

## Council Briefing Agenda

**Date:** Tuesday, 8 August, 2017  
**Time:** 10:30 am  
**Location:** Council Chamber  
Forum North, Rust Avenue  
Whangarei  
**Attendees:** Her Worship the Mayor Sheryl Mai  
(Chairperson)  
Cr Stu Bell  
Cr Crichton Christie  
Cr Vince Cocurullo  
Cr Tricia Cutforth  
Cr Shelley Deeming  
Cr Sue Glen  
Cr Jayne Golightly  
Cr Phil Halse  
Cr Cherry Hermon  
Cr Greg Innes  
Cr Greg Martin  
Cr Sharon Morgan  
Cr Anna Murphy

For any queries regarding this meeting please contact  
the Whangarei District Council on (09) 430-4200.

**1. Apologies**

**2. Reports**

2.1 Financial Strategy Overview 1

2.2 Infrastructure Strategy Overview 27

**3. Closure of Meeting**

# Financial Strategy Overview

**Meeting:** Council Briefing  
**Date of meeting:** 8 August 2017  
**Reporting officer:** Alan Adcock (General Manager – Corporate/CFO)

## 1 Purpose

To discuss the Financial Strategy as part of the development of the 2018-28 Long Term Plan.

## 2 Background

The Financial and Infrastructure Strategies are two of the key supporting documents to the Long Term Plan (LTP), providing both the strategic direction and the underpinning context for the plan.

Financial and infrastructure strategies are symbiotic. A financial strategy that is not grounded in service needs and realities is 'aspirational' at best, and will fail as a strategic control. An infrastructure strategy that is not properly grounded in financial realities is also an aspirational document and is a potential recipe for long-term service failure or other 'surprises' (such as unexpectedly large movements in rates or debt).

Broadly speaking, an infrastructure strategy takes council's vision and identifies the key infrastructural issues and drivers over the long-term, and what choices the community might have in managing these.

The financial strategy presents the financial consequences of that vision. It can also establish the overall financial parameters that council operates within; creating a financial envelope that caps the resources available to implement the vision through the infrastructure strategy. This 'chicken and egg' scenario requires the development of each strategy in tandem through an iterative process.

While legislation allows the Financial and Infrastructure Strategies to be integrated into one document, we intend to keep them as separate, but linked, strategies.

The financial strategy is a mandatory inclusion in the Consultation Document and LTP and must include:

- quantified limits on rates, rates increases and debt
- an assessment of the implications those caps have for sustainability of service
- policies on giving security for borrowing.

It must also identify the factors that we expect will impact during the life of the strategy including:

- changes in population and land use (and the cost of providing for those changes)
- the expected capital expenditure incurred on the five mandatory groups of activity
- any other factor that affects our ability to either maintain existing levels of service, or meet additional demand for our services.

### 3 Discussion

As well as the linkages to the Infrastructure Strategy, consideration must also be given to a number of other factors.

The Local Government Act (LGA) has some specific requirements in relation to financial management:

<b>s101 Prudence and Sustainability</b>	manage finances prudently and in a way that promotes the current and future interests of the community
<b>S101A Financial Strategy</b>	inform and guide the assessment of funding and expenditure proposals
<b>S102 Funding and financial policies</b>	adopt a set of funding and financial policies to provide predictability and certainty about sources and levels of funding
<b>S 100 Balanced Budget</b>	operating revenues must be set at a level sufficient to meet operating expenses, unless prudent not to.

These requirements influence or dictate various other inputs to the Financial Strategy, overall LTP and Council's operations:

- The Revenue and Financing Policy, which establishes the way each activity is funded
- Rating policies (including remissions and postponements), which are currently under review
- Treasury Policy, which establishes the way debt is raised and secured, as well how consequential liquidity and interest rate risks are managed.

These policies help to establish an overall policy framework for Council's financial management, but do not themselves set the financial parameters. These will be discussed at the August 8 Briefing, and will be revisited several times as the LTP process continues.

Some of the matters that will be presented for discussion are:

- Rating review feedback and some possible options for changes to rating policies
- Rates increases e.g. Should we continue with LGCI plus 2% plus a 1% growth factor?
- Treatment of Deficits/Surpluses arising from Targeted Rates for specific activities e.g. Water
- Balancing the Budget – whether we should be covering Operating Expenses including Depreciation as a proxy for asset renewals, or actual renewal spend
- Debt levels – what is an appropriate amount of debt and how that limit be expressed e.g. \$ amount, Debt per capita, Debt per Ratepayer.

By way of background, Council's 2015 Financial Strategy (included as an Attachment) was to:

- *have a balanced budget in every year, where revenue exceeds expenditure (including depreciation)*
- *introduce a step change in most rates in the first year, with increases 2% above inflation thereafter*
- *limit overall rates revenue (excluding Water) to a maximum of 70% of total revenue*
- *have a debt increase of \$3.5 million by the end of the Plan, to \$163.5 million*
- *maintaining interest costs at less than 25% of rates revenue have a debt per capita level below \$2,150*
- *provide sufficient cash surpluses to fund the planned capital expenditure programme without reliance on asset sales.*

The overall objective of the Briefing is to produce an initial draft of high levels parameters like these so some initial modelling can be used to validate the draft Infrastructure Strategy and general operating assumptions.

## **4 Attachments**

2015 Financial Strategy



# FINANCIAL STRATEGY

## This Financial Strategy aims to:

- achieve a balanced budget in every year, where revenue exceeds expenditure (including depreciation)
- introduce a step change in most rates in the first year, with increases of 2% above inflation thereafter
- limit overall rates revenue (excluding water) to a maximum of 70% of total revenue
- have net debt no higher than 150% of total revenue
- have net debt peaking at \$171 million and then reducing to \$146 million by 2025
- maintaining net interest costs at less than 25% of rates revenue (10.5% as at 30 June 2014)
- have a net debt per capita level below \$2,150 (\$1,975 at 30 June 2014)
- provide sufficient cash surpluses to fund the planned capital expenditure programme without reliance on asset sales (apart from the Okara sale already in progress).

## Over the next 10 years this allows for:

- a capital works programme of \$574 million
- 79% of capital expenditure focused on core network infrastructure (roading, water, waste, stormwater and flood protection)
- operational revenues of \$1.577 billion
- operational spending of \$1.440 billion.

## BUILDING A SUSTAINABLE FINANCIAL STRATEGY

This Financial Strategy is based on fulfilling one of the core purposes of local government, which is to *"meet the current and future needs of communities for good-quality local infrastructure, local public services and performance of regulatory functions in a way that is most cost-effective for households and businesses"*.

Building a sustainable financial platform is one of the primary objectives of this Strategy. Council has reflected on the challenges in funding our work programme over the past decade. While we have coped with significant population growth, upgraded many infrastructure assets (such as roads, bridges and wastewater treatment plants) to improve service levels, built significant community assets (like libraries and sports facilities), dealt with damage from storm events as well as day to day operations, these have all come at a cost. Much of the funding for infrastructure projects has come from increased debt or the sale of assets, rather than from cash surpluses or reserves.

We have reflected on the community's needs and our current financial position in order to make decisions on what Council believes are appropriate ways to fund the delivery of all the services that

our community requires – both now and into the future. We have examined the state of our network infrastructure and community assets, the levels of service that our community expects us to deliver and the funding required to achieve this. This, in turn, has led to an examination of the funding allocation between ratepayers, specific users of services, and debt. This Strategy, together with the Infrastructure Strategy, sets out these issues and our funding model.

We also compared the way we fund activities with that of other similar councils around New Zealand. We came to the conclusion that our overall rating levels were very low compared with our peers and that they needed to be increased if we were to achieve our service delivery targets. We were very conscious of striking a balance between keeping our rates as low as possible and providing the range and quality of services and asset maintenance that our community expects. We also took into account the affordability of rates, given the demographics of our District.

We considered the way that we have used debt and asset sales to fund our work programme. In the last few years we have stabilised our debt at around \$160 million, and wish to limit future debt

increases as much as possible. However, we note that development of a new airport, should it proceed, would require significant debt funding in the future. This project is discussed on page 33.

Over the last four years our capital works programme has been partially funded through sales of commercial property. Apart from the \$10.5 million sale of the Okara site, which is nearing completion, there is no provision for further asset sales in this strategy.

The 2012 LTP included a number of years where expenditure exceeds income, i.e. the budget is 'unbalanced'. This Strategy has taken a different approach, with the fundamental premise that an operating surplus will be produced in every year i.e. the budget is balanced and depreciation is fully funded.

This is a sustainable financial strategy. By the end of the 10-year planning period we will have an income base that allows us to provide the services that our community expects, without leaving a large backlog of asset maintenance and renewal for later generations to deal with. While it does mean rates rises beyond the level of inflation, we believe they are necessary to provide the range of quality services our community demands.

# FINANCIAL CHALLENGES WE FACE

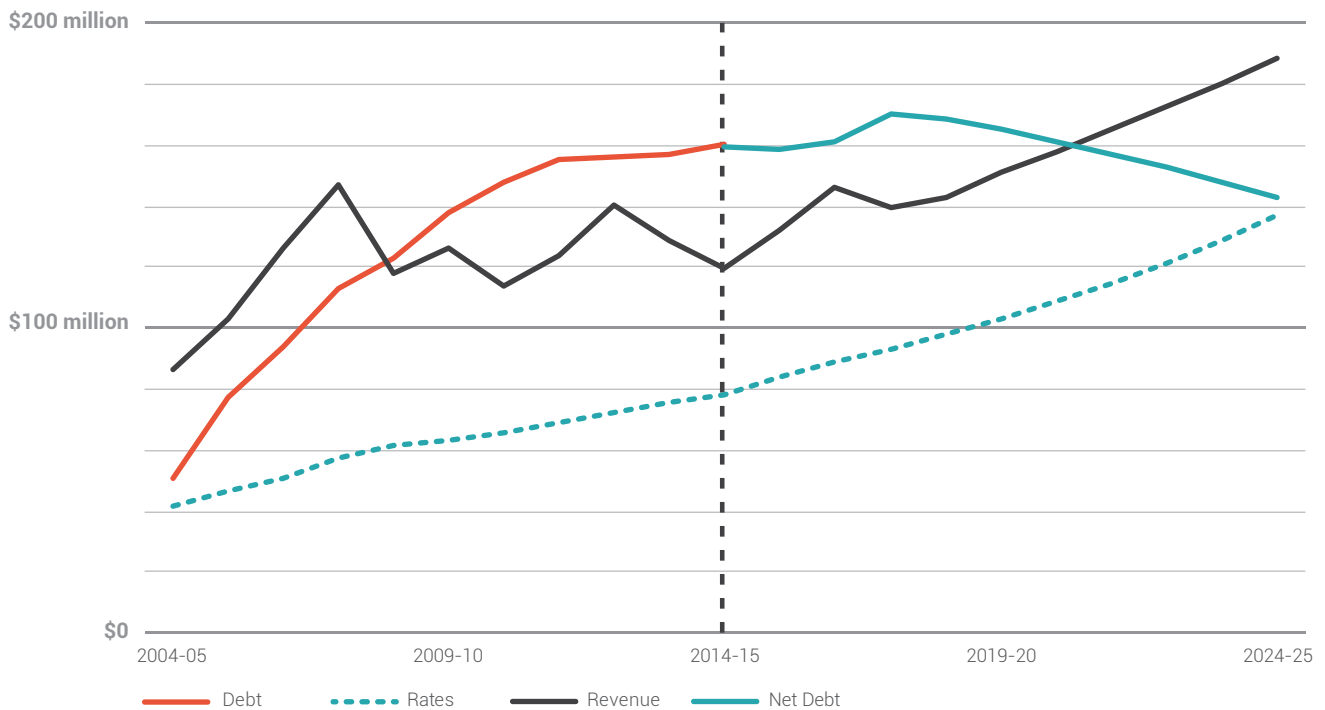
In developing an LTP it is necessary to establish a financial envelope within which to operate, including identifying appropriate levels of debt, rates, capital and operating expenditure, development contributions and fees and charges. A number of factors, which are expected to impact on our business and its finances over the 2015-2025 period, were considered.

The graph below shows the trends in debt, revenue and rates (which provides the majority of our revenue) over the last 10 years, together with projections for the next 10-year planning period.

In simplistic terms, the revenue Council receives each year from rates and other revenue sources should cover all operating expenditure including

depreciation (i.e. a balanced budget), with any cash surpluses beyond that funding capital works. Where more funding is needed, that generally comes from either increased debt or assets sales. This situation can arise where there is significant population growth, increased levels of service, or where operating revenue or rates are too low.

## Debt/net debt, rates and revenue



Notes: Data for 2014-15 onwards is projected. Revenue from 2004-05 to 2007-08 includes a number of non-cash items.

Until the end of the 2014-15 year, Council managed its debt from a gross debt perspective. From the 2015-16 year, measurement will be from a net debt perspective.

During the period from 2004 to 2012 there was a significant increase in debt, which grew from around \$40 million to \$160 million. This was largely due to a major capital expenditure in growth related projects, a catch-up in infrastructure renewals, as well as a significant investment in our

wastewater treatment plants to improve levels of service. We also saw the first development of large new community assets for many years, with the completion of the library, aquatic centre, events centre and athletics/gymnastics facilities.

Investment in capital projects continued from 2012 to 2015, but rather than use debt, additional funding was provided mainly through the sale of property assets. Sale proceeds were accumulated in the Property Reinvestment Reserve (\$23 million as at 30 June 2014) and then used internally to fund capital works.



## Funding our work

Council's operations are complex and diverse. We provide a wide range of services, some of which are delivered face to face (e.g. building inspections) with others being delivered through use of our network infrastructure (e.g. roads and sewage treatment). We match the cost of providing these services with an appropriate funding source, as summarised in the table below. Full details are shown in the Revenue and Financing Policy on page 184.

MAJOR COST DRIVERS	INFLUENCES	PRIMARY FUNDING SOURCES						
		GENERAL RATES	TARGETED RATES	FEES AND CHARGES	GOVERNMENT SUBSIDIES	INCREASED DEBT	ASSET SALES	DEVELOPMENT CONTRIBUTIONS
ASSET MANAGEMENT	Age and condition of assets							
	Renewal programme	●	●	●	●	●		
	Storm events, ground conditions							
SERVICE PROVISION	Service delivery targets							
	Legislation changes e.g. Building Act	●	●	●	●			
	Government Subsidy availability							
INCREASED SERVICE DEMAND	Population Growth							
	Changes in community expectations e.g. Cycleways	●	●			●	●	●
	Changes in land use							
CHANGES IN SERVICE LEVELS OR NEW SERVICES	Community expectation e.g. Sewage spills							
	Government legislation e.g. Water standards	●	●	●				
	Other service providers withdrawing							
DEBT SERVICING	Debt levels							
	Changes in interest rates	●						
	New debt-funded projects							
PRICE CHANGES	Inflation							
	Contracts – escalation causes	●						
	Tenders – market driven							

In establishing this Financial Strategy, Council has to consider levels of funding required from each of these sources to fund its programme of work. While there are some constraints around the way some funds are spent (for example, development contributions can only be used to fund the growth portion of some infrastructure projects), there is still considerable flexibility in how Council raises its money.

## Inter-generational equity

The concept of achieving fairness between ratepayers over time is called 'inter-generational equity'.

Council has a responsibility to consider the interests of the community now as well as in the future. As a result, we try to ensure that, as far as possible, today's ratepayers only pay for services they are likely to consume, and not for benefits that will be received by new ratepayers in the future. There are two aspects to this.

Firstly, we need to make sure that today's ratepayers are paying their fair share of the 'wear and tear' on assets that are used to provide services they receive. While things like roads and water pipelines have useful lives that can span decades, they deteriorate a little every year. In any given period some will need to be replaced and we have renewal programmes for every asset type. We estimate degradation of our assets and associated renewal costs through depreciation in our accounts each year, and it is good practice to raise enough funding through rates to cover this every year.

However, because many of our assets have long lives, they will provide benefits to future ratepayers as well. When we build new assets we need to consider how much of the expenditure required should be funded through current ratepayers (via rates) and how much should be funded through future ratepayers by borrowing now and repaying debt later when future ratepayers become consumers.

Council has always, and will continue to, consider inter-generational equity when assessing who should pay in a bid to ensure fairness between current and future ratepayers. It will achieve inter-generational equity by balancing the mix of funding from rates and debt, as well as other income sources such as development contributions.

In general terms, rates, fees and charges are paid by today's ratepayers, while debt funding is left to future ratepayers to finance and ultimately repay. Current ratepayers are also servicing and repaying the debt for assets built by previous generations.

The Financial Strategy in the last (2012) LTP limited rates rises to inflation and capped the overall percentage of rates income to 65% of overall revenue. At the same time, the budget was 'unbalanced' in a number of years and capital expenditure was financed in part, through asset sales. In previous years, a large portion of funding was provided through

debt increases. This has meant that for the last decade or so, there has been an increasing weighting of funding by future ratepayers, rather than today's.

Council has now decided that it is preferable to return to a situation where there is adequate revenue each year to fully fund both operating and capital expenditure without relying on debt increases or asset sales. To achieve this, rates will increase at a level above inflation for the next 10 years. (See the 'Rates' section on page 24 for more details.)

## Maintaining levels of service

Council has operated a Financial Strategy since the development of the 2009 Long Term Council Community Plan. This Strategy introduced rigour to the process for developing Asset and Activity Management Plans, working within an overall financial envelope to ensure alignment of capital expenditure with levels of service, while keeping rate rises to the level of inflation.

Council has considered additional demand based on predicted growth in the development of Asset Management Plans, after giving regard to the Sustainable Futures 30/50 Growth Strategy. Capital expenditure in this 10-year Plan incorporates our ability to meet targeted levels of service whilst allowing for capacity required for anticipated growth. For the 2015 LTP we have also completed a 30-year Infrastructure Strategy that provides a blueprint for delivery of services through our network infrastructure.

Despite the significant level of budgeted expenditure over the next 10 years, upkeep of assets is still not at the optimum level as identified in the Asset Management Plans. The effect of this could potentially lead to deterioration in assets, meaning targeted levels of service are not attained and/or require additional costs in future which are not included within the 10-year life of this Plan. This could potentially result in future ratepayers paying costs that should arguably be met by today's ratepayers. The alternative would be to increase rates and other revenue even further, or to increase debt over the next 10 years.

The appropriate level of service has been carefully considered by Council in each activity area taking into consideration effects of each decision. There have inevitably been tensions or conflicts between the desired level of service and the level that can be provided within the financial parameters outlined in this Strategy.

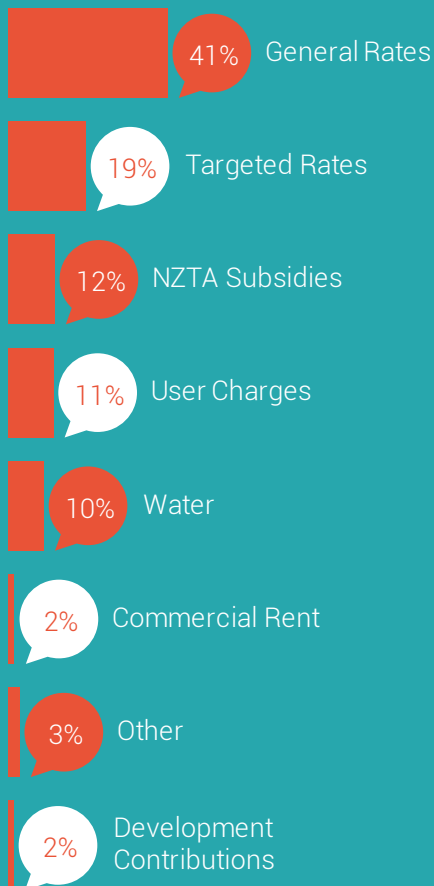
The resulting Asset and Activity Management Plans upon which this Plan is based have generally been prepared with a capital expenditure programme that is intended to maintain current levels of service throughout the 10-year timeline of the Plan. This 'hold and maintain' strategy will be managed by seeking efficiencies where funding is applied across operations, maintenance, renewal and capital upgrades. We will also review operational practices to identify efficiencies that can be gained from altering intervention levels or response times without adversely impacting on service level delivery.

There are no instances where current LTP level of service targets have reduced from the last LTP.

# FUNDING

Throughout the 10 years of this Financial Strategy, Council will rely on funding from a variety of sources, with rates being the largest portion

## Funding sources



\*Other = petrol tax, fines and infringements, interest received, subsidies other than NZTA, vested assets, gains on sale of property.

A key activity within the development of this Strategy was confirming levels at which revenues need to be set based on the following principles. Where possible:

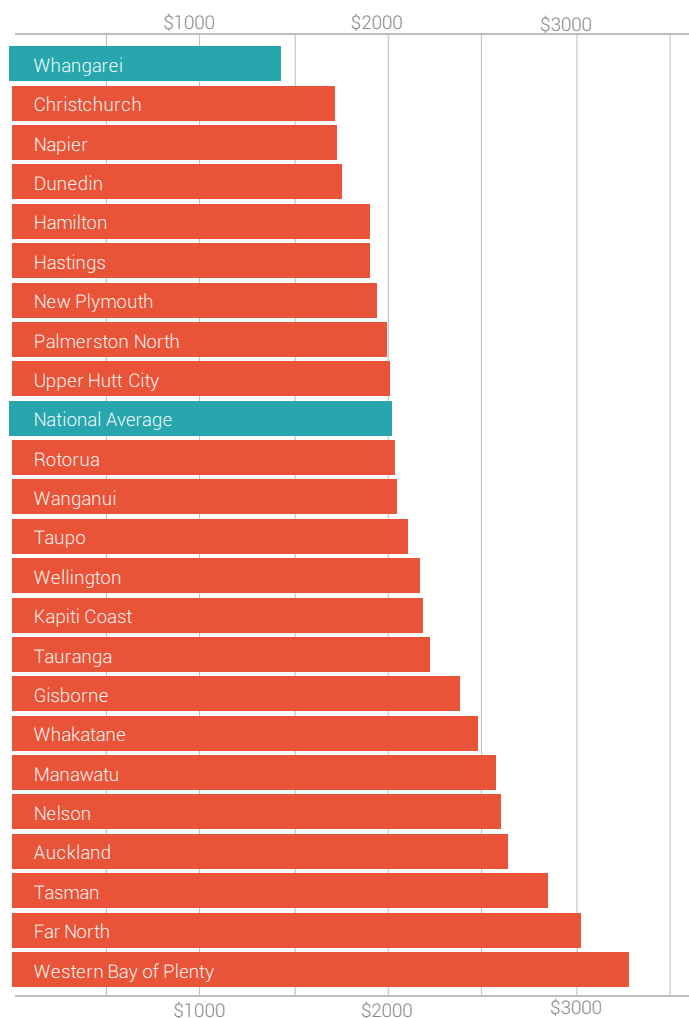
- revenues are sufficient to cover expenses
- asset renewals and replacements are affordable within the available funding envelope
- funding allows for major capital projects the community wants
- current service level targets are achieved
- the needs of current and future ratepayers have been taken into account
- we have balanced our budget each year
- rates increases are affordable.

## Rates

Like most councils, rates are our main source of funding. While we try to maximise the subsidies available from Central Government and have a 'user pays' policy (through consumption and user charges) for many services, the bulk of our work is funded by rates.

The diagram below illustrates how Council's residential rates compare to those of similar councils across New Zealand. This analysis, which was compiled independently by the NZ Taxpayers Union and Fairfax Media, compares the average costs for rates (general and targeted) and relevant user charges (such as metered water and refuse collection) for residential ratepayers in 2012-13. This table shows their results for a sample of district and city councils with a population greater than 30,000, to allow relevant comparisons to be made.

## Average residential rates



Source: Taxpayer Union/Fairfax Media Survey of Average Residential Rates – 2014

It is evident that our rates are much lower than other councils that face similar issues. While we recognise that our District is slightly less affluent than the average, we consider that rates increases beyond inflation are affordable for our community and are required if we are to meet our service level targets and keep our asset maintenance programmes up to date.

We have also considered introducing cost-cutting measures to avoid the need for significant rates rises. However, we were unable to identify areas where we could make meaningful savings without significant reductions in service levels.

## GENERAL RATES

There are two elements to General Rates: a Uniform Annual General Charge (UAGC), which is a fixed dollar amount that all rating units are levied, and a 'rate in the dollar' amount, which is based on the value of each rateable unit.

Council currently uses land value to allocate the rate in the dollar portion. After considering whether it was appropriate to continue with this approach or move to a Capital Value system, it was decided to continue with the land value approach because the transition is a complex and challenging process, with potential for considerable fluctuations in individual rates demands unless transition arrangements are introduced. Council plans to conduct a comprehensive review of its rating policies ahead of next year's Annual Plan.

## TARGETED RATES

There are several types of targeted rates, including those:

- levied across all ratepayers, e.g. refuse management
- only charged to ratepayers connected to reticulated networks e.g. water, wastewater
- charged for users of a particular service e.g. Hikurangi Swamp Flood Protection Scheme
- funding a particular service or facility that has been requested e.g. a new boat ramp or seawall.

Where a targeted rate is collected, those funds can only be used for that specific purpose and the level of rates levied is set to match predicted expenditure over time. In any given year there are likely to be differences between revenue and expenditure, so the 'activity' can be in surplus or deficit. For example, there has been significant investment in wastewater treatment facilities in recent years that required debt funding, so that activity is currently in deficit, while the opposite situation exists for water. Where there is a surplus, a reserve fund is established and this is shown in the Annual Report each year.

## INCREASES TO RATES

In the 10 years of this Plan, Council intends to increase rates (excluding water) beyond the level of inflation, with the increase in the first year greater than those in later years, as shown in the table below. Overall, rates revenue will also increase as our District's population grows.

	YEAR ONE – 2015-16			YEARS TWO-10 – 2016-25		
	ANNUAL INFLATION	ADDITIONAL INCREASE	ALLOWANCE FOR GROWTH	ANNUAL INFLATION	ADDITIONAL INCREASE	ALLOWANCE FOR GROWTH
<b>GENERAL RATES</b>						
Rate in the dollar	LGCI	5%	1%	LGCI	2%	1%
UAGC (per Rating Unit)	-	\$50	1%	LGCI	2%	1%
<b>TARGETED RATES</b>						
Wastewater	LGCI	5%	0.8%	LGCI	2%	0.8%
Refuse Management	LGCI	5%	1%	LGCI	-	1%
Flood Protection	-	8%	-	-	8%	-
Water Rates	LGCI	-	0.6%	LGCI	-	0.6%

We have also allowed for growth in Rates revenue of 1% for most rating categories due to projected population increases. The projected number of rateable properties within the District at the end of each preceding financial year is shown in the table below.

### Projected rating base information

15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	24-25
40,675	41,081	41,492	41,907	42,326	42,750	43,177	43,609	44,045	44,485	44,485

Annual Growth factors shown above will be used for each year's rates strike regardless of actual growth to allow some certainty in financial planning. When the next LTP is prepared in 2018 actual population growth will be reviewed against these projections and any necessary adjustments made.

