



**Forecasting Assumptions
2018-28 Long Term Plan**

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Introduction

In order to plan for the long term, it is imperative to make assumptions about various aspects in the future. The significant assumptions made about the future form an important part of the planning framework.

It is also important to assess the estimated levels of uncertainty represented by the factors identified in the assumptions, so that the risk mitigation and planning can be appropriately carried out. The impact of the levels of uncertainty assessed on the integrity of this plan has also been undertaken. Schedule 10 of the Local Government Act 2002 requires that, for high levels of uncertainty, Council is required to state the fact of the uncertainty and give an estimate of the potential effects of that uncertainty on the financial estimates provided in the 2018-28 LTP Consultation Document supporting information.

The significant forecasting assumptions are summarised in the table below and are discussed more fully in the pages that follow.

The main contributions of risk are identified as arising from:

- Impacts of climate change and natural hazards
- Interest rate movements
- Central Government changes to legislation and policy impacting on the role and compliance costs of local government.
- Annual Return on investment

Summary of Assumptions

	No.	Assumption	Level of Uncertainty	Impact on Integrity of LTP
GLOBAL IMPACT	1	The impacts of climate change and natural hazards will be minimal over the LTP planning period.	Medium	Low
	2	That the impact of technological change or disruption will not adversely affect Councils ability to deliver services.	Low - Medium	Low
NATIONAL IMPACT	3	Actual rates of inflation will be within the range tabulated.	Low	Low
	4	NZ Transport Agency financial assistance rates will continue at the levels set out by NZTA.	Low	Medium
	5	The average annual interest cost on borrowings will be 5.5% over the first 3 years and 6.0% over years 4 to 10.	Medium	Low
	6	Impact of Central Government changes to policy or legislation on local government income or expenditure.	Medium - High	Medium - High
	7	Government funding will continue at current levels.	Low	Low
WDC IMPACT	8	The impact of population change has been adequately provided for in the financial estimates.	Low	Low
	9	The impacts of societal changes and population structure have been adequately provided for in the financial estimates.	Low	Low
	10	The annual return on investments is assessed at zero for year 1, \$350k for year 2 and thereafter increasing by \$50k per annum over the remaining period.	Medium	Low
	11	The risk of Council's investment portfolio and inability to borrow is minimal.	Low	Low
	12	Resource consent acquisition and compliance processes are within estimated timeframes and expenditure estimates.	Low	Low
	13	The size of the rating base will not increase.	Low	Low
	14	The two major users of water and trade waste services will continue to operate within the district.	Low	Low
	15	Impact of transfer of significant Council assets will be minor.	Low	Low
	16	Changes to the scale of Council's asset inventory will be minor.	Low	Low
	17	Change in value of assets due to periodic revaluation will be in line with inflation.	Low	Low
	18	Assumed lives for Council's assets will have minimum impact on financial estimates.	Low	Low
	19	Depreciation reserves and subsidies will generally be adequate to fund asset renewal expenditure.	Low	Low
	20	The impact of growth related capital expenditure will be offset by revenue.	Low	Low

Description of Assumptions

Global Impact

1. Climate change and natural hazards

The Ministry for the Environment (MfE) (has been providing guidance to Local Government since 2001 on the effects of Climate Change. Within its most recent guidance (2017) it calls out the impacts of an ever increasing sea level rise, which is anticipated to continue for the next several centuries. A consequence of an ever increasing sea level is that the hazards and risks compound in areas adjacent to coastlines, estuaries and harbours. As hazards and risks compound so will the exposure of people and assets to these hazards and risks.

Linked to the climate impacts are a series of supporting climate projections (2016) that are anticipated to occur within New Zealand:

- **Higher temperatures**, with an increase of about 0.7°C (low emissions scenario) and 1.0°C (high emissions scenario) by 2040 and about 0.7°C (low emissions scenario) and 3.0°C (high emissions scenario) by 2090. There will likely be slight gradients from north to south, and from east to west, with the greatest warming experienced in the northeast.
- **A change in rainfall patterns** – increased summer rainfall in the north and east of the North Island, and decreased spring rainfall in the north and east of the North Island
- **Increased frequency of dry days** for much of the North Island, and increased frequency of heavy rainfall events over some parts of the North Island.
- **Increased frequency and intensity of droughts** over time, particularly under a high emissions scenario.
- **Some increase in storm intensity**, small-scale wind extremes and thunderstorms are likely to occur. Ex-tropical cyclones will likely be stronger and cause more damage as a result of heavy rain and strong winds.
- **Increase in the number of hot days**, and decrease in the number of frost days and snow days.

Within New Zealand, MfE has identified the three major impacts associated with Climate Change projections as being floods, coastal hazards and droughts. The effects of climate change may be felt both through changes in long-term averages and in the changed frequency and intensity of extreme events (such as heavy rainfall, high sea levels brought by storm surges, drought, or very high temperatures). It is this combination of underlying average climate, climate change trends, and natural variations that will provide the extremes that future New Zealand society faces. A small shift in the average climate can cause significant changes in the occurrence of extremes: generally, it is the extreme events that cause damage.

Increased frequency and intensity of extreme rainfall events may contribute to reduced ability of stormwater systems to cope, particularly at those beach communities where stormwater outlet points are within tidal zones, where it is likely there will be additional pressure from rising sea levels, increased storminess and coastal erosion, and at Te Kuiti due to high river levels during high rainfall events. The tempo of erosion of land adjoining the estuaries could increase and lead to a loss of property and increased expectation by the affected communities for some form of intervention by Council.

