Significant Forecasting Assumptions

In preparing this Long Term Plan it was necessary for Council to make a number of assumptions about the future. The following tables identify those forecasting assumptions which are significant in that if actual future events differ from the assumptions, it will result in material variances to this Plan. The table also identifies the risks that underlie those assumptions, the reason for that risk, and an estimate of the potential impact on the Plan if the assumption is not realised.

A number of assumptions have such a high level of uncertainty the financial impact of a change in the assumption is not able to be quantified. In these situations a description of the impact has been provided.

Assumption	Risk	Level of Uncertainty	Reasons and Financial Impact of Uncertainty
Capital Programme and infrastructure assets			
Capital Works. Programmes and projects are delivered within budget and on time.	Actual costs will vary from estimates, due to higher input prices and/or delivery delays, resulting in budget shortfalls. These are partially offset by the delay in borrowing. Council however has tendered significant work in the post-earthquake environment and estimates are based on the best available information. Delays could also be due to consenting and consultation requirements. Some projects which are to repair earthquake damage are still to be finally costed. Depending on the asset a delay in the rebuild capital works programme could result in higher reactive maintenance and operating costs for the essential services.	Moderate	Should the level of capital works be unable to be completed as planned in any year of the long term plan this will result in projects being carried forward. The implications of this are: • projects may cost more than planned due to inflation. • less funds will need to be borrowed in the short term. Delaying new borrowing will impact on the timing of financing costs. • possible reduction to levels of service • possible additional reactive opex • possible reduction in opex if the delay relates to a new facility Any inflationary increase in Council's costs that is not offset by efficiency gains or revenue is likely to impact the timing of future works or increase borrowing. For Anchor projects the Council's contribution is its maximum contribution (in line with the Cost Share Agreement). However, for some of the assets, in particular the Multi Use Arena, delays in construction could result either in Council's contribution increasing due to inflation and other cost increases, or the project being reduced in scope to meet the budget.
Sources of funds for replacing assets. The sources of funds will occur as projected.	Funding does not occur as projected.	Low	The impact to ratepayers of every $10 million of additional borrowing for capital works is a 0.15% increase to rates spread over two years. This increase accounts for the interest cost and repayment of the borrowing.

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Asset life. Useful life of assets is as recorded in asset management plans or based upon professional advice (the Accounting Policies detail the useful lives by asset class)	Damage to assets as a result of the earthquakes is such that their useful lives are shortened significantly.	Moderate	Council has updated its database with the latest information. However, condition information on water assets is more difficult to obtain therefore making remaining life difficult to quantify. Earlier replacement would put more pressure on the Council's capital programme, leading to higher depreciation expense and financing costs. [This is also discussed in the Infrastructure Strategy.]
Carrying value of assets. The opening balance sheet reflects the correct asset values. The carrying value of assets are revalued on a regular basis	All assets are not correctly recorded at their revalued amounts. Asset revaluations will change projected carrying values of the assets and depreciation expense.	Low	Land and buildings were revalued as at 30 June 2015 and the findings incorporated into the opening balance sheet. Because of the number of buildings which were valued the valuers assumed no damage and an adjustment was made for the loss of value due to impairment. This assumption may prove to be incorrect. Water supply, stormwater, water and roading assets were revalued at 30 June 2017 and the results incorporated into the opening balance sheet. Differences in carrying value will affect levels of depreciation.
Inflation. Growth and Population			
Inflation. The price level changes projected will occur. In developing this plan Council based its inflation projections on information provided by Business Economic Research Limited to all local authorities with an adjustment in early years for the rebuild factor. Different weighted average inflation figures for capital and operational items are used due to the potential impact of the rebuild on capital costs. Inflation adjustments used are: Capital Opex 2018/19 2.2% 1.9% 2019/20 2.1% 2.0% 2020/21 2.3% 2.1% 2021/22 2.3% 2.1% 2022/23 2.3% 2.1% 2023/24 2.4% 2.2% 2024/25 2.5% 2.3% 2025/26 2.5% 2.4% 2026/27 2.6% 2.4% 2027/28 2.7% 2.5%	Inflation will be higher or lower than anticipated Inflation on costs will not be offset by inflation on revenues.	Low Moderate	Inflation will be higher or lower than anticipated Inflation on costs will not be offset by inflation on revenues.
The following BERL rates were used in determining the weighted average for capital expenditure:			

