth in tourism at the time when international tourism returns.

In reviewing its levels of service and capital expenditure programme Council prescribed a financial framework to ensure that this mantra was reflected in the financial strategy.

Limits on Rates

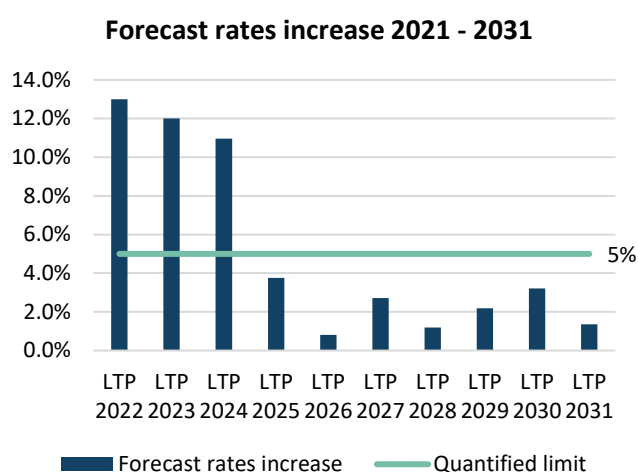
There are no significant changes being considered to the rating system for this Long Term Plan. Council quantify an overall limit on rates, expressed as a proportion of operating income. The overall limit is the aggregate of the limits for each activity, meaning the total varies slightly each year.

Rates as a Proportion of Total Operating Income



Year ended 30 June	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Operating Revenue	38,799	37,110	40,191	39,648	40,399	41,751	41,443	42,544	44,967	45,354
Maximum Rates	36,339	34,455	37,284	36,948	37,616	38,940	38,602	39,637	41,979	42,354
Plan Rates	18,115	20,304	22,543	23,394	23,584	24,227	24,518	25,057	25,866	26,217

Limits on Rates Increases



Rates increases are forecast to exceed the 5% limit set by Council in 2013 for the first 3 years of the plan. This is required as Council has taken a realistic approach to the costs to carryout Council activities. To keep the rates at a more affordable level in Year 1, Council has reduced the increase required by 5% and added this rates requirement to Year 3. This reduces the burden on ratepayers by smoothing the rate increases over the 3 year period. After this the rates increases are kept at lower levels. If Council maintains a realistic approach to rating, large increases should not be necessary in normal circumstances in the future. Some years will see larger increases than others due to 3 yearly elections and future long term plan costs.

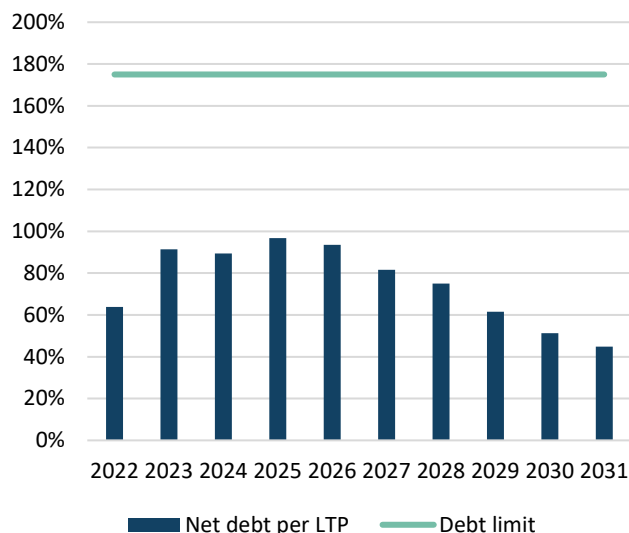
External Debt and Limits on Borrowing

Council directs that debt should only be used to finance new or upgraded assets, however, some loan funding throughout the life of the plan for renewal expenditure may be required. Renewals will be funded through depreciation reserves where there are reserves available. Low value assets will be funded through rates. Each tranche of debt is to be repaid over a period of 20 years. Interest is paid in the year it is applied and not accumulated with the principal.

The Council is a guarantor borrower with the LGFA, which gives Council a limit of up to 175% of net debt to revenue. The Liability Management Policy has been written to facilitate compliance with the scheme. Council employs a Multi Option Credit Line with Westpac to provide a flexible borrowing facility of \$4m. The LGFA also now offers short-term loans from 1-3 months duration. There is also swap portfolio to fix its short, medium and long-term interest rates. This is forecast to continue and will be managed to adequately provide for Council's requirements through the life of this plan.

The limits for borrowing are set at levels that ensure Council remains within this threshold, and net debt is forecast to remain within these limits throughout the life of the plan. Net debt for these purposes is the borrowing requirements minus cash reserves that are built up for asset renewals.

Debt Lending Limit



Security for Borrowing

Council's external borrowing and interest-rate risk management instruments are secured by way of a Debenture Trust Deed. Under the Debenture Trust Deed, Council's borrowing is secured by a floating charge over all Council rates levied under the Local Government (Rating) Act 2002.

Investments

Liquid Investments

Council no longer maintains a bonds portfolio. The return on bonds was not significant and tied up liquid funds for a two-year period. This is reviewed from time to time to ensure that Council is managing cash efficiently. Council has been able to obtain some reasonable term deposit rates for short-term deposits. The portfolio currently provides a rate of return of 0.48%, which is less than Council's average borrowing cost of 1.29% including lender margin.

As Council's cash flows are not uniform, with monthly operating costs, quarterly rates income and irregular peaks arising from capital projects, it is necessary to retain a level of liquid funds. This level will be set in accordance with cash flow projections. Short-term deposits of three, six and twelve months will be utilised

to earn additional interest income while these funds are held.

Under Council's Liability Management and Investment Policies, there is likely to be a move towards Investments rather than Derivatives when rates are favourable. This would align with holding cash reserves to meet the renewals expenditure over the life of the plan.

Equity Investments

Council hold 100% of the shareholding in Westland Holdings Limited, with a nominal value of \$8,695,000. The company in turn owns and controls the following Council Controlled Organisations:

- Westroads Limited
- Destination Westland Limited

An annual dividend receivable of \$250,000 has been included in Council's financial forecasts for all years except Year one of the plan, where Covid-19 has significantly affected Council's CCO/CCTOs. Council also normally receives a subvention payment of approximately \$220,000. Together these represent a return on investment of 5.4%.

There is a core amount of debt in relation to the shareholding where it is considered that this debt is not required to be repaid at this time, as this investment is long-term and not likely to change.

Westland Holdings Limited has increased its capital by adding an amount of uncalled capital to support borrowing. This takes the form of a guarantee from Council to support the CCO's borrowings with LGFA. This is a contingent liability.

Council also holds a \$26,000 shareholding in Civic Financial Services Ltd (previously Civic Assurance) as at February 2021. This is a legacy investment and since the restructure of Civic Assurance and the advent of the Local Authority Protection Plan, there are no provisions or income expectations in respect of this asset.

30-Year Infrastructure Strategy

Overview

It is important to Westland District Council (Council) that people living in Westland have a good quality of life that enables them to thrive economically and socially. It is essential that infrastructure and services provided by Council are maintained to a high standard to support our community and our economy.

This Strategy aims to identify areas of focus for Council to build resilience within our communities, whilst maintaining an acceptable level of service. This Strategy, along with the other strategic documents, will help ensure that Council is a good steward of its assets.

The focus of Council's Infrastructure Strategy over the next 30 years is a threefold approach:

1. Maintain our assets at the existing levels of service to deliver reliable services for our communities.
2. Fund the appropriate renewal of our current infrastructure to ensure that the assets are safe and meet legislative requirements.
3. Ensure our critical assets are resilient to any disruption so our communities are safe and provided with essential services.

Assets will be upgraded where appropriate, to enable Council to meet increasingly higher environmental and regulatory standards.

Key strategies include:

- Planning for infrastructure based on the increasing impact of tourism on our infrastructure networks.
- Ensuring that affordability is the key focus of all expenditure and investment discussions for current and future ratepayers.
- Ensuring the effectiveness of our current assets by having up-to-date and appropriate operational plans in place to keep the assets operating at existing service levels.
- Renewing assets through managing deterioration as they approach their end of planned life.
- Identifying risks associated with owning and managing assets by developing detailed asset management plans using current data, and identifying appropriate mitigation methods to reduce any effect..
- Prioritising existing network capacities first to meet future needs before increasing capacity.
- Maximising the use of subsidies, user payments and seeking external funding where possible as a first principal approach for infrastructure investment followed by inter-generational loans for new assets and upgraded assets which increase levels of service to ensure that both current and future communities pay for the asset they are using.
- Depreciation will be used to fund renewals, and rates funding will be used for small low value assets.
- Ensuring the Council's assets are protected from risk via prudent insurance arrangements.
- Identify, gather and improve data accuracy to enhance the Council's level of data confidence and reliability.
- Delivering value for money and improved efficiencies of our infrastructure.

Council has been successful in securing external government funding and will continue to do this. The significant investment in infrastructure required, particularly in core infrastructure, is a major challenge for Council. This is cannot be funded by ratepayers only. A key focus of Council therefore is on lobbying central government for infrastructure funding to support our economic potential. Council has made successful applications for funding to the government's 'Shovel ready' infrastructure funding. Alongside the "Shovel ready" projects, Council was

successful in obtaining \$6.8M in funding through the 3 Waters Reform. This has enabled Council to begin work on infrastructure projects that might not have been otherwise unaffordable.

Despite the unexpected downturn in international tourism due to the Covid 19 pandemic, Council has been able to make significant progress in the pressure on our core infrastructure services. With the additional funding from the Tourism infrastructure Fund this has helped upgrade all of our public toilets within the district and has also contributed towards drinking water and wastewater assets.

The West Coast Wilderness Trail and associated support network experienced strong demand with domestic tourism even during the 2020 winter months, with a 10.5% increase for 2019/20. Council believes this asset will continue to add value as a destination market. However, higher domestic tourism remains focussed on the Northern part of the region and the region as a whole will be slow to recover in the short to medium-term.

The National Policy Statement on Urban Development has been considered and is not deemed to be applicable to the Westland District due to the lack of urban areas.

This Infrastructure Strategy

Introduction

Westland District Council's vision statement is:

We work with the people of Westland to grow and protect our communities, our economy and our unique natural environment.

Council is responsible for the management of land transport, three water services, parks and reserves, cemeteries, solid waste and community buildings within Westland District. This 30 Year Infrastructure Strategy has been prepared by Council in accordance with section 101B of the Local Government Act (LGA) 2002, with assistance from Morrison Low Consultants.

This strategy integrates the planning frameworks with other strategic planning documents including Council's Activity Management Plans, Long Term Plan and Financial Strategy. These documents are the key tools for managing Council's assets and allowing Council to achieve identified infrastructure objectives over the next 30 years with prudent management and responsible stewardship.

Council is the custodian of approximately \$479 million (replacement value) of core infrastructure and community assets, which enable us to provide services to our community.

This strategy is critical to a sustainable future and the achievement of the Council's vision. Council has invested substantial resources into the maintenance of these assets over many years to service the needs and enhance the quality of life of the communities of Westland District.

In order to identify and prioritise its capital projects, Council has adopted a process that includes the following:

- Identification of upgrade capital projects to meet legislative requirements.
- Review of the projects list identified in the previous Long Term Plan and the assessment of these against current priorities.
- Discussions with asset managers and operational and maintenance teams to determine the critical issues and assets and how to ensure an appropriate level of service is maintained.
- Review of asset data (condition assessment, criticality, performance) to identify and prioritise ongoing renewals.

This strategy is a living document that helps to guide the activities and decision making of the Council into the future. The initiatives and actions identified in the strategy will be reviewed every three years, along with Council’s Long-Term Plan to ensure applicability in the changing environment and to incorporate community feedback.

Purpose of this Strategy

The purpose of an infrastructure strategy is to identify significant infrastructure issues for a council during the period covered by its strategy, the principal options for managing those issues and the implications of those options. This strategy also outlines the most likely scenario for the management of Council’s infrastructure assets during the strategy’s 30 year period, the estimated costs of managing those assets, the nature and timing of expected significant capital expenditure decisions and the assumptions on which the scenarios are based.

This strategy has been prepared in accordance with the requirements of Section 101B of the Local Government Act (LGA) 2002. This strategy includes the core infrastructure assets identified in section 101B (6) of the LGA being:

- Water supply (drinking water)
- Sewerage and the treatment and disposal of sewage (wastewater)
- Stormwater drainage (stormwater)
- Roads and footpaths (land transport).

The majority of stopbank and flood control assets in the region are owned by West Coast Regional Council, which has a Regional Flood Protection Bylaw that governs this activity. There is minimal involvement or documentation outside of the stormwater activity. Council’s investment in stopbanks will be divested to the West Coast Regional Council.

In addition to the above assets, and in accordance with section 101B(6)(b) of the LGA, this strategy also includes:

- Cemeteries
- Parks and reserves
- Council buildings
- Solid waste
- Wilderness trail.

The issues discussed reflect the current legislative environment and the communities’ priorities across the District.

The financial forecasts are estimates and the reliability of the forecasts decreases beyond 10 years and towards the 30-year planning scope.

Strategy Layout

The strategy document sections, and corresponding LGA sections are tabled below:

Table 1: Strategy layout

Strategy Section		LGA 2002 as amended (Section 101B)
This Infrastructure Strategy	Identifies the core infrastructure included in this strategy	2(a) and 6
	Illustrate the linkages between strategic documents	2
Strategic Context	Identifies the Westland District and provides context	2 (a)
	Discuss the significant infrastructure issues at district level	2(a) & (b)
How Our Infrastructure is Managed	Documents the strategic statements that will guide decision-making for the next 30 years	2(b)

Significant Infrastructure Issues	Discuss the significant infrastructure issues at activity level and the associated assumptions	2(a) & (b)
	Identifies the principal options for the significant issues and documents implications, cost, when and funding source	2(b); 3(a) to (e) & 4(a)
Financial Summary	Identifies the financial forecasts associated with the actions proposed	4(a) to (c)

Infrastructure Assets

The Westland District infrastructure assets are described in the table below by activity. Considering the replacement value of the infrastructure assets shows that land transport makes up 67% of the infrastructure assets by value, followed by three waters (drinking water, stormwater and wastewater), which combined make up 24%.

Table 2: Westland District infrastructure assets

Activity	Description	Replacement Value	% of total
Drinking Water	Water extraction, eight treatment plants and distribution of 149km of pipelines, 13 pump stations and four reservoirs	\$52.0 million	11%
Wastewater	Wastewater collection of 78km of pipelines and ten pump stations, four treatment plants and discharges	\$30.9 million	6%
Stormwater	Stormwater collection of 52 km of pipelines and six pump stations, and discharges	\$34.1 million	7%
Land Transport	691km of roads, 379km sealed and 311km unsealed (arterial, collectors, local; kerb and channel), 190 bridges, 95 large culverts and footpaths	\$319.7M	67%
Cemeteries	Open public cemeteries at Kumara, Ross and Hokitika with associated assets including fences, access roads, berm areas and parks furniture	\$2.3 million	0.48%
Parks and Reserves	Parks, five playgrounds and one skatepark, and sportfields provided at Kumara, Hokitika, Ross, Harihari and Fox Glacier	\$4.7 million	1%
Community Buildings	Public buildings including six community halls, pensioner housing with 46 units, ten sports and recreation buildings, and ten public toilets	\$20.9 million	4%
Solid Waste	Two open landfills (Butlers and Haast), ten consented closed landfills and five transfer stations	\$5.7 million	1%
West Coast Wilderness Trail	Cycle trail and bridges	\$8.6 million	2%
TOTAL		\$478.9 million	100%

Sources:

- Council's AssetFinda (as at 30 June 2019) for three waters and parks
- Council's RAMM Asset Valuation Module Results for land transport
- Preston Rowe Paterson Commercial Report for Westland District Council (August 2018) for community buildings
- Council's AssetFinda (as at 30 June 2016) for solid waste assets prepared by ANA Group.

Linkages with other Documents

To develop a coherent infrastructure framework that helps to maintain a rich and diverse network of reserve spaces that protect the region's ecology and support the identity, health, cohesion and resilience of the District's communities. The core infrastructure Activity / Asset Management Plans demonstrate how the service delivered supports the achievement of the Council's Visions and Community Outcomes and complies with legislative

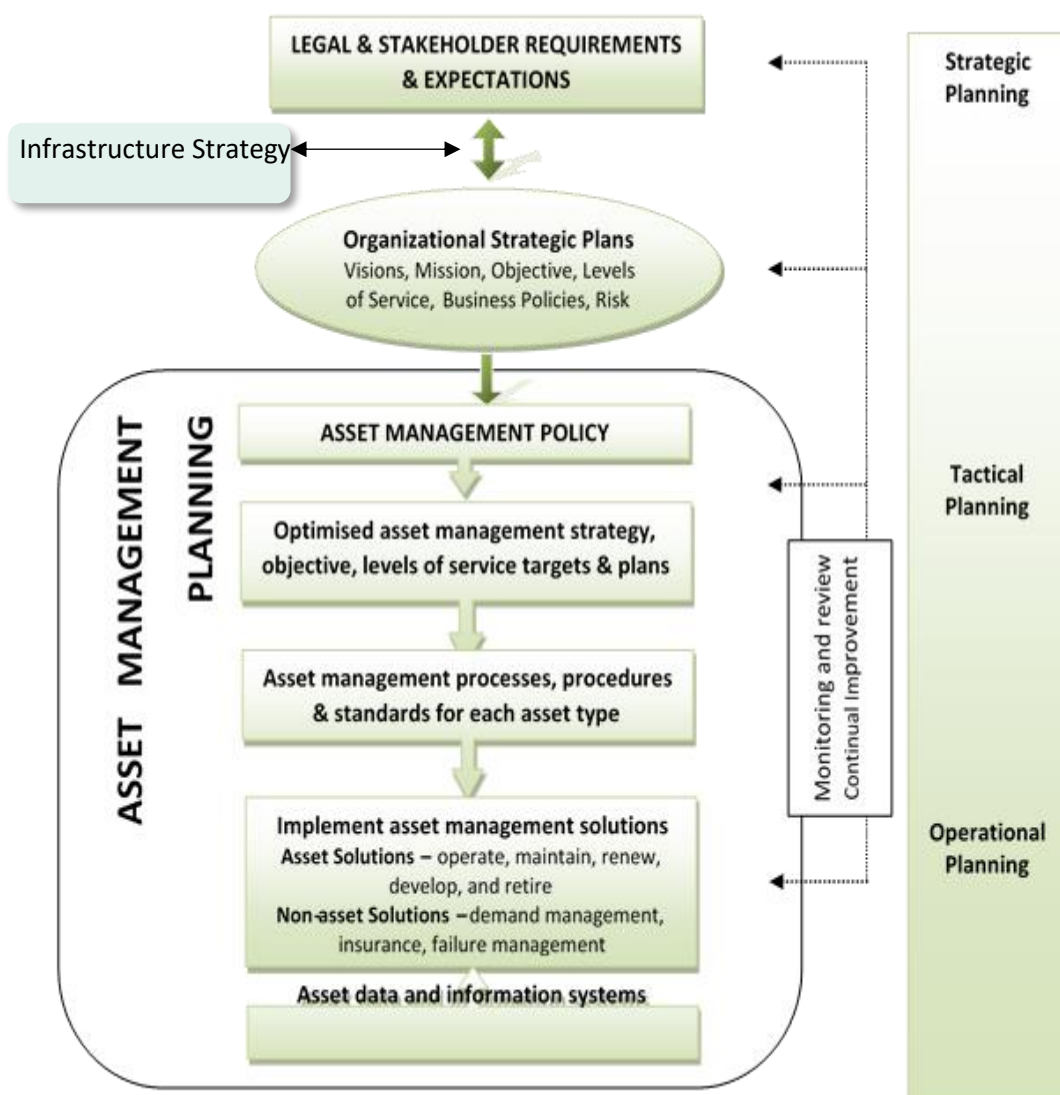
requirements. It also provides draft financial forecasts and activity information which feeds into the Long Term Plan and Financial Strategy. These relationships are summarised in the following diagram.

This Infrastructure Strategy links with the following Activity / Asset Management Plans:

- Drinking Water Asset Management Plan 2021 -2031
- Wastewater Asset Management Plan 2021 -2031
- Stormwater Asset Management Plan 2021 -2031
- West Coast Districts Combined Activity Management Plan Transportation July 2020 (draft)
- Parks, Reserves and Cemeteries Asset Management Plan 2021 -2031
- Update to 2015 Buildings and Pensioner Housing Asset Management Plan (2021 – 2031)
- Solid Waste Asset Management Plan 2021 -2031
- West Coast Wilderness Trail Asset Management Plan 2021-2031.

Importantly, this link is in two directions. Our strategic documents direct our infrastructure planning, the nature and level of our asset investment, and our asset management system provides key information and inputs that inform our strategic thinking.

Figure 1: Infrastructure strategy- linkages with other documents



Strategic Context

Significant Issues

There are significant issues facing our District which will have a flow on impact on what infrastructure Council delivers, where and how. In preparing this strategy, Council has identified four strategic district infrastructure issues that need to be at the forefront of infrastructure planning and decision making:

1. Poor delivery of capital programme.
2. Wastewater upgrade costs are a significant challenge for Council.
3. Resilience of critical infrastructure.
4. Many of the assets are coming to end of their life at similar period and will need replacement.

Table 3 details the implications and the actions Council will take to respond to the key strategic issues at district level as these are common to all activities. The significant issues for each activity are covered in the Significant Infrastructure Issues Section.

Table 3: Significant district issues

Significant District issues	Implications	Council's response
1. Poor delivery of capital programme.	<ul style="list-style-type: none"> • There has been poor performance in delivering our capital programme for the last three years (less than half). • This was mainly due to internal resourcing issues, management changes, less focus on non-core infrastructure, two major incidents and weather events that took up Council resources and contactor availability. • It improved in 2019/20 for three waters capital programme. • This may impact on the delivery of the larger capital programmes, boosted by Central Government funding. 	<ul style="list-style-type: none"> • Internal asset management resources have been boosted by the addition of an Asset Manager, Asset Engineer and Project Manager. • This is supplemented with three contract project managers to scope and deliver the larger capital programme.
2. Wastewater upgrade costs are significant challenge for Council. Ability to upgrade the Hokitika Wastewater Treatment Plant that meets resource consent conditions and iwi expectations balanced against community affordability.	<ul style="list-style-type: none"> • Treatment plant upgrade to meet resource consent conditions are costly and will impact Council's overall debt levels. • Traditional treatment methods are not acceptable to iwi and Council needs to explore alternative options, learn from upgrades that have been successful, and stage appropriate solutions overtime. • The wastewater ponds are a major challenge to meet iwi's cultural requirements. • There is longstanding performance issue that needs to be addressed (an unconsented discharge into the waterway). 	<ul style="list-style-type: none"> • Council wishes to upgrade to mechanical treatment as has been successfully implemented in neighbouring Grey District Council and has a smaller environmental footprint. • Council has only been successful to date in obtaining external funding for the feasibility study and start the resource consent process. • Iwi are involved with the project to ensure the solutions are culturally acceptable.
3. Resilience of critical infrastructure.	<ul style="list-style-type: none"> • Infrastructure resilience is tested in Westland District as it is exposed to a variety of natural hazards including earthquakes, landslides, flooding, fault line and storms. These natural disasters 	<ul style="list-style-type: none"> • Continue to seek external funding for relocating Franz Josef township. • Continue to only undertake short to medium solutions for the infrastructure

can cause considerable damage to infrastructure assets and affect delivery of service and cut the District off. The rivers in the District are constantly changing.

- Franz Josef township is prone to flooding from the Waiho River and situated in the Alpine Fault Avoidance Zone.
- Council has plans to relocate the township under the Future Franz development but has been unsuccessful in obtaining external funding to date.
- Council responded generally well with the lockdowns due to the global pandemic in 2020. There were valuable lessons learnt including ensuring there are adequate provision of equipment.

serving Franz Josef including the water treatment plant and local roads.

