Appendices

Planning Assumptions

Introduction
Schedule 10 (clause 17) of the Local Government Act 2002 contains provisions relating to 'significant forecasting assumptions'. The Act requires that Council 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 on the financial forecasts.

This section sets out the significant forecasting assumptions that have been used in the preparation of the 2015-25 Long Term Plan (LTP) together with their perceived levels of risk to the integrity of the 2015-25 LTP and particularly the financial forecasts contained therein.

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

Summary of Assumptions

No:	Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
1.	Future Price Changes – Rate of Inflation	Low	Low
2.	Future Treasury Changes	Low	Low
3.	New Zealand Land Transport Agency Subsidy Rates	Low	Medium
4.	Revaluation of Infrastructural Assets	Low	Low
5.	Useful Lives of Infrastructural Assets and Depreciation Rates	Low	Low
6.	Form of governance	Medium	Low
7.	Central government policy Direction	Medium	low
8.	Climate Change and Emissions Trading Scheme	Medium	Low
9.	Population Structure and Growth	Low	Low
10.	Rating Unit Growth	Low	Medium
11.	Building and Residential Development	Low	Medium
12.	Development of commercial Aquiculture Industry and an all-weather Navigable Harbour Entrance at Ōpōtiki	Low	High
13.	Treaty of Waitangi Settlement	Low	Low
14.	Funding of Ōpōtiki Harbour Redevelopment	Moderate	High
15.	PSA	Low	Low
16	Availability of Staff/Contractors	Low	Low
17	Ōpōtiki Wastewater Replacement	Medium	Low
18	Sources of Funds for Future Asset Replacement	Low	Low
19	Ōpōtiki Library Development Project	Low	Low
20	Resource Consents	Low	Low
21	Natural Hazards/Disaster	Medium	Low
22	Insurance	Low	Low
23	LGFA Borrower Notes	Low	Low

Assumption Detail

1. Future Price Changes – Rate of Inflation

The Society of Local Government Managers (SOLGM) commissioned a study to develop price level change adjustors for local authorities to use when forecasting future year expenses through to 2025. The following table lists the forecast annual percentage change for each of the adjustors.

Year Ending	Road (Land Transport)	Property (Property and Facilities)	Water (Water, Sewerage and Stormwater)	Energy (Electricity and Gas)	Staff (Salary and Wage Rates Local Government Sector)	Other (Corporate Overheads etc)
2016	1.2	2.2	5.2	3.5	1.1	2.3
2017	1.4	2.4	3.8	3.8	1.9	2.5
2018	2.2	2.5	3.0	3.9	2.0	2.6
2019	2.4	2.6	3.2	4.1	2.1	2.7
2020	2.5	2.8	3.3	4.3	2.2	2.9
2021	2.7	2.9	3.5	4.5	2.3	3.0
2022	2.8	3.0	3.7	4.7	2.4	3.1
2023	3.0	3.2	3.8	4.9	2.5	3.3
2024	3.1	3.3	4.0	5.1	2.6	3.4
2025	3.3	3.4	4.2	5.3	2.7	3.6

These inflation assumptions have been applied to both operational and capital expenditure items as the indices include a combined forecast of operating and capital costs. However because of the mixture in the composition of these indices, they may understate (or overstate) the change in process of both operational and capital expenditure.

It should be noted that these inflation forecasts do not allow for spikes that can occur during retendering or contract renewal processes. Such spikes can occur for a variety of reasons, such as changes to service levels or as a consequence of changes in contract interpretation, and are difficult to forecast.

Future price changes different than those forecast above will impact on either service levels or future rate requirements depending on the variance. Such variances can be managed through future reviews of the LTP or via the Annual Plan Process so are considered to be low risk in the context of the 2015-25 LTP.

Whilst preparing the LTP we were contacted by NZTA advising that they would be effectively limiting the inflation factors that they expected Councils to apply to the roading activity to 1% increase each year for the three year funding term. This means a deviation away from BERL. What Council has proposed to do in this LTP is follow the guidance of NZTA for each 3 year funding period and limit inflation to 1%, but every third year will include a stepped percentage increase to bring the overall inflation back in line with BERL rates.

A table of the proposed inflation rates applicable to the roading activity is below;

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1.0%	1.0%	1.0%	4.03%	1.0%	1.0%	6.09%	1.0%	1.0%	7.54%

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
Future price changes will be within the range forecast by LTP	Low	Low

2. Future Treasury Changes

The key factors for when forecasting future treasury costs include interest received on investments, Interest rates associated with external and internal borrowings and the Council's on-going ability to access external borrowings.

Interest received on Investments

Interest rates for investments have been calculated as shown in the table below, based on estimated wholesale rates over the term of the plan. Historically interest rates have been higher. However with the current economic downturn rates have fallen, and are not expected to recover for 3 years. Council has limited investments therefore exposure is minimal.

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Rate	3.79 %	4.19 %	4.51 %	4.68 %	4.74 %	4.86 %	5.01 %	4.90 %	4.95 %	5.05 %	5.15 %

Interest on External Borrowings

Debt servicing costs on existing borrowing is the actual cost for each loan. Whilst Council is currently enjoying historically low interest rates it is not anticipated this will continue in the medium to long term. The table of assumed interest rates are based on expected wholesale rates over the term of the plan plus a margin of 110 basis points due to it being a small local authority. Council has therefore adopted assumed borrowing rates across the 10-year period as shown below.

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Rate	4.89 %	5.29 %	5.61 %	5.78 %	5.84 %	5.96 %	6.11 %	6.00 %	6.05 %	6.15 %	6.25 %

Internal loans interest rates will be the same as the external loan interest rates. The reason for this is that all loan funded expenditure within an activity will be funded by internal loan. The council will have a treasury function which borrows externally to fund internal loans should it not have enough available cash on hand. This will enable more efficient treasury management of investments and loans, and allow Council to keep external debt lower than would otherwise be achieved without the treasury function. Council has estimated interest rates on current levels. If Loans cannot be

sourced at the estimated interest rates projected, the costs will differ from those estimated in the Council financial statements. Higher interest rates would have an impact on either service levels or rate requirement however Council considers this assumption to be of low risk as whilst the actual interest rates are likely to vary over the life of the plan there will be times when they are below the assumed rate as well as above.

Access to External Borrowings
This plan is based on the continuity of funding from an approved banking institution. Council believes that the likelihood of the withdrawal of Bank funding is low, due to the good credit rating and relatively low risk Council has as a public entity. In addition, Council has the ability to set rates at a level sufficient to cover its costs. As long as Council continues to be financially prudent and can demonstrate financial sustainability over time there is minimal risk attached to this assumption. During the 2014-15 financial year Council joined the Local Government Funding Agency (LGFA), which achieves similar risk margins at a global level to that of Central Government. This all means cheaper interest rates to Council.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
Future treasury changes will be within the range forecast by LTP	Low	Low

3. New Zealand Transport Agency (NZTA) Subsidy Rates
The NZTA subsidy for the maintenance, renewal and improvement of the Local Roading Network is Council's single largest source of income after rates revenue.

In 2013 NZTA indicated that it would review the funding assistance rates (FAR) nationally across all councils. The aim was to smooth out some of the discrepancies between the different funding rates that councils were getting and to also apply more attention to roads of significance and Auckland. Also each council would receive different rates for different types of work, so there was a lack of clarity within the system.

The review indicated a number of possible funding scenarios and sent these to Local Authorities to make submissions on. In May 2014 NZTA released the results of the review and submission process and indicated what the new rates would be for the next NLTF period, which is 2015-2018. The result is that no council will have a subsidy rate of less than 52%. This means our rate will increase from a current 50% to 52% for the first 3 years of the LTP.

NZTA have indicated that they will try to move all councils to their new final rates over a 9 year period, or 3 NLTF periods. The new funding rates will take into account, deprivation, affordability, roads of significance, and a number of other factors. Early estimates indicate that our funding rate could end up as high as 65%. So we will move up to this rate over the first 9 years of the LTP.

The setting of this new rate however removes any increased subsidy that we used to receive on minor improvements work, which was an additional 10% over and above the operational rate of 50% that we were receiving for operational and renewal costs. From 2015 onwards all works will be covered by the one funding rate.

The emergency works rate however will still be higher than the normal funding rate, but NZTA have tightened up on what qualifies for this rate. The rate for this will be the normal funding rate plus 20% and will only be received on out of the ordinary short duration natural events.

Changes in subsidy rate and variation in criteria for inclusion in subsidised works programme does represent a level of uncertainty for the LTP. NZTA funding priorities may change over the life of the LTP as aspects of the review process are still ongoing, and variations in subsidy are possible given the priority allocated to Auckland transport issues.

Whilst it is possible that the criteria and level of funding available could vary over the life of the plan the likelihood of such occurring is considered to be low, now that NZTA have released expected rates for the next NTLF period. However given Council's reliance on the NZTA subsidy as a source of operating revenue the impact on the LTP is considered to be medium.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
NZTA Subsidy Rates will continue at planned for levels.	Low	Medium

4. Revaluation of Infrastructural Assets
Infrastructure Assets are to be re-valued every three years in line with Council's Accounting Policies and the outcome may alter the carrying value of Council Assets and the associated depreciation expense. The last valuation was undertaken as at 1 July 2014. It has been assumed that any change in valuation will be in line with assumed rates of inflation. As a result Council considers that Asset Revaluations represent a low level of uncertainty for the LTP forecasts.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
Changes in valuation will be in line with inflation.	Low	Low

5. Useful Lives of Infrastructural Assets and Depreciation Rates
The useful lives assumed in the Asset Management Plans (AMP's) and therefore the LTP are those provided by the National Asset Management Steering (NAMS) Group and used by experienced valuers. Variations between actual and assumed useful lives will impact on the funding of

depreciation and the asset renewal programme, however over time the impact is likely to be self-balancing with minimal impact on the forecasts contained in the LTP.

Council has an asset management planning and upgrade programme in place. Asset capacity and condition is monitored, with replacement works being planned in accordance with standard asset management and professional practices. Depreciation estimates are prepared on the basis of the recent asset revaluation exercise and renewal and development expenditure over the life of the LTP. Council uses the straight line method for calculating depreciation on all property, plant and equipment at rates that tie directly to the useful lives of the assets. Certain factors can distort these calculations such as asset revaluations, knowledge of assets (e.g. age, condition etc) and the level of investment in the renewal and development programme. Such factors are considered to be low risk as they are reviewed on a regular basis and generally in alignment with the triennial review of the LTP itself.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
Asset lives and allowances for depreciation are adequate for the life of the LTP	Low	Low

6. Form of Governance

It is assumed that Central Government will provide a relatively stable legislative platform for the existence of Local Government in its present form over the life of the LTP. Government has signalled in a number of forums that they do not intend to look at forced amalgamations. The 2012 amendment to the Local Government Act was intended to make amalgamation easier between willing Councils and communities. In the Bay of Plenty there is general agreement between the Councils, via the Triennial forum that "form follows function" and any drivers for amalgamation are not apparent. Ongoing work for Invest Bay of Plenty, the Regional Spatial Plan and the Eastern Bay of Plenty are throwing up a number of challenges but none that suggest Amalgamation as a solution. Workstreams currently underway include "Building a Better Bay", and "Best for the Bay". These are showing a region of difference and diversity, and showcasing success stories that arise because of the current governance arrangements. For a district like the Ōpōtiki District there are reasons why the current form of governance is essential:

- The very strong sense of community brought about by the rich Māori and colonial history, and the hepgraphical isolation.
- The Harbour development would have been unlikely under a larger Council give governance based elsewhere
- Any agglomeration will result in increased costs that overall the local community cannot sustain.

There is risk however of groups lodging amalgamation proposals to the Local Government Commission. The amendments to the LGA mean that smaller Councils can be voted out of existence by larger communities. Currently there would appear little community appetite for this in the Bay of Plenty, although there are signs of interest from groups in the Tauranga and Waikato area that could impact the Ōpōtiki District.

7. Central Government Policy Direction

Historically successive Governments have imposed additional responsibilities on Local Government without associated funding recovery mechanisms. The administration of new and changing legislation, regulations, policy statements, standards, and accreditations over time has been a key factor for increased costs for Local Government in New Zealand. If this trend were to continue then costs would continue to increase as would most likely rate revenue. The past three years has resulted in many, and cumulative, legislative changes that have required changed processes, staff resources to implement and insufficient cost recovery mechanisms. Looking ahead there are significant amendments proposed to the Building Act, the Resource Management Act, the Health and Safety Act and there are changes yet to bed in to the Food Act.

It is therefore assumed that incremental and cumulative change will continue and costs will rise over time.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
Changes to Central Government will have a minimal impact on the role and form of Local Government	Medium	Low

8. Climate Change and Emissions Trading Scheme

The earth's atmosphere is made up of oxygen, nitrogen and a small percentage of greenhouse gases. Greenhouse gases normally act like the roof on a greenhouse – trapping warmth and making life possible on earth. Without them, too much heat would escape and the surface of the earth would freeze. Increased amounts of greenhouse gases have the opposite effect – they heat up the earth, causing a rise in temperature and affecting climate patterns (known as climate change).

Current scientific thought is that more than 100 years of industrialisation and human activity has increased the amount of greenhouse gases in the atmosphere, speeding up climate change. Central government recognises climate change as a long-term strategic issue for New Zealand within the broader context of economic transformation, national identity, and other leading issues such as water quality and flood risk management.

How might climate change affect New Zealand and the Bay of Plenty in particular?

It is predicted the New Zealand, including the Bay of Plenty region, can expect the following climate change effects:

- A base sea level rise of 0.5m and potential higher value sea level rise of at least 0.8m between 1990 and 2090;
- Temperatures are likely to be around 0.9˚C warmer by 2040 and 2.1˚C warmer by 2090, compared to 1990
- More rain is likely to fall in the west of the country and less in the east;
- Fewer cold temperatures and frosts, with more high temperature episodes;
- An increase in the annual westerly component of wind flow across New Zealand; and
- An increase in the frequency and intensity of extreme weather events (for example, floods and droughts).

A changing climate is expected to create both opportunities and risks for the Bay of Plenty. These predicted changes may be beneficial to some sectors of the agricultural and horticultural industries with less frost and increased mean temperatures leading to longer growing seasons.

It may also mean that the Bay of Plenty is susceptible to:

- More of different pest plants and animals;
- Changes in natural ecosystems;
- Sea level rise, which will increase costs of draining and pumping in low lying areas, and has the potential to decrease coastal flood protection levels of service;
- An increase in the intensity of rainfall rising the flood risk to floodplains; and
- More frequent and intense storms which could change flood protection design levels, increase erosion impacts, increase coast storm effects, and increase run-off from upper catchments leading to an increase in sediment transport to harbours and estuaries.

Climate Change can affect Councils functions in a number of ways:

A Hazard Planning and other regulatory and environmental planning roles

Council has a shared responsibility under S31 of the RMA for management of natural hazards. This is further reinforced in the Regional Policy Statement that directs a shared approach to the management of natural hazards. Council's regulatory role is generally well defined by the hierarchy of RMA planning documents and national guidance is given on the parameters and the process of implementation. From time to time national policies are promulgated that require council to update its planning documents and regulatory functions in accordance with revised guidance. It is assumed that updates will be accommodated within normal planning processes.

B Design of assets

In designing its assets council will continue to use the latest guidance for the various design parameters. Climate change effects are built into the design of new assets and on replacement of existing assets. Some assets may need additional capacity as climate change effects become apparent, however climate change scenarios indicate there is sufficient time to plan ahead. It is assumed that guidance on increased rainfall or sea level parameters will continue to be readily available and council will continue to adapt as new predictions from credible sources become available.

C Increase in frequency of extreme events

Climate change predictions are for an increase in the number and size of extreme events over time. This is a difficult science in that there is a lot of noise in the data that can lead the public to perceive a rapid change in weather events when in fact it is a slow change over decades. It is assumed that there will be a gradual increase in the frequency and size of events causing increased erosion and damage. Over time Council may find itself facing increased costs of flood and erosion events however it assumed this will be over a number of decades and can be reviewed in successive LTP's.

Emissions Trading Scheme

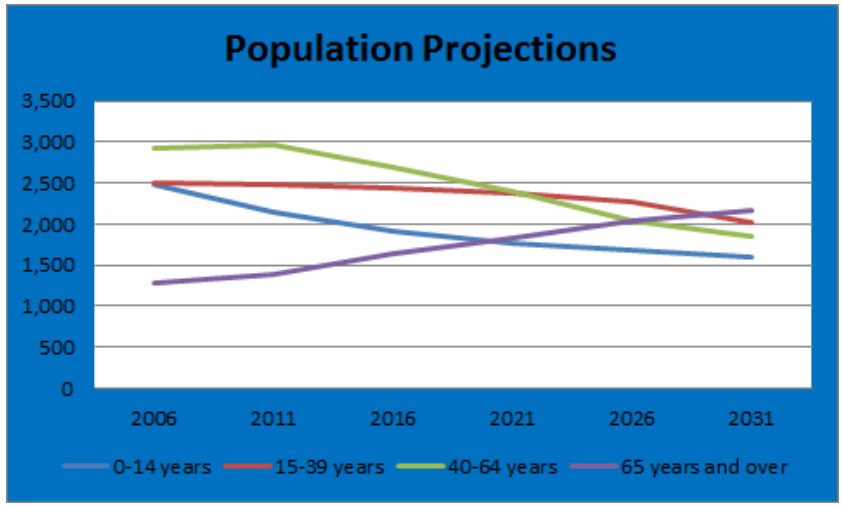
The New Zealand government is a signatory to the Kyoto Protocol that seeks to limit global emissions. One of the tools the government is using is the implementation of an Emissions Trading Scheme. Effects on council could be increased cost of disposing of solid waste, and increased fuel and energy costs. Effects in the district could be more favourable conditions for forestry and increased cost of farming from 2015 when farming enters the scheme.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
Climate Change will affect the District over the medium to long term and that government continues it progress towards an emissions trading scheme but at a slower rate and with less impact than had been previously forecast	Medium	Low

9. Population Structure and Growth

Population Structure: As at the 2013 census that population of the Ōpōtiki District had declined by 540 people to 8,436. This is a 6% reduction since the 2006 census, or on average a decline of around 1% per annum.

