

CHAPTER TWO Informing Our Planning

CHAPTER TWO

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KEY RISKS AND GROWTH ASSUMPTIONS

When planning for the long term, we need to make assumptions about future trends and events that are outside our control. When making assumptions it is important to recognise the possibility that, over time, the assumption may prove to be incorrect. We need to be clear about the potential consequences of assumptions being wrong, and what we will do to mitigate these consequences.

This section identifies key assumptions that underpin this Long Term Plan. Specific assumptions related to each group of activities are included in the relevant section.

KEY ASSUMPTIONS	DESCRIPTION					RISK
GROWTH			diture and foreca properties we will		Level of uncertainty - significant. Growth is difficult to predict because unforeseen events can alter migration, settlement patterns or resource limitations.	
	financial contrib and sometimes from developers We are starting growth to pick u We expect that then gradually t	utions. Financial when developms of subdivisions to recover from up over the long growth will be Caper off. We do	d for services and contributions are the decurs - most the global econoterm, at the momentum, at the momentum of the contribution of the contribut	e paid when prost financial cont mic recession, a nent it remains fl reasing to 1.3%-1. In the foreseeak	If population growth and the number of rateable properties are under-estimated, we would experience faster growth than planned. This could result in: Income growing faster than expected, so debt could be paid off faster which would reduce interest costs Council services not keeping up with demand unless plans could be changed quickly Financial contributions charges (which are set in advance based on growth assumptions) being set too high for that financial year.	
			Fore	cast		mercuse in demand and maneral contributions charges adjusced the following year.
	Year end 30 June	New lots created	Growth rate	Rateable properties	District population	If population growth and the number of rateable properties is over-estimated, (growth is slower than forecast) the consequences would be:
	2016	260	1.27%	20,624	47,772	· Over-investment in infrastructure, for example developing capacity too early
	2017 2018	260 265	1.26% 1.27%	20,884 21,144	48,326 48,865	 Income from rates and financial contributions falling short of budget, which means debt is repaid more slowly and interest costs increase
	2019	3O2	1.43%	21,144	49,506	• For some types of infrastructure, financial contributions charges would have beer
	2020	303	1.42%	21,711	50,132	set too low for that financial year.
	2021	303	1.39%	22,014	50,758	
	2022	303	1.38%	22,317	51,384	In this situation we could fund the shortfall through rates, or defer expenditure.
	2023	309	1.38%	22,620	52,032	Review of assumptions
	2024	297	1.31%	22,929	52,614	Each year we re-forecast growth for the forthcoming year during development of
	2025	297	1.30%	23,226	53,218	our annual budget.
	2030	290	1.20%	24,693	56,042	
	2035	243	1.00%	26,011	58,200	
	2040	174	0.70%	26,977	59,380	
	2045	97	0.40%	27,535	59,830	

KEY ASSUMPTIONS	DESCRIPTIO	DN						RISK
INFLATION	Assumption Costs are as were preparation	vith the requing year period I ssumed to in red by BERL to sector. The	have been a crease acco in October	ndjusted by i ording to the 2014, an ec	nflation. schedule of onomic fore	f indices be casting age	Level of uncertainty - moderate It is difficult to predict inflation over a 10-year period, so actual results are likely to vary from these indices, particularly for years 2018 onwards. If inflation is under-estimated and actual cost increases are materially higher than forecast, budgets for the first year of the Long Term Plan may be too low to complete the work scheduled for the year. In such cases the work would be re-scheduled.	
	makes up ea	Transport	Property	Water	Energy	Staff	Other	If inflation is less than forecast, some work may be brought forward from year two of the plan or surplus revenue held over for the following year.
	2016 2017 2018	1,000 1,014 1,036	1,000 1,024 1,050	1,000 1,038 1,069	1,000 1,038 1,078	1,000 1,018	1,000 1,025 1,051	Review Inflation assumptions are reviewed each year as part of the annual budgeting process.
	2019 2020	1,061 1,088	1,078 1,107	1,104 1,140	1,122 1,170	1,060 1,083	1,080 1,111	If interest rate assumptions were too low, it would result in borrowing costs being higher that forecast.
	2021 2022 2023	1,117 1,149 1,183	1,139 1,174 1,211	1,180 1,223 1,271	1,223 1,279 1,342	1,107 1,133 1,161	1,143 1,180 1,218	If interest rate assumptions were too high, borrowing costs would be lower than forecast.
	2024 2025	1,220 1,260	1,250 1,294	1,321 1,376	1,411 1,485	1,191 1,223	1,261 1,306	A 0.5% movement in interest rate up or down is equal \$5,000 per \$1m of debt.
INTEREST RATES	The interest been estima	The interest rate on future term borrowing for the ten years of the Long Term Plan has been estimated at 6% from 2015-17 and 6.25% from 2018-25.		ng Term Plan has	Level of uncertainty - low Council has a high level of confidence in these assumptions, which are based on cost, market information and hedges on existing borrowings through interest rate swaps, in conjunction with advice from NZ Treasury experts.			
DISASTER CONTINGENCY	as self-insurance to cover clean-up and replacement costs in the event of a disaster. For roading assets, a maximum of 93% of the repair or replacement cost is available from			Level of uncertainty - significant There is a risk that Council and/or Government funding will not be sufficient to cover the costs of a major natural disaster. The likelihood of a major disaster is unable to be assessed as this is a risk that cannot be predicted with any certainty.				
	the New Zealand Transport Agency and for other infrastructure, Central Government will contribute to cover infrastructure where Council has demonstrated it had effective risk management priorities in place and acceptable funding strategies.							In the event of a natural disaster it is unlikely more than one of our major network infrastructure schemes, such as wastewater treatment, will be affected. Replacement of one of these schemes could be in the region of \$30 million.
			Funding from the New Zealand Transport Agency may be reduced below 93% dependent on the total cost of emergency works occurring in any one financial year.					

KEY ASSUMPTIONS	DESCRIPTION	RISK
CURRENCY EXCHANGE RATES	Council very rarely makes purchases in foreign exchange, except for the occasional purchase of equipment or services. Our Treasury Policy precludes the use of foreign exchange risk management products, except to hedge significant commitments (i.e. those over \$10,000).	As a result of its limited use of foreign exchange, Council has little direct risk of changes in currency exchange rates.
RATES REMISSION AND DEFAULT CONTINGENCY	Council provides 2% of rates required as a contingency to cover non-payment of rates and remissions under its various rates remission policies.	Level of uncertainty - low There is a risk that an unexpected event, such as an economic recession, could result in a higher than normal incidence of default in payment of rates. This is not considered likely, but if it occurred, Council debt would temporarily increase above forecast levels while it implemented legal action to recover outstanding amounts from ratepayers.
STRATEGIC PROPERTY - TE TUMU	In 2007 and 2008 Council entered into agreements to purchase a one third share in a property in Papamoa (Te Tumu) for \$5 million. Tauranga City Council purchased the other two thirds share of the property. The seller of the property has an option to purchase the property from the two councils at a fixed price between December 2016 and December 2026. If the option was exercised in 2016, Western Bay of Plenty District Council would receive \$10.4 million for its share in the property. Council's financial forecasts include the assumption that the option would be exercised in 2026, at which time Council would receive \$19.996 million.	Level of uncertainty - low There is a possibility that the purchase option would be exercised earlier than 2026. If the option was exercised between 2016 and the last year of this plan, 2025, then Council's income would be higher than forecast in the year the option was exercised and debt for every subsequent year would be lower.
NEW ZEALAND LOCAL GOVERNMENT FUNDING AGENCY	Council is a shareholder in the Local Government Funding Agency (LGFA). In future, Council expects to fund a portion of its borrowings from the LGFA. As a shareholder, Council has guarantee obligations, but it is difficult to reliably forecast the impact of this shareholding and guarantee in Council's long term plan financial statements.	Level of uncertainty - low Council shareholding is expected to be reflected in an increase in financial assets, dividend receipts and guarantee liability. None of these impacts is considered significant in the context of the consolidated financial statements.
LOCAL GOVERNMENT LEGISLATION	This plan has been prepared on the basis of legislation governing the purpose and structure of local government that was in force as at March 2015. The government has signalled reforms of the Resource Management Act 1999 and continues to implement the Housing Accords and Special Housing Areas Act.	Level of uncertainty - moderate The Resource Management Act reforms are intended to allow for more rapid progression of housing and commercial developments. Council may need to change its planning and processes in response to any legislative changes, however at this stage it is not clear what the reforms will entail. The Housing Accords and Special Housing Areas Act may result in development of some areas earlier than previously planned, which would mean that Council would need to altering the timing of some of the infrastructure activities projects in the structure plans. This is likely to have minimal impact as the structure plans are already reviewed regularly as part of the annual plan process.

KEY ASSUMPTIONS	DESCRIPTION	RISK
DEMOGRAPHIC CHANGE	The Western Bay of Plenty District is growing quickly. In 2013 the District had 43,695 people, and is expected to have over 57,000 residents by 2033. The population is also expected to include a larger proportion of people aged over 65 years. At the moment about 20% of people in the Western Bay District are over 65 years old. By 2033 this is expected to increase to about 33%.	Level of uncertainty - moderate The Long Term Plan has been prepared based on the assumption of a larger and ageing population. In particular, infrastructure planning has taken into account where the additional residents will live, and the need to plan for wider footpaths, changing use of roads, and additional bus shelters. Recreation planning has considered changing leisure preferences. An over or underestimation of the extent and pace of these demographic changes may result in the infrastructure that does not meet the needs of the population. In these situations, planned projects could be delayed or brought forward as updated demographic projections become available.
TRANSPORTATION NETWORK - PERFORMANCE BASED CONTRACT (PBC)	The transportation network is maintained through a nine year performance based roading contract. The contract has joint clients - Western Bay of Plenty District Council and the New Zealand Transportation Agency for State Highways (NZTA). Council is in a collaborative seven year (with the option to extend for another two years) performance based road maintenance contract with the NZ Transportation Agency. This expires in 2023.	Financial risk - moderate Road maintenance and renewal costs could increase significantly. It is very difficult to reliably predict the likely impact due to the end of the contract being so far into the future. However this would be mitigated by reviewing levels of service or decreasing capital expenditure to manage any potential rates increase. Level of service risk - moderate If funding is unavailable to cover the increased costs (either from rates or from NZTA subsidy) levels of service will have to be reduced.
AMALGAMATION	Recent changes to the Local Government Act 2002 have provided an easier process for amalgamations of local authorities. The Auckland Super City is now entrenched, and in late 2014 the Local Government Commission recommended that the Wellington's nine councils be united as one entity. The Bay of Plenty region may be considered for future amalgamation.	Level of uncertainty high This Long Term Plan has been prepared on the assumption that the status quo will remain in place for the next 10 years. If amalgamation did occur within this LTP timeframe, this would significantly impact the activities within the plan, and would require substantial review of all planned actions and projects.
TREATY OF WAITANGI SETTLEMENTS	The settlement of the Treaty of Waitangi (Te Tiriti o Waitangi) claims in the District will continue over the next ten years. This will change the economic landscape, and is likely to offer new opportunities for collaboration and partnership.	Level of uncertainty - moderate Council may need to change the way it manages its assets to provide for greater iwi involvement. For example, in 2013 a joint committee of iwi authorities and councils was set up to co-govern the Kaituna River. This may also impact on how we use natural resources, such as revised limitations on our water take. This will also be a key opportunity, as settlements will provide iwi organisations with the power to invest in economic and social development projects which will ultimately benefit our community as a whole.

KEY ASSUMPTIONS	DESCRIPTION	RISK
CLIMATE CHANGE	The Western Bay of Plenty District is expected to see several impacts of climate change in the coming years. This may include rising sea levels, an increase in the average temperature, changes in the number and intensity of storms and an increase in the frequency of extreme winds.	Level of uncertainty - moderate Climate change may impact on Council levels of service. For example, if the rainfall intensity events increase significantly then a greater percentage of the stormwater infrastructure will be under sized. As a result the levels of service may not be achieved, and the investment in stormwater infrastructure may need to increase. However, the impacts of climate change are expected to be felt over the longer term (50-100 years) and are unlikely to have a substantial impact during this Long Term Plan.
ARRANGEMENTS FOR THE DELIVERY OF COUNCIL SERVICES	Council is legislatively required to periodically review the way it delivers its services. In November 2014 local authorities in and around the Bay of Plenty agreed to take part in a research project that would help them gain a greater understanding of the issues and opportunities related to the form and function of local government in the region. The research would consider alternative ways in which local public services could be delivered, to improve effectiveness and efficiency. Projections in this long term plan assume that current service delivery arrangements will remain in place for the ten years of the plan.	Level of uncertainty - moderate It is possible that changes will be made to service delivery arrangements in the medium term (about 3-4 years). Depending on the scale and type of change, there could be a material effect on patterns of council expenditure and the ways that revenue is collected. It is too early to predict how likely this might be.
DATE OF ASSUMPTIONS	The assumptions underlying this prospective financial information are as at 19 March 2 The financial information contained within this Long Term Plan may not be appropriate incorporated in this prospective information.	2015 but were updated and presented to the Council for adoption on 25 June 2015. for purposes other than those described. Actual results to 30 June 2014 have been

These assumptions and risks are not an exhaustive list of the assumptions and risks faced by Council and should be read in conjunction with the financial and infrastructure strategies in this chapter. These strategies contain risks and assumptions that are more specific in nature.

FINANCIAL STRATEGY

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INTRODUCTION

We need to ensure that we have the capacity and resources to deliver high quality and affordable services to residents and ratepayers. Our financial strategy describes how we plan to finance our activities in a way that is sustainable over the long term.

The strategy is designed to provide an understanding of our current financial situation and how it has arisen. It highlights the financial challenges and issues that we face and how these issues will be addressed. It provides a backdrop against which our expenditure decisions can be assessed.

One of the most important issues addressed is how we intend to fund payments on loans that were drawn down to fund infrastructure to cater for future growth.

At the end of each financial year we will report on our performance against the limits set in the strategy; these results will also be reported in our pre-election report, which will be published in the run-up to the local government elections in 2016.

This financial strategy should be read in conjunction with the infrastructure strategy on page 62

STRATEGIC GOALS

Our overarching financial goal is to achieve Council's aspirations, as identified in this Long Term Plan, in a prudent manner. Specific goals for our financial strategy 2015-25 are:

- Maintain or increase the levels of service that we provide to the community.
- Manage and reduce our debt, including servicing interest payments so our debt does not escalate and, when feasible, repaying the principal of the loans.
- Keep total rates increases to no more than 4 percent in any one year.

ACTIONS TO ACHIEVE OUR GOALS

Over the next ten years we will undertake six core actions and a number of activities to achieve our strategic goals. An overview is provided in the table below. Detailed information on our planned actions and activities is provided in pages 54 - 58.

	STRATEGY	KEY ACTIONS
1.	Maintain the infrastructure assets we have.	 Keep up to date and accurate information on the condition of our assets.
		 Allocate \$88.8 million during 2015-25 to maintain and renew existing assets.
		 Allocate \$39.9 million during 2015-25 for infrastructure development to provide for growth in demand for services.
2.	Maintain the core services we currently provide as efficiently as possible.	 Determine project funding precedence based on criteria which prioritise maintaining existing levels of service.
		 Give lower priority to projects that provide for future growth and to increase levels of service.
3.	Increase income to service growth-related debt.	 Take a contribution of up to \$2.5 million each year from the General and Roading Rates and Uniform General Charge to fund interest on growth-related debt.
4.	Postpone spending on growth-related infrastructure in line with the 'just in time' principle.	 Defer growth-related projects that were planned for areas which are not identified in the Western Bay of Plenty District settlement pattern as likely to experience growth.

ACTIONS TO ACHIEVE OUR GOALS (CONT.)

	STRATEGY	KEY ACTIONS
5. Set prudent limits on rates and rates increases.		 Limit rates increases to 4 percent per annum. This includes an allowance for growth and inflation (consumer price index) each year.
5.	Set prudent limits on rates and rates increases.	 Ensure that rates income is at least 65 percent of total income, with up to 35 percent of our income from other sources.
6.	Set prudent limits on debt	Ensure that net debt (total external debt less cash on hand) in 2016 does not exceed 200% of our total revenue, 190 percent in 2017 and 180 percent from 2018 - 2025. For most of the ten years of this Long Term Plan debt will be substantially below this level.

BACKGROUND AND CONTEXT

When the Western Bay of Plenty District Council was created in 1989 it had few financial reserves or investments and inadequate infrastructure to service its fast-growing communities.