Higher intensity rainfall events will increase runoff and could impact on existing drainage capacity. Consideration has been given to complete catchment assessment studies for the main urban areas. Climate change is also expected to present in the form of more frequent drought periods, particularly on the east coast of New Zealand. This may increase the demand for irrigation and impact on the capacity of Council's water supplies, including source and storage. Work has been done to address both of these issues, including initiatives to reduce water consumption in the District.

Higher rainfall could result in increased inflow and infiltration of Council's sewerage systems. In Te Kuiti a programme of Closed Circuit Television (CCTV) inspection and renewals has been initiated. Whilst progress is being made the implementation of this programme is limited by funding and affordability issues. The success of this work will go a long way towards mitigating any effects of climate change on Council's sewerage infrastructure over time.

There is much uncertainty about the extent of climate change and about social, economic and environmental change. That makes it necessary to consider a range of possible futures when assessing climate impacts, and whether adaptive responses are needed. Climate Change and the advice provided to Local Government identifies a need for local government organisations to establish and utilise the mechanisms that enable the significant adaption of the wider community to existing and future impacts of Coastal Hazards and Climate Change. The challenges identified with this are having sustainable adaption solutions need special consideration because of the differences within the communities of the Waitomo District.

Broadly framed these can be defined as:

- Differences in coping capacity
- Sensitivity to increasing impacts
- Emergence of considerable future risks

Whilst decisions made long ago have dictated our settlement and land development patterns, increasing the consequences of many natural hazard events and ensuring these events will not always be avoidable. How we choose to prepare, assess, plan, manage and monitor the impact of environmental changes (as it impacts on the community) is within our control.

Managing natural hazards and building community resilience is at the forefront of local government activity nationally, as required by section 11A of the Local Government Act 2002 which states that local authorities must have particular regard to the contribution that the core service of “the avoidance or mitigation of natural hazards” make to their communities.

In 2017 the Waitomo District Council commenced a review of the District Plan. As part of the review of the Waitomo District Plan, Council has contracted specialist services to help evaluate the potential risk of climate change on coastal areas and in respect of flood events. The purpose of this work is to help build intergenerational resilience to Climate Change within the District. Initial assessment indicates that an adaptive management strategy is required for coastal townships. The assessment of flood risk was at the scoping stage at the time of writing this document. Once Council has more robust information about the potential levels of risk, District Plan provisions will be drafted to guide and manage the response which will further inform the planning and management phases.

Currently the Council has made provisions within Activity and Asset Management Plans (Water Supply, Waste Water, Storm Water and Roding and Footpaths) where consideration is given to consequences arising from climate change. In particular the consequences of new capital work occurring in areas with the potential to be impacted by climate change.

Given the initiatives already in progress to address the potential effects of climate change, it is considered there will be minimal impact over the 10 year period of the LTP. However, a distinguishing feature of climate change-related risks is that the underlying risks themselves change over time. In addition, ongoing research will continue to add to the understanding of the potential impacts of climate change. This means that from time to time the Council may need to reconfirm that our infrastructure and services will perform in future climatic conditions.

Through the LTP and asset management planning process, Waitomo District Council indicates what level of event they are to withstand (in the case of network infrastructure) and this is reflected in Council’s Infrastructure Strategy which has a 30 year planning horizon. The strategy explicitly considers the resilience of infrastructure in the event of natural disasters, identifies and provides for the management of risks relating to such disasters, and makes appropriate financial provision for those risks.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
1. The impacts of climate change will be minimal over the LTP planning period.	Low - Medium	Low

2. Technological change

The evolution of information and communications technology is changing the way people live their lives and provides new opportunities for local government to improve the delivery of local services and the way we govern our communities. Technology companies launch new products every day, and implications of a new launch may not always be apparent and the pace of change can be bewildering. These new technologies can enhance local authorities' ability to deliver services through providing opportunities to increase efficiencies and effectiveness, but can also be disruptive – that is, where a new technology either displaces an existing technology or creates an entirely new industry, for example the creation of email, which has largely displaced letter-writing as a means of communication with dramatic consequences for the postal service.

SOLGM has developed a useful guidance document for NZ Councils, 'Fit for the digital future' (2015), which goes into detail of ten of the most likely enhancing or disrupting technologies on the horizon for local government. These are:

- **unmanned vehicles** – vehicles that operate autonomously from human control, i.e. unmanned aerial vehicles (or drones) and driverless vehicles
- **3D printing** – the creation of a physical object from a three-dimensional model, typically by laying down small layers of composite until the physical object is complete
- **mobile devices** – computers designed for transportation while in use, enabling use in a variety of locations
- **wearable technology** – computing devices worn on the body or incorporated into it
- **augmented reality** – the overlay of computer generated sensory input (such as graphics) over a live direct or indirect view of the physical world
- **electric vehicles** -- vehicles that wholly or partly depend on electrical energy for motive power as opposed to internal combustion. While not an emergent technology in and of itself, advances in battery technology are making electric vehicles a more economic and more available alternative
- **renewable electricity and distributed generation** – renewable energy is the generation of energy from sources that are not 'used' up in the conversion to electric energy, or are replaceable. Examples include solar, wind, and geothermal
- **the Internet of Things (IoT)** – a network of physical objects that measure either the object's internal state or some factor in the external environment. The objects are equipped with transmission capability and connected to a monitoring agency via the internet
- **big data** – the creation of datasets that have a high number of observation points and/ or a high velocity of creation and transmission and/or a high degree of complexity
- **cloud computing** – using a remote server or servers hosted on the Internet to store, manage and process data, rather than a local server or a personal computer

It is important to note that while the above emerging technology could either enhance or disrupt local government function, it is the nature of technology that some of the downstream effects of innovation can be unexpected, and this uncertainty is where the potential for risk lies.

