

2018-28 DRAFT 10-YEAR PLAN SIGNIFICANT FORECASTING ASSUMPTIONS

Purpose

1. To outline the significant forecasting assumptions that inform the draft 2018-28 10-Year Plan.

Introduction

2. Legislation requires the Council to disclose all significant forecasting assumptions that inform the 10-Year Plan in both the Consultation Document and the final 10-Year Plan. These assumptions must reflect the best knowledge that the Council has at the time these documents are prepared and will be subject to audit.
3. The assumptions presented here are the initial assumptions and will continue to evolve as the 10-Year Plan develops and is finalised. This evolution will include more detailed analysis of the level of uncertainty associated with each of the assumptions. It will also include the quantification of the potential effect of that uncertainty on the financial estimates. Growth and demand assumptions are included as will be the strategies in place to deal with these.

Assumptions

4. GROWTH

5. Settlement pattern

6. Hamilton Urban Growth Strategy (HUGS), Future Proof Growth Strategy and the Operative Waikato Regional Policy Statement outline the existing long-term settlement pattern for the city. The 10-Year Plan budget has been developed based on the following land use assumptions.
7. There is a risk that central government may intervene and require the Council to release more land for development. Only the following areas have been considered for Council provision of growth infrastructure.
8. *Citywide development*
9. Investment in infrastructure to service the existing city will be ongoing over the life of the 10-Year Plan 2018-2028. These ongoing investments will support infill and intensification as well as supporting continued greenfield growth.
10. Infill development within the existing city will be progressed in parallel with greenfield areas to accommodate approximately 50 per cent of Hamilton's new dwellings. This regeneration will focus in and around key nodes as identified in the Operative District Plan (ODP).
11. *Stage 1 Residential Greenfields*
12. Rototuna to remain the city's primary growth cell with investment prioritised on completing core strategic infrastructure.
13. Residential development in Stage 1 Peacocke continue in parallel with Rototuna. Works in Stage 1 Rotokauri (boundary as per Operative District Plan) industrial and limited residential growth is included, but further works are deferred outside the 10 year period except for some provision to begin a stormwater swale in years 6-10.
14. *Stage 2 Residential Greenfields*
15. Peacockes Stage 2 Residential to be the focus for the city following the development of Stage 1

Residential Greenfields described above, with key strategic infrastructure being progressed in line with Council’s Housing Infrastructure Fund detailed business case. This includes an arterial transport network in the northern part of the cell, including the Wairere Drive/Cobham Drive interchange and bridge over the Waikato river into Peacocke, elements of the Southern Links network, strategic wastewater to link Peacocke to the existing wastewater network, distribution water mains and local transport, wastewater, water and stormwater to service the northern part of the cell.

16. The balance of Rotokauri Stage 1, Peacocke Stage 2 and Rotokauri Stage 2 residential to be the focus for the city following the northern part of Peacockes Stage 2 residential, with infrastructure investment sitting outside of the 10-Year Plan 2018-2028.

17. *Ruakura Growth Cell*

18. Council’s role is limited to previous investments in strategic wastewater and transport infrastructure with private investment largely enabling development in this cell. Limited funding is allocated to work with the developer.