The reasons for different increases for each rating type are:

### General rates

#### Rate in the dollar

These increases are set at the level that will provide sufficient funding for the planned expenditure programme for the bulk of Council's activities. Increases to other rating types only vary from these amounts if there are specific reasons as noted below.

#### UAGC

Review of the Revenue and Financing Policy indicated that the increase to the UAGC in year one of \$50 brought it to an appropriate level that reflected funding requirements of activities that are to be funded by all ratepayers equally.

## Targeted rates

### Wastewater

This increase matches that of the rate in the dollar. However, the growth factor is reduced from 1% to 0.8% as some growth will be outside the reticulated area.

### Refuse management

An increase in year one will bring revenue for this activity in line with expected expenditure with ongoing growth and inflation adjustments.

### Flood protection

In line with consultation for the 2012 LTP with the public and those affected, Council has maintained targeted rate increases for the Hikurangi Swamp Scheme at 8% for each year of the Plan to fund additional expenditure required to maintain effectiveness of the Scheme.

### Water

The Water Reserve had a surplus of \$8.9 million as at 30 June 2014. These funds, together with increases limited to inflation and growth, will provide adequate funding for the expenditure programme in this LTP. The growth factor is reduced from 1% to 0.6% as some growth will be outside the reticulated area.

## ALLOCATION OF RATES

In 2012, Council introduced a 'fixed sector allocation' methodology, whereby a pre-determined percentage of general rates was shared between the three rating categories. The current splits are:

Residential (including lifestyle and multi-unit) properties	62.0%
Commercial properties	28.5%
Rural properties	9.5%

After reviewing the Revenue and Financing policy as part of the preparation of this strategy, Council has decided to leave these sector allocation percentages unchanged. However, Council will carry out a full review of its rating approach in the 2015-16 year.

**SAMPLE OF PROPERTIES SHOWING RATES FOR 2015-2016**

Randomly selected sample of properties from each category

	2014-15	2015-16
<b>RESIDENTIAL PROPERTY IN URBAN AREA WITH A LAND VALUE OF \$90,000</b>		
General rate – LV 90,000 @ \$0.0032991	281.24	296.92
Uniform Annual General Charge	356.00	406.00
Sewerage pan charge (where connected)	596.00	639.00
District-wide refuse management	155.00	166.00
<b>Total</b>	<b>1,388.24</b>	<b>1,507.92</b>
<b>RESIDENTIAL PROPERTY IN URBAN AREA WITH A LAND VALUE OF \$195,000</b>		
General rate – LV 195,000 @ \$0.0032991	609.36	643.33
Uniform Annual General Charge	356.00	406.00
Sewerage pan charge (where connected)	596.00	639.00
District-wide refuse management	155.00	166.00
<b>Total</b>	<b>1,716.36</b>	<b>1,854.33</b>
<b>LIFESTYLE PROPERTY WITH A LAND VALUE OF \$320,000</b>		
General rate – LV \$320,000 @ \$0.0032991	999.97	1055.71
Uniform Annual General Charge	356.00	406.00
District-wide refuse management	155.00	166.00
<b>Total</b>	<b>1,510.97</b>	<b>1,627.71</b>
<b>LIFESTYLE PROPERTY WITH A LAND VALUE OF \$1,750,000</b>		
General rate – LV up to \$687,000 @ \$0.0032991	2,146.82	2266.48
LV from \$687,001 to \$1,374,000 @ \$0.0016496	1,073.41	1133.27
LV over \$1,374,000 @ \$0.0008248	293.74	310.12
Uniform Annual General Charge	356.00	406.00
District-wide refuse management	155.00	166.00
<b>Total</b>	<b>4,024.97</b>	<b>4,281.87</b>
<b>RURAL PROPERTY WITH A LAND VALUE OF \$750,000</b>		
General rate – LV \$750,000 @ \$0.0026691	1,944.48	2001.83
Uniform Annual General Charge	356.00	406.00
District-wide refuse management	155.00	166.00
<b>Total</b>	<b>2,455.48</b>	<b>2,573.83</b>
<b>RURAL PROPERTY WITH A LAND VALUE OF \$2,200,000</b>		
General rate – LV \$2,200,000 @ \$0.0026691	5,703.72	5872.02
Uniform Annual General Charge	356.00	406.00
District-wide refuse management	155.00	166.00
<b>Total</b>	<b>6,214.72</b>	<b>6,444.02</b>
<b>COMMERCIAL PROPERTY WITH A LAND VALUE OF \$510,000</b>		
General rate – LV \$510,000 @ \$0.0171967	7,902.36	8770.32
Uniform Annual General Charge	356.00	406.00
District-wide refuse management	155.00	166.00
Sewerage charge – five pans @ \$416.00	1,940.00	2080.00
<b>Total</b>	<b>10,353.36</b>	<b>11,422.32</b>
<b>INDUSTRIAL PROPERTY WITH A LAND VALUE OF \$2,475,000</b>		
General rate – LV \$ 2,475,000 @ \$0.0171967	38,349.68	42561.83
Uniform Annual General Charge	356.00	406.00
District-wide refuse management	155.00	166.00
Sewerage charge – five pans @ \$416.00	1,940.00	2080.00
<b>Total</b>	<b>40,800.68</b>	<b>45,213.83</b>

\*\*Please note – Northland Regional Council rates are not included. Please refer to their LTP for the impact of their rates on your property.

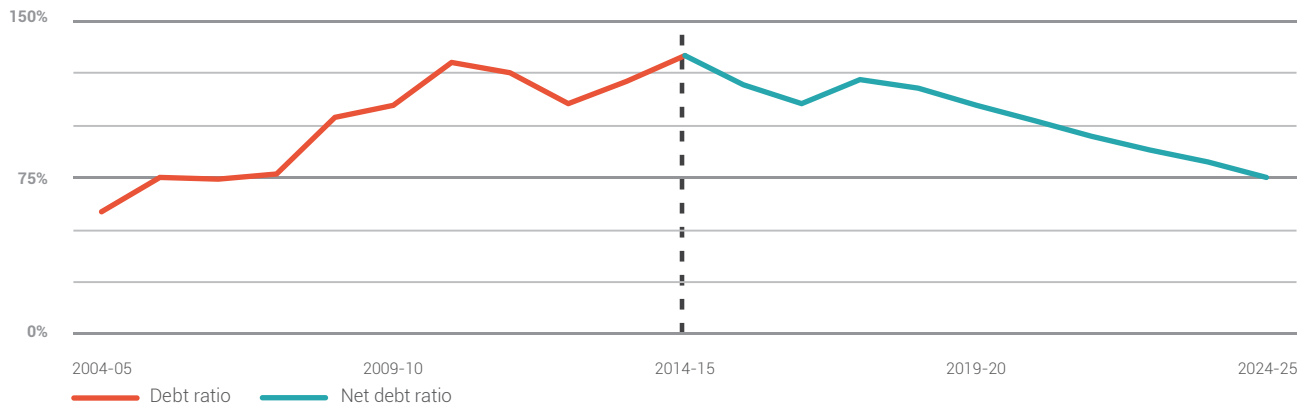
## Debt, interest and internal funding

### DEBT

Council's debt grew by \$120 million in the period from 2004 to 2012, but since then it has leveled off to the current amount of around \$160 million. This Strategy sees net debt peak at \$171 million before reducing to \$146 million by 2025, unless physical construction of a new airport commences earlier than expected (see page 33).

The graph below compares net debt to revenue and shows an improving trend over the 10 years of the Plan, with revenue matching debt in 2021-22 for the first time since 2008.

#### Debt /net debt as a % of revenue



Until the end of the 2014-15 year, Council managed its debt from a gross debt perspective. From the 2015-16 year, measurement will be from a net debt perspective.

### FINANCE COSTS

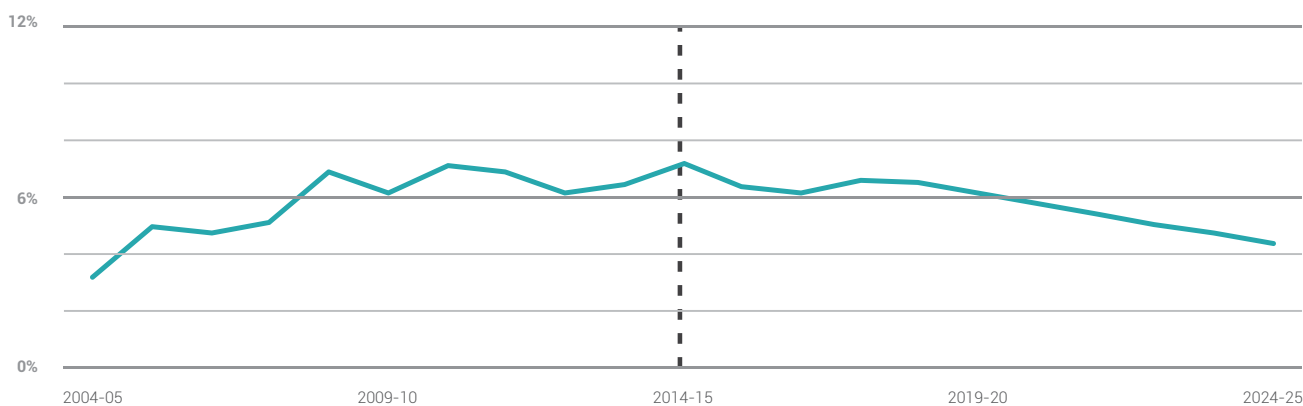
Council minimises its cost of debt through active treasury management, using interest rate swaps to protect against underlying interest rate or margin increases. Debt maturities are spread over both short and long terms, as well as a mixture of fixed and variable interest rates.

In order to minimise financing costs, Council is a shareholding member of the Local Government Funding Agency (LGFA). This means Council is able to borrow at better rates than are available through direct lending from trading banks.

In May 2015, Council had its AA- credit rating reconfirmed by Standard and Poors. They revised the credit rate outlook from 'stable' to 'positive' due to stronger budgetary flexibility, which indicates a one third chance of a credit rate increase within the next two years. This is likely to further reduce financing costs going forward.

The LTP assumes an interest rate averaging 5.65% across the 10 years, after taking all factors outlined above into account.

#### Interest as a % of revenue



### INTERNAL FUNDING

As part of its treasury management, Council seeks to minimise its overall interest costs by using funds held in reserve as 'internal borrowing,' i.e. rather than keeping funds on deposit while borrowing all the money needed to fund capital works, reserve funds are used in the short term, noting that they need to be repaid in future as they are needed. Council intends to continue this approach into the future.

The largest reserve fund is the Property Reinvestment Reserve (PRR). This was created through the sale of Council's interests in leasehold land to incumbent lessees since 2010. While there are no plans to sell more leasehold land in this LTP, if any sales were to take place, funds would be added to this reserve. In the meantime, available funds are used to fund other Council activities, until required for new commercial property purchases.

At this point Council has not identified or budgeted for any property purchases in the next 10 years. However, it is recognised that there is a possibility that investment opportunities may arise from time to time. Where there is an identified strategic benefit and/or the predicted return from a potential commercial property investment is greater than the cost of capital, consideration may be given to funding a purchase, thereby reducing the PRR balance. Any such purchases are likely to be debt-funded and dealt with via a Council resolution or future Annual Plan/ LTP process as appropriate.

### Property Reinvestment Reserve

	YEAR 1 2015-16 \$'000	YEAR 2 2016-17 \$'000	YEAR 3 2017-18 \$'000	YEAR 4 2018-19 \$'000	YEAR 5 2019-20 \$'000	YEAR 6 2020-21 \$'000	YEAR 7 2021-22 \$'000	YEAR 8 2022-23 \$'000	YEAR 9 2023-24 \$'000	YEAR 10 2024-25 \$'000	TOTAL
Opening balance	26,258	26,783	27,319	27,865	28,422	28,991	29,571	30,162	30,765	31,381	26,258
Dividend	525	536	546	557	568	580	591	603	615	628	5,750
Closing balance	26,783	27,319	27,865	28,422	28,991	29,571	30,162	30,765	31,381	32,008	32,008

Other significant reserve funds include Community Development Funds (\$9.7 million as at 30 June 2014) and asset reserves that are created when targeted rates for a particular activity are accumulated before significant capital expenditure. There was a balance of \$8.9 million in the water reserve as at 30 June 2014. This will be eliminated over the life of the LTP as water projects are completed.

At the outset of this LTP Internal Funding will total around \$40 million which is expected to increase to around \$44 million by 2025.

Notional interest charges will be made to each activity for their share of funds borrowed from reserves, with internal finance costs disclosed in Activity Funding Impact Statements in the line item 'Applications of operating funding – finance costs'. The resulting internal interest revenue is disclosed within Activity Funding Impact Statements line item 'Sources of operating funding – local authorities fuel tax, fines, infringement fees and other receipts'. All internal interest is eliminated in the Prospective Funding Impact Statement for Whangarei District Council.

### Fees and charges

Council will increase most fees and charges annually to align with the Local Government Cost Index (LGCI) inflation rate, which ranges from 2.24% to 3.53% across the 10 years of the Plan. In some areas, Council will seek to recover actual costs, e.g., food inspections and liquor licensing, which will result in increases beyond inflation. Council's fees and charges are reviewed on an annual basis.

### NZTA subsidies

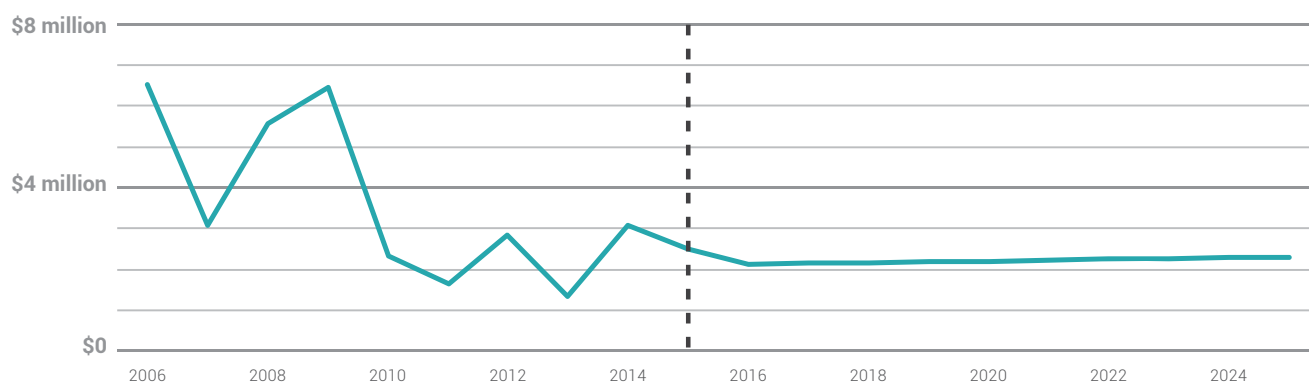
Subsidies from Central Government via New Zealand Transport Agency (NZTA) provide a significant source of funding for our transportation activities. In 2015-16 we expect to receive subsidies of \$21.1 million, representing 54% of the gross cost of both operating and capital expenditure on a wide range of approved items. At the time of completion of this Plan NZTA had not confirmed the subsidies applied for by Council.

### Development Contributions

Council's practice is to fund most of the growth component of capital expenditure through Development Contributions, with the remainder funded through rates. Over the past few years the economic recession has slowed growth significantly, so Council has taken a conservative approach to forecasting revenues in this area.

Across the 10 years of this Plan, we expect to proceed with around \$67 million of growth projects. Forecast income of \$22 million from Development Contributions will cover some of this cost, with the remainder of funding to come from rates and subsidies.

### Development Contributions





# EXPENDITURE

## Operational activities

Total annual expenditure is forecast to increase from \$124 million to \$164 million over the 10 years of the Plan, while total annual revenue is expected to increase from \$132 million to \$189 million over the same period. This will provide an operating surplus in every year of the Plan.

Council's approach to forecasting operational expenditure is a balancing act. Local government costs are rising faster than general consumer goods, and as a result, Council must rise to the challenge of meeting levels of service while at the same time looking for efficiencies in order to contain expenditure. We also need to allow for effects of population growth and operating costs associated with new assets in preparing our budgets.

Reviewing our supply chain so that we can purchase at best prices provides one of the best opportunities for limiting costs. Continuous improvement of our processes in many cases will result in less cost but also in best use of available funds (doing more with less). Council constantly reviews its operating costs with regular reviews of items such as bank charges, interest rates and preferred supplier arrangements.

The tables below show the split of total forecast operating costs for each activity and expenditure type for the planning period.

### Breakdown by activity

	\$000	% OF TOTAL
<b>NETWORK</b>		
Transportation	339,280	23.6%
Water	146,037	10.1%
Solid Waste	70,703	4.9%
Wastewater	138,620	9.6%
Stormwater	44,582	3.1%
Flood Protection & Control Works	11,653	0.8%
<b>Total</b>	<b>750,876</b>	<b>52.2%</b>
<b>OTHER</b>		
Community Facilities	241,959	16.8%
Economic Growth	29,163	2.0%
Planning & Regulatory	98,276	6.8%
Support Services	320,180	22.1%
<b>Total</b>	<b>689,578</b>	<b>47.8%</b>
<b>Total Activity Expenditure</b>	<b>1,440,454</b>	<b>100%</b>

### Breakdown by expenditure type

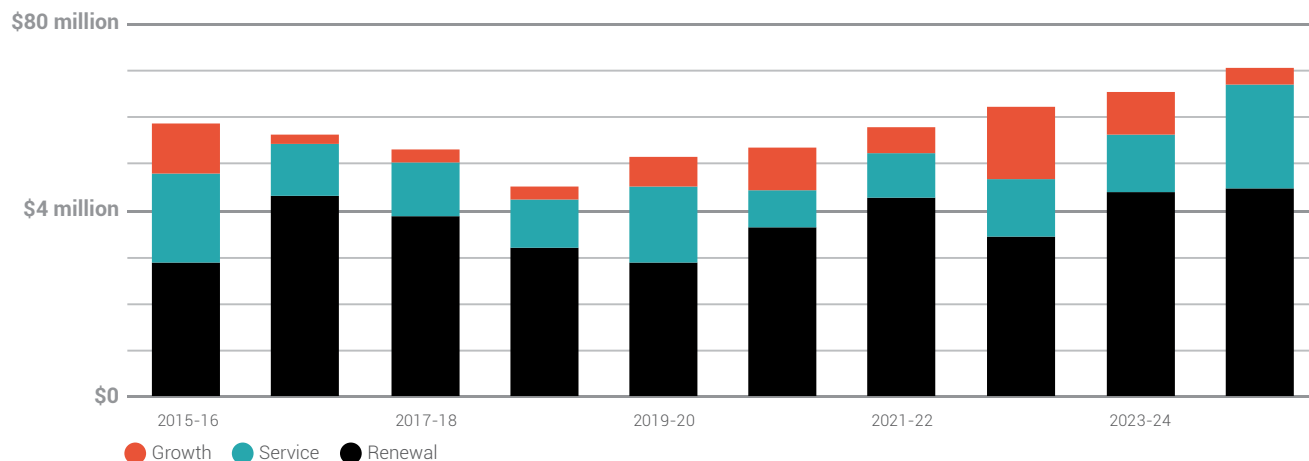
	\$000	% OF TOTAL
Asset operating expenditure	58,759	4.1%
Operating expenditure	335,819	23.3%
Professional fees	50,609	3.5%
Repairs and maintenance	170,280	11.8%
Depreciation	460,133	32.0%
Finance costs	88,758	6.2%
Personnel costs	276,096	19.1%
<b>Total</b>	<b>1,440,454</b>	<b>100%</b>

## Capital expenditure

Total annual spend on capital projects ranges from \$45 million to \$71 million. Included in the 2015-2016 year is \$13.4 million of carry forwards from 2014-2015. Expenditure is funded by a combination of operating surplus, rates collected for depreciation, development contributions and government subsidies. Council is expected to receive NZTA subsidies for roading expenditure of up to 54% for year one, and 53% for year two onwards, although some projects may be fully subsidised.

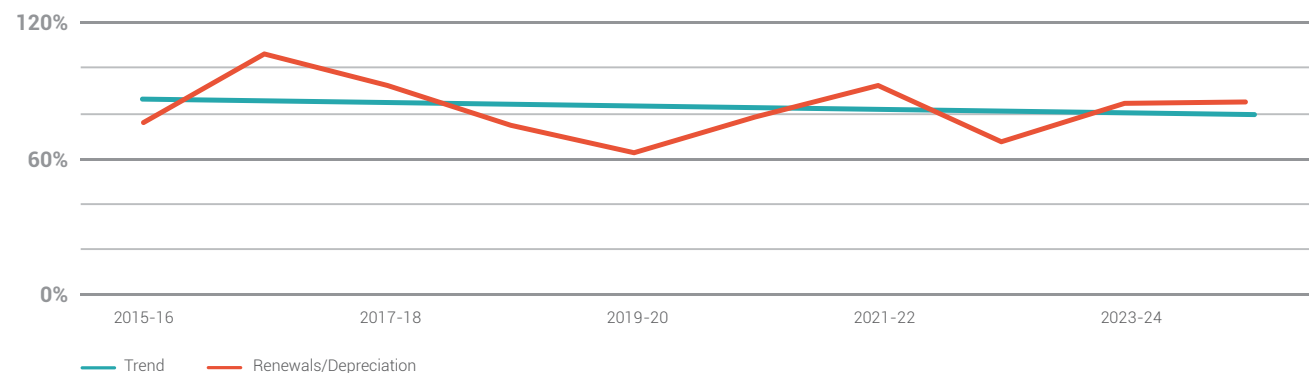
The graph below illustrates planned capital expenditure over the 10 years of the Plan of \$574 million. 65% of total expenditure is for the renewal of existing assets, with 23% for improving levels of service and the balance of 12% providing for growth.

## Capital expenditure



Just under two thirds of expenditure is for the renewal of existing assets and upgrades to extend their useful life. Each year a depreciation amount is estimated. This represents the portion of an asset's useful life that has been used up through 'wear and tear' in that year by current ratepayers. Depreciation is calculated for all assets, and each year's renewal programme only affects a portion of assets, although all of them are replaced over time. The graph below shows the relationship between these two amounts over the life of the Plan.

## Renewals to depreciation



This shows the average ratio of renewals to depreciation to be 82%. While renewal expenditure should roughly match depreciation expense in the long term, this is seen as a prudent approach that will not compromise service levels in the foreseeable future or leave a significant backlog of asset replacement for future generations. This issue is explored in more depth in the Infrastructure Strategy.

Capital Expenditure by activity type is allocated as shown in the table below.

	\$000	% OF TOTAL
<b>NETWORK INFRASTRUCTURE</b>		
Transportation	222.3	38.8%
Water	86.2	15.0%
Solid Waste	1.1	0.2%
Wastewater	126.8	22.1%
Stormwater	17.5	3.1%
Flood Protection	0.7	0.1%
<b>Total</b>	<b>454.6</b>	<b>79.3%</b>
<b>OTHER</b>		
Community Facilities	89.0	15.5%
Economic Growth	0.4	0.1%
Planning & Regulatory	1.1	0.2%
Support Services	28.4	5.0%
<b>Total</b>	<b>118.9</b>	<b>20.7%</b>
<b>Total Capital Expenditure</b>	<b>573.6</b>	<b>100%</b>

Note: Solid Waste expenditure relates solely to transfer stations, which are the only solid waste assets directly owned by Council. The bulk of our refuse management operations (including the landfill and Re-Sort facility) are delivered with our joint venture partner through the Northland Regional Landfill.

As the above table shows, over the life of the Plan, 79% of capital expenditure is focused on network infrastructure, reflecting Council's recognition that we still have to invest considerable amounts in our core assets to meet the service levels our community expects.

However, community facilities (like boat ramps, playgrounds, walking tracks or theatres) are a critical component of a balanced and sustainable community, and form an important part of our aspirations to enhance our District in terms of Sense of Place and improved economic social, health and education statistics. While some consider these projects as 'nice to have', Council views them just as important as core infrastructure in achieving our overall outcomes, while recognising that expenditure on them needs to be kept in balance.

## MAJOR CAPITAL PROJECTS

### Whau Valley Water Treatment Plant

Last year (2014) Council investigated the pros and cons of upgrading the 60-year-old freshwater treatment plant on the corner of Whau Valley Road and Fairway Drive, or building a new plant in a less populated area closer to the face of the dam.

The existing plant has adapted well to water quality improvements required over the past six decades, and it now processes much more water than it did when it was new. But it is now getting old, the building does not meet new earthquake standards, it is surrounded by residential development and large volumes of traffic pass it every day. If a new plant is built on a new site, it would meet 100% of seismic requirements, while only 67% of the standards would be met if the old plant's building was upgraded. A new plant would last 40-50 years (twice as long as upgrades to the existing plant) and space would be

allowed for the plant to be extended, if needed, in decades to come. A new site would remove this industrial activity from the residential environment, and could be achieved with less disturbance to residents than rebuilding on the existing site.

A new site will be sought and \$18.7 million, including a \$1 million carry forward from 2014-15, is allocated in 2015 through to 2017 (years one, two and three) to build a new water treatment plant.

### Mill/Nixon/Kensington

Council has allocated \$5.6 million in 2015-16, including a \$1 million carry forward from 2014-15 to complete planned works to ease congestion and safety at the intersections of Nixon Street and Mill Road, and Nixon Street and Kamo Road, which are both subject to traffic queues and accidents. This project will see Nixon Street become four lanes between Mill Road and Kamo

Road. The intersections at each end of this stretch will be upgraded and new traffic signals will be installed, and the intersection at Nixon Street and Kensington Avenue (crossing Kamo Road) will be straightened. Nixon Street will be widened by two metres (on the northern side) to allow for the extra lanes and footpath. This is the final project in a 20-year road improvement programme started in 1996, when the Whangarei 20/20 Central Area Concept Report revealed that up to 40% of the traffic in the central business district at the time was there only to travel from one side of the District to the other. Projects that would solve these issues most efficiently were then identified. The 20/20 Transport Plan was developed and, following public consultation, the Plan was adopted in 1996. We have been checking off those projects over the years since.

### Dust suppression and sealing

Dust suppression on unsealed roads continues to be a topic of some discussion, and as a result we are seeking Government assistance to seal sections of road on a number of unsealed logging routes across the District. The decision from NZTA is not expected until July 2015 at the earliest, so \$30,000 of dust suppression work was funded out of Roding's operating budget over the summer of 2014-15.

Council has applied to NZTA for a 100% subsidy to seal the full length of the currently unsealed sections of Wright Road and McCardle Road over three years. It is likely to cost \$4.5 million to seal the 9km road. We are requesting this funding from NZTA's Regional Development Fund (RDF) for forestry road upgrading.

In case we don't receive this funding, we have also applied for a five-year programme to seal strips in front of houses on metal roads that carry a lot of heavy vehicle traffic. We have asked NZTA to subsidise 54% of the costs of the project, and we have included the 46% that we would contribute in this Plan.