Assumption	Risk	Level of Uncertainty	Reasons and Financial Impact of Uncertainty

	Weighting	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Roads	29%	2.0	2.2	2.2	2.3	2.4	2.4	2.5	2.6	2.7
Earthmoving	31%	2.0	2.3	2.4	2.4	2.5	2.6	2.7	2.8	2.9
Pipelines	27%	2.2	2.7	2.5	2.4	2.4	2.4	2.4	2.4	2.4
Other	13%	2.1	2.0	2.0	2.1	2.2	2.3	2.3	2.4	2.5
	100%									

Assumption	Risk	Level of Uncertainty	Reasons and Financial Impact of Uncertainty
Economic Environment. Treasury has forecast the national annual average real GDP growth to be between 2.9% in 2017 to 3.2% in 2018, and then decline to 2.8% in 2019 and 2.5% in 2020. National and international drivers that could affect the Christchurch economy over the period of the Long Term Plan include a forecast increase in dairy prices, continuing strength in tourism tempered by a reduction in net migration The Christchurch economy is expected to continue to grow but at lower levels than the past 5 years as the residential rebuild slows. Delivery of key anchor projects - the convention centre, metro sports centre and multi-purpose arena will have positive impacts on the local economy. Council has prepared this Plan on the basis that the current predictions about the economy will prove correct.	That there is an unexpected local, national or international economic shock and growth slows significantly or becomes negative.	Low	While the New Zealand economy is currently in a strong position the availability and cost of resources including labour and materials could constrain growth and/ or be inflationary. International economic shocks are often impossible to predict. Current risks that could trigger a negative economic environment include an oil price shock, geopolitical instability, some markets appearing overpriced. A significant economic slowdown will impact on the rating base and on ratepayers' ability to pay. It could move facilities and services that are currently considered must haves to being nice to haves.
Growth development contributions revenue. Council collects development contributions from property developers to fund the capital costs of providing infrastructure capacity to service growth development. Development contribution charges are based on apportioning the cost of providing growth infrastructure to the forecast number of new residential, commercial, industrial and other properties. This forecast is based on Council's Growth Model. Development contribution revenue is dependent on the forecast growth materialising over the funding life of the particular growth assets provided.	If the number of new properties paying development contributions is less than forecast over the funding life of assets then revenue from development contributions will not be sufficient to fund the growth component of the Council's capital programme. If the timing of growth differs significantly from forecast this will impact on Council's cash flows and may necessitate changes to planned borrowing. The location and timing of development is determined by a number of factors outside the control of the council such as market factors.	Low Low	The timing of growth, and its impact on Council's development contributions revenue, can impact on the borrowing and interest expense assumptions in this Plan. Any shortfall in development contributions revenue must be funded by borrowing.
Population. Planning for activities, and thus the likely cost of providing those activities is on the assumption that the population of Christchurch will increase at the rate forecast by Council's growth model.	That population growth is higher than projected, and Council will need to provide additional unplanned services and infrastructure.	Low	Population projections are based upon a standard set of demographic assumptions. However, the impact of the earthquake and the speed of the rebuild could alter these assumptions. The level

