INFRASTRUCTURE STRATEGY

2018-2048

SEPTEMBER 2018

TE WAIROA

WAIROA DISTRICT

DOCUMENT PREPARATION & QUALITY ASSURANCE

	NAME	DATE
Prepared By	Linda Cook Senior Infrastructure Advisor, Rationale	January 2018
Reviewed By	N/A	
Peer Reviewed by	N/A	
Document Approved	Jamie Cox, Engineering Manager, Wairoa District Council	January 2018
Adopted by Council	Resolution 2018/54	September 2018

UPDATE REGISTER

VERSION	DATE	UPDATE DESCRIPTION	UPDATED BY

CONTENTS

WAIROA

INFRASTRUCTURE STRATEGY SUMMARY

COUNCIL'S VISION	**Connected communities, desirable lifestyles, treasured environments**								
COMMUNITY OUTCOMES	1. A strong, Prosperous and Thriving Economy / 2. A Safe and Integrated Infrastructure / 3. A community that values and promotes its culture and heritage / 4. Safe and Accessible Recreational Facilities / 5. Supportive, caring and valued communities / 6. Strong district leadership and a sense of belonging / 7. A Safe and secure community / 8. A Lifetime of good health, education and well-being / 9. An environment that is appreciated, protected and sustained for future generations								
STRATEGIC CHALLENGES	**Economic Development**: Ensuring our infrastructure meets growing tourism numbers and higher service expectations	**Optimising Infrastructure**: Better data (confidence) and better interpretation of that data will enable more informed decisions	**Resilience:** Ensuring our core infrastructure, and in particular our critical assets, are well-maintained to be responsive and resilient to changing needs and to minimise the impact of emergency events	**Water Quality:** Ensuring our 3-Water networks meet legislative requirements and public demands for cleaner rivers, lakes etc	**Demography:** Delivering infrastructure that responds to the needs of changing population demographics including higher proportions of youth and senior citizens whilst accounting for social affordability issues	**Affordability:** Maximising alternative funding sources, while ensuring that services and service levels match the community's ability to pay	**Climate change:** Ensuring long and short-term infrastructure planning anticipates the scale and speed of climate change	**Technology:** Responding to rapidly changing technology in making long-term infrastructure investment decisions	**Changes in Land Use:** Different land uses will have different requirements/desired levels of service on infrastructure
GOALS	Our infrastructure increases opportunities for new and existing businesses	We get the best out of our infrastructure	The impact of emergency events on our communities is minimised through well-maintained infrastructure	Our water network discharges meet both public expectations and legislative requirements	Our District caters for the changing needs of both our current and future residents	Our revenue sources can financially sustain our current and future infrastructure needs and expectations	Our infrastructure is resilient and adapting to climate change ahead of it having materially adverse impacts	Our use of technology enables us to deliver better and more cost-effective infrastructure	Our infrastructure is resilient to changes in demand
OUTCOMES SUPPORTED	**Outcomes: 1, 3, 4, 5 & 6**	**Outcomes: 1, 2, 7 & 8**	**Outcomes: 1, 2, 7 & 8**	**Outcomes: 1, 7, 8 & 9**	**Outcomes: 2,5, 7 & 8**	**Outcomes: 1, 2 & 3**	**Outcomes: 2, 4, 6 & 9**	**Outcomes: 1 & 6**	**Outcomes: 1, 2, 4 & 9**

WAIROA

ACTIONS	• Better understand nature of future economic development and tourism demands on the District to enable robust decision-making processes on spending • Develop relationships at national/ regional level	Increase data knowledge to better Inform asset management processes and decision-making	• Better understand likely demand and patterns of use • Improved knowledge of the scale of investment required and options available	• Monitor legislative changes and requirements • Improved understand-ing of the state of 3-Waters network • Develop knowledge of cost implications of options for better discharge standards	Review levels of service regularly in relation to changes in population – numbers and demographics	• Increased integration of Financial and Infrastructure Strategies • Investigate alternative funding options • Understanding of whole of life asset costs and setting priorities	• Develop and improve network understanding, especially points of critical failure • Monitor flooding, slips, coastal erosion • Identify at what stage do issues require action • Manage relationships with HBRC / NIWA	• Improved understanding of the technology opportunities for managing infrastructure • Identify where new technology is cost-effective in terms of levels of service	• Better understanding infrastructure needs of different land uses • Application of rates differentials
KEY PROJECTS OVER NEXT 30 YEARS	• Wairoa Airport Runway Extension (est $1million 2018/19)	• Continuation of the 3-Waters renewals programme (in excess of $1 million per annum across water, wastewater and stormwater) • Continuation of roading renewals (in the order of $30 million over the next 30 years, prior to subsidies) • New landfill cell, Regional collaboration to be considered		• Wairoa Wastewater Treatment Plant upgrade & related works (approx. $6 million to $7 million 2018-2021) • New Mahanga Water supply ($235,000) & Blue Bay Upgrade ($180,000)					

SUPPORTING PROGRAMMES & PROJECTS	• Economic development strategy • Improved built and open spaces (eg destination playground, new public toilets) • CBD upgrade (est $2mil 2018/2021) • Improved amenities • Cycleways development • SP38 upgrade	• Continue focus on data collection to increase data confidence and improve asset database • Condition assessments • Identification of critical assets • Nuhaka-Opoutama Road – resilience/ Mahia Peninsula access	• Establish baseline assessments of current network • Monitoring of waterways (HBRC)	• Develop 30-year population/ demography model for District • Revise AMPs to reflect demography changes	• Asset audit to ensure asset life correlate to current depreciation provision • Work with LGNZ on LG Funding Review • Review Funding Policy	• Enhanced standards for infrastructure resilience • Updated AMPs to reflect climate change priorities • Enhance CDEM plan to ensure continuity of power supply to infrastructure network	• Develop a technology strategy in partnership with other TLAs, IPWEA etc. • Enhance business case methodology to consideration of technology implications	• Develop 30-year land use plan

1. INTRODUCTION

1.1 WHERE WE WANT TO BE

'Hāpaitia' reflects Council's direction over the next 30 years - 'Hapaitia te ara tika mo nga uri whakatipu' – 'setting the right path together for our future generations'.

Council is mindful of the need to grow our population and build our economic capabilities, but this needs to be done in an affordable and resourceful way whilst at the same time understanding and minimising the impact we have on our environment. This Strategy takes a long term view of improving our infrastructure and maintaining or improving our levels of service, identifying and addressing the numerous challenges Wairoa will face over the next 30 years.

The challenges facing us are looked at in detail in Section 4 but can be outlined as:

- Overall, we are predicting a static population with little change to the demand for services over the next 30 years. However, different people have different needs and our levels of service may need to change to reflect this. For example, whilst we have a small and ageing population, we are developing and implementing initiatives for economic development and to increase the number of visitors to the District. With an ageing population, we will have more residents with fixed incomes who may not be able to absorb the cost of increased levels of service. To get the balance right, this will mean identifying the changes needed in the future to meet resident and visitor demand but not investing in new infrastructure until it is reasonably certain that the predicted demand will occur
- The affordability of our services is key to our communities. We need to make sure our infrastructure is well-maintained to avoid future unexpected costs to repair or replace. We also need to consider alternative and additional funding sources to help pay for those services;
- We need to be resilient to climate change and natural emergency events such as flooding and coastal erosion. This is important to ensure connectivity between our communities and the continued provision of key services;
- We need to be mindful of changes in legislation, land use and technology which may impact on how we provide services in the future – we need to be as proactive as we can.

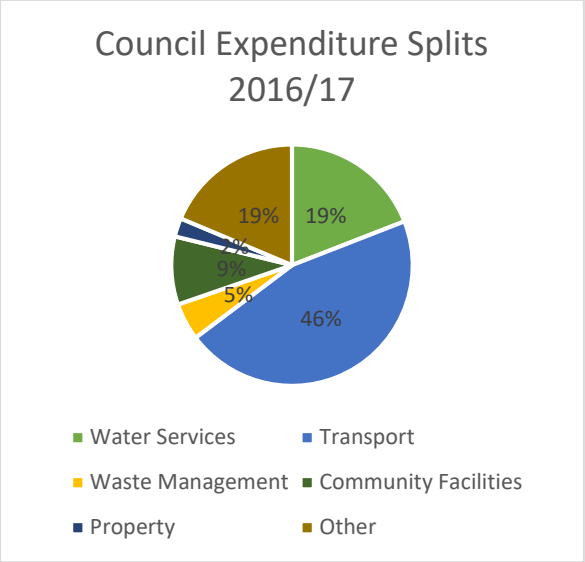
Effective infrastructure can be one of the greatest enablers for growing our economy and achieving Wairoa's Community Outcomes. However, major infrastructure failure represents one of the greatest council risks that needs to be carefully managed to ensure this does not happen.

Providing good quality infrastructure and proactively acting on the challenges we face will cost money. Our priority is to maintain and upgrade our roading and footpaths and to ensure our water, wastewater and stormwater systems are resilient with ageing infrastructure being progressively replaced in the most proactive and cost-effective way. We're also looking to expand our Airport, maintain the landfill and provide new facilities as required for our communities.

1.2 INFRASTRUCTURE SPENDING

Transport (roading and airport), 3-Waters and Waste Management account for approximately 70% of Council's annual expenditure (2016/17 Annual Report).

Water Services (3-waters)	4,600,000
Transport (land & Airport)	11,000,000
Waste Management	1,200,000
Community Facilities (incl Parks)	2,200,000
Property	600,000
Other	4,500,000
TOTAL	**$24,100,000**



1.3 LEGISLATION

Section 101B of the Local Government Act 2002 (LGA) requires Councils prepare and adopt an Infrastructure Strategy, to cover at least 30 consecutive years, as part of their Long-Term Plan.

The purpose of this strategy is to:

a. identify significant infrastructure issues for the local authority over the period of the strategy

b. identify the principal options for managing those issues and the implications of those options.

1.4 OBJECTIVES

The Infrastructure Strategy has been developed around a set of objectives that are common to all infrastructure activities:

1. RELIABILITY

- Consistent delivery of infrastructure services.

2. SAFETY

- Maintain infrastructure in a safe condition.
- Provision of safe infrastructure.
- Appropriate levels of risk management for services.

3. ACCESSIBILITY

- Infrastructure services will be delivered as part of an integrated district network and should offer an increasingly consistent, fit for purpose level of service for users.
- Management of infrastructure assets and services to ensure accessibility for all users where possible.

4. RESILIENCE

- Contingency planning to ensure continuity of service as far as possible during and after incidents and emergency events.
- Provision of alternatives when feasible.
- Restoring services as soon as circumstances allow.
- Mitigation measures in place to avoid disruption for critical services and manage associated risks where appropriate.

5. AMENITY

- Aesthetics and comfort of our services.

- Infrastructure services will be delivered in a manner which balances the current and future impact on the environment and makes use of sustainable practices.

6. COST-EFFECTIVENESS

- We will look for new ways and innovative practices to enable us to cost effectively deliver our services.
- Value for money and whole of life cost will be considered to deliver affordable levels of service.

1.5 STRATEGIC CONTEXT

1.5.1 COUNCIL'S VISION

Council's vision defines who we are, what we are trying to achieve and who our intended customers are in a single succinct statement.

Council's Long Term Plan (LTP) and Annual Plan identify Wairoa's vision as:

COUNCIL'S VISION:
CONNECTED COMMUNITIES, DESIRABLE LIFESTYLES, TREASURED ENVIRONMENTS

1.5.2 HOW DOES INFRASTRUCTURE CONTRIBUTE TO COMMUNITY OUTCOMES?

Effective and integrated infrastructure is a key element in the efficient functioning of Wairoa and its economy. Under the LGA 2002, Council had a responsibility to contribute to the achievement of community outcomes that promote the 'four well-beings': economic, environmental, social and cultural. From the community outcomes, activity specific objectives and level of service (LOS) statements are derived. Associated performance measures and targets allow for a monitored achievement of Council's contribution towards those community outcomes. The table below shows how infrastructure contributes to the community outcomes:

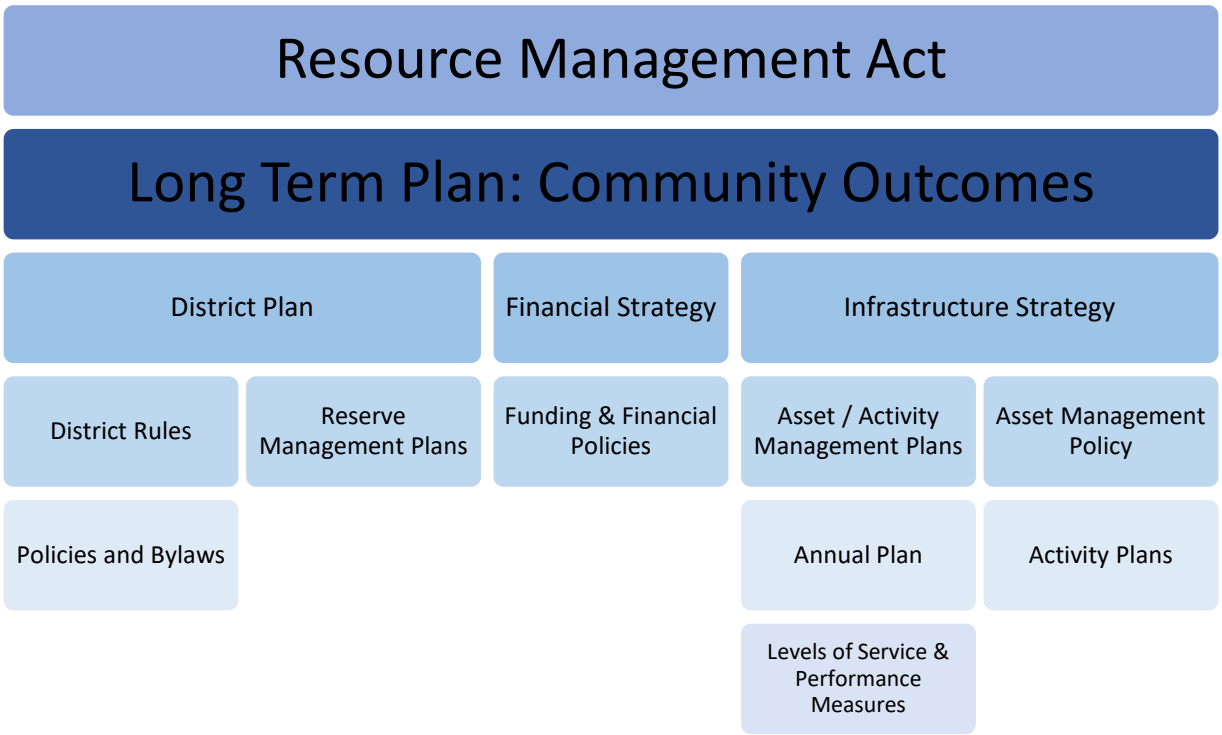
WELL-BEING	COMMUNITY OUTCOMES	INFRASTRUCTURE CONTRIBUTION
ECONOMIC WELL-BEING	A Strong, Prosperous and Thriving Economy	• Supply of fit-for-purpose infrastructure is an integral part of being prosperous. • Sustainable management of infrastructure ensures a sustainable future. • Provision of 24/7 service for users.
	A Safe and Integrated Infrastructure	• Efficient and effective infrastructure networks that minimise impact on the environment.
SOCIAL AND CULTURAL WELL-BEING	A Community that Values and Promotes its Unique Culture and Heritage	• Local communities getting involved with projects and development encourages and promotes a culture and heritage.
	Safe and Accessible Recreation Facilities	• Access to recreational facilities. • Protection of recreational facilities.
	Supportive, Caring and Valued Communities	• Infrastructure development and its management will be properly integrated and consulted on.
	Strong District Leadership and a Sense of Belonging	• Council will lead initiatives to ensure communities are connected and desirable.

		• Provision is made for communities to have a say in how infrastructure is delivered.
ENVIRONMENTAL WELL-BEING	A safe and secure community	• The natural environment will be protected, and all potential negative environmental, social and cultural effects will be identified and properly managed.
	A Lifetime of Good Health, Education and Wellbeing	• By progressively and proactively improving performance of infrastructure.
	An Environment that is Appreciated, Protected and Sustained for Future Generations	• The planning of infrastructure is sustainable into the future. • The natural environment will be protected, and all potential negative environmental, social and cultural effects will be identified and properly managed. • Compliance with legislative requirements and involvement of key stakeholders ensure the environment is sustained.

1.5.3 LINKAGES WITH OTHER DOCUMENTS

Linkages between our vision documents, Policy, Strategies and Activity Management Plans are shown below:

Figure 1: Strategic Linkages



2. WAIROA CONTEXT

2.1 GEOGRAPHICAL CONTEXT

Wairoa is in Northern Hawke's Bay covering an area of about 4,118 square kilometres, with approximately 130 kilometres of coastline.

Much of the district is hill country merging with mountains in the west, often dissected with gorges. Areas of coastal and river flats of versatile soils give greater variety to the landscape.

Figure 2: Wairoa District Location

2.2 POPULATION CONTEXT / DEMOGRAPHICS

2.2.1 POPULATION NUMBERS

Between 1996 and 2013, the population in Wairoa fell from 9,900 to 7,890 indicating a steady decline over this period (average of 120 people per year with 591 or 7% drop between the Census in 2006 and that in 2013).

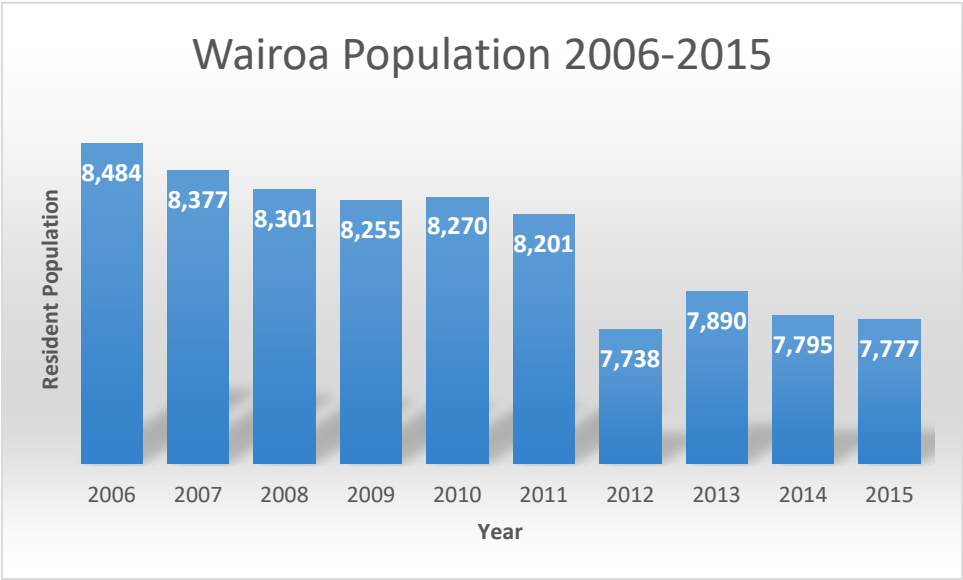
In contrast, the total population of Hawke's Bay is predicted to have a growth of 5.2% over the same period.

The main urban area is the Wairoa Township with a population of 4053 (2013 Census).

The main urban area is the Wairoa Township with a population of 4053 (2013 Census).

Figure 3: Aerial View of Wairoa Township

Figure 4: Population trends in Wairoa District (2006-2015)



Source: BERL Regional Database

The following observations have also been sourced from Statistics NZ data:

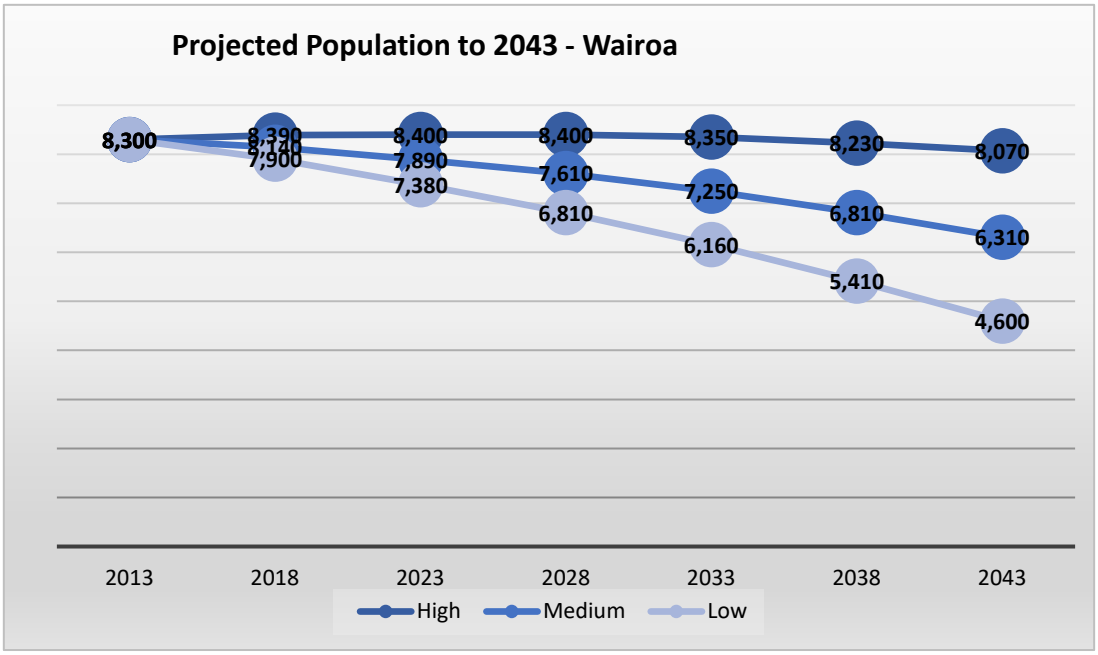
- Since 1996, there has been a decline in both the under 15 and 15-39 age group.
- Since 2006, there has also been a decline in the 40-64 age group which had been increasing until then.
- The 65 and over age group, however, has shown a steady increase.
- Births continue to outnumber deaths in the Wairoa District although projections to 2031 show that gap to reduce. The main cause of overall population decline is therefore out-migration

2.2.2 POPULATION PROJECTIONS

STATISTICS NZ

Statistics NZ projections show an overall decline in population between the Census 2013 figures and 2043 (a 30-year projection) as shown in the graph below:

Figure 5: Projected Population Growth Forecasts in Wairoa District (1996 to 2031)



Source: Statistics New Zealand (2017)

These 2017 Statistics NZ figures show a decline in population for the high, medium and low scenarios. The medium scenario shows an annual average decline of 0.9% with a projected population in 2043 of 6,310 (a decrease of 1,990).