### Hikurangi sewerage

The sewer system in Hikurangi is so low-lying that in heavy rain, floodwater pooling above ground can flow into gully traps and low-lying manholes (inflow), and water within the ground can seep into the system through cracks in the pipes (infiltration). This floods the sewer and it, in turn, over-flows onto the surrounding land, contaminating flood water on streets, paddocks and back yards.

Lining cracked concrete pipes with PVC piping will reduce infiltration, and redesigning and replacing parts of the system will reduce inflow. We have allowed \$400,000 for the engineering plans and preparatory work to repair the system in 2015-16, \$3.4 million in 2016-17, \$2.2 million in 2019-20, and \$1.9 million in 2020-21.

### Wastewater treatment plant odour and resource consent and city improvements

Work in wastewater management over the past decade has focused on improving the health of the harbour and wider environment, and sustaining that improvement.

Over the next 10 years focus will shift towards anticipating and meeting rising environmental standards, community expectations, accommodating population growth and taking advantage of improvements to technology. One of the

primary projects will be to control odour from the largest wastewater treatment plant in the District, at Kioreroa Road. In the past, two odour-prone businesses were located on Kioreroa Road which was relatively distant from the city and ended halfway along the valley beside Limeburner's Creek. Now Kioreroa Road is a major thoroughfare, connecting the Lower Hatea River Crossing with State Highway One. Industrial development has boomed along the route and residential development has moved closer. As a result, odours from the plant have the potential to affect more people. Investment over the next 10 years will contain and treat odours emitted from the plant. At the same time, a number of projects will reduce the chances of spills and contamination by wastewater as it moves towards the plant though the City's sewer network.

### Support Services

Most of Council's administration is carried out from three separate offices: Forum North (the only office building we own), Walton Plaza and the Civic Arcade. For some time we have been looking at options to bring the operations in these three buildings under one roof. In the coming financial year, we start working towards housing most of our civic and administration functions in one centrally located building, a move that would improve productivity and efficiency, reduce rent paid, provide a better service to customers and eliminate duplication of functions established to operate three buildings. It is estimated the project would cost \$10 million, and that it would generate future operational savings averaging over \$1 million per year. This is the only project that would increase our total debt, but this office building debt will be repaid through cost savings in around 12 years, thereafter providing ongoing cost savings.

The funding included in the Plan assumes expansion of the current building at Forum North. However, other options would be investigated, including staying in the current sites or leasing space in a new development in the CBD, which may mean a slight increase in costs, but would not require us to increase our debt.

### New airport

Investigations are underway for potential development of a new airport, as the current location (Onerahi) is expected to have inadequate runway length for commercial airline fleets within 10-15 years. A total of \$2.5 million has been included in the first four years of the Plan to fund initial investigation, site selection and consenting phases.

Land purchase and site development costs are difficult to estimate at this stage, but are certain to be significant – potentially as much as \$40 million. Because of this uncertainty no funding for this has been included in this LTP. However, should the new airport development proceed, Council's intention would be to fund this through additional debt.

Because of the significance of this project, a decision to proceed beyond the consenting stage to physical development would trigger an LTP Amendment and further public consultation. There is insufficient headroom in the Limits on Debt (see page 36) for this funding and these would be reviewed as part of that process.

# ASSETS

Council holds a range of fixed assets valued as at 30 June 2014 at \$1.6 billion. A total of \$1.45 billion (91%) of these comprise our core network assets such as transportation, water systems, wastewater, stormwater and flood protection infrastructure.

Asset Management Plans have been prepared for infrastructure assets, setting out required maintenance and renewal expenditure to ensure they are appropriately managed and maintained to provide our targeted levels of service. Council intends to maintain these assets in accordance with these plans. Council also holds a number of operational and investment assets including property (incorporating land, buildings, ground leases and land held for development) and small forestry blocks.

Council's assets are insured with a number of providers, with the exception of roading assets which are predominantly covered through emergency reinstatement funding from NZTA and the small number of asset classes that are self-insured. Following

the 2011 asset re-valuation, Council reviewed sums insured for each asset class to ensure adequate cover was in place. This review found that Council had over 90% asset value cover for assets eligible for Local Authority Protection Programme (LAPP) and over 80% asset value cover for assets commercially insured. As a result of this review, Council allocated uninsured assets to LAPP, commercial insurers or 'self insurance'. Options for cover of uninsured assets were taken through the 2012 insurance renewal process.

Each year since, Council has undertaken a full assessment of insurance to determine whether there is adequate cover and where necessary additional cover has been taken. At the time of the 2014-15 renewal (June 2014) approximately 2% of assets were allocated to self insurance with the remainder being allocated to commercial insurers, LAPP or NZTA.

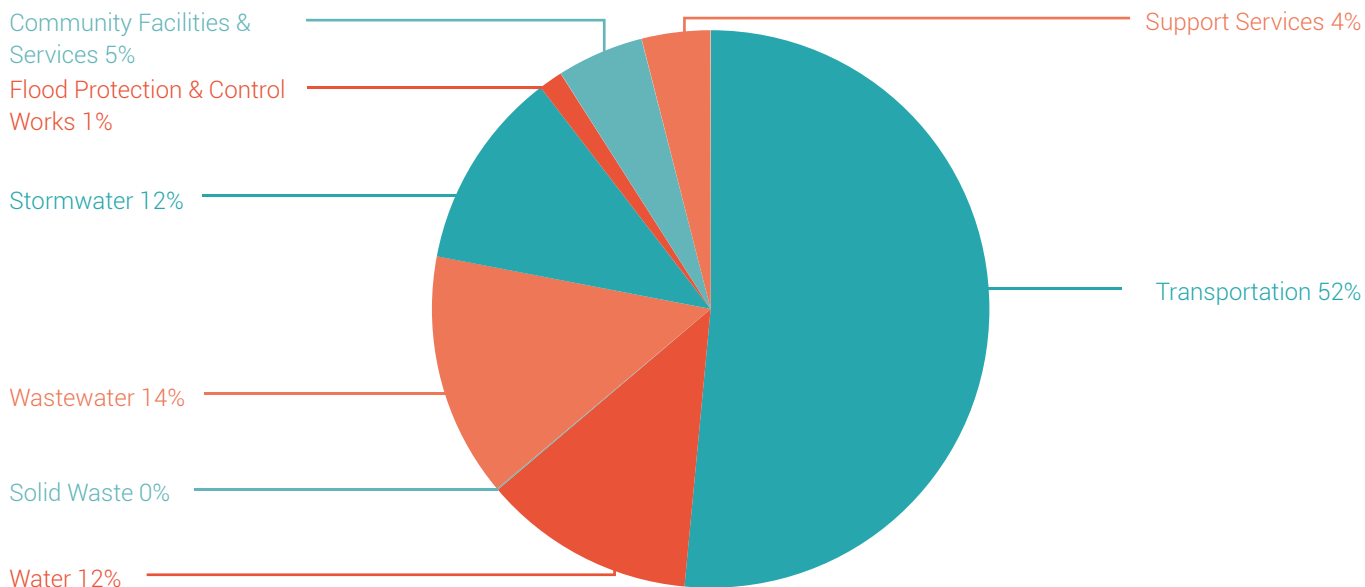
2014 was also a revaluation year. Revaluation data was not available until after the placement of the 2014-15

insurance programme and, as a result of this, Council's insurance schedules were again subject to a full review. This process is similar to that undertaken following the 2011 revaluation, and involved an assessment to determine whether costs of asset replacement across Council should be met by commercial insurers, LAPP and NZTA, or self insurance. Following this review, the insurance schedule was finalised with adjustments being notified to respective insurers.

Direct equity investments in Council Controlled Organisations/Council Controlled Trading Organisations and other shareholdings (in the form of land, buildings, airport assets and artwork) make up the remainder of Council's assets. These investments are reviewed on a regular basis to ensure that they are still appropriate for Council to retain.

Over the period of this Plan, the value of assets is expected to rise considerably as capital works projects will establish new assets of significant value and existing assets are revalued every three years.

## Assets by Activity



# MANAGING OUR GROWTH

Our District is growing and we expect it to continue to grow by an estimated 1% per annum over the next 10 years. The population of the District is projected to increase from 83,700 today to around 112,000 in 2045.

This represents an average annual increase of around 800 people per year, and a total increase in population of about 8,100 over the next decade, increasing total dwellings by around 0.95% (or 342 additional dwellings) per year. Growth patterns also predict around 50 additional unoccupied dwellings (holiday homes) per year. In some parts of the District growth has the potential to be substantial, particularly in the Marsden Point/Ruakaka area and along the coast. This expected growth in our population requires considerable investment in infrastructure, services and community facilities at substantial cost to Council, the business sector and the community in general.

While this growth is desirable and is to be encouraged it will continue to put pressure on our core infrastructure and community facilities in the medium and long term. Our transportation and roading network, water and wastewater services and parks and recreational facilities need to carry enough capacity to provide for predicted growth, with the anticipation of what has to happen and when it is needed being a significant challenge for Council.

To manage projected growth sustainably, in 2010 Council adopted a long-term sub-regional Growth Strategy titled Whangarei District Growth Strategy – Sustainable Futures 30/50. This Strategy determines existing and potential land use patterns and requirements. This allows us to manage the impact of growth and assess and plan for infrastructural requirements for our District over a 30-50 year time frame.

Because development and settlement patterns have effects on both the timing and costing of core infrastructure, the Infrastructure Strategy builds on this work to provide more detailed planning of our network infrastructure needs. Our Activity and Asset Management Plans have also been developed with regard to the 30/50 Strategy, which encourages growth where it has been considered desirable and where infrastructure is capable of meeting increased demand and seeks to discourage it in other areas.

An allowance for growth in general rates of 1% p.a. has been made in this Plan.

The implications of growth for each of the main asset classes are discussed below:

## Transportation

Recent Council efforts have resulted in a programme of major projects to improve traffic flow and safety in order to address future pressures on our roading network. These projects included the Lower Hatea River Crossing, linking Port Road to Riverside Drive, the Spedding Road extension the Porowini Avenue over-bridge and link to Port Road and the Mill Road/Nixon Street/Kamo Road intersection upgrades which is currently underway. The New Zealand Transport Agency (NZTA) has also been working through a series of major State Highway upgrades in order to address maintenance and growth factors. Increased traffic flows will also create demand for improved urban intersections, such as Porowini Avenue.

## Water supply

Approximately 80% of our population accesses Council's water supply infrastructure, with the remainder accessing water from springs, bores, streams or rainwater. The District has four water supply areas – Whangarei, Bream Bay, Maungakaramaea and Mangapai.

Increasing population and industrial growth is placing pressure on our District's stored water supply, which means our ability to respond to a one-in-50-year drought scenario is becoming strained. Annual water consumption is expected to increase from 7 million to around 8.2 million cubic metres annually by 2055 due to population growth.

In response to this situation the Plan includes projects to increase the availability of water and reduce the amount of lost water from system breaks and leaks.

## Wastewater disposal

Major pressure is evident on the wastewater system as a result of growth in the District. The recently completed wastewater treatment plant and reticulation at Ruakaka South was partially driven by capacity constraints as a result of growth. The pressure, however, extends throughout our District in terms of growth in areas such as Tutukaka, Oakura and the City catchments.

Overloading of the sewerage reticulation system during peak wet weather conditions and overflows during extreme

events have been catalysts for major upgrades in the past.

## Stormwater disposal

Historically, demand on our stormwater network increased as there was little or no obligation on the development community to mitigate the effects of increased runoff. The effect of growth through property development is managed through regulatory mechanisms, principally Environmental Engineering Standards, which require new stormwater infrastructure and developments to address climate change, runoff and stormwater quality issues. Many of the assets arising from development will be vested to Council with a corresponding increase in operational expenditure required to maintain those assets as they age. Continued work programmes are supporting renewal, maintenance and growth of the stormwater network as required.

## Solid Waste

Generation of solid waste is closely linked to growth and industrial and commercial development. However, despite population growth, over the last several years there has been a reduction in the total waste tonnage to the landfill. Council plans to continue this reduction through its Waste Minimisation Strategy.

These reductions, coupled with past investment in solid waste facilities and services, ensure that capacity for future growth already exists, thus minimal capital investment is required in this area to respond to growth.

## Parks & Recreation

Our District has an extensive network of sportsfields, reserves, parks, coastal structures and walkways along with a number of partially Council-funded community-based sporting and recreational facilities. We expect demand on these facilities to increase as our population grows, particularly with sportsfields, neighbourhood and urban parks, and amenities to enhance the 'sense of place' for individual communities. Council's contribution to economic growth for the District includes increasing the number of events being held in Whangarei, with sporting events being included.



## MINIMISING RISK

In preparing this Plan Council had to make some assumptions about what will happen in the future, but this will always bring with it a level of risk. We have identified four major areas of risk that could impact our ability to deliver on our Financial Strategy.

- Our District is susceptible to extreme weather events which requires funding for unplanned repair works. The main impacts are felt in our roading network, but there is often damage to other infrastructure such as pipelines, walking tracks and coastal structures. While we design and build our infrastructure assets to have resilience to these storm events, we are often faced with unplanned repairs. Council has considered the establishment of a reserve fund to cover storm damage, but has chosen not to do so at this time. Instead, funds are generally sourced from postponement of other projects as needs dictate. No provision has been made for catastrophic events such as tsunamis, as this would be so disruptive that a business continuity plan based on the current operating model would be impractical and other interventions (such as central government support) would be required.
- We know that population growth and development will continue, but we cannot accurately quantify exactly when, where or to what extent it will occur. Our Asset Management Plans, and Infrastructure and Financial Strategies are all based on historical trends and future growth forecasts to give us the best prediction of our District's needs into the future. While a number of projects that support growth are included in our LTP, we will review actual growth patterns and infrastructure needs each year and adjust the programme accordingly.
- Adverse global economic conditions can also have a negative impact on Council's financial resources, as well as those of our ratepayers and residents. The last six years have been particularly challenging, as Council has balanced issues of rates affordability against the desire to continue spending on infrastructure projects, which provide a significant input to the local economy through employment and financial stimulus.
- Conversely, buoyant global economic conditions can lead to higher interest rates. Given the level of Council's external debt, every 1% increase in interest rates represents about 2.4% of general rates. However, we manage our exposure to interest movement through a hedging programme that gives us a high degree of insulation from global or national events i.e. we have effectively capped our interest rates for many years into the future at current rates of less than 6%.

We also take a conservative approach to our debt levels, meaning that we have considerable capacity to raise debt to deal with abnormal events and emergencies. While there is no intention to increase debt beyond the levels shown elsewhere in this Strategy, it is important to note that we have access to more funding in the unlikely event that it is needed.

## LIMITS AND POLICIES

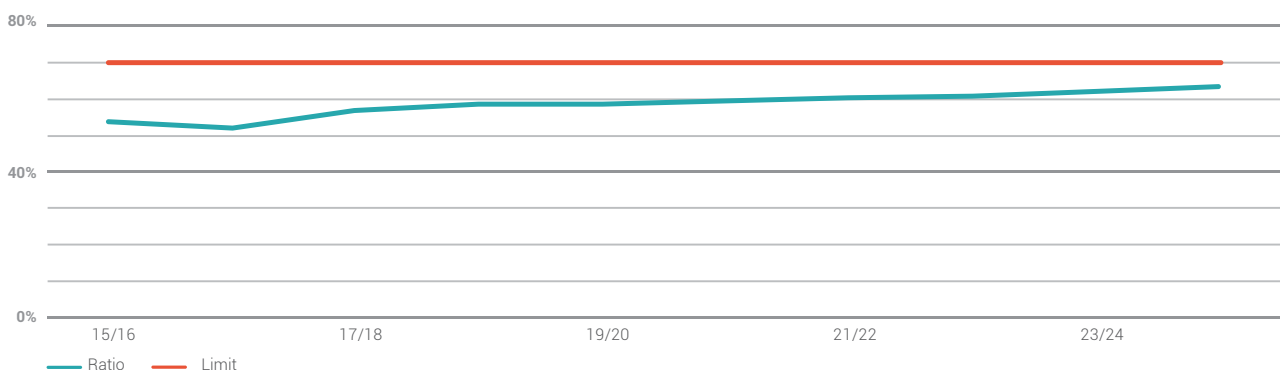
### Limit on rates

Council does not have a particularly diverse income stream, with the main sources being rates, fees and charges, development contributions and government subsidies (e.g. for transportation). There is limited scope to add new revenue sources without allocating funds to new investments, so the reliance on rates as a revenue source will remain relatively high.

While Council will continue its approach of allocating rates as a funding proportion based on who causes, and benefits from, its activities, it will also endeavour to limit rates (excluding water)\* collected each year to a maximum of 70% of total Council revenue, with the long term average below this limit.

This limit will be reconsidered as part of every Annual Plan and LTP to ensure that it remains a practical target given Council's financial position and broader economic conditions at that time.

### Limit on rates (excluding water) as a % of revenue



\* For the purpose of this limit, rates are defined as all revenue derived from general rates and targeted rates, but excluding water rates, which are effectively a consumption charge and are therefore out of Council's direct control.

## Limit on rate increases

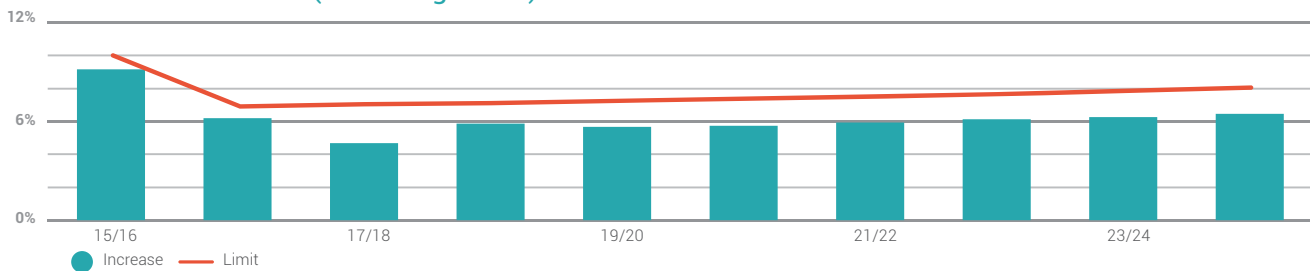
As noted in the Rates section above, Council intends to apply increases above inflation to all rating types apart from water. The increase will vary by rating type and from year to year, with the largest increases in 2015-16.

The inflation factor used is the Local Government Cost Index, with predicted annual inflation amounts ranging from 2.24% to 3.53%, with the largest increases in the later years of the Plan.

Rating revenue will also increase through natural growth in the rating base i.e. as our population grows. An allowance of 1% per annum is made for rates levied on all ratepayers, and 0.8% for wastewater, and 0.6% water as some growth will be outside the reticulated area.

The limit on rates increases will be set at different levels for the life of the Plan. In the first year it will be LGCI plus 7.5%, compared to subsequent years of LGCI plus 4.5%.

## Limit on rates increases (excluding water)



The target set for reporting purposes will be reset in each year's Annual Plan based on the latest LGCI predictions.

From time to time there may be extraordinary events that mean Council may have to go outside these limits. For instance, there may be a need to fund the cleanup after a catastrophic event. However, these situations are considered to be unlikely and have not been provided for in this Plan.

## Limits on borrowing

As noted above, Council is planning a decrease in external net debt to \$146 million by the end of the LTP in 2025.

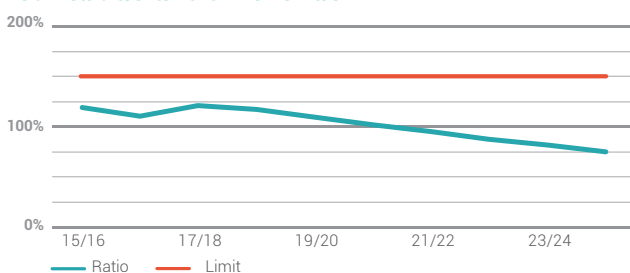
The maximum external net debt requirement in this Plan is \$171 million, whereas the policy limits (below), which are viewed as conservative by Standard and Poors, support net debt of over \$184 million. While Council has no intention of increasing debt to these levels, this represents the upper limit of borrowing under these limits and provides a buffer in the event of an emergency or natural disaster. When viewing its external debt situation, Council looks at external net debt which is the net of total external debt less any liquid financial assets and investments that Council may have put in place as part of its treasury management, at any given time.

There are two limits on borrowing: external net debt less than 150% of revenue, and external net debt per capita less than \$2,150.

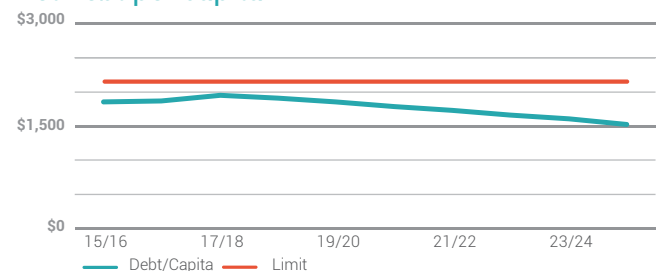
Details on how Council's debt is managed are set out in the Treasury and Risk Management Policy which is available on request.

Council also utilises internal funding which is not subject to the above limits.

## Net debt as a % of revenue



## Net debt per capita



## Securities for borrowing

Council currently secures its external borrowing and interest rate risk management instruments against the total of rates revenue via a registered Debenture Trust Deed. It is intended to continue with this practice, which provides ample security cover for predicted levels of borrowing.

## FINANCIAL INVESTMENTS AND EQUITY SECURITIES

Council uses any surplus cash to reduce debt, or invest in short term investments which are included as cash. Council can also hold investments in its subsidiaries.

Council does not hold equity securities in public companies except for small holdings in Civic Assurance Limited and New Zealand Local Government Funding Agency Limited which provide insurance services and lending to participating local authorities respectively.



## COUNCIL ORGANISATIONS

Council currently delivers a variety of services through Council Organisations (CO's) where it considers this is a more effective, efficient and financially viable option compared to other means of delivery.

There are five Council Controlled Organisations:

- Whangarei Waste Ltd
- Springs Flat Contractors Ltd
- Whangarei Art Museum Trust
- Northland Event Centre Trust
- Whangarei District Airport.

There is also one Council Controlled Trading Organisation:

- Northland Regional Landfill Limited Partnership.

Council also has a small (3.3%) shareholding in the NZ Local Government Funding Agency, which is owned by 30 councils and the Crown.

Council does not intend to make any significant changes to the current funding arrangements for these CO's throughout the 2015-2025 LTP.

## MONITORING AND REVIEWING THE STRATEGY

As part of business as usual we constantly scan the financial environment and our own performance to monitor:

- sustainability of our financial performance and position
- emerging risks
- whether the Strategy is being implemented
- trends in the community's ability to pay.

The Strategy will be reviewed tri-annually as part of the LTP process. Consideration will also be given to the impacts of any significant changes in local, national or global economic conditions during each year's Annual Plan process.

## SUPPORTING DOCUMENTATION AVAILABLE

The policies listed below have been developed in conjunction with this LTP, and are available upon request:

- Revenue and Financing Policy (page 184)
- Treasury and Risk Management Policy
- Development Contributions Policy.

# LONG TERM PLAN DISCLOSURE STATEMENT FOR PERIOD COMMENCING 1 JULY 2015

## What is the purpose of this statement?

The purpose of this statement is to disclose Council's planned financial performance in relation to various benchmarks to enable the assessment of whether Council is prudently managing its revenues, expenses, assets, liabilities, and general financial dealings.

Council is required to include this statement in its Long Term Plan in accordance with the Local Government (Financial Reporting and Prudence) Regulations 2014 (the regulations). Refer to the regulations ([www.legislation.govt.nz](http://www.legislation.govt.nz)) for more information, including definitions of some of the terms used in this statement.

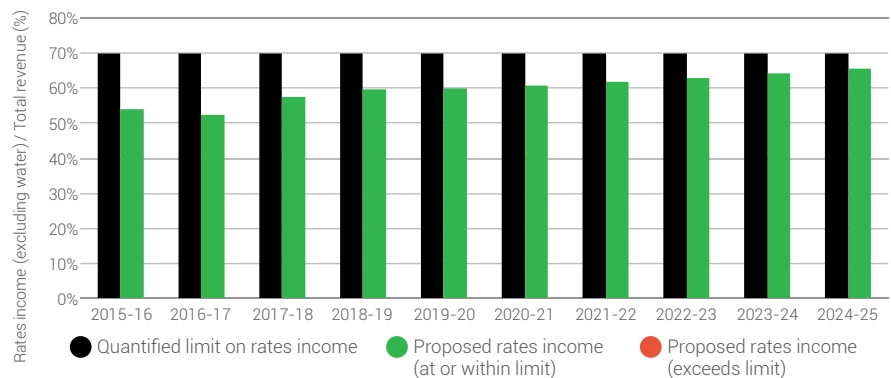
## Rates affordability benchmarks

Council meets the rates affordability benchmark if:

- its planned rates income equals or is less than each quantified limit on rates; and
- its planned rates increases equal or are less than each quantified limit on rates increases.

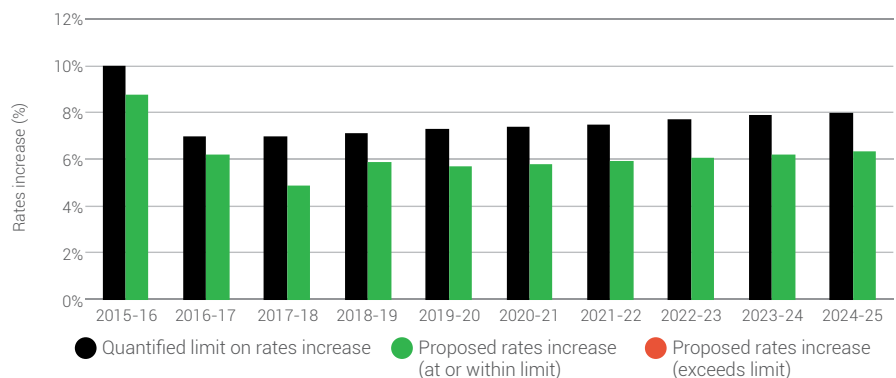
### RATES (INCOME) AFFORDABILITY

The following graph compares Council's planned rates with a quantified limit on rates contained in the Financial Strategy included in this Long Term Plan. The quantified limit is that rates income (excluding water) will not exceed 70% of total revenue.



### RATES (INCREASES) AFFORDABILITY

The following graph compares Council's planned rates increases with a quantified limit on rates increases contained in the financial strategy included in this Long Term Plan. The quantified limit is that the rates increase should not exceed LGCI plus 7.5% in year one, and LGCI plus 4.5% in years two to 10.