Technological change is, for the purposes of these 2018-28 long term planning assumptions, a low risk for Waitomo District Council. Council assesses new technologies and processes as part of procurement and RFP processes, to identify new technology which could enhance service delivery. This means that Council can control its internal uptake of technology in delivering services, whilst keeping an eye out for opportunities to enhance service delivery.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
2. That the impact of technological change or disruption will not adversely affect Councils ability to deliver services.	Medium	Low

National Impact

3. Future price changes – rates of inflation

The Society of Local Government Managers (SOLGM) commission a regular study by Business and Economic Research Limited (BERL) to develop price level change adjustors for local authorities to use in estimating their future year expenses. BERL uses the following category adjustors to provide inflation forecasts, which have been updated from previous years:

Category adjustor	Related price indices
1. Planning and Regulation	<ul style="list-style-type: none"> Local government sector salaries and wages Local government administration PPI (Producer Price Index) Earthmoving and site work CGI (Capital Goods Index) Pipelines CGI Reclamation and river control CGI
2. Roothing	<ul style="list-style-type: none"> Private sector salaries and wages Earthmoving and site work CGI Local government administration PPI
3. Transport	<ul style="list-style-type: none"> Local government sector salaries and wages Earthmoving and site work CGI Local government administration PPI
4. Community Activities	<ul style="list-style-type: none"> Local government sector salaries and wages Earthmoving and site work CGI Arts and recreation services PPI
5. Water and Environmental Management	<ul style="list-style-type: none"> Local government sector salaries and wages Earthmoving and site work CGI Pipelines CGI Reclamation and river control CGI Water, sewer, drainage, and waste services PPI

The following table shows the inflation forecasts reflected in the report for each significant adjustor impacting on local authorities through to 2028. Inflation adjustments have been applied for years 2-10 of the planning period. The adjustors in the table below are based on the BERL adjustors, updated in September 2017.

Planning Year	Category adjustor				Price indices		Overall Local Government Cost Index (LGCI)
	Planning and regulation	Roothing	Community activities	Water and Environmental	All salary and wage rates - Local Government	Local Government administration	
2018/19	2.0%	2.0%	1.7%	2.3%	1.6%	2.1%	2.0%
2019/20	2.1%	2.2%	2.0%	2.5%	1.6%	2.0%	2.2%
2020/21	2.1%	2.2%	2.1%	2.3%	1.7%	2.0%	2.2%
2021/22	2.1%	2.3%	2.1%	2.4%	1.8%	2.1%	2.2%
2022/23	2.2%	2.4%	2.2%	2.4%	1.8%	2.2%	2.3%
2023/24	2.3%	2.4%	2.3%	2.5%	1.9%	2.3%	2.3%
2024/25	2.3%	2.5%	2.3%	2.6%	1.9%	2.3%	2.4%
2025/26	2.4%	2.6%	2.4%	2.6%	2.0%	2.4%	2.5%
2026/27	2.4%	2.7%	2.4%	2.7%	2.0%	2.5%	2.6%
2027/28	2.5%	2.8%	2.6%	2.8%	2.1%	2.5%	2.7%

The inflation adjustments will be applied to both capital and operational expenditure in the first instance by category adjustor, otherwise by price indices. The Local Government Cost Index is generally applied to thresholds for small community assistance subsidies for rating purposes.

The inflation assumptions have been applied to both capital and operating cost forecasts as the indices include a combined forecast of operating and capital costs. Because of this combination in the composition of the indices, they may either understate or overstate changes in the prices of operating and capital expenditure.

Adjustment assumptions have been made for the following revenue categories:

- Dividends from Investments – No adjustment.
- Subsidies for all other funding agencies including the NZ Transport Authority – the amount is determined by the relevant funding agency. The Roothing adjustor has been applied to the roads expenditure prior to the NZTA subsidy calculation being made, no additional index has been applied to the NZTA subsidy.
- Property revenue – adjustments are applied using the “Community activities” adjustor.
- Stormwater, Wastewater and Water Supply (excluding Metered water revenue) - adjustments are applied using the “Water and Environmental” category.

The above inflation forecasts do not make allowance for spikes in pricing that traditionally occur during re-tendering or renewal processes for medium to long term operating and maintenance contracts. These movements can be as large as 10% in the year immediately following contract re-tendering/renewal, due partly to the inherent increase in levels of service that is introduced to contract specifications, either consciously as a change to the scope of works or as a consequence of contract interpretation over previous years.

Rates of inflation greater than those assumed will impact in particular on future cost estimates and the ability of the community to afford the consequential rate increases. This can be mitigated by revising budget estimates in conjunction with preparation of each Annual Plan and inflation estimates when the LTP is reviewed every three years.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
3. Actual rates of inflation will be within the range tabulated.	Low	Low

4. NZ Transport Agency financial assistance rates

Roothing subsidy from NZTA is Council’s largest single source of revenue after rates. The amended subsidy levels for 2018/19 year onwards have been advised by NZTA. The funding rate for Council for the 2018-22 National Land Transport Programme (NLTP) period, and at the end of transition is set out in the table below:

Normal funding assistance rates for the 2018-22 NLTP and at end of transition			
2018/19	2019/20	2020/21	End of transition
			2021/22
65%	66.7%	69.1%	71%

NZTA has been working on developing a one network road classification system including the associated customer levels of service. The implications of the new levels of service on the technical aspects of roads maintenance or development, is unknown at the present time. It could have an impact on the overall level of funding assistance Council receives from NZTA. Prescribed levels of service and in turn the required level of investment will be monitored over time and changes made as required via the exceptions annual plan process or the three yearly review of the LTP.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
4. NZ Transport Agency financial assistance rates will continue at the levels set out by NZTA	Low	Medium

5. Expected interest rates on borrowing

Following the Global Financial Crisis in 2008, the world economy has not fully recovered and in recent years the interest rates have remained at historical low levels. New Zealand's economy has been performing well, however inflationary pressures subdued and the Reserve Bank has kept the Official Cash Rate (OCR) low for a considerable length of time. Council has benefited from this with reduced interest costs on its borrowings.

