



INFRASTRUCTURE STRATEGY 2021-51

Te Rautaki Hangaroto 2021-51

1. INTRODUCTION TO THE INFRASTRUCTURE STRATEGY

1.1. Overview

The Whakatāne District faces a number of infrastructure challenges over the coming years. These include:

- Replacing and upgrading our infrastructure assets to ensure they are secure and resilient;
- Providing for increased population growth and planned development;
- Managing the effects of climate change and natural hazards;
- Reducing infrastructure impacts on our environment; and
- Enhancing the health and safety of our community.

Addressing all these challenges requires significant planning and investment decisions and action. Council will need to ensure that we balance affordability with the delivery of essential services and prioritisation of critical improvements that will enhance our district and help achieve our vision and communities' aspirations.

1.2. Purpose

The Infrastructure Strategy outlines how Council intends to manage infrastructure assets over the next 30 years. It outlines the Council's vision for our communities, identifies the significant infrastructure challenges and drivers in achieving that vision, and how the Council intends to address these through our long-term planning and investment.

Whakatāne District's Infrastructure Strategy focuses on the critical assets of drinking water supply; sewage treatment and disposal (wastewater); stormwater drainage - collectively known as 'three waters'; and the provision of transport connections. The Infrastructure Strategy has been developed as part of the Long Term Plan 2021-31.

1.3. Our changing context

Whakatāne is going through a time of great change, which brings an increased level of uncertainty about the future of our district. In particular, three key areas of change are:

- 1. Water reforms** are currently underway by central government, resulting in uncertainty about the future structure and operations of three waters management in our district. Given the early stages of this reform work, for the purpose of this Infrastructure Strategy, we have assumed that Council will continue to deliver our district's three waters services and maintain the associated assets.
- 2. Substantial growth** in our district was not predicted when the Council previously prepared a 30-year Infrastructure Strategy in 2018. However, the last few years have seen a significant change in our district's growth predictions. Due to this, our Council's focus over the coming three years will be to ensure we are well prepared to manage that growth prudently for the benefit of current and future ratepayers.
- 3. Climate change** projections suggest potentially significant impacts on the infrastructure in our district over the next 50-100 years and beyond. Whilst we don't currently have all the information needed to address the specific risks posed by climate change, the Council is proposing a project on Climate Change Adaptation over the next three years. This will enable us to develop a robust, community-led adaptation plan.

While we look to respond to these changes through projects included in this strategy, a focus for the coming three years will be completing comprehensive planning to enable us to be responsive and proactive in preparing for these changes through the 2024-54 Infrastructure Strategy.

1.4. COVID-19

The emergence of the COVID-19 pandemic has had a profound effect on a local, national and global scale. The Council must remain prepared to respond to any future outbreaks of COVID-19, or changes to the Ministry of Health's alert levels. A key focus during any COVID-19 related events (in addition to the Council's Civil Defence and Emergency Preparedness responsibilities) is the safe delivery of essential services and management of critical infrastructure and assets.

For the purposes of planning and budgeting, the assumption in the Long Term Plan 2021-31 is that the status of COVID-19 will not result in significant disruptions that would impact service delivery. However, if resurgences did eventuate, the Council's ability to provide a 'business-as-usual' Level of service might be affected.

Following the initial emergence of COVID-19, the Council put in place a Crisis Management Plan, reviewed Business Continuity Plans, and developed 'Control Plans' for each alert level. In the case of a COVID-19 resurgence, or changes in alert levels, these documents and advice from the Ministry of Health guide the Council's response. The Council remains vigilant with COVID-19 continuing to be an ever-present threat.

1.5. Investing to enhance the delivery of our services

Council is not proposing to significantly change any levels of service to the community as a result of the infrastructure that it provides. Our focus will be on ensuring the continuation of our renewals programme for our critical infrastructure.

We have a number of resource consents that expire in 2026, and will need to undertake investigations and infrastructure upgrades ahead of 2026 to ensure that our services maintain compliance. Further investigation will be required to understand whether any of these consent renewals will result in Level of service change to our communities. However, it is not our intention at this stage.

Council is very aware of the fact that there is population growth in the district proposed over the term of this infrastructure strategy. At this time, we are unclear on where exactly this growth will be, and what infrastructure investment will be required to service this growth. Council is committed to developing a spatial plan that will help to understand the demand for services and infrastructure in the future. The result of this will inform major decisions for our next Long Term Plan and Infrastructure Strategy.

There will be levels of service changes as a result of the following projects but these will be limited to localised areas;

- Implementing the Active Whakatāne Strategy, which will contribute to walking and cycling improvements and will increase overall safety. Mainly within the Whakatāne urban area, with some investment also in smaller rural towns.
- Re-establishing the road seal extension programme to improve health, wellbeing, and safety for rural communities.
- Implementing a new reticulated wastewater scheme for the Matatā community will help mitigate health and environmental risks and enable growth.

1.6. Planning for the Long Term

The introductory chapter to Council's Long Term Plan 2021-31 sets out the Council's strategic direction including the vision and eight priorities for the future of our district. The strategic direction has been developed to recognise community aspirations for the future of our district, and to address big challenges and opportunities facing our communities.

This infrastructure strategy seeks to address the challenges and opportunities, and deliver on the strategic direction as it pertains to Council's infrastructure assets (information about specific infrastructure challenges can be found later in this strategy).

The Council's strategic direction, and this infrastructure strategy, acknowledge that our context is changing rapidly and the resulting uncertainty means that as we learn more, our plans will need to adapt. This is not a concept new to infrastructure planning with many assets having a long life (i.e. 80- 100 years), requiring the Council to plan for, invest in, maintain and renew assets over a long-term horizon.



2. SIGNIFICANT INFRASTRUCTURE CHALLENGES

This strategy identifies five significant infrastructure challenges for the district over the next 30 years.

| | |
|--|---|
| <p>CHALLENGE ONE Ensuring the security and resilience of our infrastructure</p> | <p>A large number of the Council’s core infrastructure assets are coming to the end of their useful life and will need replacing within the 30 year period of this strategy. There are also a number of source water supply issues and vulnerabilities that need to be addressed.</p> |
| <p>CHALLENGE TWO Providing infrastructure for our growing population</p> | <p>Since 2013, the Whakatāne District has experienced increased population growth. This growth is expected to continue over the next 30 years.</p> |
| <p>CHALLENGE THREE Responding to climate change and natural hazards</p> | <p>Climate change and natural hazards are already affecting our communities, with impacts of climate change expected to increase in frequency and magnitude over time</p> |
| <p>CHALLENGE FOUR Reducing the environmental impact of our infrastructure</p> | <p>The design and operation of the Council’s infrastructure is a key contributor to our environmental footprint.</p> |
| <p>CHALLENGE FIVE Enhancing the health and safety of the community</p> | <p>The community expects certain levels of service from Council provided infrastructure and services, many of which have a strong health and safety focus.</p> |

Notes to this section

| | |
|--|--|
| <p>Key for ‘Cost Scale of Options’</p> | <p>Low Up to \$5.0 million Medium \$5.0 – \$20.0 million High Over \$20.0 million</p> |
| <p>Financial Forecasts</p> | <p>Projects proposed in the early years of the Infrastructure Strategy have a higher degree of financial and timing certainty, often due to the work being planned, scoped and estimated. Project estimates in the later years of the Infrastructure Strategy (years 11 – 30) are less certain financially and in terms of timing.</p> <p>The cost and timings defined in this strategy are the Council’s reasonable expectation of the capital investment required to maintain, grow and operate our critical infrastructure assets, based on best available information.</p> |



3. CHALLENGE ONE: Ensuring the security and resilience of our infrastructure

3.1. Introduction to challenge one

A significant proportion of Council business is in the operation and maintenance of infrastructure. The Council manages more than \$567 million of infrastructure assets (as at 1 July 2020). With much of the district's infrastructure built in the 1950s to 1970s, a large number of the Council's core infrastructure assets are coming to the end of their useful life and will need to be replaced within the 30-year period of this strategy.

The Council has robust Asset Management Plans in place for core infrastructure to ensure it's well-maintained, has a long-term prioritised programme of works and that the 'whole of life' costs are balanced and shared across multiple planning periods.

The Council undertakes continuous monitoring of its assets, including forecasting models to plan long-range renewal requirements and to ensure appropriate funding is in place.

Environmental standards continue to increase regarding the quality of water that we discharge around the district. Conforming to these higher standards will be a requirement within the term of the 2021-31 Long Term Plan for three waters services (water supply, stormwater and wastewater), which will necessitate a significant amount of work, including upgrades to our wastewater treatment plants in order to gain consents from Bay of Plenty Regional Council.

Three Water Reforms

In July 2020, the Government initiated the Three Waters Reform Programme to reform local government three waters service delivery arrangements. One of the possible outcomes of this reform is that the management and operation of the three water assets may move to another agency. The outcomes of this reform are not included in this Long Term Plan, as there are currently a number of uncertainties around the final outcome. Council's 2024-34 Long Term Plan will include any planning and investment requirements associated with the final determinations from the reform.

SUPPORTING COUNCIL STRATEGIES AND PLANS

Asset Management Plans provide an outline of the works required for each of the key asset activities in order to prudently manage infrastructure and deliver essential services to the community.

Comprehensive Stormwater Catchment Strategy outlines the best options and techniques for the future management of stormwater. It also supports Council's Comprehensive Stormwater Consent processes with Bay of Plenty Regional Council.

3.2. Significant investment decisions - New wastewater and stormwater consents required

The Council will need to obtain new wastewater consents for discharging treated wastewater, with existing consents expiring in 2026. Stormwater discharge consents will also need to be obtained over the 10 year Long Term Plan period.

The extent of the works required for new consents to meet any new compliance requirements is currently unknown. Work scheduled through the Long Term Plan 2021-31 will identify consent conditions and upgrade requirements to our infrastructure.

Date decisions required: 2025/26 for wastewater consents; 2021/31 for stormwater consents

Key options for decisions: Treatment plant upgrades

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|--|--|----------------------|
| Retain and upgrade current infrastructure i.e. oxidation ponds. | <ul style="list-style-type: none"> • Large land footprint to undertake operations. • Difficulty capturing methane emissions. • Ongoing challenges to meet odour control requirements. | Medium - High |
| Construct new package treatment plants and decommission existing infrastructure. | <ul style="list-style-type: none"> • Significant investment required that could be potentially unaffordable for the district. • Improved environmental standards and operations. • Allows partial methane capture. • May release land for other uses. | High |
| Combine various schemes into fewer systems. | <ul style="list-style-type: none"> • Adds complexity to the current system. • Possible cultural sensitivity in terms of the movement of wastewater. • May be more 'efficient'. • Potential delays to decision making due to multiple schemes and affected communities. | High |
| <p>The determination of a preferred option is subject to further scientific analysis, engagement and consultation with Council, whānau, hapū and iwi, and the community. For this Long Term Plan, the 'Retain and upgrade current infrastructure i.e. oxidation ponds' option has been included in the draft budget.</p> | | |

Significant projects and programmes

Further planning and investment will be required to meet resource consent conditions including relevant upgrades. These will inform future Long Term Plans and supporting Infrastructure Strategies. Treatment plant upgrades are based on the best available information at the time of this strategy development.

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|--|---|---------------|----------------|----------------|----------------|
| Wastewater resource consent process <ul style="list-style-type: none"> Whakatāne Edgecumbe Murupara Tāneatua | <ul style="list-style-type: none"> Level of service Renewal | \$1.8 million | \$2.4 million | - | - |
| Wastewater resource consent upgrades | <ul style="list-style-type: none"> Level of service | - | \$270,000 | \$7.4 million | |
| Wastewater treatment plant upgrades <ul style="list-style-type: none"> Whakatāne Edgecumbe Murupara Te Mahoe Ōhope | <ul style="list-style-type: none"> Level of service Renewal | \$1.4 million | \$5.3 million | \$17.6 million | \$11.5 million |
| Stormwater resource consent process <ul style="list-style-type: none"> Edgecumbe Matatā Murupara Ōhope Tāneatua Te Teko Te Mahoe Whakatāne | <ul style="list-style-type: none"> Level of service | \$370,000 | \$2.18 million | \$370,000 | \$1.7 million |
| Stormwater study | <ul style="list-style-type: none"> Level of service | \$100,000 | - | \$5.6 million | - |
| Water supply resource consent process | <ul style="list-style-type: none"> Level of service Renewal | \$30,000 | \$475,000 | - | \$530,000 |

3.3. Significant investment decisions - Renewing our ageing assets

Council has an ongoing programme of renewals for its infrastructure assets. During each Long Term Plan, Council is required to reconfirm the level of funding for these.

Date decision required: Every three years, within the Long Term Plan.

Key options for decisions

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|---|--|----------------------|
| Lower scale implementation of renewals programme. i.e. lower investment than that described in the significant projects table below. | <ul style="list-style-type: none"> • Level of service decreases – water – drinking water standards compliance and water losses. • Level of service decreases – wastewater – satisfaction, dry weather overflows and resource consent breaches. • Lower system and infrastructure standards achieved. • Increased risk of failure with operations and maintenance implications. | Medium |
| Medium scale implementation of renewals programme. i.e. investment described in the significant projects table below. This option is the preferred and most likely scenario. | <ul style="list-style-type: none"> • No change to level of service • Bring system and infrastructure up to a higher standard at a quicker pace. • Decreased risk of failure. | High |
| Higher scale implementation of renewals programme. i.e. higher investment than that described in the significant projects table below. | <ul style="list-style-type: none"> • Level of service – increases water. • Level of service – increases wastewater – satisfaction, dry weather overflows and resource consent breaches. • Deliver robust fit-for purpose system and infrastructure. • Decreased operational and maintenance costs over time. • Significant investment required that could be potentially unaffordable for the district. | High |

Significant projects and programmes

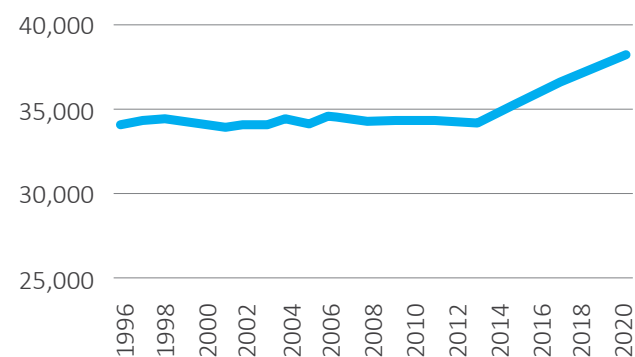
| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|--|---|----------------|---------------|----------------|----------------|
| Transport renewals <ul style="list-style-type: none"> • Roads • Structures • Drainage • Traffic • Footpaths and parking | <ul style="list-style-type: none"> • Renewal | \$17.3 million | \$48 million | \$109 million | \$121 million |
| Wastewater mains and network renewals <ul style="list-style-type: none"> • Whakatāne • Equalised • Ōhope | <ul style="list-style-type: none"> • Renewal | \$900,000 | \$9.3 million | \$26.8 million | \$21 million |
| Water network renewals | <ul style="list-style-type: none"> • Renewal | \$2.4 million | \$9.0 million | \$14.6 million | \$18.8 million |

4. CHALLENGE TWO: Providing infrastructure for our growing population

4.1. Introduction to challenge two

The Whakatāne district's population trend over the past two decades was a static and/or reducing population. This differed geographically. This trend has dramatically reversed in the past seven years, with the district seeing significant lifts in property values, high property demand, and consistent annual increases in the population.