As at the 2006 census the median age (half are younger, and half older, than this age) of people in the Ōpōtiki District is 41.3. For New Zealand as a whole, the median age is 38.0 years. 17.2 percent of people in Opotiki District are aged 65 years and over, compared with 14.3 percent of the total New Zealand population. 22.8 percent of people are aged under 15 years in Opotiki District, compared with 20.4 percent for all of New Zealand. The graph below tracks past changes to the Ōpōtiki Districts population age and forecast projections (based on Stats NZ medium projection series) out to 2031. The overall trends points toward an aging demographic. This apparent trend may have an impact on Council services going forward as they relate to services relevant to the retired however it is important to note that the Statistic New Zealand forecasts are not influenced by local factors such as the developing Aquaculture Industry (discussed further below) which will increase employment opportunities and therefore a working age population.



Ethnic groups: 52.0 percent of people in Opotiki District belong to the European ethnic group, compared with 74.0 percent for New Zealand as a whole. 60.6 percent of people in Opotiki District belong to the Māori ethnic group, compared with 14.9 percent for all of New Zealand.

Statistics New Zealand Census Data and associated projection are generally considered a reliable source of information for the purposes of planning for future (demand driven) services in the Local Government Sector and for that reason form the starting point for the population assumptions for Council's 2015-2025 Long Term Plan. It is important however to note that these projections do not always cater for localised events, issues and developments that can and often do influence communities and their populations.

There are three such developments that are likely to take shape in the Ōpōtiki District over the life of the 2015-2025 Long Term Plan. The first is the developing Aquaculture Industry and related all-weather Navigable Harbour Entrance at Ōpōtiki (discussed in section 11 below) which will see the establishment of the country's largest offshore marine farm. The second is the pending Treaty of Waitangi Settlement with the Whakatōhea Iwi (discussed in section 12 below. The third is proposed expansion in the kiwifruit industry in the District, Two of the three large packhouses have indicated to us that they are likely to spend a combined $12 million in capital expansion works over the next three years, and budget for significant increases in throughput and numbers of jobs available. All of these issues will have significant impacts for the Ōpōtiki District Community and its population. The already developing Aquaculture Industry will create employment (both direct and indirect) opportunities within the community and have a subsequent impact on the future population. So too will the Treaty of Waitangi Settlement with the Whakatōhea Māori Trust Board developing strategies to invest Treaty Settlement proceeds locally with a view to benefit Whakatōhea people within the Rohe and to attract its people back to the area. Whilst the expansion in the kiwifruit industry will bring more people into the district to fill the jobs required, and also provide for more high paying full time jobs.

Martin Jenkins has been commissioned to provide population projections for the Ōpōtiki District to support the Long Term Plan.

We reviewed historical demographic data and school rolls as well as economic variables such as employment, rateable assessments and building permits to determine whether there were other trends that may inform population projections that differ from those provided by Statistics New Zealand and the National Institute of Demographic and Economic Analysis.

The analysis suggested that population decline of the order suggested by Statistics NZ and NDIEA were likely outcomes. The approach used to determine Ōpōtiki population projections in the previous LTP was modified to provide an aspirational growth scenario for the district.

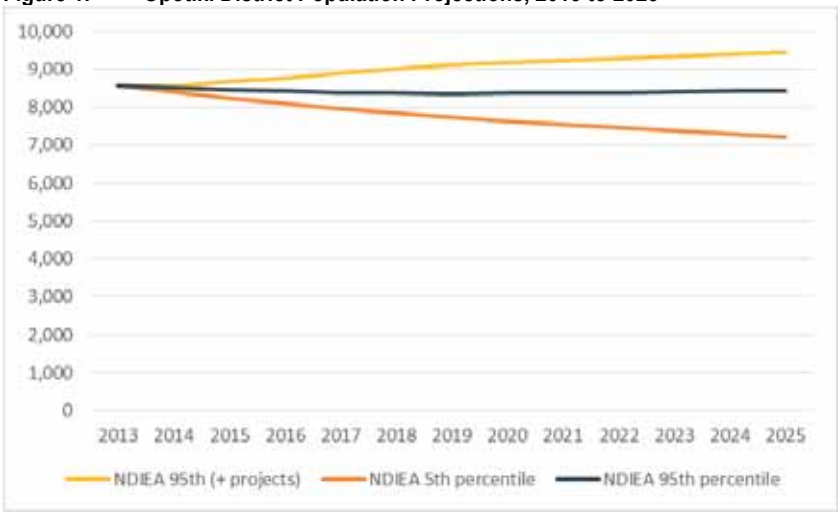
The NDIEA 95th percentile and 5th percentile scenarios were adopted as the baseline scenarios. We then estimated likely employment growth from the Twin Harbour Projects, Kiwifruit expansion and Whakatōhea iwi development activity. This included indirect and induced employment generated as a result of these direct jobs. We then estimated the likely proportion of this employment that would have to come from outside the district over the medium term (to 2025).

This out of region employment was then converted into new households and then additional population utilising ratios of average employed per household and average household size to determine the additional population these jobs would attract.

Over the period 2013 to 2025, there will be population growth as a result of an additional 457 permanent jobs that will be filled by people from outside the Ōpōtiki district. This will result in an additional 1,015 people and an additional 424 households.

The additional population was added to the NDIEA 95th percentile projections to reflect the aspirational population scenario. The NDIEA 5th percentile projections reflected a worst case scenario where the additional activity resulted in no new population growth. Population projections for the Ōpōtiki District are shown in figure 1.

Figure 1: Opotiki District Population Projections, 2013 to 2025



Source: MartinJenkins

Under the aspirational projection, population increases by 0.8 percent per annum between 2013 and 2025, an increase of 880 people. Under the worst case scenario, the district's population would decline by 1.4 percent per annum, or 1,370 people.

Table 1 presents a summary of the key assumptions underpinning the analysis.

Table 1: Summary of Key Assumptions

Baseline population projections	
NDIEA 95th Percentile (2013-2025)	-0.1%pa
NDIEA 5th Percentile (2013-2025)	-1.4%pa
Employment from out of district	
Twin Harbour Project	40%
Kiwifruit processing (Permanent) and On-farm employment	80%
Kiwifruit industry growth rate	0.75% pa
Indirect and induced multiplier	1.4
Average employees (full time)per household	1.08
Average household size	2.55 (2013) to 2.28 (2025)

Source: MartinJenkins

The aspirational population projection is based on projected employment growth in the district. However, for this analysis we have only considered growth as a result of the Twin Harbour projects and the Kiwifruit industry. There is potential to achieve growth in other sectors of the local economy, such as Mānuka, tourism; or other regional development activity that is occurring in the region such as Whakatōhea Māori Development Board activity to encourage opportunities for their iwi.

Further, the aspirational projection will change if any of these key assumptions change.

It should be noted that these population projections are a guide to future growth and are not interpreted as an absolute when making investment decisions reflected in the long Term Plan. By way of example, decisions around infrastructure investments are based on not only catering for the above population projections but also provide for additional capacity so to ensure that services are future proofed.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That changes in population structure and growth have been adequately provided for in the long term Plan	Low	Low

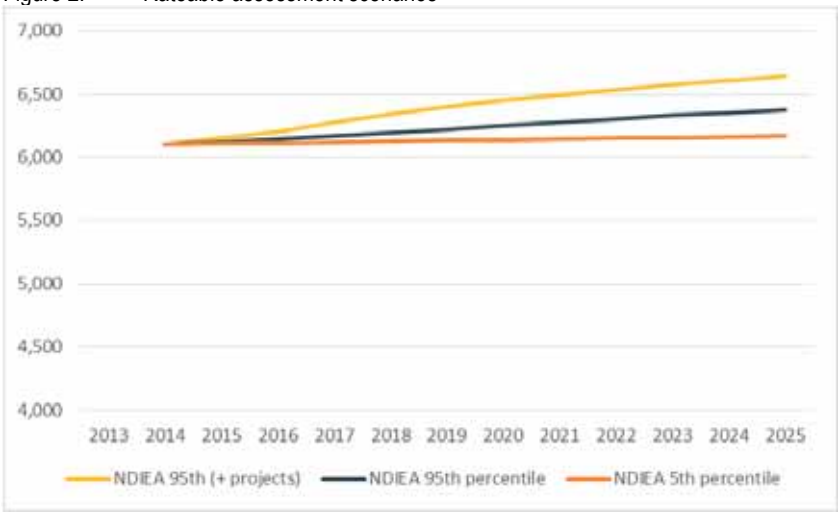
10. Rating Unit Growth

Previously, rateable assessment projections ran off historical growth plus an addition for employment activity. There was no relationship between population/household projections and rateable assessments.

The current projection method uses additional households to estimate the growth in rateable assessments. To do this rateable assessments are split into residential, commercial and public/non-rateable properties.

An assumption is made for the proportion of new households that move into existing (vacant residential) housing, and those that create a new rateable assessment. Commercial activity is kept as a constant ratio of residential. Public/non-rateable assessments continue to grow at the same historical rate (between 2009 and 2014). However, where the number of households decline, there is no decrease in rateable assessments. This results in the following scenarios:

Figure 2: Rateable assessment scenarios



Source: MartinJenkins

There were 6,104 rateable assessments in the Ōpōtiki District in 2014. By 2025, the aspirational scenario sees the number of rateable assessments increase by 0.8 percent per annum to 6,637. Under the 95th percentile scenario, rateable assessments will increase by 0.3 percent per annum to 6,339. Under the 5th percentile scenario, rateable assessments will increase only marginally, to 6,119.

The assumptions used to calculate rateable assessments is shown in Table 2 below.

Table 2: Key Assumptions for Rateable Assessments

Variable	Assumption
Proportion of additional households that move into existing vacant residential	
2013 – 2015	70%
2016	60%
2017 -	50%
Ratio of residential to commercial	2.7
Growth of public/non-rateable properties	
95th Percentile (+Projects)	1%pa
95th Percentile	0.5%pa
5th Percentile	0.25%pa

Source: MartinJenkins

The two assumptions that have a major influence on the rateable assessments are the proportion of additional households that move into existing vacant residential; and that a decline in household growth does not have a flow on effect to rateable assessments.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That growth in the rating base is adequately provided for in the long Term Plan	Low	Medium

11. Building and Residential Development

As discussed elsewhere in this paper the developing Aquaculture Industry along with a significant growth in the kiwifruit industry and a pending Treaty of Waitangi Settlement will create significant opportunities that are expected to drive population growth over the 2015 to 2025 LTP period.

The projected population increases over this period are included in section 8 of this paper. In summary it is anticipated that the population of the district will increase by about 880 residents. It has been assumed that around 235 additional houses will be needed to accommodate the increased population at a rate of 2.55 persons per household.

The business case for the aquaculture venture shows that there will be a range of jobs and salaries and therefore there is likely to be a wide variety of expectations in terms of the residential environments that people may wish to live in. The Opotiki District Council needs to be able to offer choice in residential demand to satisfy demand and expectations.

It is likely that some of the projected population increase will be accommodated through existing rural-residential lifestyle development in close proximity to the township. However, these developments are at the upper end of the market and will not be an option that will be generally affordable for most. There is also capacity in areas that are zoned coastal settlement, and in particular the area known as the Drifts is one such area. These areas are also at the higher end of the market.

There are two other areas that offer opportunities for further developments, the Hukutaia area which has a mixed old and new residential character and could be developed further to satisfy mid-market ranges and within the boundaries of the Opotiki Township there is a level of infill capacity which could be suitable for the development of affordable housing.

It is anticipated that rural-residential lifestyle and coastal development are likely to accommodate a small percentage of the increased population due to affordability issues. Therefore, it is anticipated that most of the population increase will be accommodated within the Ōpōtiki Township and in particular the area known as Hukutaia. People moving into Ōpōtiki can reasonably expect to have a similar level of infrastructural services that are available in other towns such as reticulated sewerage and water supply.

The aging sewerage infrastructure requires upgrade and would not be able to cater for a substantial increase in infill development should individual owners wish to exercise their options under the District Plan and subdivide sections to 400m2. The scheme will need to be upgraded in order for infill development to be an environmentally sustainable option for the township. At present there is no reticulated sewerage system in the Hukutaia area. If the population was to substantially increase in this area it is desirable from a health and environmental perspective that sewerage be reticulated.

The District Plan provides for a density of one household unit per 400m2 where sites have access to a sewerage system. There are around 1090 existing houses within the township and the majority of these houses are built on sites that are theoretically capable of infill development acknowledging that many property owners may not wish to subdivide. In addition it is anticipated that there will be a number of other activities associated with the processing facility that are likely to be located within the Opotiki Township due to indirect and induced effects of the establishment of the processing facility. These activities will also have an impact on the sewerage system. While there will be impacts on the capacity of the sewerage system within the township to cope with increased activities (residential and industrial) the current treatment facilities are capable of treating any increase and disposing of it in an environmentally friendly manner.

It also cannot be overlooked that with the development of processing facilities for the aquaculture product, this too will have a significant trade waste component that may need to be accommodated by the sewerage system.

The Hikutaia area has at present around 460 houses. There is potential for around 530 further sites on land that is already zoned residential under the District Plan through Greenfield development.

Note: the number of potential house sites was calculated using the 800m2 minimal lot size and included the hospital site.

There is also land presently zoned rural adjacent to the residentially zoned land that is considered suitable for residential development and there is potential for 346 sites. The greater Hikutaia area at its greatest extent is likely to accommodate in excess of 876 residential sites (under existing rules).

It is not desirable from a health and environmentally sustainable perspective for this level of development to occur without appropriate sewerage facilities. In addition the old hospital located on Hukutaia Road has been land banked and is subject to treaty claims. While the Council cannot influence treaty processes and timing of settlements, it is anticipated that during the life of this LTP that the future of this site will become apparent and while it may not be used for residential purposes any development is likely to place additional demands for sewerage disposal. The past practice of addressing sewerage disposal on site when the hospital was in operation is now not an appropriate way of addressing sewerage from an activity that is likely to generate levels significantly above those generated by an individual residential activity.

In summary:

- It is anticipated that the population of Opotiki will increase by 880 residents and that this will require the building of 235 houses
- It is anticipated that a small percentage of the increased population will be accommodated through rural-lifestyle development and land presently zoned coastal settlement such as the 'Drifts'
- The aging state of the Township's sewerage provides a significant constraint to residential infill development and the ability of the system to accommodate new aquaculture processing and other associated industrial activities
- The Hukutaia area is presently considered capable of accommodating a significant proportion of growth through both land presently zoned residential and an extension to the residential zone on land presently zoned rural
- The Hukutaia area is not presently serviced by reticulated sewerage and for the population to increase in this area there is a need for a reticulated sewerage disposal system from health and environmentally sustainable perspectives
- The settlement of treaty claims over the life of the LTP will create a dynamic situation that is likely to place additional demand on Council's facilities and in particular the Hikutaia area where the on-site disposal of sewerage and waste from a significant activity will be undesirable from both health and environmentally sustainable reasons.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That urban development has been adequately catered for and that planned for infrastructure can cope with expected development.	Low	Medium

12. Development of commercial Aquaculture Industry and an all-weather Navigable Harbour Entrance at Ōpōtiki

Funding of the Harbour Transformation Project

The Harbour Transformation Project represents a material investment for the Ōpōtiki Community and other funding partners. The forecast cost over the life of this LTP is some $52,000,000.

The forecast cost of the Harbour Transformation project is based on estimates provided by Dufill Watts in 2008. Preliminary costing of an alternative construction method (steel sheet piling) indicates that $52,000,000 is very much a worst case scenario and that actual construction costs may be considerably less. Steel being a major component of the build means that steel price fluctuations can have a significant impact upon the total cost of the project. Currently steel prices are low and working in our favour.

Given the local, regional and national benefit a funding partnership between the Ōpōtiki District Council, the Bay of Plenty Regional Council and Central Government has been assumed. Whilst the detail is not known at this point in time it is assumed that the funding from other stakeholders is likely

to be a mixture of grant funding and/or suspensory loan. The following funding splits have been assumed for the purposes of the 2012-22 financial forecasts.

Funding Partner:	Contribution (m):
Ōpōtiki District Council	*$5.4
Bay of Plenty Regional Council	$20.0
Central Government	$26.6
Total	**$52.0**

*This is $5.4M of borrowing

It is acknowledged that these assumptions have yet to be tested and therefore there is a level of uncertainty around them at this point in time. The assumptions around funding are still under discussion, particularly with Central Government. This uncertainty translates to a level of risk, primarily in a financial sense but in part non-financial also. The Bay of Plenty Regional Council has confirmed their provision of grant funding of $18 million towards the project, and have provided for an additional $2 million to be made available as well.