Projections also show a continuing decline in the youth population and significant increases in older people as a proportion of the total Wairoa population. It is estimated that over 1 in 4 residents will be over the age of 65 in 2031.

ECONOMIC SOLUTIONS LTD ALTERNATIVE ASSESSMENT

In light of Council's commitment to actively pursuing higher levels of economic growth and development in the future, Council undertook a recent study '*Wairoa District Council: Long Term District Planning: Demographic and Economic Growth Directions 2018-2048*' (Economic Solutions Ltd (ESL), Dec 2017) to assess the long-term demographic and economic outlook for the Wairoa District to inform its LTP and its longer-term infrastructural planning and development requirements (2018-2048).

The report considered the potential impact of significant new commercial initiatives such as the Rocket Lab facility at Mahia, further developments (including growth in log harvest outputs) in the district's primary production sector, further tourism sector growth, local application of Māori Treaty Settlement monies and recent local population developments.

ESL recommended long-term population levels/targets given in the table below:

Figure 6: ESL long-term Population Targets

Year	Low	Medium	High
2013	8,300	8,300	8,300
2016	8,160	8,160	8,160
2017	8,210	8,210	8,210
2018	**8,180**	**8,220**	**8,240**
2023	8,050	8,290	8,560
2028	**7,920**	**8,360**	**8,850**
SNZ Projection 2028	6,810	7,610	8,400
2033	7,790	8,420	9,130
2038	7,660	8,490	9,420
2043	7,520	8,550	9,710
SNZ Projection 2043	4,600	6,310	8,070
2048	**7,390**	**8,620**	**10,000**

These figures show a significantly lower level of population decline in the area, compared to the Stats NZ projection. The Medium projection sees a noticeable increase in the district population over the long-term, whilst the High projection sees steady population growth back towards the mid-1990s high point.

Key findings of the report include:

- ongoing population decline until June 2016
- a noticeable population gain since 2016
- an increase in the Māori population
- increase in the 50+ population and overall median age
- falling household numbers overall and household occupancy (persons per household)
- increased households in the Mahia area.

According to the ESL report, the current total population figure is 8,210 (Dec 2017) which is 70 (0.85%) above the Stats NZ medium projection of 8140 for 2018 (fig 5)

An ageing population increase is predicted in the ESL report, consistent with the Statistics NZ data.

POPULATION PROJECTIONS SUMMARY

In conclusion, the ESL Report suggests that the Stats NZ projections are not necessarily consistent with the Wairoa community's long-term future growth aspirations and potential.

- Statistics NZ projects an ongoing decline in population with the projected medium scenario population of 6,310 in 2043
- ESL projects an increase in projected population with a projected medium scenario population of 8,620 in 2048
- ESL's 'actual population' was 8,140 in 2017, 70 above that projected by Statistics NZ for 2018

With these variances in projections and in terms of planning for the future, Wairoa is working on the basis that overall demand for core infrastructure will remain consistent.

2.3 CULTURE

Wairoa has a rich cultural heritage which is an integral part of the community today, with **over 50% of Wairoa's population being Māori**. The Dec 2017 ESL Report identified that the Māori population has fallen by 4% overall since 2001 but has been increasing from 2006 with an overall gain since then of 160 or 3% being recorded.

The tangata whenua of Wairoa and their culture and traditions have special relationships with their ancestral lands, water, sites, waahi tapu and other taonga. Some activities and developments can have significant adverse effects on these relationships. **Council plays an integral part in promoting and encouraging Māori culture and values, and ensuring this remains central to key decision making, including within the transportation activity.**

In recognition of this, Council has established a Māori Standing Committee and adopted a Te Reo Māori Policy and a Māori Policy. The purpose of the Māori Policy is to:

- provide a framework for relationships between tangata whenua and Wairoa District Council to achieve mutually beneficial outcomes for the community of Wairoa
- ensure the provision of processes and procedures that facilitate effective communication between tangata whenua and Wairoa District Council
- enable Māori views to be incorporated into local government decision making, policies and procedures
- promote and facilitate Māori participation in Council activities.

The purpose of Te Kaupapa Here Mō Te Reo Māori Ki Te Kaunihera O Te Wairoa (Wairoa District Council Te Reo Māori Policy) is:

> *The Wairoa District Council is committed to recognising and promoting te reo Māori as the indigenous language of Aotearoa and as a taonga of iwi and Māori and encouraging its use in communications, hui and day to day operations of the organisation*

2.4 WAIROA ECONOMY

Wairoa's economy is based on the rural sector.

Approximately 60% of the total land is in productive use, of which some 48% is in pasture. Pastoral farming has been the basis of the economy since the first European settlement.

However, since the 1980's there has been a substantial increase in plantation forestry. In the order of 26% of the District is now established as plantation forestry.

PASTORAL FARMING	The main farming activity in the District is sheep and beef farming with sheep mainly on the steeper hill country and beef on the flatter land. The largest employer in Wairoa is the AFFCO meat works. Sheep and beef farming and meat processing account for around 42% (BERL 2016).
HORTICULTURE	Wairoa has a high horticulture potential that has seen a number of crops grown here over the years. Recently new plantings of apples have been established, picking up on the Districts early ripening potential for pip and stone fruit. The area is a leading producer of high protein maize.
FORESTRY	Forestry is significant in terms of land use and demand on the transport network, with much of it programmed for harvesting over the next 10-20 years.

	However, this industry has contributed to rural depopulation as farms have converted from pastoral farming to forest and farming families have moved away. There is not a significant contribution to the local economy with the majority of harvesting companies bringing resources in from outside the region. From a positive perspective, the forestry harvesting activity could provide a real opportunity for increased Wairoa based forestry industry servicing, including freight movement, forestry and related road upgrading and maintenance, re-established use of the Wairoa-Port of Napier rail line for log exports through the Port, and ongoing maintenance and renewal work on the SH2 roading corridor between Napier and Gisborne. There may also be an opportunity to increase the scale of wood manufacturing activity in the district.
TOURISM & THE ROCKET LAB LAUNCH SITE	The ESL report projects a growth in tourism in Wairoa depending on the extent to which the wide range of existing and potential new tourism assets of the district can be more effectively harnessed, developed and promoted. These include Māori community/cultural tourism initiatives and tourism spinoffs from the Rocket Lab development. The establishment of a launch site on the Mahia Peninsula by Rocket Lab, a US corporation with a New Zealand subsidiary, has opened the opportunity for rocket tourism in the Wairoa District. Findings from BERL's 2016 Wairoa Population Estimates state that "*We also note that, if the NZ rocket company, Rocket Lab, fulfils its potential and realises its ambition to grow to one launch a week, it will have a significant impact on the local economy and, hence, the District's population. This level of activity would require a considerable input of services to the launch site, as well stimulating growth in the number of visitors wishing to witness launches. Rocket Lab provides an exciting opportunity to grow and diversify Wairoa's economy*"

Wairoa also has a range of service industries, both in the private and public sectors.

2.5 CHANGES IN LAND USE

Land use change can result in changes to infrastructure demand. The rural areas of Wairoa have traditionally been used for sheep and beef farming, however, some change to land use has occurred over the past decade.

For the rural areas in particular, different land uses may impact on the roading infrastructure. For example, recent increases in forestry harvesting will have an impact on the rural roads as the volume of heavy vehicles increase.

Residential development on previously rural land, such as that which has occurred in Mahia over the last 10 years, can increase demand on our water services (Mahia is currently on private supplies) and typically increases impermeable services, which can impact on wastewater and stormwater networks.

Change of land use could also affect the quality and quantity of stormwater and wastewater discharges that may have to be mitigated to ensure the development doesn't impact on conditions of a discharge resource consent.

2.6 ECONOMIC GROWTH AND DECLINE

Currently the Hawkes Bay region is experiencing economic growth[1] although Wairoa continues to show a decline.

[1] BERL Regional Database Economic trends 2000-2015

Council has developed an Economic Development Strategy to help the community focus on issues that have an impact on our economic and social well-being and suggests actions. Fostering economic and business development is a core objective of the Council as it strives to make the region a better place to live, work and do business. Core infrastructure must be provided to support such growth.

Tourism is an area of focus, in particular the potential tourism related to Rocketlab, with an aim to launch once per week. This has the potential to attract a significant number of visitors to the Mahia area and infrastructure must be in place to support this. The ESL report projects a growth in tourism in Wairoa depending on the extent to which proposed initiatives are implemented.

2.7 CLIMATE CHANGE

Wairoa District Council recently put together a report on the potential climate change impacts on Wairoa. This was prepared in January 2017 and is titled 'The Implications of Future Climate Change on the Wairoa District.'

The objectives of the report were to provide an overview of climate change prediction on a regional scale for Wairoa and to look at the potential impact on the district and how to mitigate this.

Potential impacts that Wairoa could expect include:

- increased coastal inundation and erosion
- inland flooding from the Wairoa River
- longer growing seasons for the agriculture sector – short to medium term
- negative impacts of drought over the longer term
- increased likelihood of wildfire.

These changes in the climate could affect infrastructure in various ways such as:

- increased short and long-term closure of roads with increased likelihood of landslides and flooding
- increased demand for potable water as temperatures rise
- increased risk of wild fire that could threaten the townships and the reticulated firefighting supplies
- greater pressure on stormwater networks due to increased incidence of more extreme rainfall events
- increased inflow and infiltration of stormwater into wastewater systems during and after high intensity and long duration rainfall events.

3. INFRASTRUCTURE ASSETS

3.1 ACTIVITIES INCLUDED IN THE INFRASTRUCTURE STRATEGY

This Strategy covers core infrastructure assets delivered by Wairoa District Council and as required under the LGA. Council has also made the decision to include additional infrastructure activities as identified below:

ACTIVITY	REASON FOR INCLUSION	ACTIVITY GOAL (FROM LTP)
ROADING & FOOTPATHS	• Required under s101B of the LGA • Considered to be core infrastructure	Provision of a safe and affordable Land Transport network that contributes to the outcomes of the Land Transport Management Act and the objectives of the Regional Land Transport Strategy
WATER SUPPLY	• Required under s101B of the LGA • Considered to be core infrastructure	To comply with the drinking-water standards (DWSNZ)
WASTEWATER & ITS TREATMENT	• Required under s101B of the LGA • Considered to be core infrastructure	Reliable and safe collection and disposal of sewage
STORMWATER	• Required under s101B of the LGA • Considered to be core infrastructure	Effective and efficient management of collection and disposal of stormwater to ensure that the capacity of available facilities are optimised and that the environment is not compromised
WASTE MANAGEMENT	• Potential sustainability issues that should be addressed	Reliable and safe collection and disposal of waste
WAIROA AIRPORT	• Considered a strategic asset in terms of providing for economic growth • Requires investment to reduce the isolation of Wairoa for essential services • Significant expenditure planned Factors that could affect demand at the Wairoa Airport include airline economics and competition, public demand for air travel, population growth/decline, the cost and convenience of alternative forms of travel, the development of new industries and businesses, and changes in the popularity of Wairoa District as a tourism destination. The latter two, tourism and new industry, have the most potential to increase the utilisation of the Wairoa airport, although at present there is limited demand.	To provide a safe and cost-effective facility to meet current needs

Flood protection and control assets are the responsibility of the Hawkes Bay Regional Council and will be covered in their Infrastructure Strategy.

Similarly, State Highways are the responsibility of the New Zealand Transport Agency (NZTA) and will be addressed by them.

3.2 OUTLINE DESCRIPTION OF ASSETS

OUTLINE DESCRIPTION	CONDITION/PERFORMANCE	MANAGEMENT OF ASSET
ROADS & FOOTPATHS		
Wairoa's Land Transport network consists of 875km of roads, of which approximately 35% is sealed. Within the formed road corridor, Council owns 175 bridges, 346 retaining structures, 882 streetlights, numerous traffic signs and drainage culverts along with footpaths, walkways and cycleways.	**Sealed roads** - the modelling of sealed roads performance is showing a gradual deterioration of the sealed roads, and considered to be medium risk for the next 5 to 10 years, particularly for the traffic routes where increased loads are anticipated. **Unsealed roads** - the overall condition of the unsealed road network is not currently measured by any specific survey. Contract management performance monitoring shows the overall condition of the unsealed road network is good and that current maintenance levels are appropriate. **Bridges** - the bridge structures vary considerably throughout the district in terms of design, materials and deck type. The overall condition of critical bridge structures is considered good with only a handful of bridges, mostly on dead-end roads, identified for upgrade (a focus in the first 4 years of this Strategy). Notwithstanding this, the remaining useful life of some bridges are projected to fall within in the next 30 years. This will lead to reinvestment in this period. Increasing bigger and heavier trucks is an issue for Council's bridge stock. **Footpaths** - the footpaths throughout the District vary considerably in condition and materials. The majority of footpaths are concrete construction. Chipseal and asphalt footpaths are also provided and there are interlocking pavers in the Central Business Area. Although some sections of concrete footpaths are cracked, most of these are still providing an appropriate level of service. The majority of damaged footpaths simply require localised maintenance repairs rather than complete replacement.	Council's aim is to keep the roads in a condition that is not deteriorating, and this is monitored by Council staff, Professional Services Providers and Contractors. Updating of remaining useful life (RUL) data is required to develop more realistic lifecycles. The condition of the sealed roads is measured annually using the RAMM road condition survey. 10% of the network is covered each year. Council's Roading and footpath assets are currently maintained under Road Maintenance contracts which are managed and administered by Council. There are no proposals to change this overall method of infrastructure management with contracts typically tendered on a three-year basis (with provision for extensions dependent on contractor performance). The operation, maintenance, renewals and capital works programmes of the roading assets will be undertaken generally in accordance with the 2017 Land Transport Asset Management Plan (AMP).

WAIROA

OUTLINE DESCRIPTION	CONDITION/PERFORMANCE	MANAGEMENT OF ASSET
WATER SUPPLY		
Wairoa District Council owns and operates water supply schemes as below: **Wairoa** – this scheme serves in the order of 2,300 connections in the Wairoa, Frasertown and Wairoa peri-urban areas. Water is sourced from the Waiau River in Frasertown and is treated at the Frasertown Water Treatment Plant before being distributed via trunk mains, a pump station and storage reservoirs. The AFFCO meatworks is a key customer for the supply. **Tuai** - the supply at Tuai is sourced from the Waimako spring and is untreated. This supply serves approximately 60 connections. Demand is not predicted to increase. **Mahanga** - the supply at Mahanga comes from a shallow bore located in farmland and is untreated, originally intended only as a supplementary. In a referendum in September 2017, the community voted to keep the supply which consequently has to be upgraded. This supply currently serves approximately 60 connections. **Blue Bay** – there is an existing supply at the Blue Bay subdivision but this needs to be relocated to ensure no contamination from the proposed expanded wastewater disposal field. **Private water supplies** – rely on water from a variety of sources, including river, stream, spring and bore take and collection of roof water - Census data (2013) suggests in the order of 1,400 dwellings with private water supplies.	Water supply pipework varies greatly in material, age and condition across the network. Recent sampling, with selection based on age and known areas of fault, and extrapolation of results have given an overall assessment of pipe condition: • 14% of pipes have been assessed as being in average condition • 42% of pipes have been assessed as good • 44% of pipes have been assessed as being in poor or very poor condition. The recent completion of the upgrade to the Tawhara tanks, including an additional one, has provided 24-hour storage capacity for the Wairoa supply and also addressed some of the system pressure problems which will see a reduction in losses in the network.	Council's water supply assets are currently maintained under a combined 3-Waters Operations and Maintenance Contract which is managed and administered by Council. The Wairoa treatment plant is not included in the contract, being operated and maintained by Council. This is a new initiative with the key aim of delivery of a more efficient service. Council is also seeking to increase capability and capacity internally to allow it to more ably undertake its role as a 'smart' asset owner and sees this contract as an opportunity to use a 'smart supplier' to work with as it grows its capability as a 'smart asset owner' in a collaborative partnership. The operation, maintenance, renewals and capital works programmes of the water supply assets will be undertaken generally in accordance with the 2017 3-Waters Activity Management Plan (AMP) , which is reviewed generally on a three-yearly basis. Upgrades or renewals are undertaken on an as-needed basis but timing is generally predictable using age and also condition assessments. Council's 2018 'Reality Based Renewals Investment Profiles' Study has enabled the development of an 'optimised' renewals programme. A statistical analysis was conducted on the actual performance of the watermain network, based on real pipe failure data, used as an indicator of future performance, leading to the development of levels of service and of a prudent and reasonable planned 30-year replacement programme.
WASTEWATER		
Wairoa District Council owns and operates four wastewater schemes: **Wairoa** – this scheme serves in the order of 1,700 connections in Wairoa and comprises 32km of pipework, five pump stations and a treatment pond at Pilot Hill. Treated wastewater is discharged to the	Wastewater pipework varies greatly in material, age and condition across the network. Recent sampling, with selection based on age, CCTV and known areas of fault, and extrapolation of results have given an overall assessment of pipe condition:	As above, Council's 3-waters assets are currently maintained under a combined 3-Waters Operations and Maintenance Contract which is managed and administered by Council. The operation, maintenance, renewals and capital works programmes of the wastewater assets will be undertaken

OUTLINE DESCRIPTION	CONDITION/PERFORMANCE	MANAGEMENT OF ASSET
estuary of the Wairoa River during receding tides at night. The discharge consent is due to expire in 2019. **Tuai** - comprises appropriately 5km of pipework and a treatment plant where wastewater enters septic tank which discharges to sand filters for treatment. The outfall of treated wastewater is to the Whakamarino Stream. **Mahia Beach** –comprises private infrastructure including septic tank, pump and pipework on private property, approximately 9km of pipework that carries the wastewater to a pump station (with back-up storage) and a 1.7km rising main to take wastewater over the hill where it is treated in three treatment ponds and then discharged to land via an irrigation system over a 14km2 plantation. **Opoutama** – serving the Opoutama village, YMCA Road and the Blue Bay subdivision, wastewater is treated by way of a package plant located in the Blue Bay subdivision discharging to soakage. The soakage field has capacity for extension.	• all Mahia and Opoutama pipework has been assessed as very good due to its recent completion • 51% of pipes have been assessed as being in average condition • 48% of pipes have been assessed as good or better • 1% of pipes have been assessed as being in poor condition. Pump stations are at times unable to accommodate extreme wet weather flows (partly due to the inflow and infiltration of stormwater into this system) – this has resulted in some incidents where (highly diluted) untreated overflows of wastewater into the Wairoa Rriver. The proposed upgrade to the wastewater treatment plant and associated works over the next 2 to 3 years will eliminate these events in the future.	generally in accordance with the 2017 3-Waters Activity Management Plan (AMP). Upgrades or renewals are undertaken on an as-needed basis but timing is generally predictable using age and also condition assessments. Ongoing condition assessments and CCTV results are being used to inform appropriate forward works programmes for pipe renewals over the next 30 years.
STORMWATER		
The 3-Waters AMP concentrates on the Wairoa, Mahia and Tuai stormwater systems. Stormwater assets in other areas, primarily rural open drains, are generally dealt with as roading assets. Stormwater assets include approximately 40km of stormwater reticulation with manholes and sumps, and 24km of stormwater channel and open drains.	Condition information of the stormwater assets is based primarily on visual assessments and age with some information gathered through reactive works etc. Improvements in the gathering and use of reliable data is to be addressed over the next 2 years.	As above, Council's stormwater assets are currently maintained under a combined 3-Waters Operations and Maintenance Contract which is managed and administered by Council. The operation, maintenance, renewals and capital works programmes of the stormwater assets will be undertaken generally in accordance with the 2017 3-Waters Activity Management Plan (AMP). All asset data is improved through condition assessments / CCTV. This will be used to better inform appropriate forward works programmes for pipe renewals over the next 30 years.

WAIROA

OUTLINE DESCRIPTION	CONDITION/PERFORMANCE	MANAGEMENT OF ASSET
WASTE MANAGEMENT		
The landfill is located on Fraser Street in the Wairoa Township. Council owns the land that the facility is located on. Assets at the landfill include: • landfill cell and tipping wall • weighbridge and office • leachate and drainage systems • access road • perimeter fencing • recycling building with sorting and storage area with canopy cover • staff facilities including toilet and washroom.	Based on visual assessments, the landfill assets are considered to generally be in good condition with more than 20 years life remaining and are adequate for the current level of service provided. A condition assessment programme is to be developed and implemented as part of the activity improvement plan (refer 2017 Waste Management AMP).	QRS hold the current operations and maintenance contract for the landfill. This includes routine maintenance of the landfill cells and recycling centre as well as the operation of the weighbridge. The landfill is open seven days a week, other than over Xmas/New Year and winter when there are some closures.
WAIROA AIRPORT		
The airport consists of one runway comprising 914m. Facilities at the airport consist of private hangers which are leased; terminal building housing local radio station, function room, kitchen and toilets with car parking behind; an aircraft taxi/apron area; and a 'Z' energy refuelling area. There are other buildings at the airport that are owned and maintained by others.	The general condition of the various components of the airport (including both land and onsite improvements) is monitored on a regular basis by inspections carried out by Council's engineering staff, consultants and contractors. Recognising the significance of the airport, condition monitoring will become part of a higher level of pavement management at the airport. Customer feedback is also a useful source of information.	Maintenance contracts are in place for routine cleaning of the airport facilities – terminal building and toilets. Other works are procured on an as-needed basis in accordance with Council's Procurement Manual.