Actual district population 1996 - 2020



Analysis suggests the district is experiencing a housing shortage and will need approximately 1,200 new dwellings within the next 10 years. A total of 3,600 new dwellings will be required over the next 30 years.

While the Council has most of the infrastructure necessary to service a stable population base, pressure for new and improved assets and services has come from population growth.

Planning for this future development will require investment in upgrades and extensions to existing infrastructure as well as the provision of new infrastructure to service new development areas.

Additionally, new investment in drinking water supply and wastewater (sewage) treatment, along with improvements to the quality of stormwater and wastewater outfalls/discharges is required over the next 10 year period. Furthermore, renewal of wastewater consents in 2026 will likely result in the need to comply with increased standards regarding wastewater treatment and discharge.

There is some capacity within the Council's current infrastructure system to manage increased service demand in the short-term. However, timely planning and implementation of growth-related projects are required throughout the Long Term Plan 10-year period to manage ongoing and increased demand.

Currently, Whakatāne / Ōhope drinking water is supplied from one river source with capacity available for just over 24 hours worth of water storage. These current constraints pose a risk to service levels, should the projected future growth and development materialise, increasing the demands on this service. To reduce this risk, Council is investigating significant investment in an alternative water supply in 2031-39 at a cost of \$150 million (including inflation).

The National Policy Statement on Urban Development (NPS-UD) requires Councils to provide sufficient land for residential and business

development that is zoned appropriately and has the necessary infrastructure in place. This has financial implications for the Council due to new infrastructure needing to be constructed before costs can be recouped, either through rates or development and/or financial contributions.

Council is yet to identify specific locations for future development. However, the Council is currently working with our regional partners on a Future Development Strategy and Eastern Bay of Plenty Spatial Plan, which will identify locations within the district and wider Eastern Bay of Plenty to be considered for future development. This work will be completed in 2021/22.

Supporting Council strategies and plans

- **Whakatāne District Plan** provides an outline for each of the key asset activities of the works required to prudently manage infrastructure and deliver essential services to the community.
- **Future Development Strategy (in development)** will set out how sufficient development capacity will be provided for across the Whakatāne District in the medium-term and long-term.
- **Eastern Bay of Plenty Spatial Plan (in development)** will set out a comprehensive long-term strategy for the future growth and development of Whakatāne.
- **Whakatāne Access Strategy (in development)** will guide future decisions regarding vehicular movement into and around the Whakatāne township, with an intent to reduce single occupancy vehicle use.

4.2. Significant investment decisions - Upgrade three waters infrastructure to meet higher standards and create new assets to provide for growth

Higher quality standards are required for each of the three water services in the 2021-31 Long Term Plan term. Also, many of the assets are either nearing the end of their life or require capacity upgrades and/or expansions in order to manage the forecast growth and development in some communities.

To respond to these pressures, Council is investigating significant investment in an alternative water supply in 2031-39 at a cost of \$150 million.

Date decisions required: from 2023/24

Key options for decisions

New equalised water source and treatment plant

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|---|---|----------------------|
| Retain and upgrade current infrastructure | <ul style="list-style-type: none"> Vulnerability to seismic risk not resolved. Significant upgrade required to existing aged plant. | Medium - High |
| Construct new treatment plants and decommission existing infrastructure | <ul style="list-style-type: none"> New plant able to accommodate future drinking water standards. Meet new environmental discharge standards. Significant investment required that could be potentially unaffordable for the district. | High |
| Interlink various existing schemes | <ul style="list-style-type: none"> Increased resilience of multiple drinking water sources. High cost of interlinking trunk mains. Significant investment required that could be potentially unaffordable for the district. | High |
| <p>The determination of a preferred option is subject to further scientific analysis, engagement and consultation with Council, whānau, hapū and iwi, and the community. For this Long Term Plan, the 'Construct new treatment plants and decommission existing infrastructure' option has been included in the draft budget.</p> | | |

New equalised wastewater treatment plants

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|--|--|----------------------|
| Retain and upgrade current infrastructure i.e. oxidation ponds | <ul style="list-style-type: none"> • Large land footprint to undertake operations. • Difficulty capturing methane emissions. • Ongoing challenges to meet odour control requirements. | Medium- High |
| Construct new package treatment plants and decommission existing infrastructure. | <ul style="list-style-type: none"> • Significant investment required that could be potentially unaffordable for the district. • Improved environmental standards and operations. • Allows partial methane capture. • May release land for other uses. | High |
| Combine various schemes into fewer systems. | <ul style="list-style-type: none"> • Adds complexity to the current system. • Possible cultural sensitivity in terms of the movement of wastewater. • May be more 'efficient'. • Potential delays to decision making due to multiple schemes and affected communities. | High |
| <p>The determination of a preferred option is subject to further scientific analysis, engagement and consultation with Council, whānau, hapū and iwi, and the community. For this Long Term Plan, the 'Retain and upgrade current infrastructure i.e. oxidation ponds' option has been included in the draft budget.</p> | | |

Significant projects and programmes

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|--|--|-----------|----------------|-----------------|-------------|
| New equalised water source and treatment plant | <ul style="list-style-type: none"> • Level of service • Growth | - | \$3.3 million | \$146.5 million | - |
| New equalised wastewater treatment plants | <ul style="list-style-type: none"> • Level of service • Growth | - | \$38.6 million | \$26.9 million | - |

4.3. Significant investment decisions - Upgrade Landing Road and Keepa Road

Landing Road is the key arterial into and through Whakatāne town centre and surrounding urban areas. It is a key connector to surrounding Whakatāne communities and neighbouring districts. Landing Road requires investment as the district grows to ensure the route remains efficient in the movement of people and goods. The Access Whakatāne Strategy may identify other improvement opportunities in response to traffic congestion around the Whakatāne Bridge.

The bridge into Whakatāne town continues to be of high community interest because of peak congestion and vulnerability to natural hazards. The bridge is a central government asset as part of the state highway network, but is not a high priority for Waka Kotahi NZ Transport Agency among other transport challenges facing our country. This means funding for a solution would have to come from our ratepayers. For this reason, we have not included budget for a new or improved bridge into our Long Term Plan - it is simply unaffordable. However, as a key priority for our community, we will continue to strongly advocate our concerns to Waka Kotahi around resilience and growth.

Keepa Road is located on the edge of the Whakatāne urban area and is the main access to the business and residential growth areas of Coastlands and Piripai. It will also support the new Boat Harbour Development on the Whakatāne riverfront. Keepa Road requires investment to upgrade the road's overall network function and capacity to support the district's growth.

Date decisions required: 2021/22

Key options for decisions

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|--|--|----------------------|
| Continue with current levels of service for maintenance and operations programme on strategically identified transport corridors. | <ul style="list-style-type: none"> Decreased Level of service as use increases resulting in increased congestion and efficiency issues. Increased impacts on operations and maintenance of key strategic routes. Does not plan or cater for projected growth. | Low |
| Increase levels of service including improvements, maintenance and operations on strategically identified transport corridors. This options is preferred as the most likely scenario. | <ul style="list-style-type: none"> Caters to and plans for projected growth. Ensures efficient movement of people and goods within and through Whakatāne. Meets Waka Kotahi NZ Transport Agency classification standards and customer levels of service. | Medium |

Significant projects and programmes

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|--|--|---------------|---------------|-------------|-------------|
| Landing Road roundabout upgrade | <ul style="list-style-type: none"> Level of service Growth | \$2.1 million | - | - | - |
| Urban arterial route and intersection Improvements | <ul style="list-style-type: none"> Level of service Growth | \$2.2 million | - | - | - |
| Keepa Road upgrade | <ul style="list-style-type: none"> Growth | \$390,000 | \$3.6 million | - | - |



5. CHALLENGE THREE: Responding to climate change and natural hazards

5.1. Introduction to challenge three

Climate change is already affecting our communities with impacts expected to increase in magnitude and extent over time. Climate change risks are likely to be significant in parts of the Whakatāne District, such as inundation and erosion risk to our coastal areas. Large parts of the district are low-lying and susceptible to flooding, while periods of drought and extreme temperatures are also impacting our three waters operations.

In addition to climate change, natural disasters and events also pose a serious challenge for the Whakatāne District and often result in significant ongoing costs. Council needs to ensure our infrastructure networks can withstand these events and don't fail.

As much of the Rangitāiki Plains is low-lying, changes to groundwater levels could have a significant impact on Council's transport and three waters infrastructure and assets. Within the next two years, Council will identify potential effects of climate change on our infrastructure; for example, coastal inundation and groundwater levels in the district.

Through the development of the Comprehensive Stormwater Catchment Strategy, Council has been investigating options to manage stormwater including increasing capacity of our network to manage more severe and more frequent events.

Supporting council strategies and plans

Climate Change Strategy provides clear direction, including a range of action plans that identify initial actions the Council is committed to undertaking over the short-term, medium-term and long-term to increase the resilience of our transport and three waters infrastructure against the potential impacts of climate change.

Climate Change Adaptation Plan (proposed) will build on the Climate Change Strategy and identify communities and Council infrastructure at highest risk from climate change, prioritise risk and identify appropriate community-led adaptation plans and works required to Council's infrastructure. This will inform the Infrastructure Strategy 2024-54.

Comprehensive stormwater catchment strategy outlines the best options and techniques for the future management of stormwater. It also supports Council's Comprehensive Stormwater Consent processes with Bay of Plenty Regional Council.

5.2. Significant investment decisions - Manage security of reservoirs against natural hazards

Council's water reservoirs are coming to the end of the asset life cycle and are susceptible to natural hazard events, such as earthquakes.

Date decisions required: 2021/22

Key options for decisions

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|---|--|----------------------|
| Current levels of service maintained with no intervention. | <ul style="list-style-type: none"> Relatively frequent outages – 'no water' events. Frequent 'low pressure' events. Inability to plan for and cater for growth. Decreased resilience in the system as more intervention is required. | Low |
| Moderate increase to storage levels. (Moderate option is preferred as the most likely scenario). | <ul style="list-style-type: none"> Caters for and plans for projected growth. Increased resilience in the system for efficient use and access to drinking water. Fewer no water and low pressure events. | Medium |
| High increase to storage levels. | <ul style="list-style-type: none"> Water resource available at all times. Increased storage not required at this level to plan for or cater for growth. Increased costs possibly unaffordable for the district. | High |

Significant projects and programmes

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|--|---|---------------|---------------|----------------|----------------|
| Water storage schemes and renewals <ul style="list-style-type: none"> Equalised scheme Murupara Plains Otumahi | <ul style="list-style-type: none"> Level of service Renewal Growth | \$5.2 million | \$6.2 million | \$13.8 million | \$10.2 million |

5.3. Significant investment decisions - Increase stormwater levels of service in high risk areas

In the future, the Whakatāne District is projected to have longer dry periods as well as increased events of extreme rainfall. Increased flooding events across the district requires upgrades to existing infrastructure to ensure resilience and security of service.

Date decisions required: 2021/22

Key options for decisions

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|---|---|----------------------|
| Current levels of service maintained with no interventions. | <ul style="list-style-type: none"> Increased flooding events as land use intensifies and more severe and more frequent events occur. Little resilience in the system as low cost interventions not pursued. | Low |
| Moderate increases to levels of service. (This option is the preferred and most likely scenario) | <ul style="list-style-type: none"> Fewer and less severe flooding events. Caters for and plans for projected growth. Increased resilience in the system for efficient collection, treatment and discharge of stormwater. | Medium |
| High increases to levels of service. | <ul style="list-style-type: none"> Minimal flooding events at all times. Increased costs, possibly unaffordable for the district. | High |

Significant projects and programmes

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|---|---|---------------|------------|---------------|---------------|
| Whakatāne western catchment stormwater upgrade | <ul style="list-style-type: none"> • Renewal • Level of service • Growth | \$4.5 million | - | - | - |
| Whakatāne stormwater pipe and pump upgrades | <ul style="list-style-type: none"> • Level of service • Renewal | \$850,000 | \$980,000 | \$2.6 million | \$2.3 million |
| Riverside Drive stormwater pump station upgrade | <ul style="list-style-type: none"> • Level of service • Renewal | - | - | \$2.2 million | - |
| Apanui Linear Park stormwater upgrades | <ul style="list-style-type: none"> • Level of service | \$1.5 million | \$80,000 | - | - |
| Awatapu Lagoon wetland construction | <ul style="list-style-type: none"> • Level of service | \$2.1 million | - | - | - |



6. CHALLENGE FOUR: Reducing the environmental impact of our infrastructure

6.1. Introduction to challenge four

The design and operation of our existing and future infrastructure has a major impact on our environmental footprint. Council needs to minimise these impacts in the future through our infrastructure provision and operations.

Environmental standards continue to increase regarding the quality of water that we discharge into our waterways or the ocean. Council is investigating options to upgrade treatment plants to ensure that water is at or above the appropriate standard before it reaches our waterways.

These upgrades are required for the Council to gain new consents from the Bay of Plenty Regional Council. In addition, there is a strong need to provide wastewater networks for communities that are not currently serviced by a reticulated wastewater scheme, due to environmental concerns.

The largest source of emissions for the Council comes from wastewater treatment plants. Over the next 5-10 years, the Council will need to significantly upgrade the sewage treatment facilities across the district to meet more stringent environmental standards. This presents an opportunity to look at how the Council can reduce emissions from the wastewater treatment plants.

Transportation represents 14 percent of the Council's emissions and is the third largest emissions sector for the district overall. The majority of transport emissions result from petrol and diesel consumed by road transport. The Council has set ambitious targets for the organisation and the wider district to reduce environmental impacts through the reduction of harmful greenhouse gas emissions.

