



Infrastructure Strategy Rautaki Hangahanga

Infrastructure provides the foundation on which our District is built and supports most of what we do in our daily lives; the water we drink, the parks we play in, the way we get to work and it doesn't end there! The decisions we make as a community on infrastructure investment have a huge influence on shaping the future of our District.

Infrastructure Strategy Contents

Introduction	91
Key infrastructure messages 2021-2051	91
How the Financial Strategy and Infrastructure Strategy work together	92
What we are working with	93
What we are working towards	95
The challenges	97
The big picture	102
Significant Infrastructure Issues	105
Activity Overviews	112
• Stormwater	113
• Water supply	118
• Wastewater	123
• Transportation	127
• Solid waste	134
• Recreation and open spaces	138
• Community facilities	143
How we manage our assets	148

Introduction

Infrastructure provides the foundation on which our District is built and supports most of what we do in our daily lives; the water we drink, the parks we play in, the way we get to work and it doesn't end there! The infrastructure in our communities underpins much of our wellbeing - social, economic, environmental and cultural. The decisions we make as a community on infrastructure investment have a huge influence on shaping the future of our District.

The District is growing and changing rapidly and requires a good long-term plan in place to deliver the right infrastructure, at the right time and in the right location. This strategy provides a comprehensive overview of the infrastructure services Council will deliver to the community over the next 30 years and identifies the issues and challenges we will face in doing this. We need to be nimble in our approach as there are things we know with certainty but there are also lots of unknowns that may impact significantly on what we do in the future!

The following types of infrastructure are included as they are fundamental to the development of successful communities and for achieving our future aspirations for community wellbeing:



Infrastructure is a core part of what Council provides to the community. Council spends over \$30 million (capital expenditure) every year on infrastructure and looks after over \$1.43 billion worth of assets. It is not possible to do everything and choices are made on how Council will manage infrastructure investment. The Financial Strategy helps to achieve the balance between the ability of the community to pay and the need to deliver important infrastructure services to the community.

Key infrastructure messages 2021-2051

The focus of this strategy is to continue caring for and maintaining the infrastructure we currently have, and to invest in infrastructure where benefits for community wellbeing can be achieved. This means ensuring infrastructure continues to meet the needs of our communities, provides for economic, cultural, social and environmental aspects of wellbeing and provides infrastructure to enable further growth to occur. The Financial Strategy supports this approach by setting in place prudent limits on debt and rates increases.

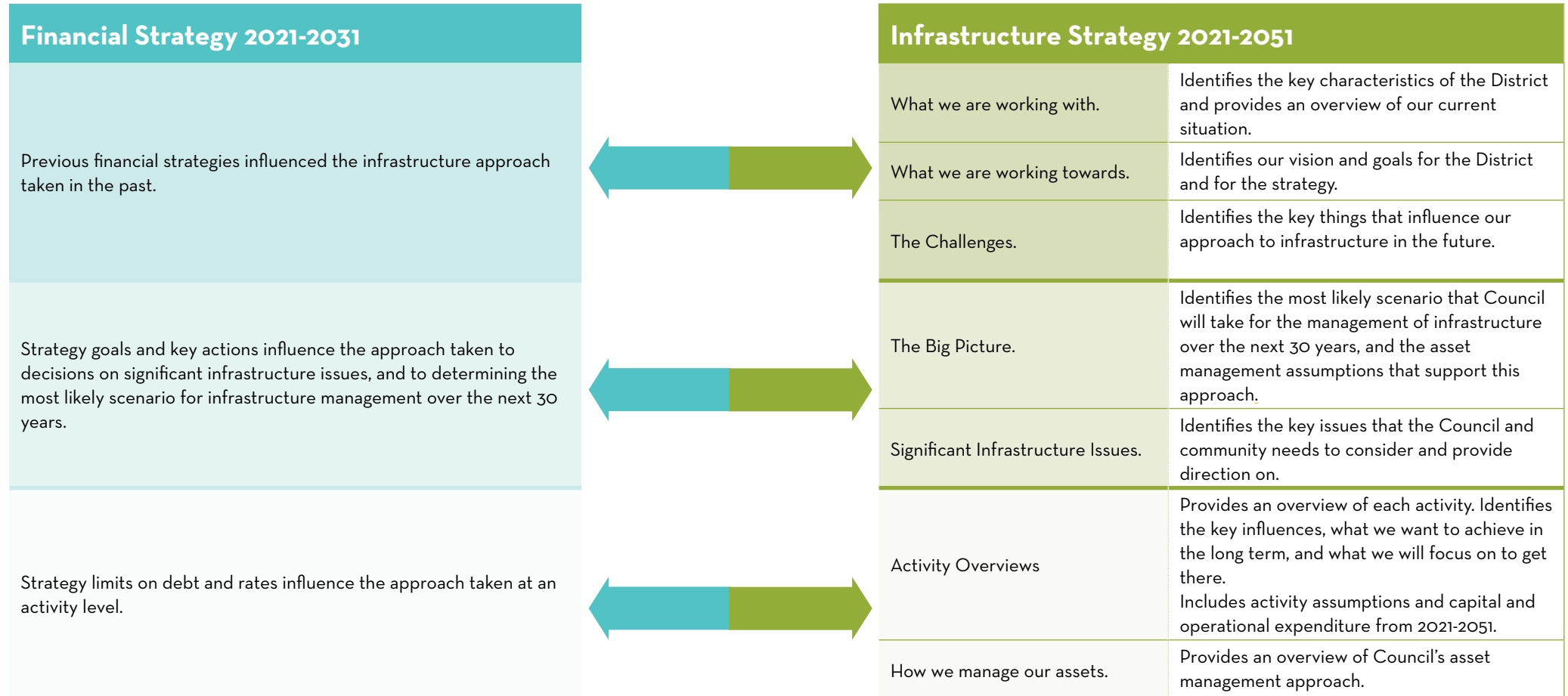
A high priority for infrastructure investment is Ōmokoroa, with significant growth-related projects over the next 30 years, particularly for transport. Council is also proactively planning for and responding to environmental issues including climate change and increasing water quality standards that particularly impact on the water, wastewater and stormwater activities of Council.