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That model predicts the population of Christchurch to reach 423,800 by June 2028, an increase of 9.5% over the expected 2018 population. The number of households is projected to increase by 11.5% over the same period, as the average number of people per household continues to decline.	That population growth is lower than projected, and the Council will be required to support excess levels of infrastructure and service delivery.	Low	of risk is low but could impact the cost of providing activities Net increases in inward migration fuelled by a rebuild are difficult to predict as is their sustainability in the medium term.
Rating Base The capital value of Christchurch (post revaluation) is expected to increase across the years of the LTP. The projected percentage increase in rates includes the assumption that growth in the capital value of the city will have generated the additional rates revenue as outlined in table below, **Year / Growth % / $ Impact on following year's Rates Base** 2017/18 1.6% $7.0m 2018/19 0.9% $4.3m 2019/20 0.85% $4.3m 2020/21 0.8% $4.3m 2021/22 0.8% $4.7m 2022/23 0.8% $4.8m 2023/24 0.7% $4.4m 2024/25 0.7% $4.7m 2025/26 0.7% $4.9m 2026/27 0.7% $5.1m Growth is expected to decline, due to the significant amount of earthquake recovery (particularly new subdivision) that has been completed. Note that many of the remaining large Anchor Projects will be legally non-rateable.	The rating base grows at a rate different to that projected.	Low	Variances between the forecast and actual growth in the rating base are likely to cause changes to the total rates revenue collected.
Aging population. The number of people over the age of 65 is expected to have doubled by 2043 to 105,700 (23%). This will increase by a further 20% between 2043 and 2068, when the proportion of the total population over the age of 65 will be around 28% or 135,000 people. By 2043 the number of people over the age of 80 is expected to be around 8% of the population, compared to around 4% in 2013.	If the mix of ages within the population is significantly different from that forecast the range and types of services that have factored in the needs of older persons may need to change.	Low	Age projections are provided by Statistics New Zealand on a nation-wide basis. The projections for people who will be in post- retirement age groups is determined by the current population structure which does not change significantly, especially in the ages from 45 to 65 years, which will be the retirement age group in the next 20 years. The impact on Christchurch may be different from the rest of New Zealand due to the effect of the rebuild.
Impact of policies and external factors			
Council policy. There will be no significant changes to Council policy as summarised in this plan.	New legislation is enacted that requires a significant policy response or business change from Council or, Department of the Prime Minister and Cabinet (DPMC) uses its statutory powers such that a change is required to Council policy.	Low	Dealing with changes in legislation is part of normal Council operations.

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New Zealand Transport Agency subsidies. Requirements and specifications for the performance of subsidised work will not alter to the extent they impact adversely on operating costs. The Current Funding Assistance Rate (FAR) is 51% on qualifying expenditure.	Changes in subsidy rate and variation in criteria for inclusion in subsidised works programme.	Moderate	Changes to the funding priorities of New Zealand Transport Agency are outside Council control and they vary from project to project. The maximum financial impact would be the elimination of the subsidy, estimated at $60 million per annum. The change in Government may change the funding priorities and this could be reflected in the first three years of the LTP.
Resource Consents. Conditions of resource consents held by Council will not be significantly altered.	Conditions required to obtain/maintain the consents will change, resulting in higher costs than projected, and these costs will not be covered by planned funding.	Moderate	Advance warning of likely changes is anticipated. The financial impact of failing to obtain/renew resource consents cannot be quantified. Two significant consents that will be finalised over this period, are the Global stormwater consent and the Akaroa wastewater consent.
Legislative change. Council will continue to operate within the same general legislative environment, and with the same authority, as it does at the time this Plan is published.	Should the local government legislative environment change, the activities and services the Council plans to provide over the period of this Plan could change.	High	The Government has several taskforces reviewing different aspects of local government, with some legislative change having occurred and further is expected to occur within the period of this Plan. At the time of preparing this Plan the Council is unable to determine how potential legislative change might impact its operations or quantify the potential financial impact.
Potential climate change impacts. In its Climate Smart Strategy, the Council follows New Zealand Government advice about anticipated changes for Christchurch and is meeting legal obligations placed on the Council to consider the impacts of climate change. Following this advice, our community within the next 90 years must prepare for: a. 100 centimetre rise in sea-level; b. a temperature increase of 2 degrees Celsius; and c. changes in rainfall and extreme weather events.	The timing or severity of any climate change may vary.	Low	If the effect of climate change has been underestimated the financial effect will be significant over the longer term but not within the period of this Plan. Similarly, should the effect have been overestimated there is little impact on the period of this Plan. The reverse however is not true in that decisions made within the next 10 years could have considerable financial impact on future generations
Borrowing Related			
Credit Rating. The current rating is maintained.	Council's credit rating with Standard and Poor's is downgraded.	Moderate	There is still some uncertainty around the final rebuild costs. A downgrade would increase costs of borrowing. If the Council falls one notch from its current credit rating (i.e. from A+ to A) the cost of ***new***