4. SIGNIFICANT STRATEGIC CHALLENGES & ISSUES

There are several significant strategic challenges and issues facing Wairoa over the next 30 years, as outlined below.

Figure 7: Significant Strategic Challenges & Issues for Wairoa

The tables below outline options to respond to those issues and the implications of either responding or not responding to the recommended actions.

4.1 ECONOMIC DEVELOPMENT AND TOURISM

GENERAL DESCRIPTION OF THE CHALLENGE / SIGNIFICANT ISSUE	
Economic and social development is a current focus for Wairoa and tourism has the potential to significantly contribute to this. Infrastructure can have a positive effect on attracting businesses and visitors to the Wairoa District and so must be able to support economic development in terms of demand and higher expectations.	
RELEVANT OBJECTIVES	
Reliability, Accessibility, Amenity, Cost-Effectiveness.	
RISKS & UNCERTAINTIES	
Assumptions on economic growth do not eventuate	Population, dwelling and demographic projections are produced three-yearly to support long-term planning, derived from Statistics NZ. They underpin all demand projections within activity management plans. An over or under estimation of growth could lead to an over or underinvestment in infrastructure and services. We monitor asset capacity against projections and adjust assumptions accordingly. Robust decision-making process required to justify spending on potential economic growth. *The likelihood of this occurring is medium.*

Demand forecasting does not eventuate	Demand forecasting is also inherently uncertain and involves many assumptions. Expectations regarding change in demand as a result of demographic change are based on robust information. Changes in demographics can have a significant impact on changes in demand for services. Information regarding growth in visitor numbers is more uncertain as this is affected by global financial impacts. Data regarding visitor numbers is becoming more robust due to the use of cell phone information. *The risk of this occurring is medium.*
Uncertainties around funding sources	Will impact on decisions and costs to ratepayers. *The risk of this occurring is medium.*
These works may be affected by funding requirements to meet levels of service in areas of higher priority	For example, changes in levels of service to meet legislative requirements. *The likelihood of this occurring is medium.*
Potential revocation of State Highway 38 and changes in funding of Special Purpose Road 38 Te Urewera Rainforest Route	NZTA, Wairoa and Whakatane District Councils and Tūhoe are currently preparing a business case to justify investment in the Route as part of the transition from Special Purpose road to local road. The consequences could be positive in relation to economic growth but funding options are still being explored. *The likelihood of this happening is high.*
PRINCIPAL OPTIONS & RESPONSES	
Do nothing / Status Quo - if this is not monitored, there are risks around not meeting desired or legislated levels of service or unaffordability as demand for activities changes.	
RECOMMENDED OPTIONS	
Annual review of data on growth in terms of population, visitors, construction, businesses etc	To support decision-making at Annual Plan stage.
Focus on relationships at national and regional levels	Regional and National Strategies focussed on economic and social development.
Robust decision-making processes to justify spending	Use business case development to identify robust investment decisions.
Assess the full impact of SP38 revocation	Business Case being developed to demonstrate the need for investment in the road to support economic and social development for Wairoa and Whakatane District Councils and for Tūhoe.
Initiatives to makes Wairoa and other communities more attractive to residents and to encourage visitors to revisit.	As well as maintenance of core infrastructure, this could include such projects as the enhancement of the CBD, development and enhancement of footpaths/walkways and cycleways, improved recreation facilities and revitalisation of parks and reserves.
IMPLICATIONS OF THE RESPONSES	
Doing nothing, or the status quo as an option, will not adequately consider the potential for economic development and the consequent need to invest to facilitate such growth.	
Additional pressure on infrastructure	Increased demand on infrastructure as resident and visitor populations increase.
Associated cost implications	Additional infrastructure and higher levels of service will require additional investment.
RocketLab	Rocket Lab is a new major investor into the district. They have already utilised QRS, our Council-owned contractor, to build a significant part of the launch site at Mahia. Longer term, the company has indicated that at least one or more launches per month from its Mahia orbital launch site is possible, once the site is fully operational. Rocket Lab's investment in Wairoa presents real benefits for the district. We expect to see more visitors to the region, which offers the potential for greater use of accommodation, wider use of Hawke's Bay and Gisborne District tourist attractions and supporting of local businesses. Visitor numbers are expected to be 500+ people per launch. The Council has been working on

	methods by which we can enhance the experiences of those expected to come into the district to watch the rocket launches.

4.2 OPTIMISING INFRASTRUCTURE

GENERAL DESCRIPTION OF THE CHALLENGE / SIGNIFICANT ISSUE	
Better data (confidence) and better interpretation of that data will enable more informed decisions which means we can 'get the best out of our infrastructure.' This is of particular importance for mature and critical assets.	
RELEVANT OBJECTIVES	
Reliability, Accessibility, Cost-Effectiveness, Safety, Resilience.	
RISKS & UNCERTAINTIES	
Condition of assets	Reliable asset condition information is key to developing appropriate and cost-effective renewals programmes. Poor information does not give a sound base on which to make decisions. *The risk of this occurring is low to medium as asset data confidence increases.*
Asset valuations	Assumptions on an asset's useful life and its replacement cost are based on market information and professional knowledge. We mitigate the risk of these assumptions by revaluing assets regularly (typically 3-yearly). The risk associated with the revaluations is considered low as Council continues its focus on accurate data collection including asset type, material, age and condition. *The risk of this occurring is low to medium as asset data confidence increases.*
Network failure; disruption to service, failure to meet levels of service	Worst case scenario where renewals programmes and intervention is not based on sound data. *The risk of this occurring is low to medium as asset data confidence increases.*
Compliance	The risk of non-compliance with consent conditions is high if assets are not well maintained or an appropriate renewals programme is not developed and implemented.
Staff retention	Securing and retaining skilled staff has been an issue in the past for Wairoa, primarily due to isolation and associated economic and social issues. There is an ongoing risk to the sustainability of our services through skill shortages although local staff recruitment, increased training and cadetship initiatives have been introduced to maintain staff in the district. There are unique lifestyle trade-offs that this district can offer to staff, and we will continue to focus on these. *The risk of associated loss of asset knowledge occurring is low to medium as asset databases improve.*
PRINCIPAL OPTIONS & RESPONSES	
Do-Nothing / Status Quo - Asset knowledge and data confidence is generally considered to be reliable for most core infrastructure due to Council's recent focus. However, a continued focus in this area and consequent improved asset knowledge will further inform asset optimisation.	
RECOMMENDED OPTIONS	
Increase data knowledge – continue focus on data collection to better inform asset management processes and decisions	Asset renewal and maintenance forecasts are based on the condition and the remaining life of infrastructure assets. The accuracy of asset data has a direct impact on the accuracy of renewals and maintenance forecasts. We measure the accuracy of this data and have targets to improve its accuracy. We also have acceptable levels of confidence around asset valuations and data which are also targeted for continuous improvement. Critical assets should be a key focus.
Proactive Renewals Programme based on asset optimisation methods	
Activity Management Plans / Asset Management Plans	To outline the logic, reasoning and context behind how we propose to maintain, operate, renew and improve.

Full and thorough condition assessment of all assets in the short term	Cost implications would be very high compared to the extrapolation of results based on sound condition sampling programmes as data confidence increases over the medium term.
IMPLICATIONS OF THE RESPONSES	
More informed decision making	More robust and accurate data will enable more informed decisions on renewals programmes for infrastructure.
Inefficient renewals programmes	Where asset data is missing or inaccurate, decision making will not be based on sound information.
Associated cost implications	More robust programmes will lead to more cost-effective service delivery.

4.3 RESILIENCE

GENERAL DESCRIPTION OF THE CHALLENGE / SIGNIFICANT ISSUE	
Our assets need to be resilient to reduce the impact of severe weather events on our communities. This requires us to replace our ageing infrastructure before it fails and ensuring connectivity through our roading network. Parts of the roading network are prone to flooding, slips and coastal erosion in severe storm events which may lead to communities being cut off. 3-Waters networks are susceptible to ageing infrastructure and the sometimes-small nature of the networks can make them more vulnerable with communities being without those key services. The Wairoa Airport has been included into this Infrastructure Strategy partly for resilience of the community, improving access for the provision of key services through reduced isolation. Waste management is also included due to resilience / sustainability challenges of providing the landfill facility.	
RELEVANT OBJECTIVES	
Reliability, Accessibility, Cost-Effectiveness, Safety, Resilience	
RISKS & UNCERTAINTIES	
Network failure; disruption to service, failure to meet levels of service	Failure to monitor and programme renewals for core infrastructure could impact on the integrity which could lead to failure and more costly repairs in the long term as well as possible road closures, loss of water supply, discharge of untreated wastewater, airport closure etc. *The consequences of core infrastructure failure could be significant in relation to levels of service provision and cost.*
Failure to maintain may result in isolated communities during and following emergency events	Lack of access and connectivity between communities. *The likelihood of this is medium to high in an emergency event with the likelihood and consequences increasing where infrastructure is less resilient.*
PRINCIPAL OPTIONS & RESPONSES	
Do-Nothing / Status Quo - Not addressing resilience and ensuring effective maintenance and renewals programmes will lead to less-resilient communities with core assets more likely to fail with consequent non-delivery of service.	
RECOMMENDED OPTIONS	
Asset Management	Good asset management practices and robust renewals programmes will reduce overall spending on any asset both in the short and long term through sound decision-making.
Increase data knowledge, including condition assessments and performance	Asset renewal and maintenance forecasts are based on the condition and the remaining life of infrastructure assets. The accuracy of asset data has a direct impact on the accuracy of renewals and maintenance forecasts and uncertainties around costings.
Identify critical assets	Critical assets are generally those that have a high consequence of failure, that have the greatest effect on the customer should they fail or not be available, but not necessarily a high probability of failure. It is important to identify critical assets. There may be different approaches to managing these assets to ensure that they do not fail or to limit the effect of a

	failure. Each activity specific AMP will identify critical assets for that activity, or have an improvement action to achieve this.
Waste Management	With reduced waste generation per household, new initiatives are required to ensure sustainability of the landfill.
Reserve fund for emergency works	Council to consider this in terms of having additional funds for responding to emergency events.
Maintenance of critical routes (lifelines) • **Awamate Road** • **Tiniroto Road** • **Nuhaka-Opoutama Road**	Maintenance of these routes critical to ensure continued access in emergency events. If funding subsidies reduce, reduction in levels of service may need to be considered in other areas to ensure these routes are continually accessible.
Contingency plans	To be in place for emergency events.
IMPLICATIONS OF THE RESPONSES	
Water supply	Wairoa relies on a single source for its supply and hence maintenance of critical assets is crucial. Wairoa remains at risk to water disruptions whilst it is reliant on a single source.
	Natural disasters such as earthquake can impact significantly on production, storage and reticulation if appropriate mitigation plans are not in place.
Roading	Resilience is important in terms of keeping roads open for access, connectivity and community cohesion.
Wairoa Airport	Investment in this activity will improve access and resilience of the community.
Waste Management	In this case, resilience is linked to sustainability; how can we make the landfill sustainable to provide an ongoing desired service to the community that is cost-efficient as methods of waste disposal change.
Ageing infrastructure	Resilience is not just related to emergency events but to the continuation of service delivery of core activities and critical assets over time. Typically, older infrastructure will be more susceptible to failure unless well maintained, although there are other factors that will contribute such as ground conditions, demand and pressure on infrastructure etc.

4.4 WATER QUALITY AND LEGISLATION

GENERAL DESCRIPTION OF THE CHALLENGE / SIGNIFICANT ISSUE	
A strong public push for cleaner rivers and waterways is likely to lead to higher discharge standards for wastewater, and greater treatment of stormwater. Standards for potable water are also likely to increase. *The Drinking-water Standards for New Zealand 2005 (DWSNZ) were revised in 2008 and, as a consequence, have placed more stringent criteria on Council to comply. The Havelock North Water contamination event in August 2015, where more than 5,000 people fell ill, has led to a heightened awareness of the importance of safe water supplies. Stage 2 of the government inquiry is underway and will address lessons learned for the future and steps to be implemented to reduce the likelihood of such an outbreak occurring again.* **Waste management is another area that will possibly see further changes over the coming years, continuing the theme of the Waste Minimisation Act 2008.**	
RELEVANT OBJECTIVES	
Reliability, Cost-Effectiveness, Safety, Resilience, Amenity.	
RISKS & UNCERTAINTIES	
Levels of service will have to meet minimum standards set by legislation	*The likelihood of this risk is high, in particular for the 3-Waters activity.*
Cost implications	Increased cost to meet required levels of service. *The risk of this occurring is medium to high.*

Unknown timeframes for implementation of new standards and legislation	Unable to predict or plan in advance for changes in legislation. *The risk of changes is high, in particular for the 3-Waters activity.*
PRINCIPAL OPTIONS & RESPONSES	
Do-Nothing / Status Quo – this is not an option where legislation requires changes**.**	
RECOMMENDED OPTIONS	
Monitor legislative changes and requirements	Regular reviews (minimum annual) of legislation. As legislation changes, review current activities for compliance.
3-Waters Consent renewals	Over the next 30 years, there are a number of water and wastewater consents that will expire. Existing consents will need to be reviewed in terms of meeting conditions and complying with new legislation.
IMPLICATIONS OF THE RESPONSES	
Environmental & public health standards are likely to increase in the future	Changes in legislation will require mandatory action. Changes are more than likely for the 3-Waters activity and there is uncertainty around what this will mean in terms of conditions of consent.
Increased cost to meet required levels of service	Increased standards will typically involve increased costs. The condition of existing assets or design of systems may not meet new conditions/legislation.

4.5 POPULATION AND CHANGING DEMOCRACY

GENERAL DESCRIPTION OF THE CHALLENGE / SIGNIFICANT ISSUE	
We have a small and ageing population. Different people have different needs and our levels of service may need to change to reflect this Changes in population demographics means a changing ratepayer base, with many having increased difficulty to meet the rates increases needed to maintain even the essential service infrastructure requirements.	
RELEVANT OBJECTIVES	
Cost-Effectiveness, Amenity, Accessibility.	
RISKS & UNCERTAINTIES	
Affordability	Financial implications could be significant if changes in population numbers and demographics are such that the current levels of service cannot be achieved without alternative funding sources. This would possibly mean that levels of service would have to be reduced although legislation will partly dictate minimum levels of service. *The consequences can be better mitigated if population are monitored and required levels of service regularly reviewed.*
Demand forecasting does not eventuate	Demand forecasting is also inherently uncertain and involves many assumptions. Expectations regarding change in demand as a result of demographic change are based on robust information. Changes in demographics can have a significant impact on changes in demand for services. *The risk of this occurring is medium.*
PRINCIPAL OPTIONS & RESPONSES	
Do-Nothing / Status Quo – if this is not monitored, there are risks around not meeting desired or legislated levels of service or unaffordability as demand for activities changes.	
RECOMMENDED OPTIONS	

Review levels of service regularly in relation to population numbers and demographics	Minimum 3-yearly review with LTP.
Identify and monitor alternative / additional sources of funding	Minimum 3-yearly review with LTP or as the need arises for specific capital works.
Priorities to be set based on community consultation, sound data, appropriate forward planning and prioritisation of works	Minimum 3-yearly review with LTP.
Adjusting Levels of Service following consultation and adoption of other (typically reduced) performance measures where options indicate savings can be made at an acceptable and sustainable level	Minimum 3-yearly review with LTP.
IMPLICATIONS OF THE RESPONSES	
Demographics show a changing population which will potentially affect ability of the community to pay	Regular reviews on population / demographics will enable planning. Population projections should extend 30+ years.
The growth or reduction of a population that consumes the service will influence the ability to sustain the service financially. It also gives an indication of the likely future demand for a service	However, various factors may still result in longer-term population increase such as demand for coastal property and families returning home to raise families and/or retire. There had been evidence of modest population growth in Mahia and there is further potential for growth in this area with the completion of the Mahia and Opoutama wastewater systems.
Levels of Service	Static or declining populations such as Wairoa are unlikely to reduce the demand for these Core Infrastructures Activities where assets will need to be maintained to at least current condition. Other factors that influence levels of service include legislative requirements, customer desires, strategic direction and associated risks and resilience of the activity and assets.

4.6 AFFORDABILITY AND REVENUE SOURCES

GENERAL DESCRIPTION OF THE CHALLENGE / SIGNIFICANT ISSUE
The primary funding tools for council (general/targeted rates; user charges) largely target the same groups. Growth in ratepayer numbers (i.e. more people to share costs), or alternative sources of revenue (e.g. tourism/subsidies/Central Govt funding), will be necessary to address affordability issues.
RELEVANT OBJECTIVES
Cost-Effectiveness.
IMPLICATIONS

The community share paid through rates is sensitive to subsidies (typically NZTA).	Changes in NZTA's Funding Assistance Rate (FAR) and other subsidies will impact on the amount to be paid by users and/or ratepayers.
Waste Management - Changes in waste management behaviour will likely affect the affordability of the landfill which could mean a reduction in levels of service, such as the hours of operation	Education continues to see a reduction in waste generation and changes in technology etc in the future may further see changes in the type and volume of waste generated, impacting on the demand for this service. Sustainability of the landfill will be affected by: • likely reduced waste generation per person • changes in types of waste generated and hence changes in the way waste is disposed of.

	Community surveys have identified that there is a demand for this service in Wairoa and so cost-effective long-term solutions are required.
RISKS & UNCERTAINTIES	
Changes in legislation	Financial implications could be significant if changes in population numbers and demographics are such that the current levels of service cannot be achieved without alternative funding sources. This would possibly mean that levels of service would have to be reduced although legislation will partly dictate minimum levels of service. *Likelihood of legislative changes is high*
Impact on the rating base and ability to pay	Changing demographics will affect the rating base eg as the population ages, income tends to be fixed (pensions) which may impact on affordability if rate rises etc. *Likelihood of a changing rating base is high, monitoring and planning for changes will reduce the consequence.*
One Network Road Classification	NZTA is implementing the One Network Road Classification (ONRC). This has developed a functional classification for roads that is to be applied nationally. The ultimate intention is to provide the road users a more consistent experience. The system introduces customer and performance levels of service pertinent to the road classification involved. Preliminary performance measure guidelines have been developed for Road Controlling Authorities to deliver under the ONRC. These performance measures are intended to provide a level of service in keeping with the classification of road and set technical outcome measures for the provision of roading infrastructure. This may have cost implications or reduced levels of service for some roads in order to meet performance measures of the ONRC.
Changes in funding and revenue streams	The risk is high but can generally be managed eg NZTA subsidies - any likely changes are advised well in advance.
Changes in subsidy levels	The NZTA funding assistance rate is set to increase. This will help offset the impacts of the declining population.
PRINCIPAL OPTIONS & RESPONSES	
Do-Nothing / Status Quo – if this is not monitored, there are risks around not complying with desired levels of service or unaffordability as demand for activities changes.	
RECOMMENDED OPTIONS	
Review levels of service regularly in relation to changes in population – numbers and demographics	Regular reviews on population/demographics will enable planning. Population and demographic projections should extend 30+ years.
Investigate alternative funding options	Identify sources of funding eg co-funding arrangements with the District Health Board based on associated health benefits of, for example, walkways and cycleways.
Adjusting some Levels of Service following consultation and adoption of other (typically reduced) performance measures where options indicate savings can be made at an acceptable and sustainable level	Adjustments or rationalisation of levels of service, for example less frequent grading of low-volume unsealed roads, may reduce the cost of maintenance or maintain it at current levels when taking into account the need to upgrade some roads as indicated below.
Asset Management - Set priorities based on community consultation, sound data, appropriate forward planning and prioritisation of works	Good asset management practices to ensure cost-effective maintenance, renewals and capital works programme.
IMPLICATIONS OF THE RESPONSES	

Demographics show a changing population which will potentially affect ability of the community to pay	Regular reviews on population/demographics as well as desired/legislated levels of service will enable planning as population ages with consequent increases in fixed-income ratepayers. Population projections should extend 30+ years.
Asset Management	Sound asset management with prioritised programmes of work and optimised decision-making will reduce long-term costs.
Funding sources	Maximisation of alternative funding sources such as the FAR will reduce the burden on ratepayers. Collaborative arrangements, such as for the landfill, will also assist in funding core assets.

4.7 CLIMATE CHANGE

GENERAL DESCRIPTION OF THE CHALLENGE / SIGNIFICANT ISSUE	
Potential impacts for Wairoa include coastal inundation and erosion, inland flooding from the Wairoa River and wider changes associated with extended period of drought. Many lowland areas, including the Wairoa township and the Nuhaka settlement, are at risk from flooding. This may have multiple adverse effects on roads and to 3-Water networks; flooding; loss of key infrastructure; increased demand for water; and/or disruption to gravity sewerage system from droughts (linked with resilience).	
RELEVANT OBJECTIVES	
Accessibility, Cost-Effectiveness, Safety, Resilience.	
RISKS & UNCERTAINTIES	
Changes in weather patterns	Likelihood of changes in rainfall patterns that will affect Wairoa is moderate to high.
Cost	Possible cost implications to fund remedial works if funding polices change.
PRINCIPAL OPTIONS & RESPONSES	
Do-Nothing / Status Quo – doing nothing to address climate change is not sustainable and will have potential adverse effects on communities at risk.	
RECOMMENDED OPTIONS	
Monitor local trends in weather events, climate change and associated legislation	This will enable early planning and will enable us to better identify when issues require action.
Identify assets at risk including roads and bridges	Identify options for those assets most at risk and implement projects on a priority basis as funding becomes available.
Monitor flooding, slips, coastal erosion	This will enable early planning.
Manage relationships with Regional Council / NIWA	This will ensure current information and early planning.
Catchment management plans	As these are developed, prioritisations can be based on areas prone to flooding such as alongside the Wairoa River.
IMPLICATIONS OF THE RESPONSES	
Infrastructure increasingly at risk	If climate change is not planned for and priorities not identified, assets will be increasingly at risk with higher likelihood of failure.