There will also be level of service changes as Council responds to community expectations. Through the LTP 2021-2031 Council considered significant changes to the level of service provided for swimming pools in the Recreation & Open Space area and changes to our approach for elder housing in the Community Facilities area. Changes in the delivery of kerbside waste services, under the Solid Waste activity, will also occur at the start of this LTP, which were agreed through a Long Term Plan amendment process in 2019/20.

The high level of population growth projected for the next ten years is greater than that expected later on. This has meant that many of our significant infrastructure issues are in the next ten years, and our District is experiencing a period of substantial infrastructure investment.

How the Financial Strategy and Infrastructure Strategy work together

The two strategies go hand in hand. The Infrastructure Strategy outlines what we need to do, when and why, and the Financial Strategy puts the financial framework around this to provide a balance between delivery and affordability.



What we are working with

This section provides an overview of our District; the things that make us unique and that have shaped who we are today. This provides the context for the approach taken to infrastructure in the 2021-31 Long Term Plan (LTP) and in the future.



The environment

Western Bay of Plenty District stretches from Waihi Beach in the north to Otamarakau in the south and covers 195,000 hectares of coastal, rural and urban areas. The diverse landscape, combined with a favourable temperate climate, provides an area rich in resources including indigenous flora and fauna, highly versatile soils, rivers and harbours.

Almost half of the District is in forest and a further 40% is pastoral land. Less than 1% of the total area is urban and includes the towns of Waihi Beach, Katikati, Ōmokoroa, and Te Puke. Smaller rural settlements are located across the District. Along the Pacific Coast, Waihi Beach and Pukehina Beach have grown from being popular holiday places to places with higher proportion of permanent residents.

The spread of settlements across the District makes the delivery of infrastructure more expensive compared to a compact single settlement like a city. The topography and soil types can also increase infrastructure costs, particularly for roading which often suffers from weather-related stormwater damage. Council applies a number of techniques to make sure infrastructure spending is an efficient use of ratepayer money. This includes rules in the District Plan that concentrate development in areas where infrastructure already exists or is planned to occur.

The types of natural hazards that are potentially generated in the Bay of Plenty coastal and harbour areas include tsunamis, storm erosion and storm flooding. The major natural hazard risk in the District is flooding. Waihi Beach is the most susceptible due to a combination of low-lying urban areas impacted by tidal conditions and undersized pipes. Katikati, Te Puke and Ōmokoroa and some of the smaller settlements such as Paengaroa are also compromised by infrastructure that is under capacity.

Long term coastal erosion is evident in coastal settlements (Pukehina/Waihi Beach), seacliffs (Maketu), estuary margins (Little Waihi), and the shoreline of Tauranga Harbour (Ōmokoroa, Te Puna, Opureora) and along the open coast. The Coastal Erosion Responses Policy 2017 provides a framework for consistent decision making where Council-owned coastal land is affected by coastal erosion or subsidence and rising sea levels.

