Significant Forecasting Assumptions

The financial information included in this Long-Term Plan is a forecast based on assumptions that the Council can reasonably expect to occur, along with the actions it reasonably expects to take, as at the date the forecast was prepared. We recommend caution to readers if this prospective financial information is used for any purpose other than as a Long-Term Plan prepared under the Local Government Act 2002.

The assumptions include an assessment of certain factors that might impact on the Council and the community, including consideration of how the population might change over the next 30 years, funding of Council services, and financial environment, and external factors such as the status of the COVID-19 pandemic and its effects on visitor numbers, as well as climate change and government legislation.

The actual results are likely to vary from the information disclosed, and such variations may be material. Particularly, there is a great deal of uncertainty surrounding the status of COVID-19 restrictions and the return of visitors to the district. There is also significant uncertainty about the form and function of any government-initiated reforms, particularly the three-waters reform. Both issues are so uncertain, and potentially have such an impact on the Council and our community, that there is little option but to assume status quo until there is more certainty upon which to plan.

The main assumptions underlying the forecast information, based on predictions from both internal and external sources, are as follows.

Assumption	Risk	Level of uncertainty	Impact
Population growth and demographic changes			
The resident population of the Kaikōura district is around 4,200 people and average permanent population growth will not exceed 1.0% per annum. The most significant demographic change will be an increase in the proportion of over 65 residents, forecast to increase by around 40% over 10 years (an extra 300 people in this age group). Approximately two-thirds of dwellings in the district will be permanently occupied, with the large majority of the remainder being holiday homes. This assumption is slightly above the Statistics NZ medium population growth projections, which suggest a decrease of 0.4% per annum.	If population growth is higher than assumed, there may be insufficient land serviced by Council infrastructure (water, wastewater, etc), and for housing affordability to be reduced. If population growth decreases, revenue from development contributions, user fees, and other revenue may be less than forecast.	Low	Current residential subdivisions still have a large number of available properties, and current zoning allows for more subdivisions. The Kaikōura township has spare capacity in its water and wastewater systems to cope with a population of up to 10,000 people. If population decreases, the Council can lower the financial impacts by slowing its capital spend, and/or revising its annual budgets.

			The increase in the proportion of over 65 residents can be accommodated within available properties, although the current challenge for the District that there is currently no specialist private aged care provider will likely continue – due to the complexities and costs for a provider within a small population. Unless this changes high needs elderly will need to use facilities in surrounding districts.
Land use & development			
We assume the Kaikōura economy will remain relatively unchanged with agriculture and tourism-related activities continuing to be dominant elements. We consider that at least 75% of population growth will be within the existing Kaikōura urban area or within two kilometres of it. Growth within the next ten years will not necessitate any works to increase the capacity of core Council infrastructural assets.	There is always the possibility that new economic activity will establish itself in the district. The environmental, social, cultural or economic effect of any new activity on the Council and/or community will depend entirely on the nature of the activity, is difficult to predict.	Low	There are no obvious economic drivers that suggest any unforeseen activities would establish themselves in the district, and certainly none that would not be able to be accommodated within existing infrastructure or services. The proposed new light industrial area south of Kaikōura may attract some new industrial activities as well as accommodating some of the operators from the Beach Road area or the Kaikōura flats.

Assumption	Risk	Level of uncertainty	Impact
COVID-19			
We assume that there is not a resurgence of COVID-19 or other pandemic that substantially extends or deepens restrictions beyond the scenarios currently forecast by the government. Associated with this is the assumption that the effects of the pandemic do not require the Council to reduce its levels of service in response to the effects on the local economy, or to increase its community support.	If the country were required to enter Level 3 or 4 restrictions, this could severely impact Kaikōura's retail, tourism and hospitality sectors. It would also delay the completion of the Council's capital projects and effect the Council's ability to deliver its services.	High	A resurgence of COVID-19 would have a significant impact on the Kaikōura economy, and this in turn would reduce some revenue to the Council and also increase the likelihood that the Council would be called upon to provide support to the community. This could result in increased use of borrowing, offset somewhat by the delay in capital projects.