4.8 TECHNOLOGY

GENERAL DESCRIPTION OF THE CHALLENGE / SIGNIFICANT ISSUE
The timing, scale and nature of technology impacts on infrastructure is uncertain. Managing this will require a high degree of responsiveness and flexibility to ensure capital investment decision with long-term implications are not rendered obsolete by these changes. Changes in technology may also impact on employment in the District eg reliance on the AFFCO meat works as a key employer – methods of work are becoming more automated – this will affect ability to pay for infrastructure.

RELEVANT OBJECTIVES	
Cost-Effectiveness, Resilience.	
RISKS & UNCERTAINTIES	
Systems become obsolete	Obsolete or non-compatible systems will lead to inefficient systems and may eventually lead to issues with ongoing maintenance. This may have longer term compliance issues, for example, with the 3-Waters.
Infrastructure may not support new technology	Advances in technology in the short, medium and longer term will impact on the infrastructure requirements. Examples include: • changes in travel such as autonomous cars – current road infrastructure may need changes for autonomous cars to function optimally. • Waste management – changes in recycling and re-use of waste materials. • 3-Waters – changes in the methods of treatment. *The likelihood of technological changes over the duration of this Infrastructure Strategy is high, consequences or the impact of those consequences can be reduced through monitoring change and planning.*
External influences	Changes in technology, for example AFFCO automation and forestry methods may affect availability of suitable employment for residents and ratepayers which may affect affordability in terms of Council's core infrastructure.
PRINCIPAL OPTIONS & RESPONSES	
Do-Nothing / Status Quo – if this is not monitored, there are risks around system becoming outdated and associated maintenance problems.	
RECOMMENDED OPTIONS	
Monitor	This will enable early planning and will enable us to better identify at what stage new technology needs to be introduced/accounted for.
Managed approach - Identify where new technology is cost-effective in terms of levels of service	Identify options for those assets where new technology should be introduced or provided for.
IMPLICATIONS OF THE RESPONSES	
Technological changes can significantly change the way assets are managed.	Where new technology is not provided for, there could be longer term compliance and cost implications.

4.9 CHANGES IN LAND USE

GENERAL DESCRIPTION OF THE CHALLENGE / SIGNIFICANT ISSUE	
Different land uses will have different requirements/desired levels of service on infrastructure eg. forestry now accounts for approx. 26% of the land use in Wairoa – effects of heavy vehicles on the roads. Horticultural activities will require more water for irrigation.	
RELEVANT OBJECTIVES	
Accessibility, Cost-Effectiveness, Reliability.	
RISKS & UNCERTAINTIES	
Levels of service are not met	Provision of infrastructure does not meet levels of service due to land use change and associated impact on infrastructure.
Impacts on road maintenance costs and possible need to upgrade some roads and / or bridges on our local roading network.	Failure to monitor and programme renewals and capital works for land use changes and increasing heavy vehicles could impact on the integrity of roads and bridges which could lead to failure and more costly repairs in the long term. It could also result in cost peaks or a reduced level of service if those costs cannot be met.

	The likelihood of these changes is high and the consequences of not addressing would be moderate to high.
PRINCIPAL OPTIONS & RESPONSES	
Do-Nothing / Status Quo – if land use changes are not provided for, it is likely that core infrastructure will become increasingly at risk from deterioration, in particular where there are likely to be increased heavy vehicle traffic.	
RECOMMENDED OPTIONS	
A working committee involving Council and other similar TLAs is actively engaging with the forestry industry to better quantify the effects on roading of the activity including harvesting	Options on level of service adjustments include unique heads of agreement with primary industry user(s) outlining fit for purpose maintenance intervention strategies, user pay arrangements, and increased rates differential for primary land use.
Residential development	Residential development in previously rural areas will have implications on the provision of 3-Waters infrastructure.
IMPLICATIONS OF THE RESPONSES	
Levels of Service	Different land uses have different levels of service requirements.
Rural land use	Increasing Heavy Commercial Vehicle (HCV) use, typically with changes in land use.
Forestry	Predicted that regional forestry plantations will peak for logging harvest between 2021 and 2030, increasing demand on some roads by as much as 100% of current heavy commercial vehicle movements.

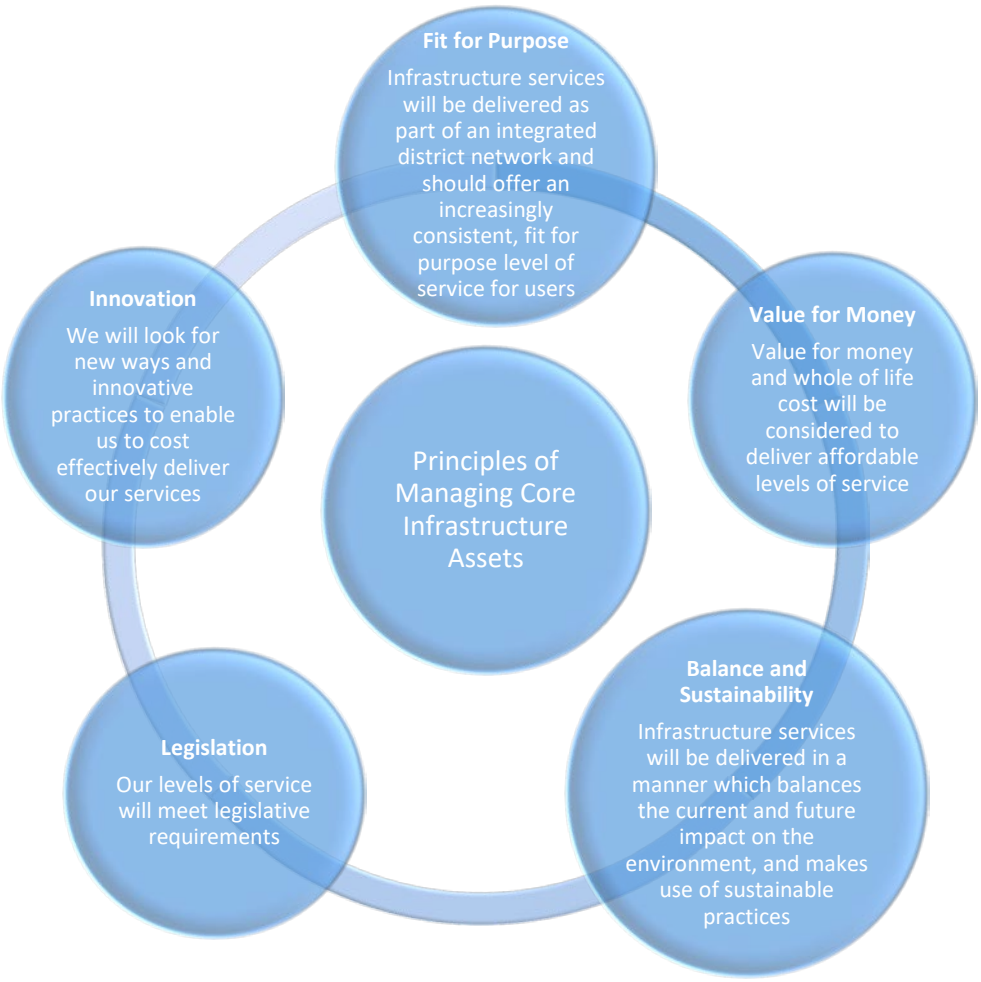
5 MANAGING OUR ASSETS

Managing our infrastructure over the next 30 years will be challenging with predicted continued population changes and likely increased levels of service expectations and requirements.

Finding the balance between cost and desired and mandatory levels of service and setting priorities in an environment where affordability is a significant issue is the key to delivering on agreed levels of service.

Wairoa's vision is supported by the following principles which will be applied in finding that balance:

Figure 8: Principles of Managing Our Assets



FIT FOR PURPOSE	Much of our infrastructure has sufficient capacity to meet current and predicted demand. However, given the uncertainty around growth and demand for infrastructure and services, we need to be able to plan for changes in levels of service to ensure that we deliver a 'fit for purpose' network of core activities. Our resident population is predicted to decline in some areas and as our population ages, we will have more residents with fixed incomes who may not be able to absorb the cost of increased service levels and associated increased costs of operating and maintaining our assets; we need to assess the long term costs and benefits for the community before increasing service levels. Economic growth generally leads to increased resident and visitor populations. This will mean identifying the changes needed in the future but not investing in new infrastructure until it is reasonably certain that the predicted demand will occur. Existing infrastructure will be maintained to meet current levels of demand and agreed levels of service.
VALUE FOR MONEY	We will make decisions regarding our assets based on sound quality information to enable us to make the best use of existing infrastructure. Managing assets to realise their full life-cycle requires good and integrated planning based on sound asset data. To support this, we will continue our focus on collecting and analysing asset information; age, location, condition, performance, material etc. This information will then be used to determine when to maintain, renew or replace assets in a timely manner consistent with best asset management practice. Optimised decision making is used to ensure successful delivery of sustainable replacement programmes. Pipeline condition assessments and pavement deterioration modelling are tools used for the programme selection decision making process.
BALANCE & SUSTAINABILITY	With uncertainty around growth, it is important to set priorities for programmes of work based partly on the criticality of core infrastructure assets to ensure resilience. Over the next 30 years, some of our assets may be at risk from climate change factors such as sea level rises, coastal erosion and increased flooding events along the Wairoa River. Information on the assets at risk from such events and the potential for increased risk will be key in understanding the risks and enabling us to effectively and efficiently plan. We need to balance those risks to enable planning and programming of physical works. We will also need to be mindful of increasing levels of service in relation to reducing actual and potential effects on the environment and ensuring that the quality of waterways in particular is more sustainable. This may require a change in the way we deliver our services.
LEGISLATION	We will work towards 100% compliance with conditions of consent, working with Regional Council on how this will be achieved. We will keep up to date on potential changes in legislation and monitor our activities in terms of current compliance with likely changes and options to deliver where we do not meet those requirements.
INNOVATION	We will investigate new ways to deliver services to be cost-effective and efficient such as: • The recent combining of the 3-Waters into a single maintenance and operations contract that will deliver on efficiency and will enable the development of asset knowledge within the organisation. • New and innovative ways of delivering the waste management activity as the way we dispose of our waste changes and with the continuing reduced generation of waste whilst meeting the community's desire to maintain the landfill.

6 INFRASTRUCTURE INVESTMENT PROGRAMME

6.1 INTRODUCTION

Maintaining and replacing infrastructure is expensive. We aim to replace assets only when we need to but before they fail in order to maintain levels of service.

Increasing the knowledge of our assets is the best way to reduce the risk of failing infrastructure as we are able to better plan and pay for our replacement programmes, which are based on the most up-to-date data information we hold.

Our asset condition data is generally reliable. It is based on sound records, procedures, investigations and analysis. There are however some shortcomings; for example, some data is old, some documentation is missing and/or we rely on unconfirmed reports or some extrapolation of results. We are therefore continuing a programme of condition assessments, in particular for water supply and wastewater, which will improve our confidence in data. Replacement programmes will be reviewed annually to reflect these assessments.

The sections below show some significant expenditure over the next 3 to 4 years to enable us to replace some of the core assets that are nearing the end of their useful life and then an ongoing programme of renewals to maintain assets in a condition that ensures continued delivery of levels of service.

6.2 FINANCIAL STRATEGIES & POLICIES

6.1 OVERVIEW

The focus of asset management planning is on identifying the optimum (lowest life cycle) cost for assets necessary to produce the desired LOS. How this cashflow is funded is a matter for consideration as part of Council's financial strategy review.

Assets are depreciated on a straight-line basis at rates estimated to write-off the cost over the expected useful economic life.

Council has a number of financial policies including the Revenue and Financing Policy which provides '*predictability and certainty about sources and levels of funding for all its activities*'. It is an important instrument of council's financial management because how the activities are funded can have a significant impact on the financial viability of council services.

6.2.2 FINANCIAL STRATEGY

Council's Financial Strategy sets out the financial mechanisms that Council will use and operate within to achieve the community objectives over the duration of the LTP and the corresponding 10 years of this Infrastructure Strategy.

Council must plan its expenditure in a way that is sustainable to ensure that the district will have the capacity and resources available to deliver affordable services to our residents and ratepayers in the medium and long term.

Key strategic principles of the Financial Strategy include:

- Total rates will not exceed 60% of operating costs;
- Total rates shall not exceed 70% of total cash revenue;
- The maximum annual total rates increase shall not exceed 5%;
- Annual interest costs and loan repayments shall not exceed 15% of rates revenue

A key element of the financial strategy is based around the ongoing operation and maintenance of Council's infrastructure and the implementation of this Infrastructure Strategy.

REVENUE SOURCES

Primary sources of revenue to fund activities are:

RATES CALCULATED BY PROPERTY VALUE	Used for activities available to the whole community with charges calculated on each property's rateable value. Differentials area used where Council determines the particular land use or location should be liable for a different share of these rates – examples

	include differentials for roading where land use involves high proportion of heavy vehicles such as forestry and farming.
UNIFORM ANNUAL GENERAL CHARGE	Used for activities available to the whole community with charges the same for each rateable property.
TARGETED RATES	User pays approach - Council provides drinking-water, reticulated wastewater, drainage and solid waste management in specific locations around the district and only those with access to such activities are liable.
SUBSIDIES	In excess of 60% of the total budget for roads is funded by subsidies from NZTA. In addition, some projects will qualify for government grants from Ministry of Health or MBIE.
FEES & CHARGES	User pays approach.

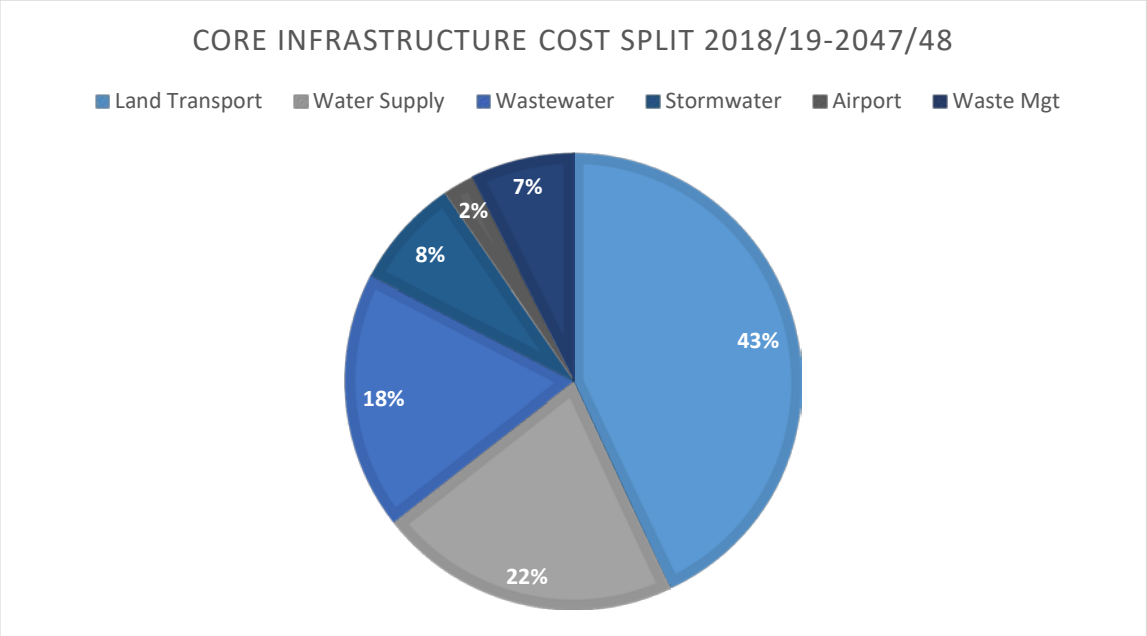
6.2.3 30-YEAR PROJECTED COST SUMMARY

	LAND TRANSPORT	WATER SUPPLY	WASTEWATER	STORMWATER	AIRPORT	WASTE MGT
Ops/Maintenance*	$465.0 million	$94.5 million	$74.9 million	$24.3 million	$9.4 million	$56.2 million
Capital Works – Renewals and New Works	$280.8 million	$16.9 million	$22.2 million	$16.2 million	$3.2 million	$1.4 million
Income	$0.2 million	$21.8million	$12.2 million	$0.6 million	$1.5 million	$22.6 million
NZTA Subsidies	$447 million	-	-	-	-	-
NET COST	**$298.6 million**	**$89.6 million**	**$84.9 million**	**$39.9 million**	**$11.1 million**	**$35 million**

**Operations and maintenance costs allows for inflation and depreciation*

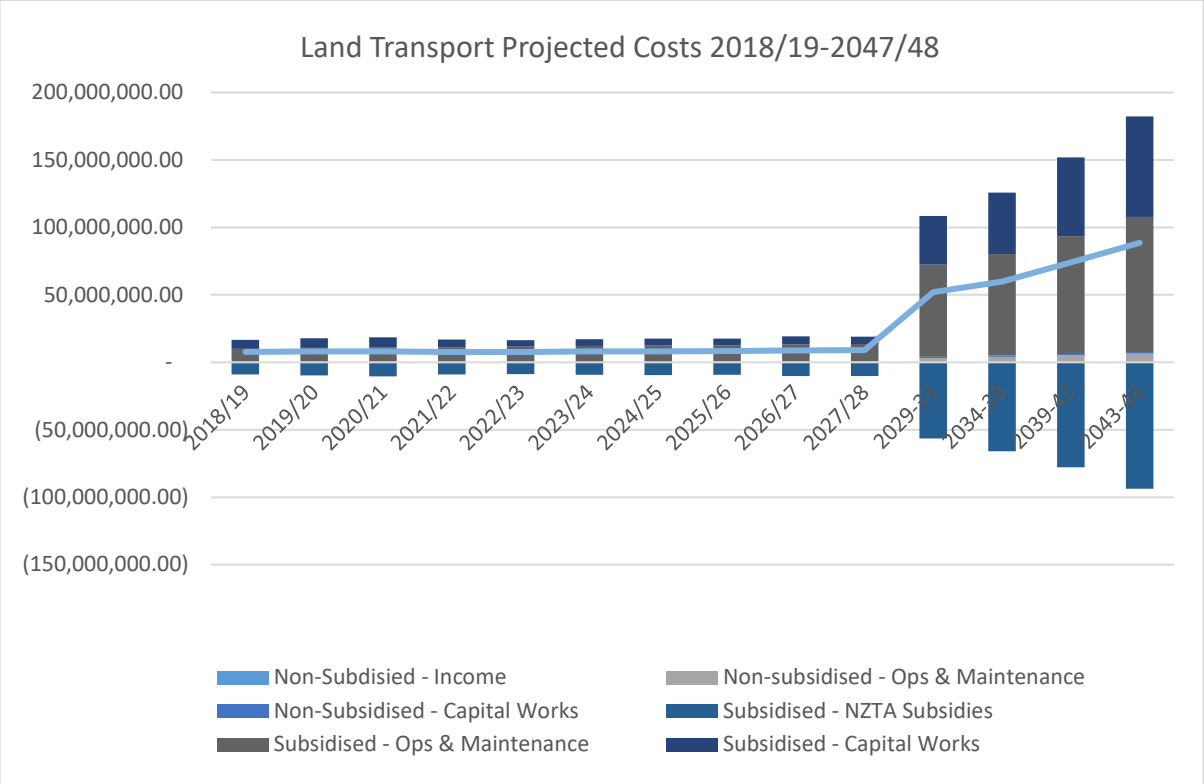
6.3 TOTAL EXPENDITURE

Fig 9: Predicted Total Cost – Core Activities - 2018-2048



6.3.1 LAND TRANSPORT

Fig 10: Predicted Total Cost – Land Transport Activity - 2018-2048



Note: figures have been inflation adjusted from Year 2 and are not 2018 values.

The approach to delivering the roading activity is predicted to remain consistent over the next 30 years with routine operations and maintenance and a planned optimised renewals programme. This activity will be funded predominantly from the FAR with the remainder coming from general rates. This subsidy rate will increase from 70% FAR in 2017/18 to 75% in 2018/2019. Thereafter NZTA has indicated, the base FAR will remain at 75%.

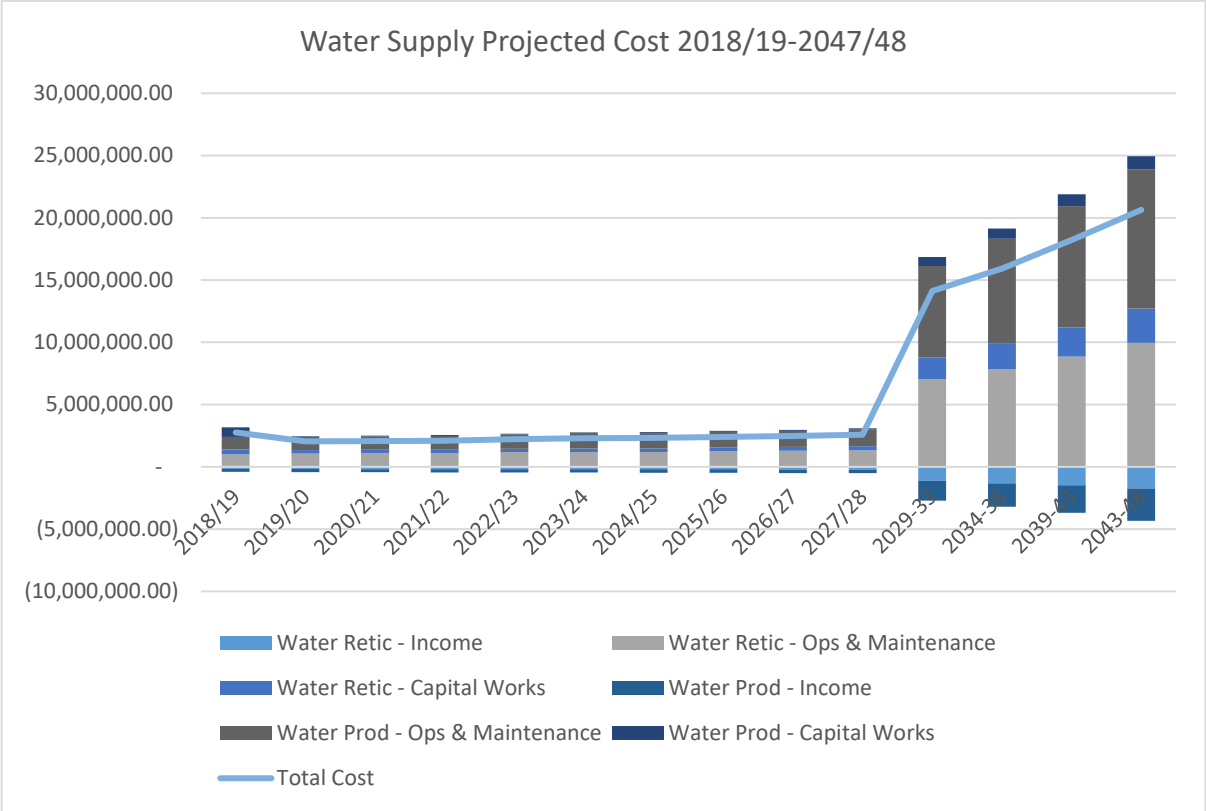
Routine renewals programmes include unsealed pavement rehabs ($8 million over 30 years) and resurfacing of sealed pavements ($39 million over 30 years).