Neighbouring areas have active volcanoes and identified fault lines both of which have the potential to have a catastrophic impact on the District. Earthquakes have the potential to rupture wastewater and reticulated water pipes, affect bores and aquifers, while liquefaction could damage and disrupt the transport network. Slips and landslides due to increasing storms and rainfall events could damage roads and disrupt travel and in doing so have the potential to cut off some communities for a period of time.

The resilience of infrastructure is a key consideration in investment decisions. Technology is playing a big part in what we can do to improve the District's resilience to natural hazards. For example, use of more resilient materials for pipe replacement and use of data collection and monitoring.



Paengaroa



The people

In 1991 the District population was 30,000. The Western Bay of Plenty sub-region is now one of the fastest growing areas in New Zealand and includes Tauranga City with 154,550 people and Western Bay of Plenty District with an estimated 57,355 people (2021). Most of the growth has come from migration from other parts of New Zealand and it is expected that this will continue.

The sub-region is known as a ‘sunbelt’ destination due to the temperate climate and coastal location, attracting a higher ratio of older people than the national average. The District is projected to continue to grow to 71,367 by 2051 which means that another 14,012 people are expected to join us over the next 30 years. Waihi Beach, Katikati, Ōmokoroa, and Te Puke urban growth areas accommodate the majority of the population and future growth.



The economy

The economic strengths of the District include highly productive soils, exceptional growing climate, a range of lifestyle opportunities and a manufacturing base with an export focus all next to New Zealand’s largest export port. Agriculture and horticulture are the main economic drivers in the Western Bay of Plenty.

These primary sectors drive a multitude of professional businesses and service industries and employ a diverse labour force. Urban growth areas include land zoned for commercial and industrial purposes to support further business development occurring. The Rangiuru Business Park located near Te Puke and the Tauranga Eastern Link, provides capacity for commercial and industrial growth with around 150 hectares of land available. Access to the business park on to SH2 has been enabled through recent Central Government funding from the Provincial Growth Fund.

The environment, soils and climate are not only attractive for agricultural production but also for people wanting a relaxed outdoor lifestyle. The District is close to the amenities of Tauranga, yet retains a rural and small-town atmosphere.



The infrastructure

Between 1998 and 2008 the District grew rapidly with the population increasing by 18%. Council provided infrastructure for the growing community. Water and wastewater schemes were established predominately for development of urban areas, with water supply also supporting development of the primary sector in rural areas. During this period there were substantial government subsidies for these schemes which Council took advantage of.

Prior to the 2007 Global Financial Crisis, Council’s approach to infrastructure was that ‘growth pays for growth’ and that new infrastructure was installed ahead of time to encourage growth. The slowing down of growth created a conflict between these approaches, substantially increasing debt to fund the shortfall of financial contributions received from growth. This prompted a change in approach, to a policy of ‘just in time’ infrastructure provision. Where practical, capital expenditure is committed where there is sufficient information to show that development will occur. This seeks to ensure that growth-related debt is repaid as growth occurs and that existing infrastructure is used to its full extent. The good news is that our investment in infrastructure has created capacity that will serve the District well into the future.

From 2015 to 2018, the District increased the funding to growth-related debt interest payments. Through the 2018-28 LTP the community supported Council reviewing the actual amount annually to take account of growth. Over the last three years, the amount we put towards this has been reduced, due to increased building activity and favourable interest rates.

This approach, coupled with prudent management of the capital works programme, means our net debt has reduced from \$144 million in 2015 to \$75.5 million in 2020. This has created a more manageable financial situation for the future.

What we are working towards

Where are we now

Despite the issues caused by COVID-19, the Western Bay of Plenty District is maintaining a strong economy, largely due to a thriving primary sector and building industry and sustained population growth. High volumes of subdivision consents and building activity are positive signs for continued growth.

At the district and sub-region wide level, the economic outlook is fairly positive. Our economy has been cushioned from some of the impacts of COVID-19, due to our diverse economy, strong rural sector (especially horticulture) and low reliance on international tourists. However, we acknowledge that some parts of the community have been impacted much more.

Council has made a conscious effort over the last nine years to manage debt and achieve a reasonable balance between delivering services and managing rates increases. This has put us in a good position to continue to invest in infrastructure required for growth continue to manage existing infrastructure networks and deliver on community wellbeing. Council is aware that circumstances can change and has provided scope in this strategy and the Financial Strategy to be flexible and responsive to this change.



Where we want to be

Our community has identified what is important and these are things that we want to retain and grow further so that our District will be a place that people continue to enjoy living, want to move to and want to visit.

The type of District we want to live in is one where:

- we can all enjoy a healthy and safe lifestyle
- our communities are vibrant and welcoming
- leaders are effective, informed and inclusive
- our environment is clean, green and valued
- our economy is thriving
- leaders are effective, informed and inclusive.