If external funding is not available to support the Harbour Transformation Project then it will not go ahead and associated expenditure will not occur. This is simply because the total level of investment is way beyond the Ōpōtiki District Community's ability to pay.

The proposed investment profile outlined in this LTP for the Harbour Development Project is such that no significant financial commitment will be made by the Ōpōtiki District Council in the absence of external funding sources akin to those outlined in the table above. In the absence of external funding the proposed investment of approximately $5,000,000 by the Ōpōtiki District Council would not be required. Given that investment is loan funded the result will be a reduction in gross external debt and associated maintenance, depreciation, interest and principal repayments costs. Future income expected as Fees and Charges for the commercial use of the Harbour Entrance would also not be available to the Council.

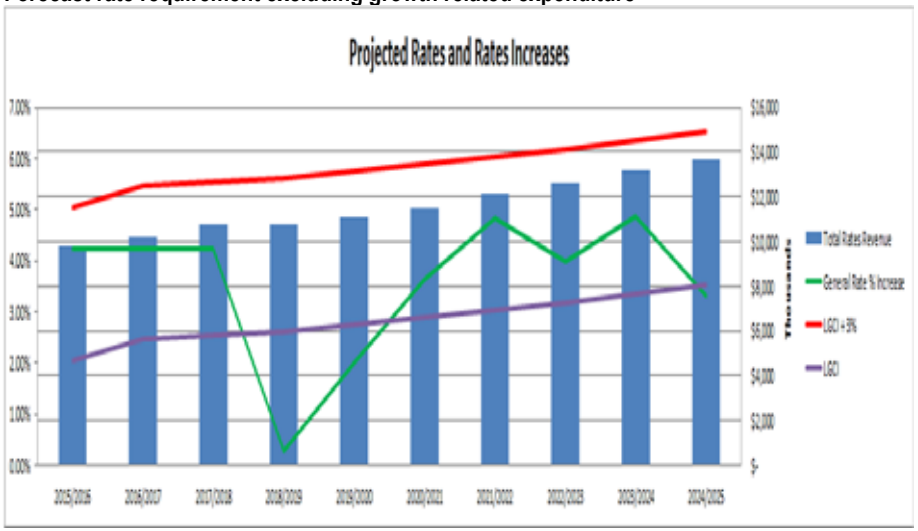
The non-financial risk is that, in part, the growth forecasts (population and rateable assessments) in the assumptions section of this LTP are underpinned by the redevelopment of the Ōpōtiki Harbour Entrance and the related on-going development of the Aquaculture Industry. The Harbour Transformation Project is predicated on the fact that an all-weather navigable harbour in Ōpōtiki will mean that processing facilities required for the Aquaculture Industry will be located in Ōpōtiki and that the related downstream growth benefits will be realised primarily within the Ōpōtiki District.

If the Harbour Development Project (and therefore the development of localised processing facilities for the Aquaculture Industry) does not go ahead the projected growth and development forecasts are unlikely to materialise as forecast. This will have downstream effects for other development/growth related expenditure proposed by this LTP.

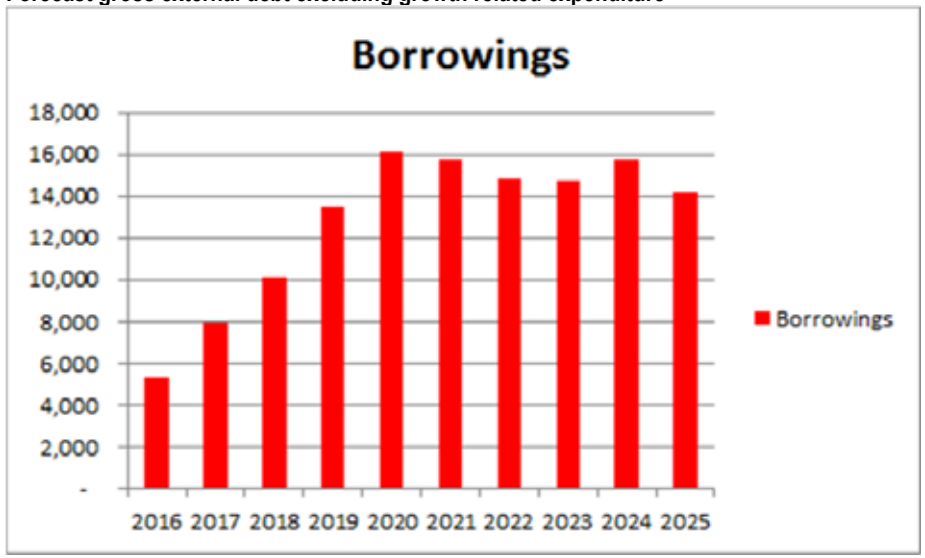
In particular the growth related expenditure forecast to extend the Ōpōtiki Wastewater Reticulation Network and upgrade to the Water Reticulation Network would not likely be required within the life of this LTP. For the most part this proposed expenditure is forecast to occur after completion of the Harbour Transformation Project in response to growth expected as a result of the developing Aquaculture Industry. This growth related expenditure (valued at approximately $4,000,000) is proposed to be funded in the most part by way of loan and if not required over the life of this LTP the result would be a reduction in gross external debt and associated maintenance, depreciation, interest and principal repayment costs.

This however would not represent a material threat to either this Financial Strategy or the Financial Sustainability of the Ōpōtiki District Council in the short to medium term. The main impact would be an overall reduction in forecast external debt and total rates income as shown in the graphs below.

Forecast rate requirement excluding growth related expenditure



Forecast gross external debt excluding growth related expenditure



As can be seen from these graphs the Redevelopment of the Ōpōtiki Harbour Entrance is not fundamental to the Financial Sustainability of the Ōpōtiki District Council over the life of this LTP. The removal of this and other key growth related projects from the financial forecasts still sees Council remaining within its self-imposed limits for net external debt and total rates increases over time.

The more material impact of the Harbour redevelopment Project not going ahead is on the Community's ability to realise its own vision of a 'Strong Community with a Strong Future'. The Harbour redevelopment Project and the developing Aquaculture Industry represent a very real opportunity for the community to realise that vision and make some very real progress in improving Community Wellbeing and decreasing levels of deprivation.

Another possibility (although far less likely) is that the Harbour Redevelopment Project goes ahead as planned and then the Aquaculture Industry in the Eastern Bay of Plenty (for whatever reason) fails. The risk is then that the budgeted level of revenue receivable will be reduced and the 5.4 million loan will take longer to be repaid. Following completion of the Harbour Transformation Project in 2019/2020 Council has budgeted for increasing Fees and Charges revenue from commercial users other than the mussel farm users. We expect users of the harbour entrance to increase over the term of this LTP even if the aquaculture industry fails.

This additional revenue is proposed to be used (in part) to accelerate the repayment of debt raised as Council's contribution to the redevelopment of the Harbour entrance. This results in Council's overall public debt beginning to fall from its peak in 2020, however the other related growth projects will keep this level high for the duration of the LTP but are totally dependent on when and where the demand for growth arrives.

Although considered highly unlikely there is a risk that the commercial aquaculture venture could fail and that the additional fees and charges revenue would not be available to Council. If that were to occur all depreciation funds would be used to repay the debt related to the harbour redevelopment in the short term. This would result in gross public debt peaking at $26.6m, which is still below the limits we have set in this financial strategy for debt. Total rate revenue however would exceed Council's self-imposed limit by 15% in 2019/20 due to Council not having the Fees and Charges Revenue to offset initial debt servicing costs, all other years of the LTP remain within the limits set. So the impact of this would also be minimal, and could be managed with deferral of payment to ease the burden.

Again the bigger risk associated with this scenario is that of the Community not being able to realise its own vision of a 'Strong Community with a Strong Future'.

It is important however to note that all indications are that the Aquaculture Venture will be extremely successful and the risk of failure is very low. In fact it is possible that the development of the Aquaculture venture occurs earlier than planned. If that eventuated then some of the work could be carried out concurrently and the completion date brought forward. The risk to Council and the ratepayer is relatively low as the Council intends to ensure its contribution to the overall construction cost is kept at a level that is both affordable and sustainable for the Ōpōtiki District Community.

The Opotiki Harbour Transformation Project is comprised of two interdependent projects: one is the Eastern Seafarms aquaculture venture – the country's largest offshore marine farm, the other is a large scale infrastructure project to improve the navigability of the Opotiki Harbour entrance. Together these projects have the potential to transform the Opotiki community from high levels of deprivation and social spend, to social and economic independence.

The Eastern Seafarms marine farm site is located 8.5km off the Eastern Bay of Plenty coastline and when fully developed will have a total area of 3,800 hectares. Comprehensive research and investigations undertaken as part of the development of the proposal determined that the site is potentially one of the most productive marine farming areas nationally and, in all probability, internationally.

Eastern Seafarms holds all necessary resource consents for the development of the multi-species marine farm. Three mussel lines (15km total length) have been in the water since October 2010. A new company (Whakatōhea Mussels Ōpōtiki Limited installed 11 lines in September 2014, with the expectation that up to 100 would be installed over the next four years, and serviced through the Port of Whakatāne. Once production reaches 6000 tonnes per year they expect to be able to land product in Ōpōtiki, where a processing plant will be constructed. The resource consents for the farm also enable diversification into other species including scallops, pacific and flat oysters, goeduck, paua, native seaweeds, and sea cucumbers. Trials with some of the species have been undertaken.

The Opotiki District Council has led the development of a proposal to recreate a usable harbour entrance that provides a level of access suitable for servicing the Eastern Seafarms marine farm. In July 2009 all necessary resource consents were granted for the improvement works, including Regional and District Council consents and restricted coastal activity approvals from the Minister of Conservation. A concession for the use of land has also been approved by the Department of Conservation.

As can be seen from the timelines below the marine farm and the harbour entrance improvements are inextricably linked. For the commercial entity the proximity of the marine farm to servicing and processing facilities is a key determining factor in the long-term viability of the farm's development. Currently, the nearest suitable port is Tauranga, however its distance makes it unfeasible. Locally, the Whakatane and Ohiwa harbours both have difficult entrances, a lack of suitable land for servicing and processing facilities and conflicting uses in and around the harbour. In the short term it is expected that the servicing of the farm will occur through the Port of Whakatāne, and mussels will be transported to Tauranga by road for processing. Longer term, locating the servicing base in Opotiki is the most cost effective option, subject to a reliable entrance being created.

Similarly, the benefits of the Opotiki harbour entrance improvements project will only be fully realised if the marine farm servicing and facilities can be located in Opotiki with the resultant social and economic benefits to the community.

Aquaculture Industry		**Opotiki Harbour Development**	
Investment Decision	April – June 2017	Investment Decision	July 2017
Construction	July 2017	Construction Start	April 2018
First Harvest	January 2016	Construction Finish	October 2019
Processing Plant	October 2019		

Assumption:	**Level of Uncertainty:**	**Impact on Integrity of LTP:**
That the Aquaculture Industry and related Ōpōtiki Harbour Transformation Project will continue to develop as planned.	Low	High

13. Treaty of Waitangi Settlement

A significant Treaty of Waitangi Settlement with the Whakatōhea Iwi is expected within the planning horizon of the 2015-25 Long Term Plan. Certainly the down-stream benefits to the Ōpōtiki District Community are likely to materialise beyond that point in time. However the reality that settlement will occur within the planning period is an important consideration when considering the future of the Ōpōtiki District. Both of these issues will have significant impacts for the Ōpōtiki District Community and its population. The quantum and nature of any settlement are varied with many outcomes likely. The settlement value could be anywhere from $40,000,000 to $170,000,000. Given that Whakatōhea Māori Trust Board are currently developing strategies to investment Treaty Settlement proceeds locally with a view to benefit Whakatōhea people within the Rohe and to attract its people back to the area any settlement within that range specified will have an impact on the Ōpōtiki District. A similar impact is evident in neighbouring Whakatāne as a result of the 2005 Ngāti awa settlement.

Whilst specifics are not yet available it is clear that the Whakatōhea Māori Trust Board intend to invest Treaty Settlements in area's that create opportunities for its people and that those opportunities will primarily be based with the Ōpōtiki District. Investments are likely to be made in the areas of health, education, and employment creating industries such as Horticulture, Forestry, Agriculture and Aquaculture. Such investments will have a material impact on the future growth of the Ōpōtiki District.

Assumption:	**Level of Uncertainty:**	**Impact on Integrity of LTP:**
That there will be a Treaty of Waitangi Settlement with Whakatōhea Iwi with the life of the 2015-25 Long Term Plan	Low	Low

14. Funding of the Ōpōtiki Harbour Redevelopment

As described in section 11 of this document the redevelopment of the Ōpōtiki Harbour is fundamental to the developing Aquaculture Industry in the Eastern Bay of Plenty and is central to the Ōpōtiki District reaping the associated economic and social benefits.

Combined with the on-going development of the commercial Aquiculture Industry, an all-weather Navigable Harbour Entrance at Ōpōtiki has the potential to transform the Opotiki community from high levels of deprivation and social spend, to social and economic independence.

The harbour and the aquaculture are fully consented. The commercial aquaculture entity is now active with 1000 lines to go in the water over the next 4 years, for both spat catching and adult mussel production. The timing is uncertain and flexible but a local mussel processing plant becomes feasible when the operation reaches a production volume of 6000 tonnes year. A commitment to that plant will be required before construction of the harbour commences.

The redevelopment of the harbour however is a project that comes at significant cost. That cost cannot be, and should not be borne by the Ōpōtiki District ratepayers alone. At an estimated investment of $52M the redevelopment is well outside the affordability reach of the Ōpōtiki District community on its own. Having said that, economic and social impact assessments undertaken to date demonstrate that the redevelopment project and the developing Aquaculture Industry have a range of benefits that are National, Regional and Local and as a result there is a sound case for public funding far beyond that of the Ōpōtiki District boundaries. Potentially the venture will assist to reduce social welfare spends in the District.

A fully operative Aquaculture Industry serviced direct from the Ōpōtiki Harbour will without doubt benefit the Ōpōtiki District Community in terms of social and economic outcomes however the Regional and National benefit should not be overlooked. Estimates by Sapere (2012) are that the Opotiki seafarm, using conservative figures, processing mussels alone, could be worth some $41-55,000,000 in terms of regional Gross Domestic Product (GDP). This also has a flow on National GDP, and other national benefits such as a potential reduction in the need for tax payer funded social services in the Opotiki District.

Given the local, regional and national benefit a funding partnership between the Ōpōtiki District Council, the Bay of Plenty Regional Council and Central Government has been assumed. In August 2013 the BOPRC committed $18M in grant funding through their Regional Infrastructure fund, plus $2M in an annual plan process. Currently government are looking at the proposal.

The commitment of $5.4M from Ōpōtiki District Council will be funded by way of loan, to be repaid over time by revenue from the harbour users. The BOPRC funding is a grant, subject to a range of conditions set out in a Heads of Agreement, approved in December 2014. It is assumed the additional $2M will be also secured, also as a grant. The form of the government funding is not known at this stage but is assumed to be a mixture of grant funding and suspensory loan. The following funding splits are assumed for the purposes of the 2015-25 financial forecasts.

Funding Partner:	Contribution:
Ōpōtiki District Council (loan)	5.4M
Bay of Plenty Regional Council (grant)	$18M (no inflation allowance) $2M (providing for inflation)
Central Government	Est $25M
Total	**$52M**

While there is still no commitment around the government funding, both significant political parties have made positive public statements about the project. All political parties, and many government officials have been briefed and updated over the past 12 years, and while questions have been asked there has never been a negative response. The certainty around the funding availability is judged a medium risk.

The BOPRC funding however is predicated on the construction of a local processing plant, as the expected social and economic outcomes arise from the creation of local jobs, with local people filling those jobs. Conditions on the Regional Council (Draft) funding Heads of agreement mean that if there is no processing plant commitment, then the funding is not available. The rationale for the Ōpōtiki DC contribution is also to drive social and economic change and is therefore logically subject to the same condition.

Recent months have seen Whakatōhea Mussels Ōpōtiki Limited install 11 new lines, and they have seen a very successful mussel spat catch. They are gearing up to have a total of 34 lines installed shortly, ahead of their previous business plan. The first commercial return will be from spat with plans to also grow on a crop to maturity. The spat catch nationally has been significantly reduced over the last few years and the site at Ōpōtiki is beginning to show promise as a supplier of spat to the wider industry.

Given the success in getting the company up and running the risks around lack of investment is judged to be low. There are still a range of risks related to weather patterns and events, offshore currents and nutrients, vandalism etc however. The risk in relation to the progression to a local mussel processing factory is therefore judged to be moderate.

Further to the above if external funding is not available to support the Harbour Transformation Project then it will not go ahead and associated expenditure will not occur. This is simply because the level of investment is way beyond the Ōpōtiki District Community's ability to pay.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
External Funding is available in support of the Ōpōtiki Harbour Transformation Project	Medium	High

Additional Assumptions:
The LTP assumes Council ownership of the harbour training walls, however this will be tested further when the views of the final funder are known.

It is assumed that a revenue flow from the mussel farm will commence on completion of the harbour and that the revenue will effectively pay back the ratepayer contribution over time.