19. *Temple View and Te Rapa North*

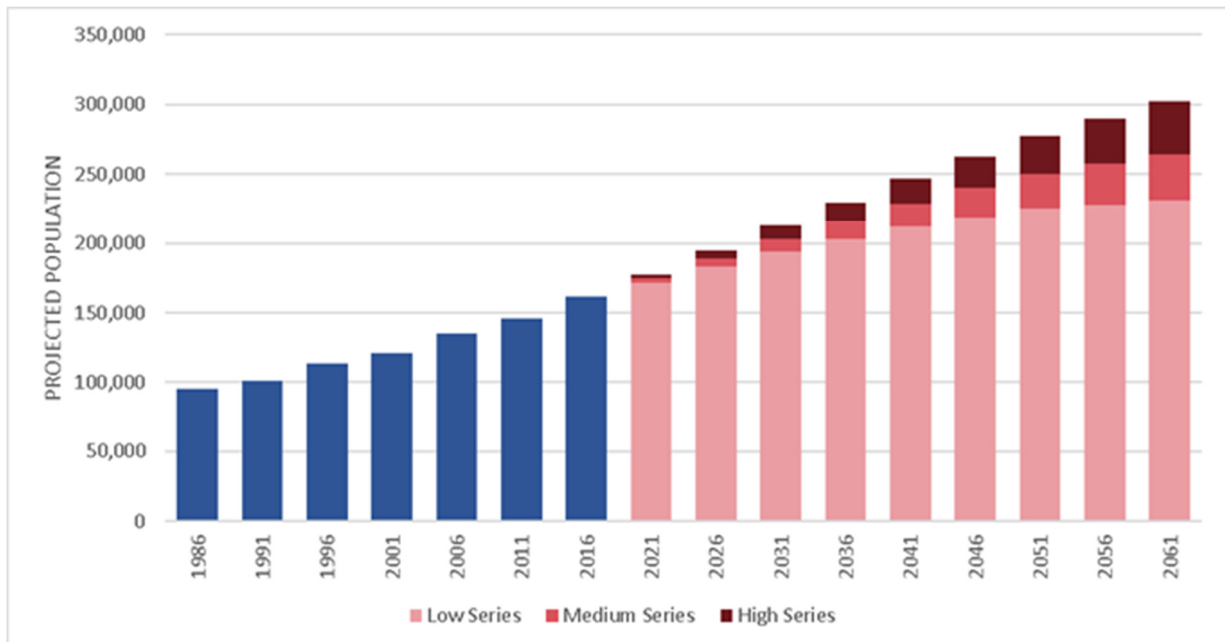
20. There is no Council investment programmed to service Temple View or Te Rapa North in the 10- Year Plan 2018-2028.

21. Population Growth

22. Total population at 30 June is projected to be:

2021	2026	2031
171,606	182,899	194,186

23. Population growth has been forecast for territorial authorities in the Waikato by the National Institute of Demographic and Economic Analysis (University of Waikato) - NIDEA. High, medium and low projections have been produced based on different fertility, mortality and migration and are shown in the table below. The NIDEA Low projection (2017) has been used by the Council to prepare this budget.



24. Population projections have been used to help prepare 30-year demand forecasts for the Infrastructure Strategy and the related capital expenditure programme for the 10-Year Plan has been prioritised from this base.

25. Ageing population

26. People aged 60 years and above constitute Hamilton’s fastest growing age group. This has been factored into the dwelling and population projections upon which Hamilton City’s growth projections are based.

27. Growth Infrastructure Investment

28. It is anticipated that all growth cells will be developed in a partnership between Council and privately funded infrastructure.

29. As Council’s current financial constraints do not allow for all growth infrastructure in all areas zoned for development, third party funding has been anticipated across all growth cells through the vesting of developer provided infrastructure and the use of private development agreements (PDAs).

30. Limited funding has been assumed in the budget for the partnering with the development community. This funding for ‘upsizing’ is required to ensure that infrastructure is adequately sized to provide an efficient network and able to be used by downstream developments.

31. It has been assumed that Council will generally make upsizing contributions to developers on an incremental marginal cost basis where these are required.

32. REVENUE

33. Development Contributions

34. Future revenue has been projected using the Development Contributions (DC) Model. The DC revenue assumption also considers current payment patterns, leakage due to approved remissions and to account for growth modelling error margins.

35. Development contribution revenue (including the impact of Mayoral recommendation impacts) is estimated to be (\$000):

	Year 1 18/19 \$000	Year 2 19/20 \$000	Year 3 20/21 \$000	Year 4 21/22 \$000	Year 5 22/23 \$000	Year 6 23/24 \$000	Year 7 24/25 \$000	Year 8 25/26 \$000	Year 9 26/27 \$000	Year 10 27/28 \$000	Total over 10 Years \$000
Revenue estimate	17,156	24,417	28,654	31,011	31,139	31,147	30,878	29,754	30,796	30,616	285,567

36. Should Hamilton grow more quickly than expected, then development contribution revenue is likely to exceed these expectations. However, the increase in revenue will be offset over time by a need to accelerate growth related core network infrastructure. Conversely, if growth is slower than expected new infrastructure may be deferred until needed and over time this will offset the loss of projected revenue. In cases where infrastructure cannot be deferred, infrastructure is supplied ahead of need and the costs will need to be recouped as the demand (and development contributions) is realised.