Over the past 25 years more than \$280 million has been invested in infrastructure, including improving the quality of water supplies, establishing wastewater schemes, sealing roads and improving stormwater networks. Debt was used to pay for this infrastructure as a fair way of funding the cost of these facilities, which last 20-50 years.

Our District now has infrastructure that will last well into the future. Our debt is similar to that of other growth councils, but higher compared to councils that have not had high levels of growth. From June 2014 to June 2015 we expect to have reduced our debt by at least \$9 million due to the delay of growth related capital works and tight budgetary control.

Since the global economic downturn began in 2008 our income from development and subdivisions has fallen significantly. This means our debt cannot be paid off as quickly as planned and so interest costs have increased.

Over the next ten years we expect annual growth to remain lower than it was prior to 2008. This means our financial contributions income will be less than was expected when the infrastructure was built. Without the financial contributions income from subdivisions and development that was previously expected we have to fund the interest and loan repayments from elsewhere. Currently there is a shortfall of about \$2.5 million per year.

We have already taken some steps to address this. In 2012 we decided to use the General Rate and the Roading Rate to help fund growth related interest expenditure. Over the last three years \$3.3 million has been used in this way. We also increased the Uniform Annual Charges for Water, Wastewater and Stormwater to directly fund the activities that were most indebted.

Unfortunately these measures were not enough to match the financial contribution shortfall because growth did not recover as quickly as expected and was below forecast for 2013 and 2014. We need to increase the level of funding from other sources to manage our debt and interest costs associated with growth.

WHERE WE WANT TO BE

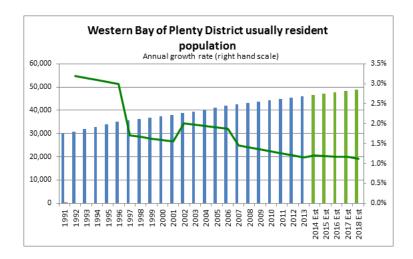
Over the ten years of this strategy we want to keep our debt at manageable levels. This means we must generate enough income from rates, financial contributions and fees to pay at least the interest on our debt each year. We must also ensure that growth-related debt is repaid as growth occurs and that our existing infrastructure is used to its full extent.

We must also properly maintain assets we already have. It is important that we provide good quality infrastructure to attract investment to our District and this means continuing to invest in District infrastructure when it is sensible to do so.

BACKGROUND AND CONTEXT

OUR FINANCIAL HISTORY

The Western Bay of Plenty District Council was created in 1989. In the 25 years since then our population has grown from less than 30,000 people in 1991 to just over 43,500 in 2013.

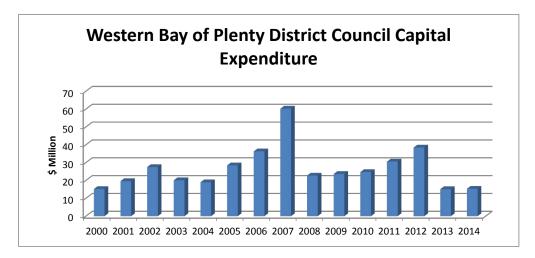


Making sure that this growing population has the services and facilities it needs has been a challenge. At the time Council was created there were few cash reserves or investments and our infrastructure such as roads, sewerage and stormwater systems needed major investment to improve standards and allow for population growth.

Since 1989 we have invested more than \$280 million in infrastructure, including improving the quality of water supplies, establishing wastewater schemes, sealing roads and improving stormwater networks. Some key projects are detailed in the box below.

WHAT WE DID	WHAT IT COST
Refurbished wastewater treatment plants in Te Puke (1999) and Katikati (2000); plus further network extensions in Katikati (2004).	\$6.6 million
New wastewater schemes in Waihi Beach (2001-03), Omokoroa (2005-08) and Maketu (2011-12).	\$62.5 million
Seal extensions and road widening across the District (2003-14).	\$43.1 million
Improving levels of service for stormwater by increasing capacity for new subdivisions and for anticipated future growth (2003-14).	\$24.9 million
Increasing the quality of potable water and reliability of supply, from E grade to at least Bb grade (2003-14).	\$33.6 million

As shown in the graph below, our annual capital expenditure peaked at \$60 million in 2007 after which spending has been between \$20 million and \$40 million per year.

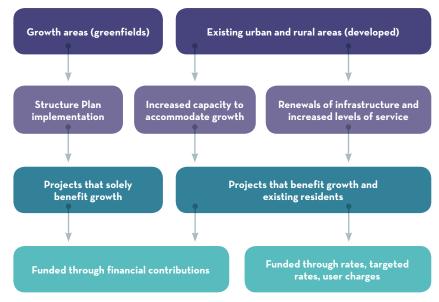


Our District has a large land area and several distinct urban centres. Providing infrastructure is expensive compared to a compact single settlement like a city. We use a number of techniques to make sure our infrastructure spending is efficient use of ratepayers' money. This includes rules in our District Plan that concentrate development in areas where infrastructure already exists or is planned (our growth areas are Katikati, Omokoroa, Te Puke and Waihi Beach). We also use water metering to reduce wastage and postpone the need for capacity increases in both water supply and wastewater networks.

FUNDING THE COST OF GROWTH-RELATED INFRASTRUCTURE

We fund growth-related infrastructure in a number of ways. Developers are charged financial contributions under the Resource Management Act 1991, and we also use rates, targeted rates and user charges. Our sources of income to fund growth-related infrastructure are shown in the following figure.

WESTERN BAY OF PLENTY DISTRICT COUNCIL - SOURCES OF INCOME TO FUND DEVELOPMENT



Use of debt

The roading, sewerage, stormwater and potable water extensions and upgrades that we have invested in have long lives and will continue to be used over the next 20-50 years.

We need to ensure that future ratepayers pay their fair share of the cost of infrastructure developed for their eventual use. By using loans to pay for assets with a long life, we can recover the cost from ratepayers over the life of the asset. In this way the cost is allocated fairly between current and future ratepayers.

As our infrastructure has expanded, our debt levels have increased. Of our net debt (i.e. total external debt less cash on hand) of \$135.0 million at 30 June 2014, just under \$101 million was growth-related (see table overleaf).

Activity	Total Debt September 2014 (\$000)	% Total Debt September 2014
Wastewater	41,888	41%
Stormwater	18,958	19%
Roading	16,195	16%
Water	14,130	14%
Corporate	7,416	7%
Reserves	2,375	2%
Total	100,962	

OPERATING ENVIRONMENT AND FINANCIAL CHALLENGES

COST DRIVERS

There are several major drivers of Council costs, shown in the table below.

ASSET/NETWORK	HAZARD
Increased service demand	 Growth in population, visitor numbers, businesses and properties Changes in land use Extending the areas covered by existing utility networks.
Changes in service levels	 Frequency and reliability of service Higher or lower standards of service - can be in response to community aspirations, legislation or affordability constraints.
New services	 New utilities like wastewater schemes New services - usually in response to community demand New services required by legislation.
Asset management	 Maintaining and renewing assets - is influenced by the type and age of assets Depreciation - this is a way of providing for future replacement of assets Purchase and sale of assets.

ASSET/NETWORK	HAZARD
Debt servicing	 Changes in interest rates New expenditure funded through loans Speed of debt repayment - largely depends on income from financial contributions paid when properties are subdivided.
Price changes	 Local government cost index - this reflects price changes in the goods councils usually purchase Contract price escalations - long term contracts sometimes contain cost escalation clauses Tender prices - this is influenced by availability of materials and skilled labour.
Productivity	 Finding smarter ways of doing things in everyday business Shared service delivery - working with other councils to avoid duplication and provide better services.

Effect of changes in land use on service demand

Demand for network infrastructure services (roads, water supply, wastewater and stormwater) increases where development occurs. Development may be subdivisions for housing, new commercial or industrial areas or intensification of existing development. For the Western Bay of Plenty District growth is mainly driven by housing development.

Within the rural sector land use changes could affect service demand, especially for water supply and roading. For example if an area serviced by the water supply network changed from a dry land crop to a crop requiring irrigation there could be an increase in demand for water. Likewise for roading, if the land use changed from forestry to lifestyle blocks the pattern of road use would change.

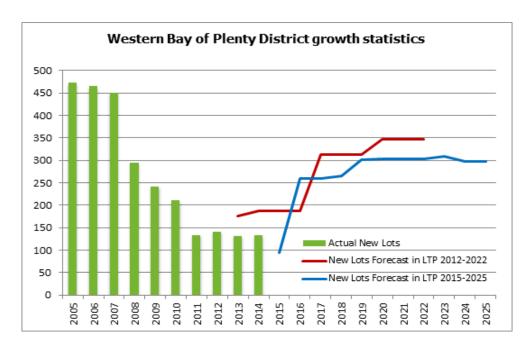
GROWTH PROJECTIONS

We measure growth in terms of the increase in new lots in our District. The rate of subdivision has declined significantly since 2008, mainly as a result of the financial crises that hit the global economy between 2008 and 2011. We expect that the next ten years (2015-2025) will see average growth of 1.35 percent per year. We do not expect that in the foreseeable future growth rates will return to the levels experienced during 2005-2007 of over 2 percent.

Our growth assumptions, which drive the timing of infrastructure development as well as revenue projections, are listed below. Estimates for expected new lots include residential, commercial and industrial and rural lots.

	FORECAST			
Year ended 30 June	New lots	Growth rate	Rateable properties	District population
2016	260	1.27%	20,624	47,772
2017	260	1.26%	20,884	48,326
2018	265	1.27%	21,144	48,865
2019	302	1.43%	21,409	49,506
2020	303	1.42%	21,711	50,132
2021	303	1.39%	22,014	50,758
2022	303	1.38%	22,317	51,384
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2024	297	1.31%	22,929	52,614
2025	297	1.30%	23,226	53,218
2030	290	1.20%	24,693	56,042
2035	243	1.00%	26,011	58,200
2040	174	0.70%	26,977	59,380
2045	97	0.40%	27,535	59,830

Our District's actual growth levels for the past ten years, in new lots per year, is shown below. The graph also compares forecast growth in our 2012-2022 Long Term Plan with the forecast growth in this Plan for 2015-2025

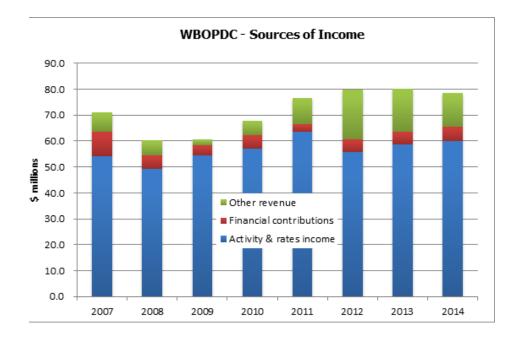


INCOME SHORTFALL TO REPAY GROWTH-RELATED DEBT

When growth forecasts are reduced, planned infrastructure development is usually delayed to match the later date at which growth is expected to occur. This allows us to manage our spending so that the timing of infrastructure projects is matched to income from developers' financial contributions. In some cases, such as park and reserve development, the project can be undertaken in stages, timed to match revenue from growth as it occurs (i.e. the 'just in time' principle).

Difficulties arise with projects like wastewater schemes, which are typically designed for a large capacity so they are financially viable. In such cases it is more difficult to match expenditure to income because it is not practical to construct the project in stages; decisions are based on assumptions of growth for many years ahead. For example, our Omokoroa wastewater scheme was built to cater for an eventual expected population of 12,000 residents. If growth expectations are subsequently reduced we have to find other funding sources to meet the interest and capital repayments on loans raised to pay for the development.

As shown in the following figure, the portion of our income that comes from financial contributions from developers has reduced since 2007.



This is an important issue because, as outlined above, financial contributions are the main source of income to repay growth-related debt. With lower income from financial contributions, debt repayments have slowed. Consequently interest costs are higher than was forecast when the infrastructure was built and the loans were established.

Currently there is a shortfall of approximately \$2.5 million per year (estimated annual average) between interest on growth-related debt and expected financial contributions income. It important that we do not let this accumulate and add to our overall debt. This would be the equivalent of paying our mortgage on a credit card. We need to find ways to fund the shortfall.

We have already taken several steps to address this. Over the past three years we have taken a contribution of \$3.3 million from the General Rate and the Roading Rate to address the expected shortfall.

We also increased the Uniform Annual Charges for Water, Wastewater and Stormwater by 10 percent in 2013 and 8.8 percent in 2014 to directly fund the activities that were most indebted.

However, during 2013 and 2014 growth was lower than forecast leading to lower than expected financial contribution income. This has resulted in the additional rates and charges being insufficient to match the shortfall.

It has now been accepted that we need to increase the level of funding from other sources in order to manage our debt and keep the interest costs under control.

STRATEGIC ACTIONS 2015-25

We have developed a number of actions to ensure that we meet our financial goals and to address the issues and challenges outlined above:

- 1. Maintain the infrastructure assets we have.
- 2. Maintain the core services we currently provide as efficiently as possible.
- 3. Increase income to service growth-related debt.
- 4. Postpone spending on growth-related infrastructure in line with the 'just in time' principle.
- 5. Set prudent limits on rates and rates increases.
- 6. Set prudent limits on debt.

Further details on each of these actions is provided below.

ACTION ONE: MAINTAIN THE INFRASTRUCTURE ASSETS WE CURRENTLY HAVE

It is important that we provide good quality infrastructure to attract investment to our District and this means continuing to invest in the upkeep of our District infrastructure when it is sensible to do so.

Capital expenditure required to maintain existing network infrastructure

Our Asset Management Plans provide information on the condition of assets, expenditure that is expected to be required to maintain and renew the assets and the cost of developing additional capacity to cater for increased demand.

Shown below in the left column are the costs of capital expenditure on network infrastructure as identified in Asset Management Plans. The right column shows amount of capital expenditure allocated in this LTP.

The difference in the roading figures is due to savings achieved through changes in the way we contract our roading maintenance. The difference in stormwater is due to the allocation of additional funding to undertake stormwater works in Waihi Beach (see our stormwater strategy, Chapter Three, page 253).

Network infrastructure groups	Capital identified in Asset Management Plans to maintain levels of service 2015 - 2025	Asset Renewal capital planned in LTP 2015 - 2025
Roading	\$58.4m	\$44.9 m
Stormwater	\$0.6m	\$16.0m
Water supply	\$18.4m	\$17.7m
Wastewater	\$9.7m	\$10.3m
Total	\$87.1m	\$88.8m

Capital and operating costs of providing for future growth

Our Asset Management Plans also provide details of the infrastructure development that will be required to provide for growth in demand for services.

Network infrastructure groups	Capital identified to provide for growth
Roading	\$23.3m
Stormwater	\$6.6m
Water supply	\$5.1m
Wastewater	\$4.9m
Total	\$39.9m

More information on our approach to maintaining the assets we currently have is provided in our infrastructure strategy on page <u>63 to 86.</u>

ACTION TWO: MAINTAIN THE CORE SERVICES WE CURRENTLY PROVIDE AS EFFICIENTLY AS POSSIBLE

Our core role is to maintain and develop high quality, reliable services such as roads, water supply, stormwater and wastewater services, reserves, recreation and community facilities. It is important that our ratepayers can be confident that essential services can be delivered now and in the future.

In setting funding priorities in this Plan we ranked projects according to several criteria:

- Is the expenditure essential to deliver existing levels of service?
- Would postponing or cancelling the project result in a risk of service interruption or infrastructure failure?
- What would the likely impact be of not doing the project on our District's social, economic, environmental and cultural well-being?

Our highest priority is to maintain existing levels of service; projects to provide for future growth and to increase levels of service can then be considered.

For more information on our approach to maintaining our core services, see the infrastructure strategy on pages <u>63 to 86</u>.

ACTION THREE: INCREASE INCOME TO SERVICE GROWTH-RELATED DEBT

Over the ten years of this Plan we aim to keep our debt at manageable levels. This means we must generate enough income from rates, financial contributions and fees to pay at least the interest on our debt each year, and if possible reduce the principal. We must also ensure that growth-related debt is repaid as growth occurs and that our existing infrastructure is used to its full extent.

For the 2015-25 period we need to raise an average of \$2.5 million in additional annual income to cover the shortfall in financial contributions income that would have funded interest on growth-related debt.

While we accept that the principle that 'growth should pay for growth' is a good one, it is not achievable in the current economic climate.

For the short term, until the rate of growth recovers, we will need to fund the financial contributions shortfall from other sources. Once growth rates increase, the financial contributions income is expected to meet the annual interest and repayment costs.