In April 2017 Council joined the Local Government Funding Authority (LGFA) as a borrower and guarantor and borrows substantially all its debt funding needs through this agency. The LGFA is a debt accumulation entity for local authorities and through its capital structure and cross guarantees enjoys the same credit rating as the NZ Government, it can therefore lend to its local government members at very favourable rates and in many instances at better rates than if the local authority was to borrow in its own name. For Council the estimated savings in interest rate margin at the time transfer is estimated at 0.40% and the maturities of the debt significantly extended, which goes some way to match the long life nature of assets being funded.

There continues to be a mixed view of where interest rates will go throughout the planning period; the Reserve Bank is not expecting rates to increase until June 2019 but the market is expected a gradual increase starting from September 2017 to June 2019 of 1.70%.

For planning purposes the interest rate assumed is 5.50% for the first three years to June 2021 and 6.0% for the remaining seven years to June 2028. The LTP 2015-25 assumed a rate of 6.25% for the first two years and 6.50% thereafter. For the first three years the reasons for the reduced rates assumed is due to the savings in interest rates achieved through joining the LGFA and reduced underlying interest rates which continue to prevail in the market. A higher interest rate would increase the rating requirement. However, Council considers that this assumption carries a low risk as the actual interest rate is likely to vary over the term of the plan, and will be partly offset by interest on investments.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
5. The annual interest cost on borrowings will be 5.5% over the first 3 years and 6.0 % over years 4 to 10.	Medium	Low

6. Central Government changes to policy or legislation

Council has assumed that Central Government will provide a reasonably stable statutory and policy framework for local government. However, Council is aware that further reform of the Local Government sector may occur in the short to medium term. For this reason the level of uncertainty has been increased to medium-high and the impact on the integrity of the LTP has been assessed as medium-high.

For example, over 2016 and 2017 two major changes from Central Government have occurred: the National Policy Statement for Urban Development Capacity 2016 (NPS-UDC) and the Resource Management Amendment Act 2017.

Successive governments have had a record of imposing additional responsibilities and costs on local government without associated funding, e.g. the planning and auditing processes under the Local Government Act 2002, resource management processes, gaming and prostitution law reform, waste minimisation, land transport management, animal control, emergency management, rural fire control, and the Building Consent Authority regime. On top of that, a global economic recession has resulted in a period of financial frailty, leading to, inter alia, recent and renewed calls from the business sector, reinforced by the Reserve Bank, for local government to maintain rate increases within the annual cost of inflation.

There is always the possibility that some form of amalgamation process will be put forward within the Waikato region over the life of the 2018-2028 Long Term Plan. Depending on the process and outcomes the impact on the District and Council could be substantial. However, given the level of

uncertainty surrounding such an event the planning framework assumes Waitomo District Council will continue to provide for community needs in its present form.

- Central Government recently flagged that the New Zealand Emissions Trading Scheme (ETS) is under review and that several decisions have been made in principle which will affect the ETS in the 2020s, within the life of this plan, including: introduce auctioning of units, to align the NZ ETS to our climate change targets
- limit participants' use of international units when the NZ ETS reopens to international carbon markets
- develop a different price ceiling to eventually replace the current \$25 fixed price option
- coordinate decisions on the supply settings in the NZ ETS over a rolling five-year period.

While this does not affect how Council participates with the ETS in the short term and these decisions will involve further work and consultation before any implementation occurs, it is still important to note that changes in this space will have financial implications for Council, for example the cost of units. Council will keep a watching brief on this work, as there is a great deal of uncertainty about how these changes will impact on the price and supply of carbon credits in the future.

Currently carbon credits are trading for around \$17.90 per unit. Since 2014 the cost of purchasing carbon credits for WDC has totalled \$205,000 with prices per unit ranging from \$0.10 to \$11.40. At the current purchase price there may be a significant increase in the cost of purchasing carbon units moving forward.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
6. Impact of Central Government changes to policy or legislation on local government income or expenditure.	Medium - High	Medium - High

7. Renewability or otherwise of external funding

Petrol Tax

Petrol Tax budget of \$125,000 has been assumed for the life of the plan but is indexed using the "Roading" cost adjustor.

Other External Funding

Where an external funding source is available such as grants or subsidies from central government or other parties, WDC will seek to apply for funding to assist with the provision of operational or capital expenditure program.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
7. Government funding will continue at current levels.	Low	Low

Waitomo District Impact

8. Projected growth change factors

Rationale Limited was engaged to review and develop growth projections for WDC in June 2017. This work was commissioned as a continuation of the collaborative project with Matamata-Piako District Council, Hauraki District Council and Thames-Coromandel District Council, with similar deliverables across all councils. The purpose of the review was to provide population, dwelling and rating unit projections out to 2048. The projections consider elements such as historical and current trends, relevant land-use policies, and relevant national, regional and local level drivers.

It is important to note that projections are an indication of the future characteristics of a population, and are based on an assessment of past trends and assumptions (e.g. fertility, mortality, migration). Projections are models based on input data, available knowledge and expert assumptions. The projections represent only one possible, albeit plausible, future. Demographics and economies are complex systems characterised by multi-scale dynamic feedbacks which cannot be predicted. For this reason, it is not possible to fully quantify the uncertainty associated with the projections.