Assumption	Risk	Level of uncertainty	Impact
Legislative reform			
All territorial authorities in NZ may be significantly affected by changes in legislation that have been signalled by the Government. It is likely that a major reform programme will commence, especially in the areas of Three Waters, COVID-19 recovery, and environmental requirements. However, there are high levels of uncertainty on the exact path government will take and the implementation requirements and impacts on the Council. As a result of this uncertainty, the consequential financial impacts on Council cannot be quantified with certainty yet. It is assumed that legislative and Government Policy changes will not significantly impact upon Council's current responsibilities and activities for the purposes of this LTP as suggested in guidance from Government and the Society of Local Government Managers (SOLGM), especially in regard to the Three Waters.	It is highly likely that the Government will want to advance its agenda of significant reform. As a result of local government having a very broad range of activities it is also very probable the cumulative effect on the Council will be significant.	High	To date Government's reforms have not reduced legislative obligations, costs, or the impact on ratepayers. It is too early to assess the financial impact of the Government's signalled policy announcements. However, it is expected that there will be specific requirements resulting from National Policy Statements and legislative change to establish a possible new means of delivering "three waters" services.
We assume that the technical requirement for compliance with the NZ Drinking Water Standards (DWS) are not further increased, but that compliance with those standards will be more vigorously pursued (potentially by a new drinking water regulator).	If the technical requirements were to increase, such as to include a mandatory requirement for fluoridation of drinking water for example, the cost of those requirements would need to be added to the Council's LTP budgets and funded by loans and/or targeted rates.	Low	The Council has already moved to address many recommendations of the Havelock North Inquiry in the projects undertaken in 2021, and in its infrastructure planning.

Assumption	Risk	Level of uncertainty	Impact
Grants & Subsidies			
Waiau-Toa (Clarence River) Bridge The Council plans to construct a new bridge, including river fords and protection works, effectively replacing the bridge destroyed by the 2016 earthquake. The new bridge is expected to cost up to $12 million and is needed to provide access for 15 residents. Waka Kotahi (NZTA) has agreed to fund 95% of the project, subject to the project meeting their design requirements. We assume that the project will go ahead, with final design commencing in 2021 and the bridge complete by end of June 2024, funded at 95% by Waka Kotahi. The planned solution is being worked through with the Rūnanga to address their concerns.	The concerns raised about the bridge location, fords and protection works may not be adequately resolved to the satisfaction of all parties. Given that Waka Kotahi has signalled funding restrictions, the 95% subsidy originally agreed may be withdrawn, either partially or entirely, leaving the Council to decide whether to fund the shortfall or find an alternative access solution (a solution that could potentially be more costly to the Council).	Medium/High	The consequence of the bridge and road protection not proceeding in the current form as agreed with Waka Kotahi (NZTA), is that the Council is likely to have to bear a far greater portion of the cost of any alternative solution, and potentially a much greater cost overall. That cost would need to be covered by extra borrowing and rates, and these costs would be significant to ratepayers.
Waka Kotahi (NZTA) funding Every three-years, Waka Kotahi (NZTA) funds most of the Council's roading expenditure currently at a rate of 52%. The roading program presented in this Long-Term Plan assumes that the related roading programmes submitted, are then approved by NZTA for funding from Waka Kotahi and also, at a rate of 52% in 2021/2022 for all qualifying roading expenditure, dropping to 51% for the remaining nine years of this LTP. Waka Kotahi is experiencing funding restrictions, which may impact the funding available to Councils.	The Council has planned for a significant programme of roading renewal works, including a backlog of reseals and road sublayer rehabilitation. If the subsidy rate were to be less than assumed, or if the submitted roading programme were not to be approved by NZTA for subsidy, the Council would need to either find some other source of funds (loans or rates), or slow the planned programme of work.	Medium	The Council has the ability to slow the planned programme of work to suit financial constraints.

Assumption	Risk	Level of uncertainty	Impact
Climate Change			
We assume that climate change will have significant effects on the district (such as temperature or rainfall) during the term of this Long term Plan; although not as extreme as other areas within Canterbury based on the technical reports to date. We assume that any significant effects on the district could not realistically be mitigated by actions taken by the Council. We assume that climate change predictions do not differ materially from current expert reports. ** The 2016 earthquake caused uplift of the coastal areas of the district that might otherwise have been vulnerable to rises in sea-level. The topography of the district can cause significant issues in wet weather events. It is not realistic, however, to predict where these events might occur or any potential resilience issues. The Council will consider climate change impacts in planning for infrastructure assets. Additional funding for major costs to remedy damage to Council infrastructure will, where necessary, be debt funded.	If a severe climate change event were to occur, the Council may not have adequate asset or hazard planning in place. Council has taken account of current climate change predictions in its District Plan natural hazards chapter plan change proposals.	Medium	The Council will consider climate change impacts in planning for infrastructure assets. The Council always has in place a minimum of $2 million buffer in its borrowing capacity, to facilitate the Council's response to a natural disaster, including a severe weather event. Waka Kotahi (NZTA) would likely provide funding assistance at a higher subsidy rate than the usual 51%, for emergency repairs to district roads and bridges.