Supporting Council strategies and plans

Active Whakatāne Strategy encourages all active modes of transport from public transport to cyclists to pedestrians. The strategy aims to make it easier and safer for residents to travel without needing to use a car.

Climate Change Strategy and Action Plans provide clear, ambitious targets including to become a carbon zero organisation by 2030 (excluding biogenic methane). The Action Plans define specific actions to help Council achieve this target.

6.2. Significant investment decisions - New wastewater scheme

The Council has been investigating options to implement a new reticulated wastewater scheme for the Matatā community over a number of years. The scheme will help mitigate health and environmental risks from current practices, support whānau, hapū and iwi aspirations for environmental protection and increase the security and resilience of the system. Recently, further work has been undertaken to consider options that are fit for purpose.

Date decisions required: 2021/22

Key options for decisions

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|---|---|----------------------|
| Continue with the current wastewater system operations and practices in Matatā i.e. septic tanks. | <ul style="list-style-type: none"> Increased public health and environmental risks. Won't meet Bay of Plenty Regional Council regulations and compliance. Cultural sensitivities with the operations and management of wastewater. | Low |
| Implement a new solution to manage and dispose of wastewater in Matatā. (This option is the preferred and most likely scenario). | <ul style="list-style-type: none"> Increased resilience in the system, Decreased environmental and public health incidents and risks. Cultural sensitivities with the operations and management of wastewater. Meet Bay of Plenty Regional Council new standards and regulations. | High |

Significant projects and programmes

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|--------------------------|--|---------------|----------------|-------------|-------------|
| Matatā wastewater scheme | <ul style="list-style-type: none"> Level of service | \$4.4 million | \$14.6 million | - | - |

6.3. Significant investment decisions - Disposal of filtration residues

Council is reviewing its current practices of disposing of drinking water filtration residues, to meet increased standards and reduce environmental impacts.

Date decisions required: 2022/23

Key options for decisions include

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|--|--|----------------------|
| Do nothing. | <ul style="list-style-type: none"> Continuing discharge of filtration residues to the Whakatāne river. Unlikely to be consented. | Low |
| Progress sludge treatment project. (This option is the preferred and most likely scenario). | <ul style="list-style-type: none"> Meet appropriate standards and practices. | Medium |

Significant projects and programmes

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|----------------------------|--|---------------|---------------|-------------|-------------|
| Whakatāne sludge treatment | <ul style="list-style-type: none"> Level of service | \$1.9 million | \$1.1 million | - | - |

6.4. Significant investment decisions - Improving mode shift in our urban areas

As Whakatāne grows, moving people differently from private vehicles to alternative modes (public transport, cycling, walking, micro-mobility) has become increasingly important for the district, especially within and connecting our town centre and communities.

Implementing the Active Whakatāne Strategy is a key Council priority to help create a healthier, more active community, achieve our climate change targets and increase the safety of non-vehicle users getting around our district.

Date decisions required: 2021/22

Key options for decisions

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|---|--|----------------------|
| Continue with primarily roading improvement-related interventions that prioritises vehicles. | <ul style="list-style-type: none"> Not aligned with central government direction and priorities around mode shift, emission reduction and alternative transport choice. Increased congestion on key transport corridors as more people drive. Increased costs to operate and maintain the transport system over time. | Medium |
| Increase transport options and choice within Whakatāne to move people and goods. (This options is the preferred and most likely scenario). | <ul style="list-style-type: none"> Aligns with central government direction and priorities. Supports and plans for growth-related travel. Increases community's choice and options to access and be able to live, learn, work and play. | Medium |

Significant projects and programmes

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|---------------------------------|--|---------------|---------------|-------------|-------------|
| Active Whakatāne implementation | <ul style="list-style-type: none"> Level of service Growth | \$3.1 million | \$8.3 million | \$7 million | |

6.5. Significant investment decisions - Road sealing programme

Environmental impacts from unsealed roads, i.e. dust, noise and vibration, has ongoing harmful effects on people and the environment. Previous Long Term Plans have not included a reseal programme for the district's unsealed roading network. Council is looking to re-establish this programme.

Date decision required: 2021/22

Key options for decisions

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|---|---|----------------------|
| Continue with no road seal extension programme. | <ul style="list-style-type: none"> Increased noise, dust and vibration impacts to communities and businesses. No additional cost to current transportation programme. | Low |
| Re-establish a road seal extension programme within Council's transportation programme. (This option is the preferred and most likely scenario). | <ul style="list-style-type: none"> Decreased noise, dust and vibration impacts to communities and businesses, resulting in increased community wellbeing. Moderate additional cost to current transportation programme. | Medium |

Significant projects and programmes

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|------------------------|--|---------------|---------------|----------------|----------------|
| Road sealing programme | <ul style="list-style-type: none"> Level of service | \$2.3 million | \$6.3 million | \$11.2 million | \$14.3 million |



7. CHALLENGE FIVE: Reducing the environmental impact of our infrastructure

7.1. Introduction to challenge five

Our communities expect certain levels of service from Council-provided services, many of which have a strong health and safety focus. Protecting public health and keeping people safe is a high priority for the Council.

We recognise that new processes and procedures will need to be developed to fully deal with known issues such as saline source water, arsenic contamination and possible cyanobacterial contamination. The Council's storage of treated drinking water is considered to be less than desirable in terms of volume, offering less than 24 hours supply.

Improving the safety of road users is a Council priority. Some of the Council's main arterial roads are poorly aligned, have out-of-context curves and widths that are no longer appropriate for the amount of traffic they carry.

Together with poor driver behaviour, these factors have resulted in an increase in the district's predicted and actual crash risk. Regular road safety inspections are undertaken on all the district's roads, with identified safety deficiencies assessed, costed and prioritised.

Supporting Council strategies and plans

- **Transportation Activity Management Plan 2021-31** details the investment proposal for the next 10 year period. The plan supports the Council's Long Term Plan and this strategy, as well as Waka Kotahi NZ Transport Agency's National Land Transport Plan.
- **Water Supply Asset Management Plan 2021 -** helps the Council to provide and maintain efficient, reliable, safe, and sustainable water supply services.

7.2. Significant investment decisions - Road to Zero safety improvements

Waka Kotahi NZ Transport Agency has a national road safety strategy 'Road to Zero' that supports implementation of the safe systems approach. We work with Waka Kotahi to identify and deliver infrastructure and programme improvements to our roading network that present the highest level of risk to our communities. Safety improvements are an ongoing component of our Long Term Plans and work programmes.

Date decisions required: 2021/22

Key options for decisions

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|---|---|----------------------|
| No additional road safety investment. | <ul style="list-style-type: none"> Increased risk of death and serious injuries on the district's transport system. | Low |
| Increase investment in the road safety programme, prioritised to high-risk transport corridors. (This option is the preferred and most likely scenario). | <ul style="list-style-type: none"> Decreased risk of death and serious injuries on the district's transport system. Partnership opportunity with Waka Kotahi to co-fund in safety improvements. | Medium |

Significant projects and programmes

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|--|--|---------------|------------|-------------|-------------|
| 'Road to Zero' safety improvements programme | <ul style="list-style-type: none"> Level of service | \$1.8 million | - | - | - |
| 'Blueberry Curves' safety improvements | <ul style="list-style-type: none"> Level of service Growth | \$3.9 million | - | - | - |

7.3. Significant investment decisions - Improve risk and resilience of drinking water

Improving drinking water quality is an important community issue. New infrastructure will need to be developed to address known issues.

Two of Council's important water supplies have source water issues and vulnerabilities. These include arsenic contamination, salinity and potentially cyanobacterial contamination. Council wishes to address these matters. Further, drinking water storage is affected by a volumetric storage deficit and the poor condition of some storage reservoirs.

Date decisions required: 2021/22

Key options for decisions

| OPTION | IMPLICATIONS | COST SCALE OF OPTION |
|--|--|----------------------|
| Continue with current Level of service and infrastructure. | <ul style="list-style-type: none"> Continuing contamination issues. Increased risk to public health. Increasing difficulty supplying drinking water each summer. | Low |
| Moderate increase to levels of service. (This option is the preferred and most likely scenario) | <ul style="list-style-type: none"> Reduced risk of contamination. Reduced risk to public health. Ability to supply drinking water more readily each summer. | Low |
| High increase to levels of service. | <ul style="list-style-type: none"> Minimal to no risk of contaminants. Increased investment that is potentially unaffordable to the district. Increased intervention and operations are not required at this level. | Medium |

Significant projects and programmes

| PROJECT / PROGRAMME | PROJECT TYPE | YEARS 1-3 | YEARS 4-10 | YEARS 11-20 | YEARS 21-30 |
|---|---|---------------|---------------|---------------|-------------|
| Water treatment plant upgrades <ul style="list-style-type: none"> Whakatāne Equalised Murupara Plains | <ul style="list-style-type: none"> Level of service Renewal | \$6.6 million | \$1.6 million | \$2.7 million | - |
| Water resilience Braemar co-funded project | <ul style="list-style-type: none"> Level of service | \$4.2 million | - | - | - |



8. OVERALL EXPENDITURE SUMMARY

This section summarises the total capital and operational expenditure forecast for each infrastructure activity over the next 30 years, as proposed through this strategy. Council has included the four infrastructure activities that require significant investment and delivery including water supply, wastewater, stormwater and transport connections.

This strategy provides the overview of Council's most likely scenario for the management of its core infrastructure, which includes spending over \$1,012 million on capital projects and over \$1,763 million on operational costs (inflated) over the next 30 years.

This strategy is based on best information available at this time; however, the strategy will be updated in three years alongside the 2024-34 Long Term Plan. Decisions regarding major infrastructure projects will be considered in-line with the 'dates decisions required' information within this strategy.

8.1. Balancing the work programme against cost and capacity

The strategy has a focus on investment in three waters infrastructure, predominantly wastewater and drinking water activities to ensure Council delivers security and resilience of networks, meets agreed levels of service and standards, plans for increased demand through population growth and development and reduces Council's impact on our environment.

Over the next 30 years, there are a number of significant challenges and decisions required to deliver the overall plan. Addressing all of these challenges will require significant planning and investment. Council will need to ensure that we balance affordability with the delivery of essential services, and prioritise critical improvements that will enhance the district and help achieve our vision and communities' aspirations.

Ensuring that Council is able to deliver on the programme of works is another key consideration. Council has taken the following steps to try and ensure the development of an achievable work programme; prioritising our work programme, sequencing projects, building capacity within Council, managing our project pipeline, having a long-term view of rates and debt, and staying flexible.



8.2. Total projected capital expenditure 2021-2051

This graph shows the expected expenditure year-on-year up to 2051 by the main cost driver for projects (asset renewal, Level of service change or growth)

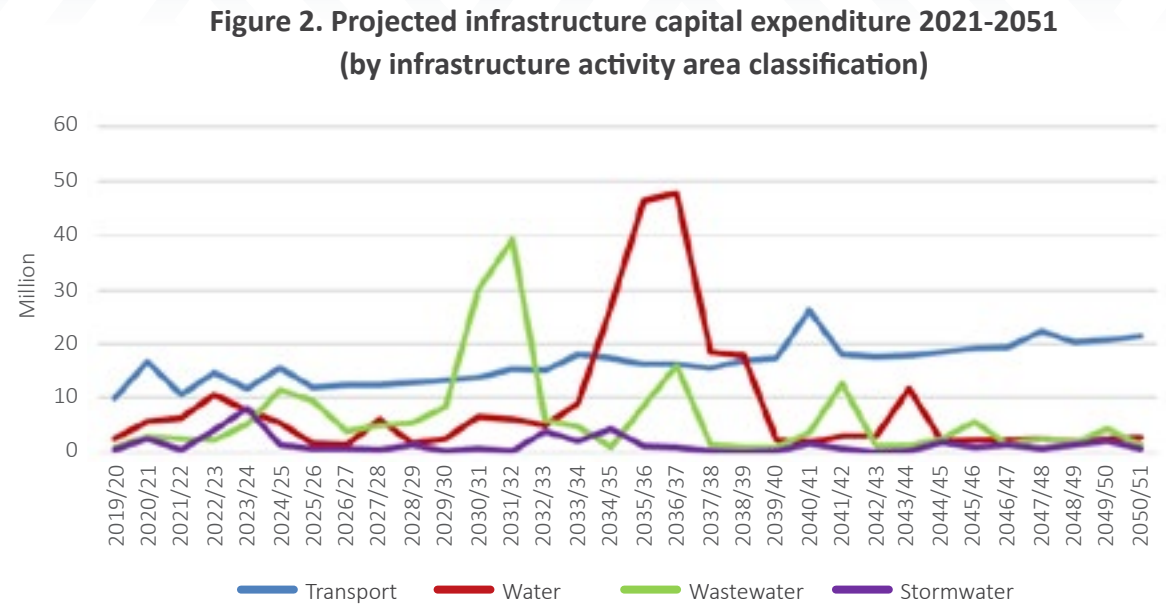
Figure 1. Total infrastructure expenditure projections 2021-2051



Figures 2 and 3 (on the following page) show the expected infrastructure expenditure year-on-year up to 2051 by infrastructure activity area classification, and expenditure type (capital and operational).

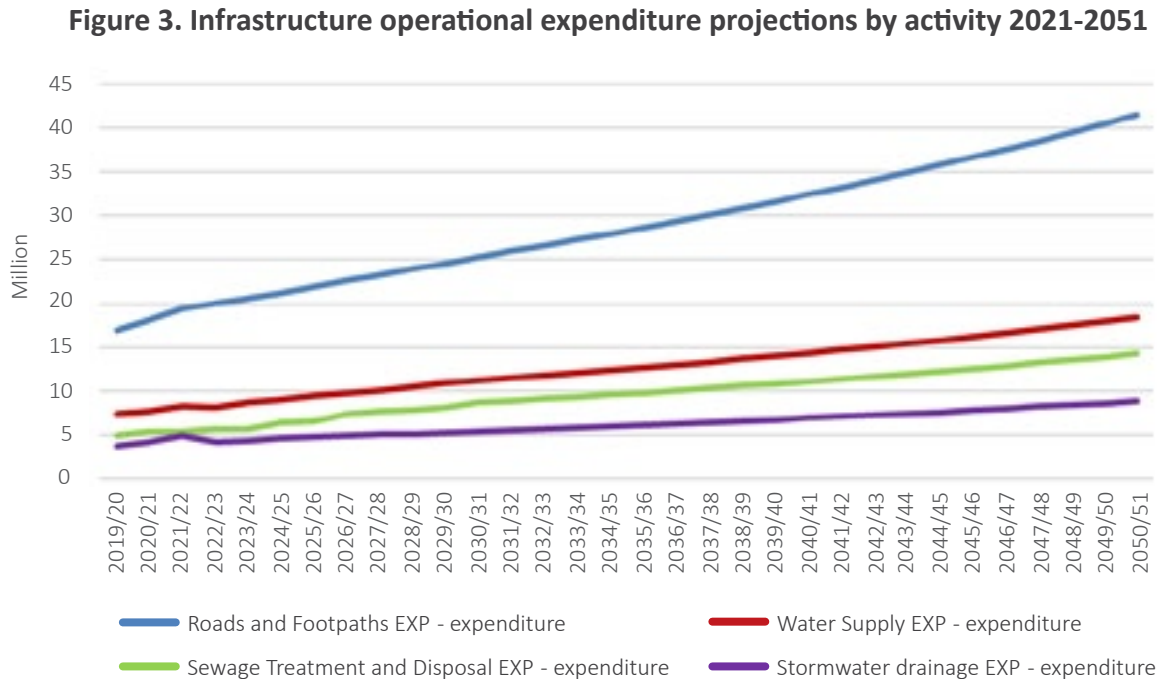
8.3. Projected capital expenditure by activity classification 2021-2051

This graph shows expected capital expenditure year-on-year up to 2051 by infrastructure activity area classification (i.e. for transport, water, wastewater, and stormwater).