We will work to improve community wellbeing across all four aspects - social, cultural, economic and environmental. Our strategies provide specific direction on the contribution that infrastructure will make to this vision and the framework for what we do and why we do it.

Alongside this District vision sits our sub-regional approach

SmartGrowth sets the strategic vision and direction for the growth and development of Tauranga City and the Western Bay of Plenty District. SmartGrowth is a collaboration between Western Bay of Plenty District Council, Bay of Plenty Regional Council (BOPRC), Tauranga City Council (TCC) and Tangata Whenua working in partnership with Central Government, businesses, education groups, industry and the community. It provides a shared pathway to guide us all toward a single vision - making the Western Bay a great place to live, learn, work and play.

How we are going to get there

Our goals for infrastructure planning, provision and management over the next 30 years are to:

	Goals	What this means	Financial considerations
1.	Maintain the infrastructure and services we provide as efficiently and effectively as possible.	<p>Regular condition assessments, renewals and upgrades are undertaken to ensure infrastructure continues to meet the needs of our community.</p> <p>Continue with a 'just in time' approach to renewal and replacement of assets.</p>	<ul style="list-style-type: none"> • Ensure depreciation funding is sufficient for renewals expenditure. • Enduring programme of renewal and operational expenditure. • Optimise use of infrastructure and streamline operational costs.
2.	Provide the infrastructure required to support a growing community.	<p>Continue to invest in the development of growth areas in the District, recognising the benefits of growth to our community.</p> <p>Continue with a 'just in time' approach to the provision of growth infrastructure.</p>	<ul style="list-style-type: none"> • Debt limits provide capacity for growth funded capital expenditure to occur. • Just in time approach provides greater certainty of growth funding revenue. • Manages debt profile within identified debt limits.
3.	Identify and plan for potential changes to levels of service in the future.	The strategy identifies if consideration needs to be given to a potential change in the current level of service approach. This could be as an outcome of the challenges outlined in this strategy, community expectation, and/or our ability to achieve the vision and goals outlined in this strategy.	<ul style="list-style-type: none"> • Flexibility in Financial Strategy debt and rates limits to adjust to a potential increase or decrease of costs associated with a change in levels of service.
4.	Continually improve our knowledge of infrastructure, particularly in terms of changing technologies.	This ensures that Council keeps pace with the changing world of infrastructure and technology, and applies this thinking to future planning and investment decisions.	<ul style="list-style-type: none"> • Flexibility in Financial Strategy to adjust to a potential increase or decrease of costs associated with a change in approach.

The challenges

This section outlines how population growth, climate change, legislative change, as well as future trends, are likely to affect infrastructure management in the future.

There will always be a degree of uncertainty about how significant these factors are going to be, but they all have the potential to create a wide influence. For some of the challenges such as an ageing population, there are many unknowns regarding the extent of impact this demographic change will have on our approach to infrastructure provision. We can make some assumptions but will need to ‘watch this space’ to better understand from research and engagement with our community how we might need to respond to this change.

For this reason, these challenges require ongoing consideration, and Council will need to take a flexible approach to adapt to changing conditions. More detailed information on the challenges (and opportunities) is provided in the activity overviews.

While the impacts of COVID-19 are significant, it is expected that the local economy will have largely recovered from the impacts by the close of 2022 with economic growth above 2019 levels. The overall impacts of COVID-19 on the Infrastructure Strategy are expected to be limited. However, there is a high degree of uncertainty and this will be a matter of continual monitoring by Council. It has not been considered as a systemic challenge when looking at the next 30 years.

The key challenges

There are four key challenges that have the most influence on our approach to infrastructure planning and provision over the next 30 years. These are:



Population growth



Legislative change



Climate change



Economic growth

Our growing population



Population growth brings a number of benefits to the District but also creates challenges for the delivery of services and funding of infrastructure. Benefits include increased prosperity, attracting investment, and greater community vibrancy and diversity. Growth increases the number of rateable properties in the District and the expected demand for services and infrastructure.

Population projections help us plan the infrastructure required for growth. The projections tell us how many people are expected to move here, the number of dwellings they are expected to require and where they are likely to go.