Regarding the population structure, the district has a similar age profile to the rest of New Zealand. In 2013 the proportion of people aged 20 to 44 was lower than the rest of New Zealand however the proportion of people aged below 15 was higher. The proportion of people aged over 65 is projected to increase from 13% in 2013 to over 25% in 2048 and the number of people aged between 15 and 64 years of age is projected to decrease. This may have a flow-on effect to the make-up of the work force in the district. Factors such as the aging population contribute to a decline in the average household size, decreasing from around 2.6 residents per household in 2013 to under 2.3 in 2048.

In terms of geographic spread of growth, the Te Kuiti Ward is expected to experience a population decline and only small growth in dwellings. The population and number of dwellings is projected to grow in the Waitomo Rural Ward. The number of unoccupied dwellings increases significantly in Te Kuiti due to the declining population.

Population and dwelling growth flows through to rating units. The district's rating units are predominantly Residential and Residential Lifestyle, with nearly two thirds of the total rating units falling under these two categories. Therefore, any rating unit growth is heavily dependent on dwelling growth. The number of Commercial and Industry rating units is projected to increase in Mokauiti, Piopio, and Te Kuiti with no growth elsewhere.

Output	2013	2018	2028	2038	2048	Change (to 2048)	Average annual change	Annual average growth rate
Resident Population	9,340	9,810	9,650	9,120	8,420	-920	-26	-0.3%
Total Dwellings	4,224	4,377	4,522	4,644	4,863	639	18	0.4%
Total Rating Units	n/a	5,907	6,022	6,118	6,289	382	13	0.2%

Key Results –medium growth scenario

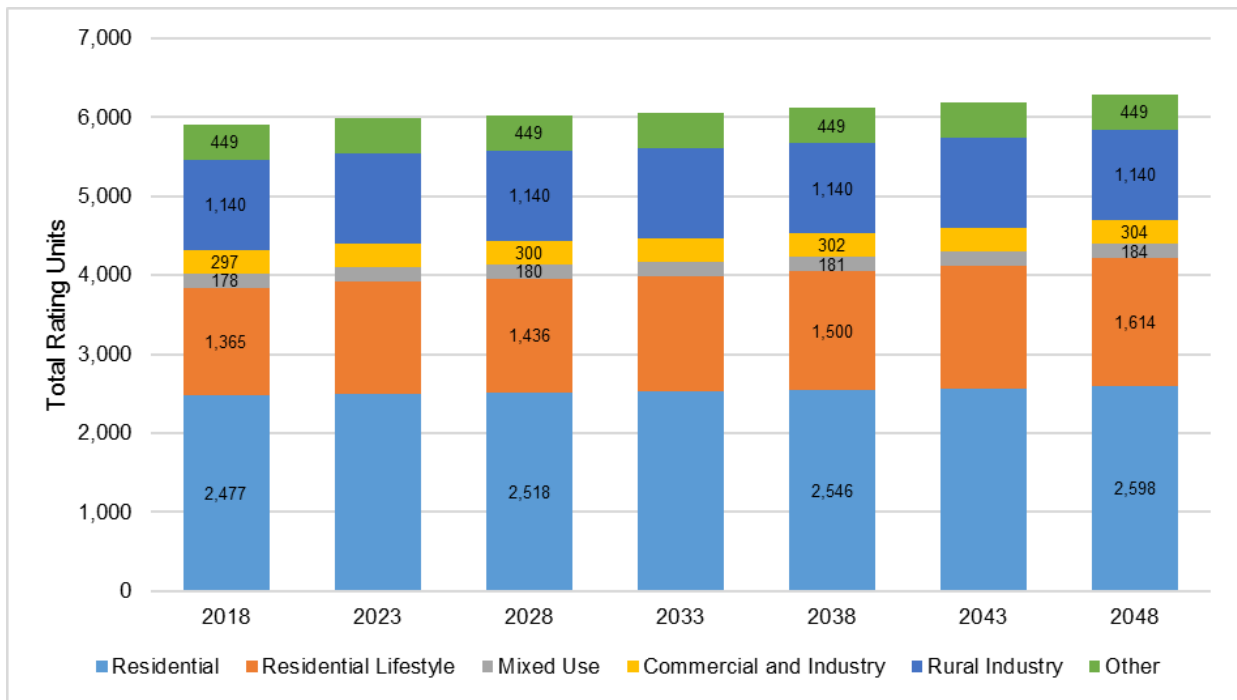
- **Population** -Under this scenario, the district's population decreases at a lower rate than over the past 12 years, around 26 people or -0.3% per year. The population is projected to peak in 2018 but decline from there at increasingly greater rates. The population in the Waitomo Rural Ward increases by 2 people per year with the population in the Te Kuiti Ward declining by 28 people or -0.7% per year.
- **Dwellings** -The dwelling growth that flows from the above population is approximately double the dwelling growth under the low scenario. It is also 20% higher than the historical growth rate. The proportion of occupied dwellings decrease from 82% in 2013 to 74% in 2048. The number of dwellings in the Waitomo Rural Ward is projected to increase at a higher rate than the Te Kuiti Ward, at 16 and 2 dwellings per year respectively.
- **Rating units** -The impact on the rating units is again slightly lower than the dwelling growth, around 0.2% per year. While most of this is due to residential related rating unit growth, Commercial and Industry rating units increase by six units by 2048 or 0.1% per year. Most of this business-related rating unit growth occurs in the Waitomo Rural Ward.
- **Overall** -This scenario is the closest to recent trends and is therefore considered to be the most realistic. It provides a conservatively optimistic midpoint between the construction boom of the mid 2000s and the general economic uncertainty following the global financial crisis.

Current Pattern of Building and Subdivisional Development

As stated in the previous section, the population growth for the District is projected to be in decline, while the dwelling and rating units is projected to grow slightly. Historic trends of pockets of subdivisional and building activity in the form of modest lifestyle development around Te Kuiti, Waitomo Village, Mokau, and Awakino are slowing. The subdivisional activity that was occurring in and around the Te Waitere area has also slowed in recent years.