Bridges are critical to maintaining our road networks and a focus over the next 4 years, with over $1.2 million spending, will enable us to replace and upgrade those that are showing signs of poor performance.

Council is also investing in non-subsidised programmes such as new footpaths and the upgrade of existing footpaths (over $8 million across the next 30 years on new footpaths, allowing for inflation). The new footpaths programme is generally aligned with the piping of open drains (stormwater activity).

6.3.2 WATER SUPPLY

Fig 11: Predicted Total Cost – Water Supply Activity - 2018-2048



Note: figures have been inflation adjusted from Year 2 and are not 2018 values.

The approach to service delivery for water supply will be consistent over the next 30 years with a planned optimised renewals programme based on ongoing condition assessments of pipelines.

Less than 50% of our water supply network in Wairoa has been assessed as being in a 'good' condition. Based on this knowledge and ongoing condition assessments in the Wairoa township, we are targeting those areas where pipes are in a less than good condition, using rates funding, to ensure that our systems do not fail. Council's 'Reality-Based Renewals Investment Profiles' Study has enabled the development of a reasonable 30-year replacement programme. $10 million over the next 30 years (inflation adjusted) has been allowed for pipe renewals.

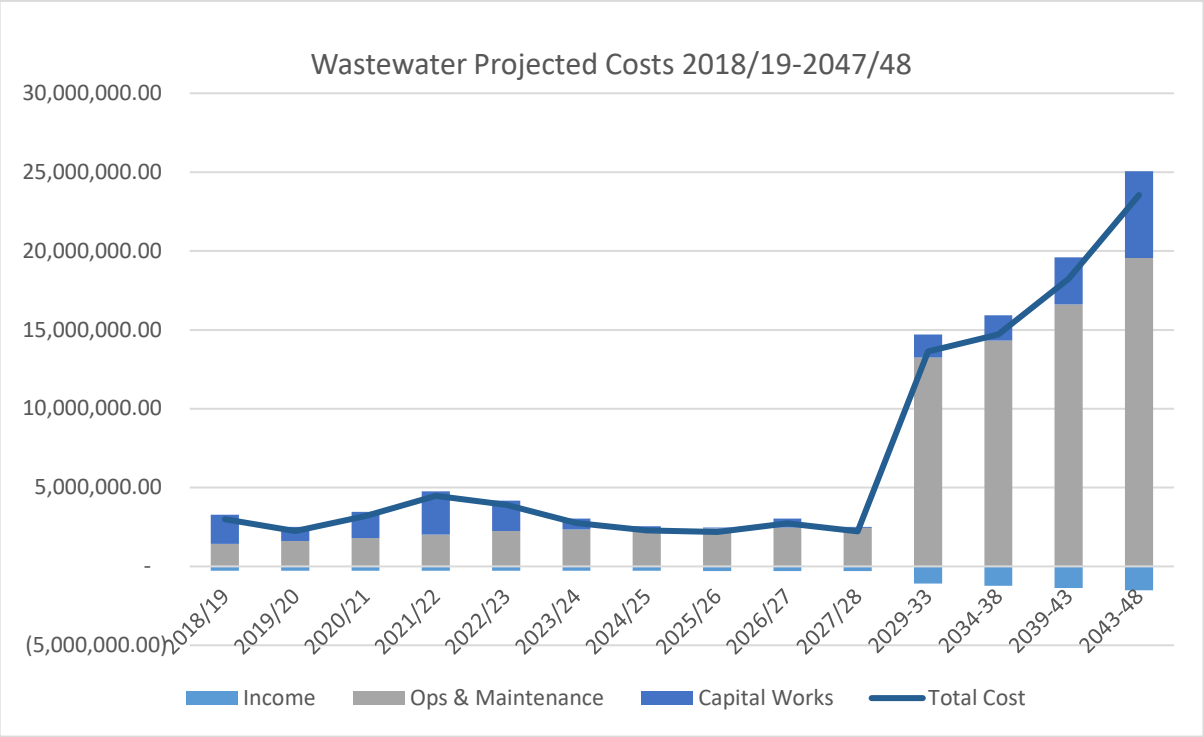
A priority is the supply pipeline from the intake on the Waiau River to the treatment plant at Frasertown. This will include river bank stabilization and possible relocation of the pipeline further from the river bank. Condition assessments of the network are currently looking at high risk areas such as the hospital, schools and industrial areas.

Capital works in 2018/19 include upgrading the supply at Mahanga to meet drinking-water standards ($235,000) and a new supply at Blue Bay to service development of the subdivision ($215,000).

Provision has also been made in 2018/19 for sheet pile protection to the Wairoa intake ($100,000), important with the supply reliant on a single source.

6.3.3 WASTEWATER

Fig 12: Predicted Total Cost – Wastewater Activity - 2018-2048



Note: figures have been inflation adjusted from Year 2 and are not 2018 values.

The approach to service delivery for wastewater will be consistent for routine operations and maintenance over the next 30 years.

An optimised renewals programme based on ongoing condition assessments of pipelines will see over $5 million (inflation adjusted) spent over the next 30 years on pipe renewals, with more than $^1/_3$ in the next 10 years. The wastewater system in Wairoa has been assessed as having less than 50% of pipes being in a 'good' condition. The Mahia wastewater network is less than 5 years old and still in excellent condition. Based on this knowledge and ongoing condition assessments, we are targeting those areas where pipes are in a less than good condition, using rates funding, to ensure that our systems do not fail with a progressive replacement programme.

There is additional expenditure in capital works between 2018/19 and 2023/24 for the new Wairoa Wastewater Treatment Plant and other related works such as the duplication of the Fitzroy to Pilot Hill pipeline and an upgrade of the existing rising main.

The current resource consent expires in 2019. The performance of the existing treatment plant is no longer adequate to meet the required and increasing water quality standards. The challenge lies in meeting these higher standards in a cost-effective manner.

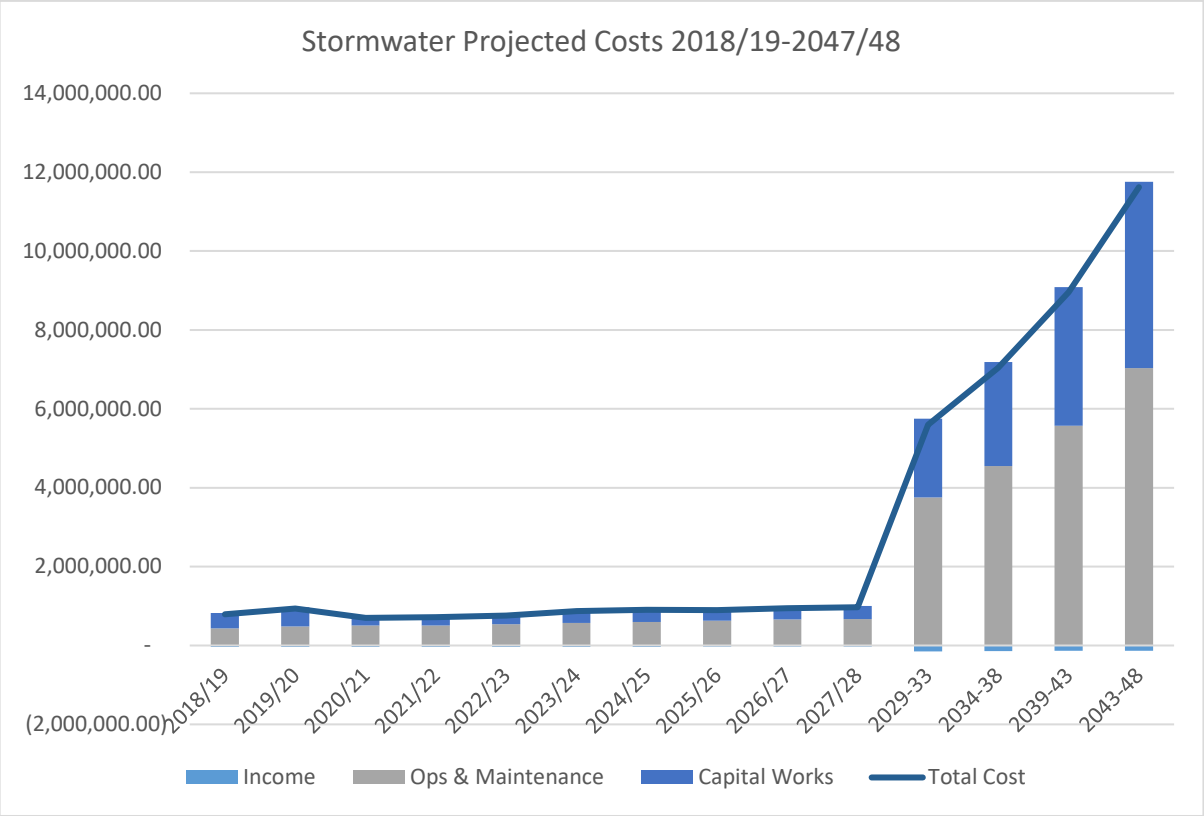
Investigations and concepts are underway including stakeholder group engagement. Alternative locations for the WWTP and alternative methods of treatment have been considered and not determined not to be as cost-effective as an upgrade of the existing plant (ongoing) and are less acceptable to the community.

The current package includes modification of the existing wastewater facilities such as: significantly increased treatment processes, transitioning to a land-based discharge, a network renewals commitment and an ongoing commitment to a river health partnership strategy.

Cost estimates for this work, to support a new resource consent, are between $6 million and $7 million, at current prices.

6.3.4 STORMWATER

Fig 13: Predicted Total Cost – Stormwater Activity - 2018-2048



Note: figures have been inflation adjusted from Year 2 and are not 2018 values.

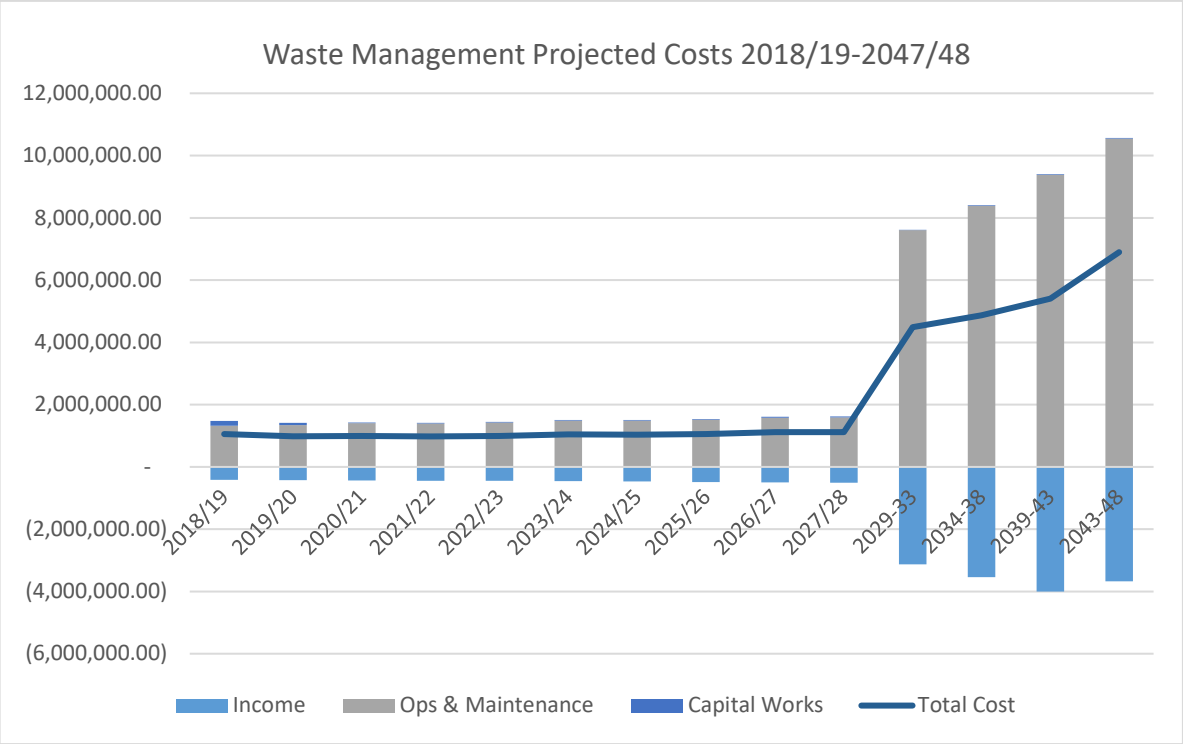
The approach to service delivery for stormwater will be consistent for routine operations and maintenance over the next 30 years. $5 million (inflation adjusted) has been allowed for renewals over the 30 years of this Strategy to address issues such as inflow and infiltration and to replace ageing pipes.

Our initial priority will be the Wairoa township where studies are identifying problems of inflow and infiltration into the pipes.

There is an initial peak in capital works to allow for an acceleration of the programme for piping open drains in the Wairoa township. Total expenditure will be $1.2 million. Some of these improvements relate to road safety and will attract NZTA subsidy. This componenet has been included in the Land Transport activity..

6.3.5 WASTE MANAGEMENT

Fig 14: Predicted Total Cost – Waste Management Activity - 2018-2048



Note: figures have been inflation adjusted from Year 2 and are not 2018 values.

The approach to service delivery for the waste management activity is predicted to remain consistent over the next 30 years with routine operations and maintenance and renewals.

A new recycling centre is proposed in Mahia to address local demand and this is currently being consulted upon.

The current predicted expenditure does not take into account any future collaborations or initiatives that are likely required to make the landfill operation sustainable. Options for such future collaboration will likely include the development of a new landfill cell in 10 to 20 years and / or a shift to the landfill farm.

6.3.6 WAIROA AIRPORT

Fig 15: Predicted Total Cost – Wairoa Airport - 2018-2048

Note: figures have been inflation adjusted from Year 2 and are not 2018 values.

Operations and maintenance activities for the Airport will remain generally consistent over the next 30 years.

Wairoa considers the airport a strategic component in terms of economic development and in reducing the 'isolation' of Wairoa for essential services. Consequently, significant expenditure on the extension of the runway, estimated $1 million was included in the Annual Plan 2017-18 with 50% of the funding to be obtained through alternative sources. Council has since determined that this project should be 100% externally funded and the budget is not currently included in the LTP budgets. It will be reconsidered once funding is identified. Additional works on lighting, the taxiways and hard standing areas are included in the LTP.

6.4 MAJOR PROJECTS

Capital works comprise new works and renewals. Renewals are generally defined as major work which restores, rehabilitates, replaces or renews an existing asset to its original condition/function and is funded from the capital renewals budget and/or depreciation reserves. Renewals ensure that the reliability of an asset is maintained by replacing it to its original capacity with an extended life.

New works are those works that create a new asset that did not previously exist or works that upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs which lead to changes in levels of service.

Major capital projects programmed over the next 30 years include the following (*budgets are estimates and allow for inflation*):

WORKS	DESCRIPTION	WHY WE ARE DOING THIS	TIMEFRAME	BUDGET	ASSUMPTIONS	KEY DECISIONS	ALTERNATIVE OPTIONS & ASSOCIATED RISKS
ROADING & FOOTPATHS							
District Road renewals ***Subsidised***	Pavement Rehabilitation	• Replace existing assets • Resilience and reliability	2018-2048	$8 million over the next 30 years	NZTA FAR subsidies to be applied	Annual Plan decision on programme	Do nothing – risk of deterioration and reduced level of service / loss of funding
	Sealed pavement resealing			$39 million over the next 30 years			
	Bridges / Structures Renewals programme Includes a bridge strengthening programme in excess of $1 million for the first four years			$18 million over 30 years		Annual Programme / prioritisation of works	Do nothing – risk of deterioration and reduced level of service
Footpaths ***Non-subsidised***	New footpaths	• Improve Level of Service • Safety, amenity	2018-2048	$18.4 million over the next 30 years with annual spend in excess of $400,000	Available funding, NZTA FAR subsidies to be applied	Annual Plan decision on programme	Do nothing – risk of deterioration and reduced level of service
	Upgrade existing footpaths	• Replace existing assets • Safety, amenity	2018-2048	$5 million over the next 30 years			
WATER SUPPLY							

WAIROA

WORKS	DESCRIPTION	WHY WE ARE DOING THIS	TIMEFRAME	BUDGET	ASSUMPTIONS	KEY DECISIONS	ALTERNATIVE OPTIONS & ASSOCIATED RISKS
Pipeline Renewals	• Programmed pipe and trunk main renewals – Wairoa • Including condition assessments and modelling to determine programme and extent of works	• Improve level of service • Resilience and reliability	2018-2048	$10 million over the next 30 years including $200,000+ per annum for Wairoa pipelines	• Available funding • Prioritisation of works • ongoing optimised renewals programming	Annual Plan decision on programme	Do nothing – risk of deterioration, reduced level of service and non-compliance
Wairoa Treatment Plant	Various renewals for treatment plant, intake and boundary reservoirs including SCADA, valves, switchboard and pumps	• Improve level of service / Replace existing assets • Resilience and reliability	2018/19-2047/48	In the order of $2 million over 30 years	• Available funding • Prioritisation of works • No changes in consent conditions	Annual Plan decision on programme	• Do nothing – potential impact on level of service, resilience and compliance in the future • Full upgrade of the plant unlikely to be unaffordable • Replace source – not cost-effective at this stage, existing source adequate to meet demand, alternative source (for resilience) will be investigated in the future
	Replacement switchboard	• Improve level of service	2018/19	$100,000			Do nothing – level of service potentially compromised
	Intake protection – sheet piles	• Resilience and reliability	2018/19	$100,000			Do nothing – intake will be compromised, no alternative source
Mahanga	Chlorination equipment for supply	• Improve level of service • To meet NZDWS	2017/18	$158,000 (funding carried over)	2017/18 works not included in 2018-28 LTP	• Legislative requirement • Council to	• Do nothing – non-compliance and not addressing the results of

WORKS	DESCRIPTION	WHY WE ARE DOING THIS	TIMEFRAME	BUDGET	ASSUMPTIONS	KEY DECISIONS	ALTERNATIVE OPTIONS & ASSOCIATED RISKS
	Install Telemetry (Part of Mahanga supply upgrade – existing supply does not meet the NZDWS. It is currently designated as a non-potable supplementary supply with 'boil water' notices in place)	and demand	2018/19-2024/25	$235,000 2018/19		determine final and preferred option	the referendum in terms of the level of service to the community • Options for an alternative source (rather than upgrading the existing source) has been investigated in the past and deemed unaffordable
Blue Bay	• Relocation and upgrade of existing supply • Will include bore rehabilitation, SCADA upgrade and treatment plant upgrade	• Improve level of service & Replace Existing Assets • To meet NZDWS and demand of subdivision	2018/19	$215,000	Demand projections		• Do nothing – non-compliance, agreed levels of service will not be met • No communal water supply for Blue Bay
WASTEWATER							
Wairoa Wastewater	New Wastewater Treatment Plant (including treatment plant, new rising main (Kopu Road, North Clyde and Alexandra Park) *Budget allows for resource consent process*	• Improve level of service • Existing resource consent expires 2019	Completion 2023/24	$6 - 7 million	Preferred option is the modification of the existing wastewater facilities transitioning to a land-based discharge		• Do nothing – Unlikely to achieve a workable consent period and will not meet community aspirations • Renewals only – overflows will reduce but workable consent unlikely and will not meet community aspiration
	Pump station renewals & provision of standby generators for each pump station			$1 million			
Pipe Renewals	Programmed pipeline renewals including infiltration study, condition assessments - Wairoa	• Improve Level of Service • Resilience and reliability	2018-2048	$6 million over 30 years	Available funding Prioritisation of works	Annual Plan decision on programme	Do nothing – risk of deterioration, reduced level of service and non-compliance