8.4. Projected operational expenditure by activity classification 2021-2051

This graph shows expected operating expenditure year-on-year up to 2051 by infrastructure activity area classification (i.e. for transport, water, wastewater, and stormwater).





9. INFRASTRUCTURE ACTIVITIES - WATER SUPPLY

9.1. Overview of this activity

Council is responsible for the treatment, storage, distribution and management of the district's water supply, where a community drinking water supply scheme exists.

This Group of Activities provides safe, reliable and sustainable water supplies to our district. This currently includes provision to over 12,500 properties for domestic, industrial, commercial and agricultural use. With large areas of our district being rural and in some cases isolated, many households have independent systems supplying their own needs. Water is also provided for urban firefighting requirements.

Further information about this Group of Activities, including level of service performance measures, can be found in the 'Our Groups of Activities' section of this Long Term Plan.

9.2 Key focus

Increasing the resilience of our water supply and, where necessary, increasing the quality of water provided.

9.3. Summary context

The water supply system is made up of:

- 10 water supply schemes throughout the district (Whakatāne, Ōhope, Otumahi, Rangitāiki Plains, Tāneatua, Murupara, Matatā, Waimana, Rūātoki and Te Mahoe).
- 29 treatment plants
- 17 pump stations
- 38 reservoirs
- 118 km of trunk mains
- 421 km of mains
- 70 km of service lines
- 2,864 valves

9.4. Asset condition

The condition of the overall drinking water supply network is assessed as being of a reasonable standard. Only 13 percent has been assessed as being in poor or very poor condition. Inspection of this non-gravity asset is more difficult, hence there is a lower degree of confidence in this condition assessment. Only a small proportion of the overall asset is in the 60 years + age bracket. This is relatively young by Aotearoa New Zealand standards.

As it is a pressure network, its performance is less forgiving compared to the gravity assets. A renewal program is deployed year-on-year to renew aged or inferior assets and to cope with the demands placed on the system. A peculiarity of the system is that while the quality of the asset itself may be adequate, there are difficulties with the water sources at times. These are primarily arsenic contamination and saline intrusion in source waters. Interventions are proposed to address these issues.

In 2020, the Council carried out a condition assessment and seismic assessment of all the critical reservoirs in the district including four timber reservoirs. The visual condition assessment was undertaken in accordance with the Visual Assessment Manual guidelines provided by the New Zealand Water and Wastes Association, and the seismic resilience assessment was undertaken in accordance with NZS 3106: 2009 – Design of Liquid Storage Structures.

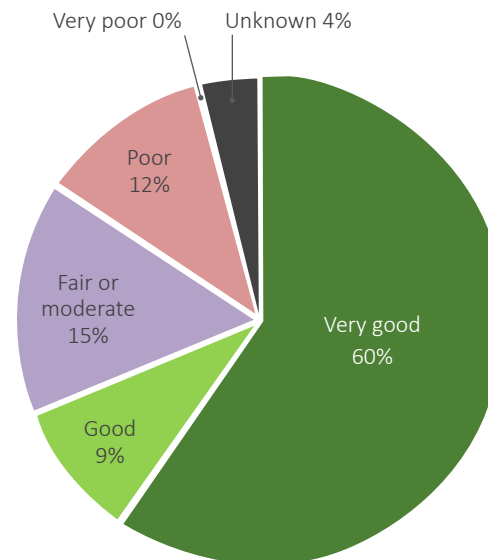
In 2020, the Council also carried out a desktop condition assessment of water, wastewater and stormwater piped assets (mains only), based on the remaining useful life and pipe material. The assessment was based on actual pipe sample data from both the Council pipe network and within the region, as well as deterioration modelling. The desktop assessment is being used to prepare asset condition assessment programs for piped assets.

The results of the desktop exercise are reflected on the tables to the right (note that the reservoir assessment results are not reflected at this time).

Water supply asset condition profile

| ASSET TYPE | UNIT | VERY GOOD | GOOD | FAIR OR MODERATE | POOR | VERY POOR | UNKNOWN (TO BE VERIFIED) |
|------------------|------|-----------|--------|------------------|--------|-----------|--------------------------|
| Trunk mains | m | 43,561 | 14,865 | 42,705 | 16,120 | 27 | 1,172 |
| Mains | m | 266,420 | 37,436 | 48,305 | 51,519 | 1,486 | 16,318 |
| Service lines | m | 53,457 | 4,466 | 2,994 | 2,581 | 44 | 6,517 |
| Pump stations | Each | 0 | 0 | 0 | 0 | 0 | 17 |
| Reservoirs | Each | 0 | 0 | 0 | 0 | 0 | 38 |
| Treatment plants | Each | 0 | 0 | 0 | 0 | 0 | 10 |

Piped water supply assets condition profile



9.5. Critical assets

The selection criteria for water supply critical assets include size and functionality of assets as set out in the table below. Further work in developing site-specific criticality is required, Council is in the process of improving the criticality criteria assessment of assets with most appropriate industry practices, and will include assets located in areas where disruptions would have a high economic impact, assets supplying customers including critical users, and assets that will have a significant environmental impact in case of failure.

Critical asset selection criteria

| ASSET TYPE | DESCRIPTION OF CRITERIA | BASE APPROACH RATING |
|------------------------|--|--|
| Pipes | <ul style="list-style-type: none"> ✓ Less than 100mmØ ✓ 100mmØ to 300mmØ ✓ Greater than 300mmØ ✓ All falling and rising mains to and from sources, reservoirs and pump stations ✓ Pipes that are important to supply critical customers ✓ Single pipes serving more than 1,000 customers ✓ Potential pipe failures which may cause significant social, environmental or economic impact | <p>Low (1)</p> <p>Medium (3)</p> <p>High (5)</p> <p>High (5)</p> <p>High (5)</p> <p>High (5)</p> <p>High (5)</p> |
| Valves | <p>Valves located along the critical water pipes</p> <p>All other valves</p> | <p>High (5)</p> <p>Low (1)</p> |
| Water pump stations | <p>Water pump stations without resilience (i.e. backup alternative power supply)</p> <p>Water pump stations with resilience (i.e. backup alternative power supply)</p> | <p>High (5)</p> <p>Medium (3)</p> |
| Water reservoirs | <p>Active water reservoirs</p> <p>Decommissioned / unused water reservoirs</p> | <p>High (5)</p> <p>Medium (3)</p> |
| Water treatment plants | All water treatment plants | High (5) |

9.6. Asset renewal

Asset renewal programmes are prepared following a number of criteria, including:

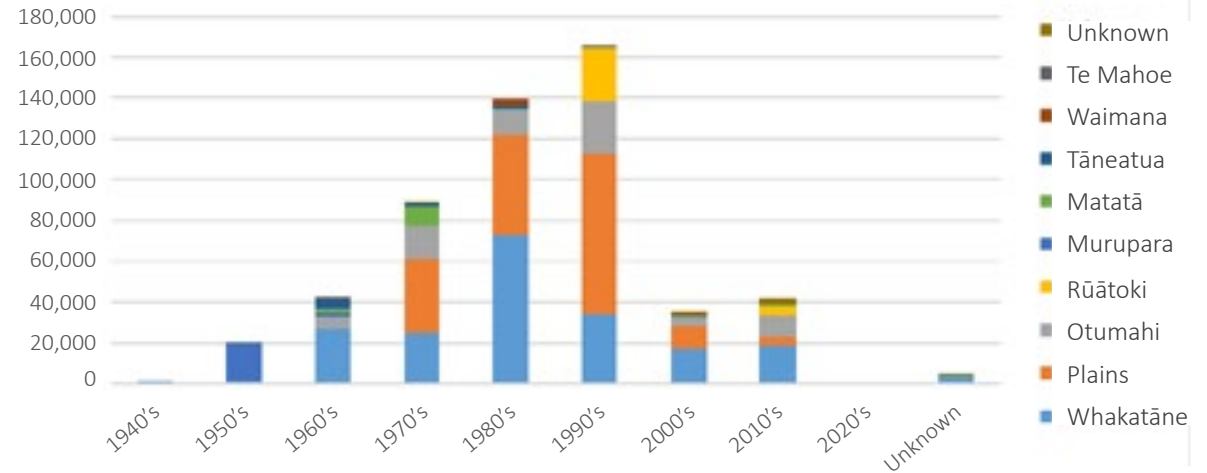
- The base life of the assets – from the asset management system
- The maintenance history and expenditure – from the asset management system and Council’s request for service (RFS) system
- The condition assessment of assets – routine inspections, pipe sampling, visual inspection, etc.
- Applying a risks-based approach – criticality of the asset, public safety.
- External factors such as:
 - Natural disaster events
 - Opportunistic working with other council department programmes i.e. transportation renewal programme, places and open spaces
 - Third-party works within the same asset corridor i.e. telecommunications, power
 - Regulatory requirements (i.e. safety improvement)
 - Construction and installation defects. Renewal prior to end-of-life but out of warranty period. This is becoming more common i.e. water meter renewals
 - Aggressive soils / environment etc.

9.7. Asset summary

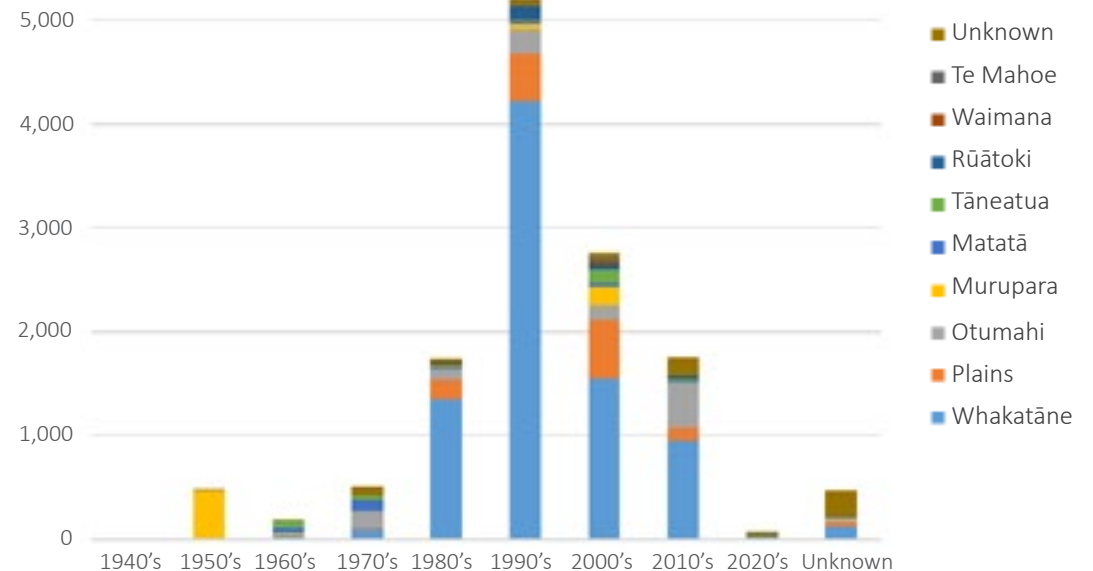
Asset data confidence and asset reliability information have been developed for various asset classes and are detailed within the water supply asset management plan.

Indicative average age of assets are shown; a more user friendly version also showing the average remaining life of each asset class will be in future strategies and is a direct correlation of the age of assets.