We believe funding the shortfall in financial contributions income is in the community's interest because the alternatives are either:

- Allowing the interest to compound, which would not be prudent as it would increase our debt levels,
- Charging higher financial contributions, which could discourage growth to the extent that less income is received. For residents it would mean that house prices would be higher and less affordable.

Potential sources of additional income

We considered several potential sources of income to help service growth-related debt, including increasing District Rates, levying a Uniform Annual Charge (a flat rate that all rateable properties pay which is not affected by property values), increasing utilities service charges for water supply, wastewater and stormwater or selling assets.

We've decided not to go ahead with further increases to the utility service charges as they have already been increased by 38 percent since 2012 specifically to fund growth related interest costs. We have also decided not to aggressively pursue asset sales as favourable sale prices cannot be guaranteed, and we do not want to risk selling assets that are needed in the future.

That leaves increasing District rates or levying a Uniform Annual Charge (UGC). We considered several options:

OPTION	DISCUSSION
Option 1 - Fund the shortfall using District Rates based on the property valuation.	This option would enable us to achieve the funding target of \$2.5 million. However, using a District rating approach would place an inequitable burden on ratepayers with properties with high capital values.
Option 2 - Fund the shortfall using a combination of the Uniform Annual General Charge, the General Rate and the Roading Rate.	• • • • • • • • • • • • • • • • • • •
Option 3 - Continue with our current approach of taking a contribution of \$1m per annum from the General Rate and the Roading Rate.	i contraction of the contraction

We decided to go with Option 2 (funding the shortfall using the Uniform Annual General Charge, the General Rate and the Roading Rate). Specifically, the shortfall will be funded by:

- Increasing the Uniform Annual General Charge to raise an additional \$1.5m per annum
- Increasing the General Rate on capital value to raise \$100,000 per annum. This would cost on average an additional \$5 per property
- Increasing Roading Rates by \$600,000 on land value to raise \$900,000 per annum. This would cost on average an additional \$29 per property.

The effect of these measures will be to reduce the gap between financial contributions income and interest on growth-related debt and prevent the risk of further rates increases in the future even if growth did not reach the forecast levels.

The Uniform Annual General Charge and General Rate contribution will be put towards the Waihi Beach and Omokoroa wastewater schemes as well as stormwater. The Roading Rate contribution will be put towards the roading debt.

In addition, we will investigate selling Council-owned land that is surplus to requirements. We estimate that this could raise between \$1 million and \$2 million, which could be used to further reduce debt or offset rate increases in the future.

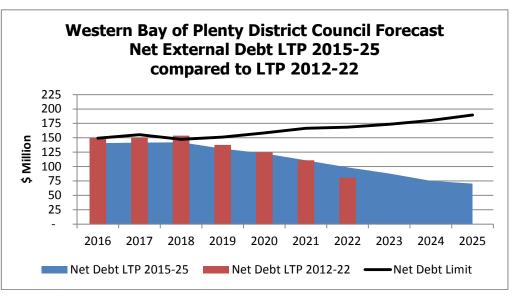
We have not included this in our financial estimates because it is not a guaranteed source of income.

Effect on total debt

The effect of these measures will be to reduce total debt over the ten years of this Plan. This can be compared to a household paying a small additional sum on the mortgage. While the amount may appear small compared to the total debt, it has a compounding effect which saves substantial amounts of interest allowing the debt to be paid off sooner.

We expect that peak debt has now been reached and the proposed measures will see debt reduce over the period of this Long Term Plan. The expected decrease in debt is shown in the following graph.

Looking beyond 2025 it is expected that we will continue to have infrastructure-related debt, as we will need to keep investing in roading, sewerage, potable water and stormwater to cater for population growth. However we do not expect to see the high levels of debt experienced in the years prior to 2025.



WITH THE 'JUST IN TIME' PRINCIPLE

In 2012 we made a decision move away from making decisions about our spending based on the idea that 'growth funds growth'. We now take a more conservative approach to our growth-related infrastructure spending, and have changed to a 'just in time' policy. This means that we only install infrastructure when there is definite development occurring.

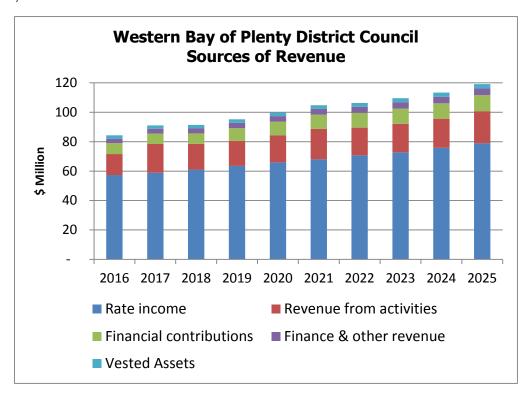
In line with this principle, we have deferred a number of projects. These have been identified for deferral based on analysis of planned projects against the expected settlement pattern for the Western Bay of Plenty District (i.e. where people are expected to live and therefore where residential and commercial development will occur). Any growth-related projects that were planned for areas in which development is not likely to occur have been deferred.

ACTION FIVE: SET PRUDENT LIMITS ON RATES AND RATES INCREASES

The limits on rates share of total revenue and rates increases are shown below. These limits will be reviewed at least every three years.

	Limit
Rates	Total rates share of total revenue is 65 percent or more.
Rates increases	Total increases in rates income will not exceed 4 percent in any year, this includes growth and inflation.

Forecasts of our sources of revenue, including the rates share of total revenue, for each of the ten years of this Plan are shown below.



How these limits were set

In setting the limits on rates we have tried to strike a balance between affordability of rates, careful financial management, providing quality essential services over the long term and providing for unforeseen events.

The components of the rates increase limit recognise that the major cost drivers are population growth and increases in the number of properties in our District, price increases, interest costs and higher levels of service.

In applying these limits, growth will be measured by the increase in rateable properties in the year prior to the rates strike, for example the actual growth in 2015/16 would be used to set the rates for 2017/18.

Forecast rates increases

We've changed the way we set this limit since our last LTP. The 2012-22 LTP set rates increase limits based on growth, inflation (local government cost index) plus 4.6 percent. We've now moved to a model under which rates increases are limited to no more than 4 percent in any year. This provides greater certainty to the community and is more easily understood by the public.

The rate increase limit is a maximum not a target. In each year of this Plan, planned rates increases are below the limit set and in some years the increase is well below the limit.

We set the limit above the planned rates increases because we want to ensure that rates are affordable, but also want to have some leeway to respond to unexpected events if necessary.

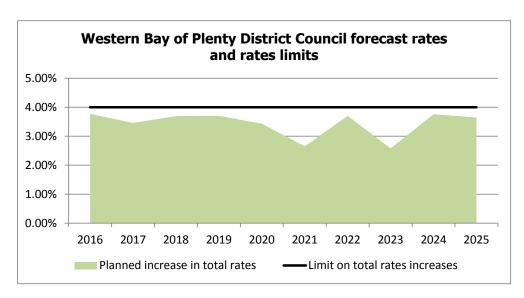
Planned total increases in total rates income for each year of this Plan are shown in the following table. The planned increases for 2016 to 2018 are similar to those that were forecast in the 2012 Long Term Plan. Increases from 2019 onwards are lower than was signaled in the previous LTP. For example, the previous LTP stated a planned 2020 increase of 7.5%; this LTP has revised the planned increase to 3.4%.

We have achieved this reduction through a rigorous review of all project costs and timing to ensure that we keep rates increases to a minimum.

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Planned increase in total rates	3.8%	3.5%	3.7%	3.7%	3.4%	2.7\$	3.7%	2.6%	3.8%	3.7%

In <u>Chapter Four</u> from pages 366 - 370 there are graphs showing the 2015/16 rates for typical property types in our District, for example large pastoral farms, urban residential, rural lifestyle, commercial and industrial. The rates increases depend both on the value of the property and whether the property receives water, wastewater or stormwater charges.

The graph overleaf shows how our forecast increases in total rates compared to the rates limit. For several years expected rates increases are substantially lower than the limit.

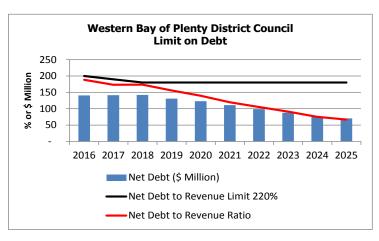


ACTION SIX: SET PRUDENT LIMITS ON DEBT

We control our debt levels by setting prudential debt limits. The limit for 2015-25 is as follows. This limit is intended to guide short and long term decision making over the next three years.

	Limit	
Debt	Net debt will not exceed 200 percent of total revenue in 2016, 190 percent in 2017 and 180 percent from 2018 - 2025.	

The ratio of our net debt to our total revenue is expected to be close to the limit in the first year of this Plan but it is then forecast to fall well below the adopted limit. This is shown below.



STRATEGIES FOR COPING WITH UNEXPECTED EVENTS

In developing this strategy we considered how we would respond if faced with some unexpected situations that could affect our financial situation.

Lower than expected growth assumptions

Our strategy for funding the shortfall in financial contributions income was based on the assumptions for growth detailed on page 53. Growth forecasts are volatile and can be affected by external factors outside of our control (such as what is happening in overseas financial markets).

We have been conservative in our approach, to ensure that should growth not meet expectations we will still be in a good position to cover the interest costs on our debt (although we may not be able to make repayments on the principal).

If growth is substantially less than forecast, the shortfall can still be managed. Our general approach would be to:

- · Avoid adding to our debt until levels of growth improve. This means postponing the start of projects (particularly those driven by expected growth); delaying or cancelling planned projects that are funded by loans, for example library expansion; delay infrastructure upgrades
- Consider reductions in levels of service
- · Sell assets that are not essential to operations and are easiest to sell, for example Capamagian Farm, Waihi Beach
- · Sell and lease back operational land, for example our head office site at Barkes Corner, Tauranga
- · Seek central government assistance where practical
- Promote development in areas where there is capacity in the infrastructure.

We would be very reluctant to defer maintenance of assets or reduce maintenance standards as this may end up being more costly in the long run.

Borrowing to cover an income shortfall would be our last resort because this would make the problem worse in later years.

On the other hand, if financial contributions income is higher than our forecasts there may be an opportunity to use the additional rates to increase the services we provide, or to reduce the need for further rates increases.

Our strategy to use the Uniform Annual General Charge, the General Rate and the Roading Rate to service our debt will be reviewed each year to determine if it still required.

Any changes would be publicly consulted through the Annual Plan process for that year.

Cost of debt and access to refinancing

Over the next few years there is a risk that access to borrowing may become more difficult; when our existing debt matures re-financing may be harder to obtain, particularly if financial markets deteriorate as a result of the ongoing financial problems in European countries and the United States.

We considered what might happen if these financial markets deteriorated to such an extent that borrowing became difficult in New Zealand. While we believe this is unlikely we have considered how we would respond. The situation would arise without notice and the severity of the immediate situation would depend on the maturity profile of our debt at that time.

Our response would be:

- Seek central government assistance to meet immediate commitments
- · Seek Bay of Plenty Regional Council assistance (where practical)
- · Raise income through an emergency rates increase
- · Aggressively sell land and other liquid assets
- · Postpone the start of all projects not already committed.

Contingency and disaster management

The Canterbury earthquakes of 2010 and 2011 raised public awareness of communities' vulnerability to unexpected events and the potential for the sudden destruction of infrastructure, such as water networks, roading and buildings that are the foundations of economies and society.

In putting together this financial strategy we considered how we would respond if there were a failure in major infrastructure that demanded significant unplanned expenditure. This might occur as a result of a natural disaster, accident or other event.

We are part of the Bay of Plenty Lifelines Group which contributes to joint initiatives to reduce the vulnerability of utilities to hazards. The group undertakes an annual assessment of the vulnerability of various types of infrastructure to hazards including floods, earthquake, volcanic eruption, tsunami, storm surge, fire, wind and landslide.

The table below identifies the most vulnerable parts of our infrastructure to various hazards.

Council owned infrastructure 'almost certain' or 'likely' to be vulnerable to hazard

Asset/network	Hazard	Degree of impact
Western Water Supply	Earthquake	Major/catastrophic
Central Water Supply	Earthquake, storm surge, flooding	Moderate/major
Welcome Bay Road	Flooding	Major
Maketu Road, Pukehina Beach Road, Pukehina Road	Flooding, storm surge	Major
Crawford Road, Whakamarama Road, Poripori Road	Landslide	Moderate

We have built up a Disaster Contingency Fund which currently sits at \$6.9 million. However, in the event of major infrastructure failure this amount would not cover the total cost of replacement or repair. Our initial approach would be:

- Utilise the \$6.9 million self-funding disaster contingency fund
- · Seek central government assistance
- Sell assets not essential to operations that are easiest to sell.

In the longer term, our recovery strategy would be to increase rates to top-up reserves or to provide increased insurance cover on underground assets.

NOTES ON FINANCIAL POLICIES AND INVESTMENT HOLDINGS

NOTES ON INVESTMENT HOLDINGS

We are required to include in our financial strategy information on our objectives for holding financial investments and equity securities and to provide quantified targets for returns on those investments.

We must also include our policy on giving of securities for our borrowing.

Financial instruments

We hold financial investments, such as term deposits, as part of managing our cash flow to finance expenditure on operations, for example to:

- Provide ready cash in the event of a natural disaster. This cash is intended to bridge the gap between the disaster and the reinstatement of normal income streams and assets
- Invest amounts allocated to accumulated surplus, Council-created and restricted reserves, sinking funds and general reserves
- Invest funds allocated for approved future expenditure, to implement strategic initiatives or to support inter-generational allocations
- · Invest proceeds from the sale of assets
- · Invest surplus cash and working capital funds.

Our primary objective when investing is the protection of our investment so only creditworthy counterparties are acceptable.

We also seek to:

- · Maximise return on our investment
- · Ensure investments are liquid
- Manage potential capital losses due to interest rate movements if investments need to be liquidated before maturity.

We also invest in interest rate swaps and forward foreign exchange contracts for the purpose of managing the risks of movements in exchange rates and interest rates. These financial instruments are used as hedging tools rather than to earn a return on the investment.

Te Tumu investment

In 2007 Tauranga City Council and Western Bay of Plenty District Council jointly acquired a block of land in Papamoa, referred to as Te Tumu. This land was purchased with the condition of providing the vendor the option to acquire it sometime between December 2016 and December 2026 by repaying the loan and interest to Tauranga City Council and Western Bay.

Our objective in purchasing the land was to ensure development of the land was consistent with SmartGrowth initiatives. Neither council intends to be the developer of this land or retain ownership in the long-term.

Equity securities

We do not currently hold equity securities (shares) for the primary purpose of earning a return on our investment. There are no plans to invest in equity securities during the term of this plan.

Below is a list of the companies in which we currently hold shares, and details of the objective for holding the equity securities and a target rate of return.

Company	Objective of holding equity	Target rate of return
New Zealand Local Government Funding Authority (NZLGFA) - 8% shareholding	 To obtain a return on investment, and To ensure that the LGFA has sufficient capital to become and remain viable so that it continues as a source of debt funding for us. 	≥0%
Bay of Plenty Local Authority Shared Services – 1/9th holding	 To provide the Bay of Plenty region councils with an umbrella vehicle to investigate, procure, develop and deliver shared services. 	≥0%
Western Bay of Plenty Tourism and Visitors' Trust – 50% holding	• To facilitate the establishment and governance of a regional tourism organisation, Tourism Bay of Plenty, which is a not-for-profit entity established to promote the economic welfare and development of the western Bay of Plenty region and its citizens through marketing, management and other activities that impact the region as a visitor and tourism destination.	≥0%
NZ Local Government Insurance Company Limited (Civic Assurance) - 16,142 shares or 0.3% holding	 Civic Assurance is a mutual fund so a prescribed number of shares is held proportionate to our interest in the fund. 	≥0%
Zespri Group Limited - 17,660 shares	 Shares were acquired as a result of purchasing of land under kiwifruit orchards. They are incidental to the main reason for buying the land, which is for future infrastructure development. 	≥0%

Security for Council borrowing

Our Treasury Policy (published in full, Chapter Five on page 485) includes the following statement regarding offering security for Council borrowing:

4.9 Security

Generally, Council does not offer assets or deemed rates as security for general borrowing programmes.

In some circumstances, with prior Council approval, security may be offered:

- On borrowings by granting a rates charge under the Council's Debenture Trust Deed.
- By providing a charge over one or more of the Council's assets.