WAIROA

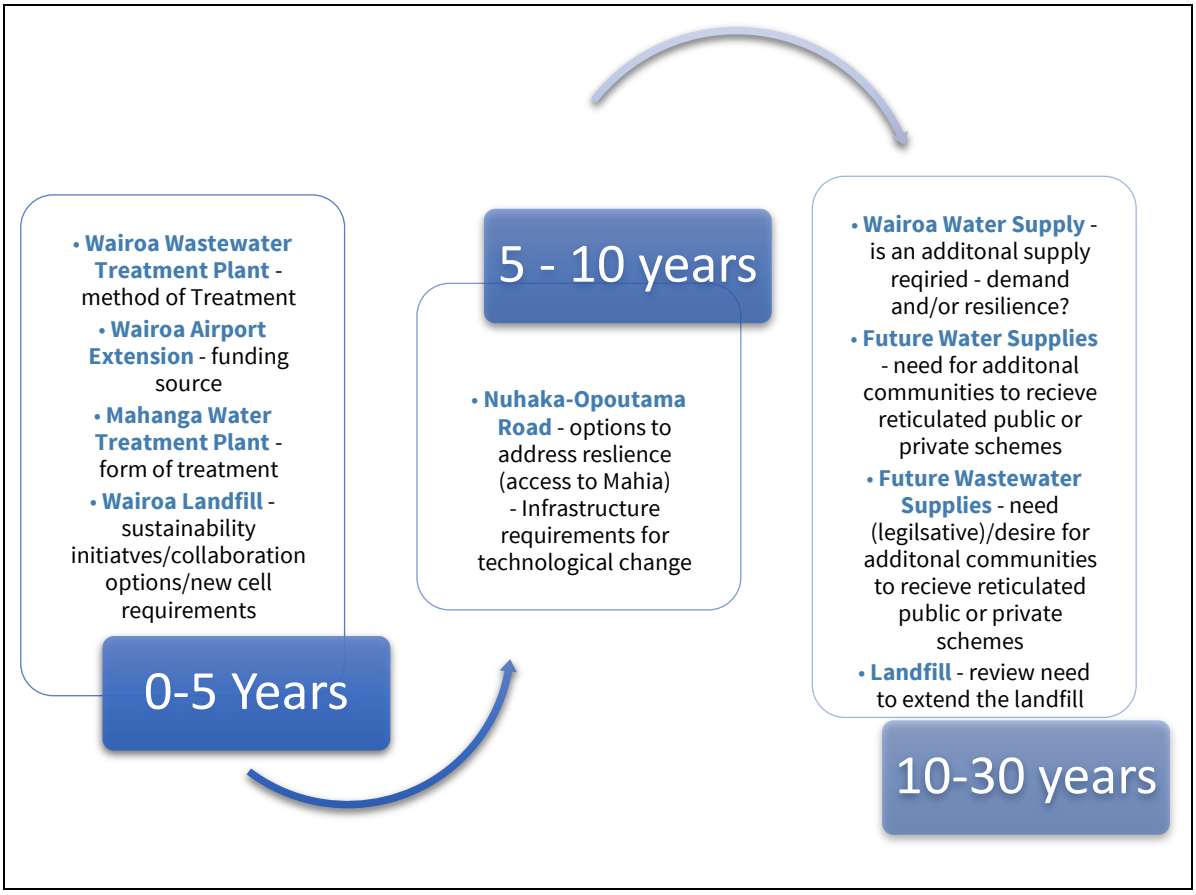
WORKS	DESCRIPTION	WHY WE ARE DOING THIS	TIMEFRAME	BUDGET	ASSUMPTIONS	KEY DECISIONS	ALTERNATIVE OPTIONS & ASSOCIATED RISKS
STORMWATER							
Pipe Renewals	Programmed pipeline renewals including condition assessments – Wairoa and Mahia Beach	• Improve Level of Service • Resilience and reliability	2018-2048	$5 million over 30 years	Available funding Prioritisation of works	Annual Plan decision on programme	Do nothing – risk of deterioration, reduced level of service and non-compliance
Piping Open Drains	Continuation of an annual provision to continue piping stormwater drains An annual budget is set each year but there are options to accelerate. Through the 2017/18 Annual Plan consultation, a provision of $300,000 has been allocated for 2017/18	• Improve level of service • Piping open drains primarily addresses drivers related to safety and aesthetics	2018-2048	$11.2 million over 30 years with $600,000 proposed for 2018/19 and 2019/20 each	Funding availability	Annual decision through Annual Plan process	• Do nothing – level of service, amenity values deteriorate, safety • Accelerate the programme – cost implications but assessed regularly through the Annual Plan process
WAIROA AIRPORT							
Runway Lights	Lights and cabling repairs	• Resilience • Maintaining levels of service	2018/19	$150,000		Final approval based on funding	Do nothing – risk of deterioration, reduced level of service
Future Capital Works	Provision made for future works, yet to be determined		2020/21	$120,000		Demand for new works / funding	
Resurfacing	Resurfacing aprons / hardstand areas		2018/19-2047/48	$1.5 million over 30 years incl. $200,000 in 2019/20 for aprons		Final approval based on funding	
WASTE MANAGEMENT							
Mahia Recycling Centre	New centre to be provided	Improve level of service	2018/19-2019/20	$150,000	Future demand remains	Final approval based on funding / community consultation	Do nothing – community needs not met

WORKS	DESCRIPTION	WHY WE ARE DOING THIS	TIMEFRAME	BUDGET	ASSUMPTIONS	KEY DECISIONS	ALTERNATIVE OPTIONS & ASSOCIATED RISKS
New cell / Move to Landfill Farm	Provision for new cell and / or future extension of the landfill into adjacent farmland if the demand arises from collaborative initiatives such as receiving waste from outside the district	Level of service	20 – 25 years		Future demand remains	Review in 10 to 15 years to determine need	• Do nothing – levels of service not met • Stop providing the landfill service – resident / ratepayer surveys indicate this is not an acceptable option • Relocate landfill – moving the landfill will require land acquisition and new consents • Collaborative initiatives – potential options include acceptance of waste from outside the district – option invitations to continue in this area

6.5 KEY DECISION MAKING

There are a number of key decisions that will need to be made by elected members over the next 30 years.

The diagram below gives an indication of the timeframe for making such decisions to enable planning and investigation into the infrastructure projects.



APPENDIX 1: PREDICTED EXPENDITURE 2018-2048

LAND TRANSPORT

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
NON SUBSIDISIED ROADING														
RN0008. SUNDRY INCOME	4,500	4,599	4,698	4,811	4,923	5,040	5,166	5,301	5,445	5,598	30,717	35,784	41,679	48,555
RN10501. CHRISTMAS LIGHTING	2,000	2,044	2,088	2,138	2,188	2,240	2,296	2,356	2,420	2,488	13,652	15,904	18,524	21,580
RN1530. ROADSAFE HAWKES BAY	8,000	8,176	8,352	8,552	8,752	8,960	9,184	9,424	9,680	9,952	54,608	63,616	74,096	86,320
RN1540. INTEREST PUBLIC DEBT	2,351	9,284	13,972	20,889	27,600	34,300	41,001	47,596	54,130	60,558	409,592	594,494	792,214	1,006,963
RN154099. Rated Loan Repayments on Capital	-	600	1,214	2,007	2,686	3,402	4,157	4,957	5,806	6,709	38,185	38,185	38,185	38,185
RN1560. CLIENT APPLICATION CONSENTS	2,000	2,044	2,088	2,138	2,188	2,240	2,296	2,356	2,420	2,488	13,652	15,904	18,524	21,580
RN2014. CLEANING DRAINS - RURAL	8,000	6,132	5,220	10,690	10,940	11,200	11,480	11,780	12,100	12,440	68,260	79,520	92,620	107,900
RN2015. CLEANING DRAINS	3,000	3,066	3,132	3,207	3,282	3,360	4,018	4,123	4,235	4,354	23,891	27,832	32,417	37,765
RN20152. CLEANING STREET & FOOTPATHS	75,000	76,650	78,300	80,175	82,050	84,000	86,100	88,350	90,750	93,300	511,950	596,400	694,650	809,250
RN20153. VERGE MOWING	15,000	14,308	12,528	16,035	16,410	16,800	17,220	17,670	18,150	18,660	102,390	119,280	138,930	161,850
RN2030. Depreciation Footpaths	11,755	16,509	20,409	24,509	28,787	33,083	37,486	42,089	46,692	51,394	328,279	457,896	607,431	782,497
RN203099. Non Funded Depreciation	600	1,214	2,007	2,686	3,402	4,157	4,957	5,806	6,709	7,637	38,185	38,185	38,185	38,185
RN20501. REPAIRS & MTCE TUAI FOOTPATHS	5,000	2,044	1,044	5,345	5,470	5,600	5,740	5,890	6,050	6,220	34,130	39,760	46,310	53,950
RN20502. REPAIRS & MTCE STREETLIGHTS	1,000	1,533	1,566	1,604	1,641	1,680	1,722	1,767	1,815	1,866	10,239	11,928	13,893	16,185
RN39051. CORPORATE OVERHEADS	69,873	71,500	78,368	73,778	76,512	82,332	77,434	80,827	87,159	82,989	456,147	497,052	560,523	619,599
RN39052. ENGINEERING OVERHEADS	75,196	76,538	78,010	79,504	80,885	82,465	84,075	85,758	87,468	89,194	474,048	524,682	580,987	643,665
Total - Ops and Maintenance	**278,774**	**291,642**	**308,298**	**333,255**	**352,793**	**375,819**	**389,167**	**410,749**	**435,583**	**450,249**	**2,577,209**	**3,120,639**	**3,747,488**	**4,445,474**

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
FOOTPATH RENEWALS	100,000	102,200	104,400	106,900	109,400	112,000	114,800	117,350	119,980	122,610	682,600	795,200	926,200	1,079,000
NEW STREETLIGHTS	10,000	10,220	10,440	10,690	10,940	11,200	11,480	11,735	11,998	12,261	68,260	79,520	92,620	107,900
UPGRADE CROSSINGS	5,000	3,577	3,654	5,345	5,470	5,600	5,740	5,868	5,999	6,131	34,130	39,760	46,310	53,950
TUAI FOOTPATH UPRGADE (DDF)	8,000	8,176	8,352	10,690	10,940	11,200	11,480	11,735	11,998	12,261	-	-	-	-
Walkway James Carroll Expenses	3,500	3,577	3,654	3,742	3,829	3,920	4,018	4,107	4,199	4,291	23,892	10,627	32,419	14,417
Urewera Rainforest Route Upgrade Feasibility	21,000	21,496	22,551	23,761	25,046	26,436	27,992	29,700	31,604	32,492	-	-	-	-
Walkway/Cycleway Loop Design - feasibility	-	-	5,220	-	-	-	-	-	-	-	-	-	-	-
Total - Capital Works	**147,500**	**149,246**	**158,271**	**161,128**	**165,625**	**170,356**	**175,510**	**180,495**	**185,778**	**190,046**	**808,882**	**925,107**	**1,097,549**	**1,255,267**
SUBSIDISED ROADING														
RS0100. Subsidy NZTA Roading	4,804,571	5,170,206	5,332,708	5,406,788	5,682,717	5,972,333	6,162,108	6,041,891	6,395,080	6,546,164	35,919,709	41,844,935	48,829,264	58,934,980
RS0102. Subsidy NZTA Emergency Works	1,079,200	1,102,637	1,126,302	1,151,351	1,176,660	1,186,800	1,197,720	1,209,420	1,221,900	1,235,160	7,781,640	9,065,280	10,558,680	12,300,600
RS0103. Subsidy NZTA Renewals	3,622,420	3,978,062	4,348,003	3,021,765	2,409,809	2,551,080	2,646,714	2,545,001	3,216,450	3,016,812	19,293,779	25,119,347	33,147,933	43,608,623
Total Income	**9,506,191**	**10,250,905**	**10,807,013**	**9,579,904**	**9,269,186**	**9,710,213**	**10,006,542**	**9,796,312**	**10,833,430**	**10,798,136**	**62,995,128**	**76,029,561**	**92,535,877**	**114,844,203**
RS2000. CONSULTANCY - MAINTENANCE	974,059	1,023,539	1,054,909	975,997	1,133,384	1,156,960	1,044,680	1,102,608	1,249,930	1,260,172	6,211,660	7,443,072	9,382,406	10,930,270
RS2030. Depreciation Bridges	770,242	883,992	964,362	1,014,986	1,114,069	1,166,577	1,214,307	1,327,911	1,390,061	1,448,137	8,257,209	10,309,842	12,781,249	15,986,185
RS20301. Depreciation Roading	1,859,699	1,977,392	1,977,392	1,977,392	2,121,281	2,121,281	2,121,281	2,298,376	2,298,376	2,298,376	11,649,630	11,800,998	11,992,851	12,208,685
RS2200. CONSULTANCY - TRAFFIC SERVICES	5,000	5,110	5,220	5,345	5,470	5,600	5,740	5,890	6,050	6,220	54,820	87,838	130,090	205,660
RS2900. ROAD LEGALISATION	25,000	25,550	26,100	26,725	27,350	28,000	28,700	29,450	30,250	31,100	170,650	198,800	231,550	269,750
RS3000. SEALED PAVEMENT MAINTENANCE	478,000	564,144	590,904	609,330	611,546	592,480	717,500	665,570	775,610	741,424	4,266,250	4,492,880	5,936,942	6,430,840

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
RS3100. UNSEALED PAVEMENT MAINTENANCE	1,007,000	1,054,704	1,105,596	1,175,900	1,203,400	1,232,000	1,262,800	1,295,800	1,331,000	1,368,400	7,508,600	8,747,200	10,188,200	11,869,000
RS3200. UNSEALED ROAD METALLING	800,000	919,800	939,600	966,376	1,016,326	1,228,640	1,448,776	1,082,582	1,176,120	1,197,972	8,614,412	7,307,888	9,002,664	10,390,770
RS3300. ROUNTINE DRAINAGE MAINTENANCE	518,000	546,770	577,332	552,673	565,598	579,040	593,516	609,026	625,570	643,148	3,529,042	4,111,184	4,788,454	5,578,430
RS3400. STRUCTURES MAINTENANCE	296,000	309,666	324,684	336,735	344,610	352,800	361,620	371,070	381,150	391,860	2,150,190	2,504,880	2,917,530	3,398,850
RS3500. TRAFFIC SERVICES MAINTENANCE	300,000	321,930	320,508	160,350	273,500	168,000	287,000	176,700	302,500	186,600	1,706,500	1,192,800	2,315,500	1,618,500
RS3550. RIVER WALKWAY/CYCLEWAY MTCE	8,000	8,176	8,352	8,552	8,752	8,960	9,184	9,424	9,680	9,952	54,608	63,616	74,096	86,320
RS3600. ENVIRONMENTAL MAINTENANCE	471,000	493,626	391,500	534,500	382,900	560,000	401,800	589,000	423,500	622,000	2,389,100	3,976,000	3,241,700	5,395,000
RS3700. LEVEL CROSSING WARNING DEVICES	4,000	4,088	4,176	4,276	4,376	4,480	4,592	4,712	4,840	4,976	27,304	31,808	37,048	43,160
RS39051. CORPORATE OVERHEADS	626,301	640,886	702,448	661,303	685,816	737,979	694,076	724,493	781,243	743,871	4,088,664	4,455,313	5,024,229	5,553,755
RS39052. ENGINEERING OVERHEADS	375,978	381,872	388,385	397,518	404,423	412,326	420,377	428,788	437,340	445,969	2,370,242	2,623,411	2,904,935	3,218,325
RS5000. 2013-14 Emerg Works District Flood Damage	570,000	582,540	595,080	609,330	623,580	638,400	654,360	671,460	689,700	709,080	3,890,820	4,532,640	5,279,340	6,150,300
RS5001. Minor Events Local Roads	97,000	99,134	101,268	103,693	106,118	108,640	111,356	114,266	117,370	120,668	662,122	771,344	898,414	1,046,630
RS6000. ROAD 38 - CONSULTANCY MTCE	15,000	16,352	16,704	42,760	43,760	44,800	45,920	47,120	48,400	49,760	273,040	318,080	370,480	431,600
RS7000. ROAD 38 - SEALED PAVEMENT MTCE	9,000	9,198	9,396	10,690	10,940	11,200	11,480	11,780	12,100	12,440	68,260	79,520	92,620	107,900
RS7100. ROAD 38-UNSEALED PAVEMENT MTCE	191,000	199,290	220,284	213,800	218,800	224,000	229,600	235,600	242,000	248,800	1,365,200	1,590,400	1,852,400	2,158,000
RS7200. ROAD 38-ROUTINE DRAINAGE MTCE	53,000	56,210	59,508	62,002	63,452	64,960	66,584	68,324	70,180	72,152	395,908	461,216	537,196	625,820
RS7300. ROAD 38 - STRUCTURES MTCE	49,000	51,100	53,244	60,933	62,358	63,840	65,436	67,146	68,970	70,908	389,082	453,264	527,934	615,030
RS7400. ROAD 38-ENVIRONMENTAL MTCE	39,000	40,880	42,804	42,760	43,760	44,800	45,920	47,120	48,400	49,760	273,040	318,080	370,480	431,600
RS7500. ROAD 38-TRAFFIC SERVICES MGMT	4,000	4,088	4,176	5,345	5,470	5,600	5,740	5,890	6,050	6,220	34,130	39,760	46,310	53,950
RS9000. ROAD 38 EMERGENCY RESPONSE	100,000	107,310	109,620	112,245	114,870	117,600	120,540	123,690	127,050	130,620	716,730	918,456	1,118,387	1,359,540
Total - Ops and Maintenance	**9,645,279**	**10,327,259**	**10,593,375**	**10,671,170**	**11,195,439**	**11,678,364**	**11,972,145**	**12,112,907**	**12,652,389**	**12,869,365**	**71,088,082**	**78,795,529**	**92,001,695**	**106,114,920**

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
Emergency Reinst. - Renewal	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	6,826,000	7,952,000	9,262,000	10,790,000
Emergency Reinst. - New	520,000	531,440	542,880	555,880	568,880	582,400	596,960	612,560	629,200	646,880	3,549,520	4,135,040	4,816,240	5,610,800
Pavement Rehabilitation	310,000	470,120	757,944	-	-	269,920	-	-	398,090	277,412	-	1,916,432	-	3,549,910
Sealed Road Resurfacing	884,000	790,006	1,085,760	801,750	806,278	667,520	1,003,352	813,998	1,249,930	1,039,984	874,000	874,000	874,000	874,000
Drainage Renewals	375,000	337,260	364,356	374,150	382,900	392,000	401,800	412,300	423,500	435,400	350,000	350,000	350,000	350,000
Structures Components Replacements	499,000	509,978	520,956	411,565	421,190	431,200	441,980	453,530	465,850	478,940	385,000	385,000	385,000	385,000
Traffic Services Renewals	69,000	75,628	84,564	69,485	71,110	72,800	74,620	76,570	78,650	80,860	65,000	65,000	65,000	65,000
Minor Improvements	2,965,000	3,342,094	3,142,588	2,426,516	1,531,600	1,568,000	1,607,200	1,636,936	1,672,580	1,709,820	14,298,315	19,719,598	27,219,998	36,942,481
Total - Capital Works	**6,622,000**	**7,056,526**	**7,499,048**	**5,639,346**	**4,781,958**	**4,983,840**	**5,125,912**	**5,005,894**	**5,917,800**	**5,669,296**	**26,347,835**	**35,397,070**	**42,972,238**	**58,567,191**

WATER SUPPLY

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WATER RETICULATION														
WR0007. SALE OF WATER WAIROA URBAN	90,000	102,800	105,300	107,900	110,700	113,700	116,900	120,300	123,900	127,800	703,100	905,190	1,059,850	1,297,775
WR00071. SALE WATER FRASERTOWN	10,000	10,280	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	70,310	90,519	105,985	129,778
WR0403. METERED WATER PENALTIES	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	7,500	7,500	7,500	7,500
WR0010. INTEREST RESERVE FUNDS URBAN	60,186	60,601	68,305	71,119	71,628	69,836	70,340	68,794	67,182	68,360	322,819	309,546	301,596	297,277
WR00101. INTEREST RESERVE FUNDS PERI URBAN	2,409	2,618	2,664	2,514	2,319	2,070	1,934	1,763	1,594	1,511	6,165	4,661	3,732	3,089
WR00102. INTEREST RESERVE FUNDS TUAI	976	1,061	1,080	1,019	940	839	784	715	646	612	2,498	1,890	1,514	1,252
WR00103. INTEREST RESERVE FUNDS F'TOWN	849	922	939	886	817	729	682	621	562	532	2,171	1,642	1,316	1,089
WR00104. INTEREST RESERVE FUNDS MAHANGA	266	290	295	278	256	229	214	195	176	167	682	516	413	342
Total - Income	**166,186**	**180,072**	**190,613**	**196,006**	**199,230**	**200,273**	**204,044**	**205,918**	**207,950**	**213,262**	**1,115,245**	**1,321,464**	**1,481,906**	**1,738,102**
WR153501. INSURANCE WAIROA	42,000	43,176	44,226	45,318	46,494	47,754	49,098	50,526	52,038	53,676	295,302	345,618	404,670	473,970
WR153505. INSURANCE WAIROA PERI URBAN	1,500	1,542	1,580	1,619	1,661	1,706	1,754	1,805	1,859	1,917	10,547	12,344	14,453	16,928
WR153510. INSURANCE FRASERTOWN	750	771	790	809	830	853	877	902	929	959	5,273	6,172	7,226	8,464
WR153515. INSURANCE TUAI	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
WR153520. INSURANCE MAHANGA	200	206	211	216	221	227	234	241	248	256	1,406	1,646	1,927	2,257
WR154099. Rated Loan Repayments on Capital	-	855	855	855	855	855	855	855	855	855	4,275	4,275	4,275	4,275
WR1540. INTEREST PUBLIC DEBT (EX WT IM	1,183	2,332	2,297	2,263	2,229	2,195	2,161	2,126	2,092	2,058	9,777	8,922	8,067	7,246
WR202501. CONSULTANCY WAIROA	10,000	-	-	-	22,140	-	-	-	-	31,950	70,310	82,290	96,350	112,850