37. Ratepayer Growth

38. Ratepayer growth has been calculated based on the growth assumptions on growth in the number of households and growth and square meters of commercial space. The relationship between ratepayer growth and the forecast growth metrics is complex. One household does not represent a one to one relationship with one rating unit. Ratepayer growth has been calculated based on the historic trends in the relationship between these forecasts and actual rating unit growth over the previous 4 years.

39. There is a considerable amount of uncertainty around these forecasts. The percentage increases represent the expected increase in general rate revenue provided by growth in the rating base.

	Year 1 18/19	Year 2 19/20	Year 3 20/21	Year 4 21/22	Year 5 22/23	Year 6 23/24	Year 7 24/25	Year 8 25/26	Year 9 26/27	Year 10 27/28
Ratepayer Growth	2.48%	2.50%	2.50%	2.46%	2.38%	2.33%	2.29%	2.24%	2.20%	2.16%

40. EXPENDITURE

41. Cost of growth

42. As Hamilton grows costs increase on some services. This 10-Year Plan allows for increases for contract escalations relating to the growing number of households. This occurs only where the supplier agreement includes a set number of households and a contracted escalation if the number of households increase (an example is the household refuse collection contract). Many contracts do not include a contracted escalation clause.

43. Further consequential cost of growth has been included in relevant activity budgets, reflecting the cost of maintenance and operating new assets as a result of new growth assets being created.

44. Inflation treatment

45. Separate inflation rates have been used for the operational and capital budgets due to the different cost drivers that impact these types of cost.

46. Business and Economic Research Ltd (BERL) have been contracted on behalf of the local government sector to provide inflation forecasts for the period of this 10-Year Plan. These forecasts are related to the types of costs that the local government sector is likely to incur. These sector specific inflation cost adjustors are called the Local Government Cost Index (LGCI). This is a different inflation cost adjustor to the frequently used Consumer Price Index (CPI) and chosen because it is more relevant to the activities Council does.

47. The major cost components of the LGCI include:

- The general goods and services index
- The transport capex index
- The water services capex index
- Materials
- Fuels & Electricity
- Transport and communication
- Commission and contract services
- Business services
- Insurance premiums.

48. Operating expenditure and revenue (activities, DCs and Opex subsidies) inflation used in financial modelling is:

	Year 1 18/19	Year 2 19/20	Year 3 20/21	Year 4 21/22	Year 5 22/23	Year 6 23/24	Year 7 24/25	Year 8 25/26	Year 9 26/27	Year 10 27/28
Operating inflation	2.00%	2.20%	2.20%	2.20%	2.30%	2.30%	2.40%	2.50%	2.50%	2.60%

49. Capital expenditure and revenue (capital subsidies, capital contributions) inflation used in financial modelling is:

	Year 1 18/19	Year 2 19/20	Year 3 20/21	Year 4 21/22	Year 5 22/23	Year 6 23/24	Year 7 24/25	Year 8 25/26	Year 9 26/27	Year 10 27/28
Capital inflation	4.00%	4.10%	4.00%	2.50%	2.30%	2.40%	2.50%	2.50%	2.60%	2.70%

50. The capital inflation figures been increased following advice from BERL to reflect unique cost pressures in the Waikato. The first 3 years include high inflation largely due to the extensive forecasted capital works being undertaken in the upper North Island.

51. Availability of Contractors to complete Capital Programme

52. It is assumed there is sufficient capacity within the professional services and contractor market to undertake the capital programme.

53. There is a high level of uncertainty around this assumption as there are high levels of forecasted capital expenditure from other central and local government agencies in the upper North Island as well as strong ongoing demand for new housing and development. The impact of this could be high as budgets may not be sufficient to undertake the works as planned.

54. The capital expenditure inflation forecast above has included a higher inflation rate in its budget (specifically forecasted for the sub region by BERL). This is to recognise the higher costs associated with the high demand for contractors.

55. Availability of resources to deliver service levels

56. The Council has budgeted for additional staffing resources to meet the higher demand of growth.

57. This includes staffing associated with capital projects, consequential staff needed to operate the asset and indirect staff to support the greater corporate support activity a bigger city generates.

58. It is assumed that all staff positions can be filled and maintained so that the Council can deliver the proposed service levels.

59. DEBT AND INTEREST

60. Interest Rates

61. The Council uses PWC Treasury Division for the provision of advice for all aspects of the Council's treasury management. The Council has in place policies that provide direction in the management of risks associated with its debt portfolio.