Pipe length and installation year for each scheme



Water connection numbers and installation year for of each scheme



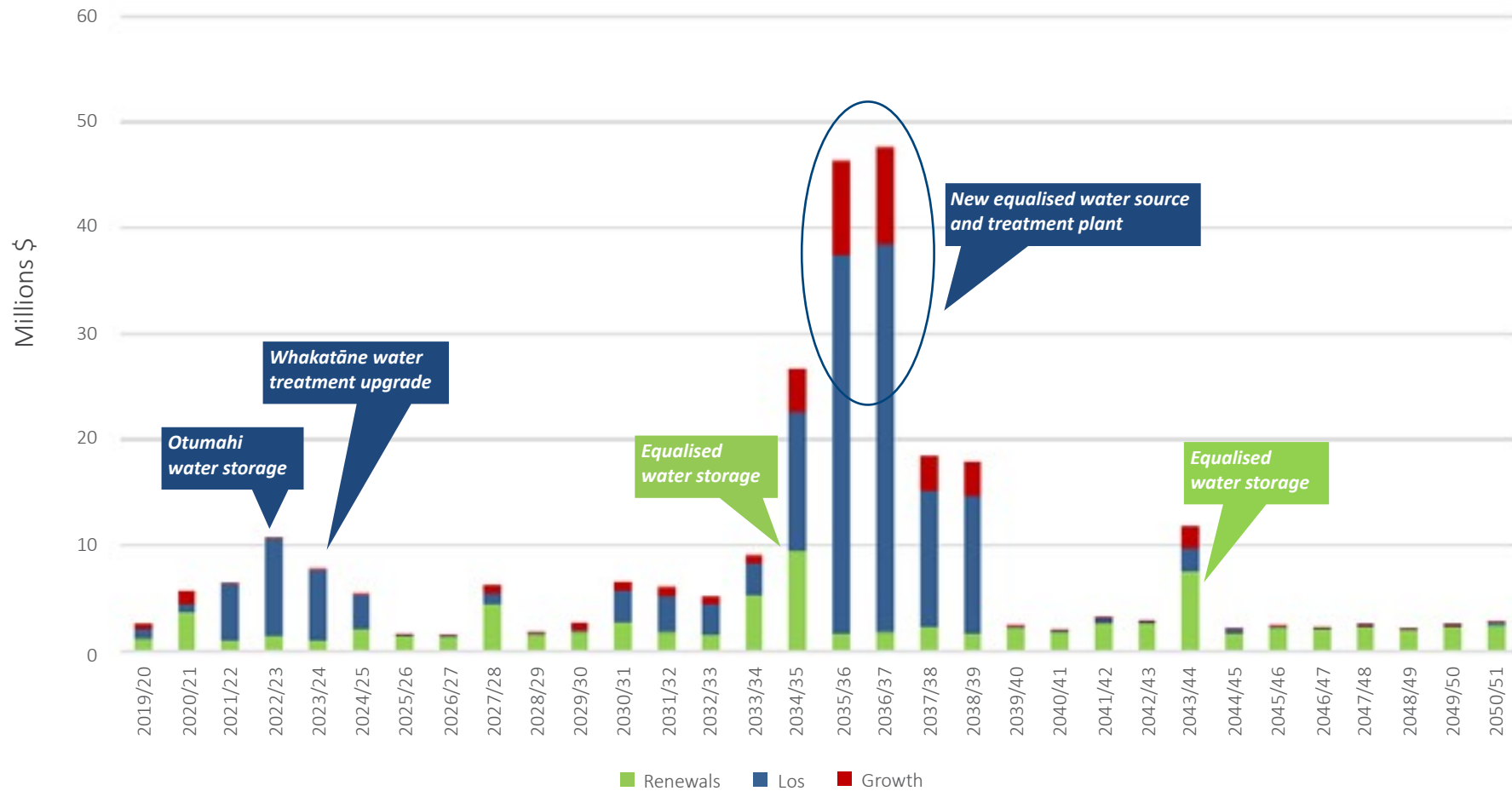
9.8. Infrastructure level of service (Los) Water supply

KEY ■ Above average performance ■ Average performance ■ Below average performance

| CUSTOMER OUTCOME | | CURRENT PERFORMANCE | INDICATOR | COMMENTS |
|--------------------------------|--|--|---------------------------------------|---|
| Safety, Quality and Resilience | Number of connections to Council water supply in the Whakatāne District. | 13,200 connections across nine public schemes (Whakatāne/Ōhope, Otumahi, Rangitāiki Plains, Tāneatua, Murupara, Matatā, Waimana, Rūātoki, Te Mahoe) | ■ | Scale of service expected to increase in line with future population growth and associated development. |
| | Satisfaction with quality of drinking water. | 71 percent in 2020 | ■ | Project included in the Long Term Plan for new water source and trial currently underway for removal of arsenic from the Braemar supply. LOS increase. |
| | Compliance with drinking water standards part 4 (bacteria compliance criteria). | Eight out of nine schemes compliant in 2020 | ■ | Further investment is included in the Long Term Plan to address this outcomes. LOS increase. |
| | Compliance with drinking water standards part 5 (protozoal compliance criteria). | Six out of nine schemes compliant in 2020 | ■ | Further investment is included in the Long Term Plan to address this outcomes. Level of service increase. |
| | Appropriate treatment systems are maintained including infection. | Appropriate treatment systems are available for all schemes except Murupara. | ■ | Community has indicated strong opposition to the treatment options put forward for Murupara. LOS will change if disinfection implemented. The disinfect/don't disinfect decision has nothing to do with investment decisions. |
| | Percentage of real water loss from Council networked reticulation system for metered schemes. | 20 percent in 2020 | ■ | Renewals programme set out in the Long Term Plan will progressively reduce water loss. LOS increase. |
| | Percentage of real water loss from Council networked reticulation system for unmetered schemes | 59 percent in 2020 | ■ | Council's programme to continue to install water meters will help to address water loss from private assets. Level of service increase. |

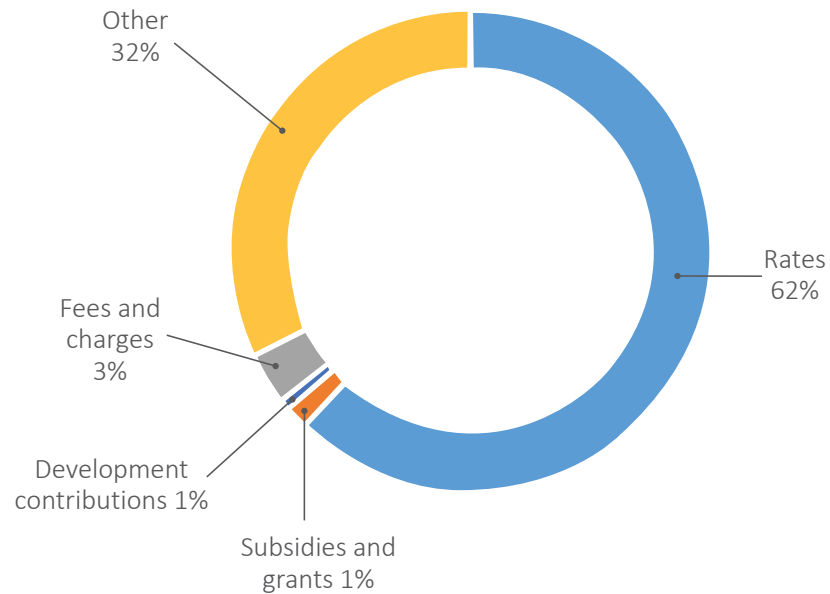
9.9. Capital expenditure

Projected capital water expenditure 2021 -2051



9.10. Funding sources

The graph below shows how the Council will fund the Water Supply group of activities during the 10 years 2021-31. Each source is rounded up or down to the closest percentage, so the total may not add up to 100 percent. The 'other' category is made up of sundry income (including internal recoveries/ overheads), internal interest, development contribution reserves, depreciation reserves, loans raised, and operational reserves. The 'rates' category represents targeted rates, as general rates are not a funding source for the Water Supply group of activities.





10. INFRASTRUCTURE ACTIVITIES - STORMWATER

10.1. Overview of this activity

Council is responsible for the collection, conveyance, treatment and disposal of the district's stormwater, where a community stormwater scheme exists.

This group of activities helps protect people and property from the impacts of flooding, as well as protects public health from the potentially adverse effects of stormwater run-off. While we do not treat stormwater run-off, we monitor stormwater discharge to ensure it meets required standards.

Further information about this Group of Activities, including level of service performance measures, can be found in the 'Our Groups of Activities' section of this Long Term Plan.

10.2. Key focus

Focus on enhancing the quality of water we are discharging into waterways and increasing capacity of our network to deal with increased extreme weather events.

10.3. Summary context

The stormwater system is made up of

- 8 stormwater schemes
- 96 km of pipes
- 21 pump stations
- 21.1 km open channels/streams
- 21 storage ponds/retention dams

10.4. Asset condition

The condition of the overall stormwater network is assessed as being of a reasonable standard. Only 10 percent has been assessed as being in poor or very poor condition. A CCTV inspection programme is underway to verify the condition of the gravity drainage elements of the network. While relatively young by Aotearoa New Zealand standards, portions of the network are now 'mature' - in the 45 to 55 years' old age bracket.

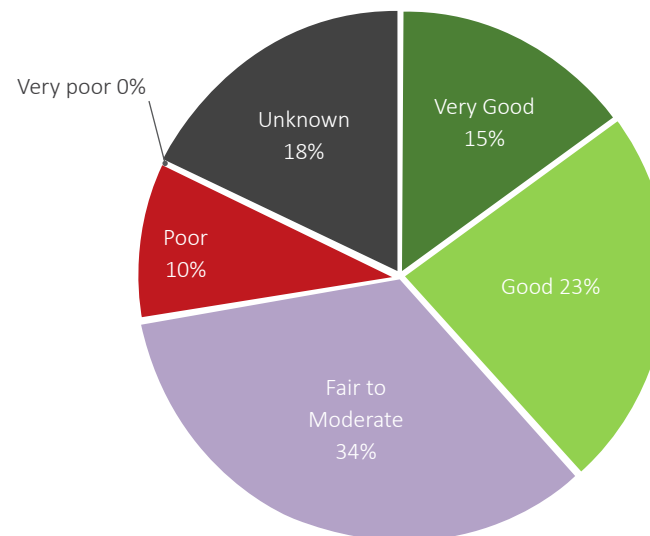
The network generally delivers as per expectations – it accepts stormwater and conveys it away. A characteristic of the stormwater system for the towns of Whakatāne and Edgumbe is that they are protected by stopbanks from the Whakatāne and Rangitāiki rivers. The stopbanks incorporate a series of floodgates and pumps. The tables below shows the condition profile for piped assets following a desktop exercise into asset condition. Note that in 2019, the Council carried out a condition assessment and capacity assessment of all the critical stormwater pump stations in the district. The results of that assessment are not reflected on the table at this time.

Stormwater asset condition profile

| ASSET TYPE | UNIT | VERY GOOD | GOOD | FAIR OR MODERATE | POOR | VERY POOR | UNKNOWN (TO BE VERIFIED) |
|------------------------------|------|-----------|--------|------------------|-------|-----------|--------------------------|
| Gravity mains | m | 13,876 | 22,304 | 32,072 | 9,392 | 0 | 17,352 |
| Rising mains | m | 572 | 287 | 540 | 28 | 0 | 0 |
| Open channels | m | 87 | 0 | 0 | 102 | 0 | 20,906 |
| Pump stations | Each | 1 | 0 | 0 | 0 | 0 | 20 |
| Storage ponds/retention dams | Each | 0 | 0 | 0 | 0 | 0 | 21 |
| Manholes | Each | 0 | 0 | 0 | 0 | 0 | 1,692 |
| Floodgates | Each | 0 | 0 | 0 | 0 | 0 | 62 |

* Quantities as per Xivic database as at 28 February 2021

Piped stormwater assets condition profile



10.5. Critical assets

The selection criteria for stormwater critical assets include size and functionality of assets as set out in Table below. Further work in developing site-specific criticality is required. Council is in the process of improving the criticality criteria assessment of assets with most appropriate industry practices, and will include assets located in areas where disruptions would have a high economic impact, assets supplying customers including critical users, and assets that will have a significant environmental impact in case of failure.

Critical asset selection criteria

| ASSET TYPE | DESCRIPTION OF CRITERIA | BASE APPROACH RATING |
|---|--|-----------------------------------|
| Pipes | Less than 150mmØ 150mmØ to 600mmØ Greater than 600mmØ | Low (1) Medium (3) High (5) |
| Open drains/ channels, stream and watercourse banks | Minor drains/channels Medium drains/channels, minor stream and watercourse banks Large drains/channels, all other stream and watercourse banks | Low (1) Medium (3) High (5) |
| Stormwater outlets | Stormwater outlet to 'dry' stream/watercourse Stormwater outlet to 'wet' stream/watercourse | Low (1) High (5) |
| Storage pond/ retention dams | Dry Wet | Low (1) High (5) |
| Manholes | Manholes on critical pipes (pipes greater than 600mmØ) All other manholes | High (5) Low (1) |
| Floodgates | Floodgates at 'dry' locations Floodgates at 'wet' active locations | Low (1) High (5) |
| Pump stations | All | High (5) |

10.6. Asset renewal

Asset renewal programmes are prepared following a number of criteria, including:

- The base life of the assets – from the asset management system
- The maintenance history and expenditure – from the asset management system and Council's request for service (RFS) system
- The condition assessment of assets – routine inspections, pipe sampling, CCTV assessment, visual inspection, etc.
- Applying a risks-based approach – criticality of the asset, public safety.
- External factors such as:
 - Natural disaster events
 - Opportunistic working with other council department programmes i.e. transportation renewal programme, places and open spaces.
 - Third-party works i.e. Bay of Plenty Regional Council, telecommunications, power
 - Regulatory requirements (i.e. safety improvement)
 - Construction and installation defects
 - Aggressive soils / environment etc.

10.7. Asset summary

Asset data confidence and asset reliability information have been developed for various asset classes and are detailed within the stormwater asset management plan. Indicative average remaining life based on asset design life is shown by the clock diagram, this is a direct correlation to the average age of assets.

Figure 1: Pipe average, pipe age and remaining life of each scheme*

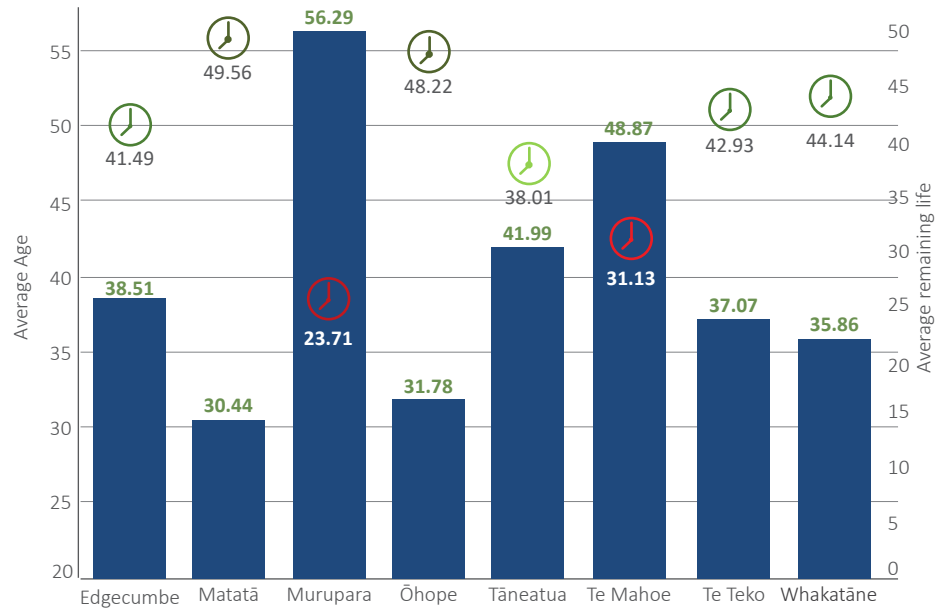
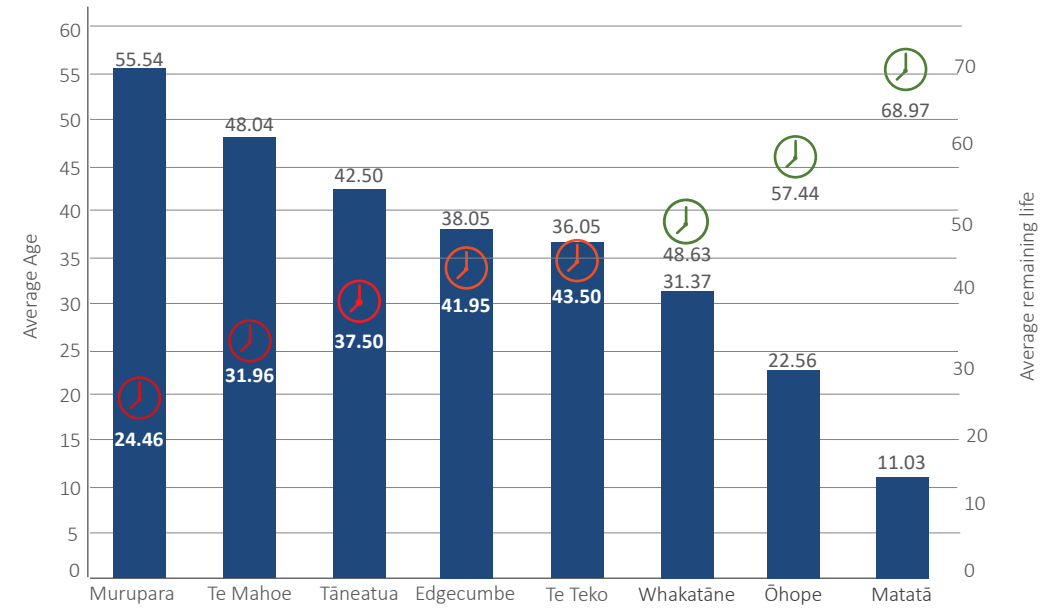