In 2021, the estimated population of the Western Bay of Plenty District is 57,355. This is projected to grow to 71,367 in 2051, bringing another 14,012 people to our District. The majority of this growth will be experienced in Ōmokoroa where the population will more than double over the next 30 years, increasing from 4,575 in 2021 to 12,086 people in 2051 (refer Figures 1 and 2 overleaf). The planned population capacity for this urban growth area is around 12,000 and this is expected to be reached by 2045. That’s almost the combined population of Katikati and Te Puke today. This growth is not limited to the District. Tauranga City is expected to grow by an additional 56,800 people by 2051. Given the interconnectedness of our Districts, growth planning is undertaken at a sub-regional level. The majority of this growth will occur prior to 2031, and then we will experience a slowing down of growth which reflects a shift from natural increase to natural decline. The District appeals to a broad range of people, with families, retirees, and new migrants moving here. Most of the population growth experienced to date has come from migration from other areas in New Zealand. We also attract immigration from overseas. It is expected that this will continue to be the case over the next 30 years. Further information on population growth projections is included in the assumptions section of the LTP.

Existing urban growth areas

Western Bay of Plenty District has four existing urban growth areas identified in the SmartGrowth Settlement Pattern at Waihi Beach, Katikati, Ōmokoroa and Te Puke. These towns have been growing since the 1980's and still have capacity for additional residential dwellings, and commercial/industrial development. Minimal growth is expected outside of these main urban centres in the next 10 years. In Ōmokoroa, planning is underway for development of the land between State Highway 2 and the railway which will increase the total capacity to 5,300 dwellings on the peninsula. The existing urban growth areas are where Council's planning and infrastructure investment has been focused to date.

Figure 1: Urban Growth Area Dwelling Projections 2021-2051

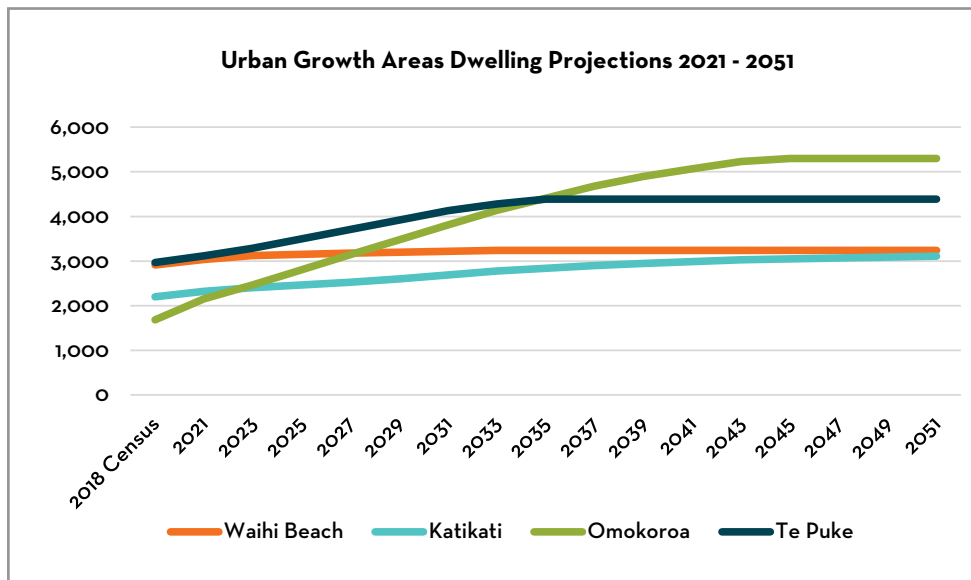
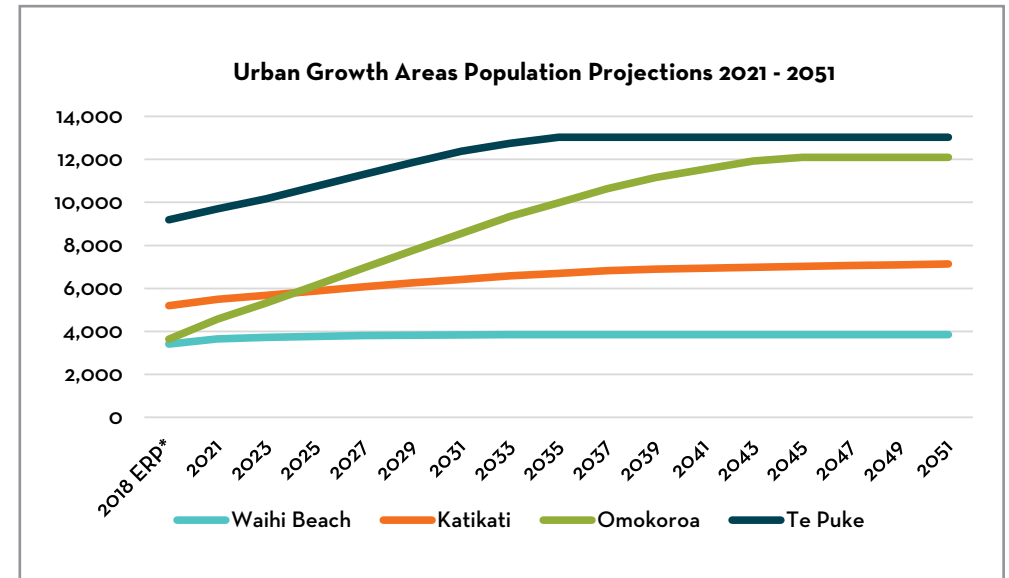