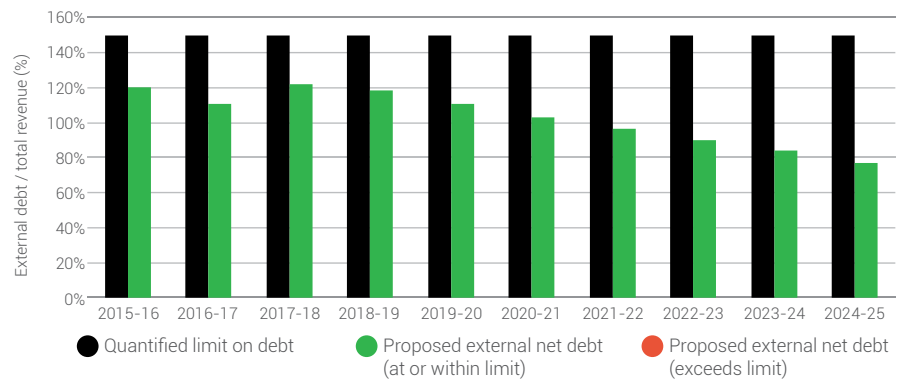


## Debt affordability benchmarks

Council meets the debt affordability benchmarks if its planned borrowing is within each quantified limit on borrowing.

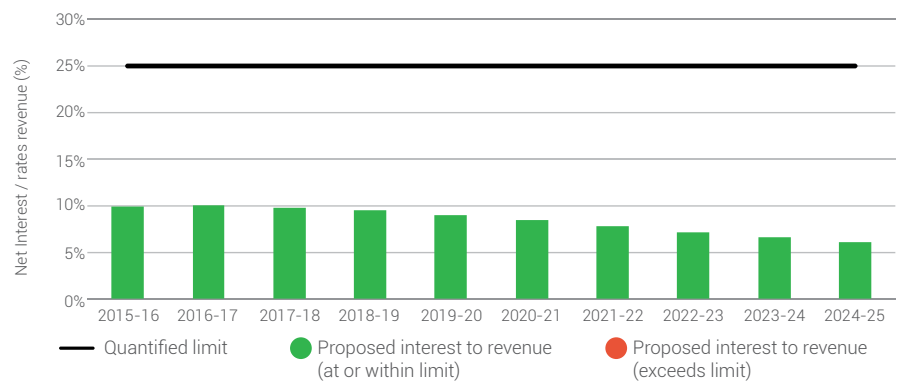
### EXTERNAL NET DEBT

The following graph compares Council's planned debt with a quantified limit on borrowing contained in the Financial Strategy included in this Long Term Plan. The quantified limit is that net debt be no higher than 150% of total revenue.



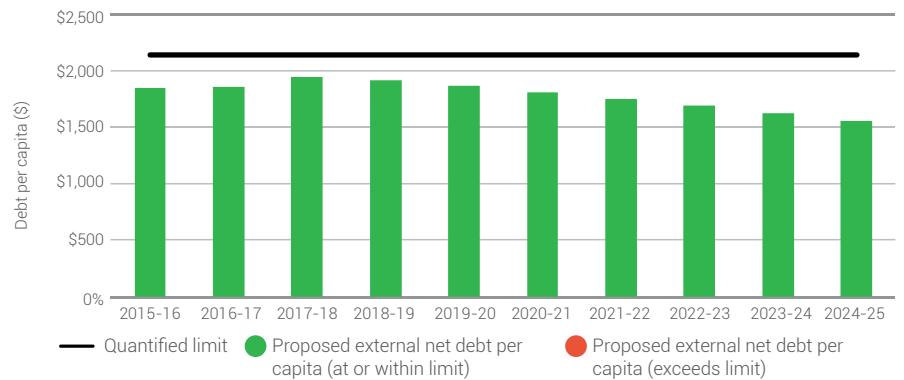
### NET INTEREST TO RATES REVENUE

The following graph compares Council's planned interest on debt with a quantified limit on borrowing contained in the Financial Strategy included in this Long Term Plan. The quantified limit is that planned net interest should not exceed 25% of total rates revenue.



### EXTERNAL NET DEBT PER CAPITA

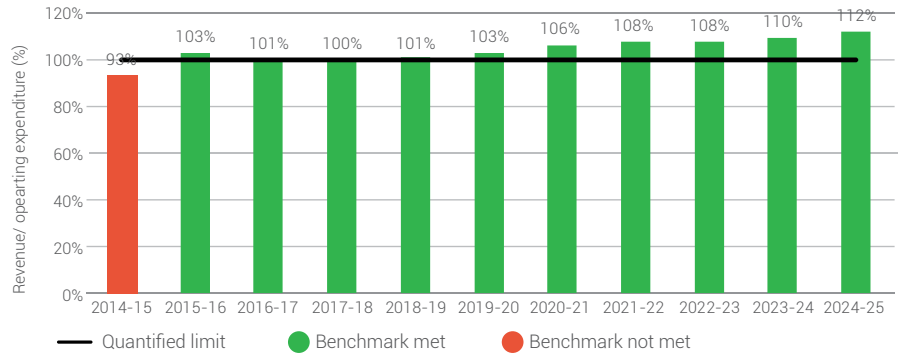
The following graph compares Council's planned debt with a quantified limit on borrowing contained in the Financial Strategy included in this Long Term Plan. The quantified limit is that external net debt per capita be less than \$2,150.



### Balanced budget benchmark

The following graph displays Council's planned revenue (excluding development contributions, financial contributions, vested assets, gains on derivative financial instruments, and revaluations of property, plant and equipment) as a proportion of planned operating expenses (excluding losses on derivative financial instruments and revaluations of property, plant and equipment).

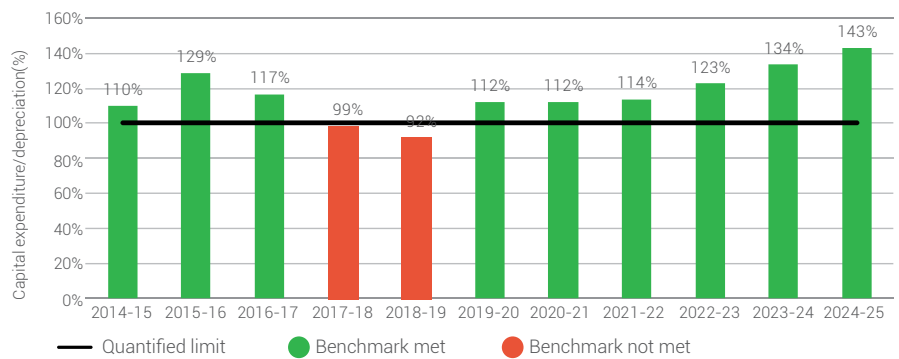
Council meets the balanced budget benchmark if its planned revenue equals or is greater than its planned operating expenses.



### Essential services benchmark

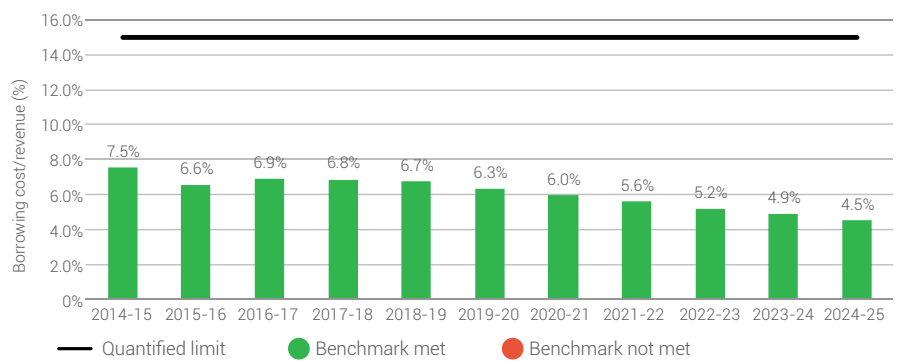
The following graph displays Council's planned capital expenditure on network services as a proportion of expected depreciation on those same network services.

Council meets the essential services benchmark if its planned capital expenditure on network services equals or is greater than expected depreciation on network services.



### Debt servicing benchmark

The following graph displays Council's planned borrowing costs as a proportion of planned revenue (excluding development contributions, financial contributions, vested assets, gains on derivative financial instruments, and revaluations of property, plant, or equipment). Because Statistics New Zealand projects Council's population will grow more slowly than the national population is projected to grow, it meets the debt servicing benchmark if its planned borrowing costs equal or are less than 15% of its planned revenue.



## Infrastructure Strategy Overview

**Meeting:** Council Briefing  
**Date of meeting:** 8 August 2017  
**Reporting officer:** Simon Weston (General Manager)

### 1 Purpose

To discuss Infrastructure Strategy as part of the development of the 2018-28 Long Term Plan.

### 2 Background

The Infrastructure Strategy is one the key supporting documents to the Long Term Plan (LTP). It takes Council's vision and identifies the key infrastructural issues/drivers, and the choices the community has in managing these, over the long-term (30 years as opposed to the 10 year term of the LTP and Financial Strategy). An Infrastructure Strategy must identify:

- What are the significant infrastructure issues over the next 30 years?
- What are the main options for resolving those issues and which of these is our local authorities preferred option?

The Infrastructure Strategy is only one side of the coin however, the other side being the financial consequences of the vision, as captured in the Financial Strategy.

These documents have a push and pull relationship and when taken together provide the reader with a sense of the costs, risks and trade-offs that underpin the development of the expenditure programmes in the LTP.

Council's 2015 Infrastructure Strategy (the Strategy) considered the following assets:

- Water supply.
- Sewerage and the treatment and disposal of sewage.
- Stormwater drainage.
- Flood protection and control works.
- Provision of roads and footpaths.
- Parks and recreation.
- Solid waste.

By including parks and recreation and solid waste the Strategy went beyond the statutory requirements of the Local Government Act. The rationale for including these activities was that they contribute strongly to community outcomes, while also consuming significant resources.

A brief overview of the Strategy has been provided in the Activity Group Briefing report included as Attachment 1, with the full Strategy being included as Attachment 2.

### 3 Attachments

1. Activity Group Briefing – Infrastructure Strategy
2. 2015 Infrastructure Strategy



# Report

## Activity Group Briefing

Infrastructure Strategy

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# 1 Strategic Overview: Infrastructure Strategy

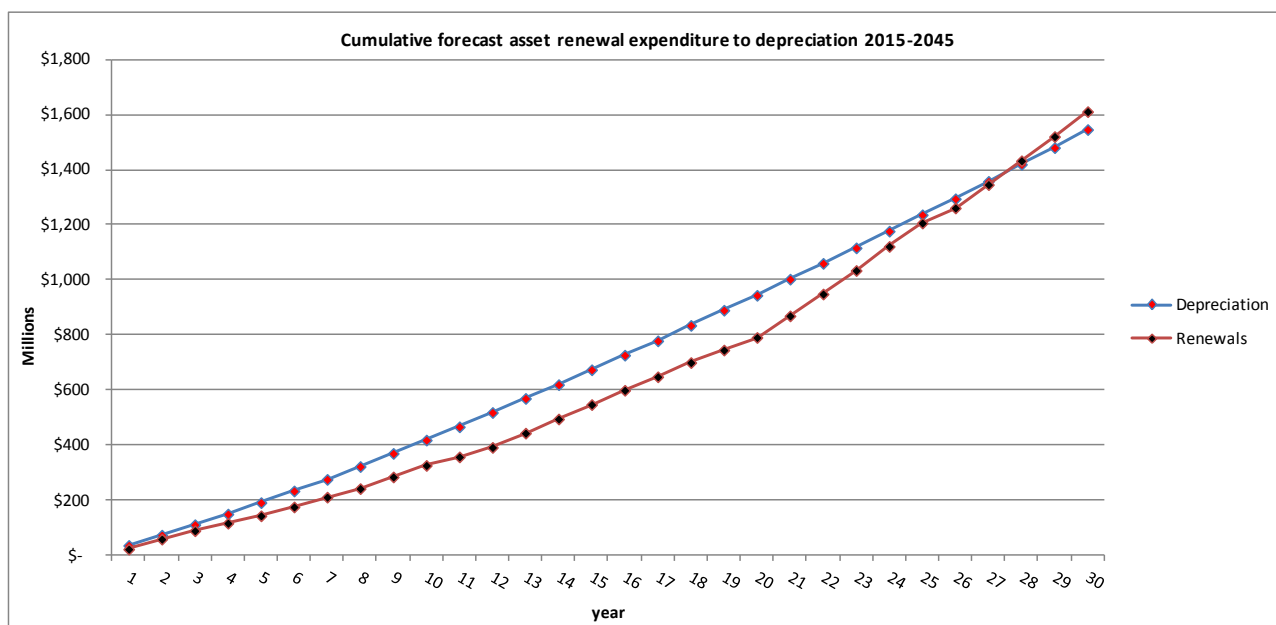
## 1.1 Activity Overview

The key strategic issue outlined in the 2015 Infrastructure Strategy (the Strategy) was balancing the tension/conflict between the Levels of Service outlined in Asset Management Plans (AMPs) and the level which can be provided within financial parameters.

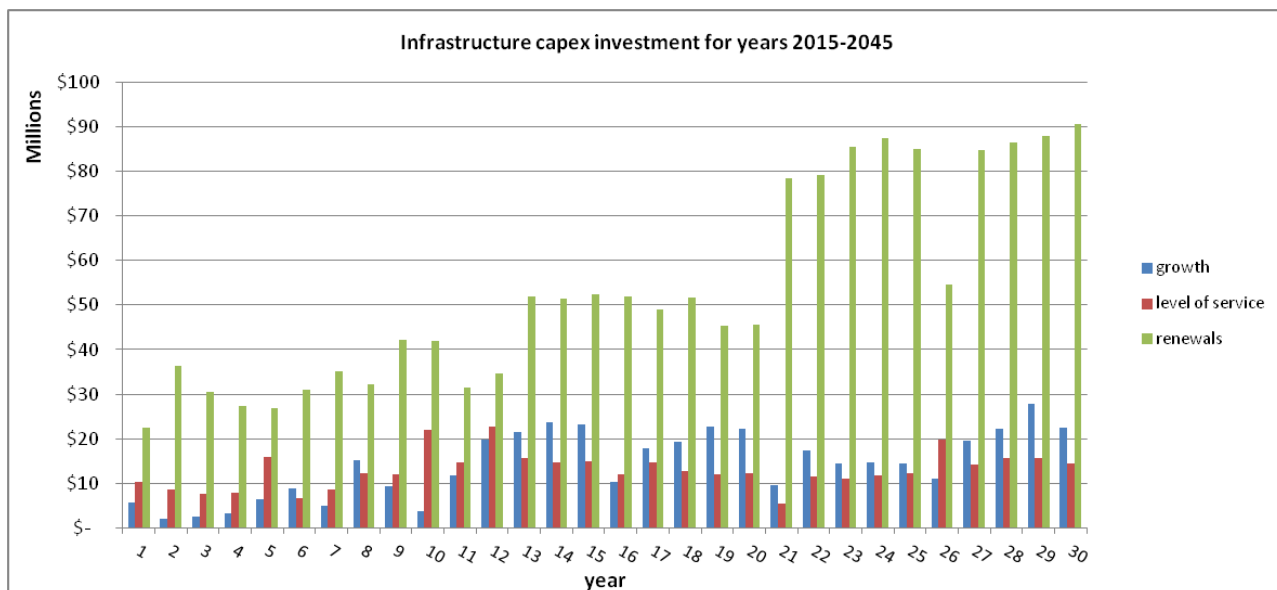
The preferred option presented in the Strategy, which was consulted on in the Consultation Document, was to fund existing levels of service. The implication of this option was a 'step change' in rates for year one of the 2015 – 2025 Long Term Plan (the LTP) followed by increases of 2% above inflation to keep a balanced budget and maintain service levels and asset quality.

In adopting this option it was noted that, while maintaining and renewing what we have is a key issue for Council, a 'hold and maintain' (rather than a best for asset) strategy was preferred. This strategy involved seeking efficiencies where funding is applied across operations, maintenance, renewal and capital upgrades while altering intervention levels and response times to avoid adversely impacting on service level delivery.

This can be seen in the graph below which depicts a growing gap between renewals and depreciation over the earlier years of the strategy, with the gap then closing as renewal expenditure surpasses depreciation towards the end of the strategy. Over the course of the strategy the average ratio of renewal expenditure to depreciation is around 87% per year.



This approach relied on the availability of funding through rates and growth for the renewal program in later years, with the Strategy noting that if that doesn't happen there could be reductions in service levels. The balance of renewal spend against level of service and growth over the 30 years was as follows.



There was one potentially significant capital expenditure decision/consideration within the Strategy, the Whau Valley Water Treatment Plant. While this was not considered to qualify as significant using the threshold measures in the Significance and Engagement Policy, it was considered prudent to include the decision in this classification and section of the Strategy.

As a result options around the treatment plant were considered in more detail, with the most likely scenario being that Council will construct a new Whau Valley water treatment plant on a new site, and then demolish the current plant.

## 1.2 Current Levels of Service and performance measures

While AMPs were prepared with a 'best for asset' funding profile the Strategy adopted a 'hold and maintain' approach, managing efficiencies and intervention in order to maintain current Levels of Service. Both Levels of Service, and supporting performance measures, are outlined in Appendix A of the Strategy.

## 1.3 Current performance

Performance against levels of service and performance measures has been detailed in each of the individual Activity Briefing Reports. While only one year of financial data is currently available, and as such it is difficult to determine progress against the Strategy, as a document the Strategy has performed well.

In their review of the first round of infrastructure strategies Audit identified the following elements of Council's Strategy as 'best practice':

- The clarity with which Whangarei District Council made its strategic priority explicit.
- How Whangarei District Council described its significant capital expenditure decisions and considerations.

In summary Audit noted that Council learnt through the planning process, and came out with a much stronger document as a result.

There are however areas for improvement in the document, particularly when viewed in the context of the Society of Local Government Managers (SOLGM) sector guidance.

## 1.4 The Gap

Key gaps identified following a review of both Audit and SOLGM guidance include:

- A need to more clearly articulate the strategic options, and for these to be informed by the overall vision for the community.
- The need for an environmental scan to set the scene and identify drivers and influencers up front, before delving into the discussion of the likely direction for the community and the implications of that direction.
- Potential to look in more detail at significant/strategic assets, including those outside of the current Strategy.

- Potential to look at a longer planning horizon for some assets, particularly if it becomes clear there is a backlog or bow-wave outside of the 30 year timeframe.

## 1.5 Environmental Scan

The environmental scan is critical to setting the scene and identifying factors that are likely to impact on infrastructure provision over the life of the Strategy. As indicated above there will be greater emphases on the environmental scan in the development of the 2018 Strategy, with key issues to be covered including:

- The impact of growth, including changes in light of the latest Statistics New Zealand projections and the National Policy Statement on Urban Development Capacity.
- The impact of climate change given most recent projections, including any significant impacts on asset classes (where known).
- Technological changes over the life of the Strategy.
- Any known changes to legislation or standards (i.e. changes to Water Standards following Havelock North).

## 1.6 Issues and risks

As with Levels of Service the key issues and risks relevant to each activity have been covered in the respective Activity Briefings, the focus of the Strategy is also on 'the significant'. Issues and risks emerging include:

- The need to focus on data integrity and improvement through;
  - Data validation.
  - Inspections and condition assessments/ratings.
  - Robust and timely capitalisation.
  - Developing network models to evaluate system performance.
- Addressing renewals backlogs, particularly in underground assets such as stormwater.
- The most effective model for the provision of services (i.e. centralisation or decentralisation).
- Flood, extreme weather events and climate change.
- Satisfying legislation, consent conditions and standards.

## 1.7 Closing the gap

Options for closing each of the gaps outlined above are as follows:

- In making the strategic options clearer the 2018 Strategy needs to look beyond funding strategies, to strategic asset management options. This would involve having clear and concise strategic options and then balancing those off against community aspirations and the impacts of the funding envelope. Strategic options that could be considered include;
  - Best for asset.
  - Hold and maintain.
  - Managed reductions in service levels and asset quality.
- The environmental scan will have more emphases through this review, with the newly formed Strategy Department driving this process. This will ensure a more comprehensive scan that is aligned across the both the Financial and Infrastructure Strategies, and eventually the LTP.
- The review of significant/strategic assets will follow on from the identification of capital programmes within AMPs, and subsequent prioritisation by Council. Having said that potential projects such as four laning Riverside Dr and Onerahi Road and the SH1 – SH14 link may need to be considered as strategic or significant over the 30-year planning horizon. In addition staff will look at strategic assets currently outside of the Strategy to see whether they should be included.
- Also coming out of the finalisation of the AMPs will be a picture of any assets where there is a significant bow-wave outside of the 30 year planning horizon. If this emerges staff will consider whether a longer horizon is necessary to adequately consider these assets.



# Infrastructure Strategy

## 2015

*FINAL*

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<b>1 Overall Responsibility for the Co-ordination of all Matters in this Strategy (TRIM No. 14/103271)</b>		
<b>Date</b>	<b>Name</b>	<b>Designation</b>
January 2015	Simon Weston	Group Manager Infrastructure & Services

<b>2 Reviewed by</b>		
<b>Date</b>	<b>Name</b>	<b>Designation</b>
January 2015	Curt Martin	Infrastructure Projects & Support Manager
January 2015	Sheryl Gavin	Strategic Planning Co-ordinator
February 2015	Sheryl Gavin	Strategic Planning Co-ordinator

<b>3 Updated by</b>		
<b>Date</b>	<b>Name</b>	<b>Designation</b>
18 February 2015 – following Audit's review	Curt Martin	Infrastructure Projects & Support Manager
18 February 2015 – QA check	Sheryl Gavin	Strategic Planning Coordinator
27 February 2015 – updated Appendix D historic spend graphs	Curt Martin	Infrastructure Projects & Support Manager

## 1. Executive summary

### General

Council operates its services in perpetuity and therefore needs to strategically consider the optimal way to manage, maintain and renew assets to achieve and maintain service levels.

Asset growth occurs for Whangarei District Council (WDC), as a result of decisions to build asset related capital projects (such as a bridge or a treatment plant), or through accepting assets paid for by developers but vested to Council to maintain and renew across the useful life of the asset. With new assets comes a need for more funding to maintain and operate them, or to simply stretch each dollar as far as possible to achieve what can be achieved within available funding, and defer any work that can be delayed. This results in a backlog of renewals that eventually needs to be addressed in order to maintain service levels and prevent asset failure. The following is a summary of Council's assets and key points for asset condition. Please refer to Council's Asset Management Plans for a complete overview of each activity and expenditure.

### Water

The District's water supply system processes 9,500 million litres of raw water annually from nine sources at seven treatment plants. Potable water is distributed to approximately 25,000 metered customers via 730 kilometres of trunk mains, distribution mains and rider mains. The depreciated replacement cost of the water network is \$196.3 million. These assets are generally in serviceable condition and are operating within their design capacity and expected life. Overall asset condition is categorised as good, and on average the water assets are halfway through their expected lives based on current revaluations.

### Wastewater

Council provides wastewater services for the collection, treatment and disposal from approximately 26,000 connections. This asset base has a depreciated replacement cost of \$220.7 million. The reticulation network includes 582km of mains, 141 pump stations and nine treatment plants. The wastewater system servicing Whangarei City is the largest, with 84% of all serviced properties connected to this network. The main gravity network in Whangarei has been constructed in various stages since 1910 and original pipe materials still remain in some locations. Assets are at various states of condition from very poor to good. Pump stations and rising mains are of variable condition and this is greatly dependent on age with some stations upwards of 60 years old.

### Stormwater

There are 11 major Whangarei City stormwater catchments and a further 17 smaller settlements with stormwater networks comprising a combination of piped systems (pipes, manholes, sumps), open channels/drains, treatment devices and rivers/streams. The assets have a depreciated replacement cost of \$184.4 million. The main stormwater network is predominantly concrete pipes and is relatively young in asset terms, therefore routine operations and maintenance have been held static within the current budgets. However a new monitoring programme is underway to more accurately assess the condition of these assets.

### Flood Protection and Control Works

A flood management protection scheme was first implemented in the swamp area near Hikurangi in the early 1900s. A more substantial system of flood control was constructed in the early 1970s for the purpose of controlling flood waters that regularly flood farmland within the Hikurangi Valley. This scheme has greatly improved the agricultural potential of land within the swamp area and offered considerable economic benefit to the region.

The scheme comprises 68 km of stop banks and spillways, 17 spillway sensors, seven pump stations, and 20 pumps with related electrical and control equipment. The depreciated replacement cost of the scheme's assets is \$22.2 million. Of the schemes 20 pumps, five have been replaced in the last 10 years and the remainder are over 40 years old. While the pumps have relatively low run hours (as they only operate in storms), many of the older pumps and supporting electrical infrastructure will potentially need to be renewed or replaced in the next 30 years. Periodic top-up of stop banks (earthworks) are currently underway and this work should see levels returned to an 'as per design' condition.



## **Roading and Footpaths**

Council's transport infrastructure network comprises 1,078 km of sealed pavement, 703 km of unsealed pavement, 1,775 km of sealed surface (including bridge surfaces) and 481 bridges and major culverts. These assets have a depreciated replacement cost of \$770.2 million and represent Council's largest activity value. This network is located throughout the District and includes all Council-formed roads, associated assets, and parking and footpaths on state highways. The network excludes private roads and paper roads.

At present there is some deterioration in pavement condition due in part to deferred renewal works, and although current patching and resealing maintenance addresses the surface issues it is acknowledged that it does not build strength back into the pavements. There is a backlog in both pavement renewals and surfacing. The condition of some footpaths, streetlights and traffic signals are slowly deteriorating. All bridges and culverts are in relatively good condition.

## **Solid Waste**

Council, in conjunction with its private sector partners, provides solid waste (refuse) collection and disposal services throughout the District, including refuse and recycling collection, litter control, transfer stations, and the Puwera landfill. Council-owned assets have a depreciated replacement cost of \$1.2 million. Major assets such as the Puwera landfill and 'Re:sort' are relatively new with ages ranging from five to 10 years and capacity in excess of 40 years. The gatehouse structures to satellite collection points were temporary in 2005. The intent was to install permanent structures over time but this has not been done and these are now showing signs of wear and many have a tardy visual appearance. The access to Uretiti transfer station, the largest and busiest rural transfer station, is a serviceable metal road and ideally would be sealed but this work has not been allocated in the 2015-25 LTP period.

## **Parks and Recreation**

Council currently administers 20,720 hectares of land as open space. This includes forest remnants and regenerating bush, wetlands and mangrove estuaries, coastal areas and esplanade reserves, city parks and street gardens, cemeteries, former quarries and landfills, areas reserved for water supply, waste treatment and other public utilities, sports fields, playgrounds and pine forests. Excluding the land the Parks & Recreation assets have a depreciated replacement cost of \$26.2 million.

Overall the asset conditions are average to good. Sport and recreation facilities are benefiting from recent upgrades and new technologies in turf management. Playgrounds are in good condition however many of these are of a similar age and condition and careful planning of renewals is needed. Trails and linkages are in good condition, although timber structures are monitored for deterioration as these are reaching end of useful lives. Coastal structures are in good condition as a programme has been in place for some time to maintain and repair them. A large majority of assets in poor condition are low value items such as furniture, fences, lights and pavers.

