



SECTION 3 — SIGNIFICANT FORECASTING ASSUMPTIONS

3.0 Significant Forecasting Assumptions

Clause 11 of Schedule 10 of the Local Government Act 2002 requires Council to identify the significant forecasting assumptions and risks underlying the financial estimates. Where there is a high level of uncertainty Council is required to state the reason for that level of uncertainty and provide an estimate of the potential effects of the assumptions.

This section is designed to identify the significant assumptions made and explain the risks associated with those assumptions where there is a high level of uncertainty.

3.2 City growth

3.2.1 Assumption

Table 1 below shows the Council's forecast projections for changes in population and resulting demand for residential dwellings and commercial and industrial facilities. The population and residential dwelling projections are based on population and demand modelling undertaken by the University of Waikato on behalf of Council as part of the development of the FutureProof Strategy (Hamilton sub-regional growth strategy).

This detailed work included the development of long-term projections for population (including age and gender), residential dwellings and labour force.

Localised data on historical patterns of development and information gained from the intensive Enquiry by Design process undertaken in March 2008 as part of the development of the Hamilton Urban Growth Strategy (HUGS) has been used to produce plausible residential, commercial and industrial demand projections for the period of the 2009-19 LTCCP. These assumptions have been used to determine what projects will be required to deliver growth and to anticipate revenue from Development Contributions.

All of the key assumptions discussed here are consistent with those that have been used in the development of HUGS. HUGS outlines at a strategic level where and when the city will develop and therefore has been used to guide the planning of infrastructure and growth projects that are included in this LTCCP.

Table 1

Year ended 30 June	Changes in Population	Residential Demand	Industrial Demand (Sqm)	Commercial Demand (Sqm)
2010	2,368	570	47,893	20,495
2011	2,370	670	47,893	20,495
2012	2,479	889	47,893	20,495
2013	2,479	902	47,893	20,495
2014	2,479	914	47,893	20,495
2015	2,479	931	47,893	20,495
2016	2,480	944	47,893	20,495
2017	2,620	1,017	47,893	20,495
2018	2,620	1,042	47,893	20,495



Year ended 30 June	Changes in Population	Residential Demand	Industrial Demand (Sqm)	Commercial Demand (Sqm)
2019	2,620	1,090	47,893	20,495

3.2.2 Risk and level of uncertainty

Council believes there is a relatively low level of uncertainty in regards to the population forecasts. However Council acknowledges that there is a high level of uncertainty concerning the levels of demand for residential dwellings and industrial and commercial facilities that result from this growing population base. There is a risk that there will be lower levels of demand for residential dwelling and commercial and industrial facilities per unit of population growth.

A key driver of this uncertainty relates to the current global and local economic climate which Council recognises is likely to result in changing patterns of economic activity within the initial years of this LTCCP period.

3.2.3 Estimated Impacts

Council has significant infrastructure works planned for this LTCCP period in order to meet the forecast demand for roading, water, wastewater, stormwater, land reserves and other community asset services.

In the event of demand for residential dwellings and commercial and industrial facilities being significantly lower than forecast in table 1 and assuming no changes to the infrastructure works programs, reduced revenue from development contribution levies would result in Council debt levels increasing at a faster rate than shown in the forecast financial statements.

Recognising this risk, Council has adopted a flexible approach to its infrastructure works program in order to ensure that the risks associated with supplying infrastructure ahead of demand are managed and the risk of increasing debt levels is thereby reduced.

In the event of slowing demand it is therefore likely that Council will reduce or defer certain components of its infrastructure works program.

3.2.4 Population/Growth Adjustment

In addition to the impact of growth on Council's capital expenditure forecasts, growth assumptions have also been applied when projecting operating expenditure and revenue items that are assumed to be directly affected by growth over the ten year period.

Based on the assumed population growth figures shown in Table 1, a growth % figure of 1.7%pa has been applied to specified lines in the operating budgets to reflect the annual contract adjustments and other increases that are expected to be impacted by growth.

3.3 Borrowing costs

3.3.1 Assumption

To forecast future borrowing costs Council needs to make assumptions regarding the levels of both shorter term (floating rate) and longer term (fixed rate) interest rates. Council's Liability Management policy imposes limits on the mix of floating and fixed interest rate exposure. For



the purpose of projecting average borrowing costs over the LTCCP period Council has assumed that the mix of floating and fixed interest rate risk is maintained at the mid point of the policy ranges reflected in the Liability Management Policy.

Table 2 below shows the forecast fixed and floating interest rates which Council has used in its projections of future borrowing costs over the LTCCP period. From years 2013 to 2019 these forecasts represent 10 year historical averages supplied by Council's financial risk advisors, Asia Pacific Risk Management. In the first 3 years of the 09 — 19 LTCCP period these figures are based on interest rates forecasts provided by other NZ based financial institutions, including the Reserve Bank.