Future Subdivisional Activity

The graph below shows the projected growth in rating units within the district sorted by category. As mentioned above, this shows the district's reliance on residential rating units - nearly two thirds of the total rating units are in the Residential or Residential Lifestyle category. Rural Industry rating units are around 20% of the total rating units. The remainder is spread between Commercial and Industry, Mixed Use, and Other rating units, each making up less than 10% of the total.



The demographic and development trends show that there is no demand for growth related infrastructure at the present time or in the foreseeable future. For the past few years Council has been working on improving the condition of its core infrastructure assets, particularly in the Water Supply and Sewerage activity areas, in order to support public health outcomes and to meet its resource consent and other legislative requirements.

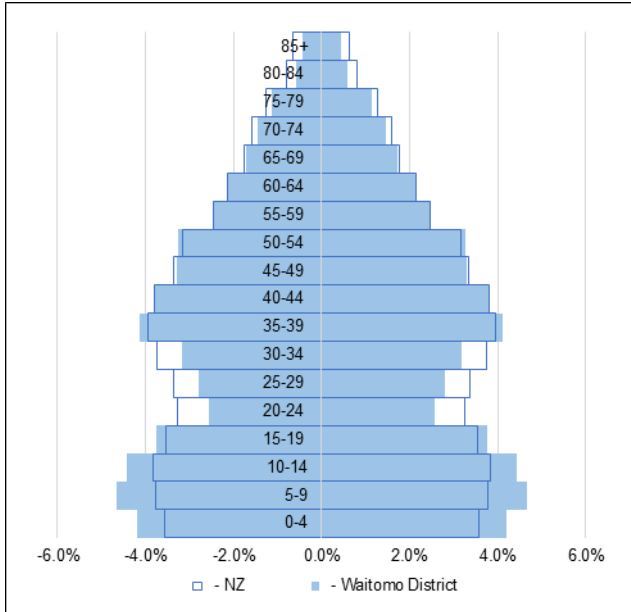
The National Policy Statement for Urban Development Capacity 2016 (NPS-UDC) requires Councils to provide sufficient development capacity in their resource management plans for housing and business growth to meet demand. Development capacity refers to the amount of development allowed by zoning and regulations in plans that is supported by infrastructure. Sufficient development capacity is necessary for urban land and development markets to function efficiently in order to meet community needs. In well-functioning markets, the supply of land, housing and business space matches demand at efficient (more affordable) prices.

The growth and development trends support an approach of continuing to upgrade and maintain existing assets as opposed to the development of new capacity driven infrastructure. There is currently enough capacity in the infrastructure network to allow for minimal growth should it occur. Council does not anticipate any significant land-use changes during the period of the 2018-28 LTP.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
8. The impact of population change has been adequately provided for in the financial estimates.	Low	Low

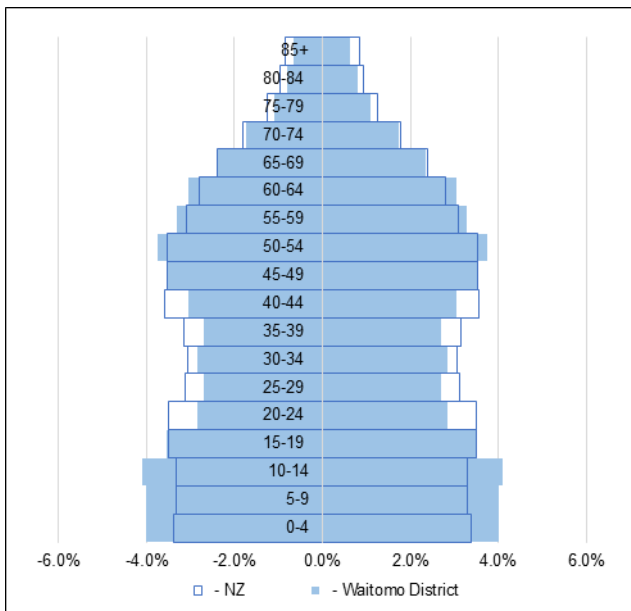
9. Potential societal change factors

The following age pyramids show the district's resident population in five year age groups, for both 2001 and 2013 in relation to the age distribution of New Zealand. 0-4 year olds are at the base of the pyramid and the over 85 year olds are at the top. Typically, age pyramids show the male/female population split but that level of detail is not necessary for this review. To calculate the total proportion in an age bracket, the two sides of the vertical axis need to be added together ignoring the negative sign.



Pyramid one: 2001 age pyramid, the district compared to New Zealand

The first pyramid shows that the district had a higher proportion of children and teenagers than the rest of New Zealand in 2001. The proportion of the district's population in the 20 to 34 year old and retirement age categories was lower than the rest of New Zealand.