## 2. Introduction and purpose

Whangarei District Council is a territorial local authority with a growing population of 84,400 and stewardship of core infrastructure assets with a replacement value of \$2.13 billion (2014). The District has a network of approximately 1078km of sealed and 703km of unsealed roads, a water distribution network spanning 730km, a sewerage reticulation network of 582km, a stormwater network of 482km, and a flood protection scheme of 68km of stop banks & 7 pump stations. Reserves and sports parks total 738 and 20,720ha of land as open space. Solid waste facilities comprise 8 rural transfer stations & 563 litter bins.

Indications are that growth will continue in the District at an annual rate of approximately 1%. While this growth is desirable and encouraged, it will continue to put pressure on infrastructure in the medium and long term. Transportation and roading network, water, wastewater and stormwater services and parks and recreational facilities need to carry enough capacity to provide for predicted growth.

Because development and settlement patterns have effects on both the timing and costing of core infrastructure, this strategy and the supporting Asset Management Plans (AMPs) have been developed with regard to the 30/50 Sustainable Futures strategy which was adopted by Council in 2010.

The intention of this strategy is to identify at a high level where significant infrastructure issues that Council is likely to encounter over the next 30 years may occur, to determine the options for managing each issue, the most likely course of action and the cost implications of the most likely scenarios. Note that this strategy does not contain detailed information. Detailed information can be found in the relevant AMP.

This strategy forms part of Council's 2015-2025 Long Term Plan (LTP) and is supported by detailed AMPs and the 2015 Financial Strategy. It focuses on the significant issues. Although some areas of the community may be concerned about important issues from their perspective, these issues may not be deemed significant to the community as a whole and may not be specifically referred to in this document.

This Infrastructure Strategy will be reviewed on a triennial basis as part of the long term planning process.

## 3. Infrastructure included in this strategy

This strategy considers the five major asset groups of Council's network infrastructure in compliance with section 101B (6)(a) of the Local Government Act (LGA). These are water supply, sewerage and the treatment and disposal of sewage, stormwater drainage, flood protection and control works, and the provision of roads and footpaths.

These five core asset groups required by the Act contribute significantly towards the daily public health and safety of the District's residents. They depend on effective asset management planning for their operation, including renewal, replacement and delivery of expected levels of service. These assets are also at greater risk from natural disasters and would require Council to provide immediate replacement and/or repair in the event of a natural disaster as part of a recovery process.

Despite no requirement by the LGA to do so, Council has elected to consider Parks and Recreation assets, and Solid Waste assets along with the five mandatory activities with the rationale that these two activities consume significant resources and contribute strongly to community outcomes.

## 4. Considerations

The following considerations have been used to identify significant infrastructure issues that are likely to arise over the next 30 years:

- Determining when increases or decreases in levels of service for any activity might be required or appropriate;
- Maintenance or improvement of public health and environmental outcomes, and any likely mitigation of adverse effects on those outcomes;
- Providing for resilience of infrastructure assets by identifying and managing risk relating to natural hazards, designing for and constructing additional asset resilience, relocation strategies, and insurance;
- Replacement of assets as part of an overall replacement strategy.

## 5. Significance & Engagement Policy

Council's Significance and Engagement Policy, adopted in November 2014, guides the determination of "significance" with regard to issues, proposals, decisions and any other matter assessed by Council in terms of its likely impact on, and the likely consequences for the District and its community. This includes Council decisions relating to infrastructure assets.

Where this Infrastructure Strategy mentions "significance", reference is being made to the provisions of the 2015 Significance and Engagement Policy.

In summary, a decision is significant if two or more of the criteria/threshold measures are triggered.

Criteria/Thresholds	Measure
Impact on Council's direction	Major and long-term
Change in Council's current level of service	Major and long-term
Level of public impact and/or interest	Major and District-wide, or Major for an identified community of interest
Impact on Council's capability (non-cost)	Major and long-term
Net financial cost/revenue of implementation, excluding any financial impact already included in a Long Term and Annual Plans	Net Capital Expenditure >10% of Total Rates in year commenced, and/or Net operating Expenditure >2.5% of Total Rates in year commenced

## 6. Levels of Service

Council's Long Term Plan and Infrastructure Strategy are based on commitments made in previous years, feedback from the community during other Long Term and Annual Plan consultations, and data gathered during research into the historical, existing and future needs and wants of the community. Council has prepared its Long Term Plan and Infrastructure Strategy taking these factors into account. By the end of the first ten years of the Infrastructure Strategy (i.e. the period covered by the Long Term Plan), it aims to be meeting its community's expectations regarding levels of service with well maintained assets, providing a balance of core and community initiatives, that continue to enhance the District.

Council has considered additional demand based on predicted growth in the development of Asset Management Plans, after giving regard to the Sustainable Futures 30/50 Growth Strategy. Capital expenditure in the 10-year Long Term Plan incorporates its ability to meet targeted Levels of Service (refer Appendix A – Levels of Service) whilst allowing for capacity required for anticipated growth. This strategy is expected to continue for the period of the 30 year Infrastructure Strategy.

Despite the significant level of budgeted expenditure over the next 10 years, the upkeep of assets is still not at the optimum level as identified in the Asset Management Plans for the initial ten years. The effect of this could potentially lead to deterioration in assets, meaning targeted Levels of Service are not attained and/or requiring additional costs in the future which are not included within the 10-year life of the LTP. This could potentially result in future ratepayers paying costs that should arguably be met by today's ratepayers. The alternative would be to increase rates and other revenue even further, or to increase debt over the next 10 years.

The appropriate Levels of Service have been carefully considered by Council in each activity area taking into consideration the effects of each decision. There have inevitably been tensions or conflicts between the desired Levels of Service and the level which can be provided within the financial parameters outlined in the Financial Strategy.

The resulting Asset and Activity Management Plans have generally been prepared with a capital expenditure programme that is intended to maintain current Levels of Service. This 'hold and maintain' strategy will be managed by seeking efficiencies where funding is applied across operations, maintenance, renewal and capital upgrades. Council will also review operational practices and any efficiency that can be gained from altering intervention levels or response times without adversely impacting on service level delivery will also be considered.

There are no instances where current level of service targets have reduced.

## 7. Financial Strategy

Council's Financial Strategy is based on fulfilling one of the core purposes of local government, which is to *"meet the current and future needs of communities for good-quality local infrastructure, local public services and performance of regulatory functions in a way that is most cost-effective for households and businesses"*.

The Financial Strategy focuses on the Long Term Plan (LTP) period (i.e. Years 1 – 10) which aims to:

- achieve a balanced budget in every year, where revenue exceeds expenditure (including depreciation);
- introduce a step change in most rates in the first year, with increases of 2% above inflation thereafter;
- limit overall rates revenue (excluding water) to a maximum of 70% of total revenue;
- have a debt peaking at \$171 million and then reducing to \$147 million by 2025;
- maintaining interest costs at less than 25% of rates revenue (10.5% as at 30/6/14);
- have a debt per capita level below \$2,150 (\$1,975 at 30/6/14);
- provide sufficient cash surpluses to fund the planned capital expenditure programme without reliance on asset sales (apart from the Okara sale already in progress).

This allows for:

- a 10-year capital works programme of \$574 million;
- 83% of capital expenditure focused on core network infrastructure (roading, water, waste, storm water and flood protection);
- operational revenues of \$1.577 billion;
- operational spending of \$1.439 billion.

## 8. Funding Strategy

Council has identified that it needs to allocate more money to maintaining and renewing its assets, but wants to maintain current levels of service across all Council activities. This means Council has to increase its revenue and/or find some cost savings that don't compromise service delivery in other areas. Council is constantly looking at cost saving opportunities and has addressed areas of inefficiency in its operations and processes, with significant savings made in earlier years already included in its budgets. Council will continue this process throughout the 10 years of the Long Term Plan, but still needs to make significant revenue increases from current levels.

In putting together its Long Term Plan, Council has reached the inevitable conclusion that rates increases are necessary because its current position is not sustainable if it is to maintain current levels of service and look after its assets properly.

The options considered are:

<ul style="list-style-type: none"> <li>• <b>Preferred Option:</b></li> </ul> <p>We believe that the level to which we deliver our services right now meets with the approval of most people in the community. The first option is to continue to deliver at this level.</p>	<p><b>This means:</b></p> <p>We propose increasing total rates beyond inflation every year for the next 10 years.</p> <p>For General rates, we propose an increase of inflation (LGCI) plus 5% as well as a \$50 increase in the UAGC in year one. From year two onwards we propose an increase to total General rates (including the UAGC) of inflation plus 2%.</p> <p>Water rates will only increase by the level of inflation each year, as this will provide enough revenue to fund all planned activity in this area.</p> <p>The Refuse Management rate will increase by inflation plus 5% in year one, but after that increases will be limited to inflation.</p> <p>These changes will bring us closer to our peers in terms of the total rates our</p>
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	<p>community has to pay – but even with the proposed increase we will still be among the cheapest in the country.</p> <p>This option also helps us to prevent debt levels from increasing much further than today's level.</p> <p>This will mean an overall increase of about 9% for the majority of ratepayers next year, which will return us to a sustainable and prudent financial position.</p>
<p>• <b>Option two:</b></p> <p>The second option is to continue to try to do everything without enough money.</p>	<p><b>This means:</b></p> <p>Increasing rates beyond inflation every year for the next 10 years to a lesser degree than in option one.</p> <p>With this level of funding we will have no option but to let some assets run down. Levels of service will drop – for example, you will see more potholes in the road, more sewerage spills, and unmaintained walkways.</p> <p>We may have to use debt to fund capital expenditure which incurs interest costs.</p> <p>A future “catch up” will be unavoidable. Eventually the money will have to be spent and this inevitably costs more in the long run.</p>
<p>• <b>Option three:</b></p> <p>The third option is to focus on meeting only selected community expectations, with a clear focus on the basic necessities.</p>	<p><b>This means</b></p> <p>Keeping annual rates increases to inflation only, but spending the majority on core infrastructure (roads, water, waste) and much less on community initiatives and recreational facilities. This option will lower levels of service in some areas, such as cycleways, walking tracks and other recreational facilities.</p> <p>By keeping rates more affordable, we will effectively be making our District a less attractive place to live as our focus shifts to providing just the basic necessities.</p> <p>Some communities may wish to maintain a higher level of service than this. If there is widespread agreement for this we could introduce targeted rates in selected areas, e.g. a coastal community.</p>

## 9. Thirty year financial overview

Council's average annual investment in capital expenditure for infrastructure assets over the next 30 years is expected to be \$80.9 million. The following graph outlines this planned expenditure by asset driver. Capital investment by asset can be found in Council's Funding Impact Statements and Asset Management Plans.

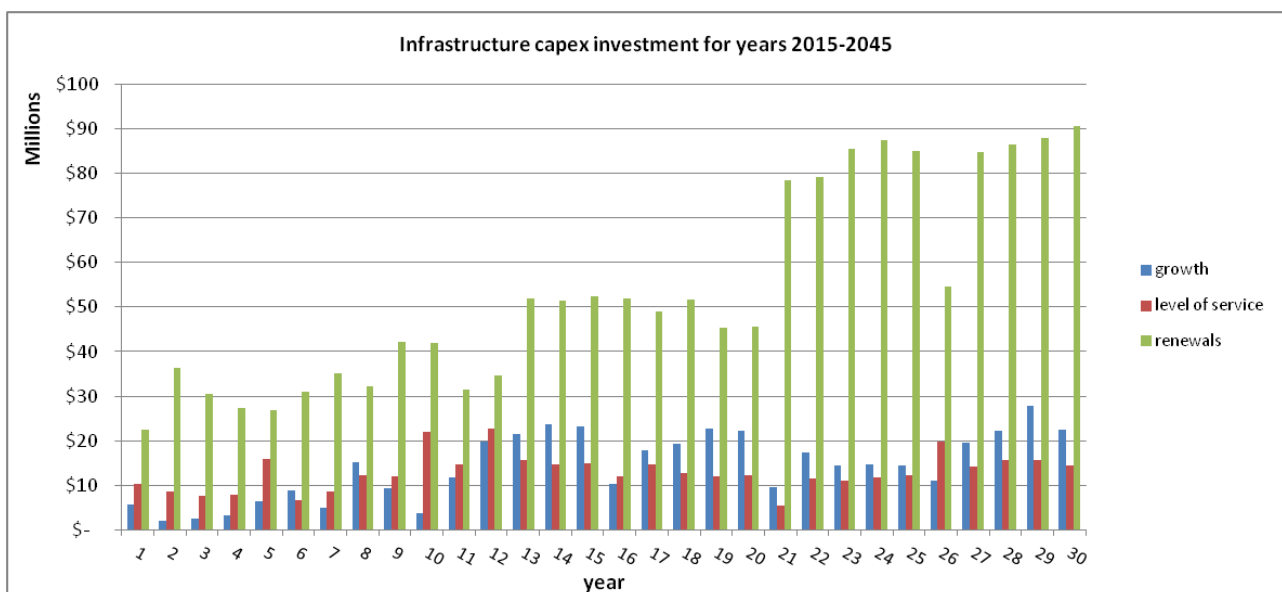


Figure 1: Infrastructure capital investment for 2015-2045 by asset driver

Council's average annual operating expenditure for infrastructure assets over the next 30 years is expected to be \$113.9 million. The following graph outlines this expenditure by asset group.

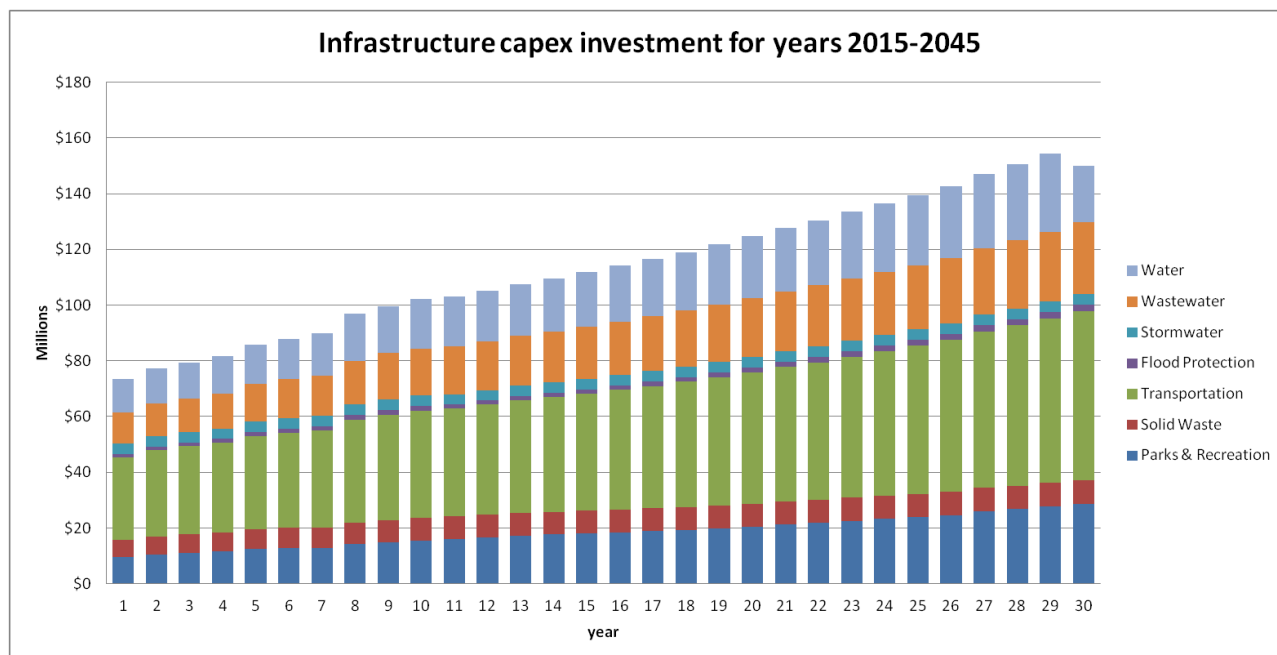


Figure 2: Infrastructure operational expenditure 2015-2045

### 9.1. Most likely scenario

The following graph outlines Council's most likely capital and operating expenditure combined for 30 years.

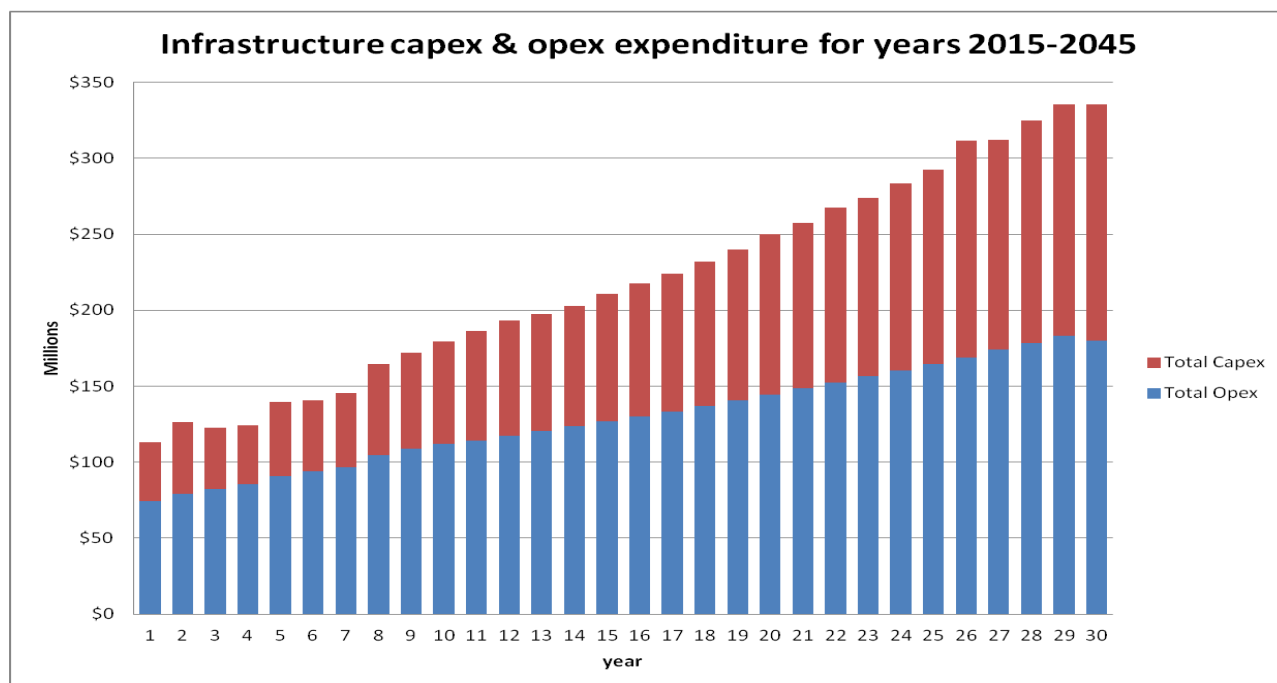


Figure 3: Capital and operational infrastructure expenditure over 30 years

Council's infrastructure operations are complex and diverse, providing a wide range of services. The cost of providing these services is supported through a variety of appropriate funding sources. These are outlined in Council's Financial Strategy and detailed in the Revenue and Financing Policy.

## 10. Significant capital expenditure decisions and considerations

### 10.1. Timelines, drivers and funding options

There are three primary drivers influencing Council's decisions to plan for future projects. These are:

- The need to increase expenditure to replace ageing reticulation assets;
- The obligation to increase performance of assets due to consent expiration and other level of service drivers;
- The requirement to expand the capacity of existing infrastructure to meet the needs of a growing community.

Council's planned infrastructure investments are considered to be relatively conservative over the next 30 years, with no 'significant' capital expenditure decisions currently made for this time period.

Council has not identified any infrastructure projects qualifying as significant using the threshold measures in the Significance and Engagement Policy. However, Council feels it is prudent to include the new Whau Valley water treatment plant in this classification and section of the strategy. This project is deemed to be of high importance to the community, and although expenditure is split into several smaller elements, the total of these come close to qualifying as a project meeting the net expenditure over rates threshold as per the 2015 Significance and Engagement Policy.

The Whangarei City wastewater treatment plant renewal works does not qualify as significant in terms of the benchmarks but there is a small risk that resource consent conditions and public interest may change by year 2021 when the current consent expires. This has the potential to result in significant expenditure at that time. Consequently a level of uncertainty surrounds the future consent conditions and their potential financial impact.

The following table indicates the one water project Council currently considers prudent to include in this section of the strategy.

Year		Significant/major projects
1	2015/16	Whau Valley water treatment plant
2	2016/17	
3	2017/18	
4	2018/19	
5	2019/20	
6	2020/21	
7	2021/22	
8	2022/23	
9	2023/24	
10	2024/25	
11-30	2025-46	Council currently has no infrastructure projects deemed major or significant programmed for years 2025-2045

Table 1: Significant projects

Ordinarily Council would chart the primary driver splits of its significant projects in this section however, as the Whau Valley treatment plant is the only project considered close to significant, and its primary driver is asset renewal, Council considers a chart superfluous in this strategy. Should infrastructure projects of significance be considered in future strategies due to unforeseen factors at that time, they will be shown in a graph split by growth, renewal and level of service.

Details of costs associated with other large but not major or significant projects, can be found in Council's Funding Impact Statements in the LTP.



The funding options relating to significant major project expenditure considered in this section are outlined in the following table.

Project	Years of development	Low cost option \$m	Most likely scenario \$m	High cost option \$m
Whau Valley water treatment plant	2015-18	\$18.2	<b>\$18.7</b>	\$19.2

Table 2: Significant project cost options

## 10.2. Assumptions, principal options and decisions

The principal options considered, and the assumptions relating to these options are summarised in this section. The associated costs are outlined in the matrix of expenditure considerations (table 2)

Whau Valley Water Treatment Plant		
The options		The principal alternatives
Do nothing	The Whau Valley Treatment Plant was constructed in 1953 and is in need of a major upgrade due to the age and condition of a number of its critical component assets.	Use other (more expensive to operate) treatment plants. This will cause restrictions in the summer months when the capacity of those plants is limited.
Upgrade the existing plant	Structural investigations of the existing plant determined that extensive works would be required to meet the Earthquake Strengthening requirements under the Building Act. Even then at best it can only be brought up to 67% compliance. Chlorine gas separation proves to be a challenge and insufficient room to manoeuvre large delivery vehicles. The capacity of this plant cannot be extended any further on the current site.	Build a new plant on a new site or demolish building and rebuild on the same site. Acquire more land adjacent to the current plant to cater for the constrained site issues.
Build a new plant on a new site	Other issues at the current plant are chemical storage and delivery in a residential zone. The building of a new plant on a new site is deemed a more sustainable long term option.	Investigate alternative new sites to optimise construction costs, overcome issues at current site and provide for long term capacity increases.
The most likely scenario		
That Council will construct a new Whau Valley water treatment plant on a new site and then demolish the current plant.		



## 11. Critical Assets

Council is a member of the Northland Lifelines Group whose role is to help lifeline utilities to co-ordinate recovery and restore their services as quickly as possible following a disaster. These services generally include:

- Critical community sites which are important to public health and safety (hospitals, ambulance depots) and emergency response (police, fire, emergency management);
- Critical lifelines sites – including water services, power, gas, telecommunications and transportation networks.

Council assets/sites identified as critical sites for recovery are:

Sector	Site	Street Address
Transport	Road to Whangarei Heads	N/A
	Road to Marsden Point	N/A
	Bank St	N/A
	Kamo Road	N/A
	Tarawera Rd	N/A
	Port Rd	N/A
	Road to Whangarei Airport – Riverside Dr/Onerahi/Church St	N/A
Water Supply	Ruakaka WTP	Port Marsden Highway
	Taroa Street PS	Taroa Street
	Whau Valley WTP	Cnr of Whau Valley Rd & Fairway Dr
	Kamo PS	Cnr Fairway Drive/ Whau Valley Rd
	Ruddles WTP	Cemetery Road
	Poroti WTP	Mangakahia Road
	Ahuroa WTP	End of Ahuroa Rd
	Whau Valley Dam	Upper Whau Valley Rd
	Wilson's Dam	Prescott Rd
	Flygers Road PS	Flygers Rd
	Maunu Springs	Newton Rd
Wastewater	Whangarei WWTP	79 Kioreroa Road
	Onerahi PS	Cnr Beach Rd & WHG Heads Rd
	Okara Park PS	Port Road entrance, Okara Park
	Robert Street PS	Carruth Street, NRC Depot
	Hatea Road PS	Far end Whareora bridge LHS
	Waverly Street PS	Onerahi
	Otaika PS	Kioreroa Road - Outside WWTP
	Kioreroa Road PS	Kioreroa Road railway crossing
	Pressure Main	Robert St PS to Whangarei WWTP
	Pressure Main	Okara Park PS to Whangarei WWTP

The supply of potable water is a critical service. The two major Water Supply Areas, Whangarei and Bream Bay, have considerable resilience as both are serviced from multiple sources and treatment plants in various locations. In the event of a major failure at a treatment plant or contamination of a source, alternative means of supply are available. The treatment plants and critical pump stations have emergency power generators. Over 95% of customers are fed from reservoirs with at least two days of storage. The two smaller Water Supply Areas, Mangapai and Maungakaramaea, can be easily supplied by tankers from town if required.

## 12. Key infrastructure issues

Water	
Issue and implications	Most likely scenario
Water treatment plants, in particular the Whau Valley plant, require continuous upgrading and ongoing expenditure in an effort to ensure continuous production and maintain water quality standards.	Council has elected to replace the city's main treatment plant at Whau Valley and has identified alternative sites within the vicinity of the current dam water source. A new water source from the Wairua river has also been approved and new treatment plant upgrades at Poroti are scheduled to commence to support the current and new system in time of water shortage.
Many critical pumps and drives are past their expected lives and are now due for either replacement or refurbishment.	Where possible this is done as part of a plant upgrade or planned minor project. Electrical and control assets are generally replaced on failure. Further condition assessments are planned as part of business as usual.
The Ruddells raw water line is partially blocked and unable to operate at full capacity, thus limiting raw water delivery. In addition, ground movement causes frequent leakage which must be rectified.	Remedial repairs will be undertaken on an 'as need be' basis until allocated renewal funding in years 2017/18, is applied to replace this asset.
A large number of alkathene and the remaining galvanised steel rider mains are operating past their predicted life and are in poor condition, with leakage and breakage rates that directly contribute to higher than desirable unaccounted for water figures and maintenance costs. Much of the distribution mains are asbestos cement (AC) and are nearing the end of their predicted life. There is evidence of leakage and failures starting to occur on AC and PVC mains. Many of the cast iron trunk mains are now 100 years old.	A condition assessment and a renewal strategy are recommended for these critical assets. It is recognized that repairs for these items can be difficult and costly. A programme of lower water pressure has been implemented in some areas while still maintaining the required level of service. This serves to lessen strain on ageing pipes and reduce leakage until replacement can be implemented.
The World Health Organisation states that destruction of water born microbial pathogens in drinking water through the use of disinfectants is essential for the protection of public health. However, they also acknowledge that there is by-product toxicity introduced through the disinfection process. It is likely that more stringent forms of disinfection and monitoring of introduced toxicity will be a future requirement of drinking water treatment, incurring increased expenditure for Council.	There is uncertainty around if and when this is likely to occur. Council has included some funding to comply with potential changes to drinking water standards. It is acknowledged that increased levels of water purity may require additional investment by Council which may be shared at some level with the community through targeted rates. However, at this time the extent of any potential investment for this purpose remains unknown.