Funding renewals and replacement of asset

Prudent financial management requires organisations to plan for the replacement or renewal of their assets when they reach the end of their useful lives in order to maintain the service they provide. The inter-generational equity principle suggests that, ideally, today's ratepayers should pay for the `assetlife' they are consuming and likewise future generations should pay for their share of the asset's life. There are three principal ways this can be achieved:

Approach	Details
1. Pay as you go	Capital funded annually by rating existing ratepayers to cover the expenses incurred in that year.
	Suitable when capital expenditure is evenly spread over the years, so there is less risk that today's ratepayers are not paying their fair share when compared to future ratepayers.
Saving for asset replacement (charge rates over the life of the asset – spend later)	Ratepayers are rated annually to fund depreciation, which builds up in a reserve account to fund future replacements of assets
	Unsuitable if ratepayers are already servicing debt incurred to acquire the existing asset. If debt were incurred, today's ratepayers would be paying twice for the asset, once through debt repayments and interest, and again through financing the depreciation.
3. Borrowing to fund asset replacement (spend now - charge rates over the life of the asset)	Ratepayers are rated annually to fund interest and capital repayments on loans matched to the life of the asset. In the future replacement of the asset would be financed in the same way.
	Suitable if our overall level of debt can accommodate the required borrowing.

We use a mix of these approaches to fund the replacement and renewal of our assets, choosing an approach that best suits each type of asset. We do not keep individual reserves to repay loans. We either fund loan repayments from rates, financial contributions and other income in the year repayments are due, or we refinance the loan.

Shown below is the approach we usually take for different asset types.

Type of asset	Objective of holding equity
Water, wastewater and stormwater reticulation, treatment plants and buildings	Borrowing to fund asset replacement Pay as you go
Computer systems, office furniture and equipment, motor vehicles	Saving for asset replacement
Roads and bridges	• Pay as you go
Other buildings	Saving for asset replacement

INFRASTRUCTURE STRATEGY

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INFRASTRUCTURE STRATEGY

OVERVIEW

Supplying clean water, treating domestic sewage and trade waste, and minimising flooding as well as the provision of roads and footpaths accounts for 61% of the Council's operating expenditure and 78% of Council's capital expenditure for the period of 2015-2025. These services provide the foundations upon which the Western Bay of Plenty District communities are built – it is essential for health, safety, the economy and has a significant impact on the natural and built environment. Getting infrastructure spending right is critical given the significant costs associated with providing these services and their contribution to enhancing the quality of life of residents.

The purpose of this strategy is to identify the significant infrastructure (i.e. storm water, wastewater, water supply, roading and footpaths) issues for the District over the next thirty years, the principal options for managing the issues including the cost and service delivery implications of those options. There is a strong link between the Financial Strategy and the Infrastructure Strategy. The Financial Strategy outlines our approach to financing our activities, including infrastructure, which provides important contextual information to this Strategy, thus it is recommended that the Financial Strategy should be read in conjunction with the Infrastructure Strategy.

The first section of the Infrastructure Strategy outlines our approach to the provision of infrastructure which offers the historical context to decisions and informs our current and future approaches to the provision of infrastructure.

The next section outlines the Districts geographic, demographic and economic context which provides the framework for the provision of infrastructure.

The key drivers of spending on infrastructure are then outlined in some detail, including:

- · Our infrastructure renewal programme
- Implications of population growth and changes in the demography of the population
- The impact of climate change, natural hazards, public health and environmental outcomes on the levels of service.

A range of generic and specific assumptions for each infrastructure type are outlined (e.g. growth, inflation, life cycle of assets) as well as identifying the risk and potential impact if the assumption proves to be incorrect.

The most likely scenario for the coming thirty years is then presented, including anticipated capital and operational expenditure and the major projects that are planned.

Lastly, the key issues, most likely scenario, principal alternatives and a breakdown of the capital expenditure for each of the infrastructure types is outlined for the coming thirty years.

PURPOSE

The purpose of this Strategy is to:

- Identify the significant infrastructure issues for the Western Bay of Plenty District Council over the next thirty years
- · Identify the principal options for managing those issues,

• Outline the cost and service delivery implications of those options for residents and businesses.

WHAT TYPES OF INFRASTRUCTURE DOES THIS STRATEGY COVER?

This strategy covers the main infrastructural activities undertaken by Council and are legislatively required to be included in the Strategy (Section 101B 6):

- Water supply
- · Wastewater (sewage treatment and disposal)
- · Stormwater including flood prevention and control works
- · Roads and footpaths.

Council also provides other types infrastructure, for example, recreation and leisure facilities and coastal structures. Although the Council has chosen to limit this Strategy to network infrastructure it may include other types of infrastructure in the subsequent strategies.

COUNCIL'S APPROACH TO PROVIDING INFRASTRUCTURE

In the past council provided infrastructure to meet the needs of a growing community and to improve the quality of life and the quality of the environment. This was achieved through the implementation of water supply schemes to all the urban areas and to the majority of the rural area of the district. Waste water schemes were constructed for the urban areas. During this period there were substantial government subsidies for water and waste water schemes and council took advantage of these at the time of construction. The last two schemes constructed with subsidy were the Omokoroa and Maketu waste water schemes. The balance of the costs were debt funded and repaid through rates for the service connections. In the previous century subsidy existed for roading improvements and council used this to improve the road network and to undertake seal extensions. Once infrastructure was installed it was operated in accordance with good asset management principles, replacing and upgrading assets when they were worn out, maintaining them in good condition in order to provide the agreed levels of service.

Prior to the 2007 global financial crisis (GFC) council had a policy of "growth pays for growth" and charged financial contributions on new subdivision to pay for capacity improvements to the infrastructure. The new infrastructure was installed ahead (sometimes well ahead) of demand and loan funded to be repaid by future subdivision. The GFC significantly slowed the rate of subdivision and Council responded by changing its policy on growth related infrastructure to one of "just in time provision". This approach only commits capital expenditure when there are definite subdivisions occurring and allows the work programme to be adjusted on an annual basis, thereby reducing the amount borrowed, reducing future interest payments and reducing financial contributions for developers.

In the future Council expects to continue with the just in time approach to provision of growth related infrastructure with the ability to alter the work programme to match demand. New non-growth related schemes e.g. Ongare Point and Te Puna West Waste water schemes are unlikely to receive government subsidy and will need to be funded by the ratepayers. Council will continue to operate best practice asset management to maintain its infrastructure and where practicable extend the life of the asset to its optimal time for replacement. Increased levels of services e.g. seal extension will be funded by rates on a pay as we go basis.

ABOUT THE WESTERN BAY OF PLENTY DISTRICT

GEOGRAPHIC CONTEXT

The Western Bay of Plenty District (Mai i ngā Kuri a Whārei ki Ōtamarākau), stretching from Waihi Beach to Otamarakau, is a growth area with a population of over 46,000 people.

The District covers 212,000 hectares of coastal, rural and urban areas consisting of three wards -Katikati-Waihi Beach Ward which includes Matakana Island. Kaimai Ward and Maketu-Te Puke Ward.

The land of the Western Bay of Plenty faces north-east to the sea and the District is serviced by the urban centres of Waihi Beach, Katikati, Omokoroa, Te Puna, Te Puke and Maketu,

Rural settlements to the east are Paengaroa, Pongakawa and Pukehina and small but growing coastal settlements in the north are Kauri Point, Tanners Point, Ongare, Tuapiro and Athenree.

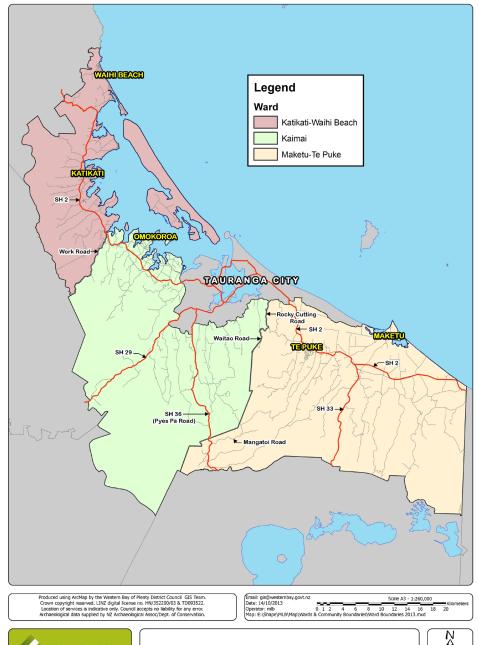
To the west are the rugged bush-covered Kaimai Ranges from which many streams flow to the coastal lowlands and into the estuaries and mudflats of the Tauranga Harbour. State highways provide the backbone of a "fishbone" pattern of local roads which form the transportation network but also carry most of the services infrastructure.

The Kaituna River drains the lakes of Rotorua and Rotoiti into the Maketu Estuary and out to sea, while smaller streams drain the eastern District into the Waihi Estuary.

Matakana Island forms a natural barrier between Tauranga Harbour and the Pacific Ocean.

The spread of settlements across the District including at the end of peninsulas makes the delivery of infrastructure more expensive compared to areas whose population is concentrated in one area. The topography and soil types can also increase infrastructure costs, particularly for roading.

The coastal nature of the District also makes it vulnerable to rising sea water levels and flooding in low lying areas.





WARD BOUNDARIES



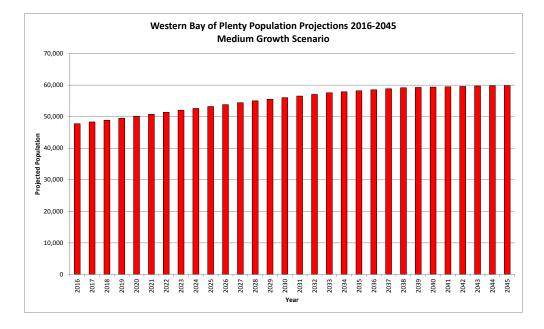
DEMOGRAPHIC CONTEXT

Population

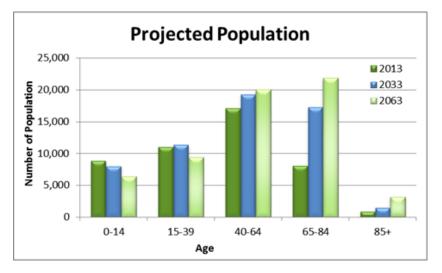
Between 1998 and 2008, the Western Bay of Plenty District grew quickly, with the population growing by 20% over that period and subdivision activity from 2003 to 2008 adding 2,342 new properties to the district's rating base. With the onset of the global financial crisis however, subdivision growth slowed and over the five years to June 2014, only 717 properties were created.

The 30-year projection of population growth for the District (SmartGrowth National Institute of Demographic and Economic Analysis (NIDEA) Projections 2014) shows a growth of around 1.3%/annum for the first 10 – 15 years, with growth slowing to just 0.15%/annum for the last 5 years.

Figure 2: Western Bay of Plenty District NIDEA Population Projections 2015 - 2045



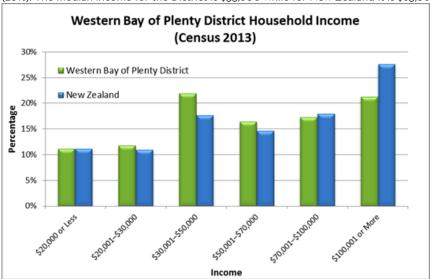
The NIDEA projections indicate there will be a significant change in the population age profile over the next 50 years as follows:



The proportion of the population that exceeds 65 years of age will increase (from 20% to 41% over the coming 50 years), while the age group of 15 – 39 year olds, the younger workforce, will actually decrease in number over that period.

Household Income

The most common household income bracket for Western Bay of Plenty District is \$30,001-\$50,000 (22%) a year, compared to New Zealand where the most common income bracket is \$100,001 or more (28%). The median income for the District is \$55,600 while for New Zealand it is \$63,800.



The relatively lower household income may reflect the higher population of residents aged of 65 in the District compared to the national average as well as regional centres not attracting as many highly paid positions as Auckland and Wellington. The importance of rates affordability becomes even more critical for this District.

ECONOMIC CONTEXT

Land use

The Urban Growth Areas (UGA) for the District are Waihi Beach, Katikati, Omokoroa and Te Puke. The UGA's are zoned as residential and commercial/ industrial. In Katikati and Omokoroa there is vacant industrial/ commercial land available for future use. Rangiuru Business Park is zoned as industrial but does not fall within the UGA's. There is still a lot of infrastructural work to take place before the Business Park can be developed to its full capacity.

District economy

Infrastructure, particularly water supply, is vital in supporting the key horticultural and agricultural industries in the District. The following table provides a breakdown of the total Western Bay of Plenty Gross Domestic Product for 2012

Sectors (2012)	GDP (2012\$m)	%
Primary	417	35.4%
Manufacturing	257	21.8%
Construction	52	4.4%
Wholesale and Districtuion	124	10.5%
Retail Trade and Services	82	7.0%
Business Services	143	12.2%
Arts and Recreational Services	7	0.6%
Social Services	96	8.1%
Sub-total (excluding O.O.D)	1,178	100.0%
Owner-Occupied Dwellings (O.O.D)	282	
Total	1,460	-I D-t-1 0010

^{*}Imputed value, included in Total GDPP only Source: BERL Regional Database, 2012

WHAT DRIVES SPENDING ON INFRASTRUCTURE

The key decisions Council has to make are about how much they spend on infrastructure assets.

These investment decisions are driven by the following considerations:

- Replacement and maintenance of existing infrastructure to meet levels of service
- Any need to change the existing service e.g. to respond to natural hazards and climate change or in response to the need to improve public health or environmental outcomes

- · Any additional infrastructure required for a growing community
- · Other drivers such as changes to where people live.

REPLACEMENT OF ASSETS

Council has a renewal and upgrade programme to replace assets before they fail or do not have enough capacity for their uses. Council also receives new assets from developers, which are checked for compliance before they become a Council asset.

The expected useful asset lives of Council assets are set out in detail in the asset management plans available on the website (internet link).

Water Supply

Council's water supply networks service the following water supply zones:

Western Supply Zone (WSZ): Waihi Beach, Athenree, Te Kauri/Tanners Point, Ongare Point,

Aongatete and Katikati areas.

Central Supply Zone (CSZ): Te Puna, Minden, Pahoia and Omokoroa areas.

Eastern Supply Zone (ESZ): Te Puke urban and surrounding rural areas and areas east of Te

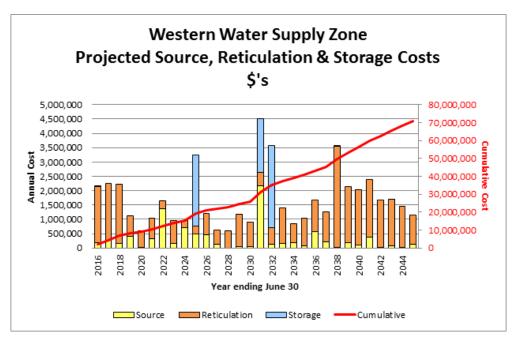
Puke including the Bush, Paengaroa, Maketu, Pukehina and

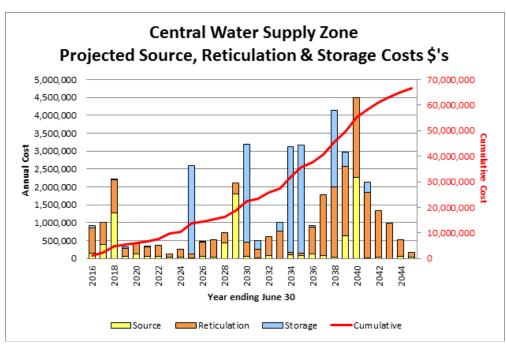
Pongakawa.

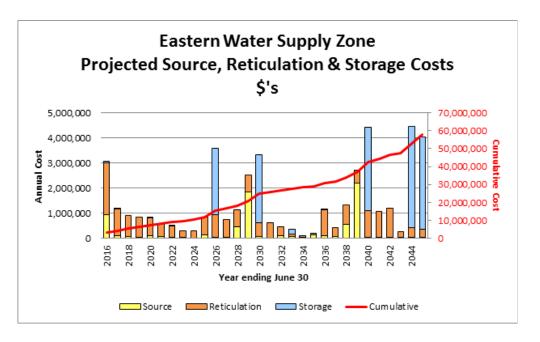
The following outlines the asset life of the major water supply assets:

Bores 50 Years
Reservoirs 80 Years
Water Treatment Plants 50 Years
Trunk Mains 60 Years
Pump Stations 15 Years

Significant asset renewals are required during the next 30 years as existing assets approach the end of their design lives. These include some of the reservoirs and trunk mains particularly in the Western and Eastern Supply zones.







Reticulation renewals costs have been prioritised throughout the District based on current information of performance and capacity. Initiatives to improve asset information, optimise existing capacities and decrease water demand, which the introduction of water metering will contribute to, are key to deferring capital expenditure whilst delivering levels of service to our customers.