15. Pseudomonas syringae pv. actinidiae (Psa)
Psa is a bacteria that can result in the death of kiwifruit vines—if the degree of infection is severe enough. Psa carries no risks associated with human or animal health and does not affect plants other than kiwifruit vines. Psa is believed to be spread by weather events, namely wind and rain, and plant material. It is also believed to be spread by footwear, vehicles and orchard tools. In an orchard it can exist as:

- an epiphyte, living on plant surfaces without causing—high levels of—infection; and/or,
- as an endophyte, living within the vine, having entered through natural plant openings or man-made wounds—resulting in severe infection.

Growth of the bacteria outside/inside the vines can result in leaf spotting, cane/leader dieback and, in extreme cases, vine death accompanied by the production of exudates.

Psa has spread through the Bay of Plenty and has impacted the Ōpōtiki district. The drought of 2012-13 however delayed its arrival and slowed the spread, allowing Ōpōtiki growers time to prepare, and to establish new varieties. The impact was therefore less than expected, and it appears that orchard management practices locally are dealing with PSA now as part of business as usual.

Industry effort has been focused on management practices around containment of spread and investing in science (new varieties/Psa resistant) to find a solution. Current forecasts are that if the planned recovery path is successful then the industry should be back to pre Psa production levels by 2015-2016.

Through the course of the last LTP, the value of the districts orchard dropped significantly, providing some rate relief. Given the positive industry forecasts it is likely that these values will rebound in the 2016 revaluation.

Given the management practices in place, the proactive approach of the Industry in terms of a recovery plan and the fact that any devaluation is likely to be short terms in nature the risk and impact of such to the LTP estimates is considered to be relatively low.

In fact rapid growth in the industry is now predicted, and Council faces challenges in ensuring we respond in a timely manner to new demands.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That Psa will have a short term impact on the Horticulture sector in the Ōpōtiki District	low	Low

16. Availability of staff/contractors

It is assumed that we will be able to retain and find skilled staff and contractors to undertake work that is required, to the agreed standards, deadlines and cost.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That staff and contractors will be available as needed and budgeted	low	Low

17. Ōpōtiki Wastewater Renewal Project

Council is still in a phase of collecting performance information for the wastewater network in Ōpōtiki township, this phase is expected to last until the latter part of 2015. Once enough data about where the groundwater infiltration occurs and how it impacts the performance of the network Council will be able to understand what replacement is needed and where it's needed.

We have assumed that the network will need full replacement and have revised the 2012-22 pipe pricing to current prices.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That the wastewater replacement project will entail the full replacement of the Ōpōtiki wastewater network as budgeted	medium	Low

18. Source of funds for the future replacement of assets

The sources of funds for the future replacement of assets are outlined in the Revenue and Financing Policy.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That the sources of funds for the future replacement of assets will be available to Council	low	Low

19. Ōpōtiki Library Development Project

It is still assumed in this LTP that community fundraising, donations, and subsidies will fund the Technology and Research Centre to replace the current library.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That community fundraising and subsidies will fund the replacement of the library as budgeted	low	Low

20. Resource Consents

It is assumed that all projects outlined in the Long Term Plan that are required to gain resource consent should do so in a timely manner, within the cost estimates provided.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That resource consents where required for projects will be available	low	Low

21. Natural Hazards/Disasters

Our district is at risk of a range of natural hazards such as earthquakes, flooding, drought, debris flow, slips, tornado, fire, and volcanic activity. We have not allowed for any such event in our LTP. However, we have appropriate insurance policies, and agreements with Central Government to cover the majority of the costs from these types of events. It is also assumed that we will be able to continue operating to deliver essential services to the community in the event of a disaster.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That a natural disaster does not happen over the course of this LTP, should one happen however, it is assumed that Council can obtain funding for recovery and still continue to deliver essential services to the community	medium	Low

22. Insurance

It is assumed that we will be able to obtain insurance cover and that the cost for insurance will be similar to that for the previous year plus inflation.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That insurance cover is available at rates equivalent to the prior year plus inflation	low	Low

23. LGFA Borrower Notes

It is assumed that the LGFA will not default on any of its financial commitments requiring Council to convert its borrower notes into equity over the period of the LTP. As a non-guaranteeing Council we are required to purchase borrower notes as security when we borrow from the LGFA. These notes are converted to equity on default, the likelihood of this happening is very remote as there are many other failsafe measures further up the chain that will get called upon before the borrower notes.

Assumption:	Level of Uncertainty:	Impact on Integrity of LTP:
That the LGFA borrower notes will not be called upon over the term of the LTP.	low	Low

Image: A contractor installs a new Emergency Management telecommunications repeater

Summary of Waste Management and Minimisation Plan

This is a summary of the Council's Waste Management and Minimisation Plan. Should you require more information the full plan is available at the Council. There is no significant variation between the proposals in this LTP and the content in the full plan.

The Waste Minimisation Act requires Council to review its Waste Management and Minimisation Plan, This review will be completed and adopted by Council in June 2012. The Council has reviewed its Solid Waste Management Strategy Plan, which was adopted by Council in 2006, as required by the Waste Minimisation Act 2008. The Council has also undertaken a Waste Assessment as required by the Waste Minimisation Act. The Waste Assessment contains a description of the collection, recycling, recovery and disposal provided by the Council. It also includes an assessment of options that have been considered.

In 1998 Council adopted its Zero Waste Policy. Prior to the closure of the Landfill Council was accepting around 10,000 tonnes annually. Because of the proactive work Council and the Community have undertaken the tonnage of waste disposed to landfill has reduced and has been maintained at around 1100-1200 tonnes annually, this represents an 89% reduction. In 2010-2011 the volume of recyclable materials was 1432 tonnes. The per capital waste disposed of to landfill from Ōpōtiki residents is 120kg per person. The national average is 780kg per person.

Council's proposed strategy has taken into account the District's population, its size and make-up, its isolation and remote location of communities which need to be serviced, distance to landfills and markets for recyclable materials and the ability of the Council to provide an on-going sustainable and affordable service to the community. The strategy and action plan also takes into account the levels of achievement made in waste minimisation since the Woodlands Road landfill was closed in 2004.

Council proposes to continue its present operations in respect of the collection of residual waste and recyclable materials from the kerbside in the Ōpōtiki Township and the Woodlands / Hikutaia area and to accept residual waste and recyclable materials at Council's three Resource Recovery Centres located in Ōpōtiki, Waihau Bay and Te Kaha. Council will continue to dispose of residual waste to a consented landfill outside the district.

The proposed Waste Management and Minimisation Plan identifies two targets as follows:

- Reduce the volume of residual waste for disposal to landfill by 10% over the 2011 level by 2018
- Increase the volume of recyclable materials collected at Council's Resource Recovery Centre by 10% by 2018 over the 2010 level.

The following actions will support these targets

- Communication and Education
- Residual Waste Reduction and Increasing Recovery of Recyclable materials
- Collection of Litter from the town centre and clean up of illegal dumping sites
- Monitoring, reporting and tracking progress towards achievement of targets
- Collabration, new initiatives and continuous improvement.

Council's proposed Waste Management and Minimisation Plan sets out funding sources consisting of gate charges at the Resource Recovery Centres, targeted and general rates.

Summary of Assessment of Water and Sewage Services

This is a summary of Council's Water Services and Sewage. For more in depth information the full Activity Management Plans can be viewed at the Council. There is no significant variation between the proposals in this LTP and the content in the full plan.

1 Introduction

1.1 The water and sanitary assessment process

The introduction of the Local Government Act 2002 places responsibility on Territorial Authorities to complete assessments of water services (drinking water, sewerage and stormwater) and sanitary services (public toilets, cemetery and crematoria, solid waste) for communities throughout their districts. Public consultation on the findings of these assessments is required.

The assessment process places emphasis on the identification, and proposals for resolution, of any adverse health impacts or environmental impacts arising from existing, and future demand for water and sanitary services. Where reticulated water services do not exist than an assessment of risk arising from lack of the reticulated service is to be undertaken.

The assessments are not exclusively for Council provided services but also encompass private schemes. The definition of "community" is left to the Territorial Authority. An initial assessment was completed on the 30 June 2005. Further information has been gathered and a revised assessment will be published in June 2012.

1.2 Communities assessed

For the purposes of this initial assessment the following "communities" have been used:

• Bryans Beach	• Tablelands
• Hawai	• Te Kaha
• Kutarere	• Te Kopua
• Ohiwa	• Tirohanga and Tirohanga Valley
• Omaio	• Torere
• Omarumutu	• Waiaua
• Opape	• Waihau Bay
• Ōpōtiki	• Waioeka Village
• Paerata Ridge	• Whanarua Bay
• Roimata	• Whangaparoa

The assessment has drawn upon available documentation (Asset Management Plans, LTP) and knowledge within Council and elsewhere to document the services provided by existing reticulation schemes.

1.3 Recommendations arising from the assessment

1.3.1 Communities with Reticulated Water Services

The principal issue identified in regards to reticulated communities is that a number of the schemes are drawing water from groundwater sources or springs that are not proven as "secure" sources. These supplies therefore may not have a barrier to protozoa (Giardia and cryptosporidium) as required by the NZ Drinking Water Standards.

The recommendation for these supplies is therefore to

- assess options for meeting protozoa barrier requirements; and
- prepare and implement "Public Health Risk Management Plans" for all supplies.

Most private supplies are identified as having no disinfection. Public Health Risk Management Plans should be prepared as a priority for these supplies.

A number of upgrade and maintenance items for the Council owned schemes are identified in the Activity Management Plans. These are appropriate and should be implemented as programmed.

1.3.2 Communities without Reticulated Water Services

A large number of rural dwellings and also a number of marae rely upon shallow bores, springs, stream sources or roof water. The risk assessment identifies risks associated with these supplies.

Where a reticulated scheme exists it is recommended that connection to the reticulated scheme is the preferred option for unserviced properties.

However for a lot of the areas the location and low density of housing means a reticulated supply is not feasible. For these properties education of householders on appropriate care and maintenance of water supplies is recommended.

1.3.3 Communities with Reticulated Wastewater Services

Council has carried out comprehensive planning to meet future demand within these scheme areas. The assessment has not identified any significant health or environmental issues associated with these schemes.

1.3.4 Communities without Reticulated Wastewater Services

Outside of the reticulated scheme areas a large number of rural dwellings and marae rely upon on site wastewater treatment and disposal. Generally this is by way of basic septic tank systems. The majority of communities within the district are serviced by septic tanks.

The risk assessment identifies the risks associated with on-site wastewater disposal during dry weather, wet weather or flood events.

For the majority of the rural areas reticulation is not likely to be feasible. For the unreticulated community, education of householders on appropriate care and maintenance of on site disposal systems is recommended.

The sanitary status of on-site systems used in the unreticulated areas of the district, and the health implications arising from it, are not currently well defined. This is an information gap which is recommended to be filled for benefit of future assessments.

1.3.5 Communities with Reticulated Stormwater

A number of upgrade and improvement measures for the reticulated stormwater schemes are programmed in the Asset Management Plans. These address known problems.

A related issue to stormwater is that of flood protection. The July 2004 floods exposed deficiencies in relation to stormwater runoff control which are being addressed.

1.3.6 Communities without Reticulated Stormwater

Health and environmental issues in the communities without reticulated stormwater are not believed to be widespread. Poor drainage around dwellings leading to damp houses and septic tank effluent field failures is known to be a problem in some rural areas. It is recommended that this issue be addressed through a community education programme, logically run in conjunction with that on water supply and septic tank maintenance.

1.3.7 Public Toilets
Adequate public toilets exist. Additional facilities should be considered in response to proven community demand and resource capabilities. Potability of water supplies at rural toilets (not on Council reticulated water supply) should be reviewed.

1.3.8 Cemeteries and Crematoria
There are no identified health issues associated with current cemeteries. There are no crematoria in the Ōpōtiki district.

1.3.9 Effluent Disposal Points
There are identified health issues associated with effluent disposal points in the district and the existing facilities appear adequate for demand.

1.3.10 Solid Waste
Refer to the previous section which summarises waste management and minimisation.

1.4 Recommendations arising from the assessment
Consultation on the Assessment and its findings is required, with a special consultative procedure as per the LGA. Following consultation and consideration of submissions the Assessment report as to be finalised and then approved by Council by 30 June 2005.

1.5 Improvement plan for the assessment
The first Assessment under the LGA (2002) has drawn upon a large pool of information. Nonetheless there are a number of areas where specific information is sketchy. This does not diminish the value of the Assessment. Identification of information gaps which need to be filled is an acceptable outcome from the first assessment.
Specific information gaps identified include:

(i) Whether water sources for a number of communities can be classified as "secure" groundwaters as per the NZDWS. This is a high priority as there are potentially large cost implications associated with failure to attain this status
(ii) Sanitary status (microbiological quality) and risk posed by use of shallow bores, springs and surface water sources in rural communities not on reticulation
(iii) Extent of on-site disposal failures in unsewered areas
(iv) Environmental effects resulting from on site disposal failures in settlements (as opposed to isolated rural dwellings).

Land Transport Programme

Ōpōtiki District Council Land Transport Programme [LTP] has been approved in principle by the Ōpōtiki District Council in December 2005.

It has also been fully consulted upon through the Long Term Plan 2005/06.

Council's LTP has been developed in conjunction with Land Transport NZ's on-line applications and can be found in this documentation.

The LTP describes:

- Consultation undertaken on the LTP
- Steps taken in developing land transport options and alternatives
- 10-year financial forecasts of funding and expenditure.

Activities have been described by:

- priority
- total cost
- proposed starting date and duration
- alternatives and options considered
- the objectives of each activity
- contribution to the purpose and objectives of the LTMA.

Road Safety

Background
It is recognised by Council that it has, together with other agencies, a pivotal role in road safety.

A number of initiatives associated with road safety will be addressed through the following areas:

- Education
- Engineering
- Enforcement.

The Land Transport Management Act 2003 is the overarching document from which the National Land Transport Programme (NLTP) and the Authority Land Transport Programme (ATLP) are prepared. To this end these documents should be read in conjunction with the LTP. Including the Safety Management System from which the Road Safety Strategy will be prepared.

Included will be:

a) an outcome that relates to land transport safety
b) how it is intended to contribute to furthering the communities desired land transport safety outcome(s) and objective(s); and
c) how to further desired land transport outcome(s) and objective(s) work with other local organisations and regional organisations; and the private sector; and
    - identifies the key land transport safety issues facing the district; and
    - includes or makes reference to a programme and action plan, including a list of LTNZ and NZ Police outputs for addressing all of the identified land transport safety issues; and

- includes clear performance targets, measures and monitoring processes to enable the Local Authority to accurately report the progress that is being made towards the achievement of the districts road safety objectives and states how progress will be reported.

Working with Others
Council will work with the Road Safety Co-ordinator, employed by the Whakatane District Council, to implement initiatives agreed by the Eastern Bay Road Safety Committee and approved by:

- Whakatane District Council
- Kawerau District Council
- Ōpōtiki District Council

and contained in the combined Authority Land Transport Programme.

Other agencies who are involved and will be consulted are:

- The community
- Bay of Plenty Regional Council
- Toi Te Ora
- New Zealand Transport Agency
- New Zealand Police
- ACC
- Ministries of Health, Education and Transport
- Department of Labour.

Image: Mussel barge heads out to sea to lay lines

Ōpōtiki District Council Infrastructure Strategy 2014-45

The 30 year infrastructure strategy identifies the issues and associated impacts of our infrastructural assets over a 30 year period. It is meant to inform our 10 year asset management plans and long term plan.

About Our District

The Ōpōtiki district is located in the Eastern Bay of Plenty, and extends from the Ōhiwa Harbour almost to East Cape. It incorporates the townships of Ōpōtiki and Te Kaha, along with a range of smaller settlements scattered throughout the district, with the majority along the coastline. It is split into three wards, Ōpōtiki, Coast and Waioeka-Waiotahi.

The Ōpōtiki District encompasses 25% of the Bay of Plenty region. Approximately 50% of the Bay of Plenty coastline falls within the Ōpōtiki District, comprising 160 kilometres of coastline with an economic zone extending 12 kilometres.

Although Ōpōtiki is an area with a rich natural environment and inspiring people the district as a community faces many social and economic challenges. Approximately 70% of the district's land area is non-rateable. Close to 52% of the landmass is in Department of Conservation (DoC) estate, with a further 12% managed through Nga Whenua Rāhui, in association with DoC.

Ōpōtiki has a high proportion of Māori multiply-owned land blocks, particularly east of Ōpōtiki township and there are 193 hectares in reserve land.

Environment

The environment in and around Ōpōtiki boasts some of the countries warmest and sunniest climate, best beaches and coastline, rivers, fertile agricultural lands and spectacular bush clad ranges.

There is a mean annual rainfall between 1200 and 1400mm a year.

Daytime temperatures range from 14 degrees in winter to 30 degrees in summer along the coast. In inland areas, winter temperatures can drop as low as 0 degrees.

People

Ōpōtiki has a usually resident population of approximately 8,500 with about half living in the Ōpōtiki township. Around 54% of the population identified as Māori in the last Census. The population structure is relatively youthful when compared to NZ, with around 27.5% under 15 years, compared to 21.5% for NZ as a whole.

The three major iwi groupings in the area are Whakatōhea, Ngāi Tai and Te Whānau a Apanui.