Figure 2: Urban Growth Area Population Projections 2021-2051



Future urban growth areas

The Urban Form and Transport Initiative (UFTI), a collaboration of Western Bay, Tauranga City Council, Waka Kotahi (NZTA) and other Crown bodies, has been working to identify how the sub-region may grow in the future. The adopted final report suggests the development of a new settlement in the east of the District and development of Te Puna and Plummers Point may occur beyond the next 30 years. These recommendations are still subject to several planning studies before significant infrastructure investment will progress, and there may be changes to timing. The UFTI final report also has implications for the Northern Corridor (Bethlehem to Waihi Beach), particularly around provision for public transport. The Financial Strategy has been prepared to position Council's finances to allow for future investment as necessary to deliver on the expected growth.

Compliance with the National Policy Statement on Urban Development (NPS UD)

Our District is classified as a Tier 1 Urban Environment in the NPS UD, which reflects how quickly we're growing as a District and sub-region. We have obligations under the NPS UD to ensure provision of sufficient land for development for the short, medium and long term.

There is still enough availability of developable land under the NPS-UD 20% "competitive margin" for the short and medium term projected uptake across the District. It's projected that the remaining capacity will be used in Te Puke by 2035, and in Ōmokoroa by 2045. For the long term requirements, Council is working through SmartGrowth to identify future urban areas.

Legislative Change



As legislation and regulation evolves and changes over time, so will the Council's investment programme. Requirements from the following legislative changes have been incorporated into the strategy thinking.

- **National Policy Statement on Urban Development** identifies the sub-region as a tier one urban area - meaning it is a high growth area. It requires assessments of demand and development capacity and a Future Development Strategy. Councils are also required to provide an additional margin of feasible development capacity over and above projected demand of at least 20% in the short to medium term (3-10 years) and 15% in the long term (30 years +). The sub-region is fortunate to already be in a good position to respond to this through UFTI, SmartGrowth and the Settlement Pattern Review process, and will continue to work in partnership to report against these requirements. It is recognised that the sub-region does not currently meet the minimum land requirements.
- **National Policy Statement for Freshwater Management (Te Mana o te Wai)** directs Bay of Plenty Regional Council to set new objectives, policies and limits for water management at a local level, and that 'gives effect' to Te Mana o te Wai. The plan changes will be designed to improve water management including the quality of water, water allocation decisions and the relationship of iwi with freshwater. Interpretation and application of the National Policy Statement may increase costs for infrastructure delivery and land supply issues.
- **National Policy Statement for Highly Productive Land** is expected to come into effect in early 2021. Its purpose is to recognise the importance of high quality land for primary production and the need to protect it from inappropriate subdivision, use and development. This may require Council to identify highly productive land, and introduce new rules to prevent subdivision of such land and to possibly introduce buffer zones with sensitive areas.
- **National Policy Statement on Indigenous Biodiversity** is expected to come into effect in the second quarter of 2021. It will require Council to identify areas of significant indigenous biodiversity in the District Plan. The Plan currently largely meets the requirements of this NPS but will need some strengthening of objectives and policies.
- **The Three Waters Review** may result in significant structural changes to Council's role in the delivery of water supply, wastewater and stormwater services. Regardless of how it is delivered, the community will still need services to be provided and planned for. There is currently insufficient detail regarding the possible changes to services, and therefore it is prudent to plan on a business as usual approach to service delivery.