62. The Council's interest rate risk and the risk of adverse interest rate movements, is mitigated by requiring at least 50 per cent (but no more than 95 per cent) of the Council's debt to be at fixed rates with greater than 12 months to maturity. The Council's Liquidity and Funding Risk (the risk that Council may not be able to access funds at the time that we need or at a cost no greater than the existing terms) is mitigated in two ways. Firstly, by spreading the due dates of our debt per the policy and secondly, by ensuring we have access to additional undrawn funds.

63. The Council's Liability and Investment Management policy outlines the financial institutions from whom Council can borrow. It includes borrowing caps for all but Local Government Funding Agency (LGFA) and the New Zealand Government.

64. Being credit rated as AA- by Fitch Credit Ratings has provided the opportunity to access cheaper sources of debt. On average, the margin benefit is 20 to 30 basis points. For example, if the market is 5.1 per cent then Council can borrow at 4.8 per cent.

65. Interest rates applying to debt are estimated based on current fixed rate contracts, forward looking market rates and expected credit margins.
66. The interest rate applying to cash investments is 3 per cent. It is estimated that the average cash balance of \$55m will earn approximately \$1.65m in interest per annum.
67. The interest rates on borrowing used in this 10-Year Plan are:

	Year 1 18/19	Year 2 19/20	Year 3 20/21	Year 4 21/22	Year 5 22/23	Year 6 23/24	Year 7 24/25	Year 8 25/26	Year 9 26/27	Year 10 27/28
Interest rates	5.05%	4.90%	4.85%	4.80%	4.80%	4.75%	4.70%	4.70%	4.70%	4.70%

68. These rates reflect the current Fitch Credit Rating being maintained throughout the 10-Year Plan. A change in rating up or down could be expected to impact on interest costs by approximately 0.05 per cent or 5 basis points.
69. Interest expense is calculated using projected debt and then making adjustments for the timing of capital expenditure (a lag in spending and debt drawdown).

70. ASSETS

71. Property Investment

72. Expected return on investment in property is based on the objective to maximize the financial return. This is realised by operating property assets to achieve the market or better than market rates of return through maximum rental income, high levels of building occupancy and quality tenants. Rents have been set in line with prevailing market conditions.

73. Asset sales

74. The forecast financial statements include transactions to complete existing contracted asset sales. In addition to this the Council has budgeted to sell one other property - Old St Peter's Hall.
75. Minor assets sales (e.g. disposal of surplus operational assets) are not budgeted.

76. Revaluation of non-current assets

77. Revaluations have only been calculated on property, plant and equipment as they are the Council's largest areas of non-current assets. The revaluation has been calculated on the preceding years balance as disclosed in the Statement of Financial Position. This includes an inflation allowance calculated based on LGCI as listed in the Forecasts of Price Levels Change Adjustors 2017 Update.

78. Useful lives of significant assets

79. 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 included in the Prospective Financial Statements.

80. Acquisition of significant assets

81. The 10-Year Plan includes a significant annual investment in new assets and the renewal of existing assets.
82. For capital expenditure to replace existing assets (renewal projects) it is recognised that projects will be completed throughout the year. It is assumed half of those projects are completed within the first six months. As such, depreciation is forecast based on six months depreciation for renewal projects in the year the renewals are first budgeted.

83. For each new capital project, staff have assessed the expected completion date for the project from which time the assets are depreciated.
84. Depreciation is applied based on the estimated useful life of the asset, consistent with the accounting policies.
85. Capital expenditure to replace assets (renewals) is primarily funded from rates, and capital expenditure to improve levels of service and growth is funded by loans. Some capital expenditure is also funded by subsidies, development contributions and grants.

86. Financial derivatives

87. Due to the volatility of its nature, the Council has not budgeted for financial derivatives gains and losses.

88. Seismic rating of Council buildings

89. A programme of prioritised seismic assessments is being carried out over the next few years on the Council's building portfolio.
90. Where a detailed seismic assessment has already been done on a Council building, this assessment is used to determine if a seismic upgrade is required. Asset Management Plans (AMPs) have included any known seismic upgrades needed to meet minimum legislative requirements. Where a detail seismic assessment has not been done, no provision has been made for seismic upgrade.