Table 2

Year ended 30 June	Floating rate	Fixed rate
2010	2.50%	4.30%
2011	4.00%	5.00%
2012	4.91%	5.61%
2013	6.28%	6.52%
2014	6.58%	6.82%
2015	6.58%	6.82%
2016	6.58%	6.82%
2017	6.58%	6.82%
2018	6.58%	6.82%
2019	6.58%	6.82%

While these interest rate forecasts are a key determinant of future borrowing costs, the interest rate margin that Council has to pay on any new debt facilities is also a key driver of the overall cost of borrowing.

In modelling the weighted average borrowing cost that Council is likely to incur over the course of the 09 — 19 LTCCP, existing contracted rates, the likely path of wholesale interest rates and also the likely path of Council's borrowing margins are all taken into consideration.

The resulting weighted average borrowing costs that have been used to forecast Council's interest expense on forecast debt are shown in table 3 below:

**Table 3**

Year ended 30 June	Weighted Average borrowing cost
2010	6.06%
2011	6.05%
2012	6.65%
2013	6.86%
2014	7.02%
2015	7.06%
2016	7.07%
2017	7.13%
2018	7.16%
2019	7.22%

3.3.2 Risk and level of uncertainty

Council acknowledges that there is a high degree of uncertainty concerning borrowing costs. This is particularly true of the interest rate margin that Council has to pay on new debt. In recent months there have been significant increases in the margins that borrowers such as HCC have to pay when accessing new borrowing.

3.3.3 Estimated impacts

Table 3 provides the results of scenario analysis which Council has undertaken in order to understand the sensitivity of Council borrowing costs to adverse movements in interest rates and borrowing margins.

Table 4

Year ended 30 June	Total interest expense (\$million)	Total interest expense assuming a 1% increase in interest rates and/or borrowing margins (\$million)
2010	19.2	22.3
2011	23.1	26.9
2012	28.0	32.3
2013	31.6	36.5
2014	37.6	43.5
2015	40.9	47.4
2016	43.6	50.8
2017	45.2	52.9
2018	47.1	55.4
2019	48.4	57.2



If the impact of movements in interest rates and borrowing margins on Council's budgets turns out to be higher than forecast then it is possible that the future rating requirement may be greater than shown in the forecast financial statements.

Alternatively the rating requirement could remain similar to forecast, but Council would in this case need to generate additional operational efficiencies and/or consider whether to reduce service levels on some activities and/or cut back on some planned capital expenditure programs.

Should the impact of movements in interest rates and Council's borrowing margins turn out to be lower than forecast then there would be a favourable impact on Council's operating budgets.

3.4 Inflation

3.4.1 Assumption

Table 4 below shows Council's forecast projections for inflation rates which impact on the forecast financial statements. From 2012 to 2019 these forecast inflation levels are based on research into price level change adjusters specific to the local government sector which was published in September 2008 by economic consultants BERL. When considering the impact of inflation on the forecast financial statements in the first 2 years of the LTCCP, Council has also drawn on research input from other NZ based financial institutions. While the BERL research is useful in developing a longer term forecast of inflation impacts, due to the rapidly changing economic environment which has been experienced during the development of this LTCCP, it has been necessary to also consider research that has been more focused on shorter term inflation trends.

As shown in the table, Council has made separate assumptions regarding inflation rates impacting on operating and capital budgets. This is a change from the 06-16 LTCCP where a single inflation assumption was used across all operational and capital expenditure budgets.

Included within operating budgets are cost and revenue items such as staff wages and salaries, general maintenance, operating subsidies and direct operating revenue. Included within capital budgets are expenditures on infrastructure projects to support city growth and improvements to the transport network and other community facilities.

Table 5

Year ended 30 June	Inflation rates impacting operational budgets	Inflation rates impacting Capital budgets
2010	NA	NA
2011	1.50%	1.50%
2012	2.88%	3.38%
2013	2.65%	3.15%
2014	2.63%	3.13%
2015	2.65%	3.15%
2016	2.67%	3.17%
2017	2.83%	3.33%



Year ended 30 June	Inflation rates impacting operational budgets	Inflation rates impacting Capital budgets
2018	2.82%	3.32%
2019	2.72%	3.22%

3.4.2 Risk and level of uncertainty

Council believes there is a high level of uncertainty associated with these inflation assumptions.

3.4.3 Estimated Impacts

If the impact of inflation on Council's budgets turns out to be higher than forecast then it is possible that the future rating requirement may be greater than shown in the forecast financial statements. Alternatively the rating requirement could remain similar to forecast, but Council would in this case need to generate additional operational efficiencies and/or consider whether to reduce service levels on some activities and/or cut back on some planned capital expenditure programs.