Wastewater

Council wastewater assets are still relatively new, with the renewal of the wastewater piped network not expected to begin until 2045 with the exception of the Katikati ocean outfall which is expected to reach the end of its life in 2037. The next 30 years will focus on monitoring the assets to ensure they are performing and to allow better asset management decisions (i.e renewing/upgrading the right asset at the right time).

The following outlines the asset life of the major waste water assets:

Gravity Mains 80 Years Pump and Mechanical 15 Years Manhole 60 Years Electrical Equipment 10 Years **Building and Structures** 50 Years

Pump Station Renewals

The expected 30 year renewal funding requirements for the wastewater pump station in each area is presented in the table below:

	2016-2025	2025-2035	2035-2045
Waihi Beach	\$1,415,424	\$3,666,091	\$3,969,906
Katikati	\$1,027,117	\$3,199,014	\$1,921,240
Omokoroa	\$1,425,994	\$1,364,312	\$2,774,357
Te Puke	\$762,395	\$937,788	\$1,247,661
Maketu	-	\$4,447,923	\$6,081,921
Total	\$4,630,930	\$13,615,129	\$15,995,085

 $\ensuremath{\mathsf{A}}$ significant factor contributing to the increase in costs from 2025 is the requirement to renew the grinder pumps at each house in Maketu every ten years.

Reticulation and Treatment Renewals

The expected 30-year renewals for Waihi Beach, Te Puke and Katikati are presented below.

	2016-2025	2025-2035	2035-2045
Waihi Beach	\$1,726,983	\$2,439,627	\$1,868,058
Katikati	\$1,315,151	\$1,371,587	\$22,140,996
Omokoroa	\$684,650	\$245,984	-
Te Puke	\$1,396,940	\$3,934,367	\$981,344
Maketu	-	\$1,489,918	\$2,463,384
Total	\$5,123,724	\$9,481,393	\$27,453,782

A significant renewal expected in the next 30 years is the renewal of the Katikati ocean outfall. This is currently expected to be needed in 2037 at a cost of \$19m.

Storm water

Stormwater systems often require replacement before the end of the asset life because rainfall intensities have increased demanding greater capacity within the stormwater network. The work generally requires replacing existing pipes with larger diameters and often requires the replacement of other associated assets i.e. headwalls, manholes and catch pits.

The stormwater pipe renewals program has been reviewed based on asset age, condition and the history of incidents relating to the asset. All significant stormwater pipe renewals currently sit outside Councils 30 year plan.

The following outlines the asset life of the main storm water assets:

Gravity Pipes 100 Years

Open Drains 80 Years

Manholes 80 Years

Catchpits 60 Years

Pump 15 Years

Council's expected capital expenditure for the Stormwater infrastructure, over the next 30 years, as included in the Asset Management Plan is outlined in the graph on page 77. During the next two or three Long Term Plan reviews further investigations to identify at risk assets or capital requirements to continue to meet Levels of Service will be undertaken which will allow Council to better understand expected expenditure over the next 30 years.

Roads and footpaths

The biggest expenditure in roading asset renewals is in pavements and surfacing's. The asset modelling shows asset renewals at the current levels are expected to maintain the network in its 'fit for purpose' state.

The following outlines the asset life design assumptions, recognising that actual lives can vary significantly:

Surfacing's 2 - 14 years

Pavements 10 - 25 years

Structures 70 - 100 years

Traffic services assets 5 - 10 years

Roading assets Optimised Replacement Cost \$658.2M

Annual depreciation \$7.33M pa

The renewal of ageing bridges and their timing has been identified as an asset management plan improvement action which is currently under development. There are no current concerns due to the relatively young age of the bridges and their construction materials (reinforced concrete).

Waitangi Kaituna River Bridge in 25 to 30 year @ \$3.5M

RESPONDING TO GROWTH AND CHANGES IN DEMAND

Council's infrastructure is analysed and modelled to determine when and how additional capacity should be implemented to cater for forecasted population growth. If growth does not occur as anticipated the investment programme can be adjusted.

Population Growth

Population growth was slower than anticipated in the past few years with a 4% increase between 2006 and 2013. Population growth in the Western Bay of Plenty district, as adopted by the Finance & Risk Committee in July 2014, records the 2013 population of 46,110 growing to approximately 61,700 by 2045. Households are projected to increase by 48% from 2013 to 2045 and according to the NIDEA projections one-person households will double in size for the same period.

The majority of population growth has occurred in Katikati, Waihi Beach with Omokoroa experiencing the most growth. In response to less than expected growth Council has reviewed its structure plans and concluded that less infrastructure is required in Waihi Beach due to less than expected growth. Timing of infrastructure in other growth areas have also been aligned to the revised growth predictions.

Implications of population growth on infrastructure

Population growth will increase demand for roading improvements, reduce asset lives and increase economic development over time.

The highest consumers of water are rural and residential users. Horticultural properties are high users of water, kiwifruit and avocados being the main crops, however it is not expected that demand for water will increase in the future as the total land area and water use per hectare is not likely to change greatly.

Water supply for the development of Rangiuru has been secured by a Tauranga City Council consent to take water from the Waiari Stream. This Council has an agreement with Tauranga City Council to access their supply. Alternatively the developers may provide their own supply by putting down bores and installing a treatment plant and reservoirs.

New bores are required to meet expected increases in peak daily demands based on current growth predictions. Growth related infrastructure capacity will be funded by development.

The demand for stormwater infrastructure will be largely driven by the demand for a change in levels of service and property owners tolerance to their land and dwelling flooding.

To minimise the impact of development on stormwater run-off, new developments are required to meet rules in Councils District Plan and Development Code requirements.

Demographic Change

Changes to the population affects demand for and the affordability of the services provided by the infrastructure assets.

The demographic profile outlined earlier indicates that the District already has a higher number of people aged over 65 compared to the national average and this is forecasted to increase substantially as the population ages.

This is most likely to impact on roading and footpaths with the need for wider and smoother footpaths to better accommodate mobility scooters, increased demand for walkways and cycle ways and aged friendly recreational facilities and a reduction and change in the use of roads e.g. reduced number of vehicles commuter congestion.

CHANGES IN LEVELS OF SERVICE

Climate change, natural hazards and improving public health and environmental outcomes are likely to be the main drivers that will result in any changes in levels of service.

Council is consulting on a new level of service for stormwater as part of the Long Term Plan. The asset management plan and infrastructure strategy has been developed utilising the new level of service. There are minimal changes in levels of service for wastewater. The Long Term Plan includes the normal roading improvements that increase the level of service to some communities such as continuation of the seal extension, new footpaths and cycleway programmes. In relation to water supply there are minimal increases in levels of service forecast for the 30 year period.

Climate Change

Sea levels rise	Temperature	Rainfall	Storms	Wind
The New Zealand average sea level rise is expected to be 0.8m above the 1980-1999 mean sea level by the 2090's and 1.0m higher by 2115.	Increase in the average temperature by 0.9°C by 2040 and 2.1°C by 2090.	In Tauranga, it is likely there will be little change in average annual rainfall.	The number of storms crossing the Tasman Sea is expected to increase in summer and decrease in winter, by the end of the century.	Increase in westerly winds3.
While there is more certainty about the absolute rise, there is less certainty regarding the rate of the rise.	By the end of the century, the Bay of Plenty is projected to have about 30-60 extra days per year where maximum temperatures exceed 25°C, with up to 20 fewer frosts per year.	Seasonal projections show spring rainfall decreasing by 9% in Tauranga by 2090.	The intensity of these storms is likely to decrease in both summer and winter.	The frequency of extreme winds over this century is likely to increase by between 2-5% in almost all regions of New Zealand in winter, and decrease by a similar amount in summer.
		There is a large natural variability in extreme rainfall frequency in the Bay of Plenty from year to year and decade to decade.	The intensity of ex-tropical cyclones is likely to increase and when these occur there will be an increased risk of damage from heavy rain and strong winds.	
		With climate change, the Bay of Plenty is expected to have more frequent and intense heavy rainfall events during the 21st century in addition to this natural variability.		

Implications of climate change on Infrastructure

Assumptions and asset management planning take into account climate change based on advice from the Ministry for the Environment.

Stormwater systems are likely to require replacement before the end of the asset life because of the anticipated increase in the frequency and intensity of rainfall events requiring a greater capacity within the stormwater network or conversely the levels of service will decrease and the impact from flooding will increase.

For waste water there is likely to be the need for increased storage capacity to address issues of pond overflows due to the anticipated increase in intensity of rainfall events. Alternatively an increased focus on undertaking investigations and maintenance works to target and reduce stormwater entering the wastewater network will be required.

Increasing temperatures and drier spells may require the need to increase water capacity for agricultural and horticultural activities if Council prioritises use of water for these activities.

Over the longer term, roads close to the coast (e.g. Plummers Point Road, Beach Road in Maketu) may either require sea defences such as sea walls to protect from coastal erosion or will need to be relocated in response to rising sea levels.

Natural hazards and risk management

The types of natural hazards that are generated in the Bay of Plenty coastal and harbour areas include tsunami, storm erosion and storm flooding.

The major natural hazard risk in the District is flooding. Waihi Beach is the urban centre in the district most susceptible to flooding due to a combination of low lying areas in the town impacted by tidal conditions and undersized pipes. Other areas within the district with some undersized infrastructure include Katikati, Te Puke and Omokoroa and some of the smaller settlements e.g. Paengaroa.

In 2005 coastal erosion was assessed as being a 'moderate priority hazard' with the likelihood of it occuring as 'possible', with 'moderate' consequences. Long term coastal erosion is evident in the District, particularly coastal settlements (Pukehina/Waihi Beach), seacliffs (Maketu), estuary margins (Little Waihi) and the shoreline of the Tauranga Harbour (Omokoroa, Te Puna, Opureora) and along the open coast which will increase given sea level rise due to climate change. Infrastructure assets such as roading and waste water systems in erosion prone zones are at risk.

Neighbouring areas to the Western Bay of Plenty District have active volcanoes (e.g. White island) and identified fault lines both of which have the potential to have a catastrophic impact on the District.

Earthquakes, depending on their magnitude, have the potential to rupture wastewater and reticulated water pipes, affect bores and aquifers while liquefaction could damage and disrupt the roading network. Similarly, increased slips and landslides due to increasing storms and rainfall events could damage roads and disrupt travel.

Council is participating in the Regional Lifelines Group, along with other utility and service providers, to investigate the resilience of our infrastructure as well as that of the utilities network. The group aim to work together to reduce the vulnerability of Bay of Plenty's lifelines including improving disaster preparedness planning.

Council's overall approach to risk management is to manage risks to maximise opportunities and minimise adversity which requires:

- a) A strategic focus.
- b) Forward thinking and active approaches to management.
- c) Balance between the cost of managing risk and the anticipated benefits.
- d) Contingency planning in the event that critical risks are realised.

Council is committed to the implementation of a comprehensive risk management framework, which addresses four fundamental activities:

- · Governance and management responsibilities.
- · Risk identification, analysis and assessment.
- Risk control/treatment.
- Performance monitoring and risk performance assurance.

Public health and environmental outcomes

With increasing knowledge of public health and the environment and correspondingly increasing community expectations the requirements to improve public health and environmental outcomes inevitably also increase.

This is likely to require upgrades to treatment plants to improve the quality of waste water discharge and increased pressure to provide community wastewater schemes, if land owners are unable to meet the required standards on site.

The impact of the National Policy Statement on Fresh Water Management is unknown at this time. If higher standards for water discharge are required, this will result in the need to upgrade the wastewater treatment plants and a resultant increase in expenditure.

In relation to wastewater Council will be seeking 35 year discharge consents for the Te Puke and Katikati Wastewater Treatment Plant renewals during the 2015 financial year. The renewal of the resource consent may require more stringent discharge conditions and consequent upgrades to the treatment plant to improve the wastewater discharge.

OTHER DRIVERS IN INFRASTRUCTURE EXPENDITURE

Possible changes to where people live in the subregion

In response to changes to population growth predictions SmartGrowth (a fifty year Western Bay of Plenty growth management plan) has agreed to review the settlement pattern to ensure there are sufficient places in the subregion to accommodate the growing population. The settlement pattern determines suitable locations in the subregion to inform Councils decisions about where to construct infrastructure.

The revised population growth figures will inform the Settlement Pattern Review to occur over the next two years. It is anticipated that any resulting changes to infrastructure requirements will mostly impact on Tauranga City Council as the city boundaries may expand to include any new settlement areas adjoining its existing boundaries (e.g. Keenan Road, Pukemapu). There would be infrastructural implications for areas not adjacent to Tauranga City Boundaries (e.g. Paengaroa).

ASSUMPTIONS

Where an assumption is in the LTP 2015-25, this has been cross referenced. In instances where an assumption is relevant to any of the infrastructure activities it is listed below including the associated risks and impacts.

Assumption	Risk	Impact
General Assumptions		
Growth - see section Key Risks and Growth Assumptions, page 42 for the assumption on growth.		
Inflation Inflation assumptions for the first ten years are outlined in the section Key Risks and Growth Assumptions, page 43 BERL have advised an assumption of 3% for the remaining 20 years of the strategy.	Inflation relating to infrastructure is a large component of Councils annual nondiscretionary expenditure with significant expenditure through the long term roading and utilities maintenance contracts. Inflation exceeding the projection increases cost to council.	Excessive unbudgeted inflation will require Council to manage it through a mixture of reducing the discretionary non contracted capital improvement programme; increasing debt; increasing rates; reducing levels of service over time. A 1% increase above the projection adds approximately \$190,000 per annum.
Local Government reform, council amalgamation, legislation requiring Council Controlled Organisations (CCO's) for infrastructure provision are potential governance changes that may occur within the 30 year term of this strategy. This assumption is outlined in the section Key Risks and Growth Assumptions, page 44.	It is most likely that such changes will occur through legislation or the Local Government Commission. Council may determine that service delivery is best managed through a CCO or a shared services arrangement. In most such structures the ratepayers and customers become more removed from the decision making process.	The impact is difficult to predict. One philosophy is that outsourcing to the private sector or amalgamating into bigger units is more cost effective and efficient. The alternative view is bigger is not better, the private sector cannot always do it better and ratepayer input and control is lost through bigger structures.
Useful life cycle of significant assets See, <u>Chapter Five</u> , Significant Accounting Policies – Depreciation, page <u>471</u> .		

Assumption	Risk	Impact
Transportation network – performance based contract Council is in a collaborative seven year (with the option to extend for another two years) performance based road maintenance contract with NZTA. This expires in 2023. It is assumed that the replacement contract will be a similar model that retains the contract cost structure.	That the current contract cost structure is not maintained when the contract is retendered and costs increase above inflation.	Road maintenance and renewal costs could increase significantly. It is very difficult to reliably predict the likely impact due to the end of the contract being so far into the future. However this would be mitigated by reviewing levels of service or decreasing capital expenditure to manage any potential rates increase.
The Structure plans for growth areas have been revised in 2014 and will be subject to a Plan Change process in 2015. The LTP has been developed on the basis of the revised structure plans.	That objections to the revised structure plans are received through the plan change process delaying implementation.	Potential reduction in development as the revised structure plans generally have the effect of reducing the financial contributions received leading to more debt for longer.
Legislation - There will be no significant changes to legislation affecting any of the infrastructure activities e.g. Public Health Act 1956 and Local Government Act 2002, Resource Management Act 1991, Health and Safety Act, Regional Policy Statement, Treaty Settlement legislation.	Low	If legislation changes then Council will need to comply which may require additional expenditure to upgrade infrastructure.
Useful life cycle of significant assets See, <u>Chapter Five</u> , Significant Accounting Policies – Depreciation, page <u>471</u> .		

Assumption	Risk	Impact		
Roading and Footpaths assumpt	Roading and Footpaths assumptions			
Impact of non-Council owned assets on Council assets. - SH2 revocation When the Tauranga Eastern Link is opened NZTA will revoke the highway status of SH2 from Domain Road, Papamoa to Paengaroa and transfer responsibility for the road to Council. Council is budgeting to fund the additional costs from 2016 for maintenance costs and from 2018 for renewals.	Maintenance and renewal costs are higher than modelled. Likeley load - Low Kaituna bridge requires renewal earlier than modelled.	Increase in cost to Council estimated at \$200,000 pa for maintenance and \$100,000-200,000 pa for renewals. Kaituna Bridge replacement cost of \$3.5 million requiring funding at an earlier date. A 51% NZTA subsidy will contribute to the cost of the bridge.		
Traffic Generation Traffic increase on the network will be generally at the same rate as development within the district.	Traffic may increase at a faster rate than predicted by traffic modelling.	Traffic growth is a contractors risk under the WestLink road maintenance contract for the next seven years. Increased traffic growth may require additional expenditure to maintain traffic volume related standards. Increased traffic growth may result in a cost increase in the maintenance contract when re-tendered in 2023.		
Financial Assistance Rate The Transport Agencies Financial Assistance Rate (FAR) is projected to remain constant at 51% from 2018.	NZTA may reduce the FAR after 2017 which would increase costs to council.	Each 1% decrease in the FAR will increase councils costs by around \$120,000pa, conversely if the FAR is increased Councils costs reduce by around \$120,000pa.		