- Continue to collaborate with the Regional Council on river management and sustainable flood protection works to ensure our communities are safe.
- **Three waters:**
 - Council will develop master plans for servicing Franz Josef in the medium to long term including water supply and wastewater treatment plants (has a 15 year consent)
 - Strengthen infrastructure resilience including installing seismic valves at reservoirs, installing generators at critical plant and updating the telemetry so Council has real time information across the District
- **Land transport:**
 - Council will continue to accommodate emergency diversions from State Highway route in collaboration with Waka Kotahi NZ Transport Agency (Waka Kotahi) where practical. Council will invest in risk mitigation on vulnerable sections of the transport network.

4. Many of the assets are coming to end of their life at similar period and will need replacement.

- Many of the assets were constructed about 50 years ago and coming to the end of their life at similar period and will need replacement.
- This may be unaffordable for our current and future ratepayers.
- Investment is also required to ensure that our assets meet the levels of service to our communities, meet legislative requirements, and are resilient to any disruption.

- **Land transport:**
 - Council monitors the age and condition of our transport assets through inspections and analysis in our RAMM database. Council needs to improve the completeness and accuracy of our asset data so this can be used to predict failure and smooth the future renewal requirement, particularly for pavements and bridges.
- **Three waters:**
 - Current renewal strategy is based on asset failures, undersized reticulation, improving network resilience and operational knowledge. Age is still used for preparing long term renewal projections.
 - Council wishes to move to a risk based water renewal programme based on analysis of break histories and taking into account criticality, material type, condition, resilience and other factors, to be consistent with good industry practice. This new approach requires internal capability and better information to make decisions.

Westland Context

Our District

The Westland District stretches 400 kilometres from the Taramakau River in the north to Barn Bay in the south and is situated in the southern end of the West Coast region. Although large in land mass, the District contains many small townships, making it one of the most sparsely populated areas in New Zealand. About 40% of the District's population live in the main township of Hokitika. The rest of Westland's population reside in the smaller townships spread throughout the District. These settlements include the townships of Fox, Franz Josef, Otira, Whataroa, Ross, Harihari and Kumara.

The West Coast is surrounded by the majestic Southern Alps to the east, and the Tasman Sea to the West. Nature has endowed Westland with spectacular scenery, characterised by flowing icy glaciers like Fox and Franz Josef, rugged coastlines, bush-clad mountains, and crystal-clear waterways encompassed by towering native forests.

Agriculture is one of the biggest contributors to the local economy, along with tourism. Although the wider region is renowned for its mining industry, Westland has had to differentiate itself and has grown a strong agriculture base. The District contains the Westland Milk Products processing plant, located in Hokitika, which is the largest employer in Westland, and currently services 393 local dairy farms.

Our Community

Westland District's population has remained relatively static at 8,920 (based on information from Infometrics 2020 Westland District Economic Profile). This is predicted to continue to increase over the next 30 years.

About 14.4% of our District population identifies as Māori (based on 2018 Census data). If current trends continue, this is likely to increase by about 6% over the next 30 years.

However, the make-up of our population base is expected to change, with the elderly population increasing and more ethnic diversity of those living in Westland expected. The Long Term Plan has been prepared taking the assumption that there will continue to be an ageing population in the District. Infometrics Westland Forecast report suggests that young workers will migrate to the District to replace retiring workers, which will result in a younger population than anticipated. However, the district will need to provide facilities and opportunities to encourage this type of growth while still preparing for the likelihood of an ageing population.

The global disruption due to COVID-19 has impacted New Zealand's communities and the economy. Significant levels of uncertainty remain regarding the scale and duration of COVID-19 impacts, particularly in the medium to long term including the impact on our District's population and any demographic changes. Council will continue to monitor and update as things change at District and regional levels.

For some townships, the resident population has dropped significantly, due to the loss of the international tourist market, particularly Glacier country.

The potential impact of the COVID-19 pandemic on our economy is not yet fully understood and is evolving rapidly. In the short term, COVID-19 might impede our rate of growth, given the immediate impact of closed borders on international tourism and the flow on effect on employment. However, increased domestic tourism, particularly in the northern parts of the District, might reduce the impact of the anticipated downturn in tourism related activity. Long-term impacts on the economy are still being assessed at a national level in collaboration with local government. The impacts on tourism and the local economy are discussed in the following sections based on the best available information to date. These different trends need to be considered with infrastructure planning.

In terms of migration and demographics, if border restrictions remain in place for an extended period (up to 18 months), then it is expected that:

- Population growth will slow
- Reduction in immigration, international students and work visas, particularly in the short-medium term (1-4 years)
- Maybe off-set in part by a trans-Tasman bubble and an increase in the number of returning New Zealanders
- Potential shortage of skilled migrants to support delivery of Government’s stimulus package.

Tourism Trends

Westland is one of the main gateways to the West Coast and is also one of the most scenic driving routes New Zealand has to offer with State Highway 6 running right through the middle of the District. While the District shares its boundaries with eight neighbouring regions, this has made the District a key logistical route for tourism as well as freight.

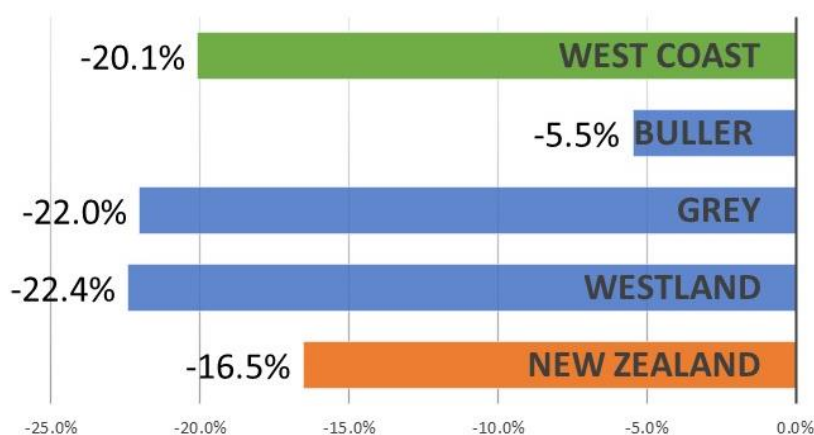
Prior to the Covid-19 pandemic, tourism continued to expand with a strong contribution to the local economy. Fox Glacier and Franz Josef Glaciers are major attractions to the region as well as the national parks and more recently the popular West Coast Wilderness Trail.

In terms of tourism, if border restrictions remain in place for an extended period (up to 18 months), the impacts on the Westland District are:

- The District is one of the most reliant on tourism, with guest nights per capita (40) five times higher than the national average (8). 50% of the tourism spend in the region comes from international visitors, and an even greater percentage South of Hokitika, so the District is heavily impacted by border closures.
- The ability to off-set these losses through domestic tourism is challenged by our remoteness from major population centres in the North Island.

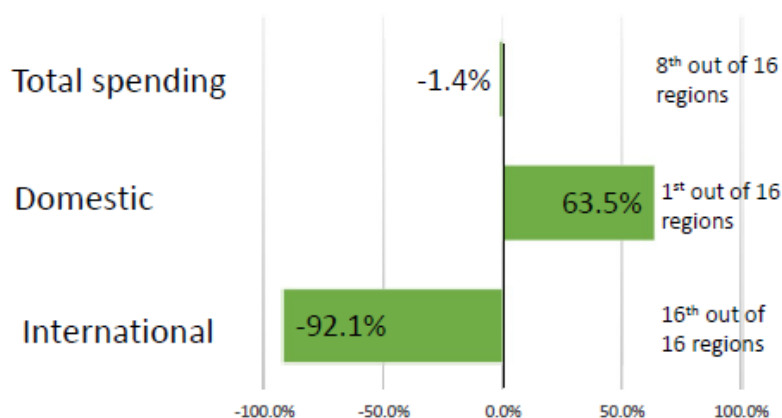
The latest impact on tourism spending (prepared by Ministry of Business, Innovation and Employment (MBIE)) due to the impact of COVID-19 in the West Coast Region including Westland District is shown in Figure 2 and Figure 3. The West Coast came 14 out of the 16 regions for annual change (between September 2019 and 2020). For total spending, the West Coast came 8 out of the 16 regions.

Figure 2: Annual change in tourism spending (September 2019 to 2020)



Source: Development West Coast, MBIE (as at November 2020)

Figure 3: Domestic versus international tourism spending change (September 2019 to 2020)



Source: Development West Coast, MBIE (as at November 2020)

International tourism is likely to take some time to recover once New Zealand reopens the borders. Potentially international tourist levels could return to 80% of pre-Covid-19 levels by 2025, but this might not be reflected in the Westland District. It is too soon to predict the long-term effects on tourism but Council expects a very slow recovery in the short to medium term.

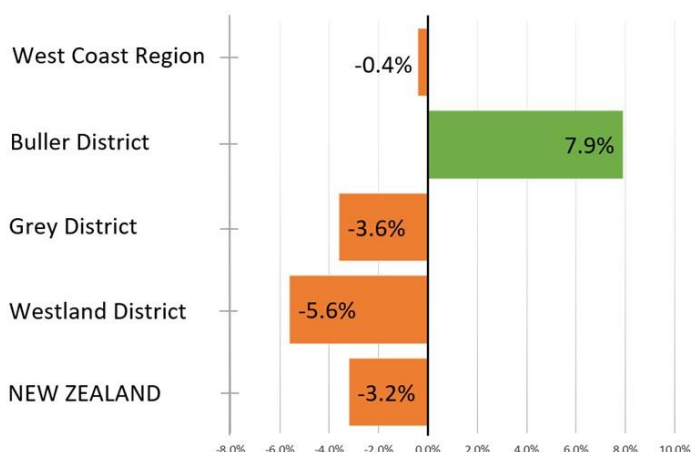
Economic Trends

The potential economic impacts on the West Coast Region are based on various independent sources, recognising that there is so much uncertainty. It is noted that:

- West Coast economy relies heavily on a small number of industries, with tourism, agriculture and mining making significant contributions
- Employment in agriculture and mining is forecast to remain relatively stable.
- However, the District is vulnerable to the introduction of environmentally-focussed regulations that will impact key industries.

The gross domestic product (GDP) growth is an important indicator of the economic performance of a country. The latest impact on GDP growth (prepared by MBIE) due to the impact of COVID-19 in the West Coast Region including Westland District is shown in Figure 4. The West Coast came 11 out of the 16 regions comparing September 2020 Quarter with 2019). For total spending, the West Coast came 8 out of the 16 regions.

Figure 4: GDP growth (September 2020 Quarter compared to 2019)

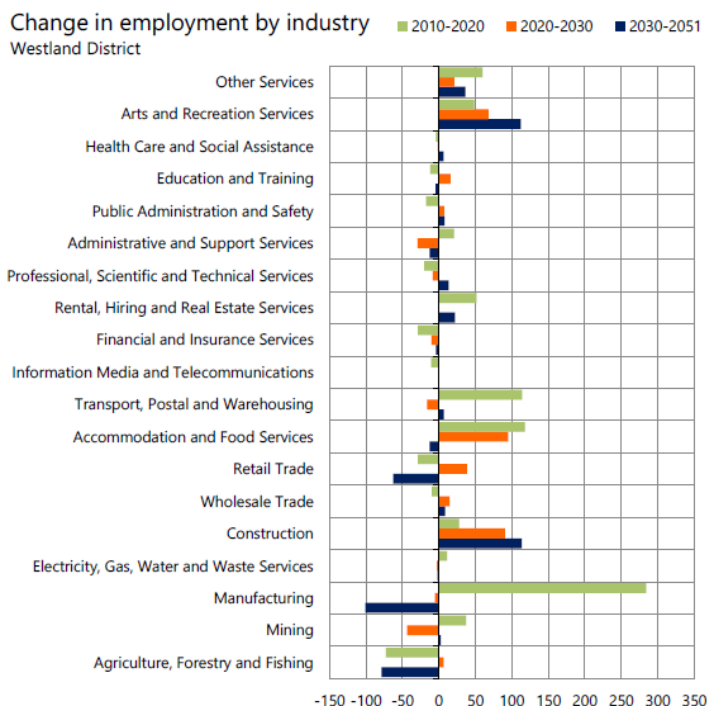


Source: Infometrics, Development West Coast, MBIE (as at November 2020)

Employment in Westland has been seriously affected by the Covid-19 pandemic due to the District’s reliance on the tourism industry. Infometrics predicts a fall of 16.1% in 2021 with slow short-term recovery. Over the life of the plan, employment levels are expected to grow and return to pre-Covid 19 levels by 2030.

The primary sector is likely to be adversely affected by environmental legislation, which could result in a shift in core industries in the District. With the slow return to tourism, industries such as manufacturing, construction, and arts and recreation services are likely to gain strength. An ageing population is likely to create more demand for healthcare and social assistance, but the longer-term trend for this industry is to be consolidated in Grey District and Christchurch. If aged care facilities are developed in the district this would drive additional growth.

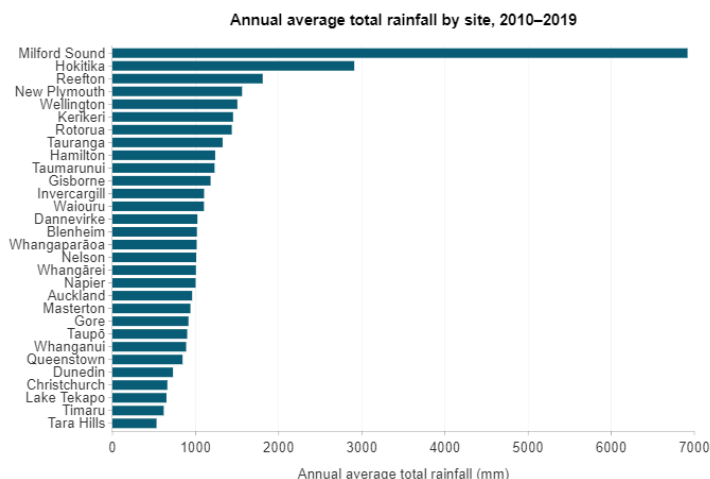
Figure 5: Change in employment by industry 2010 – 2051



Natural Hazards

The Westland District’s physical attractions such as the glaciers, Southern Alps and national parks also tests the viability of townships and can impact the infrastructure. The District is one of the wettest in New Zealand.

Figure 6: Annual average total rainfall



Source: Stats NZ

Coastal hazards

Coastal roads and infrastructure (for example Hokitika waterfront and Revell Street, Okarito and Neils Beach) will face increased risk from coastal erosion and inundation, increased storminess and potential sea-level rise. Council considers coastal hazards and potential climate change impacts / risks when designing new infrastructure. Options are identified for those assets most at risk and Council implements projects on a priority basis as funding becomes available.

Earthquakes, flooding and landslides

The greatest risk to asset performance is natural disasters. Due to location, topography and geology the intensity and number of natural events impacts on the security of our infrastructure network. These factors raise the risk to Westland communities of business and household disruption and isolation. Therefore, improving the resilience of all the infrastructure network and our ability to have back-up systems like generators is a priority to help alleviate some of these potential risks.

Council has identified resilience of our critical infrastructure as a Significant Issue District wide. Current infrastructure resilience initiatives include installing seismic valves at reservoirs, installing generators at critical plant, and updating the telemetry so that real time information is available from across the District.

The Westland area has a major alpine fault running through its region. The Alpine Fault connects two subduction margins where the ocean floor descends into the Earth's mantle. At this point the surfaces of the two plates making up the South Islands alpine fault meet.

The Pacific Plate on the easterly area of New Zealand is moving westwards and the Australian Plate, on the western side of New Zealand moves eastwards. They move at a relative rate of about 45mm per year. As these two plates move against each other enormous pressure builds up which must eventually be released through earth movement. The result is a major earthquake along the Alpine fault. The pressure has been continually building for about 280 years since it was last released by a large earthquake in 1717 AD.

This earthquake is a normal part of New Zealand's evolution. The historical patterns of earthquakes and current research on the Alpine Fault indicate that it is likely to rupture very soon. It is 280 years since the last earthquake. Recent research published in *Nature Geoscience*¹ in April 2021 show the probability of the next large earthquake occurring before 2068 to be about 75 per cent. Modelling shows the next earthquake is likely to be at least magnitude 8 or higher.

With an expected magnitude of 8 (or greater), this will be considered a great earthquake not simply a strong one. The force will result in a horizontal earth shift of up to 8 metres, and a vertical displacement of 4 metres.

The following image shows that all of Westland experiences a pattern of frequent shallow earthquakes (refer to Figure 7).

As a result, Council has identified priority projects for earthquake strengthening of buildings. These earthquake prone buildings are costly to address and take time. The following initiatives that address seismic performance of our buildings are:

- The Museum (Carnegie Building) will be closed from February 2021 for about one year so the seismic strengthening work can be undertaken. Council has recently purchased the Mountain Jade building, which will become the Discovery Centre and accommodate aspects of the Hokitika Museum-. The Carnegie Building will provide a Museum and exhibition space once the works are completed.

¹ <https://www.nature.com/articles/s41561-021-00721-4>

- In 2020 Council Headquarters was assessed as earthquake prone (at 34% IL Level 2). Based on this, Council will invest in bringing the building up to at least 67% IL Level 2. This also impacts Headquarter’s ability to host an Emergency Operations Centre during a Civil Defence emergency (requires 100% IL Level 4).

Figure 7: The pattern of shallow earthquakes in New Zealand

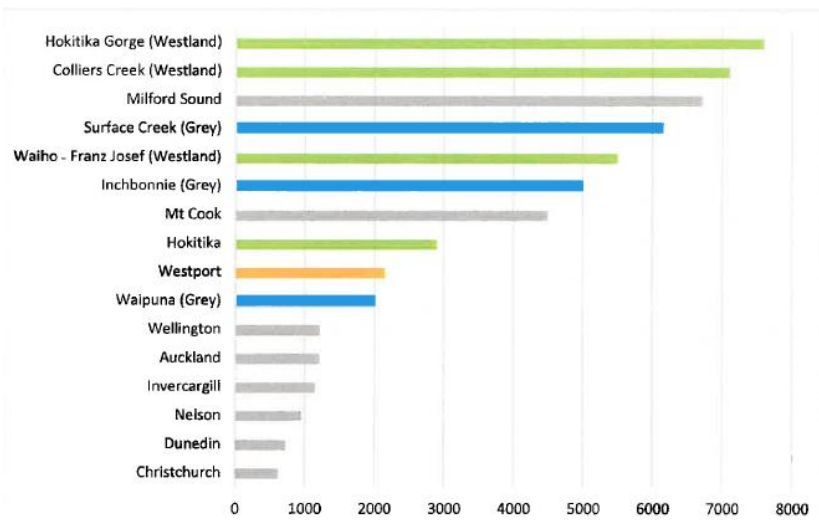


Source: GNS Science

As well as typical annual rainfall, the district is also subject to orographic rainfall, which create large dumps of rainfall in isolated areas or across the District within a very short period of time. This can cause widespread damage mainly to roading and bridges.

Figure 8 shows the annual rainfall of some parts of our District including Hokitika Gorge and Colliers Creek to be approximately 7-8 times the mean annual rainfall of cities like Wellington, Auckland, Invercargill, Nelson, Dunedin or Christchurch. Hokitika receives over 3,000mm of rain annually, Waiho / Franz Josef approximately 5,500mm and Colliers Creek and Hokitika Gorge between 7,000 to 8,000mm annually.

Figure 8: Mean annual rainfall



Sources: NIWA and West Coast Regional Council

Heavy rainfall increases the risk of flooding, erosion and landslides, which is already high in many parts of the region. Many Westland communities are located along narrow coastal and river strips beneath mountain ranges, leaving them exposed to increased risks of storms, flooding and landslides.








Work is underway with master planning to look at the longevity of the Franz Josef township including Council’s infrastructure. West Coast Regional Council is also investing in river protection works to provide a medium-term solution to the flood risk.

Planning for Climate Change

At regional level

Climate change is a major management issue facing all infrastructure providers and the built environment. The major trends expected by 2040 to be as a result of climate change for the West Coast Region are (based the Ministry for the Environment’s website):

Table 4: Regional climate change predictions

Climate aspect	Description and projections to 2040
 Temperature	Compared to 1995, temperatures are likely to be 0.7°C to 1.0°C warmer by 2040 and 0.6°C to 3.0°C warmer by 2090.
 Rainfall	Rainfall will vary locally within the region. The largest changes will be for particular seasons rather than annually.
 Wind	Changes in wind direction may lead to an increase in the frequency of westerly winds over the South Island, particularly in winter and spring.
 Storms	Future changes in the frequency of storms are likely to be small compared to natural inter-annual variability.
 Snowfall	The West Coast region is likely to experience significant decreases in seasonal snow. By the end of the century, the number of snow days experienced annually could decrease by as much as 30-40 days in some parts of the region. The duration of snow cover is also likely to decrease, particularly at lower elevations.
 Glaciers	Overall glacier ice mass has decreased by 25 per cent over the last 60 years in New Zealand and is expected to continue to do so into the future. Some of our most iconic glaciers (such as Franz Josef) have advanced in recent times. This is a result of more precipitation falling at their glacier heads.
 Sea-level rise	New Zealand tide records show an average rise in relative mean sea level of 1.7 mm per year over the 20th century. Globally, the rate of rise has increased, and further rise is expected in the future. The Ministry for the Environment provides guidance on coastal hazards and climate change, including recommendations for sea level rise.

At local and activity levels

Our specific proposed actions are outlined in the following table at activity level for core infrastructure with further detail in each Activity / Asset Management Plan.

Table 5: Proposed climate change actions

Activity	Most likely effect due to climate change	Proposed actions
Drinking Water	<ul style="list-style-type: none"> The current location of the Arahura bore site (as part of upgrade) is located near the coastline and at risk from erosion and salt intrusion. 	<ul style="list-style-type: none"> Exploring relocating existing new Franz Josef township to new location as prone to flooding from the Waiho River and situated in the

	<ul style="list-style-type: none"> The Franz Josef Water Treatment Plant could be from large rock debris when the Waiho River is in flood, washed out or severe earthquake. Ross - The township of Ross has very high groundwater tables and this therefore could pose a risk. 	<p>Alpine Fault Avoidance Zone. This will need a new Water Treatment Plant.</p> <ul style="list-style-type: none"> Explore alternative water sources to increase security and future quantities of supply (may need to be brought forward). This would apply to Ross.
Wastewater	<ul style="list-style-type: none"> The Franz Josef Wastewater Treatment Plant could be significantly damaged (similar to water supply above). Inflow and infiltration increases and reduces pipeline capacity during events resulting in more overflow events. 	<ul style="list-style-type: none"> Exploring relocating existing new Franz Josef township to new location. Implement the inflow and infiltration programme with recent Government funding package to prioritise catchments and to find cost effective methodology.
Stormwater	<ul style="list-style-type: none"> Increased flooding due to pipe capacity issues. 	<ul style="list-style-type: none"> Allow for increase in rainfall intensity when designing new infrastructure.
Land Transport	<ul style="list-style-type: none"> No access to communities and parts of the District cut off due to flooding / bridge damage, particularly Haast to Jackson Bay One of the main resilience issues that the district faces is due to the vulnerability of the transport network. Westland is 350km long and serviced by only one major road, State Highway 6. This leaves the District vulnerable in the event of road closures due to closeness to the coast, steep side slopes, proximity to the Alpine Fault, and crossing many rivers. 	<ul style="list-style-type: none"> Identification of critical bridges and culverts and development of renewal management strategies. Improve the Haast to Jackson Bay route (Special Purpose Road) including strengthening resilience (coastal erosion, rockfall, and flooding), pavements (defects and corrugated sections), and structures (age, pier slumping, structural condition). Haast-Jackson Bay Road is of significant concern and has been impacted by coastal erosion and slips. Improvements to the road have been included in the Regional Land Transport Plan, submitted to Waka Kotahi for consideration.

Aging Infrastructure

Aging, in terms of infrastructure, means the asset is coming towards or beyond the design life expectancy.

Areas of the District have been built over decades, and today there is both underground and aboveground infrastructure which is well past its expected life. As ageing occurs, Council is already seeing an increase in reactive maintenance.

A key challenge for the District is the balance between reactive maintenance, programmed or preventative maintenance, and the inevitable rehabilitation or outright replacement of assets which have both physically and economically run past the point of repair.