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			borrowing will increase between 0.1 and 0.2 per cent per annum for the life of the borrowing. Existing borrowing would not be affected until it needs to be refinanced at maturity. In such an event, interest costs in 2018/19 would not be materially affected because little new borrowing is planned. However, interest costs by 2027/28 would be around $4 million higher per annum than currently planned. Increases in interest rates flow through to higher debt servicing costs and higher rates funding requirements.
Borrowing Costs. Net cost of borrowing (i.e. including current and projected debt) is projected to be around 5.0% throughout the period of the Long Term Plan. These averages include assumed long-term market interest rates (including Council's borrowing margin) of: Year Total rate 2018/19 4.00% 2019/20 4.25% 2020/21 4.40% 2021/22 4.60% 2022/23 4.65% 2023/24 4.75% 2024/25 4.85% 2025/26 4.95% 2026/27 5.00% 2027/28 5.00%	Interest rates will vary from those projected.	Moderate	Projections are based on conservative assumptions about future market interest rates. The cost of projected debt is hedged to minimise exposure to market rate fluctuations. Council manages interest rate exposure in accordance with its Liability Management Policy, and in line with advice from an independent external advisor.
Securing External Funding. New, or renewal of existing borrowings on acceptable terms can be achieved.	That new borrowings cannot be accessed to refinance existing debt or fund future capital requirements.	Low	The Council minimises its liquidity risk by maintaining a mix of current and non-current borrowings in accordance with its Liability Management Policy.
Philanthropic Funding. Planned philanthropic funding will be able to be secured to assist with the funding for major projects.	That philanthropic funding cannot be secured	Moderate	If such funding cannot be secured additional funding may be required by the Council in order to deliver the project. Alternatively the project will be scaled back to be within existing budget. The options available to Council to replace this funding include: • Additional borrowing if sufficient capacity within limits exists. • Sale of investments or assets;

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			• Changes to levels of service or the capital programme.
LGFA Guarantee. Each of the shareholders of the LGFA is a party to a deed of Guarantee, whereby the parties to the deed guarantee the obligations of the LGFA and they guarantee obligations of other participating local authorities to the LGFA, in the event of default.	In the event of a default by the LGFA, each guarantor would be liable to pay a proportion of the amount owing. The proportion to be paid by each respective guarantor is set in relation to each guarantor's relative rates income.	Low	The Council believes the risk of the guarantee being called on and any financial loss arising from the guarantee is remote. The likelihood of a local authority borrower defaulting is extremely low and LGFA has recovery mechanisms that would be applied prior to any call on the Guarantee. All of the borrowings by a local authority from the LGFA are secured by a rates charge.
Opening Debt: The opening debt of $1,801 million is made up of; • $173 million of equity investments, mainly in CCTOs (Vbase $149 million), • $581 million of money borrowed for on-lending to CCTOs, (in accordance with the Council's Liability Management Policy), • $589 million of earthquake related borrowings. There is an additional $99 million borrowed internally from the Capital Endowment Fund. • $360 million of borrowing for capital works. • $98 million finance lease (Civic Building).	Actual opening debt differs from forecast.	Low	Council's debt requirements are well understood and closely managed. It is unlikely that opening debt will be significantly different to forecast.

Investment related			
Return on investments. Interest on general funds invested is calculated at the expected Official Cash Rate (projected at 1.75% in 2018/19, rising to 3.75% by 2027/28). The return on the Capital Endowment Fund is calculated at 3.6% for 2018/19, rising slowly to 3.9% by 2027/28. Virtually all of the Fund is internally borrowed in lieu of external ratepayer borrowing.	Interest rates will vary from those projected.	Moderate	Rates used are based on expert advice. If actual interest rates differ from those anticipated the impact will largely fall on the Capital Endowment Fund.
CCTO income. CCHL will deliver dividend income at the levels forecast in this Plan.	CCHL will deliver a lower than projected dividend and Council will need to source alternate funding.	Low	CCTOs are monitored by their Statements of Intent and a quarterly reporting process. Returns are expected to continue as forecast in this Plan. Should additional dividend income be received the level of borrowing forecast in this plan will be reduced.
CCHL capital release The Council will receive $140 million from CCHL in 2018/19 via its capital release programme.	That $140 million cannot be released within the planned time frame. A change in tax legislation or policy changes the tax treatment by Council of the dividends.	Low Moderate	CCHL has agreed to provide the Council with $140 million in 2018/19 via its capital release programme. The timing of receipt could change depending on the methods of release selected and the impact on the Council's total debt and the Debt to Revenue ratio. A change in tax legislation or policy is not expected until after the 2018/19 year when the last of the dividends from the capital release program are expected to be received.
Tax planning. The Council (parent) will be operating at a tax loss for the period covered by this Plan due to the availability of tax deductions on some Council expenditure. This allows the Council's profit-making subsidiaries to make payments (known as subvention payments) to Council instead of tax payments. It has been assumed that sufficient profits will be made within the wider group to ensure that subvention receipts are available.	Subvention payments will be lower than planned.	Moderate	CCTOs are monitored by the Statement of Intent and a quarterly reporting process. Returns are expected to continue as forecast in this Plan.