Assumption	Risk	Impact
Roading Standards NZTA through the Road Efficiency Group is reviewing roading standards with a view to aligning standards to match the One Network Road Classifications (ONRC). The LTP is based on councils roading levels of service standards being maintained	If the ONRC standards are below councils current level of service then FAR funding may reduce as it would be considered that the road maintenance is above that necessary for the road classifications. It is not expected that current level of service are below the expected ONRC potential standards.	If the ONRC standards are significantly below current levels of service and as a consequence FAR funding reduces then Council will either a) reduce its road maintenance standards and reduce expenditure or b) have to increase expenditure on an unsubsidised basis to maintain the current levels of service. This would lead to higher rates.
Storm damage It is assumed that costs for storm damage to roading will only exceed \$750,000 between 2 to 3 times in a ten year period. The BOP West NZTA/WBOPDC Collaborative Road Maintenance Contract includes a risk transfer to the WestLink contractor for storm damage to Council roads of \$750,000pa. This is essentially an insurance cover where the contractor pays the first \$750,000 of storm damage in any one year. The cover reduces councils exposure to unforeseen storm damage costs. Historical tracking shows that the \$750,000 cover will only be exceeded between 2 and 3 times in a 10 year period. The cost of this cover is included within the contract annual payment. NZTA FAR (subsidy) will apply to major events that cause significant damage to the network.	The risk to Council is if the cost of damage to roads due to storms is significantly over \$750,000.	Potential debt increase that wold need to be funded from rates if the cost of damage significantly exceeds \$750,000. NZTA FAR subsidy will reduce the impact.

Assumption	Risk	Impact		
Water Supply Assumptions	Water Supply Assumptions			
The water level of service is projected to remain relatively constant through the 30 years.	The risk of legislation requiring an upgrade to water quality is low. Councils water supplies are comply with the 2008 Drinking Water Standards Bb grade (this is high quality) and a further change to the drinking water standards is considered unlikely.	A requirement to increase the water quality could be costly. The financial impact has not been assessed as the scenario is considered unlikely.		
Stormwater assumptions				
Land coverage imperviousness - Estimates of land coverage imperviousness are made based on recommendations in the NZ Building Code Handbook	Increased land coverage (above the building code) by hard or impervious surfaces e.g. roofing and driveways means less water soaks into the ground and more water runs off at a faster rate into the stormwater system. This increases pressure on the system. The increase in impervious surfaces is projected to increase over time as properties develop and infill subdivision occurs.	Increased impervious surfaces will impact on a catchment basis resulting in more storm events that flood land and buildings. There will be an expectation that Council will respond by upgrading the stormwater system. The financial impact is unable to be calculated and has not been specifically included in the strategy.		
Rainfall intensity values – Rainfall intensity values are generated from actual rainfall data. Factors have been applied to account for climate change up to the year 2030 as directed by Bay of Plenty Regional Council. These factors were based on Ministry for the Environment Climate Change recommendations.	Increased rainfall intensity creates more flood events as the rainfall is heavier and runs off the land faster placing greater demands on the stormwater infrastructure	If the rainfall intensity events increase significantly then a greater percentage of the stormwater infrastructure will be under sized. As a result the levels of service may not be achieved, and potentially the investment in stormwater infrastructure may need to increase.		

Assumption	Risk	Impact
Sea level changes – The sea level value used in relation to stormwater assets is based on the best estimate up to 2100, making allowances for high tide and storm surge as per the requirements of Bay of Plenty Regional Council. The requirements are outlined in the Bay of Plenty Regional Council publication Hydrological and Hydraulic Guidelines.	The risk of an increase in the sea level rise projections is assessed as low due to the time required for climate change to occur.	If sea levels are higher than estimated, the impact from storm events will increase, as will coastal flooding and the requirement for coastal protection works or a managed retreat of properties.

WHAT WE EXPECT - THE MOST LIKELY SCENARIO

MOST LIKELY SCENARIO - WHAT WE PLAN TO DO

The following section outlines the total capital and operating expenditure for each infrastructure activity over 2015-2045 including the timing and location of significant capital projects across Katikati-Waihi Beach, Kaimai and Maketu-Te Puke wards of the District.

Significant issues and decisions are outlined for each infrastructure activity, including the 'most likely scenario' and principal alternatives for each infrastructure activity. The criteria outlined in the Significance and Engagement Policy has been used to identify significant decisions and issues about capital expenditure.

Cost of most likely scenario

Western Bay of Plenty District Council expects to spend \$785.2 million on new or replacement infrastructure between 2015 and 2045. Over the same period, \$1,852.4 million is expected to be spent on operational costs including interest, depreciation, corporate overheads and maintenance.

Infrastructure Activity	Capital Expenditure	Operational Expenditure
Stormwater	\$64.3m	\$162.8m
Wastewater	\$113.2m	\$477.9m
Water	\$143.0m	\$522.Om
Transportation	\$464.7m	\$689.6m
Total	\$785.2m	\$1,852.3m

Expenditure Highlights

Figures 3 and 4 show the expected expenditure year-on-year up to 2045, Figure 3 by driver (growth, asset renewal, level of service (LOS) change and operational) and Figure 4 by infrastructure activity area classification. Please note that the 'level of service' projects include asset renewals that contain elements of LOS improvements to meet Council's adopted LOS as well as specific projects that improve upon existing LOS. In particular for transportation the improvements to existing LOS include new footpaths, kerb and channel and improvements and improvements that are being undertaken to meet the agreed LOS e.g. seal extension, seal widening and safety improvements. Figure 5 indicates when significant capital projects will occur over the period of 2015-2045. Appendix A indicates the location of the projects across the District. Figures 6 demonstrates operational expenditure by infrastructure activity.

- · Operational expenditure is well over twice that of capital expenditure.
- Fluctuation in renewals expenditure is largely due to wastewater and water supply projects in specific years. Renewals will be in accordance with life cycle management best practice and maximising the life of the asset for just in time replacement.
- · Capital expenditure in levels of service is relatively consistent.
- Capital expenditure is projected to peak in 2024-25 due to a large increase in transportation capital
 expenditure as a result of structure plan works in Omokoroa and Te Puke. These are required to
 service the expected growth and ensure we maintain our levels of service in these areas. Expenditure
 peaks again in 2036-38 with the potential replacement of the Katikati wastewater ocean outfall across
 Matakana Island.
- Capital expenditure will occur in response to growth in accordance with the approved structure plans in all asset classes.

Figure 3: Western Bay of Plenty District Total Infrastructure Expenditure Projections 2015 – 2045 by Driver

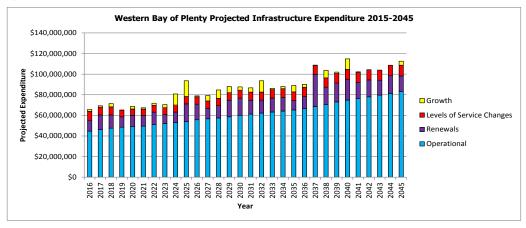
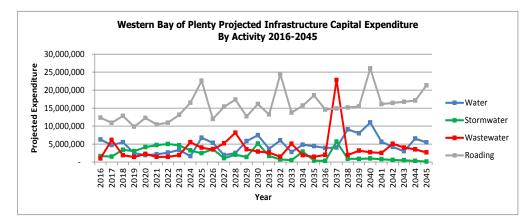


Figure 4: Western Bay of Plenty District Projected Infrastructure



Expenditure 2015 - 2045 (by Infrastructure Activity)

The chart above shows the projected capital infrastructure spend for each of the four infrastructure activity areas. There are significant spends in wastewater infrastructure in 2016 and 2017 with the new schemes for Te Puna and Ongare Point, 2023 for the upgrade of the Te Puke Treatment Plant, replacement of Maketu grinder pumps for each household in 2027-28 and around 2037 when the Katikati outfall will be due for renewal.

Major stormwater upgrades are planned for the four urban centres of Katikati, Omokoroa, Waihi Beach and Te Puke through the period 2017 - 2025. Capital expenditure on roading infrastructure will fluctuate through to 2025 due to structure plan growth demands. This peaks in 2024-25 due to structure plan roading projects in Omokoroa and Te Puke in response to anticipated significant growth and to maintain levels of services in these areas. The timing of these structure plan works is based on the current growth projections for Omokoroa and Te Puke, there is adequate flexibility within this planning to ensure the works are only undertaken when required, this is consistent with the just in time approach being taken by Council. Once completed it is expected that the additional infrastructure will meet the traffic demands for the remainder of the 30 year period. The Westlink contract, set to expire in 2023, is expected to be renewed and will continue to deliver savings over the 30 year asset management plan. Increased roading spend is planned in 2015, 2016 for seal extension and Omokoroa structure plan roading.

Significant expenditure on water infrastructure includes the Tahawai to Tanners Point trunk main in 2016 -17; new bore supplies for Ohourere (2019 and 2043), Athenree (2022) and Wharawhara (2031), Youngson (2031). New reservoirs will be required for Tahawai (2025), Te Puke (2030), Central (2025) and Whakamarama (2045). Several replacement or upgraded reservoirs will be required for Wharawhara (2032), Plummer Rd (2030), Minden (2034), Junction in (2038) and Muttons (2044).

Figure 5: Timing of significant capital projects

Significant Capital Projects in the Western Bay of Plenty District 2015-2025

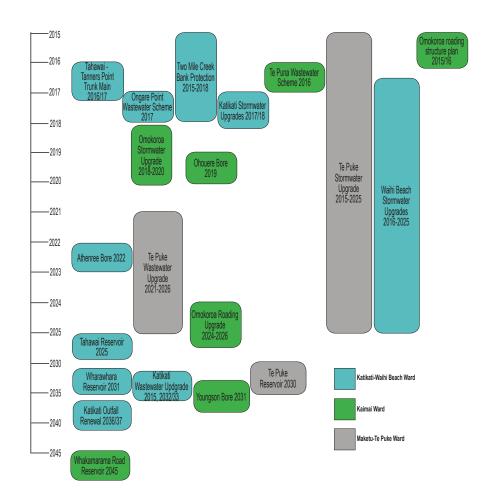
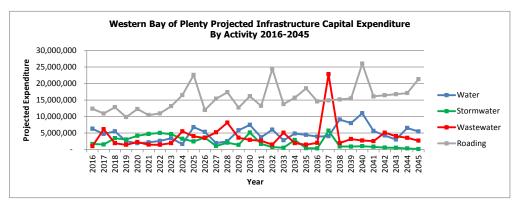


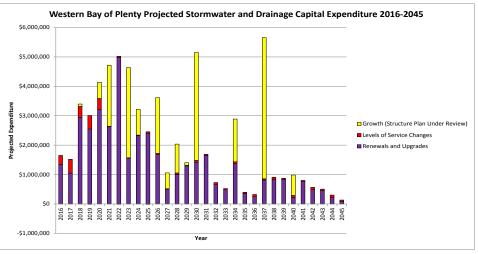
Figure 6: Western Bay of Plenty District Infrastructure Operational Expenditure Projections by Activity 2015 - 2045



The chart above shows projected changes in Western Bay of Plenty District Council's operational expenditure across the four infrastructure activity areas. Stormwater operational costs are steady through the 30 years for managing new and improved infrastructure. The operational costs for water supply increase to maintain and operate new infrastructure at a rate of around 2.1% per annum; and for wastewater the increase averages to around 0.5% per annum although operational costs fluctuate due to the timing of purchasing bulk materials. A steady expenditure on road maintenance is anticipated throughout the 30 year period with minimal expansion of the roading network anticipated. The data gathered during the previous Performance Based Contract and the tender submissions in the WestLink contract have provided clear indicators of the year-to-year maintenance needs of the network.

STORMWATER - SIGNIFICANT ISSUES AND OPTIONS FOR ADDRESSING THESE ISSUES

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



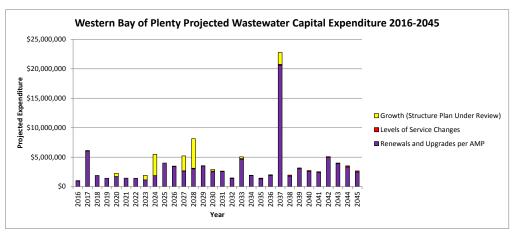
Renewal, Resilience and levels of service issues	Most likely scenario	Principal Alternatives
Currently resource consents are only required for some stormwater discharges in the District. It is anticipated that consents for all discharges will be required in the near future.	Best practice is to have a comprehensive stormwater consent for each urban area(s) in order to take a catchment approach to managing the effects and environmental considerations. Applications have been or are being made for four Comprehensive Resource Consents - Western, Central, Eastern and Omokoroa catchments - to cover all stormwater discharges in the urban areas of the District. This project is to be staged over several years finishing in 2020. The cost of the consents and associated improvements such as treatment devices is estimated to be \$1.62M. Future consent conditions may require a higher standard of treatment or reduced velocity of stormwater prior to discharge. This could require significant changes in the stormwater network and increased costs to install stormwater treatment devices. These additional costs cannot be accurately determined at this time. There will be consequential increased consent monitoring costs in the Operations budget.	Maintain individual consents for each discharge point. The cost of obtaining and monitoring individual consents for each discharge would be less cost-effective.

Renewal, Resilience and levels of service issues	Most likely scenario	Principal Alternatives
Renewals and upgrades of stormwater infrastructure to meet new levels of service (LOS). Council is adopting a new LOS for stormwater and this will be consulted in the LTP. The LOS will be met over a period of years 10 - 20 plus and will require additional expenditure on new infrastructure.	Infrastructure renewal and upgrading in Katikati, Omokoroa, Waihi Beach and Te Puke. Council is currently working with the community to develop a stormwater management plan for Waihi Beach. The stormwater management plan will develop a long term strategy for Council and the community to help alleviate stormwater issues. Council has proposed significant stormwater infrastructure expenditure for Waihi Beach in 2015-25 to alleviate flooding issues. The estimated cost of the Te Puke upgrades will be developed once the flood hazard modelling is complete.	The alternative to funding the upgrades to the stormwater systems to meet the LOS are: a) Reduce the LOS and expect overtime increased flooding of dwellings and land. b) Utilise alternative methods to protect dwellings. The main focus would be for dwelling floor levels to be raised above flood level. Current practice has Council funding the building consent fees (\$4,000 per dwelling) to facilitate floor raising.
To improve the stormwater flow along One and Two Mile Creeks in Waihi Beach and reduce erosion of affected properties.	Council proposes to fund the bank protection in Two Mile Creek over the next three years at an indicative cost of \$2.6m. Property owners will be required to contribute approximately 25% or land, with the balance funded from the stormwater rate. Stormwater improvements will be undertaken in One Mile Creek to control the overland flow path when the creek banks are breached which will occur over the LTP 10 year period.	The alternative option is to not undertake the work. This creates risk to the property owners and a risk of claims against Council.

Renewal, Resilience and levels of service issues	Most likely scenario	Principal Alternatives
To undertake flood hazard modelling for the urban communities in order to quantify risk to dwellings and the capital works required to meet the stormwater LOS. This is in response to recent flood events which impacted dwellings and the increased rainfall and storm frequency and intensity.	Asset management and stormwater modelling for the southern half of Waihi Beach, Te Puke, Katikati, Omokoroa and the small communities at an estimated cost of \$1.5m will be undertaken over the period of the LTP 2015-25. Modelling of stomwater catchments and providing accurate flood hazard maps is best asset management practice. This will provide the information required to develop the best practical stormwater capital works programmes to progress towards achieving the LOS. The flood hazard maps developed through modelling will be used to revise the District Plan flood hazard maps and ensure that development does not occur in flood prone areas.	To not undertake modelling risks capital works not being prioritised or being undertaken in lower priority areas and not targeted at the areas most at risk of dwelling flooding. Accordingly it would take a longer period to achieve the LOS.