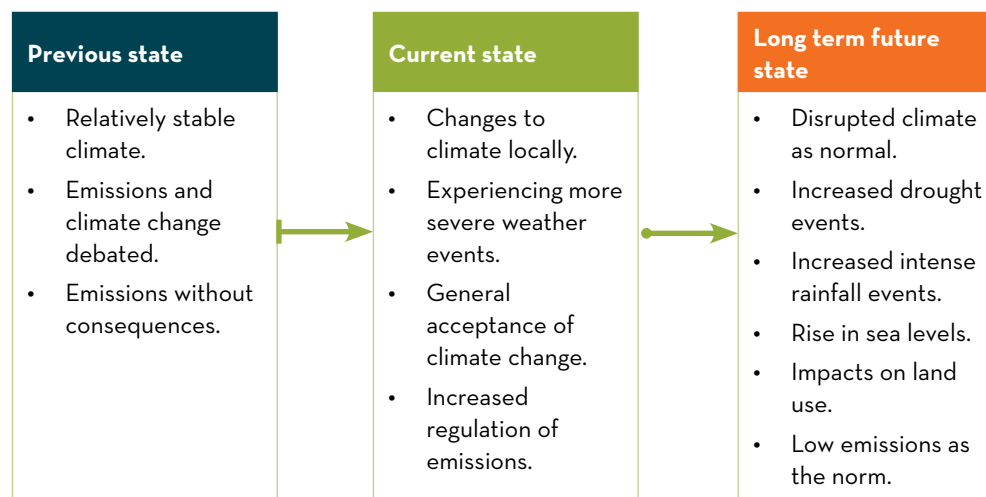
Other areas on which to keep a watching brief on are possible changes to the Resource Management Act and potential future changes to the Local Government Act through the Local Government review. These may see significant changes to Council's responsibilities, with a possible move to a region-wide unitary plan, this would impact on how growth is to be planned and provided for, and may also see an alteration to Councils' responsibilities. Full details are not known at this point and therefore we have planned on the status quo.

It is expected that Central Government and Regional Council will continue the trend of higher public health, environmental and cultural outcomes expressed through national and regional policy statements. The impact of this on resource consents for stormwater and wastewater discharge, for water takes, and drinking water standards has already been noticed and is changing what we do and how we work to ensure environmental outcomes and targets are met, often increasing our costs to deliver these services to the community. This combined with increased pressures from climate change and growth, is likely to increase the challenges for the District for secure and resilient future water sources.

Climate Change



A key consideration is how climate change may impact our communities and our assets. We expect that we will experience increased effects from climate change and will have to have the financial capacity to prepare and respond.



We are required to make provision to plan for and address the implications of climate change. We will progress this through four work streams to establish our governance, our strategy, our risk management approach and to put in place metrics and targets. This involves individual projects in our activity areas, a Council-wide approach to mitigation and risk, and providing sufficient debt headroom for works as needed (either in responding to events made more severe by climate change or undertaking mitigation actions). The strategic assumptions set out the basis of our current planning. The uncertainty around the exact timing of climate change impacts requires a flexible approach and ensuring we have financing available if we need it is important.

The District can expect to see more extreme weather and storm events because of climate change. Our weather patterns are expected to change, with:

- more hot days (temperatures 25 degrees celcius or more)
- milder autumns and winters
- wetter winters
- decreasing summer rainfall with heavier downpours
- fewer cold nights and frosts
- rising sea levels (0.52m above Moturiki Datum 1953 at 2070).

Overall, it is expected that there will be more extreme weather and storm events (potentially three times more frequent), and increased risk from natural hazards such as coastal erosion and inundation.

Climate change is a core component of infrastructure planning and modelling. We can generally expect to see increasing erosion, inundation and damage associated with increasing storm intensity and rising sea levels. This would have a significant impact on large areas of coastline, land use planning, private property and Council's infrastructure and finances. Stormwater, wastewater and roading require increased expenditure on operational responses and repairs due to damage from storms.

Adapting to climate change is becoming a more prominent feature of the Council's work programme, as we increase our knowledge on the impact it has on infrastructure. While planning for the potential impacts of climate change is part of business as usual, we need to better understand the implications of climate change for specific assets to inform future management and investment decisions we make on our infrastructure.

Some difficult decisions will be required regarding the best approach to managing challenges where it might not be feasible or practical to continue with infrastructure provision in some areas. Decisions will be necessary in the future regarding levels of service and if the community wishes to invest more to continue to meet the current levels or accept lower service. Council will be guided by relevant policies and best practice in determining responses, supported by community engagement at relevant points. We also anticipate future Central Government direction in this area, for example with recommended changes to the RMA. Council will continue to work with other lifeline utility operators and partners in the region to understand our risks, and to identify and plan for the impacts of climate change and other events that may test the resilience of our networks. Further details of how climate change is considered is given in the activity sections.



Economic Growth



Our economy is underpinned by agricultural and horticultural sectors and is strongly intertwined with Tauranga's economy which provides most of the sub-region's manufacturing and services. The important drivers of economic growth within the sub-region are population growth, infrastructure improvements, and increases in productivity of exporting sectors through improved technologies and higher levels of mechanisation. Despite the wider impacts of COVID-19, the western Bay of Plenty's economic outlook is still positive.