There are risks of high running maintenance costs and loss of service through failure of aged assets. A significant portion of the proposed asset renewal programme is aimed ensuring that these risks are mitigated by a continual replacement of assets that have reached an age at which ongoing reliable performance is lost.

Council has historically fallen short in the level of renewals required to keep networks in appropriate condition and performance levels. Within each Activity there is a concentration of age based renewals forecasted. While each activity area has renewals budgeted, the main focus and expenditure within the 3 Waters area will be on renewal of the Hokitika Wastewater Treatment Plant (WWTP). An analysis of age based renewals forecasted versus planned budget is covered in the condition and performance section of this document.

Table 6: Assets at end of design life by 30 June 2022

ASSET TYPE	% of Total Amount at the end of design life as at 30 June 2022	
	District Wide	Hokitika
Water Lines	10.4%	8.3%
Water Plant	13.6%	
Wastewater Line	5.7%	0%
Wastewater Pant	27.0%	
Stormwater Line	7.5%	
Stormwater Plant	15.4%	

Over the last three years, data integrity has been improved and Council is committed to continuing to improve the quality of its asset data over the next 30 years. Provision has been included in the infrastructure budgets over the next 10 years to conduct a physical stocktake of assets to review their condition.

The first 10 years of Council’s Infrastructure Strategy is based on carrying out upgrades and enhancements previously identified. The focus over the next two decades will primarily be undertaking risk based renewals based on evidence (using condition and performance data collected), with the exception of Franz Josef services (relocation of township).

Table 7: Spending on renewals Years 1 - 30

Asset	Renewals spend in years	Renewals spend in years	Renewals spend in years
	1 – 10 \$000	11 – 20 \$000	21 – 30 \$000
Stormwater	3,042	498	620
Drinking Water	10,996	4,941	6,024
Wastewater	19,154	1,523	1,893
Bridges & Structures	8,099	8,943	11,117

Whilst our intention is to decrease the backlog of ageing assets, Council believes that our first priority is to our environmental, public safety and legal compliance. The three waters assets’ capital works programme over the next 10 years brings us up to our compliance requirements and improves future capacity and resilience for our communities. Once this programme of works has been completed, Council will then be in a position to invest heavily in the ageing assets and bring them up-to-date. The risk of not completing asset renewals when they fall due is the potential for increased maintenance costs, asset failures and service interruption. Council will monitor asset performance closely to mitigate this risk and actively maintain the asset to prevent breakdowns.

Over the 10 years of the Long-Term Plan, Council’s level of funding is ahead of the planned renewals due to significant Government subsidies, which will result in saving the depreciation funding otherwise tagged for certain renewal projects. Council therefore is building up the financial capacity to react if significant breakages occur. As Council gains better information on asset condition, it will always revisit renewals annually. Better information for some areas may be able to be obtained sooner, however some areas e.g. stormwater infiltration/inflow can take years to fully map out the effects. While the LTP forecasts primarily reflect an age-based analysis, and are not based on detailed condition assessment, Council’s overall approach is to continue to clear the renewals arrears over the 30 years of the Infrastructure Strategy.

In the short to medium term, there are increased risks of asset failures leading to service interruptions. Council will minimise the impact of these risks by:

- Monitoring asset performance and taking appropriate action when and where issues are identified.
- Undertaking a programme of inspections to build up knowledge of the condition of asset and supplement this information by analysing the performance and failure of assets.

- Developing a risk-based programme of renewals which brings forward asset renewals with the highest risk and greatest significance if they fail.
- Continuing to fund the depreciation on these assets so that a sustainable financial base exists for the long-term renewal of assets.
- Build capacity within the organisation to deliver asset planning and carry out the increased levels of renewals required to maintain the assets.

Regional Collaboration

Regional collaboration and maintaining relationships are essential for Westland District Council particularly as remote community, responding to legislative changes as well as connecting with iwi, Government agencies and neighbouring councils. The key strategic relationships are summarised in the following table.

Table 8: Summary of key strategic relationships

Strategic Relationship	Discussion and purpose
Other West Coast District Councils	<ul style="list-style-type: none"> • Buller, Grey and Westland District Councils work together on various initiatives at mayoral, Chief Executive and Group Manager levels • Current initiatives include: <ul style="list-style-type: none"> ○ Three water model on response to the pending reforms ○ Regional Land Transport Activity Management Plan ○ Investigating Butlers Landfill as regional facility ○ Development of regional Waste Management and Minimisation Plan.
Department of Conservation	<p>Te Tai Poutini (Westland National Park) is over 80% of the West Coast region. The region has plenty of day walks and tramps to enjoy and is a major attraction for visitors. Council coordinates with the Department of Conservation cycle trails and walkways including the West Coast Wilderness Trail (starts in Greymouth and finishes in Ross).</p>
Iwi	<p>Increasingly, legislation requires a greater role in the governance or decision making for local iwis about key assets such as water. Major infrastructure projects require significant input from iwi to ensure cultural considerations are understood and provided for, alongside other factors.</p> <p>For three waters, all persons and functions under the Water Services Bill must give effect to Te Mana o te Wai, this includes suppliers, territorial authorities, and regional councils. Taumata Arowai (the new water regulator) is also required to give effect to Te Mana o te Wai.</p> <p>A partnership agreement has been established between Te Rūnanga o Ngāti Waewae, Te Rūnanga o Makaawhio and Council. The agreement allows for participation in Council decision-making. Two chairs have been appointed to attend and participate in Council meetings.</p> <p>The goals of the partnership are:</p> <ul style="list-style-type: none"> • To provide a framework for the parties to work together toward improving Westland • To provide mechanisms and resources that assist Poutini Ngāi Tahu Papatipu Rūnanga to participate in Council policy, planning, and other decision making processes • To facilitate the sharing of information to build a better understanding that enhances collaboration and strategic thinking about Westland’s future • Identify strategic opportunities to work closely together for the betterment of Westland District • Build iwi capacity and capability to partner with local government.
West Coast Regional Council	<p>Council works with the Regional Council mainly in the following areas:</p> <ul style="list-style-type: none"> • Land transport activity to give effect to the strategic priorities in the Government Policy Statement particularly for promoting mode of transport choices • Flood control. The majority of stop bank and flood control assets in the region are owned by the Regional Council. The effective function and integrity of these flood control assets are critical for the safety and prosperity of our townships, particularly Franz Josef.

- The Regional Council issues resource consents for land use activities in our District such as mining and farming. Westland District Council also seeks resource consents for our infrastructure activities including three waters and landfills (operational and closed).

Waka Kotahi	<p>Waka Kotahi is Council’s funding partner for the land transport activity. Council has been successful in increasing the subsidy rate from 59% to 62% (from 2021/22) to reflect the District’s needs.</p> <p>Council and Waka Kotahi need to work together so that the local and state transport networks are integrated and undertake planning for transport needs as well as in emergencies.</p> <p>Council must also give effect to Waka Kotahi vision and other key planning processes and documents including the Government Policy Statement and Regional Land Transport Programme.</p>
--------------------	---

New Technology

Communications

A significant technology shift for Westland District is the deployment of broadband and mobile connectivity programmes. Being a remote district, this technology rollout is mission critical so that Council can access data for delivering our infrastructure services, be attractive for tourists and allow businesses to operate nationally and internationally. It also enables all of our communities to thrive.

Key initiatives of the broadband and mobile connectivity programmes are:

- Provide Ultra-Fast Broadband across the district.
- Reduce mobile black-spots in tourist locations and remote rural areas.

Improving asset knowledge

Advances in technology can potentially impact the demand for water related services, such as:

- Improved tools for understanding the capacity of water and sewerage systems and / or the environmental effects. This may provide better information that guides where new development is allowed to occur.

Significant Assumptions and Risks

This strategy is based on the following assumptions:

Table 9: Significant assumptions

Significant assumptions	Risk and impact	Risk level	Mitigation
<p>Population change</p> <p>The population of the District will remain statics.</p> <p>The make-up of our population base is expected to change, with the elderly population increasing and more ethnic diversity of those living in Westland expected.</p> <p>The population statistics used are based on Statistics New Zealand medium growth forecast.</p>	<p>Population growth is significantly higher than forecast in a localised area, putting pressure on infrastructure. Or population significantly declines resulting in under-utilisation of infrastructure.</p> <p>Uncertainty with COVID-19 impacts particularly in the medium to long term including the impact on our district’s population and any demographic changes.</p>	Medium	<p>Council take into account population changes when planning and reviewing infrastructure development.</p> <p>Council will continue to monitor and update as things change at District level and regionally.</p> <p>Generally, small changes in population can be managed within the existing level of service.</p>
<p>Tourism</p> <p>Border restrictions remain in place for an extended period (up to 18 months). The Trans-Tasman bubble does not start until 2022 (Australians traditionally make up the greatest portion of international travellers to Westland).</p>	<p>That projected tourism rates are significantly higher or lower than expected.</p> <p>Significant drop in revenue in the tourist areas and associated service industries for international tourists. This will be somewhat offset from Trans-Tasman bubble and increase in domestic tourist market.</p>	High	<p>Council will continue to monitor tourism growth and economic indicators provided by external agencies such as Infometrics.</p> <p>Council will work with Development West Coast and other agencies to determine proactive engagement with key stakeholders to mitigate economic impacts.</p>

<p>In the short to medium term international tourism will remain low. Domestic tourism will support an increase in tourism particularly in Northern Westland, but not to pre-Covid 19 levels.</p>			
<p>Inflation The 2021 Long Term Plan is based on the BERL's Local Government Cost Adjustor Forecasts for three scenarios with due to the COVID-19 impact. The stalled rebuild scenario has been used as best reflects Westland's District with higher reliance on tourism and shrinking population. The Local Government Cost Indicator (LGCI) annual changes are:</p> <ul style="list-style-type: none"> • 2019 – 3% • 2020 – 2% • 2021 – 0% • 2022 – 2.4% • 2023- 2.3% • 2024 – 2.2% • 2025 – 2.2% • 2026 – 2.3% • 2027 – 2.1% • 2028 – 2.2% • 2029 – 2.2% • 2030 – 2.3% • 2031 – 2.1%. 	<p>It is difficult to predict accurately the impact of COVID-19 on the local economy. However, Council will continue to monitor the key attributes impacting our communities.</p>	<p>High</p>	<p>Council will review its budget annually through the Long Term Plan / Annual Planning process and may adjust work programmes / budgets where necessary. Council will continue to monitor economic indicators provided by BERL.</p>
<p>Climate change Climate change will impact on the Council's operations in the medium to long term and will require an appropriate response to adapt and prepare for potential impacts. Long term impacts are considered with building infrastructure assets.</p>	<p>The effects of climate change are more severe than expected, resulting in additional costs to mitigate impacts and increasing damage to Council infrastructure.</p>	<p>Medium</p>	<p>Council activities will build appropriate mitigation responses into infrastructure development. Council will continue to monitor climate change science and the response of central government, and adapt its response where required.</p>
<p>Natural hazards The Westland District has within it's geography significant exposure to natural hazards, and this is considered when investing in the capital programme. All projects are assessed based on the resilience of the critical assets as part of the full project. Council does not budget for specific natural disaster events. Instead, our focus is on ensuring our assets have capacity to mitigate impacts.</p>	<p>Natural disasters may occur that have a significant impact on Council services resulting in unbudgeted costs beyond the capacity of the Council to cope.</p>	<p>High</p>	<p>Council has a Civil Defence Emergency Plan that will be implemented in the event of an emergency. Council has comprehensive insurance, but will also be seeking government support in the form of a Disaster Relief Fund for the replacement of infrastructure assets in the event of a natural disaster. Capital improvement projects are identified in the Activity / Asset Management Plans to strengthen the resilience of our critical assets.</p>

<p>Costs Capital expenditure estimated costs are based on Council's best estimates and known planned expenditure.</p>	<p>Capital expenditure varies from budget. There may be increased operation and maintenance costs associated with maintaining assets that are beyond their useful life. Covid-19 is impacting on the supply chain for aspects of sourcing materials. This may inflate costs yet to be quantified.</p>	<p>Medium</p>	<p>Council will review its budget annually through the Long Term Plan / Annual Planning process and may adjust work programmes / budgets where necessary.</p>
<p>Funding sources Funding sources (including external funding sources) do not materially change over the life of this Infrastructure Strategy. Council will continue to seek external Government funding and other sources (e.g. Development West Coast) as it becomes available.</p>	<p>Levels and sources of funding differ from that forecast resulting in projects being revised or alternative funding sources used.</p>	<p>Medium</p>	<p>Funding for projects and assets is considered before the commencement of each project or asset. A significant impact from changes in funding or funding sources may result in revised capital works programme.</p>
<p>Availability of contractors and materials Contractors and materials will be available to undertake the work required to agreed standards, deadlines and cost.</p>	<p>Projects could be delayed if there is a shortage of contractors or materials or contractors may not deliver to agreed standards, budget and timeframe.</p>	<p>Medium</p>	<p>Spread projects as much as possible and continue to engage with local contractors. Ensure robust contracts are in place. Undertake shared procurement with other West Coast councils as much as practical.</p>
<p>Service levels Service levels remain unchanged except where stated as projects or changes required by funding partner Waka Kotahi, or Taumata Arowai.</p>	<p>Significantly enhanced service levels are demanded by the community or imposed by the government. This will lead to additional cost and / or resourcing requirements.</p>	<p>Low</p>	<p>Council regularly monitors existing service provision within its operation on a day to day basis. Minor changes may be made to service levels where budget, contracts and resources allow. Participate in industry forums to provide input into any significant service level changes for a small, remote district council. Major changes in service levels will be confirmed with the community via consultation and will generally require and increase to fees or rates.</p>
<p>Asset Condition Asset condition and performance data is accurate, except where improvements to data collection and monitoring have been identified.</p>	<p>Asset data is inaccurate, leading to more / less assets needing to be renewed or timing or renewals is incorrect. Critical assets fail before they are scheduled for planned renewal. This may lead to a loss of service for a period of time.</p>	<p>Medium</p>	<p>Implement asset management improvement plan to ensure timely renewal intervention in accordance with good asset management practice. Review planned renewals through the Annual Planning process. Focus of asset management improvements are for critical assets.</p>
<p>District boundaries There will be no change to District boundaries.</p>	<p>Amalgamation will be forced onto local councils.</p>	<p>Low</p>	<p>Early and ongoing communication between councils to understand the impact of this prior to it happening.</p>
<p>Three water reform Council assumes that the Government will proceed with the water reform programme</p>	<p>Council will continue to work with other West Coast councils on regional aggregation model as best meets our community needs and keeps it local.</p>	<p>High</p>	<p>Council will keep up to date with the Government's proposed water reform programme. Council will submit on the Water Services Bill to ensure Westland District's community needs are considered.</p>

including aggregating and forming water entities.			
Resource consents Resource consents will be obtained with acceptable conditions, and expiring resource consents will be renewed with similar conditions during the period of the Infrastructure Strategy.	Resource consent is not obtained or renewed, or conditions imposed are unacceptable. This would have significant impacts on costs and the ability to provide that activity / infrastructure. A major non-renewal may mean an entirely new approach may be required and may delay projects.	Medium	Appropriate planning for resource consent applications / renewals should ensure that they are obtained. Monitoring of compliance with existing resource consent conditions will provide a compliance for future processes. The renewal of consents is dependent upon the legislative and environmental standards and expectations that exist at that time.

How Our Infrastructure is Managed

Strategic Statements

Council will follow the Strategic Statements to guide decision-making over the next 30 years. This is additional to complying with the relevant New Zealand legislation. These statements have been developed through Council workshops and adopted by Council. The following table outlines the Strategic Statements and shows the alignment with the Community Outcomes.

Table 10: Strategic statements

Strategy number	Strategic statements	Community Outcomes
1	Involving the community and stakeholders.	Resilient Communities
2	Delivering core services that meet community expectations and demonstrate value and quality.	Resilient Communities
3	Grow and protect our communities, our economy and our unique natural environment.	Diverse Economy and Sustainably Managed Environment
4	To provide mechanisms and resources that assist Poutini Ngāi Tahu Papatipu Rūnanga to participate in Council policy, planning, and other decision making processes, as set out in the partnership agreement.	Resilient Communities

The model for the future development and evolution of the Infrastructure Strategy is shown below and includes:

- The development of the Infrastructure Strategy is owned by District Assets but involves a wider stakeholder group i.e. finance, IT, planning and external consultants. The Capital Projects and Tenders Committee is the vehicle for reviewing and revising based on the best information available. The forum meets monthly to review progress of current projects and planning for future projects.
- The Infrastructure Strategy will evolve in a continuous cycle of review and improvement so that quality of output matches the changing needs of Council. Workshops with Council members sets the direction for management to follow. It is critical that any change of leadership or membership of Council does not undermine the planning process.
- Normally each review will take twelve months but can be initiated sooner if requested by the Council due to significant district or legislative changes.

Figure 9: Strategy review process



Applying Strategic Statements to Infrastructure Planning

Statement 1: Involving the community and stakeholders

To support this strategic statement:

- All people feel valued and supported within a caring community.
- Strong relationships between people from different cultures, communities and organisations build a united community.
- The place of Māori is recognised and respected. The Treaty of Waitangi is recognised and respected.
- The goals of Poutini Ngāi Tahu (partnership agreement) are committed to and embedded in the ways our infrastructure assets are managed.
- People from all sectors of the community are able and encouraged to contribute to their communities.
- Cooperation, collaboration and coordination between agencies, organisations and councils occur to avoid duplication of resources, minimise regulation and promote a consistent focus.

Statement 2: Delivering core services that meet community expectations and demonstrate value and quality

To support this strategic statement:

- Getting the funds required for upgrades of ageing or obsolete infrastructure, and for increased infrastructure to meet increased levels of service and growth.
- Identifying what infrastructure is important to the community and to meet the Council's legislated obligations, Council's levels of service have been developed to help define and identify the key strategic priorities around our infrastructure.
- Apply community considerations and expectations in decision making on infrastructure.
- Ensuring core services enable the community and the environment to be healthy.
- Ensuring core services enable our district to develop, grow and prosperous.

Statement 3: Grow and protect our communities, our economy and our unique natural environment

To support this strategic statement:

- Resources are used sustainably, developed and protected.
- The District's natural features and landscapes are understood, valued, maintained and enhanced for future generations.

- Built environments and amenities are of a high standard and contribute significantly to the well-being of people and communities.
- People are valued and their contribution to the economic, cultural, environmental and social well-being of the region is recognised and supported.
- Sustainable development is encouraged.
- Kaitiakitanga (the protection and management of the environment) is understood and valued.

Statement 4: To provide mechanisms and resources that assist Poutini Ngāi Tahu Papatipu Rūnanga to participate in Council policy, planning, and other decision making processes, as set out in the partnership agreement

To support this strategic statement:

- Established a partnership agreement between Te Rūnanga o Ngāti Waewae, Te Rūnanga o Makaawhio and Council.
- Enables participation in Council decision making.
- The two appointed chairs attend and participate in Council meetings.

Infrastructure Condition and Performance

Core Infrastructural assets

The core Westland District Infrastructure Assets and their age-based condition are shown in Table 2. The following describes their condition assessment.

Table 11: Age-based infrastructure condition assessment

Assets	Sub Group	Geographic Area	Age-Based Infrastructure Condition				
			Very Poor	Poor	Average	Good	Excellent
Water	Pipelines	Arahura				99.7%	0.3%
		Fox Glacier		11%	1%	83%	5%
		Franz Josef		14%	20%	51%	15%
		Haast			0.2%	96%	3.8%
		Hari Hhari			0.5%	98.7%	0.8%
		Hokitika (includes Kaniere)	2%	11%	12%	62%	13%
		Kumara		10%	10%	72%	8%
		Ross	6.4%		5.3%	88%	0.3%
		Whataroa			0.3%	99.6%	0.1%
Water	Treatment Plants, Pump Stations & Reservoirs	Arahura	15%	23%	24%	38%	
		Fox Glacier	54%		14%	29%	3%
		Franz Josef	9%	4%	7%	78%	2%
		Haast	26%	2%	12%	48%	12%
		Hari Hari	6%		65%	29%	
		Hokitika (includes Kaniere)*	6%	17%	36%	37%	4%
		Kumara	16%		42%	42%	
		Ross	5%	5%	26%	59%	5%
		Whataroa	25%	13%	12%	25%	25%
Water	Fittings	Arahura				100%	
		Fox Glacier	31%	1%	7%	59%	2%
		Franz Josef	44%	4%	4%	35%	13%
		Haast	3%	63%		14%	20%
		Hari Hari		70%		30%	
		Hokitika (includes Kaniere)	14%	9%	18%	38%	21%
		Kumara	3%	22%	11%	61%	3%
		Ross		53%	4%	42%	1%
		Whataroa				100%	
Wastewater	Pipelines	Fox Glacier		76%	1%	22%	1%
		Franz Josef		50%		41%	9%
		Haast			62%	23%	15%
		Hokitika (includes Kaniere)		64%	4%	23%	9%
	Treatment Plants & Pump Stations	Fox Glacier	20%	50%	20%	10%	
		Franz Josef					100%
		Haast	23%	8%	46%	23%	
	Manholes & Flush Tanks	Hokitika (includes Kaniere)	33%	11%	23%	30%	3%
		Fox Glacier		16%	84%		
		Franz Josef			62%	38%	
Stormwater	Pipelines	Haast			3%	91%	6%
		Hokitika (includes Kaniere)	1%		72%	21%	6%
		Fox Glacier			22%	77%	1%
		Franz Josef			26%	69%	5%
					98%	2%	
				97%	3%		

	Hokitika (includes Kaniere)	0.1%	75.4%	17.5%	7%
	Kumara		90.1%	9.4%	0.5%
	Ross		77%	23%	
	Whataroa		91%	9%	
Pumpstations	Hokitika	15%	3%	34%	48%
					15%
Manholes	Fox Glacier		33%	67%	
	Franz Josef		25%	75%	
	Haast		100%		
	Hari Hari		100%		
	Hokitika*		66%	20%	14%
	Kaniere*		100%		
	Ross		100%		
	Whataroa		100%		

NB1: Categories are based on age-related information. For example, very poor is the oldest infrastructure.

NB2: A high proportion of assets in the treatment plant category are rated “very poor” due to the design life of several components being short i.e. 5 – 10 years. This does not mean that the overall treatment plant is running beyond its design life. The exception to this is the Arahura and Fox Glacier plants, which are currently being upgraded.

The current state of our infrastructure assets in terms of condition and performance is summarised by activity below. Further details are provided in relevant Activity Management Plans.

Over the past few years, some proactive renewal projects have not been undertaken, which has now caused or will cause a backlog in renewals. In most cases, especially line renewals, it is unrealistic to replace all assets that are due to be renewed when their design life expires. With this in mind, Council has tried to reduce the impact of a back log by doing proactive renewals.

With a better resourced team, we can focus more on condition assessment of assets to programme renewals in the areas most needed. With the 3 waters reform funding, Council has projects for CCTV work on all our wastewater infrastructure. This will enable us to obtain a more accurate condition rating and prioritize renewals.

Drinking water

The condition rating for drinking water assets is currently based on age for about 98% of the assets, and not on visual site assessment. The condition rating of the drinking water pipeline assets is detailed in Table 11 above. Site verification will investigate the assets initially assessed as poor.

Overall, most of Council’s drinking water pipelines are made of plastic pipes (either PVC (62%), polyethylene (PE) (18%)) and are considered relatively young. There is still asbestos cement pipelines (11%) and indicative of the problematic pipe materials that are known to fail. These assets will need replacement in the short to medium term. There is a replacement programme in place to address the asbestos concrete pipelines. Most unplanned pipe repairs are generally on old asbestos cement pipes and therefore the asset performance of these assets is considered poor. Where major critical asbestos cement pipes have been identified, these have been prioritised for renewal.

It is intended to verify the asset condition with additional internal resources. The initial focus will be on the critical drinking water (above ground) assets. Common industry practice is to survey asset condition about every three to five years. For below ground drinking water assets, condition is assessed through analysing break data. These practices still need to be adopted and implemented and identified as improvement actions.