WASTEWATER - SIGNIFICANT ISSUES AND OPTIONS FOR ADDRESSING THESE ISSUES

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



Renewal, Resilience and levels of service issues	Most likely scenario	Principal Alternatives
Renewal of resource consents for Katikati and Te Puke Wastewater Treatment Plants (expire November 2016) are required to enable the two treatment plants and discharge points to continue to operate legally.	Apply to Bay of Plenty Regional Council. for renewal of resource consents by April 2016. The estimated cost to obtain renewed consents for both plants is \$480,000. The consents will be renewed using the existing treatment and disposal methods. The disposal methods which ultimately result in discharge from Katikati to the ocean, and Te Puke via wetlands and rockfilter to the Waiari Stream, may be challenged through the consent process. Iwi cultural and spiritual views have concern with discharge to receiving waters even when environment standards are met.	Council is required under the RMA to have resource consents in effect for the treatment and disposal of wastewater at Te Puke and Katikati. The main alternative in the process would be to propose an alternative discharge option. Land based discharge is culturally acceptable. It would be significantly more expensive and requires large land areas plus additional consents.

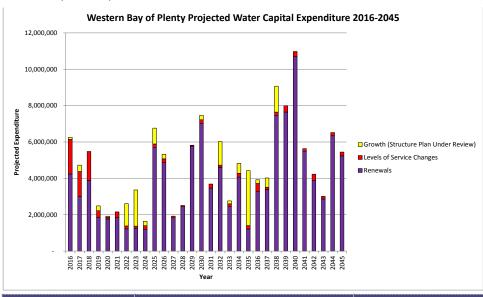
Renewal, Resilience and levels of service issues	Most likely scenario	Principal Alternatives
Parts of Ongare Point are unable to comply with the Bay of Plenty Regional Councils on-site effluent treatment (OSET) rules. Property owners either need to upgrade wastewater systems or Council needs to install a community system.	Onsite upgrading from conventional septic tanks or connecting to a collective system is required for Ongare Point. At this stage the most likely option is a collective system that covers part or all of the 60 dwellings in Ongare Point. Budget of \$1.7M for Ongare Point has been signalled in 2017 for a collective system for this community to meet Bay of Plenty Regional Council requirements. A funding model is approved including Bay of Plenty Regional Council subsidy. Community consultation is continuing to get agreement to a preferred option.	Property owners that do not comply with the OSET regulations will face enforcement action by Bay of Plenty Regional Council. The alternative to a Council community scheme would be for property owners to utilitise alternative technology e.g. Advanced systems, electric toilets or UV. However at least 16 properties would still be unable to comply with OSET requirements.
Parts of Te Puna West are unable to comply with the Bay of Plenty Regional Councils OSET rules. Property owners either need to upgrade wastewater systems or Council needs to install a community system.	A collective system that covers all of the 160 dwellings with a pipe line to connect to the Omokoroa waste water pipeline has been approved. The scheme will be funded from the property owners, Bay of Plenty Regional Council subsidy and Council.	Property owners that do not comply with the OSET regulations will face enforcement action by Bay of Plenty Regional Council. The most likely alternatives are a collective system that only services part of the community with discharge to a local site.

Renewal, Resilience and Most likely scenario Principal Alternatives levels of service issues Katikati Wastewater Ocean The ocean outfall has a remaining life The alternative to replacing the Outfall is the consented expectancy that would require its replacement outfall pipeline is to change to in 2037 at an estimated cost of \$19 million. discharge for the Katikati a land based discharge option. Wastewater system which Land based systems require Costs are based on the replacement of the is due for renewal in 2037. a significant area (50-100ha) existing outfall. The pipeline crosses the of suitable land plus a new Tauranga Harbour and resource consent. An estimate The local iwi have voiced concerns about the Matakana Island before of this option has not been ocean outfall for the Katikati plant which may discharging highly treated under taken but is expected impose complexity in obtaining the consent to to be at least the same as the waste water in the ocean. construct a new line. replacement pipeline but with There is a high level of uncertainty over higher operational costs. the Katikati ocean outfall replacement. The replacement will need further investigation closer to the time followed by consultation with the community affected. Consultation will be occurring in 2015 and 2016 on the consent renewal for the Katikati waste water treatment and discharge consent and the result of this process may change the timing of the pipeline replacement, or may result in a requirement to go to land based discharge.

Growth Issues	Most likely scenario	Principal Alternatives
The capacity of the Te Puke wastewater treatment plant is expected to be reached between 2021 and 2026.	Increase the capacity of this plant is the principal option. The total estimated cost of this project is \$1.69 million in 2021-2026. Failure to improve the plant's capacity before it is exceeded could result in breaches of resource consent, restrictions on new connections and development and public health issues.	An alternative option would be to reduce the inflows to the plant through an extensive programme of manholes, sewer linings and repairs to reduce infiltration. Individual property checks wold also be undertaken to ensure that there are no illegal stormwater connections. This type of work is undertaken on a programmed basis but it would be significantly expanded to delat the treatment plan upgrade.

WATER - SIGNIFICANT ISSUES AND OPTIONS FOR ADDRESSING THESE ISSUES

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



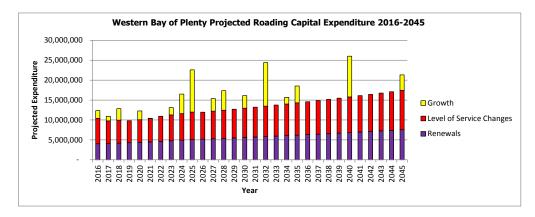
Renewal, Resilience and levels of service issues	Most likely scenario			Principal Alternatives
Renewals and growth related improvements for reticulation, source headworks and storage are required to replace assets that are approaching or have reached the end of their expected life.	Water reticulation, so storage assets will be throughout the 30 ye to their determined I performance Reticulation Western Zone Central Zone Eastern Zone Source headworks Western Zone Central Zone Eastern Zone	e renewed far period a fife-expecta 1-10 Years \$5.5m \$3.4m \$5.6m	"just in time" according	Delaying the renewal work by retaining assets beyond their maximum life would increase maintenance expenditure and progressively increase the risk of reduced LOS in the reticulated area. Water demand management has the potential to delay the timing of capacity related capital works. Council is already implementing demand management through universal water metering.

Renewal, Resilience and levels of service issues	Most likely scenario	,		Principal Alternatives
	Storage assets Western Zone Central Zone Eastern Zone	\$0.01m \$0.1m \$0.1m	\$ 11-30 Years \$3.0m \$5.6m \$6.0Mm	
Water demand management Identifying high use/loss areas where other targeted water conserving initiatives can be implemented, and predictions for future capacity improvements can be considered and implemented with confidence. Reducing demand through these initiatives allows Council to defer the funding for significant capital and renewals projects.	Water demand many by installing District-bulk-flow metering, management, perfor surveys. District-wide water in progressively in the Zones over the perimetering and demar will be introduced o will be ongoing. Installing the introduced owill be ongoing. Installing the estimated cost metering is \$2.894m and, for the other deprojects is \$1.8m in the state of the state	wide water modermance test metering we western and 2015 - 2 and manager wer the next allation of volume to complet and bulk-flemand mar	r metering and elling, demand ting and leakage ill be installed and Eastern on Bulk -flow ment activities at 10 years and water metering tral zone.	The alternative is to not undertake universal water metering and charge on a UAC basis with no linkage to consumption for domestic consumers.

Renewal, Resilience and levels of service issues	Most likely scenario	Principal Alternatives
Additional bore source capacity and water storage is required in the Western and Central Zones to meet anticipated demand. Further works have been identified to meet Structure Plan requirements	Capacity increases required to service growth areas will be undertaken on a just in time basis with the programme being adjusted to match actual growth. New bores will be installed at Athenree, Wharawhara, Ohourere and Youngston Road and new 2,250m3 storage reservoirs will be constructed at Tahawai and Whakamarama Road These works are estimated to cost: Bores \$6.6m Reservoirs \$5.4m These will meet increased demand from existing users and maintain levels of service for each community. A proportion of the costs will be funded from financial contributions. Reticulation expenditure relating to structure plan works for the western and central zones through to 2045 are estimated to be: Katikati \$755,000 Waihi Beach \$364,000 Central \$2.8m	Council has implemented a strategy of sourcing water from bores. The alternative to bore supplies would be to revert to surface takes from streams in the area. This is considered to not be cost effective as significant investment has gone into the bore network. An alternative to additional storage would be to institute in the rural areas a trickle feed system which provides restricted water pressure and volumes and a requirement for properties to have their own onsite water storage of 20000l per household. Onsite storage provides a fire fighting supply and water in times of power outages or water main breaks. The water in the tanks, often supplemented with rainwater, is generally of a lower quality than when water is sourced direct from the piped network.

TRANSPORTATION - SIGNIFICANT ISSUES AND OPTIONS FOR ADDRESSING THESE ISSUES

The chart below illustrates the projected capital expenditure associated with the management of Western Bay of Plenty District transportation/roading/footpath infrastructure assets out to 2045.



Renewal, Resilience and levels of service issues

Most likely scenario

Principal Alternatives

Renewal of Transportation/roading infrastructure

- Rehabilitation of sealed pavements
- Resurfacing of sealed pavements
- Rehabilitation of unsealed roads
- Street lighting
- Footpaths

The Westlink performance based Contract (PBC) which commenced 1 November 2014 is expected to deliver a programme of renewals that will result in required Level of Service being met and asset integrity maintained over time.

The estimated cost of the renewal programme over 30 years is \$130M and is not expected to fluctuate significantly from year to year.

Expenditure on renewal projects is anticipated to be reasonably constant at around \$4.0M/ annum and there is medium to high level of certainty with this work.

The Westlink Contract has been let for a period of 7 + 2 years to 2023. It has been assumed that transportation maintenance and renewal costs will be similar in future years subject to inflation. However it must be noted that NZTA budget for a lower inflation rate than BERL expecting contracting efficiencies or changes in Level of Service to make up the balance.

The cost to Council will be affected by the NZTA financial assistance rate which will increase from the current 46% to 48% in 2015/16 and eventually to 51% in 2018/19. Other influences on the cost to Council include:

- The One Network Road Classification through adjusted Level of Service.
- The renewal of the Westlink contract after it
- Changing fuel costs affecting inflation and changing road user demand.
- Timely reaction to network growth and deterioration demands resulting from economic activity levels.

The council has a contractual obligation to undertake renewals through to 2023 under the WestLink contract. A reduction in renewals would result in a contractual penalty.

A reduction in the LOS for roading would result in a change in the level of renewals required. For example allowing increased roughness of sealed roads may reduce renewal costs but would also increase road user complaints and may increase maintenance costs.

Renewal, Resilience and levels of service issues	Most likely scenario	Principal Alternatives	Growth/Decline Issues	Most likely scenario	Principal Alternatives
been proposed for at least 20 years by NZTA and will potentially occur within the next 30 years. When it does adjustments will be required to local roads in has lobbied NZTA and government over many years to start the project. When it occurs adjustments will be made to local transportation infrastructure. Council has currently budgeted \$2.0m for roading improvements associated with this project to tr			Undertake structure plan works in Omokoroa and Te Puke.	The main alternative would be to not conduct this work which could result in increased pressure on the existing roading network as the population grows as well as being unable to meet levels of service.	
Bypass.	This project will be subject to NZTA approved programmes. As state highways serve as the backbone for transportation within the district, approval of highway projects to support land use development and associated transportation demand is critical. The indicative annual cost implication is around \$200,000pa for ten years.		Facilitate and part fund intersection improvements to enable the timely development of the Rangiruru Business Park.	Council is budgeting approx. \$1.0m over 2017-19 to assist roading improvements for the development of the Rangiruru Business Park. The key components are a new interchange with the Tauranga Eastern Link (TEL) and an improved intersection with SH2. The intersection improvements will also provide benefits to general road users.	To not provide funding towards the intersection improvements and require 100% developer funding.
Adjustments will be required to local roads in response to the Tauranga Northern Link (TNL). Council supports the TNL as a vital improvement to the state high way network.	The Tauranga Northern Link (TNL) is a NZTA project that is expected to occur in the 5-20yr time frame. NZTA is unable to provide more certainty as to timing. Adjustment will be made to local transportation infrastructure arising from the TNL project, including the take-over of the revocated section of SH2. The indicative annual cost implication is around \$3-500,000pa. This has not been included in the LTP budget as the most likely timeframe is outside the LTP.	NZTA has legislative powers to transfer a bypassed section of state highway to the local authority as is occurring for SH2 through Te Puke. Council does not have the option of not taking the road.	The District roads are not fully sealed, residents of unsealed roads consistently advocate for sealing to improve road conditions including associated issues such as dust.	A programme of seal extension will be undertaken over the 30 year period. The estimated cost for this work is \$1.0m pa to seal 3-4 km of road. Seal extension will provide an improved level of service and safety on unsealed roads. A one-off additional \$1.02m of seal extension will be undertaken in 2015. Review seal extension standards and the policy matrix that determines the seal extension priority order.	The alternatives are: a) To reduce or not to undertake the seal extension programme thereby saving approx. \$1.0m per annum. b) To increase the seal extension programme to increase the number of properties serviced by a sealed road at at a faster
The standard of the roading network does not fully meet the	Council will continue to fund improvements to the network to meet the LOS in accordance with the Community Boading Allegation	The Council could increase funding for seal extension			rate, Each additional km of new seal costs around \$300,000.
not fully meet the LOS dimensions in the Development Code. The major deficiencies are: The centreline length of sealed roads having >1m under width = 123.8km The centreline length of unsealed roads with > 50vpd = 99.8km	with the Community Roading Allocation Framework. Budgeted annual expenditure: • Seal Extension \$1.0m, 3 - 4 km • Seal Widening \$0.8m, 2 - 3 km (Subject to NZTA subsidy) Council will review its seal extension standards in 2015 to determine if the width can be safely reduced in order to seal a greater length for the same budget.	in response to community demand and achieve sealing all roads with more than 50VPD at a faster rate. If financial constraints are experienced then the seal widening and seal extension programme could be reduced.	Traffic growth	A programme of seal widening to address traffic growth on specific roads will be undertaken over the 30 year period. The seal widening will provide an improved level of service and safety on sealed roads to meet Council's LoS and will generally be undertaken at the same time as major pavement renewal works. The estimated cost for this work is \$0.7m.pa and will generally only be undertaken if NZTA subsidy funds 51% of the cost. Major traffic development is projected in 2024 for Omokoroa due to significant growth	The options are either: a) Not to undertake the seal widening. b) To undertake seal widening without subsidy. Defer roading works in Omokoroa.

Growth/Decline Issues	Most likely scenario	Principal Alternatives
Improve alternative transportation options. The cycleways will be utilised by tourists, residents, recreational users and commuters.	Implement a district cycle way programme with priority routes of a) Omokoroa to Tauranga. b) Tauranga to Maketu and Paengaroa. c) Waihi to Waihi Beach. The Council has adopted a programme to develop and construct cycleways within the district. In accordance with the Walking and cycling strategy the focus is on connecting communities and building components of the Tauranga Moana Cycle Trail. Council is working with TCC and Hauraki District Council (HDC) on routes that cross boundaries. Council is budgeting \$300,000pa for 10 years. In addition there is potential for NZTA subsidy plus potential external funding	The alternative options are a) To decrease the annual expenditure and slow the development programme. b) To seek additional external funding. c) To increase funding and accelerate the programme of development.

CONCLUSION

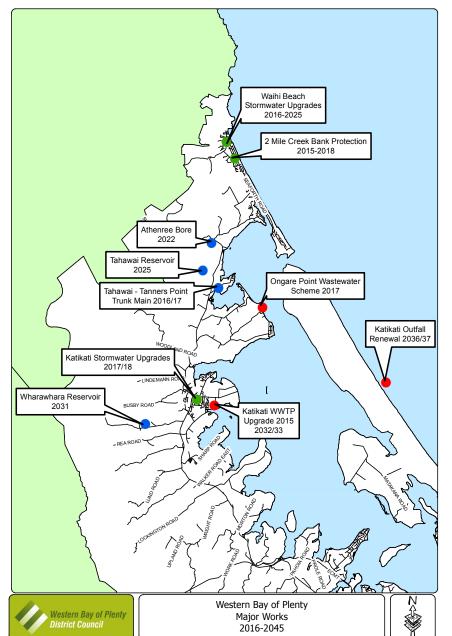
This Strategy outlines the proposed capital and operational expenditure for water supply, wastewater, stormwater, roading and footpaths taking into account the local geographical, demographic and economic context of the District as well as the key drivers influencing expenditure on infrastructure i.e. the need to replace assets, changes in levels of service, growth and demand.