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WR2030. Depreciation	40,519	47,916	51,691	55,557	59,524	63,598	67,786	72,098	76,537	71,603	430,609	563,579	725,799	915,805
WR20301. Depreciation Wairoa Supply	328,984	349,381	349,381	349,381	375,042	375,042	375,042	406,624	406,624	406,624	2,063,059	2,097,273	2,131,487	2,169,978
WR203099. Non Funded Depreciation	855	855	855	855	855	855	855	855	855	855	4,275	4,275	4,275	4,275
WR20351. ELECTRICITY TUAI	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
WR204016. Blue Bay Operating and Maintenance	-	30,840	31,590	32,370	33,210	34,110	35,070	36,090	37,170	38,340	210,930	246,870	289,050	338,550
WR22001. ASSET MANAGEMENT WAIROA	2,000	2,056	2,106	2,158	2,214	2,274	2,338	2,406	2,478	2,556	14,062	16,458	19,270	22,570
WR39051. CORPORATE OVERHEADS	185,689	190,013	208,265	196,066	203,334	218,800	205,783	214,801	231,627	220,547	1,212,227	1,320,933	1,489,608	1,646,605
WR39052. ENGINEERING OVERHEADS	93,995	95,468	97,096	99,379	101,106	103,082	105,094	107,197	109,335	111,492	592,561	655,853	726,234	804,581
WR39101. RATES WAIROA	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
WR39103. RATES FRASERTOWN	50	51	53	54	55	57	58	60	62	64	352	411	482	564
WR39104. RATES TUAI	50	51	53	54	55	57	58	60	62	64	352	411	482	564
WR39105. RATES MAHANGA	10	10	11	11	11	11	12	12	12	13	70	82	96	113
WR5000. WAIROA PIPELINES - OPS & MTCE	130,000	133,640	136,890	140,270	143,910	147,810	151,970	156,390	161,070	166,140	914,030	1,069,770	1,252,550	1,467,050
WR5010. WAIROA METERS - OPS & MTCE	20,000	20,560	21,060	21,580	22,140	22,740	23,380	24,060	24,780	25,560	140,620	164,580	192,700	225,700
WR5020. WAIROA SVCE CONN - OPS & MTCE	100,000	102,800	105,300	107,900	110,700	113,700	116,900	120,300	123,900	127,800	703,100	822,900	963,500	1,128,500
WR5040. CHECK HYDRANTS/FLUSHING MAINS	15,000	15,420	15,795	16,185	16,605	17,055	17,535	18,045	18,585	19,170	105,465	123,435	144,525	169,275
WR5120. WROA P/URBAN CONNEC OPS & MTCE	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
WR5200. FRASERTOWN P/LINES OPS & MTCE	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
WR5210. FRASERTOWN METERS OPS & MTCE	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
WR5220. FRASERTOWN SVCE CONN OPS & MTC	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
WR5240. FRASERTOWN RESERVOIRS -ELECT	1,059	1,089	1,115	1,143	1,172	1,204	1,238	1,274	1,312	1,353	7,446	8,715	10,203	11,951

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WR5300. TUAI PIPELINES OPS & MTCE	2,000	2,056	2,106	2,158	2,214	2,274	2,338	2,406	2,478	2,556	14,062	16,458	19,270	22,570
WR5320. TUAI SVCE CONNECT OPS & MTCE	2,000	2,056	2,106	2,158	2,214	2,274	2,338	2,406	2,478	2,556	14,062	16,458	19,270	22,570
WR5330. TUAI RESERVOIRS OPS & MTCE	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
WR5340. TUAI RESERVOIRS - ELECTRICITY	1,076	1,106	1,133	1,161	1,191	1,223	1,258	1,294	1,333	1,375	7,565	8,854	10,367	12,143
WR5400. MAHANGA PIPELINES OPS & MTCE	7,000	7,196	7,371	7,553	7,749	7,959	8,183	8,421	8,673	8,946	49,217	57,603	67,445	78,995
WR5420. MAHANGA SVCE CONN OPS & MTCE	2,000	2,056	2,106	2,158	2,214	2,274	2,338	2,406	2,478	2,556	14,062	16,458	19,270	22,570
WR5430. MAHANGA RESERVOIRS OPS & MTCE	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
WR5440. MAHANGA RESERVOIRS ELECTRICITY	2,031	2,088	2,139	2,191	2,248	2,309	2,374	2,443	2,516	2,596	14,280	16,713	19,569	22,920
Total - Ops and Maintenance	**1,010,950**	**1,077,229**	**1,110,292**	**1,114,081**	**1,185,441**	**1,196,174**	**1,201,475**	**1,261,367**	**1,298,406**	**1,331,274**	**7,056,946**	**7,862,165**	**8,844,755**	**9,950,824**
WAIROA PIPELINES RENEWALS	200,000	205,600	210,600	215,800	221,400	227,400	233,800	240,600	247,800	255,600	1,406,200	1,645,800	1,927,000	2,257,000
VALVE REPLACEMENTS	-	10,280	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	70,310	82,290	96,350	112,850
Renewals modelling	25,000	25,700	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	70,310	82,290	96,350	112,850
Condition reporting	20,000	20,560	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	70,310	82,290	96,350	112,850
Mahanga retic	25,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
Tuai retic	20,000	10,280	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	70,310	82,290	96,350	112,850
New Water Bore Take for Bluebay and new supply line	35,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Total - Capital Works	**380,000**	**277,560**	**257,985**	**264,355**	**271,215**	**278,565**	**286,405**	**294,735**	**303,555**	**313,110**	**1,722,595**	**2,016,105**	**2,360,575**	**2,764,825**
WATER TREATMENT														
WT0071. SALE WATER AFFCO	224,000	230,272	235,872	241,696	247,968	254,688	261,856	269,472	277,536	286,272	1,574,944	1,843,296	2,158,240	2,527,840

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WT00812. AFFCO DIRECT CHARGES	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
Total Income	**229,000**	**235,412**	**241,137**	**247,091**	**253,503**	**260,373**	**267,701**	**275,487**	**283,731**	**292,662**	**1,610,099**	**1,884,441**	**2,206,415**	**2,584,265**
WT1035. GENERAL EXPENSES	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
WT1075. COMMUNICATIONS-WATER TREATMENT	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
WT10751. INTERNET & EMAIL EXPENSES	1,500	1,542	1,580	1,619	1,661	1,706	1,754	1,805	1,859	1,917	10,547	12,344	14,453	16,928
WT1535. INSURANCE	36,000	37,008	37,908	38,844	39,852	40,932	42,084	43,308	44,604	46,008	253,116	296,244	346,860	406,260
WT154099. Rated Loan Repayments on Capital	-	8,072	8,072	8,072	8,072	8,072	7,072	7,072	7,072	7,072	35,360	22,024	17,990	17,815
WT2030. Depreciation Motor Vehicle	43,817	48,606	52,467	56,423	60,146	70,000	78,964	83,908	88,451	97,527	690,294	947,058	1,297,937	1,639,633
WT20301. Depreciation Treatment Plant	162,836	172,932	172,932	172,932	185,633	185,633	185,633	201,265	201,265	201,265	1,021,145	1,038,080	1,055,014	1,074,066
WT20302. Depreciation Computer Equipment	2,000	2,124	2,124	2,124	2,280	2,280	2,280	2,472	2,472	2,472	12,542	12,750	12,958	13,192
WT203099. Non Funded Depreciation	8,072	8,072	8,072	8,072	8,072	8,072	8,072	8,072	8,072	8,072	40,360	66,090	67,670	67,670
WT20351. ELECTRICITY INTAKE	50,000	51,400	52,650	53,950	55,350	56,850	58,450	60,150	61,950	63,900	351,550	411,450	481,750	564,250
WT20352. ELECTRICITY WATER TREATMENT PL	50,000	51,400	52,650	53,950	55,350	56,850	58,450	60,150	61,950	63,900	351,550	411,450	481,750	564,250
WT20353. ELECTRICITY AFFCO	20,000	20,560	21,060	21,580	22,140	22,740	23,380	24,060	24,780	25,560	140,620	164,580	192,700	225,700
WT20354. ELECTRICITY TAWHARA	50,000	51,400	52,650	53,950	55,350	56,850	58,450	60,150	61,950	63,900	351,550	411,450	481,750	564,250
WT20401. OPS-INTAKE	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
WT204012. OPS-INT-MAIN	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
WT204021. OPS-PLANT-GROUNDS	500	514	527	540	554	569	585	602	620	639	3,516	4,115	4,818	5,643
WT204023. OPS-PLANT-PUMP	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
WT204025. OPS-PLANT-SLUDGE	3,921	4,031	4,129	4,231	4,341	4,458	4,584	4,717	4,858	5,011	27,569	32,266	37,779	44,248

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WT204026. OPS-PLANT-TELEMETRY	5,346	5,496	5,629	5,768	5,918	6,078	6,249	6,431	6,624	6,832	37,588	43,992	51,509	60,330
WT204027. OPS-PLANT-WATER COMPLIANCE	8,000	8,224	8,424	8,632	8,856	9,096	9,352	9,624	9,912	10,224	56,248	65,832	77,080	90,280
WT204029. OPS-PLANT SERVICES	15,000	15,420	15,795	16,185	16,605	17,055	17,535	18,045	18,585	19,170	105,465	123,435	144,525	169,275
WT20403. OPS-PLANT-CHEM	12,000	12,336	12,636	12,948	13,284	13,644	14,028	14,436	14,868	15,336	84,372	98,748	115,620	135,420
WT204031. OPS-PROCESS CHEMICAL DOSING	16,915	17,389	17,812	18,251	18,725	19,232	19,774	20,349	20,958	21,617	118,929	139,194	162,976	190,886
WT204032. OPS-PROCESS FILTRATION	9,998	10,278	10,528	10,788	11,068	11,368	11,688	12,028	12,388	12,777	70,296	82,274	96,331	112,827
WT204033. OPS-PROCESS MONITORING-ADJUSTM	40,000	41,120	42,120	43,160	44,280	45,480	46,760	48,120	49,560	51,120	281,240	329,160	385,400	451,400
WT204034. OPS-PROCESS SLUDGE DISPOSAL	5,806	5,969	6,114	6,265	6,427	6,601	6,787	6,985	7,194	7,420	40,822	47,778	55,941	65,521
WT204036. OPS-SETTLING TANKS	8,087	8,313	8,516	8,726	8,952	9,195	9,454	9,729	10,020	10,335	56,860	66,548	77,918	91,262
WT204037. LABORATORY REGISTRATION	5,239	5,386	5,517	5,653	5,800	5,957	6,124	6,303	6,491	6,695	36,835	43,112	50,478	59,122
WT20404. PUMPING MAIN	3,000	3,084	3,159	3,237	3,321	3,411	3,507	3,609	3,717	3,834	21,093	24,687	28,905	33,855
WT204041. OPS-AFFCO PUMPING	1,069	1,099	1,126	1,153	1,183	1,215	1,250	1,286	1,324	1,366	7,516	8,797	10,300	12,064
WT204043. OPS-BOUNDARY-RESERVOIRS	1,600	1,645	1,685	1,726	1,771	1,819	1,870	1,925	1,982	2,045	11,250	13,166	15,416	18,056
WT204044. OPS-TAWHARA PUMPING	2,000	2,056	2,106	2,158	2,214	2,274	2,338	2,406	2,478	2,556	14,062	16,458	19,270	22,570
WT204045. OPS-WAIROA WATER COMP	10,000	10,280	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	70,310	82,290	96,350	112,850
WT204049. Ops-Tawhara Road New Pump Stn	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
WT204051. Ops-Awatere Road Pump Stn	500	514	527	540	554	569	585	602	620	639	3,516	4,115	4,818	5,643
WT204055. Ops-Hilcrest Pump Stn	500	514	527	540	554	569	585	602	620	639	3,516	4,115	4,818	5,643
WT204064. OPS-FTOWN WATER COMPLI	4,178	2,056	2,106	4,508	4,625	4,750	4,884	5,026	5,177	5,339	29,376	34,381	40,255	47,149
WT204078. Tuai Plant Servicing	2,076	1,028	1,053	2,240	2,298	2,360	2,427	2,497	2,572	2,653	14,596	17,083	20,002	23,428
WT204087. Mahanga OPS Water Compliance	550	565	579	593	609	625	643	662	681	703	3,867	4,526	5,299	6,207
WT204088. Mahanga Plant Servicing	2,100	1,028	1,053	2,266	2,325	2,388	2,455	2,526	2,602	2,684	14,765	17,281	20,234	23,699

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WT204089. Mahanga Water Chlorine Ops	1,500	1,028	1,053	1,619	1,661	1,706	1,754	1,805	1,859	1,917	10,547	12,344	14,453	16,928
WT20451. CHEM - ALUM	15,000	15,420	15,795	16,185	16,605	17,055	17,535	18,045	18,585	19,170	105,465	123,435	144,525	169,275
WT20452. CHEM-POLY	8,000	5,140	5,265	8,632	8,856	9,096	9,352	9,624	9,912	10,224	56,248	65,832	77,080	90,280
WT20454. CHEM-CHLOR	11,500	11,822	12,110	12,409	12,731	13,076	13,444	13,835	14,249	14,697	80,857	94,634	110,803	129,778
WT20455. CHEM-CAUSTIC SODA	16,000	16,448	16,848	17,264	17,712	18,192	18,704	19,248	19,824	20,448	112,496	131,664	154,160	180,560
WT20456. CHEM-PACL	50,000	51,400	52,650	53,950	55,350	56,850	58,450	60,150	61,950	63,900	351,550	411,450	481,750	564,250
WT205022. REPAIRS PLANT BUILDINGS	1,200	1,234	1,264	1,295	1,328	1,364	1,403	1,444	1,487	1,534	8,437	9,875	11,562	13,542
WT205023. REPAIRS PLANT PROCESS	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
WT205024. REPAIRS PLANT PUMP SYS	500	514	527	540	554	569	585	602	620	639	3,516	4,115	4,818	5,643
WT20503. REPAIRS SLUDGE DISP SYS	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
WT205041. REPAIRS BOUNDARY BLDG	2,500	1,028	1,053	2,698	2,768	2,843	2,923	3,008	3,098	3,195	17,578	20,573	24,088	28,213
WT205052. REPAIRS INTAKE PUMP SYS	1,500	1,028	5,265	1,619	1,661	1,706	1,754	1,805	1,859	1,917	10,547	12,344	14,453	16,928
WT2055. OPS-HEALTH & SAFETY	1,600	1,645	1,685	1,726	1,771	1,819	1,870	1,925	1,982	2,045	11,250	13,166	15,416	18,056
WT2065. MOTOR VEHICLE EXPENSES	6,500	6,682	6,845	7,014	7,196	7,391	7,599	7,820	8,054	8,307	45,702	53,489	62,628	73,353
WT20651. M/V EXPENSES - TRAILER	1,050	771	790	1,133	1,162	1,194	1,227	1,263	1,301	1,342	7,383	8,640	10,117	11,849
WT2505. SALARIES & WAGES	200,294	209,195	213,137	222,283	226,474	235,873	240,321	249,982	254,699	264,635	1,400,535	1,538,735	1,690,574	1,857,399
WT2510. A C C LEVIES	1,271	1,356	1,405	1,498	1,553	1,655	1,718	1,828	1,901	2,023	10,703	11,763	12,930	14,208
WT25201. SUPERANNUATION SUBSIDY	5,083	5,418	5,613	5,986	6,208	6,611	6,865	7,306	7,597	8,082	42,755	46,991	51,651	56,756
WT2525. STAFF TRAINING	10,000	10,160	10,330	10,520	10,710	10,910	11,120	11,340	11,570	11,810	62,480	68,670	75,480	82,940
WT2535. TRAVEL EXPENSES	3,000	3,048	3,099	3,156	3,213	3,273	3,336	3,402	3,471	3,543	18,744	20,601	22,644	24,882
WT39051. CORPORATE OVERHEADS	50,410	51,584	56,539	53,228	55,201	59,399	55,865	58,314	62,881	59,873	329,093	358,604	404,395	447,016

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WT39052. ENGINEERING OVERHEADS	18,799	19,094	19,419	19,876	20,221	20,616	21,019	21,439	21,867	22,298	118,512	131,171	145,247	160,916
WT3910. RATES	500	514	527	540	554	569	585	602	620	639	3,516	4,115	4,818	5,643
Total - Ops and Maintenance	**1,012,817**	**1,050,661**	**1,080,848**	**1,111,476**	**1,149,292**	**1,189,122**	**1,215,224**	**1,266,605**	**1,299,783**	**1,336,919**	**7,348,891**	**8,436,573**	**9,741,700**	**11,180,640**
RENEWAL EXPENDITURE	25,000	25,700	26,325	26,975	27,675	28,425	29,225	30,075	30,975	31,950	175,775	205,725	240,875	282,125
RENEW BACKWASH VALVES & CONTROL	25,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Vehicle	-	-	-	-	-	28,425	23,380	-	-	31,950	106,625	83,525	94,750	167,575
Boundary Valves - Pump Station	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Safety Improvement	10,000	10,280	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	70,310	82,290	96,350	112,850
Cleaning Inspection Reservoir	15,000	-	-	-	-	-	-	-	-	-	19,785	-	27,105	-
Sheetpile protection of intake	100,000	-	-	-	-	-	-	-	-	-	131,900	-	180,700	-
Chlorine Analyser	8,500	10,280	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	59,765	69,948	81,900	95,925
Switchboard replacement	100,000	-	-	-	-	-	-	-	-	-	-	154,400	-	-
Pipemain Condition Sampling	10,380	10,280	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	70,310	82,290	96,350	112,850
Re paint Boundary Station Building generator shed	5,000	-	-	-	-	-	-	-	-	-	6,595	-	9,035	-
Resilience Earthquake Valves and Bore Investigations	25,000	-	-	-	-	-	-	-	-	-	-	38,600	-	-
Replace lifting vinyl flooring at WTP	250,000	-	-	-	-	-	-	-	-	-	32,975	-	45,175	-
Re Roof Boundary generator room	5,000	-	-	-	-	-	-	-	-	-	5,000	-	-	-
Install new chlorine gas leak wind socks at WTP/Tawhara	3,500	-	-	-	-	-	-	-	-	-	-	-	6,325	-
Install WAN at Intake	8,000	-	-	-	-	-	-	-	-	-	10,552	12,352	14,456	16,936

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
Bluebay telemetry SCADA upgrade	30,000	-	-	-	-	-	-	-	-	-	39,570	46,320	54,210	63,510
Blue Bay water treatment upgrade includes WSP and consent	100,000	-	-	-	-	-	-	-	-	-	-	-	-	211,700
Install chlorination and monitoring of the Tuai water supply	25,000	-	-	-	-	-	-	-	-	-	-	38,600	-	-
Mahanga treatment upgrade	235,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Total - Capital Works	**765,380**	**56,540**	**57,915**	**59,345**	**60,885**	**90,960**	**87,675**	**66,165**	**68,145**	**102,240**	**729,162**	**814,050**	**947,231**	**1,063,471**

WASTEWATER

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WASTEWATER														
SG0002. FEES CONNECTIONS	100,000	102,800	105,300	107,900	110,700	113,700	116,900	120,300	123,900	127,800	703,100	822,900	963,500	1,128,500
SG00021. FEES DISPOSAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SG00071. Capital Contributions Mahia	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	-	-	-	-
SG0010. INTEREST RESERVE FUNDS WAIROA	73,563	57,481	56,198	55,918	56,965	55,669	58,560	61,258	64,597	64,436	357,609	389,817	396,532	383,151
SG00102. INTEREST RESERVE FUNDS TUAI	6,268	6,812	6,932	6,541	6,033	5,385	5,033	4,589	4,147	3,931	16,041	12,129	9,716	8,038
Total Income	**279,831.00**	**267,093.00**	**268,430.00**	**270,359.00**	**273,698.00**	**274,754.00**	**280,493.00**	**286,147.00**	**292,644.00**	**296,167.00**	**1,076,750.00**	**1,224,846.00**	**1,369,748.00**	**1,519,689.00**
SG153501. INSURANCE WAIROA	16,000	16,448	16,848	17,264	17,712	18,192	18,704	19,248	19,824	20,448	112,496	131,664	154,160	180,560
SG153515. INSURANCE TUAI	52,000	53,456	54,756	56,108	57,564	59,124	60,788	62,556	64,428	66,456	365,612	427,908	501,020	586,820
SG1540. INTEREST PUBLIC DEBT	60,947	71,927	112,621	198,693	249,647	254,982	246,673	238,365	230,056	221,747	1,114,178	997,138	1,032,885	1,330,429
WT154099. Rated Loan Repayments on Capital	-	12,692	26,056	66,541	131,578	171,440	179,968	179,968	179,968	179,968	707,320	656,422	584,860	641,637
SG1560. Valuation	-	-	10,530	-	-	11,370	-	-	12,390	-	28,570	16,440	37,940	45,860
SG2030. Depreciation	297,452	353,269	366,563	382,523	412,422	418,250	428,967	451,427	470,166	454,039	2,332,504	2,459,279	2,810,743	3,435,445
SG203031. Depreciation Mahia Scheme	130,660	138,761	138,761	138,761	148,952	148,952	148,952	161,496	161,496	161,496	819,369	832,958	846,546	861,833
SG203032. Depreciation Opoutama Scheme	29,447	31,273	31,273	31,273	33,570	33,570	33,570	36,396	36,396	36,396	184,662	187,725	190,787	194,232
SG203099. Non Funded Depreciation	12,692	26,056	66,541	131,576	171,437	179,964	179,964	179,964	179,964	179,964	1,152,805	1,252,312	1,655,684	1,986,700

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
SG204010. Operating Costs Mahia	100,000	102,800	105,300	107,900	110,700	113,700	116,900	120,300	123,900	127,800	703,100	822,900	963,500	1,128,500
SG2040101. TELEMETRY WAIROA	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
SG204012. Operating Costs Opoutama	40,000	41,120	42,120	43,160	44,280	45,480	46,760	48,120	49,560	51,120	281,240	329,160	385,400	451,400
SG20403. TESTING TUAI	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
SG2040301. RMA CONSENTS MONITORING WAIROA	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
SG204031. TESTING WAIROA	25,000	25,700	26,325	26,975	27,675	28,425	29,225	30,075	30,975	31,950	193,353	226,298	289,050	338,550
SG2040315. RMA CONSENTS MONITORING TUAI	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
SG204032. TEST RESULTS ANALYSIS	2,000	2,056	2,106	2,158	2,214	2,274	2,338	2,406	2,478	2,556	14,062	16,458	19,270	22,570
SG2065. Vehicle SG Pump Trailer Exp S797M	50	51	53	54	55	57	58	60	62	64	352	411	482	564
SG39051. CORPORATE OVERHEADS	171,650	175,648	192,520	181,244	187,962	202,258	190,226	198,562	214,115	203,873	1,120,581	1,221,069	1,376,992	1,522,119
SG39052. ENGINEERING OVERHEADS	93,995	95,468	97,096	99,379	101,106	103,082	105,094	107,197	109,335	111,492	592,561	655,853	726,234	804,581
SG3910. RATES TREATMENT PLANT	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
SG5000. WAIROA WWTP - OPS & MTCE	55,000	56,540	57,915	59,345	60,885	62,535	64,295	66,165	68,145	70,290	425,376	520,484	635,910	775,844
SG5100. WAIROA WWTP - ELECTRICITY	10,000	10,280	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	70,310	82,290	96,350	112,850
SG5300. WAIROA RETIC - OPS & MTCE	100,000	102,800	105,300	107,900	110,700	113,700	116,900	120,300	123,900	127,800	703,100	822,900	963,500	1,128,500
SG5600. WAIROA PUMP STNS - OPS & MTCE	100,000	102,800	105,300	107,900	110,700	113,700	116,900	120,300	123,900	127,800	703,100	822,900	963,500	1,128,500
SG5700. WAIROA PUMP STNS - ELECTRICITY	50,000	51,400	52,650	53,950	55,350	56,850	58,450	60,150	61,950	63,900	351,550	411,450	481,750	564,250
SG6000. TUAI - OPERATIONS & MTCE	35,000	35,980	36,855	37,765	38,745	39,795	40,915	42,105	43,365	44,730	246,085	288,015	337,225	394,975
SG6100. TUAI - ELECTRICITY	2,300	2,364	2,422	2,482	2,546	2,615	2,689	2,767	2,850	2,939	16,171	18,927	22,161	25,956