Should the impact of inflation turn out to be lower than forecast then there would be a favourable impact on Council's operating and capital expenditure budgets.

3.5 Revaluation of Non-Current Assets

3.5.1 Assumption

As further detailed within Council's Accounting policies, asset valuations are undertaken or reviewed by independent qualified valuers and are carried out with sufficient regularity to ensure that the carrying values do not differ materially from that which would be determined using fair value at balance date.

The asset revaluation assumptions which have been used in preparing the financial forecasts for the 09 — 19 period are consistent with the forecast inflation figures which have been assumed to apply to all future budgeted capital expenditure as detailed in table 4 above.

These revaluation assumptions impact directly on the depreciation expense levels included in the forecast financial statements.

3.5.2 Risk and level of uncertainty

Council believes there is a high level of uncertainty associated with the forecasted level for depreciation expense as a result of the high level of uncertainty regarding underlying asset price inflation.

3.5.3 Estimated impacts

Table 5 provides the results of scenario analysis which Council has undertaken in order to understand the sensitivity of Council depreciation expense levels to increases in the rate of asset price inflation that would impact on both the cost of budgeted capital expenditure and the revaluation of existing assets. Table 5 compares the forecast levels for depreciation expense



with an alternative scenario for depreciation expense reflecting an additional 3% per annum growth factor being applied to underlying asset valuations.

Table 6

Year ended 30 June	Total forecast depreciation expense (\$million)	Total depreciation expense assuming a 1% pa increase in asset revaluation assumptions (\$million)
2010	46.5	46.5
2011	47.2	47.5
2012	48.8	49.3
2013	50.6	51.5
2014	53.2	53.2
2015	56.5	57.9
2016	57.5	59.3
2017	60.4	62.5
2018	63.0	65.4
2019	65.3	68.0

If the impact of depreciation expense on Council's budgets turns out to be higher than forecast then it is possible that the future rating requirement may be greater than shown in the forecast financial statements. Alternatively the rating requirement could remain similar to forecast, but Council would in this case need to generate additional operational efficiencies and/or consider whether to reduce service levels on some activities and/or cut back on some planned capital expenditure programs.

Should the impact of asset revaluations turn out to be lower than forecast then there would be a favourable impact on Council's operating budgets.

3.6 Asset sales

3.6.1 Assumption

There are two significant assumptions concerning proposed asset sales and one significant assumption concerning a loan repayment from an associated company that have been made in forecasting the timing and amount of future revenue from asset sales and loan repayments. These assumptions are summarised in the table below:

Asset	Forecast realisation/repayment amount (\$million)	Forecast timing
Sale of Hamilton Riverview Hotel shareholding	20.4	2013/14
Sale of Waiwhakareke Lake Land	2.5	2011/12
Waikato Regional Airport Ltd Loan Repayment	2.25	2009/10



3.7 Third party funding

3.7.1 Assumption

- NZTA Subsidies

Council has assumed that operating and capital expenditure programs which have in the past received NZTA subsidies and/or satisfy the criteria that NZTA require in order to provide subsidy will continue to receive subsidy funding over the course of the 09 — 19 LTCCP.

The subsidy rates that have generally been applied are 45% for programs defined by NZTA to be of an operating nature and 55% for programs defined by NZTA to be of a capital nature.

Council have also assumed that level of these subsidies will be adjusted up over the course of the 09 — 19 LTCCP by an inflation factor consistent with the inflation factors shown in table 4 above.

- Waste minimisation levy

Over the full term of the 09 — 19 LTCCP Council will receive levy contributions from central government under the relevant provisions of the Waste Minimisation Act 2008. Council will apply these funds to projects and provision of recycling services that meet the criteria set out in the same Act.

- Project Watershed funding

Over the full term of the 09 — 19 LTCCP Council will receive contributions from Environment Waikato. These contributions are sourced from the Environment Waikato targeted rate for Project Watershed. Council will apply these funds to projects that meet the criteria set out in the project Watershed agreement between Council and Environment Waikato.

- River cleanup Guardians fund

Council has assumed that the funds received will be used to repay debt, on the basis that all of the likely qualifying projects are debt funded. It is further assumed that funding will not be received until year 2 of the plan as the trust has yet to be established.

3.8 Increase in revenue from Claudelands Events Centre

Council is budgeting to significantly increase the revenue it generates from operating the Claudelands Events Centre.

A detailed business plan and model have been developed and peer reviewed by an external organisation. The model is underpinned by realistic assumptions on event type, scope and quantity and pricing levels benchmarked to other comparable local and national facilities.