Figure 2: Manhole average, pipe age and remaining life of each scheme*



* The unknown and Plains data are not included in these figures

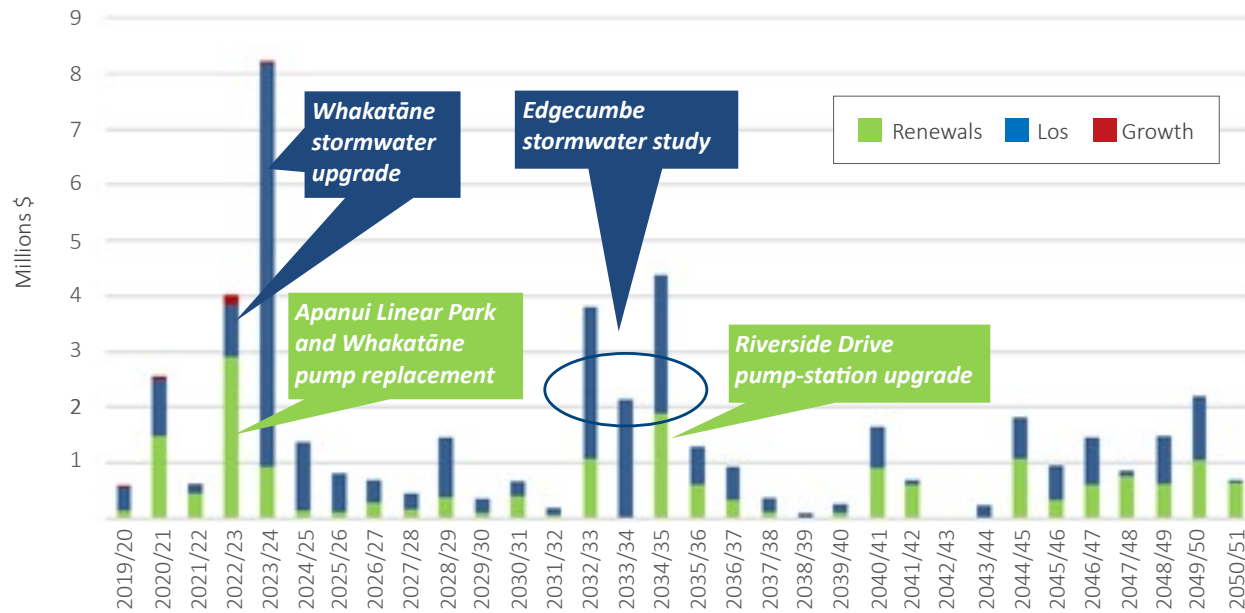
10.8. Infrastructure Level of service (LoS) Stormwater drainage

KEY ■ Above average performance ■ Average performance ■ Below average performance

| CUSTOMER OUTCOME | | CURRENT PERFORMANCE | INDICATOR | COMMENTS |
|--------------------------------|---|--|---------------------------------------|---|
| Safety, quality and resilience | Scale of service | Eight urban stormwater schemes (Whakatāne, Ōhope, Edgecumbe, Matatā, Tāneatua, Murupara, Te Teko, Te Mahoe). | ■ | Scale of service expected to increase in line with future population growth and associated development. |
| | Satisfaction with the overall effectiveness of the stormwater systems | 67 percent in 2020 | ■ | Programme of improvements for Council stormwater systems will impact on satisfaction but is acknowledged this is also subject to intensity of weather events. LoS increase. |
| | Number of complaints received about the performance of the stormwater systems per 1,000 properties | 5.56 in 2020 | ■ | Primarily weather dependent. |
| | Environmental impact as measured through compliance with resource consents for discharge from our stormwater systems (number of abatements notices, infringement notices, enforcement orders or convictions against Council in relation to the resource consents) | Zero in 2020 | ■ | - |
| | For each flooding event, the number of habitable floors affected (per 1,000 properties connected to the Council's stormwater system) | Zero habitable floors affected in 2020 | ■ | Primarily weather dependent. |

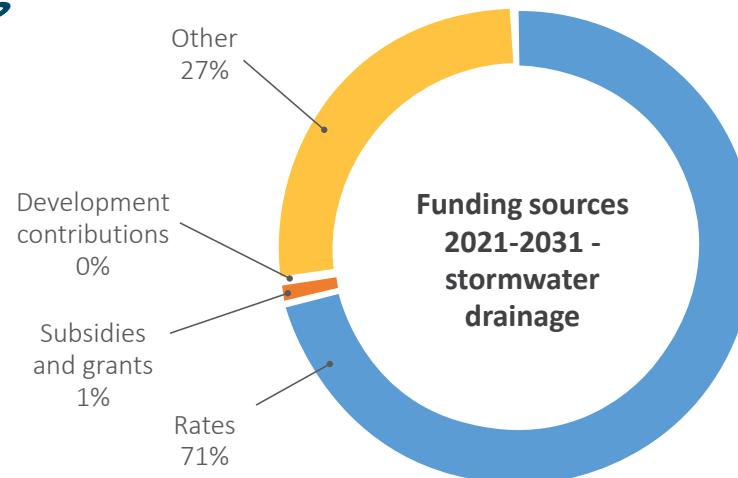
10.9. Capital expenditure

Projected capital stormwater expenditure 2020- 2051



10.10. Funding sources

The graph to the right shows how the Council will fund the 'stormwater drainage' group of activities during the 10 years 2021-31. Each source is rounded up or down to the closest percentage, so the total may not add up to 100 percent. Development Contributions are a source of funding for this group of activities, but contribute less than one percent. The 'other sources' category is made up of sundry income (including internal recoveries/overheads), internal interest, development contribution reserves, depreciation reserves, loans raised, and operational reserves. The 'rates' category includes both targeted and general rates.





11. INFRASTRUCTURE ACTIVITIES - WASTEWATER

11.1. Overview of this activity

Council is responsible for the collection, conveyance, treatment and disposal of wastewater, where a community wastewater scheme exists.

This group of activities provides our district with reliable and sustainable sewage treatment and disposal services. We aim to provide services to collect, treat and dispose of wastewater in a safe and sustainable way that protects public health and doesn't compromise ecosystems.

Further information about this Group of Activities, including level of service performance measures, can be found in the 'Our Groups of Activities' section of this Long Term Plan.

11.2. Key focus

Improving environmental impacts through upgrades to existing schemes, expanding schemes to other communities and renewing resource consents.

11.3. Summary context

The wastewater system is made up of:

- 6 sewerage schemes
- 6 treatment plants
- 57 pump stations
- 9,297 sewer connections
- 149km of gravity pipelines across the network
- 37.2km of rising main across the network
- 2,890 manholes

11.4 Asset condition

The condition of the overall wastewater network is assessed as being of a reasonable standard. Only 12 percent has been assessed as being in poor or very poor condition. A CCTV inspection programme continues to verify the condition of the gravity drainage elements of the network. Relining has been carried out in the past and will be in the future. While relatively young by Aotearoa New Zealand standards, portions of the network are now 'mature' - in the 45 to 55 years' old age bracket. The network generally delivers as per expectations – it accepts wastewater and conveys it away. Treatment plants are variants of simple oxidation ponds, have not been condition assessed and are nearing the end of their consented lives. Substantial investment in this area is anticipated during the Infrastructure Strategy period.

An asset register, including condition, has been developed in the asset management system to enable the Council to understand future expenditure patterns and management decisions regarding maintenance and renewals.

In 2020, the Council also carried out a desktop condition assessment of wastewater piped assets (mains only) based on the remaining useful life and pipe material. The assessment was based on actual pipe sample data from both Council pipe network and within the region as well as deterioration modelling. The desktop assessment is being used by the Council to prepare asset condition assessment programs for piped assets.

An initial desktop exercise defining condition based on asset age was incorporated into the asset management system where applicable, with the current condition profile shown on the table to the right.

11.5. Critical assets

The selection criteria for wastewater critical assets include size and functionality of assets as set out on the table to the right. Further work in developing site-specific criticality is required. Council is in the process of improving the criticality criteria assessment of assets with most appropriate industry practices, and will include assets located in areas where disruptions would have a high economic impact, assets supplying customers including critical users, and assets that will have a significant environmental impact in case of failure.

Wastewater asset condition profile

| ASSET TYPE | UNIT | VERY GOOD | GOOD | FAIR OR MODERATE | POOR | VERY POOR | UNKNOWN (TO BE VERIFIED) |
|------------------|------|-----------|-------|------------------|-------|-----------|--------------------------|
| Gravity mains | m | 205537 | 42346 | 58105 | 72934 | 23856 | 109 |
| Rising mains | m | 36168 | 18167 | 9748 | 5194 | 835 | 0 |
| Outfalls | m | 5698 | 30 | 2199 | 2664 | 800 | 0 |
| Pump stations | Each | 55 | 0 | 0 | 0 | 0 | 0 |
| Treatment plants | Each | 6 | 0 | 0 | 0 | 0 | 0 |
| Manholes | Each | 2878 | 8 | 33 | 1 | 0 | 0 |

Critical asset selection criteria

| ASSET TYPE | DESCRIPTION OF CRITERIA | BASE APPROACH RATING |
|-----------------------------------|--|----------------------|
| Pipes | ✓ Less than 250mmØ | Low (1) |
| | ✓ 250mmØ to 375mmØ | Medium (3) |
| | ✓ Greater than 375mmØ | High (5) |
| | ✓ All rising mains | High (5) |
| | ✓ Outfall mains | High (5) |
| | ✓ Potential pipe failures which may cause significant social, environmental or economic impact | High (5) |
| Treatment plants / oxidation pond | All | High (5) |
| Manholes | Manholes on critical pipes (pipes greater than 375mmØ) | High (5) |
| | All other manholes | Low (1) |
| Pump stations | Water pump stations without resilience (i.e. backup alternative power supply, by-pass pumping arrangement) | High (5) |
| | Water pump stations with resilience (i.e. backup alternative power supply, by-pass pumping arrangement) | Medium (3) |

11.6. Asset renewal

Asset renewal programmes are prepared following a number of criteria, including:

- The base life of the assets – from the asset management system
- The maintenance history and expenditure – from the asset management system and Council’s request for service (RFS) system
- The condition assessment of assets – routine inspections, pipe sampling, CCTV assessment, visual inspection, etc.
- Applying a risks-based approach – criticality of the asset, public safety.
- External factors such as:
 - Natural disaster events
 - Opportunistic working with other Council department programmes i.e. transportation renewal programme, places and open spaces.
 - Third-party works i.e. Bay of Plenty Regional Council, telecommunications, power
 - Regulatory requirements (i.e. safety improvement)
 - Construction and installation defects
 - Aggressive soils / environment etc.

11.7. Asset summary

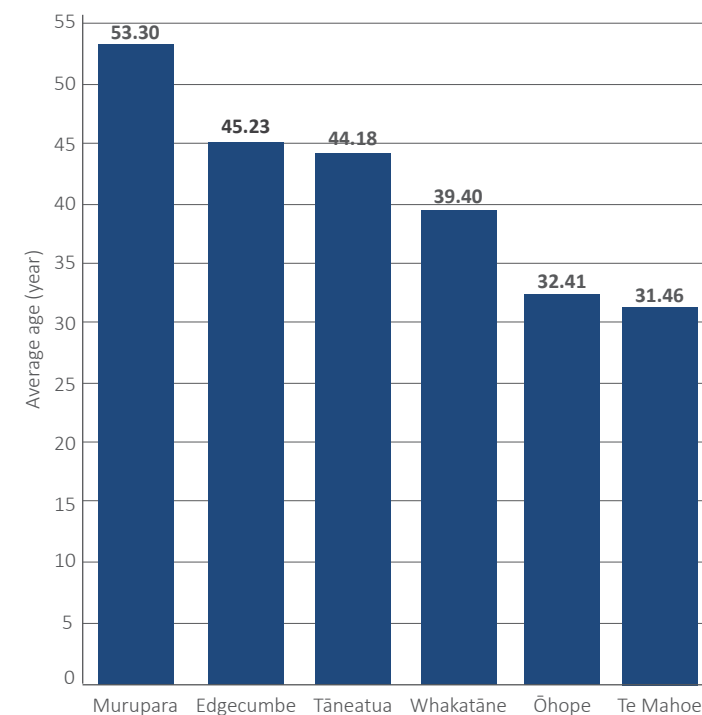
Asset data confidence and asset reliability information have been developed for various asset classes and are detailed within the wastewater asset management plan.

Indicative average age of assets are shown; a more user-friendly version also showing the average remaining life of each asset class will be in future strategies and is a direct correlation of the age of assets.