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
Total - Ops and Maintenance	**1,426,563**	**1,603,220**	**1,797,579**	**2,011,087**	**2,235,053**	**2,343,100**	**2,351,857**	**2,409,403**	**2,471,527**	**2,450,029**	**13,249,196**	**14,323,718**	**16,617,292**	**19,553,039**
DESLUDGE OXIDATION PONDS	60,000	102,800	210,600	107,900	-	-	-	-	-	-	687,300	-	941,700	-
TELEMETRY BASESETS	20,000	10,280	10,530	10,790	-	-	-	-	-	-	-	35,020	73,440	-
Infiltration Study - Night Time Flow	50,000	51,400	52,650	53,950	55,350	56,850	-	-	-	-	-	35,020	151,680	-
CCTV Infiltration Investigation	120,000	120,000	157,950	-	-	-	-	-	-	-	-	52,530	-	-
Fitzroy Plant	-	-	263,250	269,750	110,700	-	-	-	-	-	-	-	-	-
WAIROA RETICULATION - RENEWALS	300,000	257,000	263,250	269,750	276,750	284,250	-	-	309,750	-	703,100	822,900	963,500	1,128,500
Consultancy for Wairoa ww consent	750,000	102,800	52,650	-	-	-	-	-	-	-	-	-	-	2,127,200
Magnaflux Transducers	5,000	-	-	-	-	-	-	-	-	-	-	- 7,720	-	-
Infiltration Tests	50,000	-	-	-	-	-	-	-	-	-	65,950	-	90,350	-
Data verification/condition reporting	25,000	-	-	-	-	-	-	-	-	-	-	-	45,175	-
Wairoa Consent application- Consultation and legal costs	100,000	51,400	-	-	-	-	-	-	-	-	-	-	-	-
Tuai Sand Filters	20,000	-	-	-	-	-	-	-	-	-	-	30,880	-	-
Flow Meters	10,380	-	-	-	-	-	-	-	-	-	-	16,027	-	-
Step Filter	10,000	-	-	-	-	-	-	-	-	-	-	15,440	-	-
Pump station renewals	25,000	-	26,325	-	27,675	-	29,225	-	-	-	-	-	-	107,550
Project Management - Technical Coordination	-	-	210,600	-	-	-	-	-	-	-	-	-	-	-

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
Dedicated Generators in each pump station	-	154,200	-	107,900	110,700	-	116,900	-	185,850	-	-	583,750	494,150	-
Separate rising main for N Clyde and A park	200,000	-	-	-	-	-	-	-	-	-	-	-	-	-
New rising main from Kopu to pilot Hill	-	-	364,000	789,750	200,000	-	-	-	-	-	-	-	-	-
Outfall - (Lowe Environmental SG4026xx)	-	-	-	539,500	-	-	-	-	-	-	-	-	-	-
Storage - (Lowe Environmental SG4026xx)	-	-	-	269,750	553,500	-	-	-	-	-	-	-	-	-
Catchment - (Lowe Environmental SG4026xx)	100,000	51,400	52,650	53,950	55,350	56,850	58,450	60,150	61,950	63,900	-	-	-	-
Construction of Plant for new Wairoa consent	-	-	-	269,750	553,500	284,250	-	-	-	-	-	-	-	2,151,000
Total Cost - Capital Works	**1,845,380**	**901,280**	**1,664,455**	**2,742,740**	**1,943,525**	**682,200**	**204,575**	**60,150**	**557,550**	**63,900**	**1,456,350**	**1,599,287**	**2,987,515**	**5,514,250**

STORMWATER

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
STORMWATER														
SD0010. Interest - Reserve Funds Wairoa	33,897	38,492	37,830	37,816	36,827	34,821	33,586	31,791	30,707	30,981	148,052	139,165	136,239	133,505
SD00103. Interest - Reserve Funds Mahia	228	248	252	238	219	196	183	167	151	143	583	442	354	292
Total - Income	**34,125**	**38,740**	**38,082**	**38,054**	**37,046**	**35,017**	**33,769**	**31,958**	**30,858**	**31,124**	**148,635**	**139,607**	**136,593**	**133,797**
SD153501. INSURANCE WAIROA	5,050	5,191	5,318	5,449	5,590	5,742	5,903	6,075	6,257	6,454	35,507	41,556	48,657	56,989
SD1540. PUBLIC DEBT COSTS	56,581	69,713	73,286	77,079	81,094	85,352	89,896	94,770	100,003	105,319	622,016	829,572	1,126,410	1,580,981
SD154099. Rated Loan Repayments on Capital	-	6,500	11,126	13,709	16,457	19,375	22,477	25,787	29,333	33,135	230,833	371,575	571,463	847,257
SD2022. STORMWATER DISCHARGE RESOURCE CONSENTS	5,000	5,140	5,265	5,395	5,535	5,685	5,845	6,015	6,195	6,390	35,155	41,145	48,175	56,425
SD2200. ASSET MANAGEMENT	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
SD2030. Depreciation	3,557	7,183	8,499	9,848	11,231	24,307	37,458	38,962	40,510	41,909	250,318	370,583	456,169	621,064
SD20301. Depreciation Wairoa	171,053	181,658	181,658	181,658	195,000	195,000	195,000	211,422	211,422	211,422	1,072,673	1,090,463	1,108,252	1,128,266
SD203099. Non Funded Depreciation	6,500	11,126	13,709	16,457	19,375	22,477	25,787	29,333	33,135	37,056	255,137	406,129	620,491	946,039
SD39051. CORPORATE OVERHEADS	97,311	99,577	109,142	102,750	106,558	114,663	107,842	112,568	121,385	115,579	635,274	692,242	780,637	862,912
SD39052. ENGINEERING OVERHEADS	37,598	38,187	38,838	39,752	40,442	41,233	42,038	42,879	43,734	44,597	237,024	262,341	290,494	321,832
SD5000. WAIROA RETIC - OPS & MTCE	40,000	41,120	42,120	43,160	44,280	45,480	46,760	48,120	49,560	51,120	281,240	329,160	385,400	451,400
SD5100. WAIROA OPEN DRAINS OPS & MTCE	10,000	10,280	10,530	10,790	11,070	11,370	11,690	12,030	12,390	12,780	70,310	82,290	96,350	112,850
SD5300. WAIROA PUMPS - ELECTRICITY	2,000	2,056	2,106	2,158	2,214	2,274	2,338	2,406	2,478	2,556	14,062	16,458	19,270	22,570

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
SD6000. TUAI RETIC - OPS & MTCE	1,000	1,028	1,053	1,079	1,107	1,137	1,169	1,203	1,239	1,278	7,031	8,229	9,635	11,285
Total - Ops and Maintenance	**436,650**	**479,788**	**503,704**	**510,362**	**541,061**	**575,232**	**595,372**	**632,772**	**658,880**	**670,872**	**3,753,611**	**4,549,972**	**5,571,037**	**7,031,155**
MAHIA BCH PIPELINES RENEWALS	30,000	154,200	-	-	-	-	-	-	-	-	-	-	-	-
Deterioration modelling	5,000	5,140	-	-	-	5,685	-	-	-	6,390	-	82,290	-	112,850
CCTV	-	-	-	-	-	56,850	58,450	-	-	-	74,800	-	102,550	-
Discharge consent	50,000	-	-	-	-	-	-	-	-	-	-	-	-	-
PIPING OPEN DRAINS - WAIROA	225,000	231,300	129,168	137,387	145,886	155,084	165,507	177,304	190,097	196,081	1,215,217	1,727,858	2,451,711	3,480,940
Total - Capital Works	**385,000**	**493,440**	**234,468**	**245,287**	**256,586**	**331,319**	**340,857**	**297,604**	**313,997**	**330,271**	**1,993,117**	**2,633,048**	**3,517,761**	**4,722,290**

WAIROA AIRPORT

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
AIRPORT														
WA0002. FEES LANDING CHARGES	28,000	28,560	29,120	29,736	30,408	31,108	31,808	32,564	33,376	34,216	184,380	208,600	235,900	266,784
WA0006. RENT FACILITIES	7,500	7,650	7,800	7,965	8,145	8,333	8,520	8,723	8,940	9,165	49,388	55,875	63,188	71,460
Total - Income	**35,500**	**36,210**	**36,920**	**37,701**	**38,553**	**39,441**	**40,328**	**41,287**	**42,316**	**43,381**	**233,768**	**264,475**	**299,088**	**338,244**
WA1035. GENERAL EXPENSES	1,000	1,020	1,040	1,062	1,086	1,111	1,136	1,163	1,192	1,222	6,585	7,450	8,425	9,528
WA1540. Internal Interest New Capital Works	2,786	5,143	9,171	8,400	7,629	6,857	6,086	5,314	4,543	3,772	16,332	72,400	79,730	106,142
WA154099. Rated Loan Repayments on Capital	-	10,714	10,714	19,285	19,285	19,285	19,285	19,285	19,285	19,285	96,425	17,142	-	-
WA1535. INSURANCE	2,400	2,448	2,496	2,549	2,606	2,666	2,726	2,791	2,861	2,933	15,804	17,880	20,220	22,867
WA2015. CLEANING	6,000	6,120	6,240	6,372	6,516	6,666	6,816	6,978	7,152	7,332	43,461	49,170	55,605	62,885
WA2025. CONSULTANCY	12,000	10,200	8,320	12,744	13,032	13,332	13,632	13,956	14,304	14,664	79,020	89,400	101,100	114,336
WA20261. ASSET MANAGEMENT	1,000	1,020	1,040	1,062	1,086	1,111	1,136	1,163	1,192	1,222	6,585	7,450	8,425	9,528
WA20271. Flight Tracking & Reporting	9,600	9,792	9,984	10,195	10,426	10,666	10,906	11,165	11,443	11,731	63,216	71,520	80,880	91,469
WA2030. Depreciation Buildings	46,571	35,051	40,688	46,602	51,320	53,682	59,859	60,329	73,393	68,119	407,761	645,908	839,615	1,035,376
WA20301. Depreciation Runway	7,227	7,227	7,227	7,227	7,227	7,227	7,227	7,227	7,227	7,227	36,135	36,135	36,135	36,135
WA203099. Non Funded Depreciation	10,714	10,714	19,285	19,285	19,285	19,285	19,285	19,285	19,285	19,285	111,811	225,711	238,800	285,964

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WA2035. ELECTRICITY	4,000	4,080	4,680	4,779	4,887	5,000	5,112	5,234	5,364	5,499	29,633	33,525	37,913	42,876
WA2040. MAINTENANCE: BUILDINGS	2,500	2,550	2,600	2,655	2,715	2,778	2,840	2,908	2,980	3,055	16,463	18,625	21,063	23,820
WA20402. MAINTENANCE: GRASSED AREAS	15,000	15,300	15,600	15,930	16,290	16,665	17,040	17,445	17,880	18,330	98,775	111,750	126,375	142,920
WA20403. MAINTENANCE: NAVIGATION EQUIP	5,000	5,100	5,200	5,310	5,430	5,555	5,680	5,815	5,960	6,110	32,925	37,250	42,125	47,640
WA20404. MAINTENANCE: RUNWAY & APRON	10,000	10,200	10,400	10,620	10,860	11,110	11,360	11,630	11,920	12,220	65,850	74,500	84,250	95,280
WA2050. REPAIRS & MTCE DRAINAGE	5,000	5,100	5,200	5,310	5,430	5,555	5,680	5,815	5,960	6,110	32,925	37,250	42,125	47,640
WA39051. CORPORATE OVERHEADS	12,124	12,406	13,598	12,802	13,276	14,286	13,436	14,025	15,123	14,400	79,149	86,247	97,260	107,510
WA39052. ENGINEERING OVERHEADS	9,399	9,547	9,710	9,938	10,111	10,308	10,509	10,720	10,933	11,149	59,256	65,585	72,623	80,458
Total - Ops and Maintenance	**162,321**	**163,732**	**183,193**	**202,127**	**208,496**	**213,144**	**219,751**	**222,247**	**237,998**	**233,665**	**1,298,110**	**1,704,898**	**1,992,668**	**2,362,374**
RenEx - Runway Lighting	150,000	-	-	-	-	-	-	-	-	-	215,400	-	-	330,150
Building renewals	10,000	10,220	10,440	10,670	10,920	11,170	11,440	11,730	12,020	12,330	67,610	78,780	91,750	106,850
Certification	20,000	-	10,440	-	10,920	-	11,440	-	12,020	-	40,580	31,500	55,070	42,720
Re-surfacing aprons	-	198,881	-	-	-	-	-	-	-	-	-	294,543	-	451,261
Re-surfacing Taxiways (Area A&D)	-	-	-	76,824	-	-	-	-	-	-	-	120,921	-	-
Re-Surfacing Runway Edges	-	-	-	-	-	-	-	-	86,544	-	-	44,850	-	-
Re-surfacing Taxiways (Area E)	-	-	-	-	-	26,808	-	-	-	-	-	-	158,635	-
WA4999. Future Capital Requirements	-	-	120,000	-	-	-	-	-	-	-	-	183,240	-	-
Interior mens toilets	-	-	-	-	-	-	-	-	15,698	16,103	-	-	-	-

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
Total - Capital Works	**180,000**	**209,101**	**140,880**	**87,494**	**21,840**	**37,978**	**22,880**	**11,730**	**126,282**	**28,433**	323,590	753,834	305,455	930,981

WASTE MANAGEMENT

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WASTE MANAGEMENT														
WM00021. USER CHARGES - LANDFILL	445,000	453,900	462,800	472,590	483,270	494,395	505,520	517,535	530,440	543,790	2,930,325	3,315,250	3,749,125	4,099,890
WM0008. Sundry Income	-	-	-	-	-	-	-	-	-	-	395,100	447,000	505,500	571,680
WM0100. WASTE DISPOSAL LEVY	40,000	40,800	41,600	42,480	43,440	44,440	45,440	46,520	47,680	48,880	263,400	298,000	337,000	381,120
Total Income	**485,000**	**501,900**	**504,400**	**515,070**	**526,710**	**538,835**	**550,960**	**564,055**	**578,120**	**592,670**	**3,588,825**	**4,060,250**	**4,591,625**	**5,052,690**
WM10355. WASTE LEVY PAYMENT	30,000	30,600	31,200	31,860	32,580	33,330	34,080	34,890	35,760	36,660	197,550	223,500	252,750	285,840
WM10356. ETS LEVY PAYMENTS	35,000	35,700	36,400	37,170	38,010	38,885	39,760	40,705	41,720	42,770	230,475	260,750	294,875	333,480
WM1540. Internal Loan Interest	28,952	33,063	32,228	31,622	30,777	29,929	29,081	28,232	27,689	27,145	125,014	111,007	120,421	146,565
WM15402. INTEREST-AFTERCARE PROV WAIROA	21,940	22,596	23,272	23,968	24,684	25,422	26,183	26,965	27,772	28,602	156,361	103,976	32,147	1,792
WM154099. Rated Loan Repayments on Capital	-	5,143	6,932	7,454	8,136	8,682	9,241	9,813	10,400	11,197	66,633	75,552	98,228	124,611
WM202201. RMA: LANDFILL AFTERCARE - WDC	5,000	3,060	2,080	5,310	5,430	5,555	5,680	5,815	5,960	6,110	32,925	37,250	42,125	47,640
WM202202. RMA: LANDFILL MONITORING- HBRC	10,000	10,200	10,400	10,620	10,860	11,110	11,360	11,630	11,920	12,220	65,850	74,500	84,250	95,280
WM202203. RMA: LANDFILL MONITORING - WDC	25,000	25,500	26,000	26,550	27,150	27,775	28,400	29,075	29,800	30,550	164,625	186,250	210,625	238,200
WM202500. CONSULTANCY	10,000	-	10,400	-	-	11,110	-	-	11,920	-	25,690	29,440	32,870	37,650

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WM202510. CONTRACT DOCUMENTS	10,000	-	10,400	-	-	11,110	-	-	5,960	-	38,850	21,810	49,710	27,890
WM2030. Depreciation Wairoa Landfill	83,608	83,647	83,647	83,647	83,647	83,647	83,647	83,647	83,647	83,647	418,235	418,235	418,235	418,235
WM20301. Depreciation New Cell	14,366	14,366	14,366	14,366	14,366	14,366	14,366	14,366	14,366	14,366	71,829	28,731	-	-
WM203099. Non Funded Depreciation	5,143	6,932	7,454	8,136	8,682	9,240	9,812	10,399	11,196	12,014	73,263	105,756	129,324	165,973
WM204000. LANDFILL OPERATIONS - WAIROA	275,000	280,500	286,000	292,050	298,650	305,525	312,400	319,825	327,800	336,050	1,810,875	2,048,750	2,316,875	2,620,200
WM204019. REFUSE - LITTER BINS	70,000	71,400	72,800	74,340	76,020	77,770	79,520	81,410	83,440	85,540	460,950	521,500	589,750	666,960
WM204040. RECYCLING - OPERATIONS CENTRE	220,000	224,400	228,800	233,640	238,920	244,420	249,920	255,860	262,240	268,840	1,448,700	1,639,000	1,853,500	2,156,190
WM204041. RECYCLING - STREET COLLECTION	90,000	91,800	93,600	95,580	97,740	99,990	102,240	104,670	107,280	109,980	592,650	670,500	758,250	857,520
WM204043. RECYCLING - RURAL	80,000	81,600	83,200	84,960	86,880	88,880	90,880	93,040	95,360	97,760	526,800	596,000	674,000	762,240
WM204046. Raupunga Co-Management	20,000	20,400	20,800	21,240	21,720	22,220	22,720	23,260	23,840	24,440	131,700	149,000	168,500	190,560
WM204047. Tuai Co-Management	54,000	55,080	56,160	57,348	58,644	59,994	61,344	62,802	64,368	65,988	355,590	402,300	454,950	514,512
WM204061. INCIDENTAL CLEANUPS	15,000	12,240	10,400	15,930	16,290	16,665	17,040	17,445	17,880	18,330	98,775	111,750	126,375	142,920
WM204063. MAHIA HOLIDAY CLEANUPS	10,000	9,180	8,320	10,620	10,860	11,110	11,360	11,630	11,920	12,220	65,850	74,500	84,250	95,280
WM204080. WEIGHBRIDGE - ADMIN SYSTEMS	2,500	2,550	2,600	2,655	2,715	2,778	2,840	2,908	2,980	3,055	16,463	18,625	21,063	23,820
WM204200. ANNUAL DRY GDS COLL WAIROA	10,000	10,200	10,400	10,620	10,860	11,110	11,360	11,630	11,920	12,220	65,850	74,500	84,250	95,280

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2029-33	2034-38	2039-43	2043-48
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET	5 YR BUDGET
WM207010. WASTE MINIMISATION - EDUCATION	10,000	9,180	8,320	10,620	10,860	11,110	11,360	11,630	11,920	12,220	65,850	74,500	84,250	95,280
WM2077. Environs	2,000	1,530	1,040	2,124	2,172	2,222	2,272	2,326	2,384	2,444	13,170	14,900	16,850	19,056
WM2505. Salaries & Wages	45,285	46,146	47,022	47,916	48,827	49,755	50,700	51,663	52,644	53,644	283,900	311,915	342,696	376,517
WM39051. CORPORATE OVERHEADS	127,621	130,593	143,138	134,754	139,748	150,378	141,432	147,630	159,194	151,578	833,146	907,858	1,023,786	1,131,687
WM39052. ENGINEERING OVERHEADS	65,796	66,970	68,259	69,566	70,774	72,157	73,566	75,038	76,534	78,045	414,792	459,097	508,364	563,206
Total - Ops and Maintenance	**1,376,211**	**1,384,576**	**1,435,637**	**1,444,665**	**1,476,002**	**1,536,244**	**1,532,563**	**1,568,303**	**1,629,814**	**1,637,635**	**8,852,360**	**9,751,452**	**10,873,268**	**12,234,386**
WM4001. LANDFILL ROAD SEALING	30,000	-	-	-	-	-	-	-	-	-	43,080	-	-	66,030
Recycling Centre renewals (loan to be repaid by waste levy)	20,000	20,440	20,880	21,340	21,840	22,340	22,880	23,460	24,040	24,660	135,220	157,560	183,500	213,700
Landfill Diversion Infrastructure	-	-	-	-	-	-	-	-	-	-	71,800	-	97,450	-
RTS LANDSCAPING/TREES	-	-	-	5,929	-	-	-	-	7,849	8,051	7,180	7,405	17,515	21,030
Recycling Centre Mahia	100,000	51,100	-	-	-	-	-	-	-	-	-	-	-	-
Total - Capital Costs	**150,000.00**	**71,540.00**	**20,880.00**	**27,269.00**	**21,840.00**	**22,340.00**	**22,880.00**	**23,460.00**	**31,889.00**	**32,711.00**	**257,280.00**	**164,965.00**	**298,465.00**	**300,760.00**