Figure 10: Water line renewals based on age versus planned budget

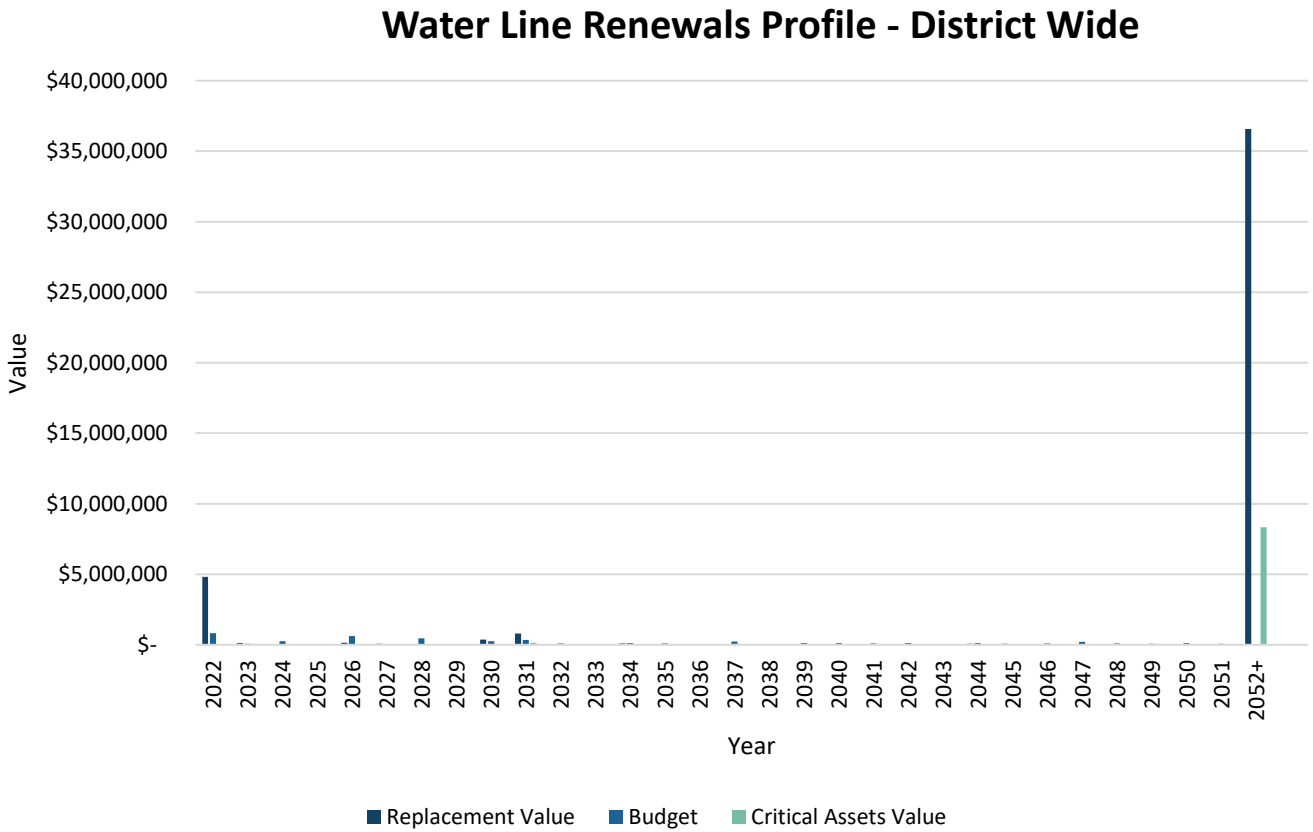
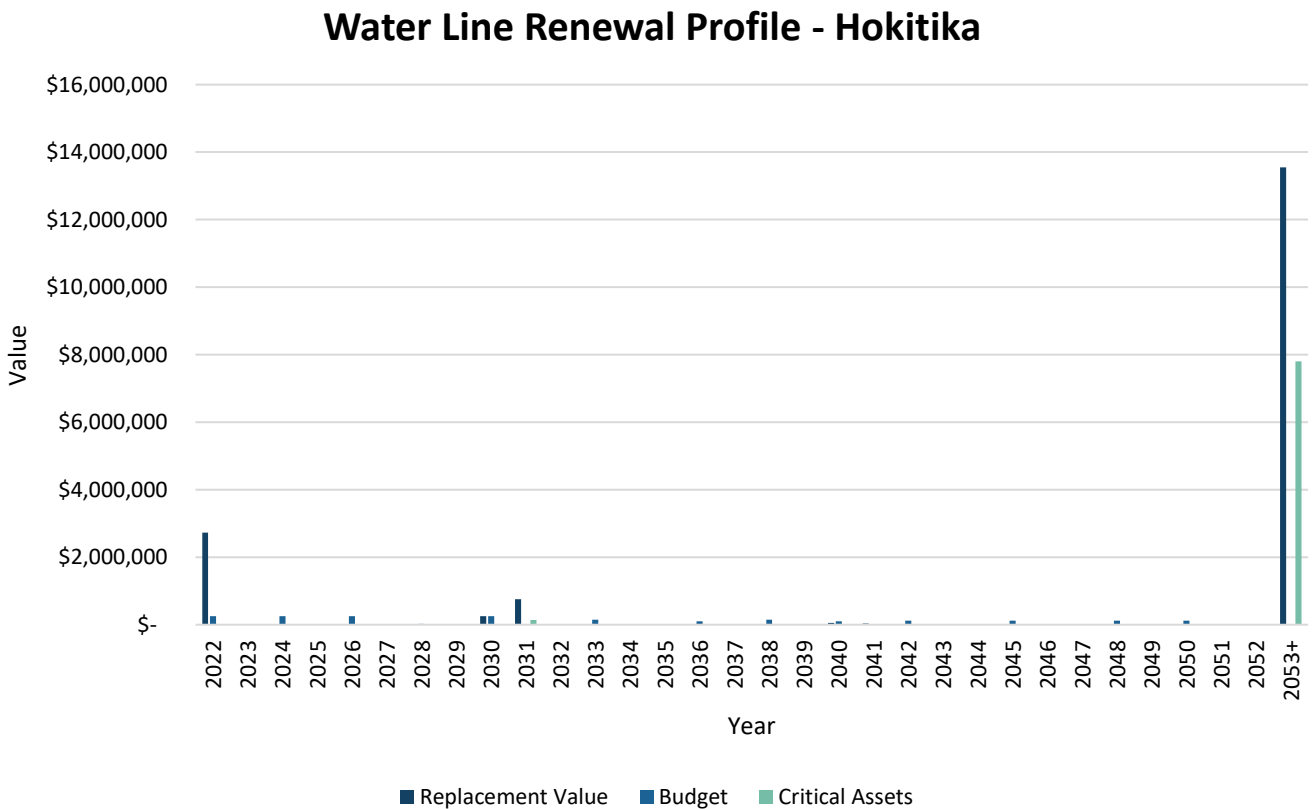


Figure 11: Water Line renewals based on age versus planned budget - Hokitika only



Asset performance of Council’s drinking water network is assessed in terms of water leakage and water quality as follows:

- Water quality - Council has a suite of plans and processes to provide assurance that it is providing safe drinking water. These include the Water Safety Plans, operating procedures, and operations and maintenance manuals for the treatment plants.
- Council’s water quality is measured monthly against the mandatory performance measures and reported in the Annual Report. Council wishes to focus on achieving the mandatory performance measures. Meeting the mandatory performance measures for drinking water quality is a challenge as a small and remote district council.
- Water leakage - Water loss can happen for a range of reasons, including leaks and breaks in the network and this results in Council treating more water than is needed.

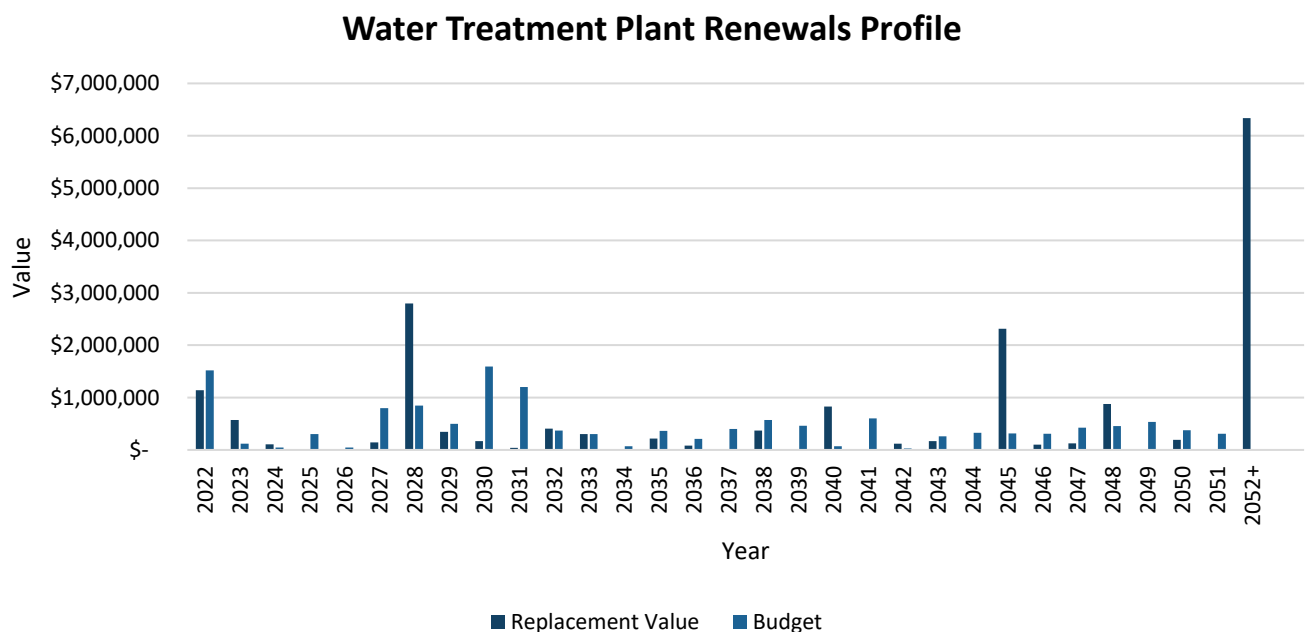
Council has not historically directly measured the percentage of real water loss (i.e. leakages) from its networked reticulation system due to the associated costs and resourcing needed. Council has budgeted for and recently installed some water meter devices at the water treatment plants and reservoirs to better measure for losses.

Real water loss is mandatory performance measure but is not currently measured. It is monitored in a number of ways including telemetry, water meters, repair programme, mains replacements and pressure management.

In response, Council has identified future improvements so it can report on real water losses:

- Set up the methodology for real water loss from Council’s networked reticulation system. Set targets and start monitoring.
- Set up the measurement systems for the two environmental performance measures (leakage and average water consumption) as a priority.

Figure 12: Water Treatment Plant renewals based on age versus planned budget



Wastewater

The existing condition data for wastewater assets is limited and based on reactive surveys and investigations occur in response to an operational issue / incident. With the appointment of a dedicated Asset Management Team, Council intends to get a better understanding of the current state of the wastewater assets. A programme will be developed with a focus on the critical assets.

There are large amounts of asbestos concrete pipes of similar age that might need to be replaced at a similar time, but Council needs to gather evidence to inform the renewal programme. Council is using the Government’s three water reform package to replace three sections of wastewater mains made of asbestos concrete material that have been known to be problematic.

Figure 13: Wastewater line renewals based on age versus planned budget

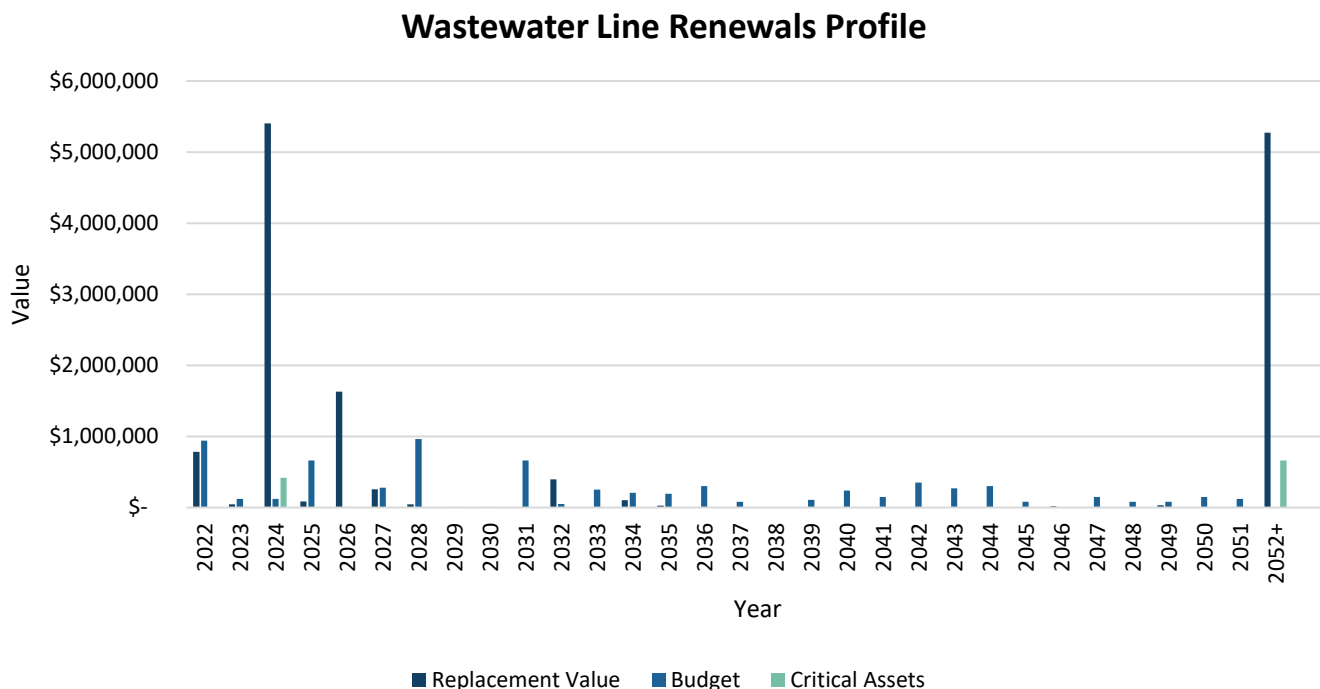
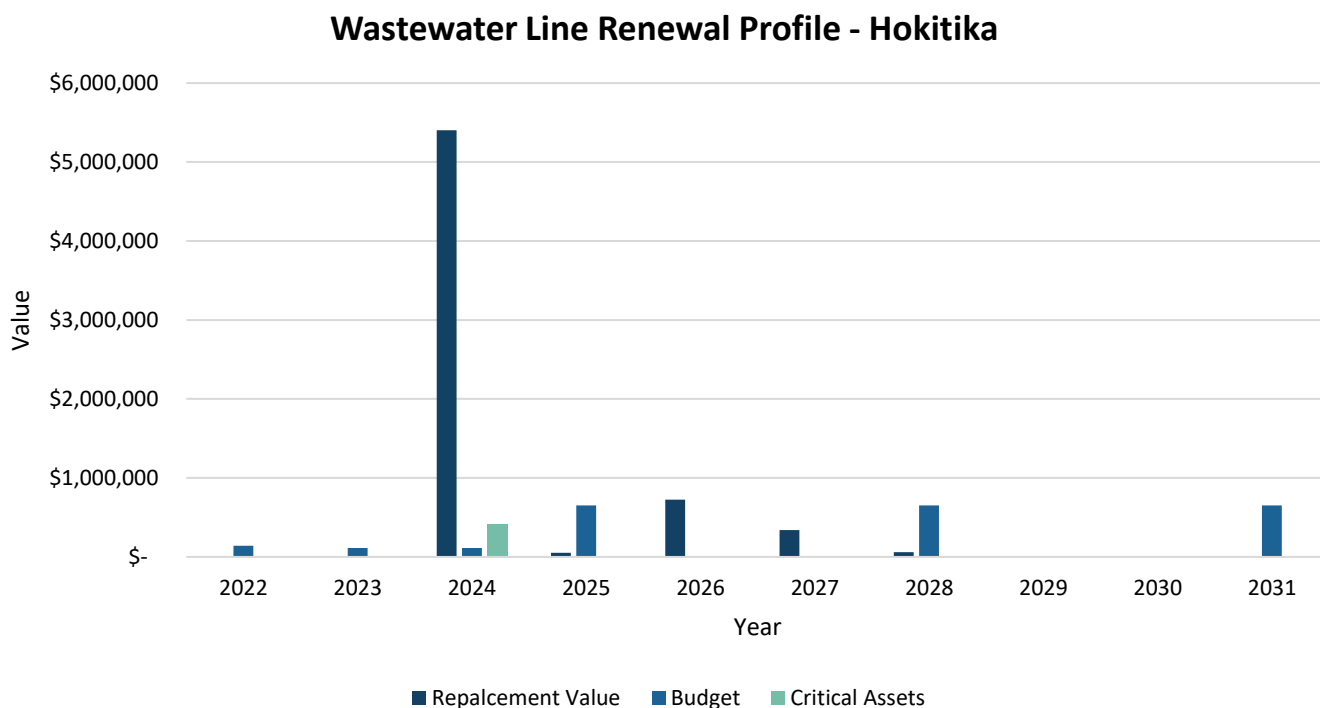


Figure 14: Wastewater line renewals based on age versus planned budget – Hokitika only



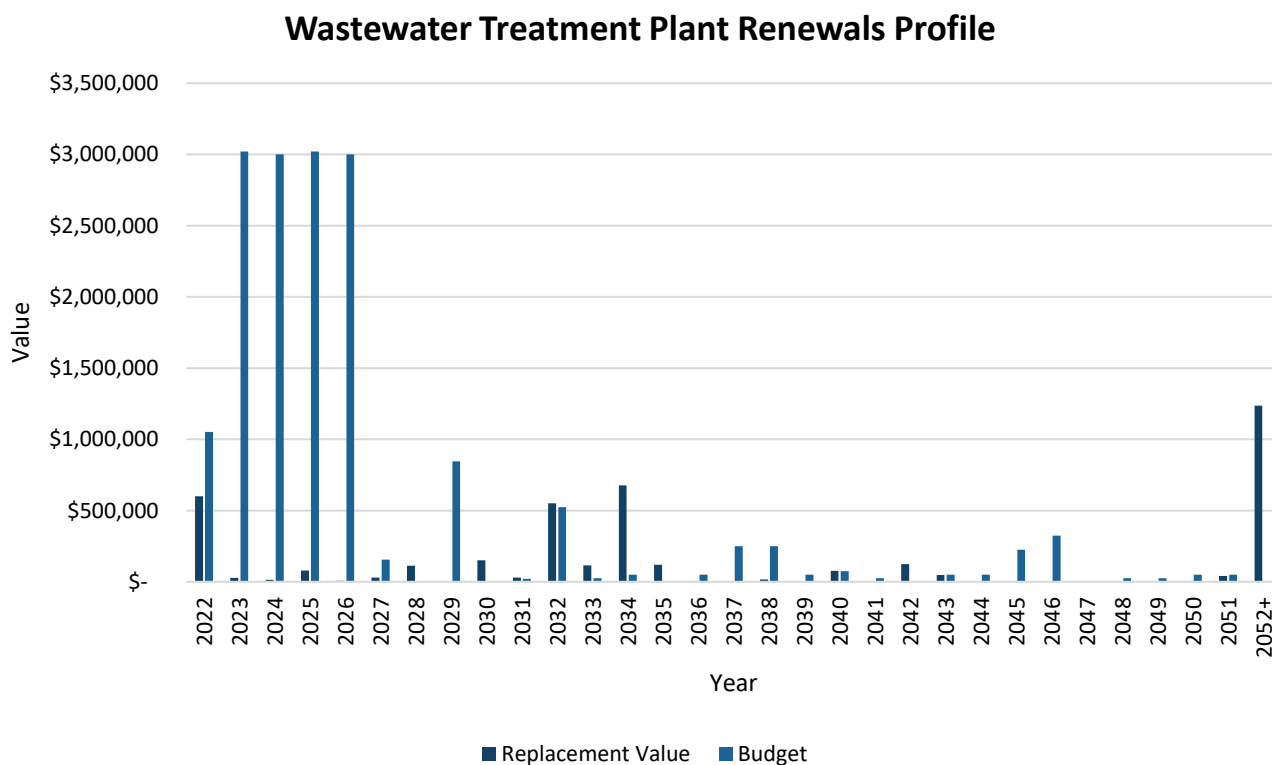
Asset performance of Council’s wastewater network is assessed in terms of overflows and inflow and infiltration as follows:

- Dry weather overflows. A dry weather overflow is an uncontrolled wastewater discharge that is not associated with a rain event. Currently, most of our pump stations are not connected to a monitoring system, however as budgets allow we will improve the number of pump stations on telemetry so that Council can monitor real-time activity and report failures. This will help us to mitigate effectively by preventing dry weather overflows from entering the environment and for reporting to the Regional Council.

Dry weather overflows are reported as a mandatory performance measure and to the Regional Council. Blockage incidences occur from time to time but our asset performance for dry weather overflow events is relatively low (5 in 2019/20 and 12 in 2018/19) and meets industry accepted benchmarks.

- Inflow and infiltration. Operationally some of our catchments are leaky. This is the term used to describe groundwater and stormwater entering into dedicated wastewater system resulting in the system becoming overloaded and overflows occurring. Council has successfully secured external Government funding to undertake an inflow and infiltration study in Hokitika and Franz Josef townships. This funding will target the older areas where inflow and infiltration will likely be higher.