** **Sea Level rise Impact:**

MfE (2017) presents current sea level rise projections. For Canterbury, the projected increases in sea level from a 1986-2005 baseline out to 2120 range from 0.55 – 1.06 m (under the same RCP scenarios used for the temperature increase projections). Most of the Kaikōura rivers have relatively steep gradients, thus any increases in sea level, due to climate change, should not have a significant impact on flood levels upstream of river mouths. By comparison, Lyell Creek has a relatively gentle gradient making it more susceptible to sea level increases. However, during the November 2016 Kaikōura Earthquake Sequence, ground levels at the Lyell Creek mouth uplifted by around 0.8 m relative to sea level. Therefore, any impacts on flooding due to sea level rise are likely to be minimal – especially since the SH1 bridge over Lyell Creek acts as a constriction to flood flows, limiting the flow able to be conveyed along Lyell Creek to the sea

Most of the Kaikōura rivers have relatively steep gradients, thus any increases in sea level, due to climate change, should not have a significant impact on flood levels upstream of river mouths. By comparison, Lyell Creek has a relatively gentle gradient making it more susceptible to sea level increases. However, during the November 2016 Kaikōura Earthquake Sequence, ground levels at the Lyell Creek mouth uplifted by around 0.8 m relative to sea level. Therefore, any impacts on flooding due to sea level rise are likely to be minimal – especially since the SH1 bridge over Lyell Creek acts as a constriction to flood flows, limiting the flow able to be conveyed along Lyell Creek to the sea
Kaikoura Fans Flood Modelling investigation report – Ecan February 2020 report No. R20/15

Air temperature
MfE (2016) presents projected changes in annual mean temperature for four scenarios of future radiative forcings, known as 'Representative Concentration Pathways (RCPs). These represent different pathways of human development and greenhouse gas emissions. For Canterbury, the average projected increases in annual mean temperature from a 1986-2005 baseline out to 2101-2120 range from 0.7 – 3.6 ºC.
Kekerengu, Hāpuku and Oaro floodplain investigation Report No. R19/04 January 2019

Rainfall
In general, rainfall varies more significantly spatially and temporally than temperature. For the east coast of the South Island, summer is likely to become wetter, and winter and spring drier (MfE, 2016).
Kekerengu, Hāpuku and Oaro floodplain investigation Report No. R19/04 January 2019

Assumption	Risk	Level of uncertainty	Impact
Capital projects			
This Long-Term Plan provides for a total of $45.3 million in capital work in the next ten years, including the Waiau-Toa bridge ($11.4M)* and the Wakatu Quay development ($8.8M)*. The Plan is to complete an average of $10.3 million per year in the first three years (2021-2024) and an average of just under $2 million per year thereafter. The Council assumes that it has the capacity to deal with a capital programme of this magnitude, and that it has contractors, materials, and other resources to complete these projects. In addition, the Wakatu Quay project assumes that a further $800k of Co-funding will be secured for the project (or alternative arrangements suitable to the PGF/MBIE are entered into) to allow the project to be completed. The Long Term Plan also assumes ($75k) net income from the Wakatu Quay project from year 4 – the assumption is believed to be very conservative (i.e. low) but as the project is in its early stages, a conservative assumption is considered appropriate. ** both projects have commenced design phases in 2020/2021 with some costs already spent to date.*	If the Council were unable to secure the contractors and resources it needs, or is unable to obtain tenders at the prices it has considered applicable for the project, then it is likely that the project will be delayed until either the resources, or the additional funding, are sourced as appropriate. If more Co-funding for Wakatu Quay is not obtained it will require approval from PGF/MBIE	Medium/Low	The Council has experienced staff and access to external resources that have successfully delivered $40 million worth of earthquake rebuild projects on time and on budget. The largest planned projects, the roading renewals and the Wakatu Quay development, are both well underway and there are high levels of confidence that both projects will be completed successfully (including co-funding). Risk remains in the price of tenders we receive.