Economy

The Ōpōtiki District accounts around 3% of the Bay of Plenty Regions population and contributes 2.3% to the Bay of Plenty Economy. The percentage of economic growth has maintained a positive trend over the past ten years at an average of 0.5%.

Employment in Ōpōtiki District is at 95%. Since 2003 the unemployment rate has been steadily decreasing and currently sits at 5%.

There are approximately 300 businesses in Ōpōtiki which makes up just under 8% of all business in the Bay of Plenty region. The majority of employment is in the primary horticultural sector, 32%.

1 Purpose

The purpose of this Infrastructure Strategy is to look forward into the next 30 years and outline how the Ōpōtiki District Council intends to manage its infrastructure assets.

An infrastructure strategy is a new legislative requirement (section 101B) under the Local Government Act 2002. It sets out that a "local authority must prepare, as part of its long term plan, an infrastructure strategy for a period of at least 30 consecutive years".

This strategy provides a plan for action and enables focussed effort to be applied to any gaps in infrastructure. It looks across the spectrum of water supply, sewerage and the treatment and disposal of sewage, stormwater drainage, and, the provision of roads and footpaths.

The strategy has been developed to scope and prioritise key infrastructure issues over the long term. It seeks to recognise and place the infrastructure actions already underway and recommends priorities for future action. At the same time it takes into account assumptions about the life cycle of significant infrastructure assets, growth or decline in the demand for relevant services, and, increases or decreases in relevant levels of service.

As a Council we supply a wide range of services to the community, which rely on a large stock of infrastructure assets. It is critical that these assets are planned and managed well.

2 Planning for the Long Term – The Next 30 Years

Many of Council's physical assets have a very long life. For example, water pipes have an expected life of 60-100 years. There is therefore a long planning horizon for initial provision and renewal, both of which can present cost peaks that are best planned for well in advance. This infrastructure strategy provides a long term perspective required to assess whether there are hidden investment gaps or affordability issues beyond the 10 year horizon provided in the 2015-25 Long Term Plan (LTP).

At the time of preparing this strategy the Council is reviewing its operative district plan, a process that is undertaken every 10 years. This strategy and its further updating will be considered through the development of the reviews of the district plan.

This Infrastructure Strategy focuses on the following four core infrastructure services:

- Water Supply
- Wastewater
- Stormwater
- Roads and Footpaths

Council also manages other assets such as property, reserves and the infrastructure components of the walking and cycling tracks used for recreation and tourism activities. The Mōtū Trails track in particular includes three bridges, one of which extends 80 metres over the Otara River. These bridges have a combined value of $940,000 and renewals are planned to be funded by depreciation reserves. Both maintenance and depreciation of these additional assets are funded by rates.

Further new assets will be created as a harbour development project evolves. This project is needed to support the aquaculture farming development off shore of Ōpōtiki, together with the expected growth of further industries that will evolve either as support of this or by advantage of the facilities created. Council assets will include major structures at the harbour entrance to train channel flows, navigation aids and wharf upgrades. Further facilities such as wharves, jetties, marine haul out, marina and an aquaculture product processing plant will be constructed by private sector interests as the industry progresses.

The Council's investment in the harbour development is expected to be in the region of $55 million, and to occur over a 3 year programme with funding to be from a combination of regional, local and national funding.

Infrastructure assets cannot be planned for in isolation. There are a number of significant issues that shape the community we live in and, in turn, influence the management of infrastructural assets. Significant issues include changing demographics affecting the ability of the community to pay; growth and decline in population in particular areas within the district, natural hazards and climate change.

2.1 Planning Assumptions

There are a broad range of factors influencing Council's long term planning that are discussed in the LTP. The high level assumptions that are particularly relevant to this infrastructure strategy are categorised below and include:

Natural Environment

- The inhabited areas of our district are primarily stretched along the edge of 160 km of coastline, and apart from the Ōpōtiki township being on a coastal plain, consists of remote cluster communities separated by winding roads over steep terrain.
- Our District is at risk of natural hazards such as earthquakes, flooding, tsunami, debris flows, slips, tornado, fire, and volcanic activity.
- Our District is susceptible to many environmental processes, such as erosion, sediment build up, beach formation/destruction.
- Climate change is likely to impact on various activities of the Council.

Service Delivery

- When renewing resource consents, the majority of consent conditions will remain the same.
- Infrastructure needed for growth related development will be paid for by loan
- We will continue to deliver our services to the community in the same way.
- We are able to continue operating to deliver essential services to the community in the event of a disaster.

Population

- Population growth across our District is expected to reflect the population projections provided by the Martin Jenkins report*, outlining the impact of the growth projects and business expansion on population.
- The socio-economic structure of our District will not change significantly.
- The number of properties from which we receive rates is expected to increase in line with the projections provided by the Martin Jenkins report*.

Economic Environment

- Economic growth in the Ōpōtiki District is expected to follow the projections provided by the Martin Jenkins report*.
- It is assumed that economic developments in Kawerau and Whakatāne will have a minimum impact from Ōpōtiki's economic situation.
- We get subsidies from the New Zealand Transport Agency (NZTA) for the operation and upkeep of the local road network in the District. An assumption is made on the level of financial assistance that we are likely to get in the future.

Land Use

- Demand for residential properties will be mainly focused around the Waiotahi Drifts, and the Hikutaia/Woodlands areas.
- Capacity for residential land will be sufficient for the next 30 years.
- Land use elsewhere in the District is assumed to maintain the status quo.
- There is a risk that some changes in land use elsewhere may place an unforeseen burden on Council infrastructure. This may particularly be the case with forestry to dairy conversions.
- Land use opportunities will be considered through the District Plan reviews.

*Martin Jenkin Reports: *Ōpōtiki Aquaculture and Harbour Development* -8 July 2014; and *The Population and rateable Assessment Projections- Ōpōtiki District* - 4 September 2014

2.2 Demographics – Population Assumptions

Population change is a key driver for demand of infrastructure. Change includes numerical growth and decline, as well as changes to population structure as the number of persons in each age group.

As part of the Long Term Planning process Council contracted the services of Martin Jenkins to extend their population projections that were undertaken for the Harbour Development Project, to include other growth industries in the district, and extrapolate that information out and convert it into population and rateable property growth in the district. It is these projections that form the basis of our 30 year infrastructure strategy.

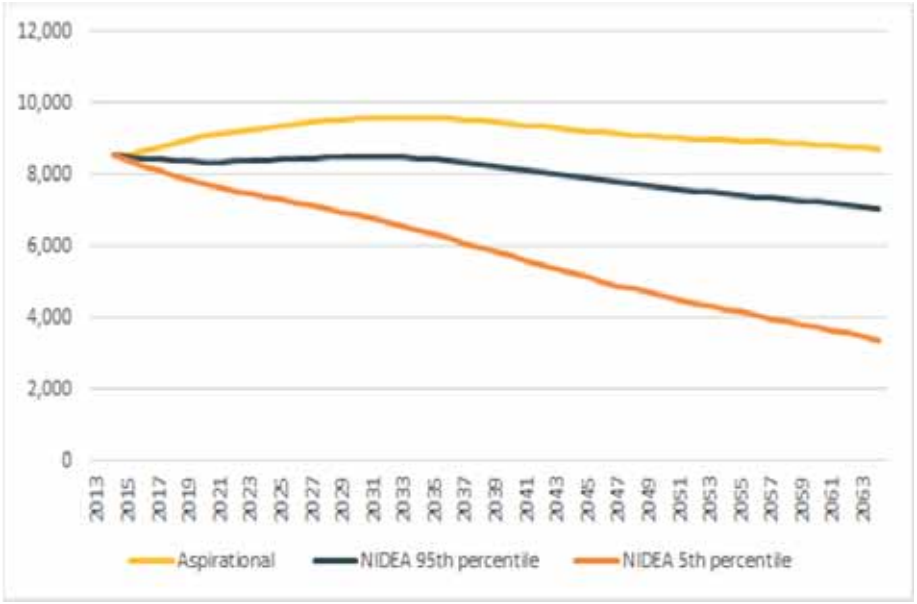
Historical evidence suggests that the Ōpōtiki District's population is in decline and that the rate of decline is accelerating rather than easing. This is corroborated by the falling primary school role.

The subnational projections are based on births and deaths, and internal migration and even the most positive scenarios see Ōpōtiki District's population declining to 2031. These projections do not take into account economic development efforts or business opportunities.

An employment driven approach has therefore been applied to projecting population growth, where projects that require employees will attract people to the Ōpōtiki District. This is consistent with the approach used in the 2012-2022 Long Term Plan.

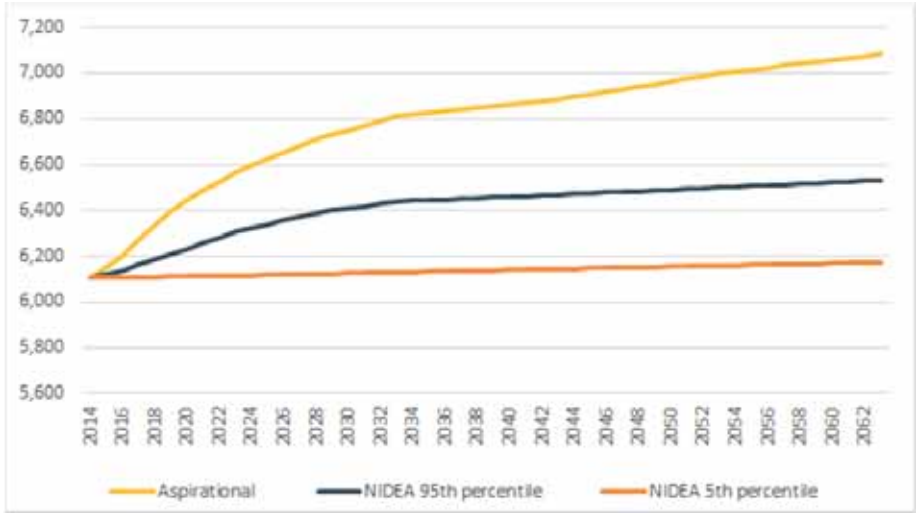
The projected model identifies population and rateable assessment change as a result of specific projects that generate employment. These assumptions have been applied to the aspirational scenario incorporating the Aquaculture development and expansion in the kiwifruit industry.

Population Projections



Aspirational growth is added to the NIDEA 95th percentile projections, which is the most optimistic projection for the Ōpōtiki District. To provide a range of possible outcomes we have also included the 95th percentile projection, and the 5th percentile projection, which is the most pessimistic projection of population growth in the Ōpōtiki district.

Rateable Assessment Projections



Rateable assessment projections are aligned to population growth projections by changing the number of residential rateable assessments based on the change in population. The ratio of residential assessments to commercial assessments remains constant. Public rateable assessments grow at historic rates.

The number of rateable assessments increases under all three scenarios. By 2025, the aspirational scenario sees the number of rateable assessments increase by 0.8% per annum to 6,629. Under the 95th percentile scenario, rateable assessments will increase by 0.3% per annum to 6,339. And, under the 5th percentile scenario, rateable assessments will increase only marginally to 6,119.

Water Supply

Resilience and Level of Service Issues	Principal Options for Response	Implications
Resilience and Level of Service		
Ōpōtiki Alternative Trunk Main Ōpōtiki township is served by a single trunk water main from the reservoir to the southern end of town and an outage on this main line will result in a loss of supply for the township. The water source bores are located off Clarks Cross Road (i.e. between the treatment plant and the township) and given the source is secure, it is practical to consider diverting raw water direct to the township for short durations to avoid total shut down. Apart from inconvenience to consumers the restart process can result in the need to remove air and flush sediment disturbed during shut down/re start procedure. This adds to delay and resumption of normal flow.	**Option 1** Install a new main giving opportunity to divert water from the raw water main. This new main will be 2500m in length and extend from the intersection of Clarks Cross Road, route along Otara and Factory Roads to join the existing main at the Waioeka/Factory Roads intersection. • $1,030,000 | 2015/16-2016/17 **Option 2** Install duplicate main running 6500 m in parallel to the existing main. • $1,400,000 **Option 3** Continue with current practice of repairing pipe as and when a break occurs.	The existing 300 mm diameter PVC-U single supply pipe is only 16 years old but has suffered 4 ruptures in the past 7 years. The manufacturer has examined sections of the ruptured pipe and has revealed an inherent fault occurred in the PVC-U material when this run of pipe was produced. **Option 1 Implications** • As the proposal is to eliminate risk to the continuity of supply, MoH have advised the installation will meet its criteria for subsidy in the Capital Assistance Programme (CAP). From recent experience with the current year's works, 63.5 % funding would apply if the application is successful. The applications for funding close in December 2014 and 2015/16 is the final year. **Option 2 Implications** • A duplicate main will not meet MoH CAP rules for funding-reticulation is not included. **Option 3 Implications** • Risk of loss of Water Supply service
Ōpōtiki Raw Water Line Replacement The Ōpōtiki raw water supply main that routes along Otara Road from Clarks Cross Road to the booster station opposite the water treatment plant is approximately 95 years old and whilst the 220 mm diameter wrought steel pipe is resilient, the joints can fail if the flow rate is increased to match the township's peak flow demand.	**Option 1** Install replacement 300 mm diameter main. This larger pipe will accommodate the higher flow demand and will not have the joint failure risk that exists with the old pipe main. • $800,000 | 2016/17 **Option 2** Continue to operate the old supply pipe until growth in demand occurs. Retain specially manufactured steel jointing fittings in readiness for failures.	The reservoir at the plant holds 4500m³ of treated water and daily demand is in the order of 1300 with peak daily at 3000m³. If there is 3-4 days of high use it is then necessary to draw from the bores at a flow rate that produces high risk of joint failure. Option 2 Implications • A joint repair can take 3-6 hours to complete (which can extend if it occurs outside business hours) during which time the continuity of supply to the township is at risk if the reservoir has not refilled sufficiently.
New Hikutaia Booster Station The water supply in the Hikutaia area is pressured from the reservoir off Dickensen Road. The reservoir and AC pipe are now approaching 50 years of useful life. The reservoir is thin walled concrete with relatively high earthquake risk and whilst the AC pipe currently has good integrity it has ongoing failures from joint movement due to the peat-like ground conditions over much of the length from Dip Road/Crooked Road intersection. The reservoir has capacity for about 6 hours at normal daily demand, about half this at peak. It is sometimes difficult to pick when the supply is leaking as the pipe is both a reservoir feed and a mains supply conduit. The reservoir elevation is insufficient to maintain consistent service levels.	**Option 1** Construct a booster station on Dip Road. • $50,000 | 2016/17 $250,000 | 2017/18 **Option 2** Defer construction of booster station to future date retaining existing service level inconsistencies and existing risk profile. **Option 3** Replace both the reservoir and the 1400m supply pipeline at end of useful lives. Approx. 10 + years. • $500,000	**Option 1 Implications** • The commissioning of the booster station will allow for decommissioning of the old reservoir & AC pipe and thus will not require replacement. **Option 2 & 3 Implications** • Advise community in higher elevations that they are "extraordinary consumers" and as council cannot maintain consistent pressure that they can boost pressure on their own properties. • MoH guidelines and firefighting requirements are such that these options will not be in compliance with recommended good practice.

Hikutaia Mains Replacements Reticulation lines reaching end of useful. Increasing risk of failure. Dip Rd required for looping of mains to give consistency of pressure and to upgrade from small diameter pipe sections that were initially installed as end extensions.	**Option Set 1** Carry out replacements as below: 1a Dip Road Replacement • $270,000 | 2017/18 1b Hikutaia Rd Replacement • $300,000 | 2024/25 1c Woodlands Rd Replacement • $100,000 | 2029/30 1d Grant Rd Replacement • $60,000 | 2034/35 **Option 2** Defer replacement and carry out responsive maintenance when failures occur.	**Implications** • Facilitate/hinder proper operation of new booster station on Dip Rd (see WS Item 3 Option 1 above). • Facilitate/hinder proper function of Grant Rd to Woodlands Rd and Woodlands Rd to Dip Rd loop mains (2014/15 Projects).
Te Kaha Mains Replacement Firefighting and peak use service pressure currently inadequate due to undersized 50mm & 80 mm diameter mains from Copenhagen Road to Hotel Road and Booster station to O'Brien's store respectively.	**Option 1** Replace 50mm & 80mm pipe with 100mm & 150mm pipe. • $105,000 | 2018/19 • $160,000 | 2018/19 **Option 2** Defer projects until end of useful lives. Approx. 20 years.	**Implications** Current pipe sizes eliminate ability to comply with firefighting requirements and provision of minimum pressure levels during peak use.
Ohiwa Water Supply - Treatment Currently this small supply (17 connections) has a source which is untreated bore water. After periods of heavy rainfall the source water tests positive for total coliforms and occasionally E.coli. In response the reservoir and reticulation are chlorinated. Tests and chlorination are continued until 3 clear test results are achieved.	**Option** Construct treatment shed and install a Ultra-violet treatment unit. • $95,000 | 2018/19	**Implications** A shed to house this together with electrical control upgrades will cost about $95,000 which would put a high cost burden on this scheme given it already has rates that are more than 3 times that for the Ōpōtiki scheme.