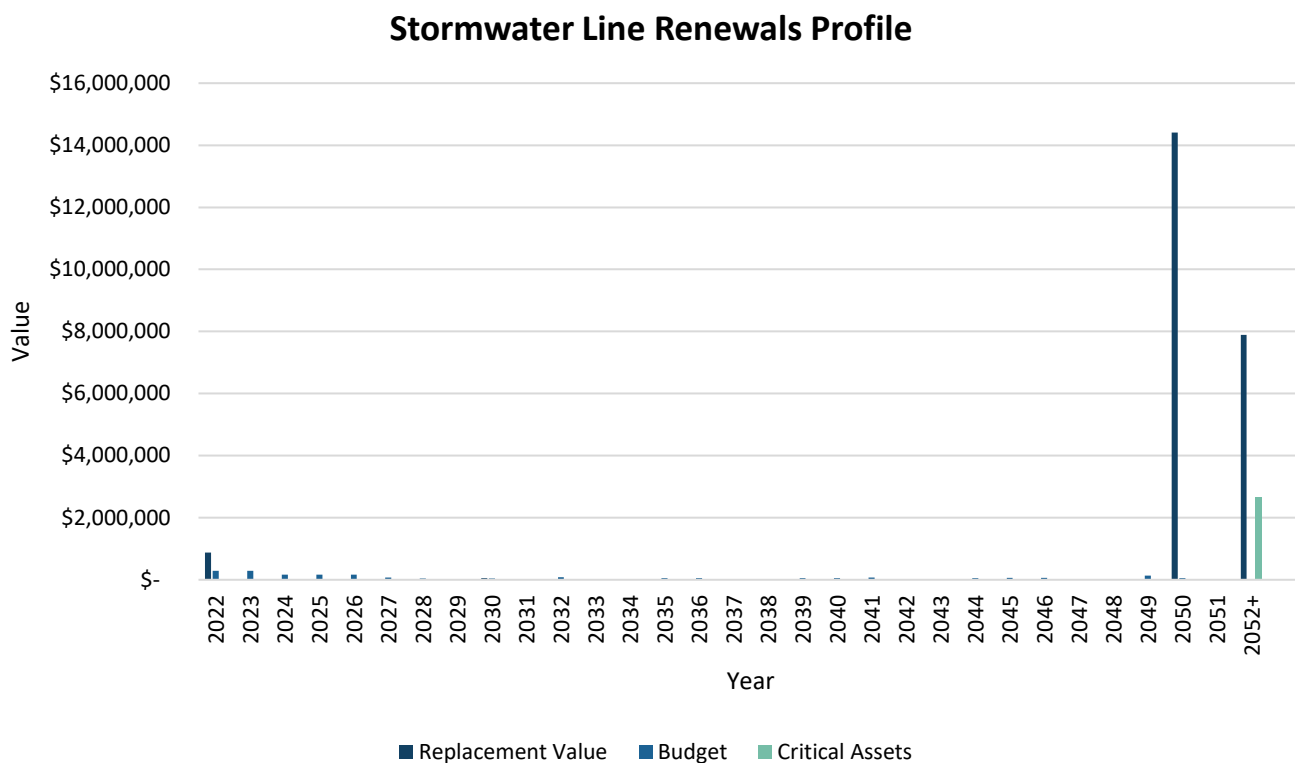
Figure 15: Wastewater Treatment Plant renewals based on age versus planned budget



Stormwater

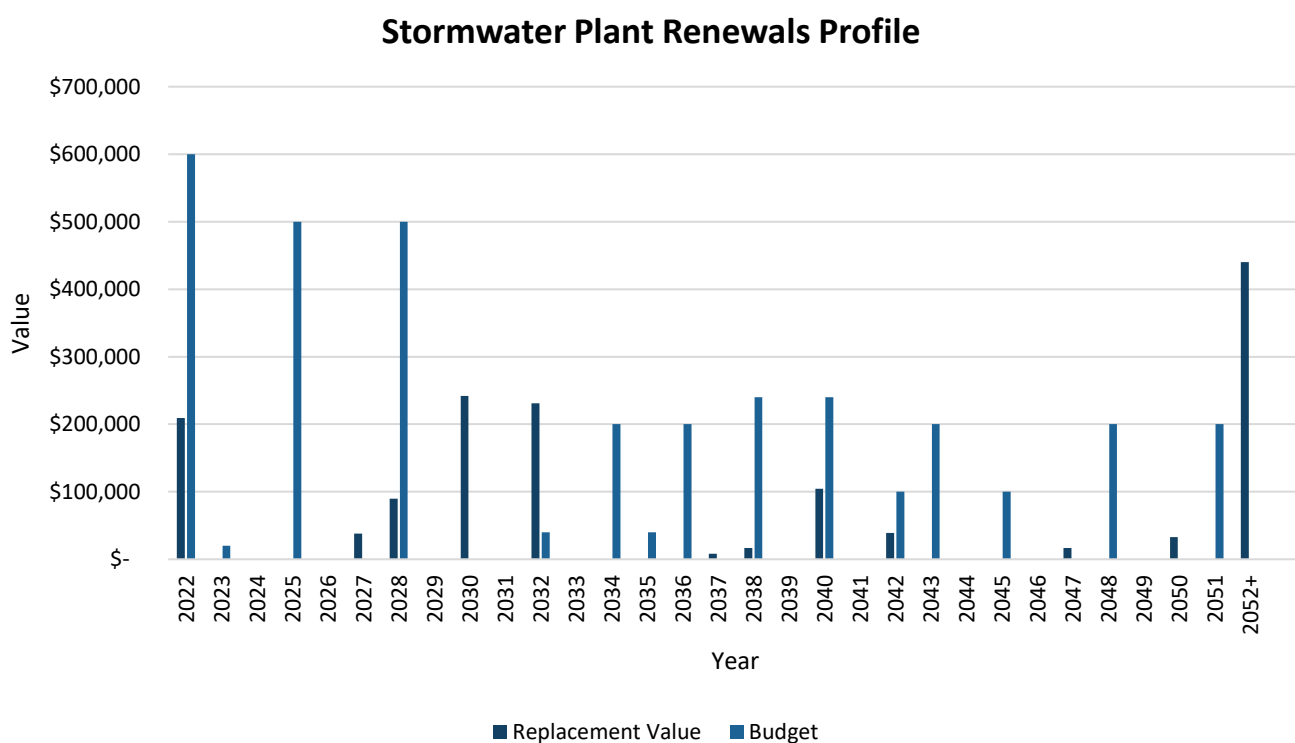
The existing condition data for stormwater assets is reactive (similar to wastewater). The surveys are normally undertaken in response to blockages or understanding the network configuration. A programme will be developed with a focus on the critical assets (similar to wastewater).

Figure 16: Stormwater line renewals based on age versus planned budget



Asset performance of the stormwater network is assessed in term of capacity (flood protection) and stormwater quality. Hokitika can experience significant flooding from heavy rainfall events. Further investment in Stormwater infrastructure within the town centre zone to be completed as per the capital plan.

Figure 17: Stormwater plant renewals based on age versus planned budget



Land Transport

Council provides 691km of roads throughout the District, of which 379km (55%) is sealed and 311km (45%) is unsealed. Council also owns bridges, retaining structures, footpaths, various drainage and other assets that are valued at \$320 million.

Council collaborates with Buller and Grey District for Land Transport activities and have jointly produced a Combined Transport Activity Management Plan (C-TAMP). This plan provides the business case for Waka Kotahi and Council investment in the Land Transport Activity. It is used as a means to obtain funding (in this instance for the next National Land Transport Program (NLTP)).

The Plan presented for partner funding approval from Waka Kotahi is "Preserving Our Assets". This funding model recognises that the existing levels of funding are no longer sufficient to maintain "status quo" in terms of asset condition. It has become necessary to increase investment in several areas in order to preserve the assets and prevent further asset deterioration. This will maintain existing levels of service.

At a regional level there is a commitment between the three territorial authority Road Controlling Authorities to collaborate more over improving the quality of the data held about the three roading networks. This also includes structures such as bridges.

The recent report from consultants, WSP says in general the condition of the roading network itself is fair to good with no major concerns.

Footpaths were historically 100% rates funded and it is an area where there has been significant underinvestment as a result. Waka Kotahi NZ Transport Agency (Waka Kotahi) now recognise footpaths as active transport networks and as such provide subsidised funding for maintenance and renewal activities. This available funding means that Councils actively fund footpath maintenance and renewals to much greater levels than in past. There is somewhat of a backlog in work to be carried out in this area and the investment level increase is slowly correcting this. With an aging population the condition of these assets becomes more important as facilities that provide access networks for the elderly who can no longer drive. Using footpaths helps to keep the elderly active and healthy so improvements in these areas is key.

Other Activities

Buildings

The most recent asset data collection and building assessment audit was undertaken in 2015 by Australis. Their condition rating was on a 0-5 scale with 5 being very good and 0 being demolish (opposite to the International Infrastructure Management Manual). Each building / structure was also rated by importance and functionality to assist in prioritisation. The range of buildings included pensioner housing, community halls, toilets, sports / recreational buildings, arts and culture buildings, operational buildings, emergency facilities and some other buildings. The condition of the asset components is varied, and a condition survey will be undertaken to reassess the portfolio.

Parks and reserves

There has been an improvement to asset management by undertaking a full physical inspection and assessment of the portfolio. The information was captured in spreadsheets and Council is in the process of updating the results into its asset management system (AssetFinda).

External safety audits of Council playgrounds identify a range of risks. It is proposed that these audits continue to be undertaken on a three-yearly basis.

Wilderness Trail

The West Coast Wilderness Trail is made up of 133km of cycle trail between Greymouth and Ross. Part of the trail is located within Grey District Council; however Council is identified as the owner or custodian of the entire trail. The asset data has only recently been recorded into AssetFinda and further validation and input will be completed.

Solid waste

All solid waste assets are adequate for current and future use. Based on visual inspections, the buildings in the portfolio are considered in acceptable condition and generally fit for purpose for the solid waste service.

Remediation of the closed Fox River landfill (with external Government funding) began in 2020 to prevent further impacts from erosion . The performance of the other closed landfills is to be reviewed to ensure meeting consent conditions (ten in total with consents) and protecting site users from operational and closed landfill hazards.

Asset Management Approach

Overall Approach

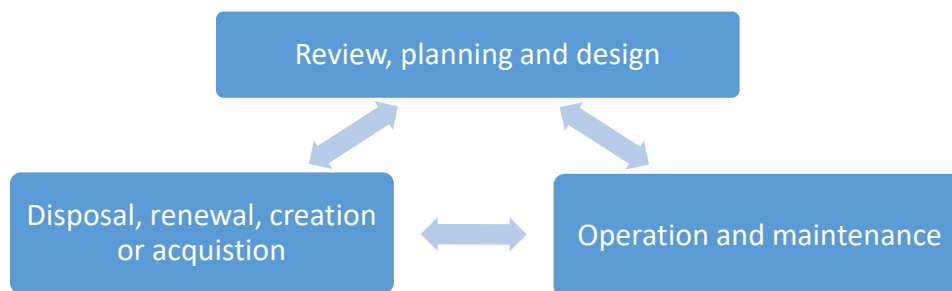
The asset management approach is to apply the principles defined in the Asset Management Planning Policy to achieve the objectives. Figure 18 shows that asset management is the balance between levels of service, risk and cost. This balancing act applies to all asset infrastructure groups.

Figure 18: Asset management balancing concept



The objective of lifecycle management of assets is to meet defined levels of service in a cost effective manner. A lifecycle management plan is a statement of how Council manage these assets for each stage of their lifecycle and includes the required operational and capital expenditure to meet the service levels sustainably, as shown below. The lifecycle management plans are an integral part of the Activity / Asset Management Plans.

Figure 19: Stages of the asset management lifecycle



Whilst this is the desired approach, Council is also constrained by affordability. Council has to consider all its objectives across all its activities when it prepares its budgets. Over the long term Council's aim is to achieve lowest long term costs. However, it has to, as a trade-off across all its activities, accept higher risks and, for instance, increase operational and maintenance costs while it works towards achieving lowest long term costs.

Improving our Evidence Base

To improve our asset management planning, Council has instigated a multi-layered improvement process. New roles of Asset Manager and Asset Engineer have been appointed to introduce an asset management team into the District Assets structure. Work started in July 2020 to prepare Activity / Asset Management Plans. This work was supported by contractors. Asset management inspections are being conducted in parks and reserves with the information and condition rating updated in our database.

Roading assets will continue to be recorded in RAMM and this includes a budget code with Waka Kotahi for asset management, while AssetFinda will continue to be the system for three waters, parks and reserves, buildings and solid waste with some transportation items such as streetlights and culverts.

It is expected that specialist external consultants will continue to support District Assets, as required through these processes.

Asset Renewal

Renewal of existing assets occurs when the asset has reached the end of its useful life and is funded by depreciation. Asset renewal is often required to maintain the existing level of service, and the integrity and value of the assets.

While there is a major upgrade planned for the Hokitika WWTP, the level of service related to this activity, will not change.

A renewals strategy provides for the progressive replacement of existing assets. Council has adopted a risk-based renewal strategy for its core infrastructure assets with the following priorities:

1. Assets that need renewal for safety reasons.
2. Critical assets are renewed proactively before the end of their effective life.
3. Non-critical assets are replaced reactively under a run to failure strategy.

Levels of Service

The mandatory levels of service for Three Waters and Land Transport are set by the Department of Internal Affairs and. Currently Council does not include any extra reporting levels of service over and above the mandatory ones in its KPI's, except for a customer satisfaction in Land Transport. The Activity section LTP details these KPI's and our performance measures against them.

Reliability of Information

Council has made progress to improve its data collection and quality in relation to its assets since the 2018 Infrastructure Strategy and is working with its contractors to further enhance this information. However, there are still varying levels of reliability across the activities covered in this strategy. There is limited information to give certainty to what years 11-30 of the strategy looks like. Whilst Council has improved some data, work continues to fill the gaps to inform the 2024 strategy.

Gaps have been identified in the following areas:

- The extent of the effects of climate change on road and three waters infrastructure.
- The condition of the three water assets.
- The condition of land transport assets.

The data for three waters assets are recorded in Council's asset management system (AssetFinda) for most asset classes. The data confidence of the three waters asset data has been classified as reliable for inventory completeness and age, and uncertain for condition (in accordance with the International Infrastructure Management Manual).

The data confidence of the land transport assets was independently assessed for the 2019/20 year by the Road Efficiency Group. Council achieved an overall score of 49% which is a drop in score from the previous year. The average Road Controlling Authority score was 78% for the 2019/20 year.

In the three areas assessed as part of the quality report:

- Data completeness = 32%
- Data timeliness = 27%
- Data Accuracy = 67%.

Council has recognised the data deficiency and increased the funding for data capture and improvements for the next three years by 15%. Council continues to work with our maintenance contractor and professional services consultants to improve their RAMM delivery reporting.

Critical Assets

Critical assets are significantly important to our community and defined as assets that cannot fail as their failure would result in unacceptable consequences (high consequence of failure).

Three waters:

Drinking water assets have been classified in terms of criticality (or that are significantly important to our community) as very high, high, medium, low and very low. Very high critical assets include major Water mains (300mm in diameter and greater) and treatment plants. This classification applies to wastewater and stormwater assets.

Assets are categorised in our asset management system (AssetFinda) at component level based on the 1 to 5 criticality ranking. This practice is well established criticality is currently not used in the day to day operations mainly due to Contractor not using AssetFinda in the field. This will be a requirement with the new contract. It is intended to use asset criticality in operations as well as asset planning for renewals and new works. It is recognised that it takes time to build internal and external capability.

Very high critical wastewater assets include wastewater mains directly to the ponds, treatment plants and outlet. Very high critical stormwater assets include mains 900mm in diameter and greater, critical assets include mains 450mm to 900 mm in diameter.

Table 12: 3 Waters Critical Assets (Criticality rating 1)

Township	Scheme	Asset	Notes
Kumara	Water	Raw water inlet point	
Kumara	Water	Raw water inlet line	Ø100mm - 125m
Kumara	Water	Water Treatment Plant	Multimedia filters with UV
Arahura	Water	Bore Pump	Currently new bore being developed (010421)
Arahura	Water	Water Treatment Plant	New WTP being built (010421)
Hokitika	Water	Raw water inlet point (Lake Kaniere)	30m out in Lake 10m deep
Hokitika	Water	Raw water inlet (River)	Infiltration gallery
Hokitika	Water	Raw water inlet line (Lake Kaniere)	Ø300-400mm – 12.5km
Hokitika	Water	Raw water inlet line (River)	Ø 400mm – 1.5km
Hokitika	Water	Water Treatment Plant	Membrane filtration with chlorination
Hokitika	Water	Retic over ø300mm	Ø450mm - 2.2km (WMP line)
Hokitika	Wastewater	WWTP	Oxidation ponds
Hokitika	Wastewater	Pump Stations	Sewell St, Fitzherbert St
Hokitika	Wastewater	Line to WWTP	Ø 246 – 350mm – 2.8km
Hokitika	Stormwater	Outlets / Flap Gates	Ø900 +
Hokitika	Stormwater	Mains over ø900mm	Various areas
Ross	Water	Raw water inlet point	Jones Creek
Ross	Water	Raw water inlet line	Ø80 – 100mm – 1.1km
Ross	Water	Water Treatment Plant	Multimedia filters with chlorination
Harihari	Water	Bore Pump	
Harihari	Water	Water Treatment Plant	Single filter and UV
Whataroa	Water	Bore Pump	
Whataroa	Water	Water Treatment Plant	Multimedia filters with UV
Franz Josef	Water	Raw water inlet point	
Franz Josef	Water	Raw water inlet line	Ø 250mm – 835m
Franz Josef	Water	Water Treatment Plant	Multimedia filters with UV & chlorination
Franz Josef	Wastewater	WWTP	Multi pond system with macerator & aeration & disposal field
Fox Glacier	Water	Raw water inlet point	Dam
Fox Glacier	Water	Raw water inlet line	Ø150mm – 37m
Fox Glacier	Water	Water Treatment Plant	New WTP being built (010421)
Fox Glacier	Wastewater	WWTP	Oxidation ponds
Haast	Water	Bore Pump	
Haast	Water	Water Treatment Plant	Multimedia filters with UV
Haast	Wastewater	WWTP	Oxidation pond
Haast	Wastewater	Pump Station	
Haast	Wastewater	Pumping main	Ø100mm – 270m

Land transport

The roading network and its bridge stock are critical assets for the district as they are the lifelines for the people and the economy for the people who call the West Coast their home. A number of the roads are single access roads to communities and therefore vital that roads and bridges are accessible, particularly through natural events, like storms and earthquakes. The local roads allow access to the main state highways, which is the backbone of the district wider a field.

Waka Kotahi's One Network Road Classification is used to categorise the importance of roads with a consistent framework nationally.

Buildings

Each building within the portfolio is assigned an importance rating from 1-5. There are just three buildings deemed critical, and they are:

- Council Headquarters
- Carnegie Library Building and Museum
- Kokatahi Fire Station.

Parks and reserves

No critical assets identified.

Wilderness Trail

No critical assets in terms of service delivery but there are third party (e.g. Trustpower) bridges that are critical to the track.

Significant Infrastructure Issues

Significant infrastructure issues for the activities and principal options for managing these issues are detailed in the following tables for the core infrastructure (ie three waters and land transport).

Key issues for the non-core infrastructure and the principal options for managing these are summarised at the end of this section. Non-core infrastructure includes:

- Solid waste
- Parks, reserves and cemeteries
- Buildings and pensioner housing
- Wilderness trail.

This section also covers key legislative changes that need to be considered for each activity.

Legislative Changes

The key legislative changes that are either planned or underway that will impact the delivery of core infrastructure and solid waste activity are summarised in the following table including Council's response to these changes.

Table 13: Summary of legislative changes

Legislative change	Implications	Council's response
Water Reforms	The pending water reforms will impact the way Council deliver three waters to our communities and the cost of providing these services. The Government's latest Three Waters Reform Programme is strongly encouraging Councils to aggregate at regional / sub regional level to be considered for the funding package. Regional approaches will be favoured for the funding with conditions attached.	<p>Three waters: Council is involved with two aggregation options:</p> <ul style="list-style-type: none"> • Working with other West Coast councils on regional aggregate model • Exploring joining Canterbury region aggregation model <p>Refer to Significant Infrastructure Issues Section for further discussion.</p>
Zero Carbon	The Climate Change Response (Zero Carbon) Amendment Act includes a target of reducing emissions of biogenic methane within the range of 24 to 47% below 2017 levels by 2050, and an interim target of 10% by 2030. It also has a target of reducing net emissions of all other greenhouse gases to zero by 2050.	The Zero Carbon Act will impact Council's asset portfolios including three waters and land transport. The Act does not explicitly exclude any activities such as methane produced at wastewater treatment plants. Council will consider Zero Carbon Act with its decision making and is still to develop formal strategy / action plan in response.
Road to Zero	The Government has recently released its proposal for the new road safety strategy, Road to Zero. The proposed Vision Zero is based on a world leading approach that says no death or serious injury while traveling on our roads is acceptable.	<p>Land Transport: Safety has been incorporated into Council's Programme Business Case for the land transport activity. This includes safety for residents, the many visitors who come to the region each year and increasing numbers of people walking and cycling around the districts of the West Coast Region.</p> <p>The two focus areas are:</p> <ul style="list-style-type: none"> • Infrastructure improvements and speed management • Road user choices.
Government Policy Statement on Land Transport	The Government Policy Statement on Land Transport (2021) (final September 2020) signals Government's shift to investing in improving people's wellbeing and the liveability of places with a separate inclusive access. This recognises the importance of society. Modal shift and Urban form are major issues to address.	<p>Land transport: The districts seek to achieve the Government Policy Statement strategic priorities for the West Coast through:</p> <ul style="list-style-type: none"> • A focus on freight connections to improve economic productivity and future growth opportunities • Strategic asset management that considers the long-term impacts of climate change on the region's communities, and how appropriate investment can effectively mitigate and adapt to these challenges • Multi-modal transport investment and improvements that improve local transport options and attract visitors to walk and cycle through the iconic landscape • A focus on safety for all users as the overarching objective to all of our investments and decision making.
China National Sword	Early in 2018 China's National Sword Policy (now replaced with Blue Sky), imposed tighter restrictions on the import of certain recyclables, primarily mixed paper and plastic. China was the largest importer of recyclables. This has impacted the commodity price for recyclables globally. Nationally, the consequences of China's National	<p>Solid waste: Council's response to the disruption to the recycling commodity markets is:</p> <ul style="list-style-type: none"> • Respond reactively to the effects of China's policy change

	<p>Sword / Blue Sky Policy have impacted Councils' collection contracts with significant cost escalations.</p>	<ul style="list-style-type: none"> • Engage with the Ministry for the Environment on its work programme from the National Resource Recovery Taskforce • Working collaboratively with the other West Coast Councils on pragmatic response.
<p>Freshwater Management</p>	<p>The Action for Healthy Waterways package sets higher standards around the cleanliness of swimming spots, includes a new bottom line for nitrogen toxicity, sets controls for farming practices like winter grazing and how much synthetic fertiliser is used and requires mandatory and enforceable farm environment plans. There are new requirements with the National Policy Statement for Freshwater Management 2020 including giving effect to Te Mana o to Wai, improving degraded water bodies, and maintaining or improving all others using bottom lines, and an expanded national objectives framework.</p>	<p>Stormwater: Council needs to develop evidence-based strategy and programmes to be more proactive in stormwater quality than our current practices, aligned with the new requirements. Refer to Significant Infrastructure Issues Section for further discussion.</p>

Drinking Water

Council's activity outcomes for drinking water are:

- To achieve compliance with the Drinking Water Standards New Zealand for bacteria and protozoa criteria
- Measure and meet the Department of Internal Affairs mandatory performance measures for this activity including improving leakage performance
- To provide clean and safe drinking water which is essential to public health and also facilitates economic growth.

Summary of issues

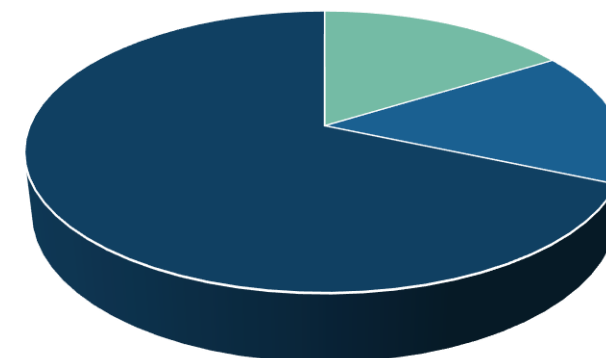
- Cost of complying with the DWSNZ.
- Community expectations.
- Burden of cost for small communities.

Significant issues for the drinking water activity and principal options for managing these issues is detailed in the following table. Note that for some issues there is more than one option recommended as the preferred. Note that risk is assessed with the option undertaken. The preferred option as the most likely scenario has been identified.