91. Investment properties

92. Council revalues investment properties on an annual basis. An annual gain on investment property values (2.5% each year) has been budgeted in each year of this 10-Year Plan.

93. ACTIVITY SPECIFIC ASSUMPTIONS

94. Strategic plans and Implementation plans

95. Council has developed a number of plans and strategies to support the delivery of the vision of the Hamilton Plan. Many of the plans and strategies were developed after the 2015-2025 10-Year Plan and therefore the actions were not included as projects in the previous 10-Year Plan. Since the adoption of the plans and strategies, many projects have been completed or incorporated into the work programmes.

96. The strategic plans that Council has approved are:

- Access Hamilton
- Biking Plan
- Central City Transformation Plan
- Central City Safety Plan
- Disability Action Plan
- Economic Development Agenda
- Frankton Neighbourhood Plan
- Hamilton Arts Agenda and Public Art Plan
- Hamilton East Neighbourhood Plan
- Hamilton Libraries Strategic Plan

- Hamilton Urban Growth Strategy
- Heritage Plan
- Open Spaces Plan
- Playgrounds of the Future Plan
- Pooches and Parks Plan
- River Plan
- Waikato Museum Strategic Plan
- Youth Action Plan

97. These plans will require funding for implementation. The identification of key projects over the next 10 years and the priority of these projects will be gained through the 10-Year Plan process.

98. Founders Theatre

99. What to do with Founders Theatre is under consultation at the time of writing this report. Until the process is complete, this draft budget represents the Mayor's preference to demolish the theatre at a cost of \$802,100. The draft 10-Year Plan budget will reflect the result of further Council deliberations following a report back on the results of the consultation and a recommended option for the future of Founders Theatre at the meeting on 12 December 2017.

100. Building control and planning guidance

101. Funding for this activity and expected revenue is based on a combination of current growth projections and previous year actuals as approved by the Council.

102. Transport

103. The Access Hamilton Taskforce provided direction in the development of this plan that has informed additional capital and operation requirements. This aims to address services in relation to safety and congestion. The current number of sites where levels of service at peak times are at level D or above will be maintained.

104. Parking

105. The free 2 hours on street parking trial implemented within the Central Business District as resolved by the Council in June 2017 will continue following the trial completion and the Council review prior to 30 June 2018. The free 2 hours will continue to be a cumulative total between the hours of 8.00am and 8.00pm Monday to Saturday and \$6 per hour thereafter. Sundays and public holidays are free

106. OTHER SPECIFIC ASSUMPTIONS

107. Third party funding

108. The Council has assumed that operating and capital expenditure programmes 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 10-Year Plan. The subsidy rates that have generally been applied have been at the subsidy rate of 51 per cent.

109. Council has assumed that the Wairere Drive/Cobham Drive interchange, being built as part of the Ring Road extension will become state highway and be transferred to NZTA on completion. As part of this project it is assumed Council will receive capital contributions during construction for the cost of the state highway part of the project.

110. The Council has assumed that levy contributions from central government under the relevant provisions of the Waste Minimisation Act 2008 will still be received over the full term of 10-Year Plan and at the current levels. The Council will apply these funds to projects to deliver on the Waste Management and Minimisation Plan.
111. Over the full term of the 2018-28 10-Year Plan the Council has assumed that contributions will still be received from Waikato Regional Council for project Watershed projects. These contributions are sourced from the Waikato Regional Council targeted rate for Project Watershed. The Council will apply these funds to projects that meet the criteria set out in the Project Watershed agreement between Council and Waikato Regional Council.
112. Hamilton Gardens staff and supporters have been very successful in securing sponsorship for the development of the theme gardens over the years. The totals raised vary from year to year and from garden to garden and with increasing competition from other Council activities. If garden development continues then the organisations supporting Hamilton Gardens should be able to secure further significant funding.
- 113. Climate change**
114. The Climate Change Adaptation Technical Working Group was established as a business unit within the Ministry for the Environment in 2016. The group is responsible for leading the development, coordination and implementation of whole-of-government climate change policy that can adapt to the impacts of climate change whilst continuing to grow the economy.
115. Climate trends are monitored by the Technical Working Group, which has predicted impacts of a range of climate change scenarios 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.
116. There is variation with different predictions of likely changes to climate from different agencies and organisations. However, the impact on the Council's infrastructure is considered acceptable when compared with the currently used design standards for new infrastructure if predicted impacts are generally accurate for:
- 0.6 – 3.3°C average temperature increase (from 1995 to 2090)
 - Winter rainfall in the Hamilton area is expected to rise by 4 to 8 percent by 2090, whereas spring rainfall is projected to decrease by 6 percent. The variability could lead to more extreme weather event such as drought and flooding.¹
117. The topography and relatively low natural hazard risk in Hamilton is considered to be an advantage in comparison with other parts of the country (such as coastal communities) which will be more directly impacted by changes to climate. However, emerging trends in natural hazard risk will be monitored by HCC and WRC.
- 118. Shared Services**
119. The Council has completed a shared services review for water services with Waikato District Council and Waipa District Council. Waipa have made a decision to not proceed with the proposed shared services entity. The Council remains open to a reconsideration of options to progress a shared water services with Waipa. This 10-Year Plan has been developed based on the Council continuing to provide water services.
- 120. Future legislative change**
121. The details of future legislative changes are unable to be anticipated with any level of certainty.