Services and Operations			
Social housing. Social housing assets are leased to Otautahi Community Trust while asset ownership, including long term maintenance, is the responsibility of Council. Social housing asset long term maintenance is funded through the lease payments.	Social housing remains ring-fenced from rates, through a separate Social Housing Fund. The ongoing revenue source for this fund is the lease payments from the Otautahi Community Housing Trust. Modelling for the Social Housing Fund indicates that its sustainability is sensitive to small changes and there is a risk that:. • The lease payments are not sufficient to enable the social housing portfolio to be financially viable in the long term. • Higher than expected expenditure (e.g. due to asset failure or external events) reduces the financial sustainability in the short term (2 years).	Moderate	The Trust increases its operating and maintenance costs above those modelled, leading to reduced revenue to Council (and reduced ability to invest in the long term maintenance of units). The Trust does not share the increased revenue gained through its ability to access the IRRS (for example, through renegotiation of the rent cap), leading to less revenue to Council (and reduced ability to invest in the long term maintenance of units).
Regional Land Transport Plan. Council's Long Term Plan aligns with the Councils submission to the Regional Transport Committee.	The Regional Land Transport Plan is not finalised until late March, which could mean that not all projects are approved by the Regional Transport Committee.	Moderate	Any change to the approved projects would require a review of priorities as New Zealand Transport Agency funding is guided by the Regional Land Transport Plan. If projects are not included co-funding is unlikely to be available. A draft GPS is being reviewed by the new government, so funding priorities may change.
Contract Rates. Re-tendering of major contracts will not result in cost increases other than those comparable with the rate of inflation.	There is a significant variation in price from re-tendering contracts.	Moderate	Where possible Council would review the scope of work, otherwise additional budget would be required. Maintenance contracts however have a significant impact on ratepayers satisfaction and over the period of the LTP a number of these will be rewritten to ensure they are fit for purpose. This may impact financially on the plan.

Anchor project ownership and operating costs The Cost Share Agreement is the underlying document that the Council has used to determine ownership and operating cost requirements. In most instances ownership is clear but where the Agreement is ambiguous Council has assumed as follows for the purposes of this Plan: • **Bus Exchange** Council assumes it will operate the Bus Exchange from July 2018 with Crown funding, the operating costs from FY18/19. • **The Frame, (Public realm)** Council ownership and maintenance • **The Square** Council ownership and maintenance • **Central Library** Council ownership and operation • **Car parking** Council / private ownership and operation • **Earthquake memorial** Crown ownership and maintenance. Council maintains the grounds. • **Metro Sports Facility** Council ownership and operation • **Avon River Precinct** CDHB and Council ownership and operation • **Multi Use Arena** For planning purposes we have assumed this will be completed in 2025 and owned by Council..	The Cost Share is changed and Council is assigned responsibility for meeting the operating costs of additional venues.	Low	As signalled by the Mayor, Council would like to negotiate a global settlement with the Crown. We are not expecting any additional operating or ownership costs from this negotiation.

Insurance cover and natural disaster financing			
Insurance cover The Council has full Material Damage cover for all major above ground buildings which are undamaged and fire cover for significant unrepaired buildings.	Risk of major loss through fire	Low	Financial impact is not expected to be significant.
Natural disaster financial implications. The Christchurch region is susceptible to further damage from earthquake, flooding and tsunamis.	Council has limited insurance cover in place for damage to infrastructure networks from flooding, tsunami and earthquake events and relies on the strength of its balance sheet plus access to central government emergency funding in the event of another major event.	Low	Financial implications of another significant event are large, particularly in the first 10 years when our ability to borrow will be limited due to the high debt to revenue ratios forecast. Creating this ability within ten years from rates would unfairly burden the current ratepayer but it could be achieved by the further sell down of CCHL's investments.