Water fluoridation has been signaled in many areas of the country and has been a topic of debate. Should this become a Government requirement, increased funding will be needed for its implementation. Opposition may continue, and there is a risk this will cause delayed implementation and consequential costs.	Council has no plans to fluoridate water at this time. Should the community require it and depending on the level of associated capital investment, the community may be required to share in this cost. It is uncertain if there is any government subsidisation available for this action however this would also be sought to offset costs.
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Wastewater	
Issue and implications	Most likely scenario
Based on current levels of forecast growth and Council's 10 year LTP, infrastructure in Bream Bay (the Waipu and Ruakaka areas) and Whangarei Heads, will have limited capacity by year 11 of the infrastructure strategy. Investment in growth will be needed in Bream Bay to ensure a growing community is serviced. Failure to invest sufficiently will impact on development.	Growth will provide some level of funding through development contributions, but Council considers that this may be insufficient to fund required growth demand upgrades. To expand these assets Council will need to fund this work through debt, community alliance funding or targeted rates, or a combination of all or any of these mechanisms. Limiting connections to the wastewater reticulation system is another option being considered.
Currently no new wastewater systems are proposed in the 30 year plan for Maungatapere, Maungakarama, or Matapouri. If significant development occurs in these communities, the provision of new assets will need to be reviewed.	To build additional assets in these areas Council will fund this work through debt, targeted rates, deferring other projects – or a combination of all or any of these mechanisms.
There is potential for significant level of service investment in the Whangarei City treatment plant when the City's consent is renewed in year 2021. This may affect treated effluent discharge standards, requiring Council to upgrade the treatment plant and possibly acquire more land.	Depending on the outcome of this process a large capital investment may be needed to improve treatment levels. It is expected that this will come from borrowing and ultimately targeted rates.

Stormwater	
Issue and implications	Most likely scenario
Extreme storm events have the potential to require greater capital expenditure depending on the extent of damage.	<p>Council does not currently hold reserve funds to cover increased expenditure (capital and operating) arising from storm damage, and extreme storm events have the potential to significantly impact on the finances of the year in which the event occurs, and the following years depending on the extent of damage.</p> <p>Lack of funding provision for emergency works may result in reduced renewals as renewal funding gets diverted to fund flood damage repairs. For now this approach will continue, with Council reviewing how it manages flood damage in the future.</p>

Roading and Footpaths	
Issue and implications	Most likely scenario
Forestry traffic causes some damage to pavement and consumes around 20% of our pavement maintenance budget to maintain approximately 5% of our network. In struggling to maintain pavement renewals deteriorating pavement condition will be reflected in increased pavement maintenance costs (e.g. pre-reseal repairs have increased from an average \$400,000 per year to \$1.5 million per year in six years). This situation should improve over the next 10 years with proposed re-investment in pavement renewals.	The forestry traffic and pavement replacement cycles will be addressed by the proposed increase in pavement renewals funding. This is expected to improve the condition of our pavements. However, there may be a lag in the effect of this work which may see levels of service drop in the short term.
Flooding has caused damage in past years and has been funded by slowing down renewal programmes or deferring maintenance projects. Lack of funding for emergency works is a risk to the renewals programme as funding may need to be diverted to fund flood damage repairs. This approach will continue, with Council reviewing how it manages flood damage in the future	Lack of funding provision for emergency works (\$3 million per year on average) may result in reduced renewals as renewal funding gets diverted to fund flood damage repairs. For now this approach will continue, with Council reviewing how it manages flood damage in the future.
There is a risk that NZTA may change its subsidy funding policy in the future which could impact on Council's ability to adhere to its current roading strategy. If subsidised funding becomes reduced or unavailable, Council would have to implement a reduced programme of works.	Due to the high level of ambiguity in predicting what other funding sources may or may not do in the future, Council considers it appropriate to review alternative options if and when this occurs.

Flood Protection and Control Works	
Issue and implications	Most likely scenario
With respect to debt, the flood control scheme will be in credit by the end of the 10 year plan (2025) on the basis that pump replacements are deferred beyond year 10 of the LTP. If this does not occur Council will need to allocate additional funding to the scheme or risk increased flooding in the area which will greatly affect the local agricultural economy	Council considers it prudent to keep rates at a higher level once back in credit and fund capital works through a depreciation fund rather than borrowing. These rates will need to be considered in light of affordability issues in farming on the scheme.
The level of service the current scheme provides will be affected by changing weather patterns as the scheme is designed to protect pasture in relatively small stormwater events (1 in 3.5 year return). If large cyclonic events are more regular the investment in the scheme becomes less economic.	Funding sources for the Hikurangi Swamp flood protection and control works are predominantly from targeted rates. The Hikurangi Swamp Major Scheme Rating District contributes approximately 89% percent of the total targeted rates, and the Hikurangi Swamp Drainage Rating District contributes the remaining 11% percent. Some minor additional revenue is provided from land rentals. Council will continue to monitor the financial, environmental and economic impact of increased flood events, and through a consultative process will evaluate how best to provide additional asset investment at such times as it is required.

Solid Waste	
Issue and implications	Most likely scenario
<p>Solid waste assets require a renewal &amp; maintenance programme. If assets are not maintained or renewed their condition will deteriorate requiring greater overall spending and a decrease in performance related to public satisfaction. There is a shortfall of funding for solid waste major maintenance and renewal programmes in years 1 through 10, which may negatively influence levels of service and growth related projects.</p>	<p>Council considers that its solid waste assets are generally in good to excellent condition with a large surplus of capacity (&gt;40years), therefore has chosen not to allocate any CapEx funding to its solid waste assets within the first 10 years of the strategy. Should investment be required for major maintenance or renewal, Council will attempt to fund this through a combination of user charges &amp; level of service funding.</p>

Parks and Recreation	
Issue and implications	Most likely scenario
<p>Trends and user expectations influence the demand for assets and service levels are budgeted for at the time these expectations are understood and planned for. Sports turf quality is an area which demands increasingly better quality, and some soils in Whangarei do not enable us to provide this level of service. The key issues are for growth communities and Council's ability to provide adequate land for recreation and neighbourhood parks</p>	<p>Council will address these issues in consultation with the community as they arise, with funding options considered at that time and within future LTP programmes.</p>

### 13. Assumptions and capital expenditure drivers

#### 13.1. When should infrastructure be replaced?

Asset renewal or replacement expenditure is major work that does not increase the asset's design capacity but restores, rehabilitates, replaces or renews it to its original capacity. This includes reconstruction or rehabilitation works involving minor improvements and renewal and/or renovation of existing assets, restoring them to a new or fresh condition consistent with the original asset. It is generally accepted that it costs more to maintain an asset as it reaches the end of its economic life. In some cases assets may be replaced prior to reaching the end of their economic lives due to capacity or performance issues.

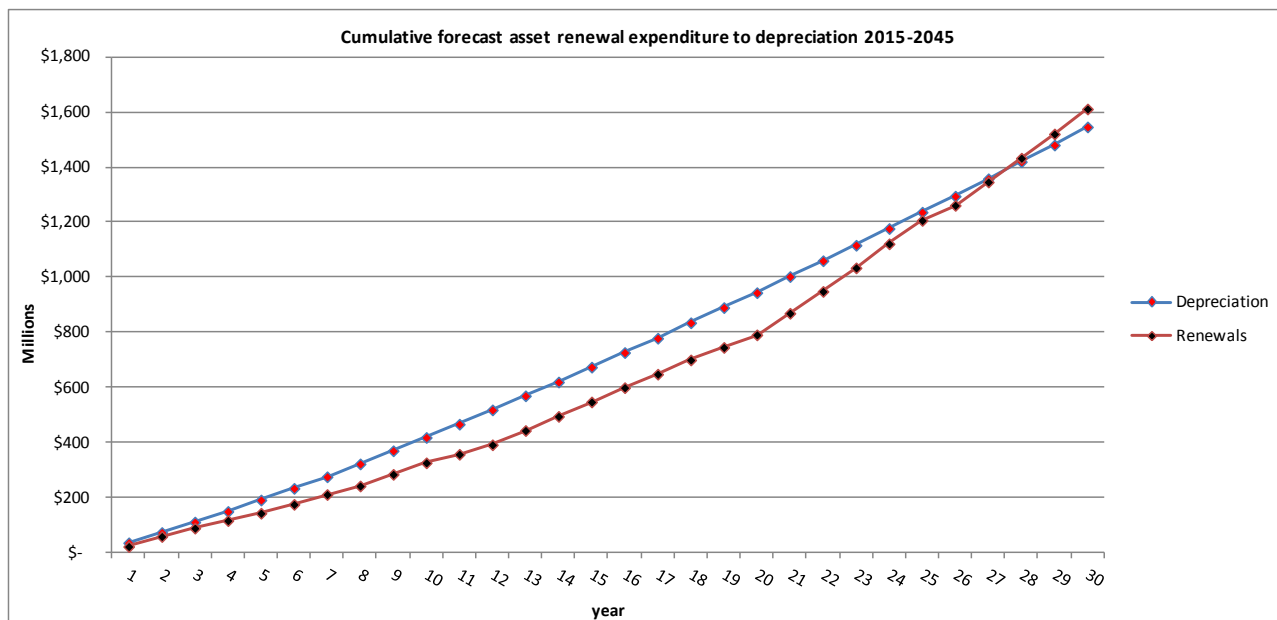
The expected useful lives of Council's assets are detailed in Council's Statement of Accounting Policies (refer Appendix B).

In making these projections, Council has assumed that the current state of engineering technology remains unchanged. In reality, however, future technological advancements may enable Council to lower the cost of replacing assets or to significantly extend useful lives. Going forward, best practice asset management will incorporate these opportunities to ensure assets are managed appropriately and efficiently.

#### 13.2. Renewals

All assets need to be replaced at the end of their useful lives, and every year we select part of our total asset base to renew, based on its condition. This takes up most of our capital expenditure. However, we also keep track of the 'wear and tear' of all assets, by allowing for annual depreciation of our entire asset base. Ideally, the amount we spend renewing some of our assets should roughly match the annual depreciation of all of our assets. This makes sure that we have adequate funding to renew all assets over the long term.

However, as the graph below shows there is a growing gap between the two for the next 10 years or so, with the average ratio of renewal expenditure to depreciation around 87% per year. The cumulative renewal spend catches up to depreciation again in later years. While we could close this gap by increasing debt or raising rates even higher than proposed, we don't believe this is necessary as our planned approach is prudent because it won't compromise service levels in the years where renewals won't match depreciation, and nor is it likely to lead to a significant backlog of asset replacements.



This approach does rely on the availability of funding for the renewal program in later years, but as long as future councils keep rates in line with inflation after the next ten years, our growing population should provide adequate income growth to fund the renewal program required. If that doesn't happen there could be reductions in service levels in later years, but there will be plenty of time to reassess the situation before then.

## Water

Water assets are generally in a good serviceable condition and are operating within their design capacity and expected life. Renewals occur as either planned replacement or through maintenance, or repair.

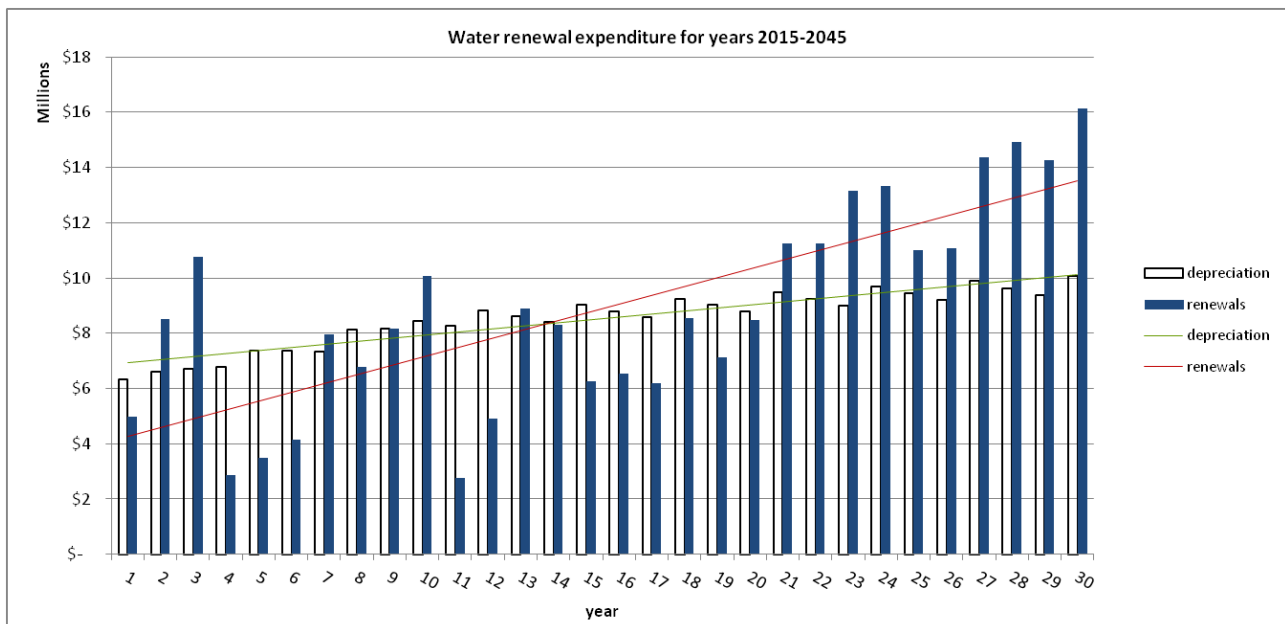


Figure 4: Water renewal funding strategy 2014- 2045

Council considers that the expected water asset lives from current revaluation are correct, that an asset is in service from its installation date and that its expected life and condition deteriorates linearly from that time. It is assumed that ground conditions have only a minor effect on the life of reticulated watermain assets. Levels of service are being maintained with only 7% of assets past their expected lives or in backlog, which is considered normal. Some water-related buildings will require periodic maintenance and large civil structures will need rehabilitation to remain in service until the end of their expected lives. Pumps and equipment assets that are on standby or in stores may exceed their expected lives.

The management strategy for non-critical reticulation assets renewal is planned for a few years after expected end of life of the asset or when failures start to occur. Management of critical equipment and reticulation assets is addressed through a combination of preventative maintenance, condition assessment and planned renewal programmes. Non-critical equipment assets are managed by a “run to failure” strategy at which time these assets are replaced as necessary.

The quality of the water supplied is integral in maintaining public health. The water supply complies with the New Zealand Drinking Water Standards, and Public Health Risk Management Plans (Water Safety Plans) are produced by Council’s Water Services and approved by Ministry of Health Drinking Water assessors. The standards and plans include procedures for dealing with non-compliant water and any public health issues.

Resource consent conditions apply to all water takes and discharges from treatment plants. Through monitoring and compliance with these consents adverse effects on the environment are minimised and dams and water catchments are enhanced and protected.

Water Demand Management Plans and Water Supply Bylaws are in place to minimise wastage of water and protect Council’s supplies.



## Wastewater

Old buried pipe networks contribute to the majority of poor condition wastewater assets. These include the Hikurangi sewer network, old asbestos cement sewer mains, and some PVC pressure lines in Waipu. It is predicted that these will require replacement within 10 years. The District's wastewater mechanical assets are generally in a reasonable condition.

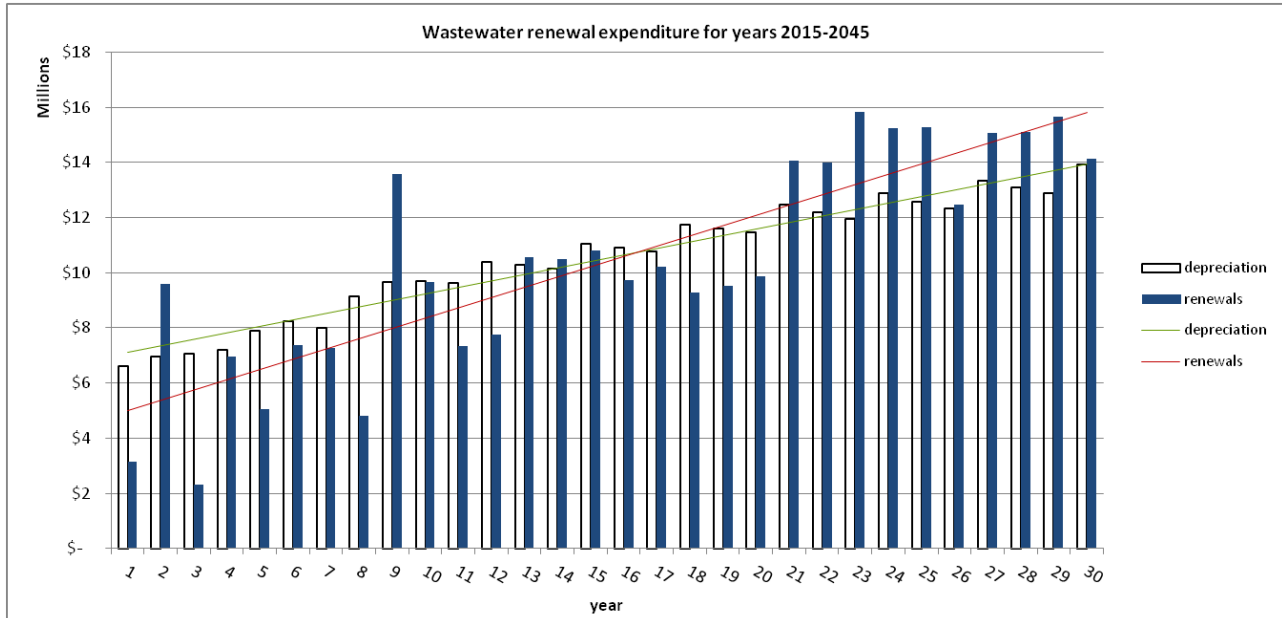


Figure 5: Wastewater renewal funding strategy 2014- 2045

The strategy for maintaining the District's wastewater assets is to defer capital works projects until as late as possible by the close monitoring of assets and application of a diligent preventative maintenance and renewals programme.

Currently the wastewater activity's debt level is decreasing and targeted rates are likely to be sufficient at predicted increases to meet expenditure for renewals, level of service maintenance and operations in the 30 year plan.

Public health protection is currently met through maintaining a sewage overflow mitigation programme. Managing ageing assets and meeting higher customer expectations will require more funding than currently budgeted to ensure that wastewater services adequately protect public health and mitigate environmental harm. Insufficient operational expenditure and lack of funding for asset renewals are identified as the highest risk to provide for satisfactory public health and environmental outcomes.



## Stormwater

There are 11 major Whangarei City stormwater catchments and a further 17 smaller settlements with stormwater networks comprising a combination of piped systems (pipes, manholes, sumps), open channels/drains, treatment devices and rivers or streams. Unlike wastewater and water assets, stormwater assets are employed intermittently, when it rains. Thus deterioration is more related to environmental causes over a long period of time than through constant use. Stormwater asset lives therefore tend to be long in comparison with other asset groups and therefore very little renewal driven by structural condition deterioration has been observed. There has been little service line or storm channel renewals forecast for the next 30 years and main line renewals only planned in years 2011-45.

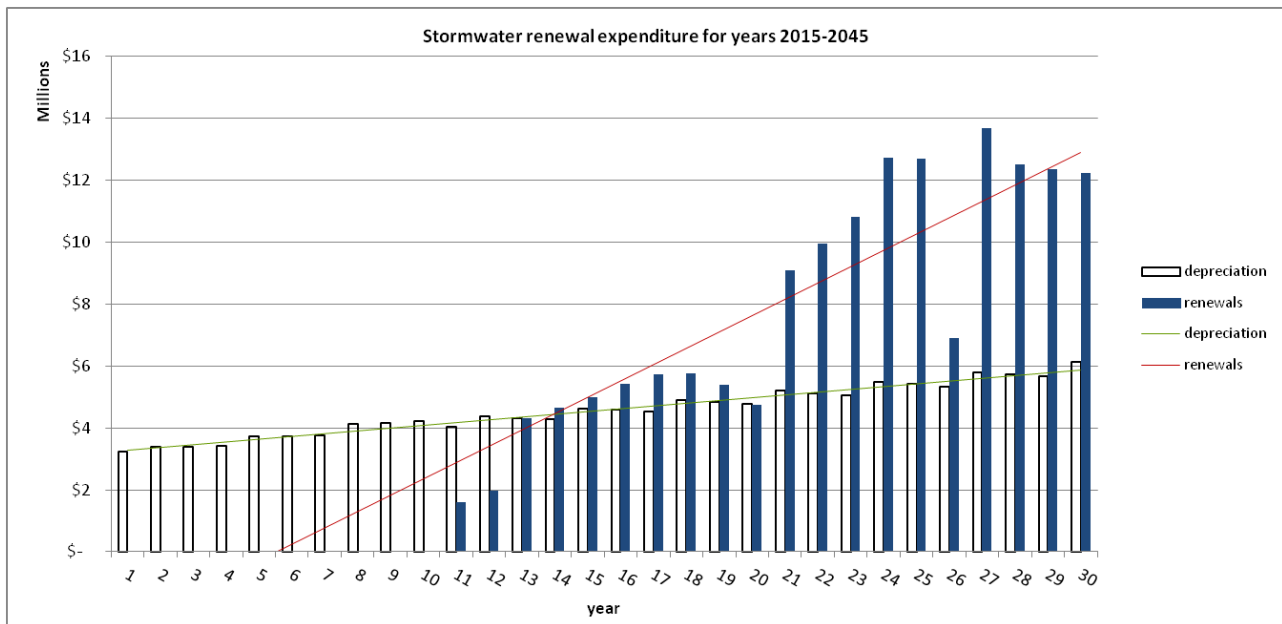


Figure 6: Stormwater renewal funding strategy 2014- 2045

Renewal profiles for stormwater assets are calculated on an age basis, with replacement funding generally allocated at end of asset life. This, however, is determined by the asset capacity to function rather than predictive modelling. It is recognised that this is a simplistic approach and Council is in the process of developing a predictive model for reticulated networks that takes into account factors such as condition, capacity and maintenance work orders to better allocate renewal funding against the piped assets.

Design approaches are employed to reduce peak flow storm runoff and provide stormwater quality treatment. This includes roadside swales, attenuation tanks and planted ponding areas to store and attenuate the peak flow of a storm. These techniques help mitigate the environmental impacts of stormwater discharges. The District Plan and WDC Environmental Engineering Standards 2010 recognise and encourage these engineering techniques as a means of mitigating peak flows and degradation of receiving water quality.

Increased demand for treatment of stormwater may arise in the future due to increased national and regional legislative constraints (e.g. National Environmental Standards, changes in consent conditions upon renewal).

## Flood protection and control works

The flood protection and control works in the Hikurangi area are functioning adequately and earthworks have recently been completed to raise stop bank levels. Some concrete structures are showing signs of structural wear and will be costly to repair. It is proposed that these be maintained rather than replaced.

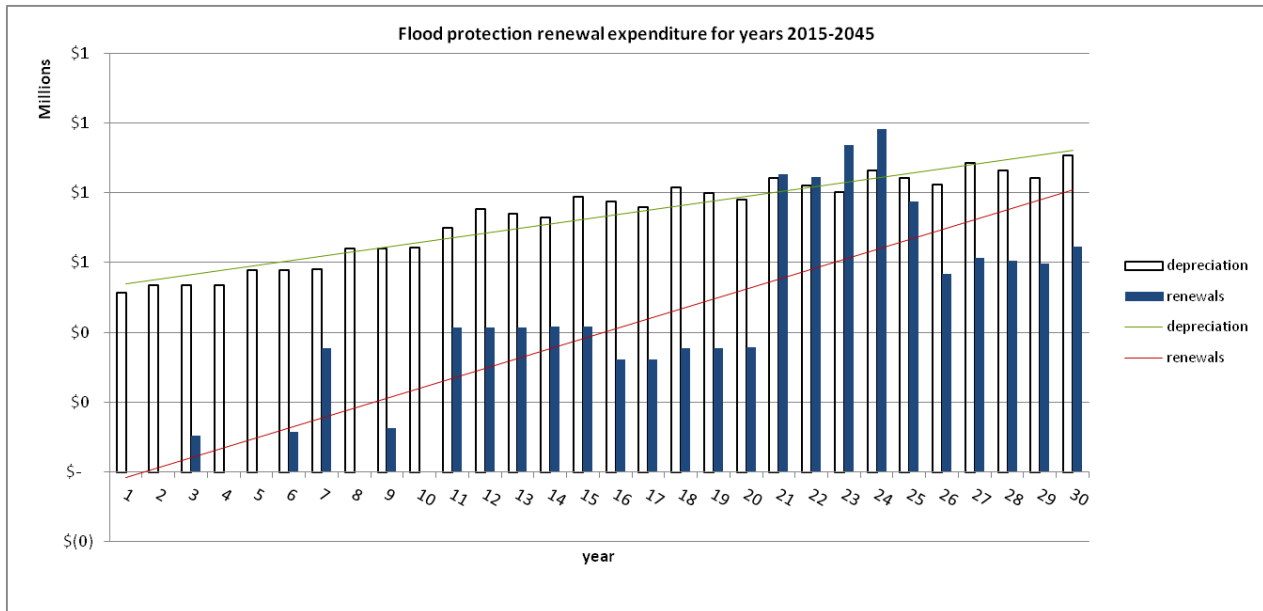


Figure 7: Flood protection funding strategy 2014- 2045

Council considers that there will be more environmental challenges in operating the flood scheme in the future. The viability of farming the flood plains is dependent on the scheme operating effectively. The more expensive it is to operate, or the lower the level of service it provides, makes farming in this flood prone area challenging for some farmers.

Assumptions are that the current asset life related to the flood control system is consistent with industry averages. This asset life is maximized through deferring capital works until as late as possible and by increased maintenance expenditure. A diligent monitoring programme ensures that the scheme operates within consent compliance limits.

By operating the Scheme in accordance with its consent limits and facilitating discussion groups to allow integration of community environmental drivers within the operation of the Scheme, Council maintains public health and environmental outcomes while mitigating adverse effects on the assets and the environment.

The current focus for the Hikurangi Swamp Scheme is to undertake refurbishment of the existing Pleuger pumps rather than replace them, and as a result it is hoped that the Scheme will return to positive equity with regard to debt earlier than originally forecast in prior years.

The level of service the flood control scheme provides will be affected by changing weather patterns as the Scheme is designed to protect pasture in relatively small events (1 in 3.5 year return). If large cyclonic events become more regular the investment in the Scheme becomes less economic.