Table 14: Significant issues and options for drinking water

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
Implications of the Government's Three Waters Reforms and changes to legislation are likely to result in higher standards for water treatment and compliance costs, and changes to Water Services Delivery Model	1. Continue with water services remaining in house	<ul style="list-style-type: none"> • There are likely to be increased costs to address health / safety concerns / issues from the new water regulator • This will be resourced through existing budgets • Not eligible for funding through Government's three waters reform programme • Government may force amalgamation for councils that do not collaborate regionally 		✓ Current budgets are known but impacts of the new regulator are potentially significant	Unknown	Unknown	H

Drinking Water capital projects



■ Growth ■ LOS ■ Renewal

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
	2. Continue to work with other West Coast councils on regional aggregation model	<ul style="list-style-type: none"> Decision making is kept within the region and communities are involved May not be effective scale 	Option 2 is preferred as the most likely scenario - Continue to work with other West Coast councils on regional aggregation model as best meets our community needs and keeps it local	<p>✓</p> <p>Budget impacts are unknown but expected to be significant</p>	Unknown	Unknown	H
	3. Explore joining Canterbury region aggregation model	<ul style="list-style-type: none"> Costly to set up water Council Controlled Organisation but will be eligible for central government funding A dedicated water Council Controlled Organisation with no other competing priorities will be expected to better prioritise investment decisions across the region leading to better environmental and community outcomes than the Councils can individually achieve Potentially loss of community involvement in water decisions Council needs to opt into reform programme to be eligible for funding 		<p>✓</p> <p>Budget impacts are unknown but expected to be significant</p>	Unknown	Unknown	H
	4. Maintain a watching brief on the Government's Three Waters Reform Programme and evaluate other options as information becomes available	<ul style="list-style-type: none"> Central government may force amalgamation for councils that do not aggregate regionally Implications from water reforms on service delivery including the impact of the water regulator and changes to legislation are still unfolding and happening at a rapid pace 		<p>✓</p> <p>Budget impacts are unknown but expected to be significant</p>	Unknown	Unknown	H

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
Limited internal resources (capability and capacity) available for asset planning	1. Build internal capability -By defining the optimum organisation design to meet shortfall including reviewing Recruitment Policy, determining match market remuneration, and developing training and retention programmes	<ul style="list-style-type: none"> Builds internal capability Enables enduring change Takes time to implement 	Option 1 is preferred as the most likely scenario - Build internal capability including optimum organisation design	✓ Medium cost within existing budgets			H
	2. Set up consultant backup	<ul style="list-style-type: none"> This is already underway but less formal Relies on consultant provision in remote area that may not always be available Formal procurement process required 		✓ Low cost within existing budget to set up panel			M
	3. Continue to share three water initiatives with other West Coast councils	<ul style="list-style-type: none"> This is already underway and seen generally as successful Cost savings with not duplicating effort Relies one council to lead More attractive to the market with larger work packages 		✓ Medium cost within existing budgets	✓ Medium	✓ Medium	M

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
Increased disruption to water services by extreme storm events (i.e. climate change)	1. Undertake infrastructure improvements including strengthening critical assets, design buffer capacity to minimise impact, and optimise technology to monitor and control plants remotely	<ul style="list-style-type: none"> Takes time, resources and budgets to implement Strengthens resilience so not dependent on operator's knowledge with disruptive events 	Option 1 is preferred as the most likely scenario (medium to long term) - Undertake infrastructure improvements including strengthening critical assets, design buffer capacity, and optimise technology	✓ Medium capital cost, requires additional budget (Add in capex)	✓ Medium	✓ Medium	H
	2. Build community resilience to supply disruptions	<ul style="list-style-type: none"> Improves readiness of the community Improves resilience of people Remote Westland communities are generally good at this already 		✓ Low cost	✓ Low	✓ Low	M
	3. Prepare and test Emergency Response Plans and set up contractor availability for range of events	<ul style="list-style-type: none"> Coordinates efforts of the different agencies involved Improved communication and readiness of the community Risk to life minimised 	Option 3 is preferred as the most likely scenario (short term) - Prepare and test Emergency Response Plans and set up contractor availability	✓ Low cost from within existing budgets			
Poor quality of asset information available for asset management planning and decision-making	1. Introduce an Asset Management team that will include a dedicated Asset Manager	<ul style="list-style-type: none"> Appointment of a dedicated Asset Manager will be focused on improvements and not distracted by operational activities Additional cost for full time staff 	Option 1 is preferred as the most likely scenario (short term and ongoing) - Introduce an Asset Management team	✓ Medium operational cost, requires additional budget	✓ Medium	✓ Medium	M

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
	2. Continue to respond reactively to any defects / water asset failures	<ul style="list-style-type: none"> Water outages to customers may become unacceptable particularly for priority customers such as schools, large users, and vulnerable users Water renewal backlog may become unacceptable 		✓ Budget impacts are known short to medium term	✓ Budget impacts may be significant in the medium term	✓ Budget impacts may be significant in the long term	H
	3. Undertake condition surveys of critical water assets	<ul style="list-style-type: none"> The replacement of critical assets (above and below) is risk based and planned to ensure adequate funding available and time to implement The unplanned water interruptions to customers are kept to a minimum acceptable level 	<i>Option 3 is preferred as the most likely scenario (short to medium term) - Undertake condition surveys of critical water assets</i>	✓ Budget impacts of surveys are moderate, but renewal programmes may potentially be significant	✓	✓	M

Wastewater

Council's activity outcomes for wastewater are:

- To ensure the health of the community where urban housing exists, thereby eliminating the need for individuals to provide their own wastewater system (which carries much higher health risks).
- To provide a cost-effective trade waste disposal system for commercial and some industrial users.
- To provide acceptable collection, treatment and disposal systems for the use of communities.
- To meet requirements set by the West Coast Regional Council regarding resource consents and environmental compliance.
- Better alignment with iwi values and community aspirations.

Summary of issues

- Environmental threats on wastewater treatment plants.
- Cost of meeting current Resource Consent compliance conditions.
- Community expectations.
- Burden of cost on small communities.

Significant issues for the wastewater activity and principal options for managing these issues is detailed in the following table. The preferred option as the most likely scenario has been identified.

Wastewater capital projects

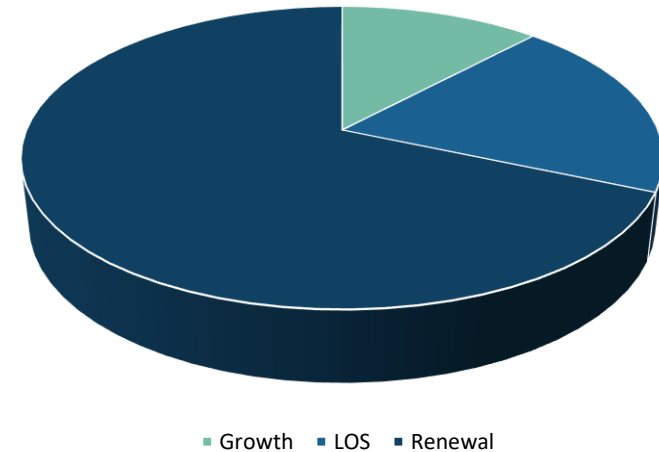


Table 15 Significant issues and options for wastewater

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
Implications of the Government's Three Waters Reforms including strengthening the stewardship of wastewater and stormwater with regional councils remaining primary regulators, and changes to Water Services Delivery Model	1. Continue with wastewater services remaining in house	<ul style="list-style-type: none"> • There are likely to be increased costs to address health / safety concerns / issues from the new water regulator • This will be resourced through existing budgets • Not eligible for funding through Government's three waters reform programme • Government may force amalgamation for councils that do not collaborate regionally 		✓ Current budgets are known but impacts of the new regulator are potentially significant	Unknown	Unknown	H
	2. Continue to work with other West Coast councils on regional aggregation model	<ul style="list-style-type: none"> • Decision making is kept within the region and communities are involved • May not be effective scale 	Option 2 is preferred as the most likely scenario - Continue to work with other West Coast councils on regional aggregate on model as best meets our community needs and keeps it local	✓ Budget impacts are unknown but expected to be significant	Unknown	Unknown	H
	3. Explore joining Canterbury region aggregation model	<ul style="list-style-type: none"> • Costly to set up water Council Controlled Organisation but will be eligible for central government funding • A dedicated water Council Controlled Organisation with no other competing priorities will be expected to better prioritise investment decisions across the region leading to better environmental and community outcomes than the Councils can individually achieve • Potentially loss of community involvement in water decisions • Council needs to opt into reform programme to be eligible for funding 		✓ Budget impacts are unknown but expected to be significant	Unknown	Unknown	H

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
	4. Maintain a watching brief on the Government's Three Waters Reform Programme and evaluate other options as information becomes available	<ul style="list-style-type: none"> Central government may force amalgamation for councils that do not aggregate regionally Implications from water reforms on service delivery including the impact of the water regulator and changes to legislation are still unfolding and happening at a rapid pace 		<p>✓</p> <p>Budget impacts are unknown but expected to be significant</p>	Unknown	Unknown	H
Limited internal resources (capability and capacity) available for asset planning	1. Build internal capability -By defining the optimum organisation design to meet shortfall including reviewing Recruitment Policy, determining match market remuneration, and developing training and retention programmes	<ul style="list-style-type: none"> Builds internal capability Enables enduring change Takes time to implement 	Option 1 is preferred as the most likely scenario - Build internal capability including optimum organisation design	<p>✓</p> <p>Medium cost within existing budgets</p>			H
	2. Set up consultant backup	<ul style="list-style-type: none"> This is already underway but less formal Relies on consultant provision in remote area that may not always be available Formal procurement process required 		<p>✓</p> <p>Low cost within existing budget to set up panel</p>			M
	3. Continue to share three water initiatives with other West Coast councils	<ul style="list-style-type: none"> This is already underway and seen generally as successful Cost savings with not duplicating effort Relies one council to lead More attractive to the market with larger work packages 		<p>✓</p> <p>Medium cost within existing budgets</p>	<p>✓</p> <p>Medium</p>	<p>✓</p> <p>Medium</p>	M
Longstanding and unconsented discharges into waterways (Kaniere and Hokitika sewer pump stations) that are	1. Install monitoring equipment to understand extent of problems	<ul style="list-style-type: none"> Helps refine the problem Community, iwi, stakeholders and regional council may get frustrated that information gathering task does not stop the discharges 		<p>✓</p> <p>Low capital cost, requires additional budget (Add in capex)</p>	<p>✓</p> <p>Low</p>	<p>✓</p> <p>Low</p>	M

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
not acceptable to community, iwi, stakeholders and regional council	2. Prepare resource consent applications for emergency overflows (short term solution)	<ul style="list-style-type: none"> Meets minimum resource consent requirements May not result in substantial positive environmental improvements 		✓ Current budgets are known	✓	✓	H
	3. Develop mitigation measures and associated budget to address problems (including storage volume upgrades, reducing inflow and infiltration the network)	<ul style="list-style-type: none"> Better alignment with iwi values and community aspirations Improves water quality but takes time 	Option 3 is preferred as the most likely scenario (medium term) - Develop mitigation measures and associated budget to address problems	✓ Budget impacts may potentially be significant (Add in capex)	✓	✓	H
Poor quality of asset information available for asset management planning and decision-making	1. Introduce an Asset Management team that will include a dedicated Asset Manager	<ul style="list-style-type: none"> Appointment of a dedicated Asset Manager will be focused on improvements and not distracted by operational activities Additional cost for full time staff 	Option 1 is preferred as the most likely scenario (short term and ongoing) - Introduce an Asset Management team	✓ Medium operational cost, requires additional budget	✓ Medium	✓ Medium	M
	2. Continue to respond reactively to any defects / wastewater asset failures	<ul style="list-style-type: none"> Wastewater asset failures may become unacceptable and result in public health and / or environmental pollution issues due to overflows Wastewater renewal backlog may become unacceptable 		✓ Budget impacts are known short to medium term	✓ Budget impacts may be significant in the medium term	✓ Budget impacts may be significant in the long term	H
	3. Undertake condition surveys of critical wastewater assets	<ul style="list-style-type: none"> The replacement of critical assets (above and below) is risk based and planned to ensure adequate funding available and time to implement The unplanned wastewater interruptions to customers are kept to a minimum acceptable level 	Option 3 is preferred as the most likely scenario (short to medium term) - Undertake condition surveys of critical wastewater assets	✓ Budget impacts of surveys are moderate, but renewal programmes may potentially be significant	✓	✓	M

Stormwater

Council's activity outcome for stormwater is:

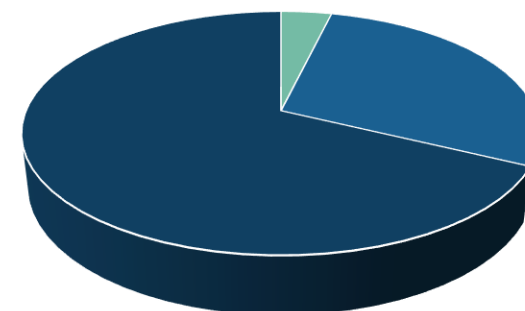
- To provide for the collection and disposal of stormwater to acceptable environmental standards.

Summary of issues

- Incomplete infrastructure data.
- Community expectations.

Significant issues for the stormwater activity and principal options for managing these options is detailed in the following table. The preferred option as the most likely scenario has been identified.

Stormwater capital projects



■ Growth ■ LOS ■ Renewal

Table 16: Significant issues and options for stormwater

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
Implications of the Government's Three Waters Reforms including strengthening the stewardship of wastewater and stormwater with regional councils remaining primary regulators, and changes to Water Services Delivery Model	1. Continue with water services remaining in house	<ul style="list-style-type: none"> • There are likely to be increased costs to address health / safety concerns / issues from the new water regulator • This will be resourced through existing budgets • Not eligible for funding through Government's three waters reform programme • Government may force amalgamation for councils that do not collaborate regionally 		✓ Current budgets are known but impacts of the new regulator are potentially significant	Unknown	Unknown	H
	2. Continue to work with other West Coast councils on regional aggregation model	<ul style="list-style-type: none"> • Decision making is kept within the region and communities are involved • May not be effective scale 	Option 2 is preferred as the most likely scenario - Continue to work with other West Coast councils on regional aggregate on model as best meets our community needs and keeps it local	✓ Budget impacts are unknown but expected to be significant	Unknown	Unknown	H

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
	3. Explore joining Canterbury region aggregation model	<ul style="list-style-type: none"> • Costly to set up water Council Controlled Organisation but will be eligible for central government funding • A dedicated water Council Controlled Organisation with no other competing priorities will be expected to better prioritise investment decisions across the region leading to better environmental and community outcomes than the Councils can individually achieve • Potentially loss of community involvement in water decisions • Council needs to opt into reform programme to be eligible for funding 		✓ Budget impacts are unknown but expected to be significant	Unknown	Unknown	H
	4. Maintain a watching brief on the Government's Three Waters Reform Programme and evaluate other options as information becomes available	<ul style="list-style-type: none"> • Central government may force amalgamation for councils that do not aggregate regionally • Implications from water reforms on service delivery including the impact of the water regulator and changes to legislation are still unfolding and happening at a rapid pace 		✓ Budget impacts are unknown but expected to be significant	Unknown	Unknown	H
Limited internal resources (capability and capacity) available for asset planning	1. Build internal capability -By defining the optimum organisation design to meet shortfall including reviewing Recruitment Policy, determining match market remuneration, and developing training and retention programmes	<ul style="list-style-type: none"> • Builds internal capability • Enables enduring change • Takes time to implement 	Option 1 is preferred as the most likely scenario - Build internal capability including optimum organisation design	✓ Medium cost within existing budgets			H

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
	2. Set up consultant backup	<ul style="list-style-type: none"> This is already underway but less formal Relies on consultant provision in remote area that may not always be available Formal procurement process required 		✓ Low cost within existing budget to set up panel			M
	3. Continue to share three water initiatives with other West Coast councils	<ul style="list-style-type: none"> This is already underway and seen generally as successful Cost savings with not duplicating effort Relies one council to lead More attractive to the market with larger work packages 		✓ Medium cost within existing budgets	✓ Medium	✓ Medium	M
The implications of the National Policy Statement for Freshwater Management 2020 on Council's water quality improvements. This will impact the conditions for the resource consent for the stormwater network.	1. Negotiate with the Regional Council to ensure the conditions are pragmatic and cost effective	<ul style="list-style-type: none"> May not achieve good environmental outcomes Potentially not affordable for a small community 		✓ Budgets are unknown	✓ Unknown	✓ Unknown	H
	2. Develop evidence based strategy and programmes to be more proactive in stormwater quality than our current practices, aligned with the new requirements	<ul style="list-style-type: none"> Improves freshwater quality Achieves good environmental outcomes but may not be immediate 	Option 2 is preferred as the most likely scenario - Develop evidence based strategy and programmes to be more proactive in stormwater quality than our current practices	✓ Budgets are unknown until strategy developed	✓ Unknown	✓ Unknown	H
Higher intensity rainfall with shorter duration (due to climate change) impacting rural land upstream of communities and contributing to landslides and infrastructure	1. Respond reactively to effects of climate change and take direction from Central Government	<ul style="list-style-type: none"> Potential risk to life High level of property damage Local communities disrupted Does not allow time to adapt and / mitigate to climate change effects 		✓ Budgets are unknown may be significant after a major flood event	✓ Budgets are unknown may be significant in the medium term	✓ Budgets are unknown may be significant in the long term	H

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
damage/loss. This has potential to cause widespread damage and flooding downstream to urban communities.	2. Allow for increase in rainfall intensity when designing new infrastructure	<ul style="list-style-type: none"> Effect of climate change on stormwater infrastructure can be planned long term Does not address existing assets 	Option 2 is preferred as the most likely scenario - Allow for increase in rainfall intensity when designing new infrastructure	✓ Cost impacts are part of the new capital project	✓ Time to identify and respond to changes	✓ Time to identify and respond to changes	H

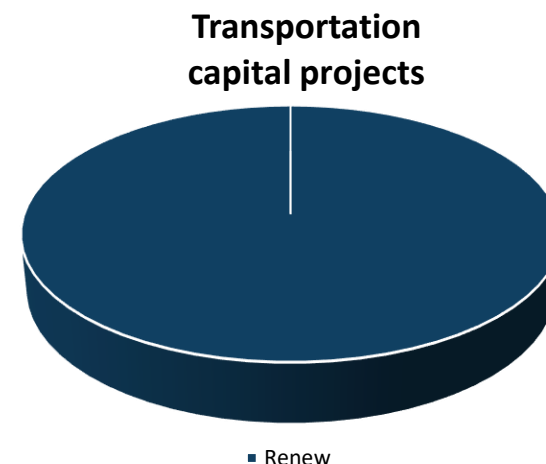
Land Transport

Council's activity outcomes for land transport are:

- To provide a safe, affordable, sustainable land transport system that fully meets the environmental, economic and social needs of the District.
- Provides essential infrastructure to connect our communities.

Summary of Issues

- Changes in central and regional government policy.
- Increase in pricing of oil and aggregates.
- Financial assistance from New Zealand Transport Agency (NZTA).
- Change in land use (e.g. the conversions of land to dairy) which therefore change patterns of road usage.



Significant issues for the land transport activity and principal options for managing these options is detailed in the following table. The preferred option as the most likely scenario has been identified.

Table 17: Significant issues and options for land transport

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
Impacts of weather (orographic and climate change)	1. Consider resilience and potential risks when planning for new infrastructure	<ul style="list-style-type: none"> • Reliability of roads and less disruption to journey • Reduce emergency work costs • Takes time to implement 	Option 1 is preferred as the most likely scenario - Consider resilience and potential risks when planning for new infrastructure	✓ Medium capital cost, requires additional budget (<i>Add in capex</i>)	✓ Medium	✓ Medium	H
	2. Build community resilience	<ul style="list-style-type: none"> • Improves readiness of the community • Improves resilience of people • Remote Westland communities are generally good at this already 		✓ Low cost	✓ Low	✓ Low	M

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
	3. Implement and review Civil Defence and Emergency Response Plans	<ul style="list-style-type: none"> • Coordinates efforts of the different agencies involved • Improved communication and readiness of the community • Risk to life minimised 		✓ Low cost from within existing budgets	✓ Low	✓ Low	H
Limited internal resources (capability and capacity) available for asset planning	1. Build internal capability -By defining the optimum organisation design to meet shortfall including reviewing Recruitment Policy, determining match market remuneration, and developing training and retention programmes	<ul style="list-style-type: none"> • Builds internal capability • Enables enduring change • Takes time to implement 	Option 1 is preferred as the most likely scenario - Build internal capability including optimum organisation design	✓ Medium cost within existing budgets			H
	2. Set up consultant backup	<ul style="list-style-type: none"> • This is already underway but less formal • Relies on consultant provision in remote area that may not always be available • Formal procurement process required 		✓ Low cost within existing budget to set up panel			M
	3. Continue to share land transport initiatives with other West Coast councils	<ul style="list-style-type: none"> • This is already underway and seen generally as successful • Cost savings with not duplicating effort • Relies one council to lead • More attractive to the market with larger work packages 		✓ Medium cost within existing budgets	✓ Medium	✓ Medium	M
Maintaining a generally aging infrastructure portfolio	1. Current renewal programmes reduced in response to corporate drivers of expenditure reduction	<ul style="list-style-type: none"> • Deterioration of the network and ultimately increased costs • Not meeting the agreed levels of service • Assets are deteriorated to a point that the community cannot afford to pay for 		✓ Current budgets are known	✓ Current budgets are known	✓ Current budgets are known	H

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
	2. Undertake predictive modelling based on age, condition, demand and criticality	<ul style="list-style-type: none"> Data is analysed and used to develop risk-based renewal programmes Holistic approach to manage these assets to find the optimal solution across maintenance, renewals and capital investment 	Option 2 is preferred as the most likely scenario (medium to longer term) - Undertake predictive modelling based on age, condition, demand and criticality	✓ Will require additional LTP and external funding for renewals programme	✓ Will require additional LTP and external funding for renewals programme	✓ Will require additional LTP and external funding for renewals programme	H
	3. Undertake regular condition assessments	<ul style="list-style-type: none"> Requires investment in data collection Data is required to undertake predictive modelling 	Option 3 is preferred as the most likely scenario (short term) - Undertake regular condition assessments	✓ Moderate costs for surveys (add capex cost)	✓ Moderate	✓ Moderate	M
Network resilience impacted by limited knowledge of bridge structures (condition)	1. Undertake asset inspections and monitoring	<ul style="list-style-type: none"> Requires investment in data collection Larger renewal programme will likely be required with assessment of current state 	Option 1 is preferred as the most likely scenario (short term and ongoing) - Undertake asset inspections and monitoring	✓ Moderate costs for surveys (add capex cost)	✓ Moderate	✓ Moderate	M
	2. Impose weight restrictions and manage overweight permits	<ul style="list-style-type: none"> Requires ongoing active management Bridge damage resulting in network disconnection if users are non-compliant Ongoing weight restrictions 		✓ Low cost with existing budgets	✓ Low	✓ Low	M
	3. Develop replacement programme	<ul style="list-style-type: none"> Strategy developed to decide to investment to retain timber structures versus replacing local iconic bridges Ongoing investment costs in bridge / component replacements 	Option 3 is preferred as the most likely scenario (medium to long term) - Develop replacement programme	✓ Potentially high capital costs (add capex cost)	✓ Potentially high capital costs	✓ Potentially high capital costs	H
Network resilience to Higher Productivity Motor Vehicles	1. Undertake pavement rehabs	<ul style="list-style-type: none"> Uplift in investment 		✓ Current budgets are known	✓ Current budgets are known	✓ Current budgets are known	M
	2. Undertake drainage renewals and maintenance	<ul style="list-style-type: none"> Reduces risk of failure of the road drainage systems Results in lowered risk of failure of pavements during storm events (i.e. road slips or under slips) 	Option 2 is preferred as the most likely scenario (short to medium term) - Undertake drainage renewals and maintenance	✓ Additional budget for drainage renewals	✓ Additional capital budget	✓ Additional capital budget	H

Significant issues	Principal options for managing the issue	Implications of the options	Most likely scenario for managing the issue	Years 1-10	Years 11-20	Years 21-30	Risk (H/M/L)
	3. Undertake bridge strengthening programme	<ul style="list-style-type: none"> Regional and District growth supported Connected bridge network available for users May not be affordable 	Option 3 is preferred as the most likely scenario (medium to long term) - Undertake bridge strengthening programme	✓ Requires additional LTP and external funding <i>(add capex cost)</i>	✓ Requires additional LTP and external funding	✓ Requires additional LTP and external funding	H

Solid Waste

Council's activity outcomes for the solid waste are to:

- Provide an essential service to our communities.
- Ensure community health and safety (from diseases).
- Reduce the impact of waste on the natural environment.
- Provide for a tidy environment.

The significant solid waste issues and the principal options for managing these are:

- Remediation of erosion prone Fox River Closed Landfill:
 - The removal of Fox Landfill Project commenced with Government funding.
 - Review existing landfill sites to ensure mitigation actions are identified.
 - Use Government funding to mitigate risk to the environment.
 - Set up monitoring system for major storm events in the interim period.
 - Implement and review Civil Defence and Emergency response plans.
- Impact of China's National Sword / Blue Sky policy change:
 - Respond reactively to the effects of China's policy change.
 - Engage with the Ministry for the Environment on its work programme from the National Resource Recovery Taskforce.
- Reducing waste to landfill and increasing recycling volumes, particularly glass:
 - Explore viability of glass collection services for the District.
 - Increase communication information on Council's website for glass drop off service.
 - Explore viability of organic waste collection for composting for the District.

Parks, Reserves and Cemeteries

Council's activity outcomes for the parks and reserves are to:

- To provide outdoor spaces for play and passive recreation for the enjoyment and use of Westland residents and ratepayers.
- To provide community sports facilities fit for local or regional use (i.e. not national or international standards).