The significant issues facing each of the infrastructure activities over the coming 30 years is identified along with the most likely scenarios to address the issues and principal options that were also considered.

APPENDIX A

Figure 5a: Location of Significant Capital Projects in the Western Bay of Plenty District 2015 - 2045

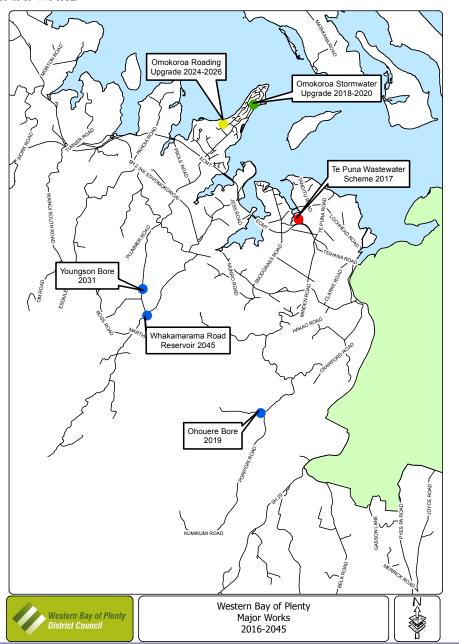
KATIKATI - WAIHI BEACH WARD



APPENDIX B

Figure 5b: Location of Significant Capital Projects in the Western Bay of Plenty District 2015 - 2045

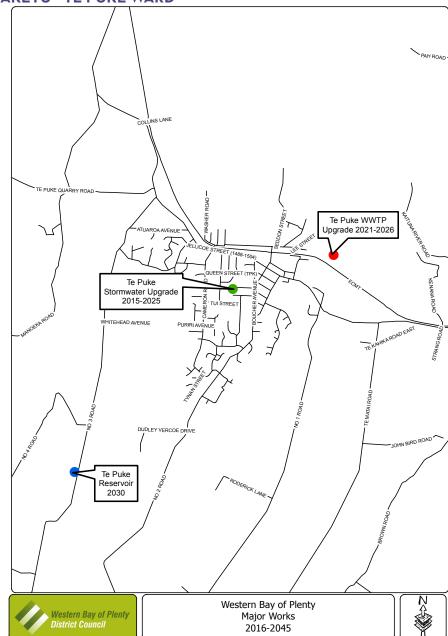
KAIMAI WARD



APPENDIX C

Figure 5C: Location of Significant Capital Projects in the Western Bay of Plenty District 2015 - 2045

MAKETU - TE PUKE WARD



OUR APPROACH TO SUSTAINABLE DEVELOPMENT

Sustainability is a word that is used often, yet means different things to different people. However, a commonly recognised view has emerged from the international sustainability debate that "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Gro Harlem Brundtland, Norwegian Prime Minister, 1987.)

Much of this debate has focused on human impacts on the environment, however the Local Government Act 2002 is clear in its direction that we need to consider and balance environmental, social, cultural and economic well-being and the needs of future generations in taking a sustainable development approach.

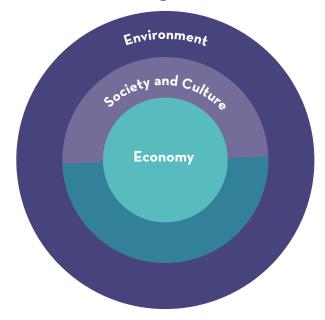
This section of our Long Term Plan seeks to clarify what we mean by the term sustainability and, rather than developing a precise definition, we have chosen to express our commitment to sustainability in a number of key principles that guide us in relation to the decisions we make at every level of our organisation.

SUSTAINABILITY AND THE FOUR WELL-BEINGS

In order to understand our commitment to sustainability it is important that we explain the relationship between environmental, social, cultural and economic well-beings (collectively known as the four well-beings) and what sustainability might look like for each.

These relationships are explained in the diagram where our environment sustains all life. A subset of environment is our society including the diversity of our cultures, beliefs, heritage and traditions. Within our society is our economy; a creation of our social system that contributes to human development.

Overall the diagram demonstrates that our people and ultimate prosperity are underpinned by the life supporting capacity of our environment.



The information on the following pages describes generally what sustainability for each of the four well-beings might look like and how Council's activities make a contribution.





ENVIRONMENTAL WELL-BEING

Human activity is closely linked to the health of our natural environment. A healthy environment is essential for overall well-being and prosperity. With our population growing, demands on our natural resources will increase. The challenge is to lessen our impacts on the environment, reduce consumption and waste.

ENVIRONMENTAL WELL-BEING	KEY COUNCIL ACTIVITIES
Avoiding, remedying or mitigating adverse effects on our environment.	Building and health services Resource consents
Understanding how well our natural environment can adapt to change and absorb the impact of human activities.	Resource management Solid waste
Educating communities about environmental concerns and encouraging communities to change behaviour which is having a negative impact.	Wastewater Stormwater management Community development
Supporting community aspirations to restore and protect the natural environment.	Community developmentCompliance monitoringTransportation
Enabling access to, enjoyment of and respect for the natural environment.	Recreation and leisure Policy and planning
Protecting versatile soils, waterways, air, native flora and fauna for current and future generations.	
Protecting amenity values.	
Individuals, households and businesses learn to reduce, recycle, reuse and dispose of waste in an environmentally- friendly way.	



SOCIAL WELL-BEING

Sustainable, resilient communities need strong social and cultural infrastructure. A sustainable community is one that is inclusive, actively participating in political processes and agile enough to respond to challenges and changes in society.

SOCIAL WELL-BEING	KEY COUNCIL ACTIVITIES
Equity in terms of access and ability to participate in what our District has to offer. Interaction and mutual respect within and between generations. A solid community identity leads to better collaboration to achieve the collective good and fosters tolerance and acceptance of others. Infrastructure that supports basic needs, health and well-being, for example good quality water and wastewater systems, innovative solid waste approaches, safe roading, affordable housing. Personal safety and freedom from fear within communities. Our communities can easily become involved in and influence decisions that affect them.	 KEY COUNCIL ACTIVITIES Transportation Representation Community facilities, (including housing for older people, community meeting places and cemeteries) Community development Libraries Recreation and leisure Policy and planning Stormwater Water supply Wastewater
Our communities are more literate and better educated.	
Our communities are inclusive and supportive so that everyone feels they belong.	
Community leaders make decisions on behalf of and in the best interests of present and future generations.	



CULTURAL WELL-BEING

Our communities retain and can freely express their beliefs, values, customs and traditions. Diversity is celebrated.

CULTURAL WELL-BEING	KEY COUNCIL ACTIVITIES
Better understanding of the cultural traditions and heritage of people living within our District. People are involved in arts, culture and	 Cultural development team Representation Community development Policy and planning Resource management
heritage activities.	
There is a mutual respect for and celebration of the diversity of cultures within our District.	
Māori are able to contribute to local government processes and offer tangata whenua perspectives to plans, policies and decisions.	
Cultural heritage sites are identified and protected.	
Organisational capacity and capability to engage with tangata whenua is developed.	
Approaches taken to the development of communities recognise their social and ethnic diversity.	
Acknowledge the relationship of tangata whenua with the natural environment.	



ECONOMIC WELL-BEING

Sustainable, resilient communities need strong social and cultural infrastructure. A sustainable community is one that is inclusive, actively participating in political processes and agile enough to respond to challenges and changes in society.

ECONOMIC WELL-BEING	KEY COUNCIL ACTIVITIES
Residents have sufficient employment and access to affordable housing.	 Community development Transportation Building and health services Resource consents Resource management Policy and planning
Rates are affordable.	
Our services offer the best value-for- money.	
The local employment market provides opportunities for well paid, highly skilled jobs.	
The wealth of individuals is increased.	
The local economy is diverse and has the depth and agility to respond to change and challenges.	
Local businesses return benefits to local communities.	
Economic activity occurs at a rate or in a way that can be absorbed by our natural environment and harmful effects are avoided or mitigated.	
Town centres are vibrant and offer attractive investment opportunities.	
Our economic development aspirations complement, leverage off and link in with those of other districts and cities within the Bay of Plenty region.	

OUR SUSTAINABLE DEVELOPMENT APPROACH

Although we can point to a number of good sustainability practices implemented to date, the process of reviewing our Long Term Plan has presented a timely opportunity for renewing and broadening our commitment to sustainability. For us sustainability is a journey and progress comes from the lessons learned along the way, the improvements implemented as a result and the way that Council and our communities respond and change over time.

Our sustainable development approach is reflected in a number of principles that guide us in everything we do. This approach is supported by our communities, which continue to call for moves towards policies, plans and decisions that will take our District, over time, towards sustainability. A number of our sustainable development principles align closely to the principles of the Treaty of Waitangi (Te Tiriti O Waitangi) and reinforce the importance of developing and maintaining positive and purposeful relationships with tangata whenua. Please see overleaf for more information on the steps we are taking to foster the development of Māori capacity to contribute to our decision-making processes.

Our sustainable development approach also reflects our commitment to the SmartGrowth Strategy which is the 50-year plan to manage growth in the sub-region. An integrated response to growth management is one of the most critical issues challenging our communities' progress towards sustainability. Maintaining and strengthening relationships with our strategy partners, tangata whenua, Tauranga City Council and the Bay of Plenty Regional Council are imperative to the success of SmartGrowth. A more comprehensive overview of SmartGrowth is included in our Planning for the Future Strategy, Chapter Three, page 109

PRINCIPLES FOR SUSTAINABLE DEVELOPMENT

Stewardship - Principle of kaitiakitanga

 Acknowledging a duty of care in relation to the environment. Understanding short, medium and long term financial and non-financial risks, finding solutions that spread risk and actions that produce multiple benefits.

Co-operation, consultation and participation - Principle of `He here kia mohio'

- Listening to what others have to say, considering their views and then deciding what will be done
 for the greater good.
- All sectors and groups within our local communities are included and given the opportunity to
 participate in decisions that affect their lives.

Partnership - Principle of Whakawhanaungatanga

- Developing and maintaining positive and purposeful relationships with tangata whenua, residents, community groups, businesses and local and central government to achieve common goals.
- Sharing knowledge and perspectives, working effectively with our communities and tangata
 whenua to create consensus for joint community action and better community outcomes.

Affordability, equity and fairness - Principle of Oritetanga

- Ensuring that the benefits and costs of decision options are assessed so that significant proposals are fair, affordable, sustainable and equitably funded.
- · Ensuring today's decisions leave a positive and enduring legacy by thinking in generations not years.

Precautionary approach

Deal cautiously with risk and irreversible effects. The less we know about potential consequences
the more cautious we will be.

Balance and connections

- Recognising the need for long term balance between the social, economic, cultural and environmental well-beings.
- · Decisions recognise connections that exist between communities and the natural environment.

Information and resources

- · Monitor and make progress against sustainability indicators.
- · Ensure monitoring data is used in decision making.
- People have easy access to information, systems and technologies that enable them to act sustainably.

Local solutions to local problems

- Working with our community, iwi, the business sector and other government departments to promote positive change and sustainability.
- Sharing and learning from the experiences of others to progress toward local and therefore, global sustainability.

Capacity and resilience

- Economic activity occurs at a rate or in a way that can be absorbed by the natural environment and harmful effects are avoided or mitigated.
- Build strong, resilient communities that can survive adversity by broadening economic strength within communities.

Polluter pays

· Where possible, recovering the cost of pollution from the polluter.

Anticipation

- · Being proactive and responsive in addressing issues and seizing opportunities.
- · Bring tomorrow into today's decision-making by taking a long term view.

DEVELOPING MĀORI CAPACITY TO CONTRIBUTE TO DECISION-MAKING

The principle of He here kia mohio is an important part of our sustainable development approach. We recognise the importance and special place of tangata whenua within our communities and the additional responsibilities that the Local Government Act places on us to develop the capacity of Māori to take part in local government decision-making processes.

Equally, we acknowledge the journey that is required to develop positive and purposeful relationships with tangata whenua that can sustain us into the future.

We have developed a number of mechanisms for engagement and to involve tangata whenua in our decision-making processes. We will continue to review and improve them to ensure ongoing effectiveness.

OUR CULTURAL DEVELOPMENT TEAM

This team initiates, builds and maintains our relationships with tangata whenua and Māori and strengthens our organisation's ability to appropriately engage with Māori through exposure to and training in kawa (protocols), tikanga (customs) and te reo (the Māori language).

TANGATA WHENUA ENGAGEMENT GUIDELINES

Our Tangata Whenua engagement guidelines have been developed to assist staff in engaging with tangata whenua.

PARTNERSHIP FORUMS

Te Komiti Māori (the Māori Committee) was replaced in 2014 by a Te Arawa and a Tauranga Moana forum to represent hapu iwi across the District and address issues relating to Māori with the Mayor and all Councillors.

KEY SUSTAINABILITY CHALLENGES AND OPPORTUNITIES

· Doing more with less

Since the global economic downturn began in 2008 our revenue from subdivisions and development (financial contributions) has decreased and many of our ratepayers are in a position of reduced spending power, particularly those relying on fixed incomes or investment income. It is clear that we are working in an environment of increased financial risk and accountability. We have a strong record of continuous improvement and innovation, so we are well placed to respond to increased public calls to demonstrate value for money in the services we provide.

Increasing diversity

The population of the Western Bay is thought to be more diverse with respect to age, ethnicity and country of birth, compared to five years ago. The introduction of legislation in 2007 enabling more temporary or seasonal migrants to work in orchards around our District is likely to have

been a major driver of the change in ethnicity. The Māori population, which is younger than our District's average, is expected to grow faster than other groups in our District. The 2013 census is expected to confirm these projections.

Considering diversity is important because different groups have different expectations of the services we provide and the way they are delivered. Addressing the diverse range of community expectations will be a challenge for the future.

More transparency

As the economic impact of the global recession has continued to reduce household budgets, calls have been made for greater transparency in government, both locally and centrally. Our communities want to know that our services represent value for money and that we are managing our finances wisely.

There is an expectation that as households tighten their belts, so too will we. The public expects information to be made available so that we can be held accountable for service performance and decisions made.

· Integrated planning

The sustainability of our District and the wider western Bay of Plenty sub-region will depend on how well we plan with our SmartGrowth partners and other key agencies. Auckland's spatial plan focuses on integrated planning and the government is interested in using this tool for improving the performance of Auckland's economy. Recognising the value of integrated planning that links long-term land use and infrastructure (including social infrastructure) with funding will be critical as our region competes with others, in particular Auckland, for limited central government funding to secure a robust economy for the future.

Population ageing

In our District the number of people over retirement age is forecast to increase from 20% in 2013 to 33% by 2033. This is likely to mean a greater proportion of Western Bay residents will be on fixed incomes even if more over-65s continue to work. We will experience an increasing number of older people living longer than ever before. Population ageing presents a number of opportunities and challenges and not just for local government. We will consider the needs of our aging population when making decisions about things such as recreational facilities, meeting places, footpaths and the types of homes that our District will need.

Housing affordability

The gap between house prices and personal incomes means that home ownership rates are declining. Housing affordability has an effect on the labour market and in turn on the local economy. While growth management has an obligation to ensure an adequate supply of land, there is a need to ensure sufficient rental housing and affordable home ownership opportunities. This requires a commitment and collaborative approach between central government, local authorities, developers and other key stakeholders.

Treaty of Waitangi claim settlements

The settlement of Treaty of Waitangi claims in our region is expected to change the economic landscape in the next few years. We need to strengthen our relationships with iwi and hapu organisations and emerging leadership structures so that opportunities for collaboration and partnership are developed for the benefit of the whole community.

· Diseases, disasters and extreme weather events

The grounding of the MV Rena cargo ship on 5 October 2011 has highlighted how dependent we are on the environment for our lifestyle and prosperity.

At the same time adversity such as this often brings out the best in communities shown by the number of people who volunteered to clean up our beaches and reveals their true resilience and strength.

Following the Canterbury earthquakes and Japanese earthquake and tsunami there is a heightened awareness of the potential consequences of land instability, regardless of whether it results from seismic activity, coastal erosion, geological conditions or rainfall intensity.

Some property owners expect us to respond with engineering works to reduce land instability risks, but in some cases this may not be the most sustainable approach. Where costs are high and outcomes uncertain other approaches must also be considered.

Our Long Term Plan details how we propose to respond to these challenges and make the best of opportunities along the way.

Council recently signed a Housing Accord with the Government that aims to increase the number of new homes built in the District. The Accord allows the Council to fast-track changes without having to go through the Resource Management Act process, by way of creating special housing areas (the first which will be Omokoroa). Rules will still apply to ensure that these areas are quality developments.