Assumption	Risk	Level of uncertainty	Impact
Significant assets, useful lives, capital expenditure, and funding future assest/renewals			
The Council revalued its roading and three-waters infrastructure at 1 July 2020. That revaluation included assessments about the age and condition of those assets, remaining useful lives of assets, and unit rates and replacement costs. The detail for each asset category regarding depreciation rates are shown in the Statement of Accounting Policies. The Council is confident that its knowledge about its assets, their condition and when they are likely to need renewing, is vastly improved due to the extensive rebuild programme of work that has been completed over the last five years.	If the Council has under-estimated how soon it will need to renew or replace its roads or three-waters infrastructure, this will result in significant costs being brought forward into the 2021-2031 period. These costs would be funded in accordance with the Revenue & Financing policy - likely needing to be loan funded.	Low	The Council's asset valuations have been independently reviewed and given a confidence rating of "B". This rating means the source data, unit cost rates and other asset information is reliable and within 10-15% accuracy. Loan funding in accordance with the Revenue & Financing Policy, should be able to be sourced based on the borrowing levels and ratios – see financing Strategy
Emissions Trading Scheme (ETS)			
The Council has a legal obligation to surrender carbon credits under the ETS due to its landfill operations and the resulting greenhouse gas emissions from disposal of solid waste. The forest at South Bay is not large enough to use as a carbon offset. The price of carbon credits has increased substantially and is forecast to cost around $80,000 per annum. This cost will be recovered from IWK, who will need to pass that cost on to consumers by way of waste disposal charges.	The Council will recover the cost of carbon credits directly, during the year, from IWK based on the volume of waste disposed of to landfill. The risk is that the price of carbon credits at the time the Council surrenders its units is more than the price it has recovered from IWK.	Low	The Council can recover any pricing losses through its contract with IWK. Ultimately the cost of the ETS is borne by those who use the landfill, based on the volume of waste they dispose of, which is an appropriate mechanism to incentivise waste reduction.

Assumption	Risk	Level of uncertainty	Impact
Landfill			
The Council assumes that the landfill will reach full capacity during the life of this LTP. The resource consent it holds to operate the landfill expires in 2031. The Council proposes to reconfigure the site as a transfer station, commencing in 2022/2023, and to close the landfill itself in 2024. The Council further assumes that it will be able to use the Kate Valley landfill facility in North Canterbury, or the Blue Gums landfill in the Marlborough District.	There is a risk that the landfill approaches full capacity at a faster rate than is currently envisaged. If this were to occur the Council would need to escalate its site reconfiguration project, and start transporting waste out of the district sooner. The cost of disposing of waste to landfill is likely to increase to cover the cost of transportation, although this could be offset by savings in the cost of landfill site maintenance, compacting, capping, etc.	Medium/Low	There is a high level of uncertainty as to exactly when the landfill will be full. The Council is mitigating that risk by planning to reconfigure the site commencing in 2022/2023, which should be several years before capacity is reached, based on current waste disposal volumes. The Council has written confirmation from both the Kate Valley and the Blue Gums operations, that Kaikōura's waste will be accommodated by these facilities when required.
Interest rates			
The Council borrows from the Local Government Funding Agency (LGFA) and is therefore able to borrow at interest rates much lower than retail. We assume the following average rates of interest on borrowing: July 2021 to June 2023 1.75% July 2023 to June 2027 2.50% July 2027 to June 2031 3.00% We assume interest rates on deposits will be 0.25%	If interest rates increase to levels higher than forecast, the cost of borrowing would increase. The Council reviews its budgets annually and so any increase in borrowing costs would be reflected in the subsequent year's increase to rates for ratepayers. It is considered unlikely that interest rates would ever increase significantly without strong signals in the economy triggering the Council's ability to adjust its budgets.	Low	The Council's planned level of debt is not expected to exceed $10 million in the next ten years. A one percent increase in the loan interest rate is a $10,000 annual cost for every $1 million the Council borrows, or up to $100,000 per year. If there were to be much higher interest rate than predicted, the Council has the option to delay some loan-funded projects.

Assumption	Risk	Level of uncertainty	Impact
Revaluation			
Council-owned land and buildings, roading, and three-water assets are subject to a revaluation of their carrying value every three years. These revaluations are assumed to be adjusted per the rates of inflation specified below.	If these assets were to be revalued higher or lower than forecast, or the assets remaining useful life were to be different to the current useful life predictions, then the depreciation expense is likely to be higher (or lower) than forecast.	Low	The Council does not fund depreciation, so there would be no impact on the rates requirement. Instead, there would only be an impact on asset values and depreciation expense. If depreciation were to be higher than currently forecast, this would increase the operating deficits of the Council (or reduce its surpluses if applicable), but would have no cash impact.
Inflation			
The financial information is based on the adjustments for inflation detailed in the following pages. The Council has used the Business & Economic Research (BERL) forecasts of price level changes to adjust future year's variable costs and revenues, relative to the type of activity (operational or capital). Further details about the specific assumptions for inflation are stated below.	If inflation were to be higher than the BERL economic forecasts, then all the following items will be underestimated in dollar terms: • User fees & charges • Operating expenses (excluding loan interest and depreciation) • Capital expenses If these items were to be underestimated then this has a flow on effect to the rates requirement, the level of borrowing required, and all the financial statements in this document.	Medium/Low	Dependent upon the extent of the variation from actual costs to budget, an increase inflation beyond the BERL forecast could result in an increase in rates and debt servicing, and/or a slowing of the capital work programme.