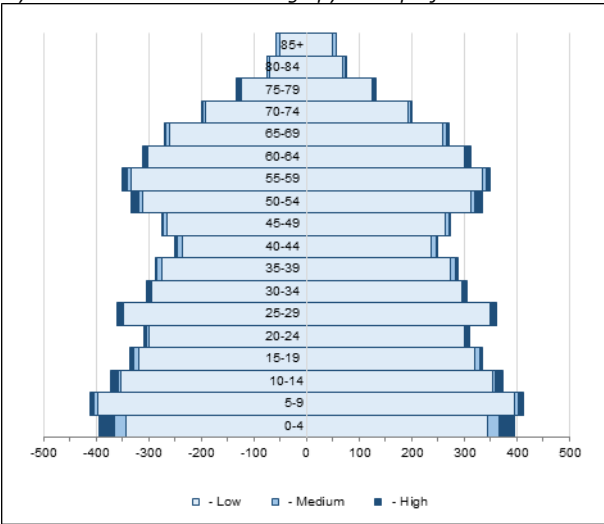


Pyramid two: 2013 age pyramid, the district compared to New Zealand

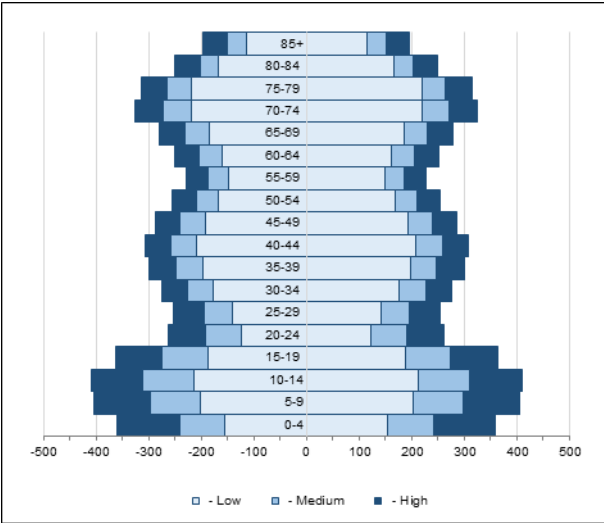
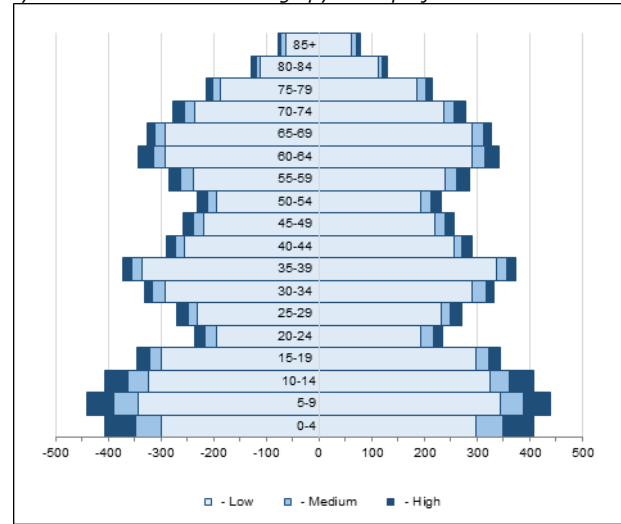
The 2013 pyramid shows that like 2001, the district had a higher proportion of children and teenagers than the rest of New Zealand. The proportion of the population in the 50 to 64 year old categories was also above the national average.

Pyramids 3, 4 and 5 below show the projected change in the district's age structure under each scenario and have been overlaid for ease of comparison. The light blue bars show the low growth scenario, darker blue the medium growth scenario and navy the high growth scenario (the widest bars). These pyramids below show the actual population numbers in each age group, rather than a percentage of the total population. The medium scenario is the one adopted by Council.

Pyramid three: District wide age pyramid projection for 2018



Pyramid four: District wide age pyramid projection for 2028



Pyramid five: District wide age pyramid projection for 2048

The key points are:

- The age pyramid shows a similar distribution of age groups for each scenario, with only the projected total population differing.
- The trend toward an aging population continues under all scenarios. The proportion of people aged 65+ is forecast to increase from 13% in 2013 to between 25% and 29% by 2048.
- The proportion of the population under 15 years of age is forecast to decline from around 24% in 2013 to between 17% and 23% in 2048.

The result of this changing age structure is that the proportion of people aged between 15 and 64 years of age is forecast to decline from 63% to around 53%. This results in a net decrease in the number of people in this age group under all scenarios. This may have a flow-on effect to the make-up of the work force in the district. Council considers these changes have been adequately catered for in its 2018-28 LTP. Any departure from this assumption can be addressed during the 3-yearly review of the Plan.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
9. The impacts of societal changes and population structure have been adequately provided for in the financial estimates.	Low	Low

10. Forecast return on investments

The annual return on Council's investment in ICL is assessed at zero for year 1, \$350k for year 2 and thereafter increasing by \$50k per annum over the remaining period. Surplus investment income will be utilised prudently to accelerate retirement of term debt.

Planning for the 2018-28 period assumes that if the forecast income from Council's investment in ICL is not received, then of itself this factor will not have a material impact on the LTP.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
10. The annual return on investments is assessed at zero for year 1, \$350k for year 2 and thereafter increasing by \$50k per annum over the remaining period..	Medium	Low

11. Credit rating of investment organisations

The most recent global recession in 2008 has highlighted the vulnerability of lending institutions to slumps in the economy of major countries. An understandable reaction at an international level has been a tightening of lending provisions including more stringent assessment of the credit ratings of potential borrowers. In Council's case, its credit rating is secure through its ability to generate an income from rates.

In the case of its term investments, the risk is mitigated by investing with credit worthy counter parties having a Standards and Poors rating of AA- or better, in accordance with Council's Policy on Investments. The borrowing options available to Council now include the bank, funding options provided by Bancorp and obtaining funds from the Local Government Funding Agency. Council considers that the risk of its investment portfolio and inability to borrow is minimal.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
11. The risk of Council's investment portfolio and inability to borrow is minimal.	Low	Low

12. Resource Consents

Council has assumed that the resource consents it requires for its infrastructural activities will be obtained and/or renewed within the nominated time frames with conditions that can be met within expenditure estimates.

The expenditure estimates have been prepared based on experience and trends with past consent processes and standards. If the consent conditions are more stringent than expected then the levels of rating, debt, capital and maintenance expenditures will be higher and may require compensating reallocation of other expenditure priorities. Similarly, consent application processes that take longer than estimated could result in additional costs due to the need to extend existing operational arrangements.