Council's activity outcomes for the cemetery activity are to:

- To provide a reliable, high quality service that customers are satisfied with.
- To provide reliable and accurate information on where people are buried for those who are tracing their ancestors or carrying out other historical research.

To ensure that there is sufficient availability and development of land for burial purposes, taking into account the possible increased demand for interments and ashes plots.

- The significant parks, reserves and cemeteries issues are:
- Conflict between dual uses of events and sports at Cass Square causing surface degradation that is expensive to repair.
- Public perception of insufficient maintenance of some reserves.
- Lack of strategic direction for Parks and Reserves activity.
- Racecourse strategy still to be developed.

Buildings and Pensioner Housing

The significant building and pensioner housing issues are:

- Costly to strengthen some Council buildings assessed as earthquake prone and are closed (Hokitika Museum).
- Improving the documentation of asset and condition data for buildings and pensioner housing.
- Balancing maintenance and upgrade costs of community halls and other assets with affordability and level of usage of these facilities.

Wilderness Trails

The significant wilderness trail issues are:

- Difficulty in setting up cycle trail ownership and management structure.
- Securing funding for ongoing maintenance needs.
- Road safety is compromised in some sections due to traffic speed, increased volume in the peak season and rider's skill sets.

Capex Projects

The following table summarises the large capital projects for the activities covered by this strategy. The forecasts are provided in five year blocks when mostly likely to occur.

Table 18: Future capital projects, inflated

Reserve	Project Title	Years 1-5	Years 6-10	Years 11-15	Years 16-20	Years 21-25	Years 26-30
Drinking Water	Kumara Water mains Replacement	\$0.22M	\$0.115M	\$0.164M	\$0.175M	\$0.195M	\$0.254M
Drinking Water	Hokitika Water mains Replacement	\$0.785M	\$0.586M	\$0.327M	\$0.365M	\$0.407M	\$0.454M
Drinking Water	Ross Water mains Replacement	\$0.231M	0	0	\$0.365M	0	\$0.454M
Drinking Water	Harihari Water mains Replacement	\$0.1M	\$0.123M	\$0.118M	\$0.131M	\$0.146M	\$0.163M
Drinking Water	Franz Water mains Replacement	\$0.324M	\$0.306M	\$0.157M	\$0.175M	\$0.195M	\$0.218M
Drinking Water	Fox Glacier Water mains Replacement	\$0.143M	\$0.118M	0	\$0.102M	0	\$0.127M
Drinking Water	Haast Water mains Replacement	\$0.04M	0	\$0.131M	0	\$0.163M	0
Drinking Water	Whataroa Water mains Replacement	0	0	0	\$0.044M	0	\$0.054M
Drinking Water	Arahura Water mains Replacement	0	0	\$0.039M	0	\$0.049M	0
Drinking Water	Upgrade Pump Stations	0	0	\$0.196M	\$0.146M	\$0.163M	\$0.181M
Drinking Water	Water Meters Replacement	0	0	\$0.118M	\$0.131M	0	\$0.163M
Drinking Water	Upgrade WTP's - specifically for growth areas of Franz Josef	0	\$3.611M	0	\$0.73M	0	\$0.907M
Drinking Water	Upgrade WTP Reservoirs	\$0.920M	0	\$0.655M	0	\$0.814M	0
Drinking Water	WTP Improvements - Replace modules / membranes	\$0.214M	\$1.079M	\$0.655M	\$1.606M	\$0.814M	\$1.996M
Drinking Water	New Generators	\$0.16M	0	0	\$0.088M	\$0.098M	\$0.109M
Drinking Water	Replacement of Water Treatment Plant Components	\$0.141M	\$0.105M	\$0.065M	\$0.073M	\$0.081M	\$0.091M
Drinking Water	WTP Disinfection Upgrades	0	0	0	\$0.292M	0	\$0.363M

Reserve	Project Title	Years 1-5	Years 6-10	Years 11-15	Years 16-20	Years 21-25	Years 26-30
Drinking Water	WTP SCADA / Telemetry Upgrades	\$0.03M	\$0.121M	\$0.039M		\$0.049M	0
Wastewater	Hokitika WWTP Upgrade (in the LTP as in first the years)	\$13.409M	0	0	0	0	0
Wastewater	Hokitika Wastewater Mains Replacement	\$0.698M	\$1.456M	\$0.393M	\$0.438M	\$0.488M	\$0.544M
Wastewater	Franz Josef Wastewater Mains Replacement	\$0.09M	\$0.168M	\$0.092M	\$0.102M	\$0.114M	\$0.127M
Wastewater	Fox Glacier Wastewater Mains Replacement	\$0.025M	\$0.344M	\$0.105M	\$0.117M	\$0.13M	\$0.145M
Wastewater	Haast Wastewater Mains Replacement	\$0.5M	\$0.134M	0	\$0.117M	0	\$0.145M
Wastewater	Upgrade WWTP's - specifically for growth areas of Franz Josef & Fox Glacier	\$0.02M6	\$0.029M	0	\$0.73M	\$0.814M	0
Wastewater	Pump Station Upgrades	\$0.09M	\$0.15M	\$0.131M	\$0.146M	\$0.163M	\$0.181M
Wastewater	I&I Catchment Investigations	\$0.319M	0	\$0.655M	0	\$0.814M	0
Wastewater	Replacement of Wastewater Treatment Plant Components	\$0.042M	\$0.07M	\$0.065M	\$0.073M	\$0.081M	\$0.091M
Wastewater	Contribution towards new developments	\$0.087M	0	\$0.065M	\$0.073M	\$0.081M	\$0.091M
Stormwater	New Generators	0	0	\$0.105M	\$0.117M	0	0
Stormwater	Hokitika Stormwater Mains Replacement	\$0.824M	\$0.063M	\$0.17M	\$0.19M	\$0.212M	\$0.236M
Stormwater	Pump Upgrades	\$1.156	\$0.0573	\$0.524M	\$0.584M	\$0.651M	\$0.726M
Stormwater	Contribution towards new developments	\$0.062M	\$0.059M	\$0.065M	\$0.073M	\$0.081M	\$0.091M
Solid Waste	Digout New Cells - Various	0	0	\$2.749M	0	\$3.906M	0
Solid Waste	Capping / infrastructure Various - Butlers	\$0.013M	0	\$0.327M	\$0.511M	\$0.651M	\$0.726M
Property, Land & Buildings	Building Upgrades - Various	\$0.116M	\$0.015M	\$0.131M	\$0.146M	\$0.163M	\$0.181M
Parks, Reserves & Cemetery	New Swimming Pool in Hokitika	\$2.38M	0	\$3.273M	\$3.649M	0	0
Parks, Reserves & Cemetery	Earthquake Strengthening	\$2.918M	0	0	0	0	0
Parks, Reserves & Cemetery	Cemetery - Improvements	\$0.099M	\$0.119M	\$0.131M	\$0.146M	\$0.163M	\$0.181M
Parks, Reserves & Cemetery	Hokitika Sports Complex	0	0	\$1.964M	0	0	0
Parks, Reserves & Cemetery	Reserve maintenance/ development	\$2.634M	\$0.256M	\$0.065M	\$0.073M	\$0.081M	\$0.091M
Land Transport	Footpath Renewals	\$0.524M	\$0.0586M	\$0.655M	\$0.73M	\$0.814M	\$0.907M
Land Transport	Road Renewals / Resurfacing	\$8.118M	\$9.086M	\$13.419M	\$14.961M	\$16.681M	\$18.598M
Land Transport	Drainage Renewals	\$1.092M	\$1.192M	\$1.335M	\$1.489M	\$1.66M	\$1.851M
Land Transport	Structures Replacements	\$4.319M	\$3.78M	\$4.229M	\$4.715M	\$5.257M	\$5.861M
Land Transport	Traffic Services Renewals	\$0.766M	\$0.879M	\$0.982M	\$1.095M	\$1.221M	\$1.361M

Source: Council draft LTP budget (as at April 2021)

Financial Summary

Significant Decisions Required

Council will need to make a number of key decisions over the duration of our strategy. Some of these decisions will be significant to the District and some will not. The decision on three waters service delivery is considered the most significant decision Council will have to make.

Other key decisions and action that will need to be made by elected members over the next 30 years include:

- All activities:
 - Continuing to build internal capability and capacity so that Council has a resilient workforce and operated for unpredictable events such as the global pandemic.
 - Continuing to gather evidence, particularly the condition of our critical assets, in the next three to ten years to help develop robust and risk-based renewal programmes.
 - Continuing to gather evidence and seek Government funding to relocate Franz Josef township as the most sustainable option and best for our community.
- Three waters:
 - West Coast regional service delivery model in response to Government's reforms.
- Land transport:
 - Implementing the Road to Zero Strategy to prioritise safety risks across the network holistically.
 - A solution to ownership of Special Purpose Roads (Haast to Jackson Bay) with Waka Kotahi.

Funding Depreciation

The combined 30 year renewals of land transport and three waters:

\$151.799 million

Versus combined 30 year depreciation of land transport and three waters:

\$160.656 million

The combined core assets (land transport and three waters) forecast renewal expenditure for all activities is maintained to broadly match depreciation over the 30 year period 2021 to 2051.

Financial Forecasts

Table 19 shows the total expected capital and operational expenditure for each infrastructure activity over the 30 year period 2021 to 2051. Note that the land transport activity carries a Financial Assistance Rate from Waka Kotahi. For years 1 to 3, this rate has been set at 62% and is reviewed every three years.

Table 19: Expected total operating and capital expenditure (inflated)

Activity	Capital expenditure	Operational expenditure
Drinking water	\$13.948 m	\$67.721 m
Wastewater	\$6.628 m	\$31.119 m
Stormwater	\$7.03 m	\$14.945 m
Land transport	\$135.220m	\$112.190 m
Solid waste	\$8.233 m	\$77.545 m
Parks, Reserves and Cemeteries	\$3.000 m	\$40.315 m
Buildings	\$24.546 m	\$7.019 m
Wilderness Trails	\$23.039 m	\$5.372 m
Total	\$218.047 m	\$356.277 m

The following table summarises the operational expenditure for the activities covered by this strategy Years 11 to 30. The forecasts are provided in five year blocks when mostly likely to occur. Capital projects in the first ten years are provided in the Long Term Plan to avoid duplication.

Table 20: Future Operational Expenditure - years 11 to 30 (inflated)

Asset Category	Years 11-15	Years 16-20	Years 21-25	Years 26-30	Total
Drinking Water	\$5,512 m	\$5,512 m	\$5,512 m	\$5,512 m	\$22,050 m
Wastewater	\$1,691 m	\$1,691 m	\$1,691 m	\$1,691 m	\$6,763 m
Stormwater	\$849 m	\$849 m	\$849 m	\$849 m	\$3,396 m
Solid Waste	\$6,489 m	\$6,489 m	\$6,489 m	\$6,489 m	\$25,955 m
Land Transport	\$6,059 m	\$6,059 m	\$6,059 m	\$6,059 m	\$24,236 m
Facilities, and Leisure Services	\$9,825 m	\$9,825 m	\$9,825 m	\$9,825 m	\$39,300 m

The breakdown by capital categories for each activity over the 30 year period 2021 to 2051 is summarised in Table 21. This shows that renewals are 77% of the total capital expenditure followed by levels of service at 19%.

Table 21: Combined capital expenditure by category (inflated)

Capital category (\$ million)	Drinking water expenditure	Wastewater capital expenditure	Stormwater capital expenditure	Land transport capital expenditure	Solid waste capital expenditure	Parks capital expenditure*	Property, Land & Buildings capital expenditure	% of capital expenditure
Network renewals	\$18.80	\$16.54	\$3.13	\$137.54	\$1.17	\$7.27	\$4.86	77%
Levels of service	\$4.45	\$7.62	\$3.62	\$0	\$0.13	\$26.96	\$4.17	19%
Growth	\$3.54	\$2.30	\$0.12	\$0	\$0	\$3.02	\$0	4%
Total	\$26.79	\$26.46	\$6.866	\$137.54	\$1.30	\$37.25	\$9.02	100%

*Wilderness Trail capital expenditure is included in Parks capital expenditure from 2022 – 2032. Capital expenditure after 2032 has not been forecast.

There are gaps in our knowledge of the stormwater assets and we have plans underway to improve this as noted in Infrastructure Condition and Performance Section.

The renewal forecasts provided in this Strategy are based on age derived condition as recorded in our asset management system (refer to Figure 19). This shows that many of the stormwater assets expiring from year 2051. This will not be the case in practice as most pipelines are made of concrete material and will generally last longer than their theoretical lives.

We will focus on gathering evidence on the state of our critical stormwater assets to inform the development of risk based renewal programme as good industry practice. This will result in a renewal programme over many years

rather than in a short period as currently shown. It is expected that most of the renewals will be undertaken beyond 2051 (outside the period of this 30 year strategy).

There may be implications on maintaining the levels of service as well as increased costs for unplanned maintenance with assets failing. This is mitigated by:

- Ongoing monitoring of the achievement on meeting the performance measures as set out in our Stormwater Activity Management Plan and against acceptable industry benchmarks.
- A proactive regime is being developed to monitor the proper balance between planned and unplanned maintenance expenditure to understand trends overtime with our increased internal resources as well as our Network Maintenance Contractor.

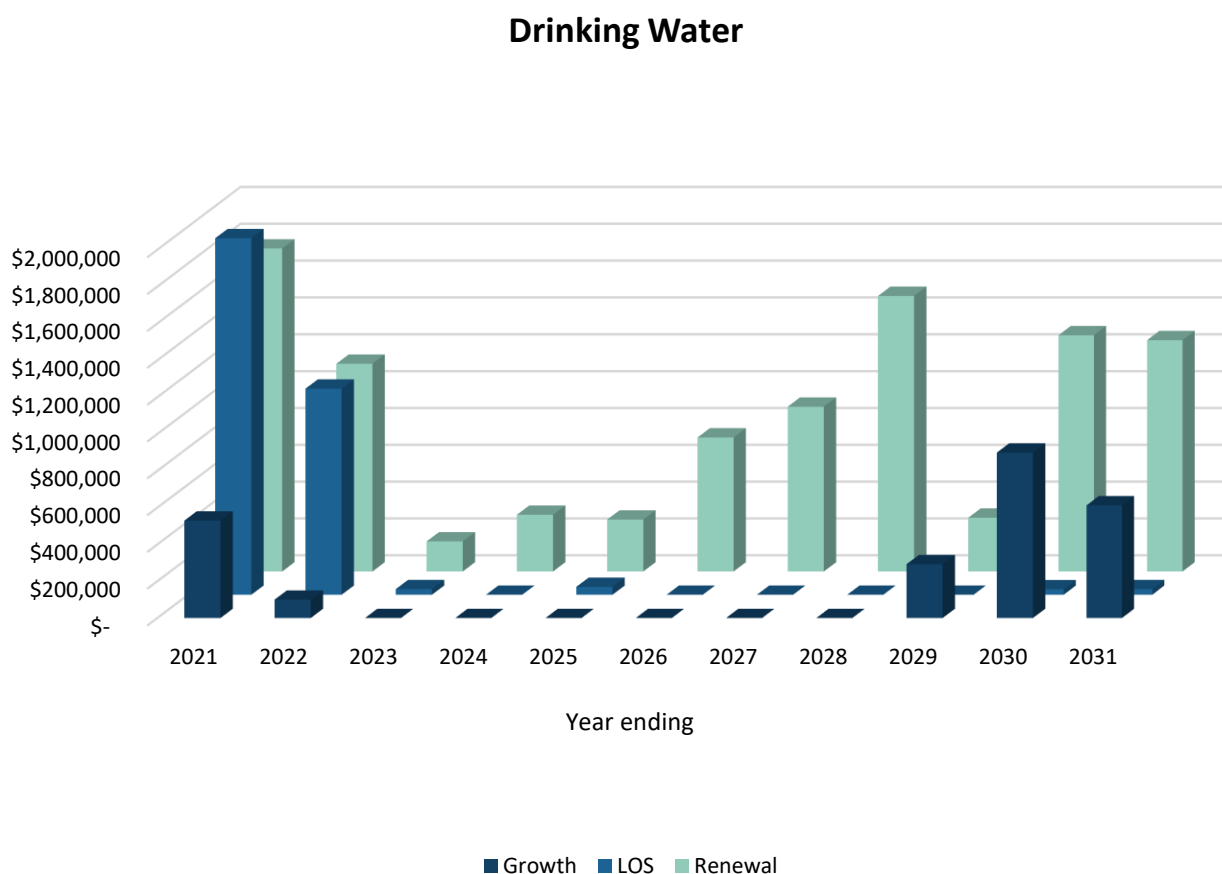
Over the next 30 years it is expected that:

- Operational expenditure accounts for 62% of the expenditure
- Planned expenditure on renewals across all infrastructure activities is generally constant
- Capital expenditure on levels of service improvements is focused on higher environment standards and obtaining resource consents for drinking supply, wastewater and stormwater.

The projected capital expenditure associated with each activity are presented below.

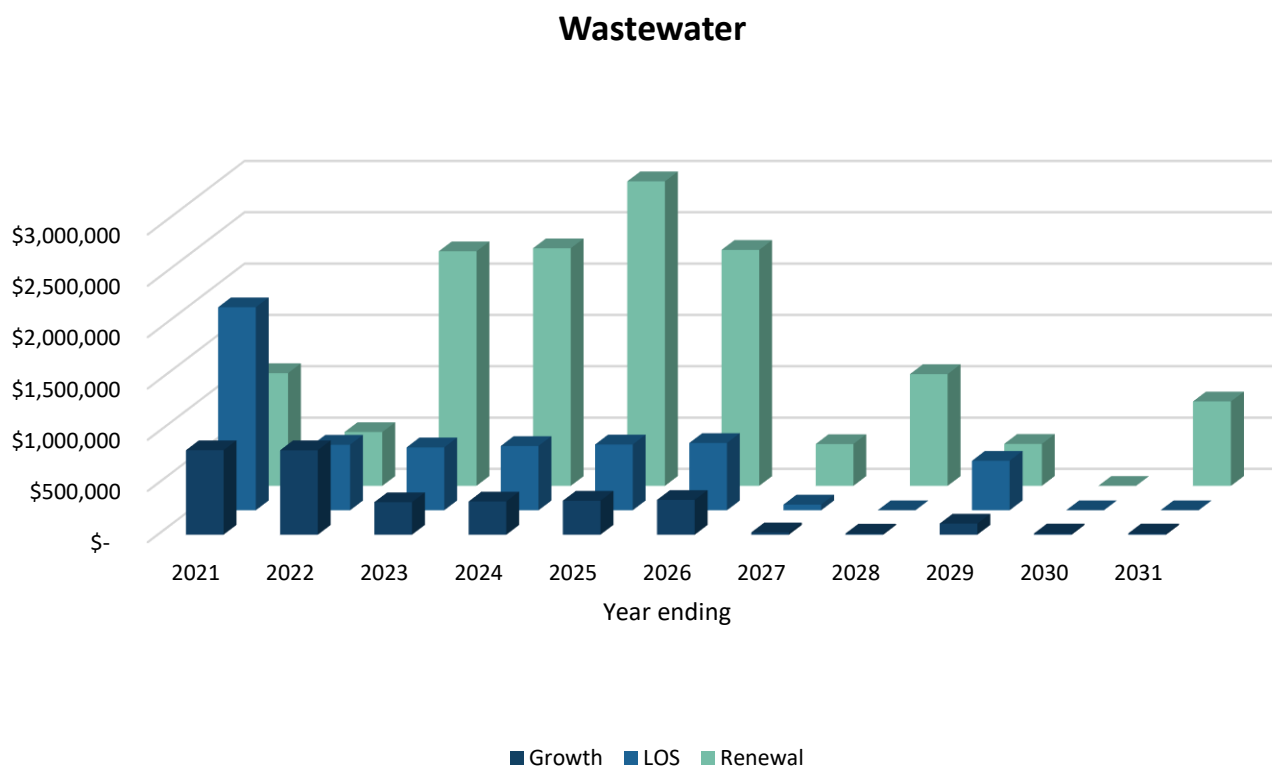
Drinking Water

Figure 20: Projected capital expenditure – Drinking water (inflated)



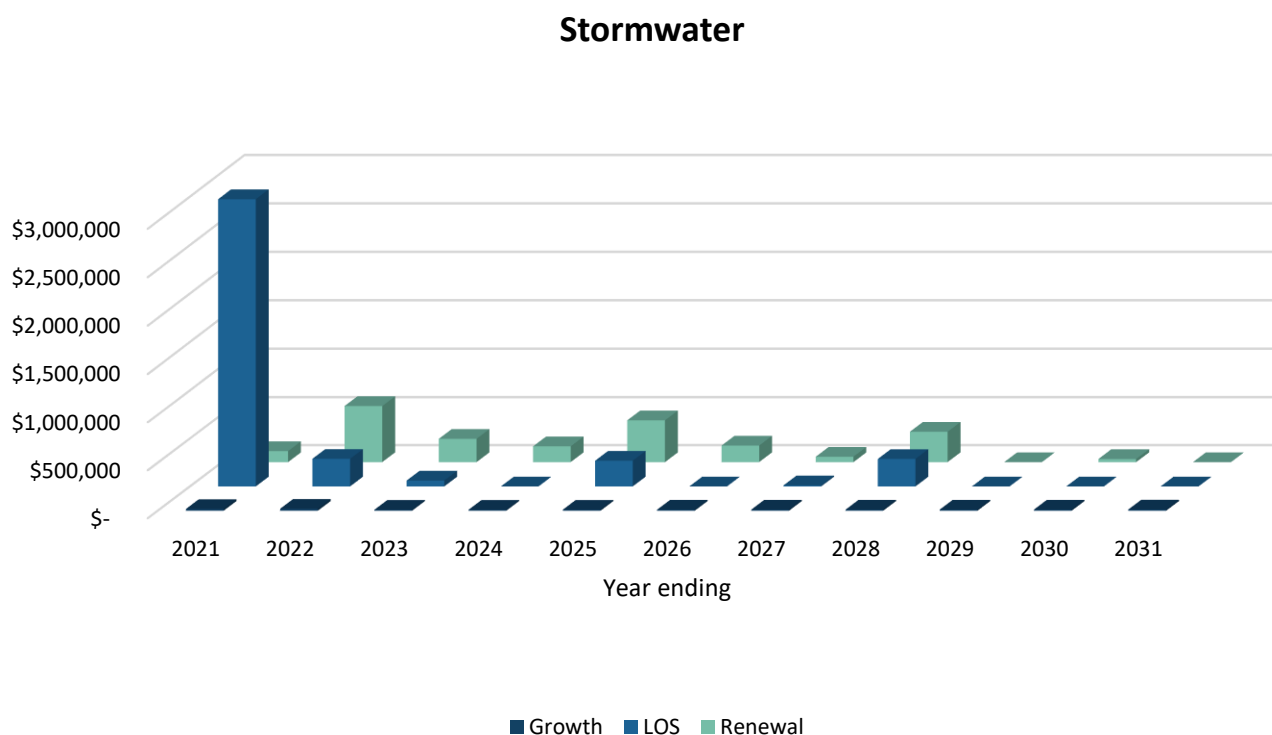
Wastewater

Figure 21: Projected capital expenditure – Wastewater (inflated)