3.9 Useful lives of significant assets

3.9.1 Assumption

Assets are depreciated on a straight-line basis over their useful lives with annual depreciation expense included in the total costs for each significant service. The Council has made a number of assumptions about the useful lives of its assets. These are disclosed in the depreciation note within the Statement of Accounting Policies outlined in the Financial Section of Volume I of this LTCCP.



3.10 Sources of funds for replacement of significant assets

The funding of all future capital expenditure is disclosed within the Cost of Service Statements contained in section 8 of Volume 1 of this LTCCP. The funding policies which relate to the funding for replacement of assets are contained within the Revenue and Financing Policy which can be found in section 2 of volume 2 of this LTCCP.

3.11 Climate Change

3.11.1 Assumption

The New Zealand Climate Change Office (NZCCO) has been established as a business unit within the Ministry for the Environment responsible for leading the development, coordination and implementation of whole-of-government climate change policy. Climate trends are monitored by the NZCCO, which has predicted impacts of a moderate rate of climate change for the Waikato, including changes in average temperature, sea level rise and rainfall patterns. In general, Waikato, like much of the west coast of the New Zealand, is likely to become warmer and wetter.

There is variation with different predictions of likely changes to climate from different agencies and organisations. However the impact on Council's infrastructure is considered acceptable when compared with the currently used design standards for new infrastructure if the NZCCO predicted impacts are generally accurate for:

- average temperature increases of 0.5 - 0.7°C, strongest warming in winter, temperatures up to 3°C warmer over the next 70 - 100 years and
- Up to 20% wetter with more varied rainfall patterns and flooding up to four times as frequent by 2070

The topography and general lack of natural hazards in Hamilton is considered an advantage of other parts of the country (such as coastal communities) that will be more directly impacted by changes to climate.

3.12 Future Legislative changes

3.12.1 Assumption

The recent change of government will likely result in a number of changes to existing legislation that impacts the operation of Council. Changes to the Resource Management Act and the Emissions Trading Scheme have already been foreshadowed by the new National, ACT, United Future and Maori Party coalition government.

Beyond the legislative changes already signalled, there is also potential for changes to be made to any policy environment that impacts Councils operation.

The details of future legislative changes are unclear and therefore unable to be anticipated with any level of certainty.

The information that has been made available through various policy announcements to date suggests that the potential risks to materially impact the 2009-19 LTCCP are moderate in scale. However given the lack of detail available on future legislative changes and their timing, the



projects contained in the 2009-19 LTCCP have been planned based on the current legislative regime.

The government has indicated that a Select Committee of Parliament will undertake a review of the Emissions Trading Scheme that is currently being implemented through a staged introduction outlined in the Climate Change (Emissions Trading) Act. This has created further uncertainty in the emissions trading policy environment. However Council has undertaken a preliminary assessment (using the current legislation) to ascertain the level of risk to Council's 2009-19 LTCCP of the current legislation or potential changes following the Select Committee review. This preliminary analysis indicated that the most significant areas of potential impact to Council's operations exist in the costs associated with fuel and energy.

Council's 2009-19 LTCCP has been developed using energy costs that were produced by Genesis Energy and have already factored in anticipated costs increases due to the ETS. During the development of the LTCCP budgets there was a dramatic reduction in the cost of fuel (diesel and petrol). This reduction by market forces illustrates the potential impact of additional cost of fuel from an ETS (estimated at an additional 8 to 12 cents per litre on current carbon credit values) is minor in relation to general market variability caused by other factors. Therefore no specific additional provision has been made for inflation of fuel costs simply due to ETS.

Changes to other legislation affecting the operation of Council cannot be anticipated at this point and therefore the 2009-19 LTCCP has been developed based on current legislation and policy.

3.13 Resource Consents

3.13.1 Assumption

Council will be required to obtain resource consents for a range of new capital projects that are contained in the 2009-19 LTCCP. In addition, renewal of some existing consents will be required to continue to operate activities such as water treatment and use for municipal supply.

It has been broadly assumed that the necessary consents will be able to be obtained and where necessary funding provision and time has been made within the relevant capital project budget and programme plan to facilitate obtaining the necessary planning permissions. The provision made has been determined by the relevant asset / budget manager based on previous experience and expert knowledge of the contemporary planning framework and legislation.

Throughout New Zealand there is a developing trend for resource consents and designations to be more difficult to obtain, and for more severe conditions of approval to be imposed. Within the wider Hamilton area, the passage of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Bill will also impact the gaining of resource consents and the processes required. However as the Bill has yet to be enacted and the final details of process determined - the 2009-19 LTCCP has been developed based on the current legislative regime.

Council continues to strengthen its strategic relationship with Waikato-Tainui including in areas relating the co-management of the Waikato River primarily through the membership of Hamilton Mayor Bob Simcock on the Guardians Establishment Committee.