The financial impact of consent issues is considered to be minor with time delays required to complete consent processes more likely to be a greater issue than additional costs over what has already been allowed for in the financial estimates.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
12. Resource consent acquisition and compliance processes are within estimated timeframes and expenditure estimates.	Low	Low

13. Rating Base

It has been assumed that there will be no material increase or decrease in Council's rating base over the term of the 2018-28 LTP. This assumption is conservative to minimise the risk of understating average prospective rate increases. Any actual increase in the rating base will help to absorb average rate increases.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
13. Any increase in the rating base will not be material.	Low	Low

14. Major users of water and trade waste services

There are two major users of Council services built into the financial forecasts. This is the Water billing revenue and Trade Waste revenue received from the two large meat companies within the district. The loss of one or both could have an impact on the forecasts contained in the LTP. The underlying assumption in Council's financial forecasts is that the companies will continue to operate within the District. There is no information to suggest this is likely during the life of the LTP.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
14. The two major users of water and trade waste services will continue to operate within the district	Low	Low

15. Transfer of ownership of any significant assets

For the purpose of the 2018-28 LTP period Council has assumed that there will be no transfer of ownership of significant assets, although Council intends to assess its investment portfolio for optimal use as part of its regular management practice.

The owners of the water and wastewater infrastructure at Waitomo Village are currently in the process of finalising their strategic position regarding the future ownership and operation of these assets. The Council is aware and continues to be part of the discussions between the affected parties. The option of Council ownership and operation of these assets is not without merit however a detailed and clear understanding of relevant issues including the future cost to the end users is fundamental to any such decision.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
15. Impact of transfer of significant assets will be minor.	Low	Low

16. Vesting or disposal of assets

The scope of Council's infrastructural assets is subject to change over time as a result of vesting of new assets in Council (through subdivision activity), and disposal of redundant assets that have become obsolete or are surplus to requirements. As can be seen from the growth change factors above, the projected increase to Council's asset base due to growth is likely to be at best modest in comparison to the current asset inventory.

The additional Council assets arising from this level of development will be in new condition and are not likely to add materially to maintenance and renewal costs over the period of this LTP. Similarly, it is assumed that the level of planned asset disposal will be minor over the period of the 2018-28 LTP.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
16. Changes to the scale of Council's asset inventory will not be material.	Low	Low

17. Re-valuation of non-current assets

Non-current infrastructure assets and land and buildings are revalued by an independent valuer on a 3-yearly basis in accordance with the Accounting Policies. Roads and Solid Waste assets were revalued at 30 June 2017 and will be revalued 30 June 2020. Water, Wastewater, Stormwater infrastructure land and land and buildings were last revalued at 30 June 2015 and will be revalued at 30 June 2018.

It has been assumed that any change in valuation will be in line with the assumed rates of inflation.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
17. Change in value of assets due to periodic revaluation will be in line with inflation.	Low	Low

Investment properties and properties held for sale are valued for financial reporting purposes only. No provision has been made in the plan for changes in value as there will be no cash flow implications or any impact on the levels of service provided by the Council's groups of activities due to the valuation.

18. Useful lives of significant assets

Council has made a number of assumptions about the useful lives of its assets. The detail for each asset category is included in a note on depreciation of infrastructural assets in the Statement of Accounting Policies. The useful lives assumed in the 2018-28 LTP are consistent with the NZ Infrastructure Asset Valuation and Depreciation Guidelines prepared by the National Asset Management Steering (NAMS) Group and used by experienced asset valuers.

Variations between actual and assumed useful asset lives will impact on the relevant asset replacement programme, with the overall financial effect expected to be self-balancing. This will be reviewed on a 3-yearly basis in line with the LTP planning cycle to ensure depreciation funding is in line with asset renewal requirements and priorities adjusted accordingly.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
18. Assumed lives for Council's assets will have minimum impact on financial estimates.	Low	Low

19. Sources of funding for the future replacement of significant assets

The funding needed for the future replacement of significant assets is set by Council's Revenue and Financing Policy. Renewing an existing asset extends the lifetime of such asset and is therefore capital expenditure. The Revenue and Funding Policy for funding of capital expenditure states that the following sources are available for Council to fund capital expenditure:

- Grants and subsidies
- Loans
- Rates
- Proceeds from asset sales
- Depreciation Reserves
- Financial contributions under the Resource Management Act (able to be collected until 2022)
- Development Contributions under the Local Government Act
- Other

Loan funding (borrowing) is managed by the provisions of Council's Treasury Policy. The prospective financial statements, including the Statement of Public Debt, provide a forecast of public debt levels associated with loan funding.

Financial contributions (able to be collected until 2022) as detailed in Council's District Plan do not apply to the funding of replacement expenditure.

Council has assumed that depreciation reserves and subsidies will generally be adequate to fund asset renewal expenditure.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
19. Depreciation reserves and subsidies will generally be adequate to fund asset renewal expenditure.	Low	Low

20. Development/Financial Contributions

Council will consider the applicability and development of a Development Contributions Policy as part the review of the District Plan. It has been assumed that capital outlay to cater for growth will not occur until there is evidence that the assumed growth is taking place. The growth projections indicate that there is likely to be a small amount of growth in dwellings and in rating units, despite a decrease in population. However, this is, over the 30 year projection, less than 0.5% increase/decrease across these measures, therefore general stability can be anticipated and the impact of growth is assumed to be low.

The 2017 amendments to the Resource Management Act 1991 will remove Councils ability to collect financial contributions from April 2022, therefore in order to offset growth related capital expenditure, Council will need to use development contributions from 2022.

Assumption	Level of Uncertainty	Impact on Integrity of LTP
20. No material growth related capital expenditure is expected.	Low	Low