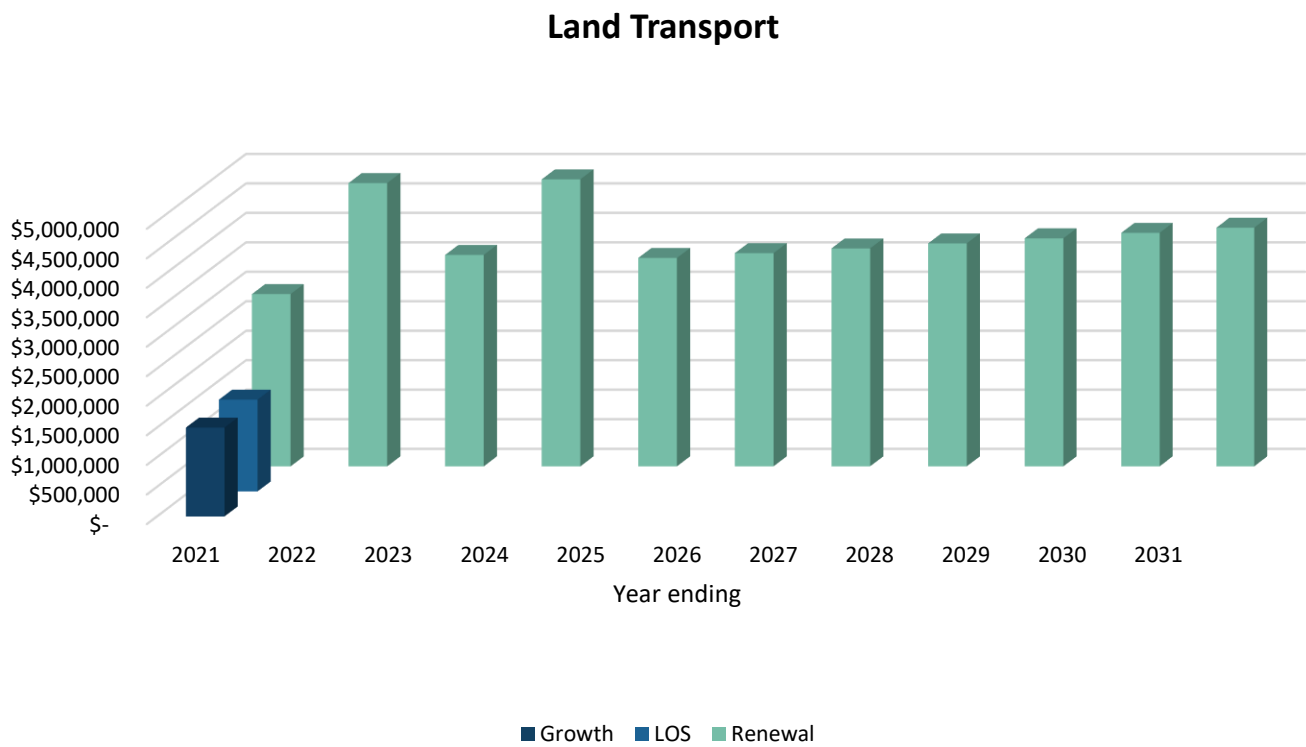
Stormwater

Figure 22: Projected capital expenditure – Stormwater (inflated)



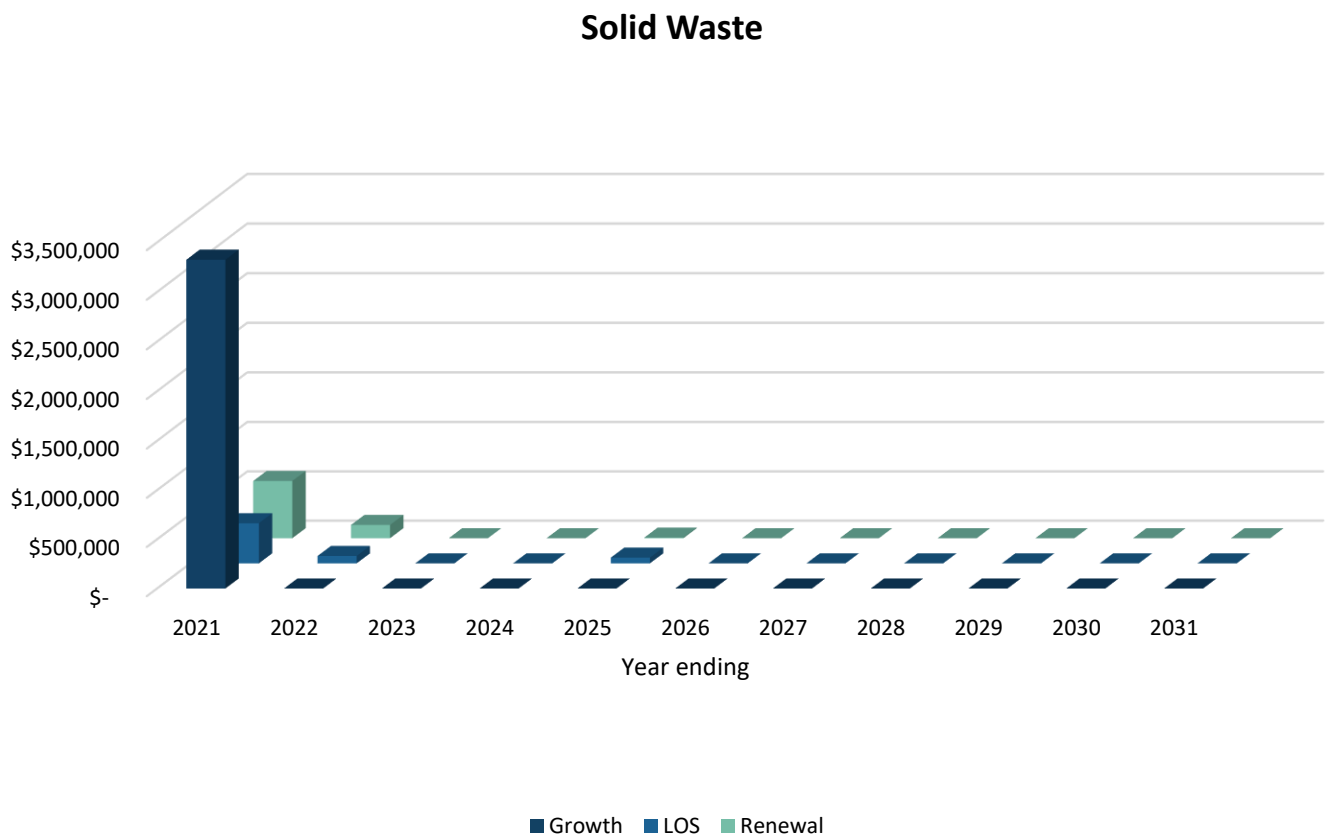
Land Transport

Figure 23: Projected capital expenditure – Land Transport (inflated)



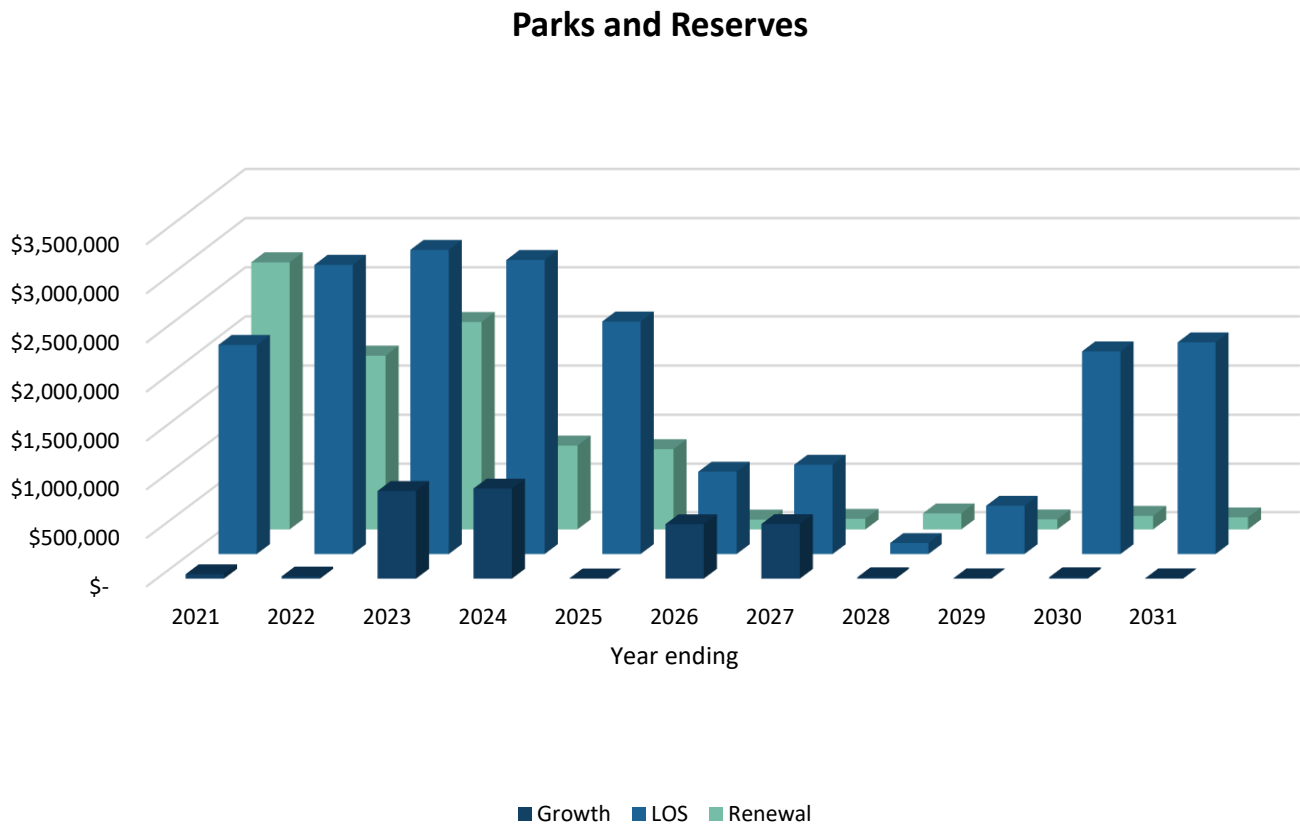
Solid Waste

Figure 24: Projected capital expenditure – Solid waste (inflated)



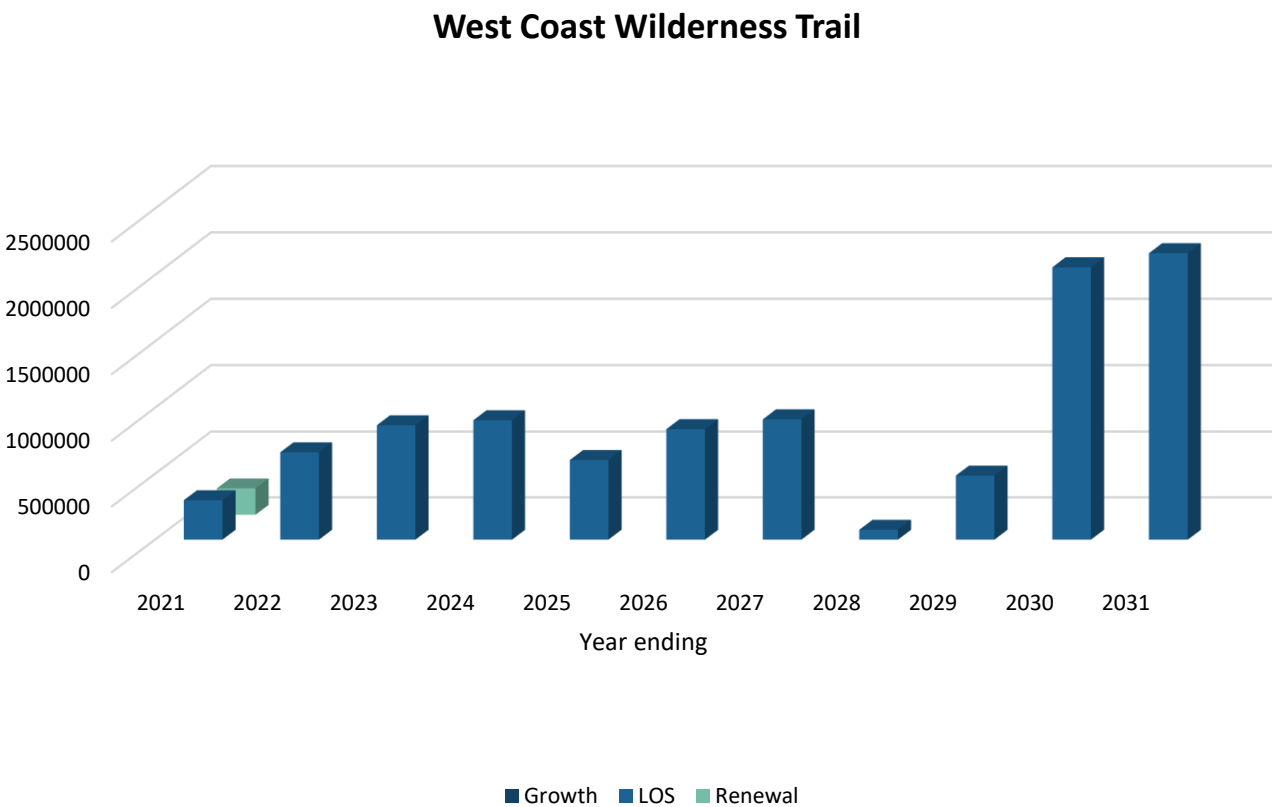
Parks and Reserves

Figure 25: Projected capital expenditure – Parks and reserves (inflated)



Facilities, and Leisure Services - Wilderness Trail

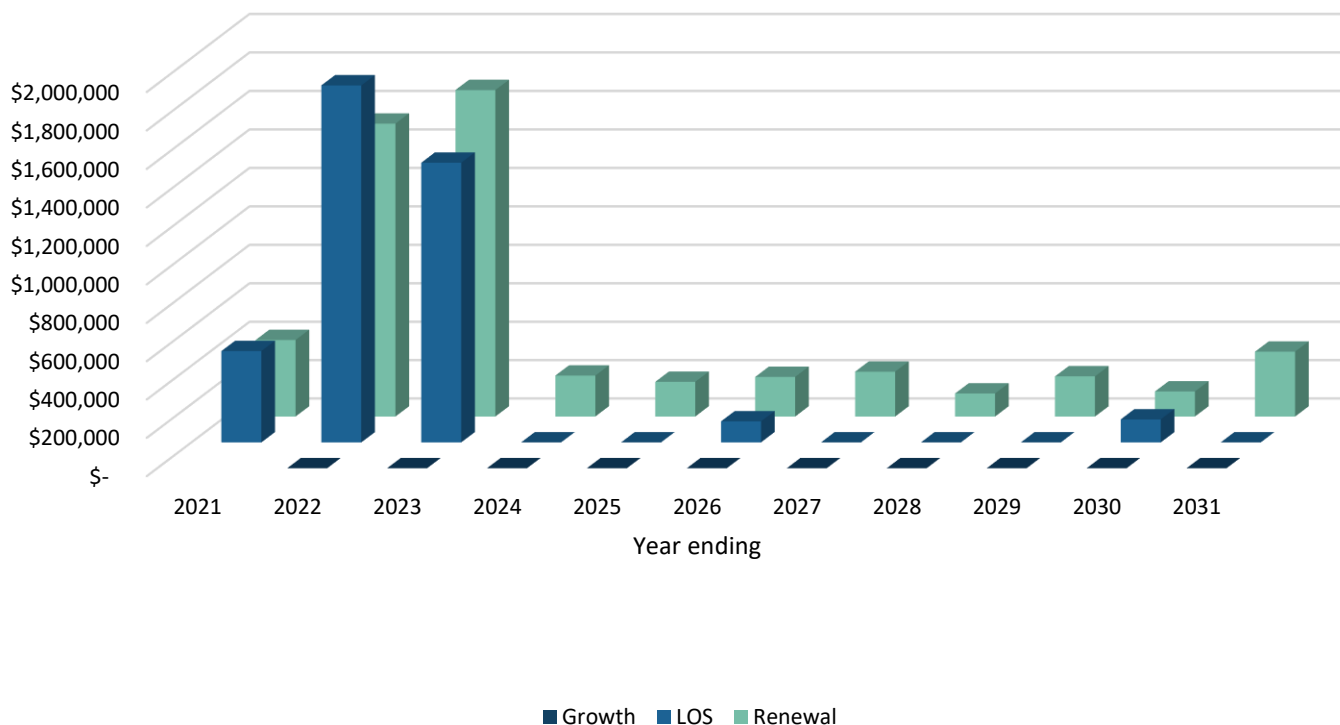
Figure 26: Projected capital expenditure – Facilities, and Leisure Service – Wilderness Trail



Facilities, and Leisure Services –Property, Land and Buildings

Figure 27: Projected capital expenditure – Facilities, and Leisure Services – Property, Land and Buildings

Property, Land and Buildings



Funding Implications

Council's focus is to source external funding as a priority rather than create an inter-generational rates burden on our population. This is preferable than relying on loan funding which will put long-term strain on Council's ability to continue to invest in improvements and enhancements to infrastructure.

There are funding implications from significant capital expenditure in this first ten years to meet the:

- Drinking Water Standards
- Higher environmental standards
- To ensure our road network is resilient.
- Impacts of regulatory changes.
- Managing contract renewals with rising costs.

This strategy has been based on gaining external Government funding for upgrading infrastructure as follows:

- Three Water Stimulus Grant from DIA and Crown Infrastructure Partners
- Tourism Infrastructure Fund
- Crown Infrastructure Fund
- Major Great Rides
- Provincial Growth Fund
- Cultural and Heritage Fund
- Other government sources.

Other funding opportunities exist through other agencies i.e. Lotteries, Heritage Funding, charities and trusts.

Where possible, Council to partner with other key stakeholders (Iwi, Development West Coast, DoC and private companies) for the betterment of the district. This could provide more opportunities to leverage greater support for co-sharing costs.

Affordability

The largest single area of expenditure is on the transportation network. As with operating revenue for qualifying expenditure transportation renewals also attract the NZTA FAR. It has been assumed that this will be available throughout the life of the plan.

Council intends to apply for all areas of external grants to fund infrastructure where upgrades and new assets are required through the impact of growth in tourism and for the potential cost of complying with the new drinking water standards.

Depreciation reserves

Recovering depreciation costs as part of operating income generates cash surpluses that can be allocated to renewal funds for assets and loan repayments. This is most appropriate for long life assets where a fund can be steadily accumulated and intergenerational equity is created because each generation of users pays for their consumption.

Special Reserves

Council maintains certain restricted reserves and special funds. These can be used, in limited circumstances, with Council approval and in compliance with any covenants to fund specified local community projects.

Achieving the Capital Plan

Whilst Council has had a poor track-record of completion of projects in the past, recently the District Assets team have gained more internal resources and instituted a Projects division. It is expected that this team assist with the backlog of carry-over projects along with new projects that are put forward, mostly in the building area.

Due to the location of the district, contactors in specialist areas e.g. membrane replacement, are sourced from outside the district. For projects over a certain dollar amount, tenders go out to the open market, usually via Government Electronic Tender System (GETS), allowing local and other contractors to price the work.

The nature of our environment on the Coast usually does not play a big role in project completion, unless there is a significant event that may prevent access to work sites (roads closed due to slips) or contractors being seconded away from the work area.

Resource Consents

Council holds a number of consents in relation to our infrastructure activities and uses the system CSVue to hold and report on these consents. CSVue uses a “prompt” mechanism for when conditions in a consent requires reporting to the consenting authority, West Coast Regional Council as well as when consents are due to expire.

Table 22 lists the consents expiring within the 30 Year Infrastructure Strategy timeframe (2021 – 2051).

Most notably the consents that will require dedicated input are the consents related to the wastewater treatment plants. Hokitika is currently undergoing a feasibility study, with finances set aside in the next five years for the renewal.

The other three WWTP consents are due to expire within the 30 year life of this plan and while budgets have been included for feasibility studies it is currently unclear of the level of treatment that will be required due the changing regulations brought on by the 3 Waters Reform and the National Policy Statement for Freshwater review.

Table 22: Resource Consents

Resource Consent / Concession	Location	Description	Expiry Date	Category
RC10159/1	Kumara	To take and use surface water from a spring for a community water supply (Kumara).	23 August 2045	DW
RC11028	Old School Rd, Arahura	To take groundwater from an existing bore for the purposes of a community water supply for Arahura	16 March 2046	DW
RC-2015-0141-01	Hokitika	To discharge treated sewage effluent from the Hokitika Oxidation Ponds to the Coastal Marine Area via an outfall pipe.	07 August 2026	WW
RC-2015-0141-02		To discharge contaminants (odour) to air.		WW
RC11027/1		To discharge stormwater from the Hokitika reticulated stormwater system to the Hokitika River upstream of the coastal marine area.	01 June 2046	SW
RC11027/2				SW
RC11031		To discharge reservoir overflow containing contaminants (residual chlorine) to an unnamed creek, Hokitika	16 September 2046	DW
RC2015-0077-01	Hokitika River	To disturb bed of Hokitika River to install intake structure to maintain diversion channel	15 July 2050	DW
RC2015-0077-02		To divert water in Hokitika River to undertake construction works and maintain flows over intake structure.		DW
RC2015-0077-03		To take surface water from the Hokitika River for community water supply		DW
RC11033	Lake Kaniere	To take water from Lake Kaniere for the purposes of a community water supply for Hokitika.	29 September 2046	DW
RC03076/1	Lake Kaniere Road	To discharge water from the town supply piping to land, in circumstances where it may enter water	06 May 2038	DW
RC03076/2		To disturb the bed of McKay's Creek for the purpose of water supply upgrade.		DW
RC00359/1	Jones Creek, Ross	Water permit to take surface water from Jones Creek for the Ross township water supply.	30 January 2036	DW
RC00359/2		Land use consent to install a V-notch weir in the bed of Jones Creek		DW

RC01167/1	Harihari	To take surface water from an un-named creek for the purpose of household supply (raw untreated Harold Creek scheme)	21 August 2036	DW
RC06273/1		To take groundwater for the purposes of a community water supply for Harihari	22 March 2042	DW
RC03068/1	Whataroa	To take groundwater from a bore, Whataroa	22 August 2038	DW
RC-2018-0068-01	Franz Josef	Land use consent: To undertake earthworks, including vegetation clearance, in the non-erosion prone area, Franz Josef.	21 January 2034	WW
RC-2018-0068-02		Discharge permit: To discharge treated sewage effluent to land where it may enter water (Waiho River), Franz Josef.		WW
RC-2018-0068-03		Discharge permit: To discharge contaminants (odour) to air from sewage oxidation ponds, Franz Josef.		WW
RC00390/1		To take surface water from an unnamed tributary of the Waiho River for the Franz Josef township water supply	21 September 2036	DW
RC-2015-0055-01	Tatare River, Franz Josef	To take and use surface water from the Tatare River for an emergency town water supply, Franz Josef.	24 April 2050	DW
RC-2019-0041-01	Fox Glacier	To discharge odour to air during the desludging of the Fox Glacier Oxidation Ponds.	20 June 2022	WW
RC00391/1		Water permit to take surface water from Carters Creek for the Fox township water supply.	22 March 2036	DW
RC00391/2		Discharge permit to discharge filter backwash to Carters Creek.		DW
RC-00388-01		Discharge permit to land to authorise the discharge of treated wastewater into and onto land from the Fox Glacier Wastewater Treatment Plant.	21 September 2036	WW
RC-00388-02		Discharge permit to water to authorise the discharge of treated wastewater into the Fox River from the Fox Glacier Wastewater Treatment Plant.		WW
RC-00388-03		Discharge permit to air to authorise the discharge of contaminants to air from the Fox Glacier Wastewater Treatment Plant.		WW

RC01164/1	Haast	Water permit to take groundwater via bore for the purposes of town supply, Haast.	21 August 2036	DW
RC01164/2		Land use consent for earthworks to deepen existing bore used to provide water for the purposes of town supply		DW
RC-00389-01	Haast	Discharge permit to land to authorise the discharge of treated wastewater into and onto land from the Haast Wastewater Treatment Plant.	21 September 2036	WW
RC-00389-02		Discharge permit to water to authorise the discharge of treated wastewater into the Haast River from the Haast Wastewater Treatment Plant.		WW
RC-00389-03		Discharge permit to air to authorise the discharge of contaminants to air from the Haast Wastewater Treatment Plant.		WW
RC-2015-0146-01		Land use consent: To disturb the bed of the Haast River to divert water into a side channel.	01 March 2037	WW
RC-2015-0146-02		Water permit: To divert water, Haast River.		WW
RC00359/2		Land use consent to install a V-notch weir in the bed of Jones Creek		DW
RC01165/1	Jackson Bay	Water permit to take surface water from an unnamed creek for the purpose of running a community water supply at Jackson Bay.	27 November 2036	DW
RC01165/2		Land use consent to disturb the bed of the unnamed creek while maintaining an intake structure for a community water supply.		DW