¹ <http://www.mfe.govt.nz/climate-change/how-climate-change-affects-nz/how-might-climate-change-affect-my-region/waikato>

122. The information that has been made available through various policy announcements to date suggests that the potential risks to materially impact this 10-Year Plan are moderate in scale. However, given the lack of detail available on future legislative changes and their timing, the projects contained in this 10-Year Plan have been planned based on the current legislative regime.

123. Changes to other legislation affecting the operation of Council cannot be anticipated at this point and therefore this 10-Year Plan has been developed based on current legislation and policy.

124. **Resource consents**

125. It has been broadly assumed that the necessary consents will be able to be obtained and 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.

- The following key consents are planned for renewal:
- Wastewater Treatment Plant discharge – 2027
- Water Treatment Plant abstraction - 2044
- Hamilton Gardens water abstraction - 2019
- Comprehensive stormwater consent - 2036
- Crematorium emission consent – 2040

126. **SENSITIVITY ANALYSIS**

127. What if our significant forecasting assumptions are wrong? Well, it's almost certain the future doesn't turn out how we expect so we have given some thought to that.

128. The 10-Year Plan is built on growth assumptions that show unprecedented sustained growth over the 10 years. It is this matter that has the greatest impact on our plan. It results in more expenditure to run the city, more capital expenditure earlier to provide for the growing city and more revenue to pay for all of this. Growth affects most of our assumptions and it affects our resilience to manage certain types of assumptions, for example climate change.

129. The Financial Strategy, based on the assumptions in this document, show that growth is affordable. To be prepared for the possibility of growth happening other than planned, analysis has been done of the effects of a 15% change in growth.

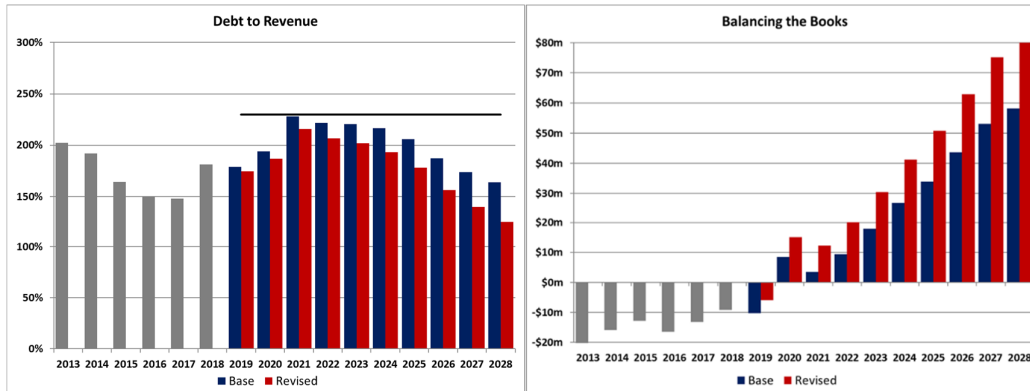
130. The forecast growth is based on the NIDEA low household growth series. This is the measure the Council used three years ago and growth proved to be much higher than NIDEA had forecast. In NIDEA's latest forecast NIDEA medium is about 15% higher than NIDEA low, so we have chosen that as a reasonable basis for considering how a change might affect us.