## Roading and Footpaths

A step change in pavement renewal funding is expected to result in sustainable renewal costs going forward as depicted in figure 9. However, there is a risk that NZTA will reduce its level of co-funding if Council maintenance and renewal funding is not maintained at appropriate levels. NZTA subsidies for roading expenditure provides up to 54% of each project.

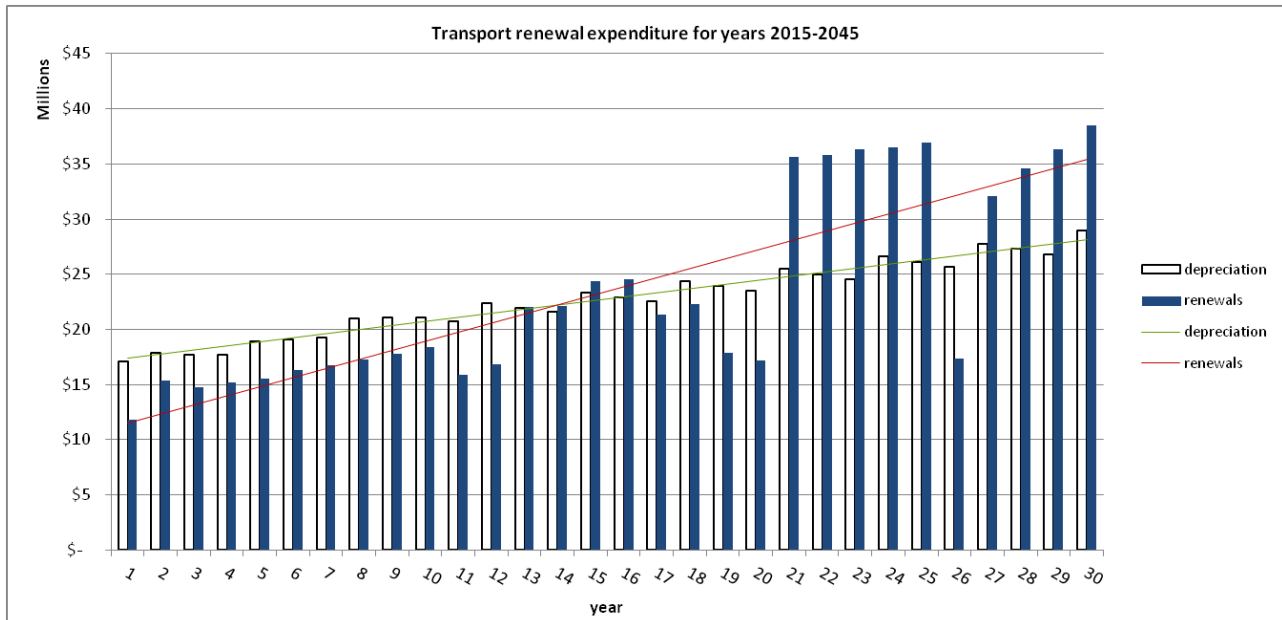


Figure 8: Roothing and footpaths renewal funding strategy 2014- 2045

Council funding for roading renewals will be increased over the life of the strategy. However, there is a possibility that funding levels for maintenance of the District's roads is insufficient to retain the current levels of service and will result in reactive maintenance being undertaken.

Flood damage work has in the past been funded by slowing down renewal programmes or deferring maintenance projects. Lack of identified funding for emergency works is a risk to this renewals programme as funding may need to be diverted to fund flood damage repairs. This can have further downstream impacts by delaying key projects and deferring necessary renewals which results in increased maintenance costs to hold the asset position.

On unsealed roads the health and environmental benefits of sealing house frontages on heavy vehicles routes may be reduced by any significant reduction in this programme, and the health benefits of encouraging walking and cycling may be reduced by the deferral of the Kamo and Tikipunga cycleway routes.

## Solid Waste

Most solid waste assets are in a relatively new condition however the sealed pavements and access roads to some transfer stations are aging and will eventually need to be resurfaced. The impact of not funding planned maintenance and renewal programmes risks a higher whole of life asset cost and reduced levels of service.

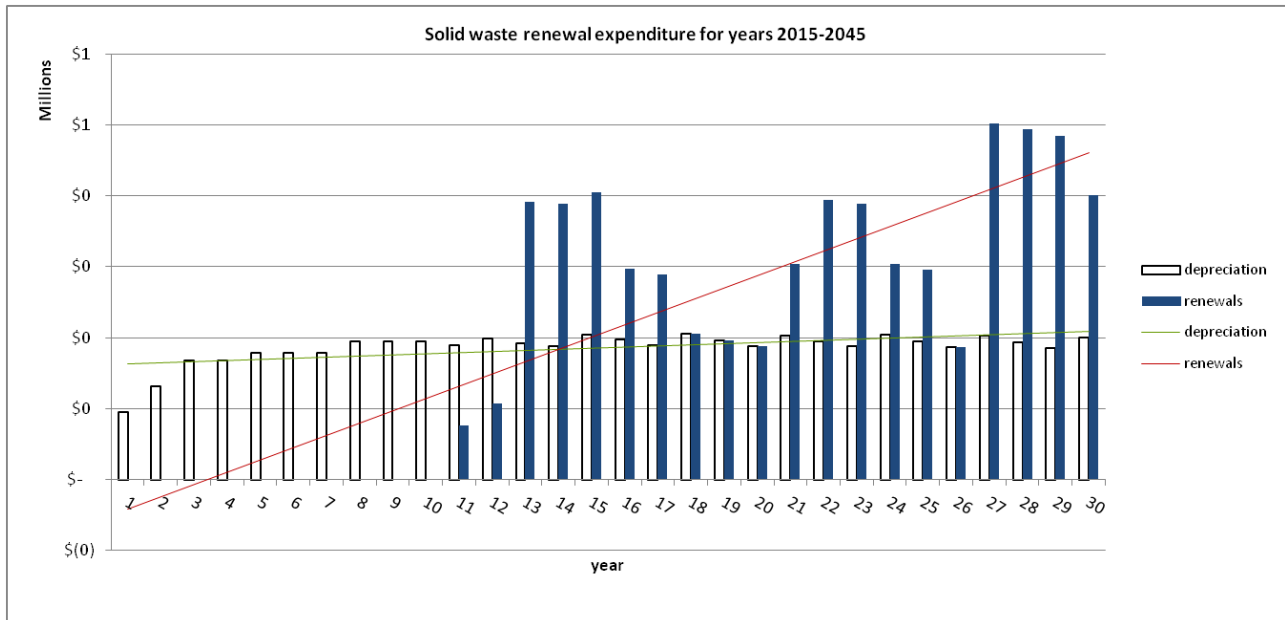


Figure 9: Solid waste renewal funding strategy 2014- 2045

Much of Council's solid waste assets have a 30-year plus life capacity. However, assets such as the transfer station networks and litter bins are on a cyclical renewal programme. Priorities for the solid waste replacement programme are assessed in terms of frequency of asset failure, ability to meet service level standards and the risk of environmental damage. Due to deferred renewal funding as reflected in figure 10, higher levels of reactive maintenance may still be incurred within the first 10 years.

The useful life of transfer station depreciation varies with individual components, from between 20 and 50 years. Asset lives can be maintained or extended provided that the repair or replacement of damaged or failed components is carried out according to good practice. This includes fence replacement, barrier repair and pavement re-sealing. Lack of due asset maintenance will result in reduced asset life.

It is likely that in the short term asset condition will deteriorate but it is expected that future LTP planning cycles will recognise these needs at the appropriate time.

There is some risk to public health if maintenance is not up to a reasonable standard. Safety barriers will need to be maintained and trips and falls need to be avoided where there are potholes. Dust nuisance at the Uretiti transfer station will be ongoing in dry conditions until the access road is sealed.

Where applicable, resource consent conditions are monitored and complied with.

## Parks and Reserves

Overall asset conditions are average to good. Sport and recreation facilities have recently been upgraded and playgrounds are in good condition however, many of these are of a similar age and careful planning of renewals is required. It is envisaged that with an initial increase in renewal expenditure in the first 10 years coupled with sustained level of service and growth expenditure across the 30 year period, Council's renewal investment for parks over the following 20 years will average as depicted in figure 11.

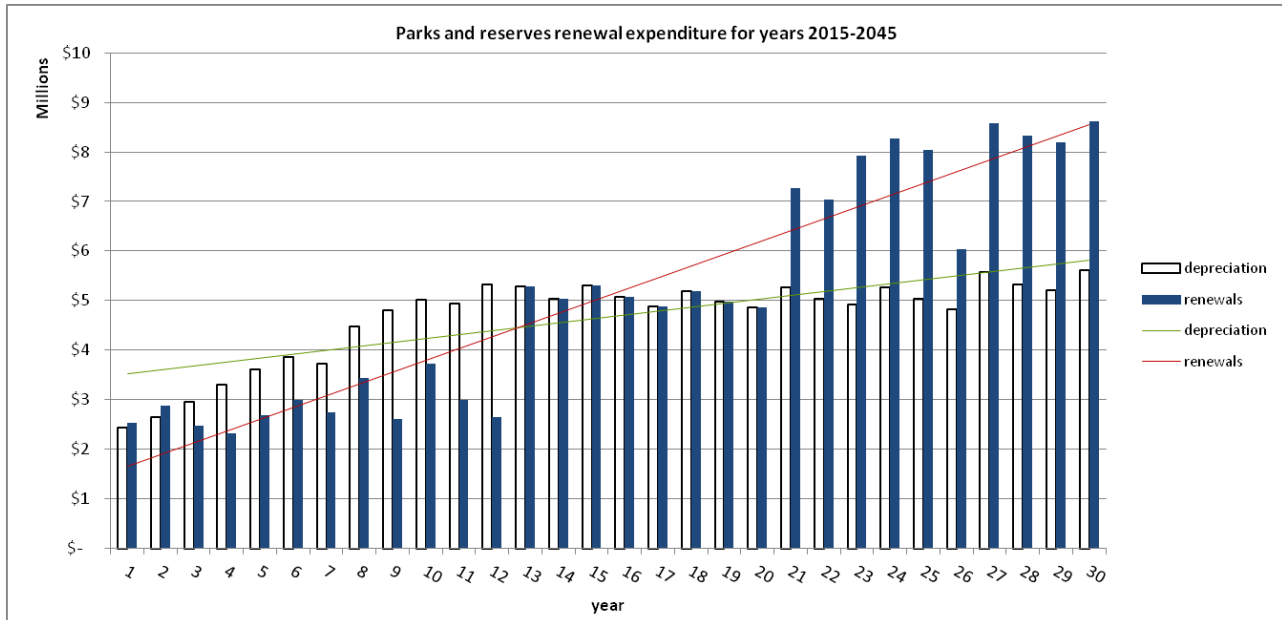


Figure 10: Parks and reserves renewal funding strategy 2014-2045

Renewal of aged and poor condition assets will be carried out in such a way to ensure service level expectations are met to the highest possible standard within the resources provided. The most likely scenario is that demand will be met on existing assets rather than provision of new assets.

Operational funding of tree maintenance may be inadequate to meet desired maintenance programmes.

Provision of land in areas of growth will have significant impact on finances as buying land in the future to meet needs in an already developed environment requires increased levels of funding. Additionally the growth component is lesser and therefore a higher percentage of the land price is paid by Council versus development contributions, which could, if provided for, fund 100% of land requirements.

The lifecycle of assets is in line with industry best practice, occasionally altered to reflect local conditions, such as exposed coastlines or erosive conditions.

Consistent quality management and inspection regimes are in place through contracts in all areas. Regular auditing of assets is done by experienced staff who will continue to monitor levels of use and wear on assets.

Health and safety investigations are conducted monthly and environmental standards are inherent within this work under the Reserves Act as and when applicable.

### 13.3. Responding to growth (or decline) in demand

Council's Growth Model (adopted in October 2014) provides an analysis of possible growth scenarios of short, medium and long term for the household and business sectors, based predominantly on Statistics New Zealand projections. This information assists Council with asset management, strategic planning and the funding of growth projects. The Growth Model is an evolving representation of the District and is continuously updated as new information is received.

Analysis has determined that the geographical locations in the District with the highest projected population increase over the 2015-2045 period are expected to be (in order of growth): Marsden Point/Ruakaka, Waipu, Hora Hora, Te Hihi and Tikipunga West.

The areas of the District that are expected to increase the least in population over the 2015-2045 period are (in order of least growth): Kamo West, Western Hills, Springs Flat and Onerahi.

In establishing a medium growth forecast, the mean of high and low projections for estimated building consent numbers was considered. The medium growth projection for the Whangarei District is expected to average 0.95% per annum for the period 2015 to 2045.

Year	Estimated resident population	Increase	% increase per annum
2014	84,400		
2018	87,590	3,190	0.9%
2023	91,790	4,200	1.0%
2028	96,050	4,260	0.9%
2033	100,500	4,450	0.9%
2038	105,160	4,660	0.9%
2043	110,030	4,870	0.9%
2048	115,130	5,100	0.9%

Council's Growth Strategy: Sustainable Futures 30/50 is the key strategy that informs our forward planning work. Adopted in 2010, it outlines a long-term, integrated framework and spatial plan which supports sustainable development of the District over the next 50 years. Asset management plans are developed taking into account the growth framework provided by the strategy and associated implementation plan.

In terms of demand for infrastructure, the main determinant of demand for core infrastructure services is the growth in the number of households and businesses. The implications of growth on core infrastructure are as follows:

#### Water

Approximately 80% of our population accesses the water supply infrastructure, with the remainder accessing water from springs, bores, streams or rainwater. The District has four water supply areas – Whangarei, Bream Bay, Maungakarama and Mangapai. It is expected that annual water consumption will increase from 7 million to around 8.2 million cubic metres annually by 2055. Upgrades to the Whau Valley dam and Poroti water source, and approval for a new water source from the Wairua River are considered adequate to meet this growth demand as well as provide contingency supply in times of drought.

#### Wastewater

Based on current levels of forecast growth infrastructure in Bream Bay (Waipu, Ruakaka and Langs Beach/Waipu Cove) and Whangarei Heads, will have limited spare capacity by year 11 of this Infrastructure Strategy. Investment in growth will be needed in Bream Bay to ensure a growing community is serviced. Failure to invest sufficiently will have an impact on development.

## **Stormwater**

There may be some long-term increase in demand for stormwater reticulation arising from growth however, impact is anticipated to be minimal as Council requires peak flows from post development runoff to be no greater than those of predevelopment runoff, consequently no increase in infrastructure capacity is required. Growth-related development impact is also managed through regulatory mechanisms, principally the Environmental Engineering Standards, which now require new stormwater infrastructure and developments to address climate change, property runoff and stormwater quality issues. Full details of the engineering requirements including hydrology and assumptions are given in Council's Environmental Engineering Standards.

## **Flood Protection and Control**

Council has adopted the risk management of flood control relating to growth requirements put forward by NAMS until a corporate management policy/framework is operationalised. This is defined as "the systematic application of management policies, procedures and practices to the tasks of identifying, evaluating, treating and monitoring those risks that could prevent a local authority from achieving its strategic or operational objectives or from complying with its legal obligations". The purpose of this process is to manage risk in a way that allows key business objectives and strategic goals to be consistently achieved.

## **Roads and Footpaths**

Roading growth demand is supported through planning mechanisms that ensure the provision of sufficient and appropriate transport networks for existing and future growth communities. Council has made significant investment in major roading projects over the past 15 years in response to future growth. The construction of the Te Matau a Pohe bridge (Lower Harbour River Crossing) and Dave Culham Drive completes the southern end of the Whangarei to Onerahi route, reducing congestion on the single river crossing on Riverside Drive. The Mill/Nixon/Kamo Road project has commenced, this being the last of the major capacity projects required in around Whangarei District roads to manage congestion. State Highway 1 four laning has continued with intersection upgrades of Maunu / SH14 / SH1, SH1/Central Ave and SH1/Selwyn Ave. These are all significant projects to meet growth demand and capacity requirements. However, population growth will still require capacity upgrades on Walton Street, Riverside Drive and in the Ruakaka area between years 10 and 30.

## **Solid Waste**

The generation of solid waste is closely linked to growth and industrial and commercial development. However, despite population growth, over the past several years there has been a steady reduction in the total waste tonnage going to landfill. These reductions, coupled with past investment in solid waste facilities and services sees a future capacity in excess of 40 years, therefore minimal capital investment is required in this area to respond to growth.

## **Parks and Reserves**

Our District has an extensive network of sportsfields, reserves, parks, coastal structures and walkways along with a number of partially Council-funded community-based sporting facilities. We expect demand on these facilities to increase as our population grows. For this reason development of an urban park (a "second Kensington Park") is planned in years 2040/41.

### 13.4. When should Council invest in improving the existing service?

The key reasons Council would need to improve existing infrastructure services are:

- Responding to increasing environmental expectations;
- Responding to increasing legislative requirements;
- Managing the effects of climate change; and
- Increasing resilience of infrastructure relating to natural hazards.

#### **Environmental expectations**

Infrastructure has a high potential to negatively affect the environment and in consideration of this, resource consents and subsequent compliance monitoring is sought for asset activities. However, consent requirements may, in certain cases, have the potential to attract unforeseen infrastructure expenditure as consent conditions change over time.

For example Council's wastewater activities operate under 10 resource consents. A schedule of the resource consents associated with the wastewater activity is maintained by Council and provision is made for the renewal of these consents as required. Monitoring of resource consents is undertaken by Wastewater Services as the consent holder and other consent administrators such as Northland Regional Council. However, should the requirements for wastewater discharge change to involve larger areas of land or greater levels of treatment under future consent conditions, Council would be required to accommodate these requirements through the purchase or lease of additional land and/or treatment investment. It is acknowledged that there is a level of uncertainty surrounding future consent conditions for all asset activities and that there is an embodied financial risk in this uncertainty.

#### **Legislative Changes**

Amendments to legislation or standards (e.g. Building Act or Drinking Water Standards) have the potential to require Council to upgrade its infrastructure which may pose a financial risk to Council in the future. No provision is made above the existing requirements/standards at this time. However, should future amendments to legislation or standards require upgrades to its infrastructure, Council would incur additional costs and this may result in deferral of already planned works.

#### **Climate Change**

The Ministry of the Environment has issued information relating to the effects of climate change in "Preparing for Climate Change - A guide for local government in New Zealand" (2008). It is predicted that Northland will experience an annual average increase in temperature of 0.9 degrees by 2040. The average annual rainfall for the Whangarei region is expected to decrease by 4% at year 2040. These figures are based on a 1990 benchmark. Council recognises that there is a level of uncertainty surrounding the potential effects of climate change and the financial impact this is likely to have. Where Council is considering significant future investment in infrastructure, a risk assessment and cost-benefit analysis is completed with climate change implications taken into account. Allowances for climate change are accommodated in asset design to offset the risk of additional future investment and to maximise asset lifecycle under changing conditions. For example, the effects of global warming and asset risks due to rising sea levels are included in the wastewater network model.

#### **Infrastructure Resilience**

There is an increasing demand for the roading network to be resilient by reducing the incidences of roads being closed due to land instability or flooding. This type of demand can be controlled by carrying out preventative maintenance activities such as slip repairs. No provision is made beyond the industry design standard to resist potential earthquake damage at this time. However, should future design standards provide for increases in earthquake resilience, Council would incur additional costs which could result in already planned works being deferred to accommodate it.

Council considers that the rebuild of the Whau Valley water treatment plant at a nearby location, at a cost of \$17.6 million, is a better long-term solution than upgrades to the existing plant. In the last LTP Council planned \$7 million of upgrades to comply with earthquake strengthening requirements and constraint issues at the current site. In planning for the new plant, Council has considered existing asset risk and future asset resilience.



Wastewater assets are monitored, in relation to their environmental risk and especially with plant and backup equipment. Funding has been allocated for limited plant upgrades to resist earthquake damage. However, as with all asset-related activities Council does not have a specific policy on earthquake damage control and funding should a significant event happen.

#### 14. Significant variations in sanitary assessments and waste minimisation

Recent changes to the Local Government Act 2002 now require Council to identify in the LTP any significant variation between the proposals in that Plan and Council's assessment of water and sanitary services and its Waste Management and Minimisation Plan.

The following table sets out the relevant assessments and plans notes any significant variations with regard to the 2015-2025 LTP.

Assessment/Plan	Last review	Item	Variation
Water Supply	2006	Extension of the public water supply to Ngunguru/Tutukaka, Matapouri, Oakura, Oceans Beach, Pataua North and Pataua South.	At this time there does not appear to be community support or demand for public water provision in these areas. These items have therefore not been planned for the 2015-2025 LTP period.
Wastewater	2006	No variations.	
Stormwater	2006	No variations.	
Cemeteries	2012	To develop a new cemetery facility in the Bream Bay area.	Public demand is increasing for a cemetery in this area. Council is investigating options for location and development. Funding has not been allocated to this project in the 2015-2025 LTP.
Crematoria	2012	No variations.	
Waste Management	2012	No variations.	

## Appendix A – Levels of Service

### Water

Levels of Service (LoS) serve as the vital link between strategic direction, core values, consultation, and the functional delivery and guide how assets should be managed. Two LoS statements were developed for water:

- Council will provide safe drinking water with adequate pressures to the residents of the District connected to the water supply system;
- The water supply system is managed in a sustainable way and in times of emergency there is adequate water supply available.

Level of Service	Performance Measure	2012 LTP 14/15 Target	Target 15/16	Target 16/17	Target 17/18	Target 18-25
1. Council will provide safe drinking water with adequate pressures to the residents of the District connected to the water supply system	1.1 Whangarei District's water quality will comply with the Ministry of Health's Drinking Water Standard for New Zealand requirements for bacterial monitoring.	100%	100%	100%	100%	100%
	1.2 The extent to which the local authority's drinking water supply complies with: (a) bacteria compliance criteria and (b) protozoal compliance criteria.	New MPM*	Yes	Yes	Yes	Yes
	1.3 Residents' satisfaction with the water supply.	95%	95%	95%	95%	95%
	1.4 The total number of complaints received by the local authority about any of the following: (a) drinking water clarity (b) drinking water taste (c) drinking water odour (d) drinking water pressure or flow (e) continuity of supply; and (f) the LA's response to any of these issues expressed per 1000 connections to the LAs networked reticulation system	New MPM*	(a)5 (b)4 (c)2 (d)2 (e)2 (f)2 Total ≤17	(a)5 (b)4 (c)2 (d)2 (e)2 (f)2 Total ≤17	(a)5 (b)4 (c)2 (d)2 (e)2 (f)2 Total ≤17	(a)5 (b)4 (c)2 (d)2 (e)2 (f)2 Total ≤17
	1.5 The number of water main breaks (distribution & riders) per 100km of pipe per year will not increase beyond the target figure set.	≤35	≤30	≤30	≤30	≤30
	1.6 Where the local authority attends a callout in response to a fault or unplanned interruption to its networked reticulation system, the following median response times measured: (a) attendance for urgent callouts: from the time the LA received notification to	New MPM*	(a) 1hr (b) 4hr (c) 12hr (d) 24hr	(a) 1hr (b) 4hr (c) 12hr (d) 24hr	(a) 1hr (b) 4hr (c) 12hr (d) 24hr	(a) 1hr (b) 4hr (c) 12hr (d) 24hr

	<p>the time service personnel reach the site</p> <p>(b ) resolution of urgent callouts: from the time the LA received notification to the time that service personnel confirm resolution of the fault or interruption</p> <p>(c) attendance for non-urgent callouts: from the time that the LA receives notification to the time that service personnel reach the site; and</p> <p>(d) resolution of non-urgent callouts: from the time that the LA receives notification to the time that service personnel confirm resolution of the fault or interruption.</p>					
2. The water supply system is managed in a sustainable way and in times of emergency there is adequate water supply available	2.1 The amount of raw water available as a percentage of the predicted demand during drought conditions.	79%	83%	81%	79%	79%
	2.2 The percentage of real water loss from the local authority's networked reticulation system (using the NZWWA benchless calculation method).	New MPM*	25%	25%	25%	25%
	2.3 Average consumption of drinking water litres per day per resident.	New MPM*	≤500	≤500	≤500	≤500

## Wastewater & Stormwater

<b>Core Value/Service Statement - Reliability/Accessibility</b>	Under the chosen service option breaks and blocks are effectively dealt with. Provision for growth is managed to ensure there is the capacity to meet demand and un-reticulated communities are identified and given support to connect to the network. Network models are developed and areas at risk of failure identified
<b>Core Value/Service Statement - Sustainable/Environmental</b>	Under the chosen service option the network will be managed to minimise the impact on the surrounding environment through monitoring of untreated discharges and implementation of mitigative measures. Design of new works and renewals are to make an allowance for climate change.
<b>Core Value/Service Statement - Affordability/Cost</b>	Stakeholders are given options for affordability in service level delivery and understand the consequences/ impacts of those options. Under the chosen service option a whole of life approach is to be applied to project planning and a coordinated approach across the Council to provide efficiency in procurement, construction or maintenance of the wastewater assets.
<b>Core Value/Service Statement - Safety/Health</b>	Under the chosen service option respond in a timely and well managed way to any contamination, identify and monitor locations of wet weather overflows and develop a strategy to investigate the separation of cross connections. Ensure, through education and maintenance, the safety of both operators and the public.
<b>Core Value/Service Statement - Quality/Quantity</b>	Quality/Quantity – Under the chosen service option the network will operate within the bounds of the engineering standards, consents and construction/maintenance standards to ensure infrastructure standards and deliverables are met.