Figure 1: Pipe material and age for each scheme



Figure 2: Average manhole age for each scheme



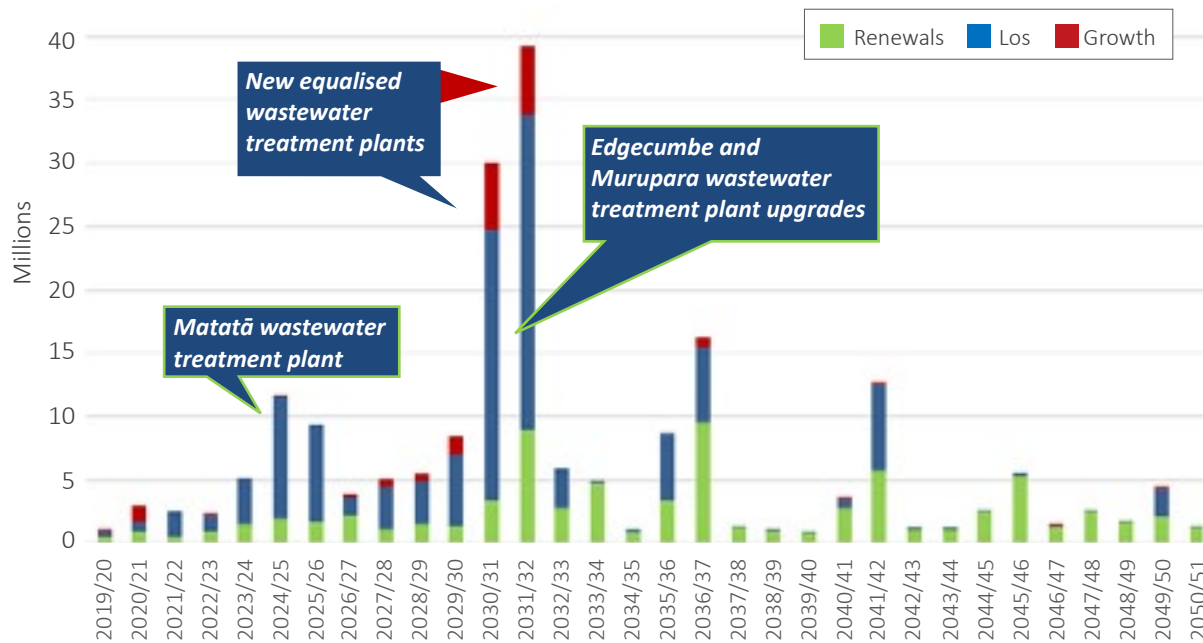
11.8. Infrastructure levels of service (LoS): Sewage treatment and disposal

KEY ■ Above average performance ■ Average performance ■ Below average performance

| CUSTOMER OUTCOME | | CURRENT PERFORMANCE | INDICATOR | COMMENTS |
|--------------------------------|--|---|---------------------------------------|---|
| Safety, Quality and Resilience | Number of connections to Council wastewater systems in the Whakatāne District. | 9,297 connections across six public schemes (Whakatāne, Ōhope, Edgecumbe, Tāneatua, Te Mahoe, Murupara) | ■ | Scale of service expected to increase as a new scheme comes on-line for Matatā and in-line with future population growth and associated development. |
| | Satisfaction with the sewerage system for areas supplied by Council. | 76 percent in 2020 | ■ | A significant programme of investment is included over the coming 30 years to improve the service and to address enhanced environmental standards. Level of service increase. |
| | Number of dry weather sewage overflows from the Council's sewerage system per 1,000 connections. | 1.4 in 2020 | ■ | No change forecast |
| | Environmental impact as measured through compliance with resource consents for discharge from our sewerage systems (number of abatements notices, infringement notices, enforcement orders or convictions against Council in relation to the resource consents). | Zero in 2020 | ■ | No change forecast |

11.9. Capital expenditure

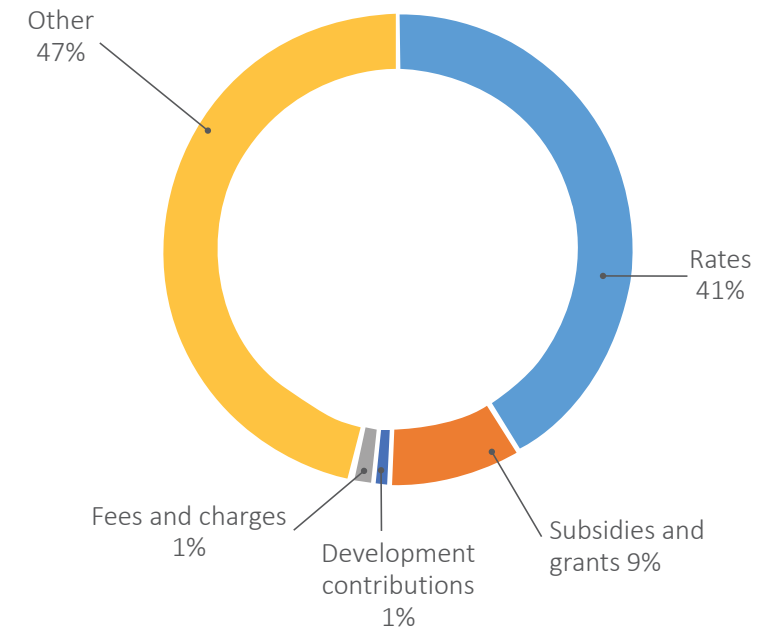
Projected capital wastewater expenditure 2021-2051



11.10. Funding sources

The graph below shows how the Council will fund the 'Sewage Treatment and Disposal' group of activities during the 10 years 2021-31. Each source is rounded up or down to the closest percentage, so the total may not add up to 100 percent. The 'other sources' category is made up of sundry income (including internal recoveries/ overheads), internal interest, development contribution reserves, depreciation reserves, loans raised, and operational reserves. The 'rates' category includes both targeted and general rates.

Funding sources 2021-2031 - Sewage treatment and disposal





12. INFRASTRUCTURE ACTIVITIES - TRANSPORT CONNECTIONS

12.1. Overview of this activity

Council provides and manages a safe, integrated and efficient transport system for Whakatāne including provision for private vehicles, freight, public transport, walking, cycling and pedestrians. Council also manages on-street and off-street parking facilities.

This group of activities aims to provide a safe, reliable and sustainable transport system that is accessible to everyone, and caters to a variety of transport choices including increasingly for pedestrians, cyclists and the mobility impaired. We aim to deliver a well-functioning transport system that keeps people and places connected, supports a vibrant economy, and allows for the efficient day-to-day running of communities.

The transport maintenance and renewals programme also gives Council the opportunity to optimise assets, where appropriate, and to support Council's environmental protection and climate change initiatives.

Council works closely with Waka Kotahi NZ Transport Agency on the future planning and investment of the transport system, including the continued monitoring of population growth and development demands.

Further information about this Group of Activities, including level of service performance measures, can be found in the 'Our Groups of Activities' section of this Long Term Plan.

12.2. Key focus

Continue to manage and operate the transport network while focusing on alternative modes of transport and road safety (Road to Zero) in line with Waka Kotahi NZ Transport Agency priorities.

12.3. Summary context

The transport system is made up of:

- 905 km roads (702 km sealed, 203 km unsealed)
- 177 bridges
- 170 km guard railing
- 18 bus shelters
- 7,261 signs
- 3,453 streetlights
- 260 km kerb and channel
- 2,165 stormwater catchpits
- 9.8 km off-road cyclepaths
- 196 km footpaths
- 405 traffic islands
- 4,085 culverts
- 258 retaining walls

12.4. Critical assets

Council's transport system is classified using the Waka Kotahi 'One Network Road Classification' (ONRC) Framework, in terms of the function-specific roads needed to deliver within the district's transport system. The ONRC also has clear performance measures for each classification that the Council takes into account through asset management planning and investment. Examples being Landing Road, Gorge Road, Commerce Street and supporting state highways.

Risk management is a section that has been identified in the Transport Asset Management Plan as needing further work, so critical assets will be further explored through that process.

12.5. Asset condition

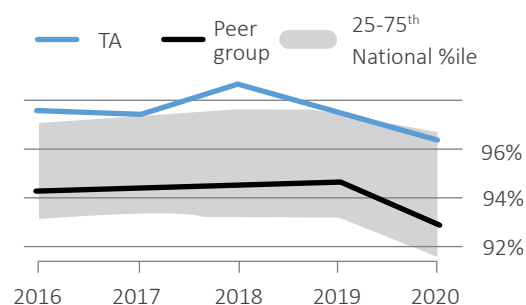
Overall Whakatāne District Council's Transportation assets are in good condition, owing in part to the relatively young age of the network and its assets. Key pavement and surface condition indicators are within the top 25th percentile nationally. Over time, as the network matures, it's expected that these indicators will move closer to the peer group mean.

Condition by major asset group:

PAVEMENTS AND SURFACING: ABOVE AVERAGE

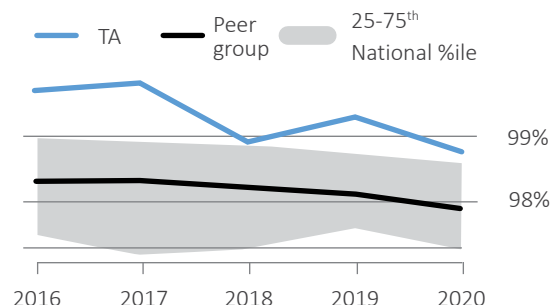
- Indicator: Pavement Condition Index** - a performance indicator for the structural condition of pavement based on the extent and/or severity of a range of pavement defects. Condition scores range from 0-100, with 100 representing excellent condition. Whakatāne District Council scores 96 percent (compared to the peer group mean of 93 percent)

Pavement condition



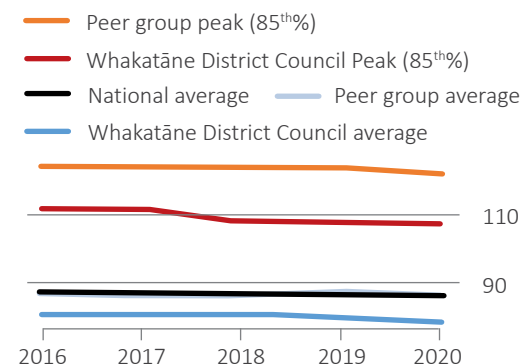
- Indicator: Surface Condition Index** - a performance indicator for the condition of the road surface based on the extent and/or severity of a range of surface defects. Condition score ranges from 0- 100 with 100 representing excellent condition. Whakatāne District Council scores 99% (compared to the peer group mean of 98 percent).

Surface condition



- Indicator: Peak and average road roughness.** Roughness is a measure of the ride quality experienced on the road. Lower roughness equals a smoother ride. Whakatāne District Council average roughness is 80 NAASRA (National Association of Australian State Road Authorities) (compared to the peer group mean of 88 NAASRA).

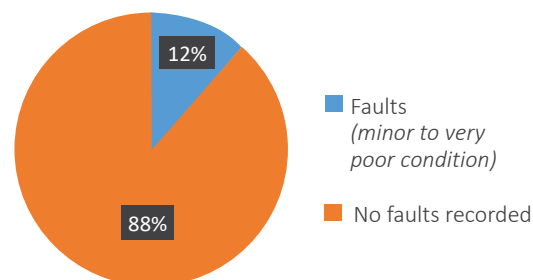
Peak and average road roughness (NAASRA)



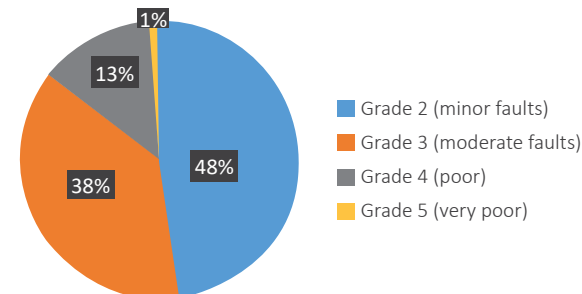
FOOTPATHS AND CYCLEWAYS: GOOD

- Indicator: 88 percent of footpath sections record no faults.** Only 1.6 percent of total footpath sections record grade 4 (poor) or 5 (very poor) faults.

Portion of footpath network with faults recorded 2017 survey



Extent of faults recorded



BRIDGES AND STRUCTURES: GOOD

- **Indicator:** Three bridges (out of 177 total) posted below class 1 or 50MAX (restricted loading), affecting one percent of the network. Seven bridges require replacing in the 10 year programme.
- **Indicator:** Three retaining walls (out of 258 total) require replacing in the 10 year programme.

DRAINAGE: GOOD

- **Indicator:** 98 percent of kerb and channel rate at grade 3 (good/moderate faults) or better. 88 percent of culverts rate at grade 3 (good/moderate faults) or better.