Condition and Performance Assessments Condition and performance are required to develop asset management data integrity. The following two works programmes are based around existing asset knowledge which should ideally be confirmed moving into the future so that more accurate prediction of timelines can be assembled.	**Option** Perform plant condition & performance assessments • $20,000 |2015/16 • $5000 | 2016/17 • $5000 | 2017/18	**Implications** • Higher/lower integrity for forward works planning of renewals.
Ōpōtiki, Te Kaha & Hikutaia Valves, Hydrants and Meters Replacement Valves, Hydrants and Meters have NAMS lives of 10-35 years. These assets have been populated into the AMS with 20-35 year lives depending on duty. Assumption tendency would lean towards lives being greater in most instances rather than shorter. As such budgets have been spread out multiplying in successive years as risk increases.	**Option** Replace plant responsively and/or on the basis of assessments made in the condition and performance assessment above. Costs are indicative only. Future improvement of asset data integrity will increase accuracy of predictions. $655,000 | 2019/20-2043/44	**Implications** Hydrants are tested annually and are unlikely to fail without warning. Both meters and valves have no significant implications associated with their failure

Growth/Decline Issues	Principal Options for Response	Implications
Growth/Decline		
Hikutaia Development Rising Main Facilitate growth in the Hikutaia area	**Option 1** Install rising main to Hikutaia Road lift station • $250,000 | 2019/20	**Implications** Separation of reticulation from delivery conduit provides for future development demand and also reduces risk of total outage.
	Option 2 Leave supply to booster existing off reticulation main creating rising/falling main.	
Te Kaha Upgraded Reservoir to Treatment Plant Rising Main. Facilitate growth by allowing increased flow to reservoir.	**Option 1** Install upgraded rising main • $245,000 | 2015/16	**Implications** Caters better for growth southwards by enabling ring main from reservoir to southern sector and reduces risk of outage if rising main has fault. Will achieve MoH subsidy (85%) if application approved.
	Option 2 Leave as status quo: single rising/falling main	
Te Kaha Southern Extension Stage 2a – New Reservoir to Treatment Plant Falling Main. Facilitates growth southward.	**Option 1** Install new falling main • $145,000 | 2015/16	
	Option 2 Leave as status quo: single rising/falling main	
Southern Extension Stage 2b - Plant to Parekura Hei Road. Facilitates growth southward	**Option** Install new main to Parekura Hei Rd • $205,000 | 2015/16	**Implications** Will provide supply to properties in lower Parekura Hei Road (in particular the 28 lot Papakainga and allow for future extensions if further demand occurs. Will achieve MoH subsidy (85%) if application approved. 3.(ii) Need to identify and confirm consumer desire.
Northern Extension Stage 1: Copenhagen Road North to Kereru River. Facilitates growth northward	**Option** Install main and associated reservoir to serve area. • $100,000 | 2015/16 • $750,000 | 2016/17	**Implications** • Possible MoH subsidy at 85% , however need to identify and confirm consumer desire. • Concern that burden of local share will be too great on existing consumers. Population probably too sparse to be cost effective scheme.

Stormwater

Resilience and Level of Service Issues	Principal Options for Response	Implications
Resilience and Level of Service		
Tarawa Creek Catchment Tarawa Creek catchment reticulation and disposal plant presently under sized for effective response to 1:50 year event floor level protection. And 1:10 year level of service. Desired service level yet to be defined – proposed standard: • Minimal property flooding < 200mm • No loss of main roading arterial services in township • Limited disruption of access to township economic centres < 6 hrs	**Option Set 1** **1a.** Tarawa Creek Interim Pump Station – No.1 Pump $20,000 2014/15 **1b.** Tarawa Creek Pump Station – No.1 Pump $300,000 2015/16 - 2016/17 OR later **1c.** Tarawa Creek Storage Capacity Stage 1 $20,000 2016/17, $300,000 2017/18 & 2018/19 **1d.** Ford Goring St Pump Station and Rising Main $230,000 2018/19 **1e.** 900 to 1200 Richard St/St John St Gravity Main Upgrade $430,000 2016/17 **1f.** Tarawa Creek Pump Station – No.2 Pump $380,000 2038/39-2039/40 **1g** Tarawa Creek Storage Capacity Increase $300,000 2039/40	Approximately $2 million needs to be spent over the course of the 10 year LTP to improve the system capacity to a design standard capable of mitigating implications arising from both the 1:50 and 1:10 year event. **1:10 year event implications:** • Flooding preventing use of St John St, Richard St, Goring St, Windsor St and service lane. • Residential ponding preventing access and potential cause WW inflow issues. **1:50 year event implications:** • Flooding of aforementioned roads as well as southern CBD • Potential floor level inundation of building with floor levels lower than 3.6m
	Option Set 2 **2a**. Tarawa Creek Pump Station – No.1, 2, 3, 4, 5 Pumps $1,500,000 2016/17/18/19/20 **2b**. Ford Goring St Pump Station and Rising Main $230,000 2018/19 **2c.** 900 to 1200 Richard St/St John St Gravity Main Upgrade $430,000 2016/17	
High St Catchment High St catchment pump station under capacity for 1:50 year event floor level protection. And 1:10 year level of service	**Option** Pump Station Upgrade $210,000 2015/16	Approximately $210,000 needs to be spent upgrading the capacity of the High St pump station to facilitate additional flow arrival from recently improved reticulation. **10 & 50 year event implications:** • High St flooding in excess of 500mm

Stewart/Wellington St Catchpit Lead and Pump Station Pump Size Upgrade Catchment pump station under capacity for 1:50 year event floor level protection. And 1:10 year level of service	**Option** Pump Station Upgrade and new catchpit lead $100,000 2018/19	Approximately $100,000 needs to be spent upgrading the capacity of the Stewart/Wellington St Catchpit Lead and Pump Station Pump Size **10 & 50 year event implications:** • Localised flooding in Wellington St east and adjacent private property flooding in excess of 300mm
Wellington/Brabant St Pump Station • Catchment pump station under capacity for 1:50 year event floor level protection. And 1:10 year level of service. • Existing drainage incapable of effectively draining residual upstream water to the south west of Bridge St and Nelson St. • Existing pump station incapable of coping with increased flow from reticulation of area south west of Bridge St and Nelson St.	**Option 1** Upgrade Pump Station $20,000 2017/18, $250,000 2018/19 **Option 2** Redirect drainage and re-contour storage area at south west corner of Wellington St and Brabant St $200,000 2019/20	Approximately $270,000 needs to be spent upgrading capacity of Wellington/Brabant St pump station. **10 & 50 year implications** • Flooding of Wellington St in excess of 500mm **Other implications** • Inability for private property development in potential industrial zone at SW cnr of Wellington St and Brabant St • Inability to convert existing drainage into piped reticulation to the SW of Bridge St and Nelson St **Option 2 implications** • Inability to fully develop private property in potential industrial zone
Memorial Park Pump Station Catchment presently lacking pumped outflow. Previously existing outlet closed due to low level outfall.	**Option** Install new pump station $30,000 2018/19 $260,000 2019/20	**10 & 50 year implications** • Flooding of Albert St in excess of 500mm • Flooding of adjacent properties in excess of 500mm • Prolonged ponding and saturated ground conditions of sports fields
Wellington/Union St Pump Station Catchment presently lacking pumped outflow. High river levels prevent gravity outfall.	**Option** Install new pump station $180,000 2020/21	**10 & 50 year implications** • Flooding of Wellington St west cul-de-sac in excess of 500mm • Flooding of adjacent properties in excess of 500mm

Condition and Performance Assessments Condition and performance are required to develop asset management data integrity. The following two works programmes are based around existing asset knowledge which should ideally be confirmed moving into the future so that more accurate prediction of timelines can be assembled.	**Option** Perform plant condition & performance assessments $10,000 2015/16 & 2016/17 & 2017/18	**Implications** • Lessened integrity for forward works planning of renewals.
Ōpōtiki & Hikutaia Reticulation Replacements Pipelines have NAMS lives of 50-150 years. These assets have been populated into the AMS with 80 year lives. Assumption tendency would lean towards lives being greater in most instances rather than shorter. As such budgets have been spread out multiplying in successive years as risk increases.	**Option** Replace reticulation responsively and/or on the basis of assessments made in the condition and performance assessment above. Replacements have been normalized and spread over a practical timeframe based on present knowledge. Costs are indicative only future improvement of asset data integrity will increase accuracy of predictions. Hikutaia - $220,000 2032/33-2038/39 Ōpōtiki - $ $600,000 2032/33-2040/41	**Implications** Risk of failure will increase moving into the future. The risk rating however is low at present. For trunk mains the consequence factor of risk is medium but is lowered significantly by a very low probability factor. Consequences include localised flooding and loss of service in 1:10 year event.

Ōpōtiki Plant Replacements – Pumps, Valves and Switchboards Pumps, valves and switchboards have NAMS lives of 10-35 years. These assets have been populated into the AMS with 20-35 year lives depending on duty. Assumption tendency would lean towards lives being greater in most instances rather than shorter. As such budgets have been spread out multiplying in successive years as risk increases.	**Option** Replace plant responsively and/or on the basis of assessments made in the condition and performance assessment above. Costs are indicative only future improvement of asset data integrity will increase accuracy of predictions. $80,000 2017/18-2024/25 $540,000 2025/26-2044/45	**Implications** Risk of failure will increase moving into the future. The risk rating however is low at present. Consequences include localised flooding and loss of service in 1:10 year event.
Ricado Maintenance and Performance Monitoring System Web based reporting system uploading pump station operational and maintenance data enabling greater efficiency of asset management.	**Option** Upgrade stormwater SCADA (Supervisor Control and Data Acquisition) system to new standard in line with Wastewater and Water Supply $20,000 2015/16	**Implications** Improves operational efficiency and effectiveness. Relieves internal resources and contractor costs
Comprehensive Stormwater Discharge Consent Develop Activity Management Plan and apply for Regional Council consent to discharge stormwater via 22 outlets to Waioeka and Otara Rivers	**Option** $100,000 2014/15	**Implications** Delays and adds cost associated with plant infrastructure development. Eventual divergence with developing Regional Council requirements.

Wastewater

Resilience and Level of Service Issues	Principal Options for Response	Implications
Ōpōtiki Wastewater Replacement/Renewal The Ōpōtiki Wastewater reticulation currently suffers from inflow and infiltration (I&I) due to complications arising from • poor installation practice in the 1950's • use of oval seconds pipe • installation difficulties caused by ground water and soil strata Levels of service are difficult to maintain in heavy weather events when reticulation becomes overloaded. From symptomatic assessment of I&I, pipe displacement, degradation, slumping etc appear to wide spread offering poor resilience. The scheme is currently undergoing an investigation (2014/15) into the extent, severity and localisation of I&I. The key outcome will be the scope of replacement activity required. Through preliminary assessment of potential options one was found to be preferable with a comparably invariable, competitive cost. As such this option costing has been utilised for capital works planning with the understanding replacement scope is subject to change upon completion of the aforementioned investigation.	**Preliminary Option - Vacuum System** Preliminary assessment of potential options found one to be preferable with a comparably invariable, competitive cost. As such this option costing has been utilised for capital works planning with the reservation that replacement scope is subject to change upon completion of the 2014/15 investigation. • Preliminary Design $355,000. Design of system including full suite of specifications, layout, staging, resourcing and project management. 2015/16 • First Stage Reticulation and Design $2,397,913 2016/17 • Second Stage Reticulation and Design $3,008,784 2017/18 • Third Stage Reticulation and Design $3,062,114 2018/19 • Fourth Stage Reticulation and Design $2,686,187 2019/20	**Implications** Unless present I&I issues are resolved in the near future weather events will continue to cause loss of service as line become overloaded. IN particularly severe events surcharging manholes, gully traps and house hold facilities will affect the environment and health & safety. Presently resource consent has been obtained to dispose 3600 cubic metres of effluent from the oxidation pond to the overflow pond, this volume should be sufficient in most severe weather events however an extreme event may cause a breach of this consent.

Soakage Lines Replacement	**Option** Replace soakage lines like for like. $75,000 2015/16-2017/18	Substandard effluent disposal in breach of resource consent stipulations. Potential Environmental and Health & Safety implications.
Replace No.1 Pump Station The number one pump station is reaching the end of its design life. At this time the number one pump station or equivalent will be required (irrelevant of which option is utilised in the scheme replacement) to pump sewage to the Imhoff treatment facility or pond. In the event of failure (i.e. well collapse) immediate shutdown of 80% of the townships wastewater service would occur. Shutdown would persist for up to 3 days while a bypass pump and pipe was installed or failure was remedied.	**Option 1** Option 1 assumes decommission of the Imhoff tank booster pump and associated rising main will occur in the near future. **1a.** Pump Station Replacement including capacity to pump directly to Oxidation Pond $20,000 2021/22 $400,000 2022/23 **1b.** Direct vacuum station extraction pump including capacity to pump directly to Oxidation Pond $20,000 2021/22 $400,000 2022/23 **Option 2** Option 1 assumes the Imhoff tank booster pump and associated rising main is retained in service at its current location for midterm future. **2a.** Pump Station Like for Like Replacement $350,000 2035/36 **2b.** Direct vacuum station extraction pump $350,000 2035/36	**Implications** The No.1 pump station is a highly critical asset. Loss of service to 80% of the township for up to 3 days would cause severe environmental & health & safety implications. **Option 2** • Implications associated with succeeding work outlined in following section "Relocate primary treatment to pond site"
Relocate primary treatment to pond site Presently Ōpōtiki has a two stage treatment system. Primary treatment is the micro-screen and Imhoff tank and secondary treatment is the oxidation pond on the opposite bank of the Otara river. Based on possibilities of future expansion, proximity to the township and critically the future requirements for stormwater storage the Imhoff tank may need to be decommissioned and removed in the near or mid-term future. No level of service issues may be associated with this work. The Imhoff tank doesn't have the capacity to treat the increased volumes in severe weather events however this resilience issue does not cause any significant implications.	**Option 1 – Near Future (Immediately following Option 1 above)** **1a.** Decommission and remove Imhoff tank, relocation micro-screen, construct second treatment pond & realign rising main $30,000 2022/23 $1,200,000 2023/24 **1b.** Decommission and remove Imhoff tank, relocation micro-screen, construct second treatment pond.$30,000 2022/23 $1,230,000 2023/24 **Option 2 – Midterm Future (Following Option 2 above at some time in midterm future)** **2a.** Decommission and remove Imhoff tank, relocation micro-screen, construct second treatment pond, upgrade pump station 1 pump capacity, realign rising main $1,300,000 2036/37 **2b.** Decommission and remove Imhoff tank, relocation micro-screen, construct second treatment pond, upgrade pump station 1 pump capacity $1,200,000 2036/37	**Implications** **Option 1** • No significant implications. **Option 2** • Precludes use of northern extents of Volkners Island area for Stormwater storage as well as potential development in the vicinity.
Industrial Area Stage 2 Distant future allowance not associated with any service or resilience issues.	**Options Open** Provide reticulation facility for industrial area $30,000 2019/20 $600,000 2020/21-2021/22	**Implications** Inability to cater for any industrial growth
Hikutaia Existing Residential - New Reticulation To be confirmed proposal to extend wastewater service to existing residential properties	**Option** Provide Wastewater reticulation to Hikutaia residential community $50,000 2018/19, $500,000 2019/20 & 2020/21, $1,000,000 2021/22	**Implications** Increased cost and difficultly extending wastewater services to potential greens field's development in Hikutaia area. Eventual divergence with developing Regional Council requirements.

Hikutaia New Residential Development - Reticulation Extension To be confirmed proposal to extend wastewater service to green fields in Hikutaia area	**Option** Provide Wastewater reticulation to new Hikutaia residential development $50,000 2021/23, $1,000,000 2022/23	**Implications** Reduction in population growth capacity

Image: New Weir for Sewer Pond

Transport

Resilience and Level of Service Issues	Principal Options for Response	Implications
	Route Security	
Secure access to Opotiki. Access to Opotiki via the Waioeka SH 2 bridge in event of major flood, catastrophic structural failure or ongoing aging and need for replacement.	**Options** • Collaborate with NZTA (Agency) to ensure that the bridge is maintained and the future renewal is planned. • Emergency response by construction of temporary bridge access during repair or reconstruction of the Waioeka SH 2 bridge.	**Implications** Interruptions to traffic as a result of the closure of the bridge will have major negative social and economic impacts on the Opotiki town and district, the eastern BoP and the Gisborne district isolated. Negative effects on social and economic will be exacerbated in the event of catastrophic failure.
Flooding on Sections of the network. Flooding of road network as a result of high rainfall and storm events; and potential flooding as a result of increase in sea-level due to the effects of climate change. Prime examples include sections around both sides of the Ohiwa Harbour, Waiotahi River estuary, Gabriels Gully, Waiotahi Valley and Browns Roads, Otara East and Pakihi Roads, lower Motu Road. Sections of the state highway network in the district are also affected such as coastal sections of SH2 and at Matekerepu. Lower lying parts of SH 35 on the coastal route such as Raukokere.	**Option** • Ongoing assessment will be necessary to plan interventions should climate change effects exacerbate circumstances.	**Implications** • Ongoing assessment will be necessary to plan interventions should climate change effects exacerbate circumstances. • NZTA has undertaken route security assessments on the state highway and have developed options which include raising sections (very expensive) and detour routes onto local roads. Projects of this type have relatively low priority in the State highway AMP but are established as the watch on climate change impacts continues. • Currently the local road flooding issues, whilst a nuisance to local residents is of relatively short duration and of low economic impact.