## Wastewater Levels of Service

Level of Service	Performance Measure	2012 LTP 14/15 Target	Target 15/16	Target 16/17	Target 17/18	Target 18-25
1. Council will collect, treat and dispose of wastewater through a reliable wastewater network which is managed to ensure blockages, breaks or spillages are kept to a minimum.	1.1 Compliance with TA resource consents for discharge from its sewerage system measured by the number of: (a) abatement notices (b) infringement notices (c) enforcement orders, and (d) convictions.	New MPM*	0 for all	0 for all	0 for all	0 for all
	1.2 The number of dry weather sewerage overflows from the TAs sewerage system, expressed per 1000 sewerage connections to that sewerage system.	New MPM*	1.35	1.35	1.35	1.35
	1.3 Residents' satisfaction with sewerage reticulation, treatment and disposal services.	70%	70%	70%	70%	70%
	1.4 The total number of complaints received by the TA about any of the following: (a) sewage odour (b) sewerage system faults (c) sewerage system blockages; and	New MPM*	<=20	<=20	<=20	<=20

	(d) the TAs response to issues with its sewerage system expressed per 1000 connections to the TAs sewerage system.					
	1.5 Where the TA attends to sewerage overflows resulting from a blockage or other fault in the TA's sewerage system, the following median response times measured:  (a) attendance time: from the time that the TA receives notification to the time that service personnel reach the site; and  (b) resolution time: from the time that the TA receives notification to the time that service personnel confirm resolution of the blockage or other fault.	(a) 1 hr (b) 7 hrs	(a) 1 hr (b) 7 hrs	(a) 1 hr (b) 7 hrs	(a) 1 hr (b) 7 hrs	(a) 1 hr (b) 7 hrs
2. Council will provide well maintained and accessible public toilets in high use areas.	2.1 Residents satisfaction with public toilets.	75%	75%	75%	75%	75%

### Stormwater Levels of Service

Level of Service	Performance Measure	2012 LTP 14/15 Target	Target 15/16	Target 16/17	Target 17/18	Target 18-25
1. Council will provide a stormwater network that minimises flood risks and environmental impacts.	1.1 Compliance with the TA resource consents for discharge from its stormwater system, measured by the number of: (a) abatement notices (b) infringement notices (c) enforcement orders; and (d) convictions received by the TA in relation to those resource consents	New MPM*	0 for all	0 for all	0 for all	0 for all
	1.2 Residents' satisfaction with stormwater drainage service.	70%	70%	70%	70%	70%
	1.3 The number of complaints received by a TA about the performance of its stormwater system, expressed per 1000 properties connected to the territorial authority's stormwater system.	New MPM*	< 400	< 400	< 400	< 400
	1.4 (a) The number of flooding events that occur in a territorial authority district and  (b) For each flooding event, the number of habitable floors affected. Expressed per 1000 properties connected to the	New MPM	0	0	0	0

	territorial authority's stormwater system.					
	1.5 The median response time to attend a flooding event, measured from the time that the territorial authority receives notification to the time that service personnel reach the site.	1 hour	1 hour	1 hour	1 hour	1 hour

### Flood Protection and Control Works Levels of Service

Level of Service	Performance Measure	2012 LTP 14/15 Target	Target 15/16	Target 16/17	Target 17/18	Target 18-25
1. Council will provide a reliable and sustainable flood protection scheme which is managed to mitigate flooding within the Hikurangi Swamp Scheme area to an acceptable level.	1.1 The major flood protection and control works that are maintained, repaired and renewed to the key standards defined in the local authority's relevant planning documents (such as its activity management plan, asset management plan, annual works program or long term plan).	New MPM*	Yes	Yes	Yes	Yes
	1.2 No infringement or abatement notices issued by Northland Regional Council in relation to the scheme consent.	0	0	0	0	0

### Roading and Footpaths Levels of Service

Level of Service	Performance Measure	2012 LTP 14/15 Target	Target 15/16	Target 16/17	Target 17/18	Target 18-25
1. The District's Roading Network will be maintained in a satisfactory condition and in accordance with national safety and engineering standards.	1.1 Percentage of road accidents with contributing roading factors.	<=9	<=9	<=9	<=9	<=9
	1.2 The change from the previous financial year in the number of fatalities and serious injury crashes on local road network, expressed as a number.	New MPM*	0	0	0	0
	1.3 Residents' satisfaction with the roading network	59%	61%	61%	61%	61%
	1.4 The average quality of ride on a sealed local road network, measured by smooth travel exposure.	New MPM*	87%	87%	87%	87%
	1.5 The percentage of the sealed local road network that is resurfaced	New MPM*	8%	8%	8%	7.5%
	1.6 The percentage of the sealed local road network that is rehabilitated.	1.2%	1.2%	1.2%	1.2%	1.2%
	1.7 The percentage of customer service requests relating to roads and footpaths to which the territorial authority responds	New MPM*	>=95%	>=95%	>=95%	>=95%

	within the time frame specified in the long term plan					
2. We will support alternative transport methods.	2.1 The percentage of footpaths within a territorial authority district that fall within the level of service or service standard for the condition of footpaths that is set out in the territorial authority's relevant document (such as its annual plan, activity management plan, asset management plan, annual works program or long term plan).	New MPM*	>=80% in fair or better standard	>=80% in fair or better standard	>=80% in fair or better standard	>=80% in fair or better standard
	2.2 Length (km) of walking and cycling dedicated network built each year.	3.0	1.8	1	1	1
	2.3 Residents' satisfaction with street lighting in urban areas.	82%	82%	82%	82%	82%
3. Travel times in and around the network will be predictable and disruptions to the network will be well managed and communicated.	3.1 Residents' satisfaction with the way the District is managing its morning and evening traffic flows.	55%	70%	70%	70%	70%

### Solid Waste Levels of Service

Level of Service	Performance Measure	2012 LTP 14/15 Target	Target 2014-15	Target 2015-16	Target 2016-17	Target 2017-25
1. Council will provide kerbside refuse and recycling collection services to all properties in the district and transfer stations will be operated throughout the district.	1.1. Customer satisfaction with solid waste collection and recycling services and transfer stations (excluding don't knows)	85%	85%	85%	85%	85%
2. Council will foster waste minimisation by supporting recycling and waste reduction practices so that a continued reduction in refuse sent to landfill occurs.	2.1 Tonnage of refuse collected from within council boundaries will reduce each year	New measure	less 2 %	less 2 %	less 2 %	less 2 %
	2.2 Tonnage of recycling collected from within council boundaries will increase from the previous year.	New measure	+2%	+2%	+2%	+2%
3. Council will provide and empty public rubbish bins and undertake litter	3.1 Satisfaction with litter control	75%	75%	75%	75%	75%

control throughout public places in the district.						
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### Parks and Recreation

Level of Service	Performance Measure	2012 LTP 14/15 Target	Target 2015-16	Target 2016-17	Target 2017-18	Target 2018-25
1. Council will provide and maintain outdoor sporting facilities to support and promote active recreation of the community through participation in both organised and informal sporting activities.	Sports parks will be provided to meet the community's needs.	166 hrs	166 hrs	175 hrs	177hrs	182 hrs
	Average satisfaction rating of sports codes with sports parks.	80%	80%	80%	80%	80%
Council will provide and maintain a range of reserves, including built facilities to meet the recreational and leisure needs of the community as well as protecting and enhancing the natural environment for its intrinsic value.	Satisfaction with neighbourhood, civic space, cultural heritage, public gardens, and recreational and ecological linkages parks.	80%	80%	80%	80%	80%
Council will convert or upgrade identified existing open spaces to provide a wider range of high quality recreational and leisure opportunities within the District for our community and visitors.	Hectares of open space land transformed.	0.37ha	1.2ha	0.5ha	0.5ha	0.5ha
	Residents' perception that Council is making sufficient investment is being made in developing a strong sense of place for the District and its communities.	New measure	70%	70%	70%	70%
Council will provide and maintain cemeteries and a crematorium in a satisfactory manner	Public satisfaction with cemeteries.	90%	90%	90%	90%	90%



## Appendix B – Useful Lives

### From Council's Statement of Accounting Policy:

Property, plant and equipment consists of operational assets, restricted assets and infrastructure assets. Property, plant and equipment items are shown at historical cost or valuation less accumulated depreciation and impairment losses.

Depreciation is provided on all property, plant and equipment. The exceptions are those assets with undefined useful lives which are not depreciated. Depreciation is calculated on a straight line basis or diminishing value where appropriate, at rates which will allocate the cost or value of the asset (less any residual value) over its useful life. The estimated useful lives, in years, of the major classes of property, plant and equipment are as follows:

Infrastructural assets	Years	Depreciation rate
Land under roads	Indefinite	
<b>Roading</b>		
Bridges	50	2%
Carriageways	5-40	2.5%-40%
Culverts	50-99	1%-2%
Footpaths	10-25	4%-10%
Kerbs and channels	25	4%
Street and road signs	10	10%
<b>Water</b>		
Pipes	40-116	0.9%-2.5%
Tanks	43-200	0.5%-1%
Valves	10-89	1.1%-10%
Treatment plant	30-80	1.25%-33%
<b>Liquid waste</b>		
Pipes	40-130	0.8%-2.5%
Manholes	50-93	1%-2%
<b>Stormwater</b>		

Infrastructural assets	Years	Depreciation rate
Manholes	50-80	1.25%-2%
Pipes	40-112	1%-2.5%
<b>Drainage network</b>		
Pipes	50-80	1.25%-2%
Parks and reserves – walkways and sports parks	10	10%
Plant and machinery	14	7.4%

The infrastructure assets' residual values and useful lives are reviewed on a three yearly revaluation cycle and adjusted if appropriate.

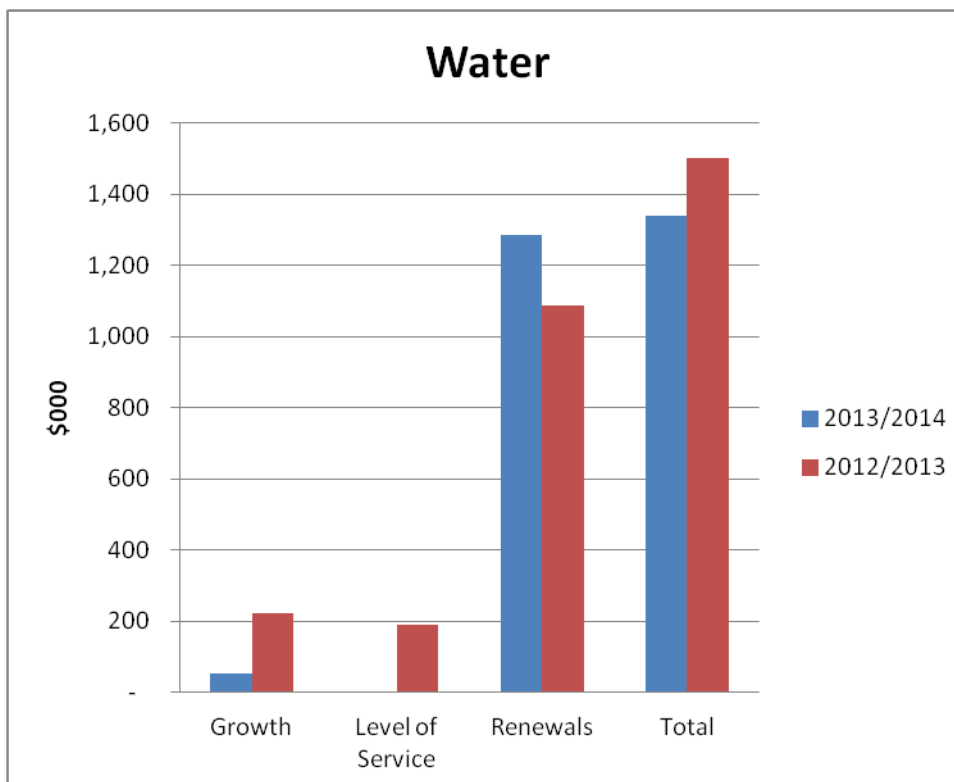
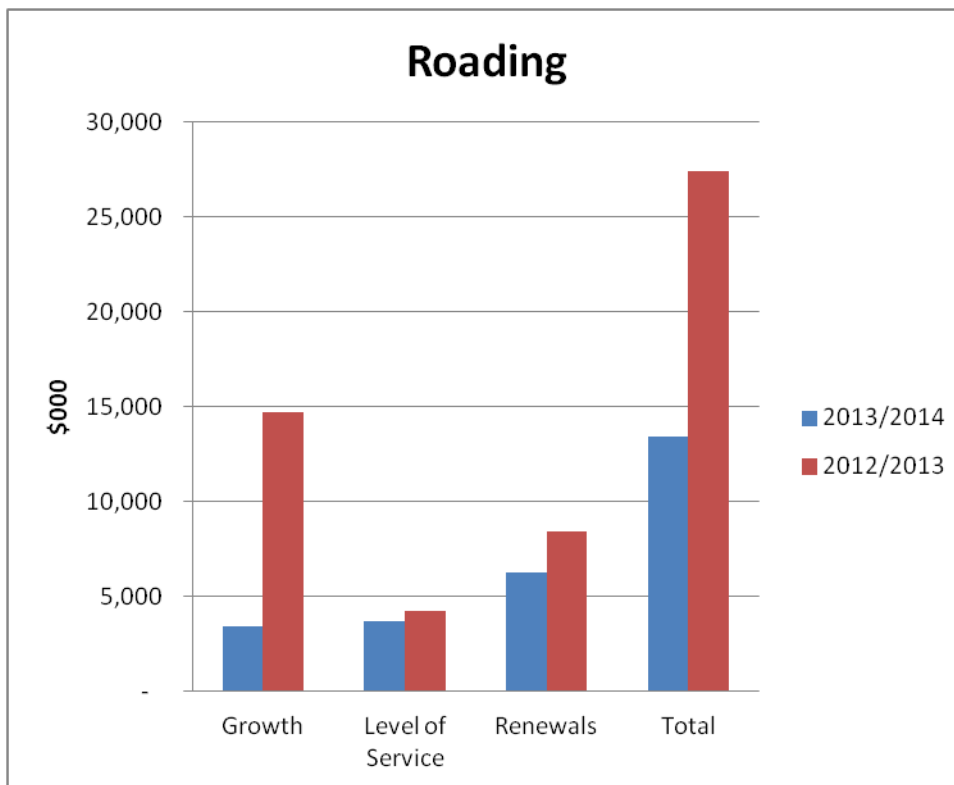
## Appendix C – Key Assumptions

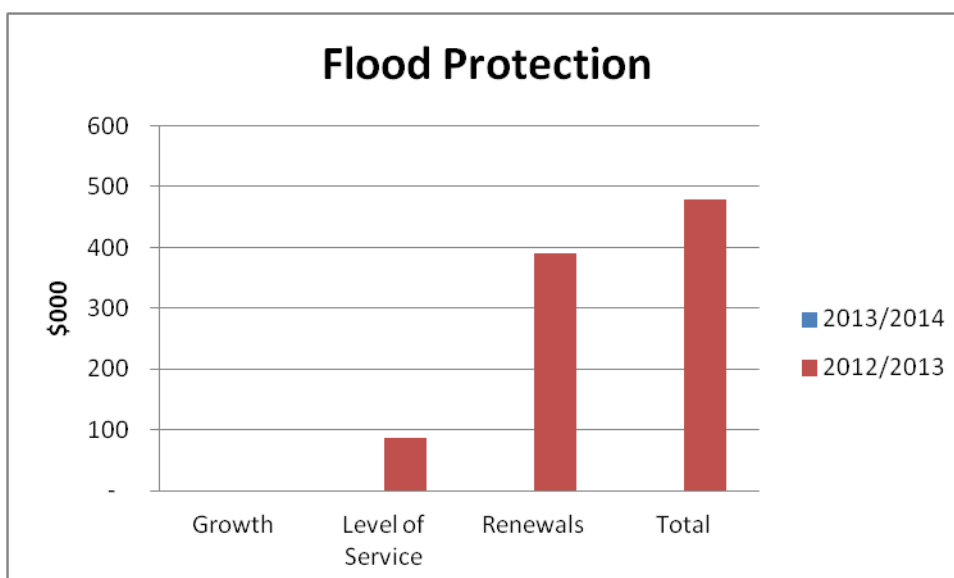
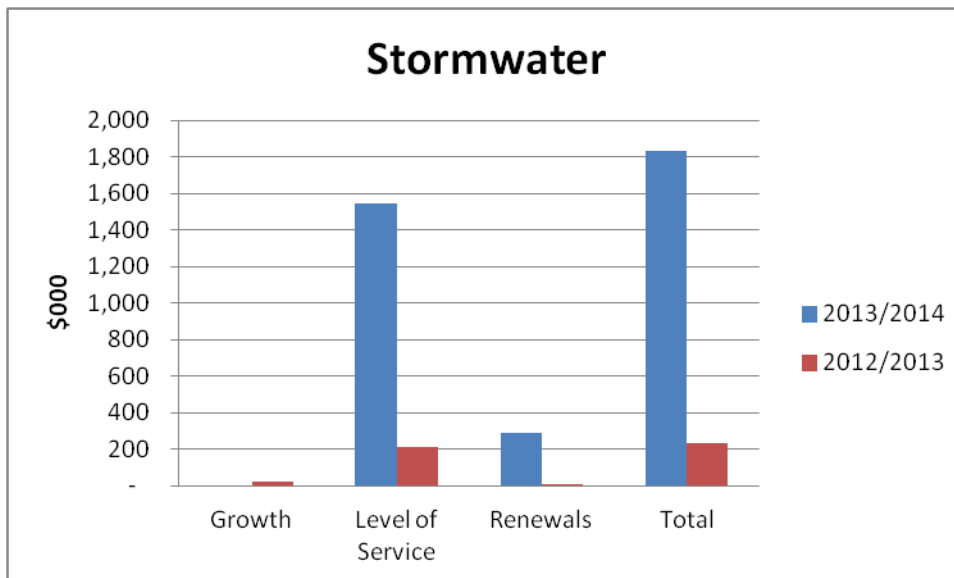
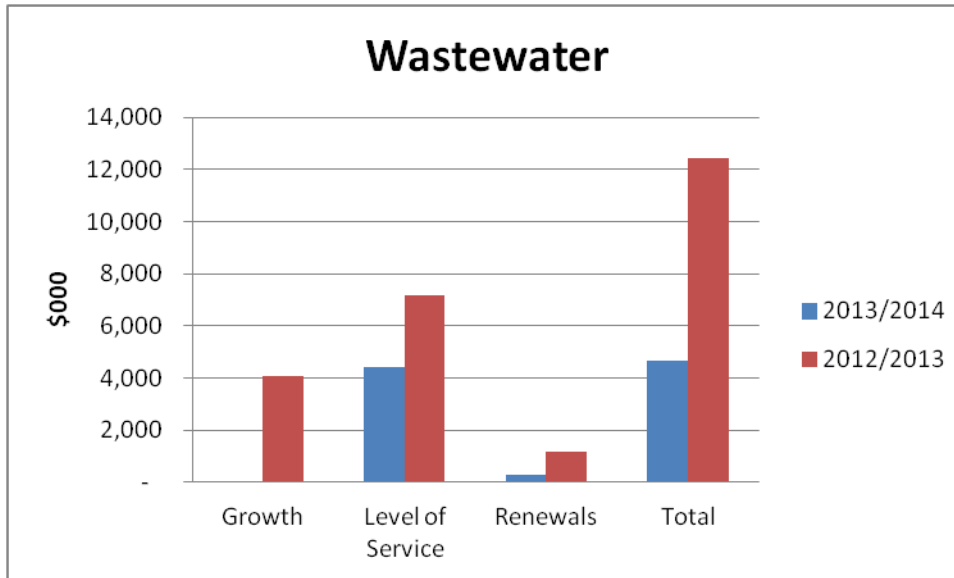
Key assumptions have been made in defining the 30 year Infrastructure Strategy as follows:

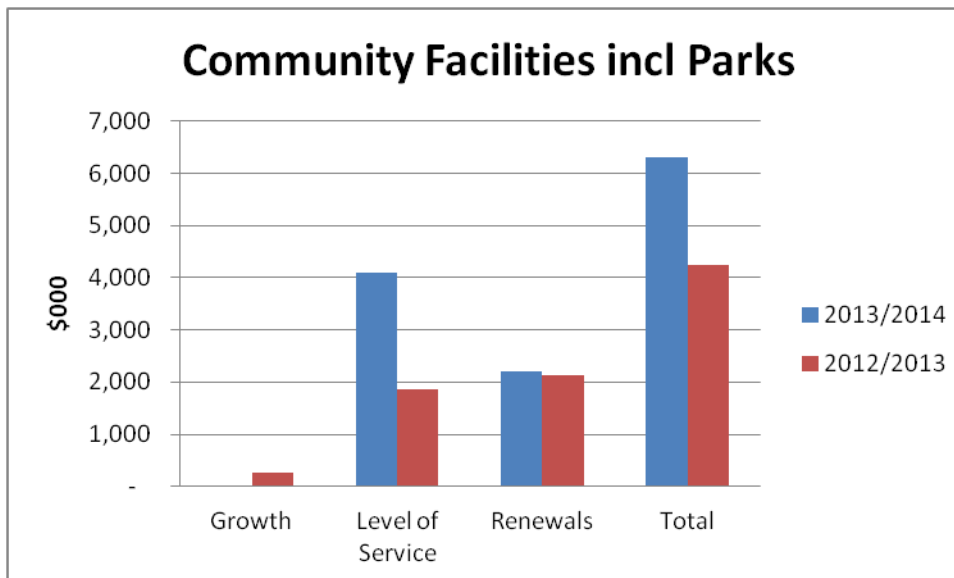
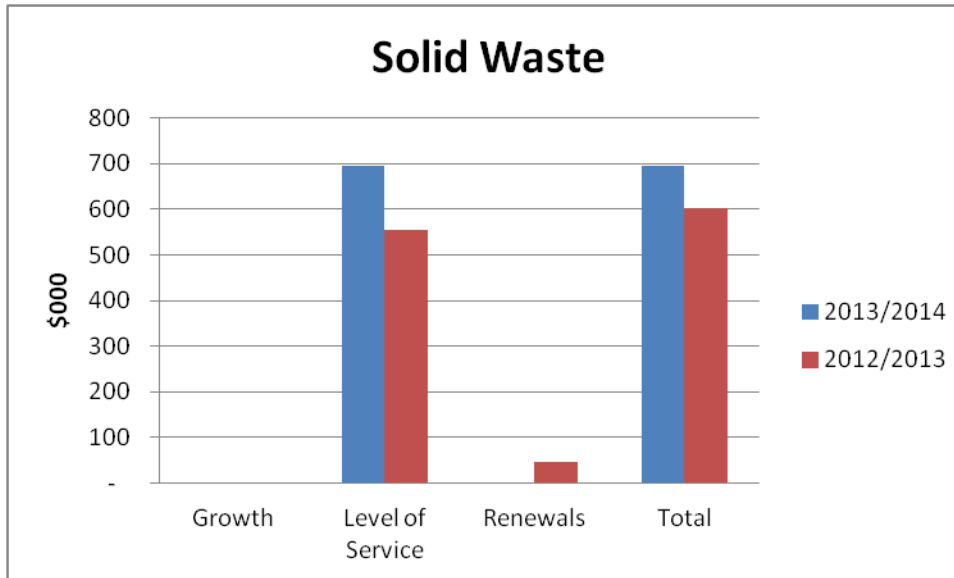
- i. **Growth projections** – growth will occur generally in line with Council's projections. This reflects Council's assumptions about demand for services i.e. that population growth increases demand for services for its infrastructure assets, and Council's assumptions regarding growth in revenue. The further out the projection, the higher degree of uncertainty there is.
- ii. **New Zealand Transport Agency funding** – Council receives funding assistance from the New Zealand Transport Agency (NZTA) for roading & footpaths. It is assumed that the NZTA funding assistance will increase to match Council's increased budget for maintaining and renewing its assets. Shortfalls in funding assistance from the NZTA will likely result in reduced Levels of Service.
- iii. **Levels of Service** – it has been assumed that there will be no significant changes to the current Levels of Service. Some communities may wish to maintain a higher level of service than this. If there is widespread agreement for this Council could introduce targeted rates in selected areas.
- iv. **Legislation** – this Strategy has been prepared in line with current legislation and standards. Any significant changes in legislation may result in a change in Level of Service, or require additional funding.
- v. **Revenue** – this Strategy has been prepared based on the preferred option of increasing total rates beyond inflation every year for the next 10 years. Any reduction in funding will likely result in assets being run down and/or much less being spent on community initiatives and recreational facilities, with a corresponding drop in Levels of Service.
- vi. **Asset Lives** – it is assumed that on average the asset lives in Appendix B – Useful Lives will be achieved. The condition of the assets will be monitored to assess their respective remaining lives against the predicted asset lives.

The abovementioned risks will be managed through periodic monitoring in line with the triennial Long Term Plan review process.

## Appendix D – Historic Spend







## Appendix E – Whangarei District Council Document References

Activity Area	Document Type (2015)	Trim Document Reference Number
Activity Management Planning	AMP policy and practice document	14/40031
Water AMP	Asset/activity management plan	13/47962
Wastewater AMP	Asset/activity management plan	14/81821
Stormwater AMP	Asset/activity management plan	14/81835
Flood Protection AMP	Asset/activity management plan	14/81811
Solid Waste Amp	Asset/activity management plan	14/116746
Roading and Footpath AMP	Asset/activity management plan	13/102989
Park and Reserves AMP	Asset/activity management plan	14/50760
Infrastructure Strategy	30 year strategy document	14/103271
Financial Strategy	10 year strategy document	14/101913
Significance and Engagement	Policy document	Policy0081
Development Contributions	Policy document	POLICY0036
Sustainable Futures 30/50 implementation plan	Growth strategy plan	11/75943
Growth Model	WDC growth model document	14/78883

## Checklist

Section	Requirement	Complete (tick)
101B	<p>A local authority must, as part of its long-term plan, prepare and adopt an infrastructure strategy for a period of at least 30 consecutive financial years. (May combine with financial strategy).</p> <p>The strategy must address these asset areas, although we can choose to add more (e.g. parks) at our discretion:</p> <ul style="list-style-type: none"> <li>- water</li> <li>- wastewater</li> <li>- stormwater drainage</li> <li>- flood protection and control works</li> <li>- roads and footpaths</li> </ul>	
	<p>The purpose of the infrastructure strategy is to—</p> <ul style="list-style-type: none"> <li>- identify significant infrastructure issues for the local authority over the period covered by the strategy; and</li> <li>- identify the principal options for managing those issues and the implications of those options.</li> </ul>	
	<p>Outline how we intend to manage our infrastructure assets, taking into account the need to—</p> <ul style="list-style-type: none"> <li>- renew or replace existing assets</li> <li>- respond to growth or decline in the demand for services reliant on those assets</li> <li>- allow for planned increases or decreases in levels of service provided through those assets</li> <li>- maintain or improve public health and environmental outcomes or mitigate adverse effects on them</li> <li>- provide for the resilience of infrastructure assets by identifying and managing risks relating to natural hazards and by making appropriate financial provision for those risks.</li> </ul>	
	<p>Must outline the most likely scenario for the management of infrastructure assets over the period of the strategy and as a subset:</p> <ul style="list-style-type: none"> <li>- show indicative estimates of the projected capital and operating expenditure associated with the management of those assets per year for the first 10 years and in blocks of 5 years for the remainder of the 30 year period.</li> <li>- Identify the significant decisions about capex we expect to have to make, when we expect to make those decisions, the principal options to be considered, and the approximate cost associated with each decision.</li> </ul> <p>Note:</p> <ul style="list-style-type: none"> <li>○ include the assumptions on which the most likely scenario is based, specifically regarding:</li> <li>○ life cycle of significant infrastructure assets: <ul style="list-style-type: none"> <li>▪ growth or decline in the demand for relevant services:</li> <li>▪ increases or decreases in relevant levels of service</li> <li>▪ if assumptions involve a high level of uncertainty, identify the nature of that uncertainty and include an outline of the potential effects of that uncertainty.</li> </ul> </li> </ul>	



Quality Assurance		
	Financials provided and checked by Finance.	
	Final graphs checked (any final changes have been incorporated)	
	Axis scale on all graphs checked	
	Proof read complete (check for typos, poor grammar etc)	
	Style sheet standards applied (standard writing and layout conventions applied)	
	Summarised figures match financial statements (opex, capex, revenues etc) and AMPs	
	Approved by SW	