131. **15% higher than forecast growth**

132. Higher growth means more income from growth, particularly in terms of revenue from development contributions, rates and consenting processes. This helps pay for the higher everyday costs of running the city that more people create.

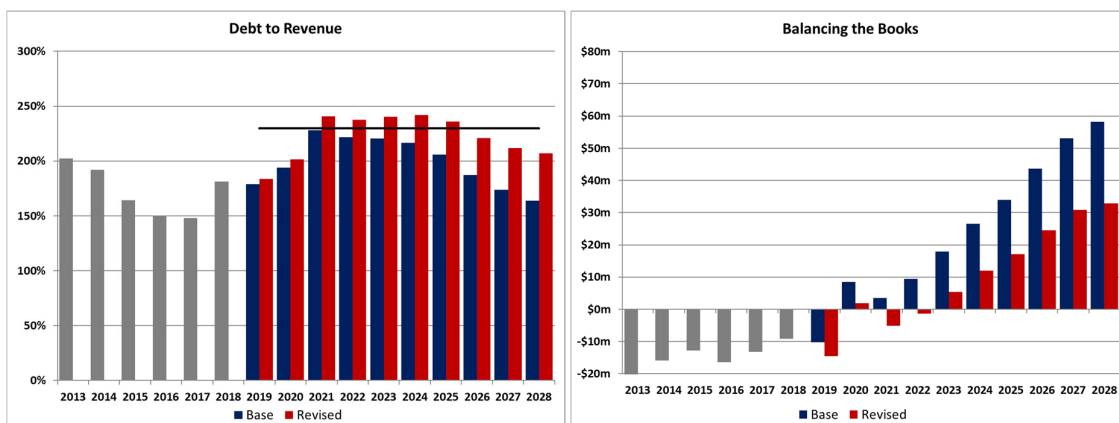
133. Based on the existing capital programme, Hamilton will be able to accommodate a larger population in the short-term. More infill housing will occur as a result. In time, capital projects that are currently beyond the 10 years will need to be bought forward. A benefit of higher growth would be greater debt capacity for the next big spend when new growth cells need to be opened.

134. The following graphs show that if growth was 15% higher than assumed, surpluses will get stronger and debt capacity increase.



135. **15% Lower than forecast growth**

136. Typically, a recession is likely to occur in any ten-year period, but they are almost impossible to forecast. If growth is lower than assumed the challenges for Council will be greater.
137. Lower growth means less revenue, particularly in terms of development contributions and consent processing. For rates, small decreases compound to have greater impacts in later years. Costs are difficult to rein in quickly. The first three years of the plan has the Council's biggest capital programme ever. This will be well underway before a change in growth would become apparent. Once started, contracts and practical arrangements would make it difficult to stop.
138. The effect of this on the Financial Strategy would be adverse movements in the wrong direction. The graphs below model a lower growth scenario which shows deficits, meaning the Council will be borrowing more to pay for everyday costs. They also show the impact of less revenue on the debt to revenue graphs with five years of debt above the 230% limit.
139. When the Council established 230% debt limit as a prudent measure in the Financial Strategy this allowed for a degree of planning for the unexpected. Lenders will lend the Council up to 250% and in this scenario the Council stays below that level.



140. The Council knows about this risk and constantly monitors actual growth so that it can respond quickly if required.

141. **Inflation and interest**

142. Inflation treatment:

- A variance in the LGCI operating expenditure rate of inflation by 1% would impact the budget by approximately \$1.5 million per annum (including staff costs). A similar variance in the capital expenditure inflation rate would impact the capital programme by approximately \$1.8 million per annum.

143. Interest rates:

- A 1% variance to interest rates would increase or decrease interest costs by approximately \$5.6 million per annum based on expected 2018/19 debt levels assuming all of Council's debt is floating. Council currently has 90% of its borrowings at fixed rates, therefore the impact of a 1% variance would be \$0.6 million.

144. Impact of interest rates and inflation on Financial Strategy:

145. The impact of a 1% increase in either interest rates or inflation can be absorbed within the existing Financial Strategy limits for debt to revenue and balancing the books. In combination however, these would cause a breach in the balancing the books and debt limits. In the medium term (next three years) this is partially mitigated by the 90% of interest on debt that is fixed.

146. Council would have to respond to such a large change in interest rates and inflation. This response would depend on any effect these factors had on population growth and associated investment.