Inflation

For this 2021-2031 Long-Term Plan period, BERL has produced three scenarios for local authorities to use dependent upon the economic drivers within their respective districts, to acknowledge the impact of COVID-19 differs in areas with high reliance upon tourism compared to areas with more diverse economies or those with a higher proportion of public sector employment and agricultural activities.

The Council has opted to use the "Stalled rebuild scenario", which BERL describes as follows:

The Stalled rebuild scenario is a scenario that assumes that the economic recovery is somewhat stalled due to a combination of structural inertia, and other microeconomic drivers.

The forecast itself is built off historic growth rates and a path consistent with RBNZ and the Treasury forecasts with a significant "skewing" of the recovery to the negative side. Under this scenario unemployment remains higher and GDP grows more slowly out to 2031.

This forecast is applicable to Councils in areas that:

a) *Have an economy with greater reliance on industries hardest hit by the response to COVID-19 such as tourism and retail,*
b) *Have relatively sound infrastructure and do not expect to engage in significant infrastructure upgrades in the next decade[1]. Alternatively, they have unsound infrastructure in need of upgrading but no appetite to do so,*
c) *Have a slowly growing, or shrinking, more aged population,*
d) *Have a low proportion of employment in local and central government,*
e) *Have a low proportion of employment in agriculture.*

The Council considers that the Kaikōura district may not fit all the above criteria at once, but that the district might overall be reasonably described by that criteria. Having come to that conclusion, the inflation adjustors have been applied per the following tables.

[1] Projects such as Transmission Gully or a new light rail system are examples of "significant" upgrades.

Local government cost adjustors, stalled rebuild scenario, % change on year earlier

Stalled rebuild scenario				
	Planning & regulation	Roading	Community	Water & environment
2022	0.0	0.0	0.0	0.0
2023	2.1	2.8	2.3	2.3
2024	2.0	2.8	2.2	2.1
2025	2.0	2.8	2.2	2.2
2026	2.0	2.8	2.2	2.2
2027	2.0	2.7	2.1	1.9
2028	2.0	2.7	2.2	2.2
2029	2.0	2.7	2.2	2.3
2030	2.0	2.7	2.3	2.4
2031	2.0	2.7	2.1	2.0
20-year average % per annum	1.9	2.4	2.0	2.0

Local government cost adjustors, stalled rebuild scenario, cumulative % change

Stalled rebuild scenario				
	Planning & regulation	Roading	Community	Water & environment
2022	0.0	0.0	0.0	0.0
2023	2.10	2.80	2.30	2.30
2024	4.14	5.68	4.55	4.45
2025	6.22	8.64	6.85	6.75
2026	8.35	11.68	9.20	9.09
2027	10.50	14.69	11.49	11.17
2028	12.73	17.79	13.95	13.61
2029	14.98	20.97	16.45	16.23
2030	17.38	24.24	19.13	19.02
2031	19.63	27.59	21.63	21.40

Local government cost index LGCI:
Stalled rebuild scenario

In applying each of the above inflation factors, the following categories have been used:

	Roading	Water & environment	Community activities	Planning & regulatory	LGCI
Roads & bridges	X				
Footpaths & streetlights	X				
Water supplies		X			
Wastewater		X			
Stormwater		X			
Refuse & recycling		X			
Parks & reserves			X		
Facilities & properties			X		
Airport			X		
Harbour			X		
Forestry			X		
Leadership & governance					X
Personnel expenses		X			
Building control				X	
Statutory planning				X	
Animal control				X	
Regulatory functions				X	
Community development			X		
Emergency management			X		
Library services			X		
Grants & events			X		
District planning & policy			X		
Tourism & marketing					X
Economic development					X

Note we have used these cost indices for both operating and capital expenses, and have used the LGCI capital table (at left) for all revaluation movements.

Stalled rebuild scenario		
Operating expenses		
	% change on year earlier	cumulative % change
2022	0.0	0.0
2023	2.3	2.3
2024	2.1	4.45
2025	2.2	6.75
2026	2.2	9.09
2027	2.1	11.39
2028	2.2	13.84
2029	2.2	16.34
2030	2.2	18.90
2031	2.1	21.40
Revaluation movements		
	% change on year earlier	cumulative % change
2022	0.0	0.0
2023	2.4	2.4
2024	2.2	4.65
2025	2.3	7.06
2026	2.3	9.52
2027	2.2	11.93
2028	2.3	14.51
2029	2.3	17.14
2030	2.4	19.95
2031	2.2	22.59