TRAFFIC SERVICES: GOOD

- **Indicator:** 99 percent of signs rate at grade 3 (good/moderate faults) or better. 95 percent of rails rate at grade 3 (good/moderate faults) or better
- **Indicator:** Streetlights: Recently completed LED replacement programme for 100 percent of the network.

| RATING | DESCRIPTION OF CONDITION |
|-----------------------|--------------------------|
| 1 Excellent condition | No faults |
| 2 Very good | Minor faults |
| 3 Good | Moderate faults |
| 4 Poor | Significant faults |
| 5 Very poor | Failed |

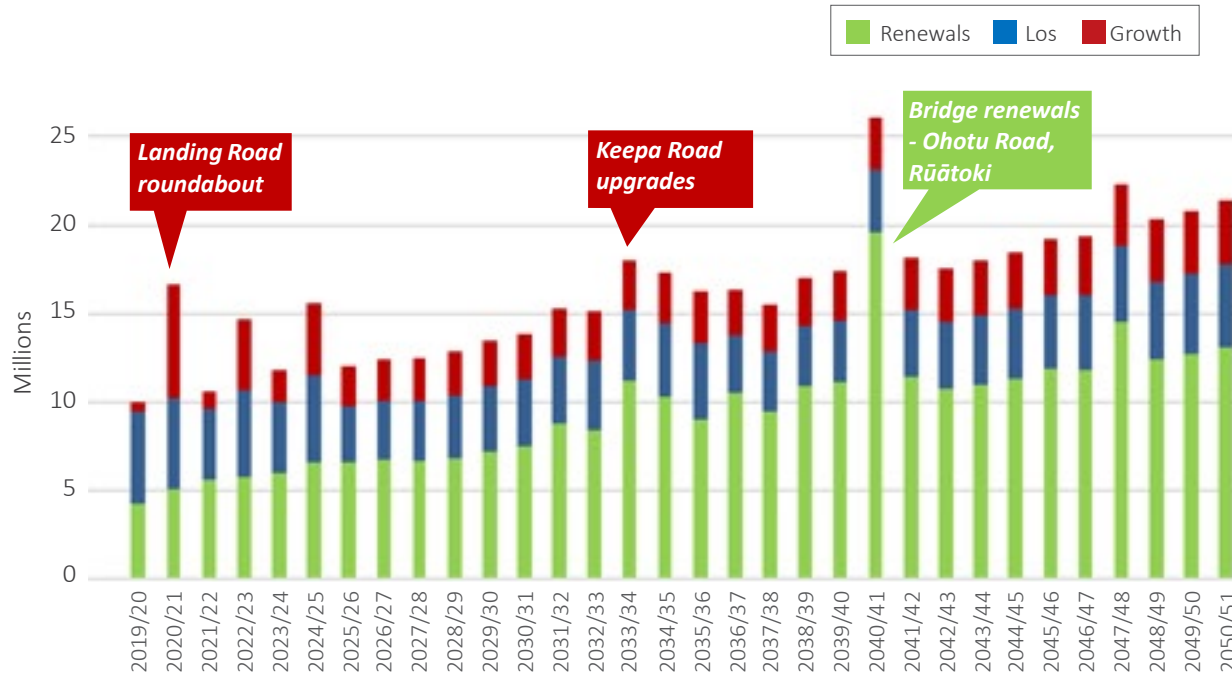


12.6. Customer Levels of Service (LoS): Transport Connections

| CUSTOMER OUTCOME | | INDICATION OF CURRENT PERFORMANCE | | | | | FUTURE PLANNING AND INVESTMENT (KEY EXAMPLES) |
|-------------------------|--|-----------------------------------|-------------------|---------------------|----------------|------------|---|
| | | ARTERIAL | PRIMARY COLLECTOR | SECONDARY COLLECTOR | ACCESS | LOW VOLUME | |
| Safety | Number of serious injuries and fatalities (DSI) | | | | | | <ul style="list-style-type: none"> Road to Zero Improvements Programme Road Safety Programme Blueberry Curves Safety Improvements |
| | Collective risk | | | | | | <ul style="list-style-type: none"> Road to Zero Improvements Programme Road Safety Programme Blueberry Curves Safety Improvements |
| | Personal risk | | | | | | <ul style="list-style-type: none"> Road to Zero Improvements Programme Road Safety Programme Blueberry Curves Safety Improvements |
| Amenity | Smooth travel exposure (STE) | | | | | | <ul style="list-style-type: none"> Transport Asset Management Plan implementation. Roading Renewals Programme. |
| | Peak roughness – urban sealed roads | | | | | | <ul style="list-style-type: none"> Transport Asset Management Plan implementation. Roading Renewals Programme. |
| | Peak roughness – rural sealed roads | | | | | | <ul style="list-style-type: none"> Transport Asset Management Plan implementation. Roading Renewals Programme. |
| Accessibility | Portion of network not available to class 1 heavy vehicles | | | | | | <ul style="list-style-type: none"> Continue with current approach as HVs primarily access arterials, primary and secondary collectors. |
| | Portion of network not available to 50MAX | | | | | | <ul style="list-style-type: none"> Continue with current approach given HPMV vehicles primarily access high volume corridors. |
| Travel time reliability | Throughput at indicator sites | | | | | | <ul style="list-style-type: none"> Reflects urban arterial access. This is being addressed through a separate business case. |
| Cost efficiency | Percentage of network renewed annually | Surface | Pavement | | | | <ul style="list-style-type: none"> Continue with planned roading renewals programme. |
| | Sealed road maintenance: Three year average annual costs per kilometre | | Maintenance | Resurfacing | Rehabilitation | | <ul style="list-style-type: none"> Continue with planned roading renewals programme. |
| | Unsealed road maintenance: Three year average annual costs per kilometre | | Maintenance | Metalling | | | <ul style="list-style-type: none"> Reflects high portion of unsealed primary collector roads with high maintenance costs. Road-resealing programme. |

12.7. Capital expenditure

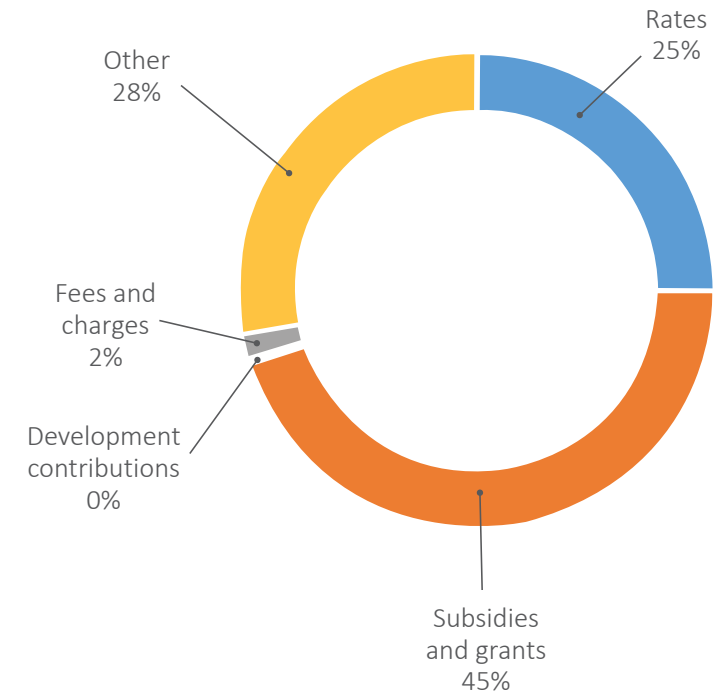
Projected capital transport expenditure 2021-2051



12.8. Funding sources

The graph below shows how the Council will fund the 'Transport Connections' group of activities during the 10 years 2021-31. Each source is rounded up or down to the closest percentage, so the total may not add up to 100 percent. Development Contributions are a source of funding for this group of activities, but contribute less than one percent. The 'other sources' category is made up of sundry income (including internal recoveries/ overheads), internal interest, development contribution reserves, depreciation reserves, loans raised, and operational reserves. The 'rates' category includes both targeted and general rates.

Funding sources 2021-2031 - roading and footpaths



13. SIGNIFICANT ASSUMPTIONS

The Infrastructure Strategy has been prepared using the following assumptions, which are consistent with the significant forecasting assumptions for the Long Term Plan 2021-31.

For the full list of assumptions used for the Long Term Plan 2021-31 (including further detail about some of the assumptions below), refer to the *Our Assumptions for this LTP* chapter of this document.

| ASSUMPTION | LEVEL OF UNCERTAINTY | POTENTIAL IMPACT | MITIGATING RISKS OF THIS ASSUMPTION |
|---|----------------------|------------------|--|
| <p>All financial information in this strategy includes inflation, unless stated otherwise.</p> <p>Inflation is assumed to be in line with BERL's 'mid' scenario, in the BERL Local Government Cost Adjustor Forecasts.</p> | Med | Med | <p>BERL price change estimates are an industry recognised measure. These are updated annually and Council will review its financial strategy accordingly, particularly noting the impact of any upward movement on affordability.</p> <p>Uncertainty around inflation levels is currently elevated. This is reflected in BERL releasing more than one scenario for the first time.</p> |
| <p>The population of the Whakatāne District will grow to approximately 41,800 people by 2043. Over the 10 years of the LTP, that is an average increase of approximately 0.5% per annum.</p> | Med | High | <p>The Council's Future Development Strategy (FDS) is currently being progressed and will indicate an alternative scenario than that set out by this assumption. Over the coming 2-3 years, work including the FDS will focus on gaining better clarity of future growth, and support the development of strategies and plans that chart the way ahead.</p> <p>Population assumptions will be updated three-yearly through future LTPs, or Annual Plans if required.</p> |
| <p>Population settlement will not be substantially different to the status quo for 2021-31.</p> | Med | Med | <p>The FDS will likely identify new areas for development. Investment into these will be funded through future LTPs, based on FDS timeframes.</p> |
| <p>The rating base will increase by 120 new dwellings in the Whakatāne District each year.</p> | Med | Med | <p>Assumptions about the rating base will be updated as any new information becomes available, and implementation of the FDS will seek to remain agile in relation to actual growth to ensure long-term sustainable delivery of services.</p> |
| <p>External funding/subsidies will be secured where these have been budgeted for.</p> <p>This includes, for example, programmes which have in the past received (or which meet the criteria for) Waka Kotahi NZ Transport Agency co-investment.</p> | Med | High | <p>Central government subsidy regimes are generally changed only through consultation with the local government sector and with a period of transition. The Council will have lead in time where subsidy changes are being made and would be able to review and adjust work programmes where necessary.</p> <p>The Council will continue to seek subsidies for projects where available. Where funding becomes unavailable or is less than expected, the viability and timing of the project will be re-assessed before progressing. Waka Kotahi has funding restrictions, and will only confirm levels of funding in August 2021. If funding is reduced, the Council should still be able to commit to the levels of Council funding budgeted in the LTP.</p> |

| ASSUMPTION | LEVEL OF UNCERTAINTY | POTENTIAL IMPACT | MITIGATING RISKS OF THIS ASSUMPTION |
|---|----------------------|------------------|--|
| <p>Current national, regional and local policies, strategies and Levels of Service requirements will remain in place. Accordingly, there will be no significant changes to legislation that would impact on the need for or nature of infrastructure, or costs associated with compliance.</p> <p>On 24 April 2021, the Minister of Local Government announced a Ministerial Inquiry into the Future for Local Government. Unless specifically stated otherwise, the Council has prepared the LTP 2021-31 on the assumption its existing role and functions will continue for the life of the plan.</p> | Med | High | <p>The potential impact of future changes could be high if legislation results in additional required expenditure to comply with new standards, offers new funding opportunities, or requires the Council to increase levels of service.</p> <p>The Council will continue to set the work programme to take into account the expected outcome of legislative change where possible. Legislative change is often progressed with a long lead-in time, allowing Council to respond accordingly.</p> <p>In regards to the Future of Local Government Review, the review timetable is such that the final recommendations to Government will not be known until April 2023. While the review could recommend significant change to local government, there is no information available on the likely direction for the review at this time. Council considers it unlikely that any recommendations could take effect before 1 July 2024 – particularly for changes to roles or functions. Any changes that are made will be incorporated in the 2024-34 LTP.</p> |
| <p>The resource management framework and associated costs are as per the current Resource Management Act (RMA) standards for budgeting.</p> | High | Low | <p>There is elevated uncertainty that resource consent costs will be as projected, due to reform of the Resource Management Act. However, we can only plan based on the current framework.</p> <p>Current standards already require significant upgrades to our expiring consents. Even more stringent consent conditions may be required through the gaining of consents over the term of the LTP. However, due to the level of uncertainty associated with RMA reform, LTP work programmes and budgets are developed in accordance with current standards.</p> |
| <p>All three waters services will remain in Council control for the period of the LTP.</p> | High | High | <p>The Council has signed a Memorandum of Understanding with the Department of Internal Affairs, and is taking an active part in all Three Waters Reform initiatives.</p> |
| <p>Technology will evolve and have an impact on our service delivery. However, prudent aversion to risk will mean that the Council is generally not an early adopter.</p> | Med | Low | <p>Local government is generally risk-averse where investment in new technologies is concerned. Generally, these need to be established and proven for Council to make the investment. Major strategies and projects will explore technology based solutions as part of the contextual and options analysis. This will include the upgrades that will be required to wastewater treatment systems over the coming 10 years and beyond.</p> |
| <p>The lifecycle of assets is as stated in the Statement of Accounting Policies in the LTP.</p> | Low | High | <p>Condition assessments continue to be undertaken by the Council with condition information updated based on actual rather than theoretical expectations.</p> |
| <p>Depreciation is based on correct values, and revaluations will be in line with projections.</p> | Med | Med | <p>Asset revaluation - impairment reviews will be undertaken in the intervening years between revaluations to reduce the risk of significant shifts in value between scheduled valuation cycles, particularly that the Level of services has not been recognised and assets are overvalued.</p> |
| <p>Assets will be replaced with a 'like-for-like' except where noted.</p> | Med | Med | <p>The Council reviews its work plan annually and the Revenue and Financing Policy every three years, alongside the LTP. If funding is not available through the principle-specified source, Council would need to reconsider priorities or consider alternative funding sources that are available, i.e. borrowing.</p> |

| ASSUMPTION | LEVEL OF UNCERTAINTY | POTENTIAL IMPACT | MITIGATING RISKS OF THIS ASSUMPTION |
|---|----------------------|------------------|---|
| Costs of projects and replacements have been accurately budgeted where not like-for-like. | Med | Med | Cost estimates are updated annually through the Annual Plan process, and when detailed design has been completed, providing further accuracy to expected costs. Should costs change substantially from initial estimates, the viability of the project will be reviewed before progressing further. |
| The cost of land will increase at the same rate as the capital inflation used for capital projects. | High | Med | There is a high degree of uncertainty on the likely inflation of land costs. The potential impact is medium. Changes to budgets would need to be made through future Annual Plans and Long Term Plans if required. |
| The district will continue to face frequent minor storm and flood events, and sporadic high-impact events. These may require damage or remedial work to infrastructure. | Med | High | The Council has reserve funds to limit the impact of natural hazard events by building up funds to pay for storm damage to roading and general disaster response and recovery. The District Plan includes provisions to protect against coastal hazards, and our underground assets are covered through insurance. Central government also has a role in disaster recovery and restoration works following natural disasters. The Council will continue to monitor natural hazard research, with budget for this included in the Long Term Plan. |
| Climate change will occur in line with the Intergovernmental Panel on Climate Change (IPCC) 'RCP 8.5 scenario.' | High | High | The Council will continue to review this assumption as data and scenarios are updated. As further climate change work is undertaken globally and nationally, including a national risk assessment, any new guidance will inform our assumptions. |
| The Council will continue to be able to attract staff and contractors. Accordingly, there will be sufficient capacity to undertake the capital programme to agreed standards and specifications. | Med | Med | Consideration has been given to the forward work plan and nationwide competition for resource and economic context. The Council recruitment process focuses on the lifestyle offered by Whakatāne District and ensures that remuneration reflects the current market. The Council has a procurement manual which ensures robust contractors, and Council contracts outline the expectation of contractors. Legal/contractual rights can be exercised if work is not completed to the agreed standards and specifications. |
| Existing service delivery methods and levels of service will continue unless specified. | Med | Low | While it is likely that some of our service delivery may look different over the period of the Long Term Plan, we can only budget for known changes. For cases of disruption to services necessitated by natural disasters or other unplanned events, Business Continuity Plans have been developed for core asset departments as part of individual Asset Management Plans. The Council will pursue shared service options through BOPLASS and other methods, such as public/private partnerships. |