Levels of Service		
Operation and maintenance of the district network to required level of service. Road sections have been classified in accordance with the NZTA/MoT nationwide One Road Network Classification (ONRC) system. Over next two years the network will have levels of service reassessed in accordance with ONRC rules.	**Options** • Adjust LoS per section to national criteria • Consider funding implications of retaining/ achieving higher standards if Council/community demands these.	**Implications** In the 30 years covered by the strategy $52.3 million is projected to be spent on this activity. The FAR review outcome has identified the Ōpōtiki district FAR will move from the current 50 % to 75% in 9 years. If higher standards are to be met (which will not then obtain NLTP funding) on some sections the higher FAR rate may release some local rate share which could be utilised for the additional LoS provided.
Expectation from Community for ongoing urban street upgrades	**Option** • Continue with urban street upgrade programme	**Implications** • Council LTP has provisions in the transport activity for continuing upgrades on an annual basis of approximately $150,000 •
Ongoing demand for pedestrian, cycleway, horse tracks alongside rural roads and for upkeep of maintenance on urban footpaths	• Continual engagement with NZTA to address this issue along the State highway routes where the interaction is at highest risk. • Continue to assess provisions on local routes and develop a strategy and implementation plan to upgrade facilities to appropriate standards. • Continue with urban street upgrade programme (includes installing new footpath where none exists) • Continue to renew and maintain footpaths as part of annual expenditure plans.	• NZTA have included safety improvement works on SH 2 and SH 35 in the SH AMP, however these have been given relative low priority. • Council has included an ongoing budget provision for safety improvement works of $110,000 per year in the LTP, part of which will provide funding for these projects. • Council has included ongoing budget of $35,000 for footpath renewal/ maintenance in the LTP. • If these projects are not ongoing: - there is high risk of negative road safety outcomes particularly as traffic volumes grow into the future, and - there could be adverse effect on the reputation of the District as a place of choice for lifestyle and retirement.
Ongoing demand for Seal Extensions. **Pressure is expected to continue from affected communities to have their roads sealed to address both social (quality of life) and economic activities (farming and horticulture) located along the routes.**	• Review the Council's Seal Extension Policy • Ongoing assessment of roads for sealing and review of priority programme.	• Capital costs estimate of $4 M will complete 32km seal extension works in the district. A 12 year plan to undertake these is projected. • Non completion of the seal extension programme will negatively affect commuters, residents and economic activities located along the routes. It could also have adverse effect on the reputation of the District as a place of choice for lifestyle and retirement.
Seismic Integrity of major structures and bridges. Seismic and structural assessments of bridges and major structures have not been undertaken to evaluate seismic capability during a major natural seismic event.	• Prioritise seismic and structural assessments of bridges and major structures in the District. • Programme seismic and structural improvements.	• Preliminary estimate in excess of $500,000 is required for undertaking seismic and structural assessments. Provision to examine the higher priority bridges has been made in the 2015-18 funding application from the NLTP fund and this needs to be ongoing beyond this period. • Capital costs associated with seismic strengthening will need to added to future budgets pending the results of the assessments. • Non completion of the seismic assessments and subsequent strengthening works could result in failures following a major earthquake event.

Resilience and Level of Service Issues	Principal Options for Response	Implications
	Road Safety	
Out of Context Curves Realignment of sections of rural roads to ease out-of-context curves.	**Options** • Sections of Wainui Road requiring realignment have been identified in the Coastal Arterial Route Study undertaken in collaboration with the Whakatane District Council. • Further sections of rural routes, in particular those associated with state highway detour routes have been identified for upgrades.	**Implications** • Cost associated with the realignment works is $1.5M. Ongoing engagement with NZTA is necessary to develop a programme for the detour works • Non completion of the realignment works will not address the high fatal and serious crash statistics on the network and result in reduced levels of service and driver satisfaction on the sections of the roads.
Inadequate Seal Width Seal Widening on rural roads to provide a consistent seal width suitable to the traffic volumes and mix.	**Options** • Sections of Wainui Road requiring seal widening have been identified in the Coastal Arterial Route Study. • Further sections of rural routes, in particular those associated with state highway detour routes have been identified for upgrades	**Implications** • Cost associated with the seal widening works is $1.5M however if the SH routes are fully funded by the NLTP fund a major part of this will not impact on Council budgets. • Non completion of the seal widening works will not address the high fatal and serious crash rates on the network and result in reduced levels of service and driver satisfaction on the sections of the roads.

Renewals		
End of Life Bridges There are an estimated 25 bridges on the network that will reach the end of life and will require major capital investment.	**Options** • Review the Council's Bridge replacement and renewal register. • Prioritise bridge replacement/renewals in accordance with condition, seismic and structural assessments. • Programme bridge renewals and replacements. • The Council will work collaboratively with NZTA to secure funding for bridge replacement programme. • Councill may need to consider discontinuing with the provision of service in some areas where affordability will affect assistance from the NLTP fund.	**Implications** • Cost estimate of $15M is required for undertaking the bridge renewals and replacements. • Bridge renewals and replacements will be undertaken between years 2016-2044. • Non completion of the bridge replacement and structures programme will negatively affect commuters, residents and economic activities located along the routes. • NLTP funding may be restricted in some locations where there are low traffic volumes, low economic return and may require Council to meet a greater share of cost. This may lead to the withdrawal of service/ decommissioning of some bridges.

Obsolete Traffic Services Staged replacement of street lights –probably with LED technology.	**Options** • The installation of low energy LED Street lighting is being considered. LED Lighting has cost saving and environmental benefits (Light pollution) for the District • Undertake an analysis for the replacement of the existing Sodium & metal Halide lamps with LED Lighting units as programmed renewals with whole of life consideration and in conjunction with electrical network owner for timing.	**Implications** • The cost to replace 395 poles and lights will cost $2.5 M. Further to this if LoS is brought up to current standards an estimated $1.2 M expenditure will be necessary • Ongoing communication with utility network provider necessary for programming of street lighting upgrades with network cable upgrades. • Review of other authority findings together with the utility programme will be made to determine potential cost savings. • NZTA on changes to rules for national standards/compliance to meet funding criteria.
End of Life Pavements Renewals, Rehabilitation, resurfacing, associated improvements to maintain the life of the pavement asset	**Options** • Prioritise pavement asset renewal works for the District on an on-going review basis. • Programme works in accordance with asset data, LoS, in-field inspections and annual budgets.	**Implications** • Costs associated with maintaining the pavement life and condition is $23.6 M over the 30 term. • Non completion of the renewals, pavement rehabilitation and resurfacing programme affect will negatively affect asset condition and asset life.
End of Life road drainage systems. Drainage Renewals, Kerb and channel, culverts, associated improvements to maintain and manage drainage within the road corridor	**Options** • Prioritise drainage asset maintenance and renewal works for the District. • Programme works in accordance with asset data and annual budgets.	**Implications** During the 30 year term • Costs associated with providing renewals of existing facilities is $1.4M. • Costs associated with providing additional facilities is $2 M. • Non completion of the renewals, pavement rehabilitation and resurfacing programme will negatively affect asset condition and asset life.

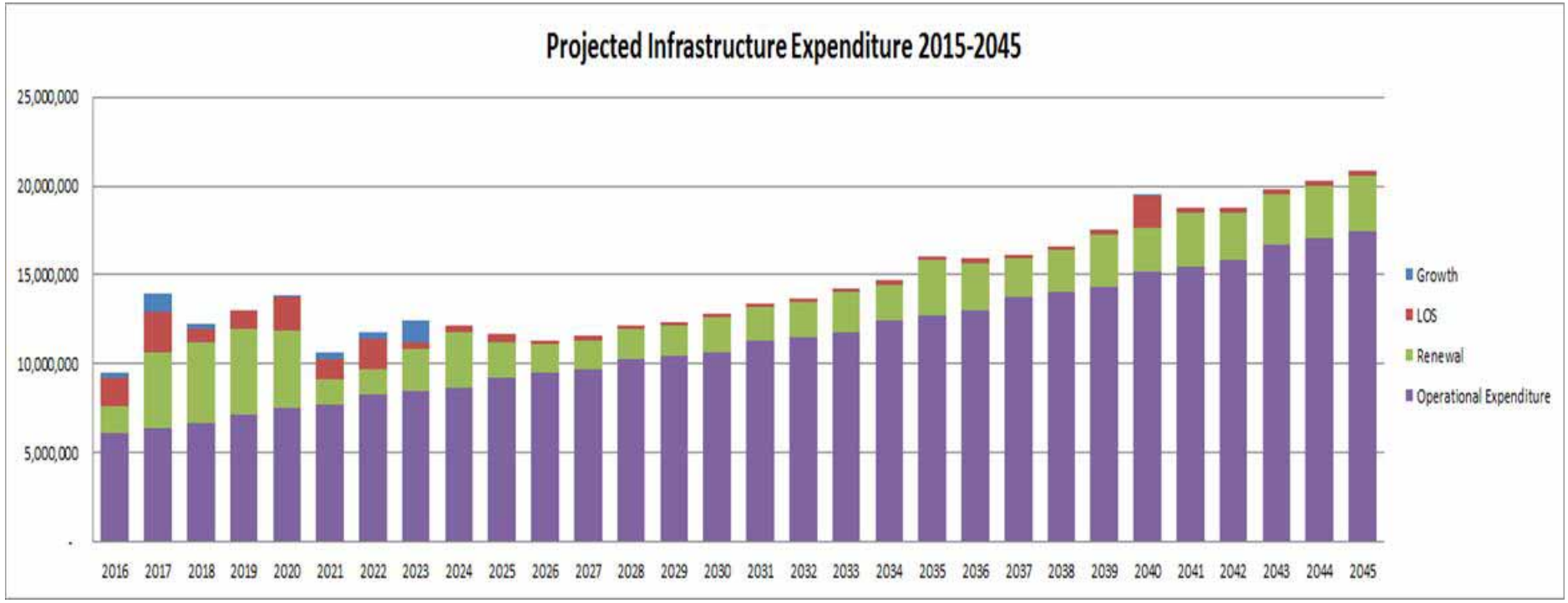
3.0 Infrastructure Investment Programme

3.1 Total Expenditure

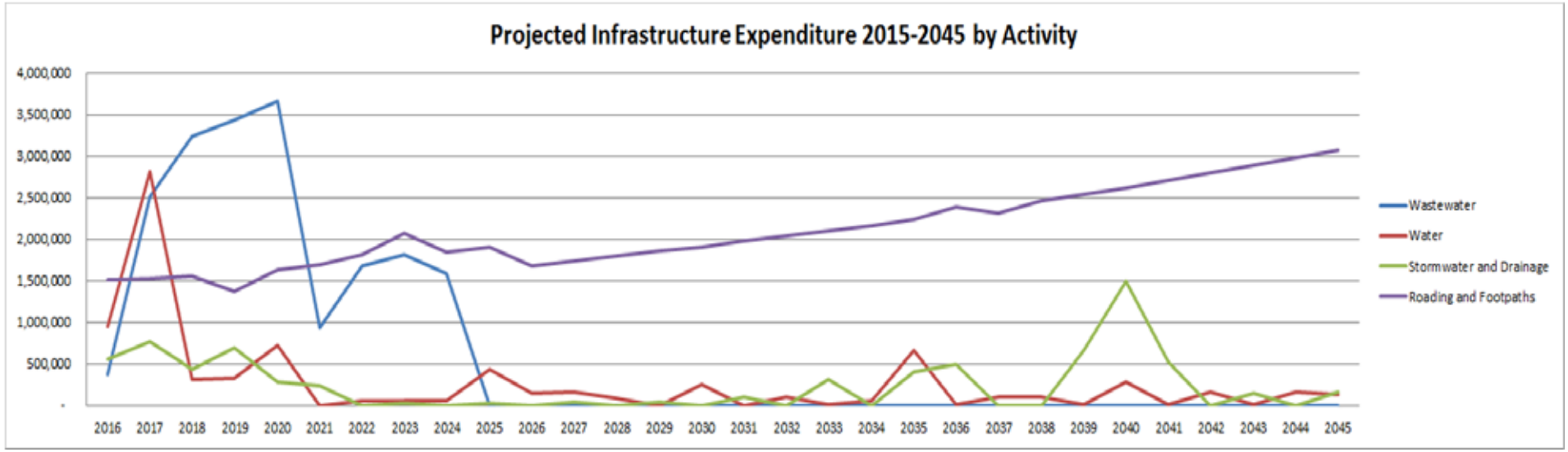
In addressing the issues identified in the previous section of this strategy, the Ōpōtiki District Council expects to spend $98.3 Million on new or replacement infrastructure between 2015 and 2045. Over the same period, $339.5 Million is expected to be spent on operating costs, labour, depreciation, materials and maintenance. These figures are anticipated to be spread across the five infrastructure asset activity areas as follows:

Infrastructure Activity	Capital Expenditure	Operational Expenditure
Wastewater	$19.3 million	$68.7 million
Water	$8.3 million	$60.0 million
Stormwater	$7.5 million	$33.4 million
Roading and Footpaths	$63.2 million	$177.3 million
Total	$98.3 million	$339.5 million

3.2 Capital Expenditure Highlights



The chart above shows that expenditure across the five infrastructure activity areas will continue to be dominated by operational requirements (operating costs, labour, depreciation, materials and maintenance) between 2015 and 2045. Total infrastructure expenditure is expected to increase from around $10 to $15 million in the earlier years to around $15 to $20 million at the end of the 30 year period. The primary driver for this increase is the inflationary impact upon the operational expenditure. In the earlier years there is a considerable amount of capital works planned for the infrastructure assets as they are nearing the end of their useful lives now, once these significant renewal projects are completed only minor renewals will be required for the most part of this term.

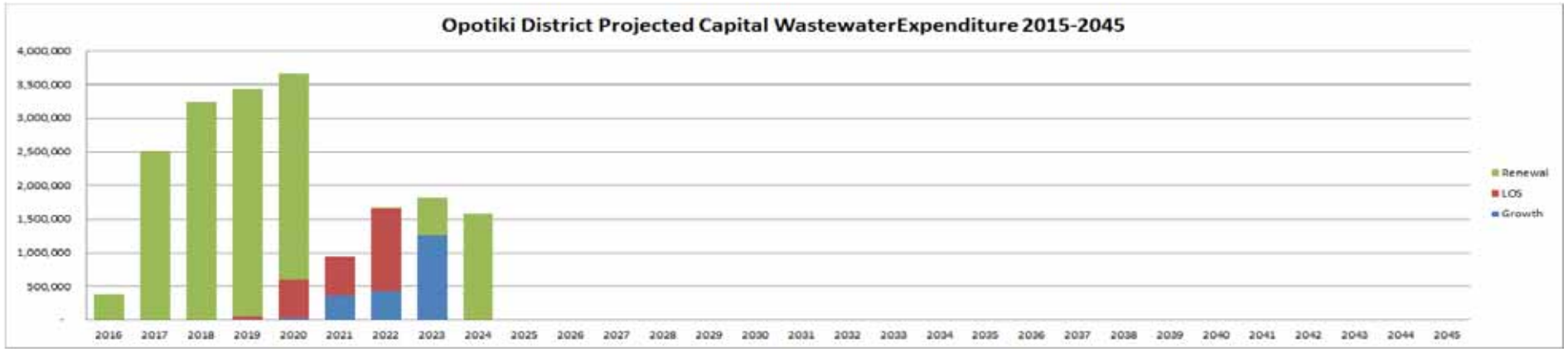


The chart above shows the projected infrastructure spend for each of the four infrastructure activity areas. There are significant spends in wastewater infrastructure in the earlier years due to the replacement of the Ōpōtiki reticulation network which has reached the end of it's useful life, there is also a spike in 2022,23, and 24 as we extend the wastewater reticulation network out to Hikutaia, where we expect some of the future growth to develop. The roading and footpath network is relatively stable, and we don't expect a lot of growth in this area. Over the course of the 30 years we have a number of water supplies projects planned which are to build resilience in the current network as well as extend the supply further outwards to more customers.

Towards the end of the 30 year term we see a significant spike in the stormwater activity as we upgrade the main stormwater components over a 3 year period, and build more capacity into the stormwater storage area at Tarawa Creek.

3.3 Major Wastewater Capital Works Programme Summary

The chart below illustrates the projected capital expenditure associated with the management of Ōpōtiki District wastewater infrastructure assets out to 2045.



Major Work	Cost	Timing	Assumptions
Extensions to existing residential reticulation in Hikutaia	$2.4 million	2020, 2021, and 2022	Currently the existing houses in Hikutaia are on septic tanks which will start needing to be replaced
Extensions to residential reticulation to new development in Hikutaia	$1.3 million	2023	Planned extension of reticulation to identified growth areas in Hikutaia
Replacement of existing Ōpōtiki reticulation network	$11.1 million	2016 to 2020	Planned replacement of total Ōpōtiki reticulation network with shallow vacuum based network
Relocation of primary treatment of wastewater	$1.6 million	2024	Relocation of treatment to the pond site. The existing treatment site will be needed for growth development

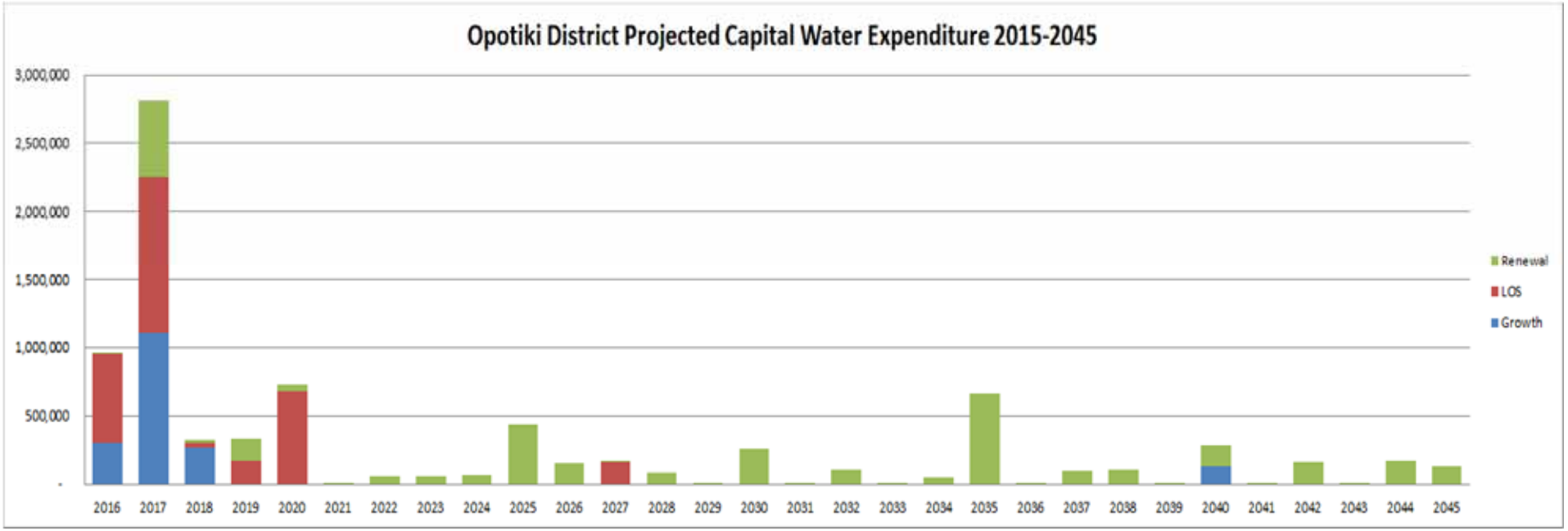
Implications of Uncertainty

There is a moderate level of uncertainty at this stage around what reticulation system will be replacing the current reticulation network within the Ōpōtiki township. Very low ground levels and high water tables mean groundwater is infiltrating the wastewater network and affecting service levels. Council is currently assessing the network to model the effects of groundwater levels and flooding events on the network, with the aim to inform how and what we will replace the current network with.

There is a moderate level of uncertainty around the planned extensions to the network, these will occur after we start to experience growth within the district, and after the aquaculture and harbour projects have been completed. If the projected growth does not eventuate for some reason, Council will not undertake the growth and increase to level of service projects planned.

3.4 Major Water Capital Works Programme Summary

The chart below illustrates the projected capital expenditure associated with the management of Ōpōtiki District water infrastructure assets out to 2045.



Major Work	Cost	Timing	Assumptions
Te Kaha extension to supply network	$0.7 million	2016	Planned extension to the reticulation network, at the request of residents and to comply with the last year of subsidised activity from the Ministry of Health
Installation of Hikutaia booster station and replacement of Dip Road main	$0.5 million	2018	Growth project in relation to bringing Hikutaia onto council services and building resilience into water supply system
Clarks Road booster station, connection and control	$0.8 million	2017, 2018, and 2035	

Implications of Uncertainty

Ōpōtiki Water Reticulation

There is a low level of uncertainty surrounding the Ōpōtiki water reticulation. Preliminary modelling has illustrated an effective reticulation system with spare capacity for future population development. Presently primary issues concern the resilience of the system in an earthquake or other such similar event, however these concerns are well understood and the appropriate infrastructural strategy has been planned in response.

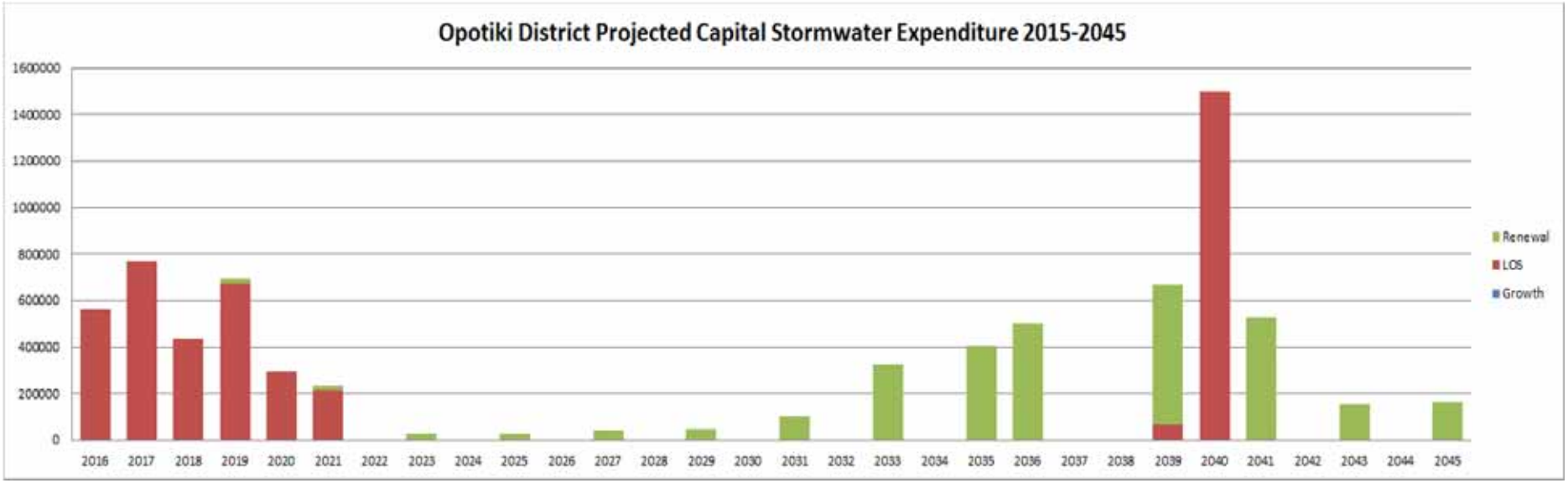
There is a low level of uncertainty with regard to expansion of the reticulation network as growth occurs within the district namely after the aquaculture and harbour projects have been completed. If the projected growth does not eventuate for some reason, Council will likely proceed with many of the proposed capital projects as they serve the secondary purpose of optimised replacement of existing infrastructure.

Te Kaha Reticulation

There is a moderate level of uncertainty surrounding the development of the Te Kaha reticulation system. Proposed improvements may be outside the capacity of the district to afford, an issue that will not be well understood until the appropriate consultation is carried out in the near to mid-term future with the residents in question.

3.5 Major Stormwater Capital Works Programme Summary

The chart below illustrates the projected capital expenditure associated with the management of Ōpōtiki District stormwater infrastructure assets out to 2045.



Major Work	Cost	Timing	Assumptions
Tarawa Creek Flood Storage Area	$1.4 million	2016 to 2018 and 2040	Assuming availability of land and consent approval, this should address the considerable flooding issues within the town in rain events
Upgrade of town pumps and stormwater mains	$1.2 million	2016 to 2021	Upgrade of piping and pumping stations to get surplus ground water out of the township as efficiently and quickly as possible
District stormwater renewals	$2.7	2041-2045	Renewals to Ōpōtiki and Hikutaia stormwater reticulation

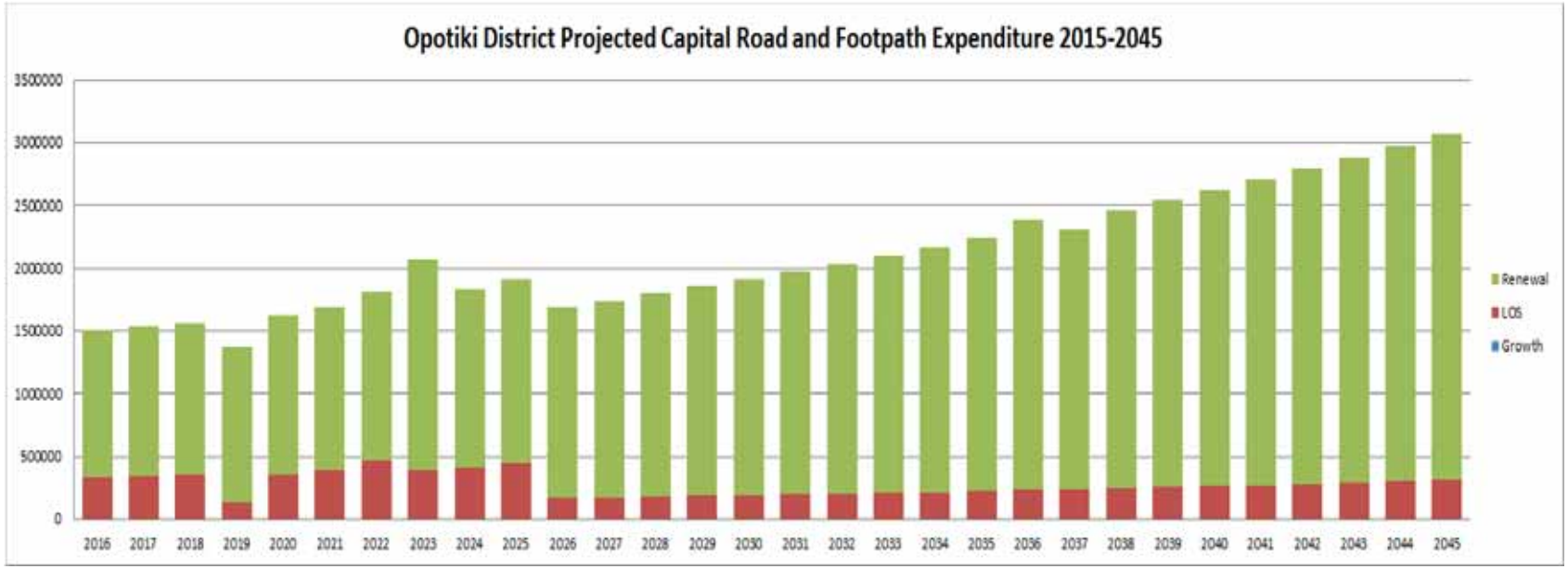
Implications of Uncertainty

There is a low level of uncertainty surrounding stormwater infrastructure development in the near future. Comprehensive modelling has been carried out on the Ōpōtiki reticulation network revealing key points of concern surrounding the capacity of the reticulation network to effectively mitigate 1 in 10 and 1 in 50 year storm events to desired levels of service, as such the proposed infrastructure developments have been proposed in direct response and are well understood.

A moderate level of uncertainty still exists with regard to climate change effects in the distant future, as the variation in weather patterns and the ultimate rise in sea level is still not known it must be conceded that certain implications may arise that cannot be reasonably predicted.

3.6 Major Roads and Footpaths Capital Works Programme Summary

The chart below illustrates the projected capital expenditure associated with the management of Ōpōtiki District roading and footpath infrastructure assets out to 2045.



Major Work	Cost	Timing	Assumptions
Seal extensions to roading network (subject to approval from Council)	$2.2 million	2016 to 2025	Continuation of seal extensions need to be approved by Council, at some point this will need to stop, given the number of users.
Minor and associated improvements to roading network	$1.5 million	2016 to 2025	
Network renewal expenditure	$43.6 million	2016 to 2045	Road and footpath renewal expenditure planned as per standard renewal strategy
Bridge replacement	$0.3 million	2023	Ngarue bridge optimised replacement with culvert

Implications of Uncertainty

The roading budget currently has a moderate level of uncertainty with regard to future NZTA funding. Funding rates have been established for the following ___ years but these figures could be subject to change in the midterm future, as such it is unknown whether there will be further increases or if decreases is a possibility.

The roading network presently has a moderate level of uncertainty with regard to future replacement activities and ongoing maintenance. A number of the districts less active unsealed roads and bridges are potential concerns as they reach the end of their useful lives. With the cost of replacement disproportionate to traffic volumes a future decision will need to be made

as to what level these assets should continue to be maintained, whether they should be retired or if they should be brought up to a higher level of service, namely sealed, to encourage population development and subsequent increase in use.

A high level of uncertainty exists for the distant future taking into consideration the effects of climate change. As a number of the districts roads are coastally located it may be assumed that rising sea levels will cause issues with the present elevation of said roads. The cost of these works would be exorbitant and their extent is presently undefinable.

The Role of Council

The role of Council is to promote the social, economic, environmental and cultural wellbeing of the community that it serves.

A Mayor and Councillors are elected to the Council by the community every three years. These members of the Council are usually chosen because they understand what the community wants and they are good at making things happen. This is the **political arm** of local government.

The political arm of a local authority is one of the main sources of communication between the community and Council. It sets the policies and direction of Council, makes bylaws and has a regulatory role, determines the expenditure and funding requirements of Council, monitors the performance of the organisation, represents the interests of Ōpōtiki District outside the area, and employs the Chief Executive who in turn employs all other staff.

The Mayor is elected by the district as a whole and has additional responsibilities including presiding over Council meetings, promoting and representing the interests of the community, acting as the ceremonial head of Council, and providing leadership and feedback to other elected members.

The scope of activities that a council is involved in is large. Often issues are highly technical or complex, so the Council appoints a chief executive who in turn appoints a range of skilled staff to carry out the activities the council undertakes on behalf of the community. This is the **organisational arm** of local government.

In effect the Council employs someone with a "tool box" who allocates the tools to specific projects, keeps the tool-box appropriately stocked and the tools sharp and in good condition. They work together to plan and help to make the community outcomes a reality.

The organisational arm, through the Chief Executive, implements the decisions of Council, provides advice to Council on managing the activities of the organisation effectively and efficiently, plans and provides accurate reports on the financial and service performance of Council, employs staff and provides leadership.

Ōpōtiki District Council currently has six councillors elected from three wards and a mayor elected from the whole district. A Coast Community Board consisting of five members represents the area from Hawai to Torere. Meetings currently take place on a six weekly cycle.

In effect the Council employs someone with a "tool box" who allocates the tools to specific projects, keeps the tool-box appropriately stocked and the tools sharp and in good condition. They work together to plan and further the community outcomes.

Ōpōtiki District Council Elected Members 2013 to 2016

Council 2013-2016

		Contact Details	Ward
	**Mayor** John Forbes	PH 07 315 7362 PH Mobile 029 255 7702 johnf@odc.govt.nz Jonrobforbes@clear.net.nz	District
	**Deputy Mayor** Haki McRoberts	PH Mobile 027 668 6683 07 325 2833 Phone & Fax mcroberts833@gmail.com	Coast
	**Councillor** Barry Howe	07 315 6003 Home 07 315 6335 Work PH Mobile 027 315 6345 bazzshazz@xtra.co.nz	Ōpōtiki
	**Councillor** Shona Browne	PH HM 07 315 7347 PH Mobile 027 477 3761 shonab@xtra.co.nz	Opotiki

		Contact Details	Ward
	**Councillor** Arihia Tuoro	PH Mobile 027 274 2268 atuoro@xtra.co.nz	Opotiki
	**Councillor** Lyn Riesterer	PH Home 315 6627 PH Mobile 0211602040 lynr@opotikicol.school.nz	Waioeka/Waiotahe
	**Councillor** Ken Young	PH 07 3157919 Mobile 027 245 8690 kw.young@xtra.co.nz	Waioeka/Waiotahe

Coast Community Board Members

Chairperson Haki McRoberts	PH Mobile 027 668 6683 PH & FAx 07 325 2833 mcroberts833@gmail.com
Muriwai Jones	PH 07 315 8251 muriwai.jones@xtra.co.nz
Edward Matchitt	PH 325 3663 home
Tiaki (Jack) Parata	PH HM 325 2772 PH Business 325 2726 FAX 325 2739 PH Mobile 027 498 9213 jack.parata@apanui.co.nz
Gail Keepa	PH 07 3252003 gailkeepa@xtra.co.nz

Ōpōtiki District Council Organisational Structure

	**Aileen Lawrie** **CEO**	The Chief Executive (CE) is the sole employee of the Council. The CE then employees a range of skilled and technical staff to assist in the delivery of Council services to the community. The CE is responsible for implementing decisions of Council, providing professional advice, and monitoring and reporting organisational performance.	
	**Jim Finlay** **Engineering and Services Manager**	Consultancy BU Solid Waste Roading Rural Fire Sewerage	Stormwater Water Supply Property
	**Barbara Dempsey** **Planning and Regulatory Manager**	Animal Control Building Control Bylaw Compliance Civil Defence Emergency Management	Environmental Health Liquor Licensing Noise Control Resource Management Planning
	**Bevan Gray** **Finance and Corporate Services Group Manager**	Cash Receipting Debtors/Creditors Financial Reporting Investments Insurance Payroll Public Debt	Water Billing Rates Communications Customer Services Creative New Zealand Governance Support
	**Mike Houghton** **Parks, Recreation and Tourism Manager**	Parks Reserves Airport Cemetery Tourism Promotions	Economic Development Events I-SITE Information Centre Sports Co-ordination

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