On the back of strong and continued population growth, our economy is projected to continue to grow. Our District is part of the Golden Triangle (Auckland, Waikato, Bay of Plenty) and our economic growth is expected to be above the national average. We can expect to see significant growth in the kiwifruit industry, and growth in avocado industry and tourism (building on our strong domestic visitor numbers and attracting more international visitors). These industries are heavily reliant on having an efficient transport network, particularly for freight movement, and security of water supply. Tourism (both international and domestic) also relies on access to accommodation options and tourist destinations such as historic sites, coastal and harbour parks, and recreational experiences. With our pre-Covid visitors predominantly domestic (80%), we expect continued demand in the short-term, with an increase as international tourism grows in the mid/longer term.

Other challenges that influence our infrastructure approach

Our District is ageing: The projected ageing population and the corresponding decrease in younger age groups will affect employment, retail, transport systems, demand on health and social services, housing provision and recreational activity. There are many unknowns about the extent of this impact on the provision of infrastructure and we will need to be cognisant of research undertaken in this area and of our community's expectations for future levels of service to cater to the demographic changes. Trends indicate that many older people are choosing to live in urban settlements with easier access to services. They are more likely to be living in one or two person households meaning more houses requiring services, but fewer people in each household lowering demand on a household basis. By 2031, one third of our District ratepayers will be over the age of 65 and largely reliant on fixed incomes which limit ratepayer ability to absorb rate increases.

Our District is becoming more diverse: The District will continue to appeal to new migrants from overseas and the ethnic profile will continue to change. This is likely to bring different demands on infrastructure services (such as catering to different cultural customs) and new opportunities as well (such as contributing to the diversity of our community).

Tauranga is growing fast: An additional 56,800 people are projected to be accommodated in Tauranga by 2051 and employment projections are expected to also increase. The City and District are to some extent intertwined as many people's live, work, play and learn experiences cross over the boundaries daily. Boundary adjustments will occur in the future as land in the District is included in Tauranga City Council's future growth and expansion, decreasing our ratepayer base and productive land area.

Housing is an issue: The affordability and availability of housing is a significant issue for New Zealand. A sub-regional approach is taken to land use planning and urban growth, through SmartGrowth and UFTI. Council collaborates with several groups and initiatives in the District to improve affordability and accessibility, it is also planning to undertake a full review of the District Plan.

Seasonal demand will continue: Horticultural workers and holidaymakers will continue to create large seasonal increases in population, placing greater demand on infrastructure services during this time.

We will continue to partner with Tangata Whenua: The settlement of Treaty of Waitangi claims in the District will continue over the next five years. This will change the economic landscape and is likely to offer new opportunities for collaboration and partnership, and potentially impact on resourcing requirements.

Technology is impacting on the way we do business: Information availability and technology are continually improving what we know so that this can be considered in our planning processes and infrastructure investment decisions. Ultrafast digital enablement is helping to change the way people are working, with an increase in people working from home. We know that the pace of change driven by technological advancements will continue. There are still things we can't anticipate which is why we need to be resilient and flexible to change.

Urban areas will continue to grow while rural areas have limited growth: Council has an ongoing challenge of meeting the different needs of the community in an equitable way, with some areas experiencing growth and other areas retaining a limited or static population base. Urban areas will typically have a higher level of infrastructure investment than rural areas as there is a greater concentration of people in one place. Future development in line with the recommendations of UFTI, will see continued growth of our urban areas and will see the need for planning for additional growth areas in the longer term.

The big picture

The **'Big Picture'** captures what we plan to do over the next 30 years, based on what we know at this point in time. This is the most likely scenario that we will take for capital and operational expenditure on infrastructure from 2021 to 2051. We have included the four activities of Council that collectively have a significant spend and that we have 30-year financial information on stormwater, water, wastewater and transportation (refer Figure 3, 4 and 5).

A separate overview is provided of the remaining infrastructure activities - Recreation & Open Space, solid waste and community facilities (refer Figure 6). A 10-year profile is provided as we need to do more work in this space to determine what the long term future looks like for these activities.

Over the next 30 years there are a number of significant issues and decisions required that will impact on the big picture scenario. This information is included in the following "Significant Infrastructure Issues" section, along with reference to when decisions will need to be made and the budget process they are likely to be considered in.

Expenditure highlights



The most likely scenario for Council is that we will be spending over \$1.05 billion on capital projects for infrastructure over the next 30 years and \$3.04 billion on operational costs over this time.

Council has a focus on infrastructure investment in urban growth areas, predominately Ōmokoroa, and beyond the 10 years in identified growth nodes, achieving agreed levels of service, and a steady programme of asset renewals. The main spikes in expenditure are attributable to the wastewater, transportation and water activities:

- The Katikati ocean outfall renewal in 2037 (\$14 million) is the most significant peak in expenditure. This project is identified as a significant issue as it is anticipated that Council will need to explore a range of options for wastewater disposal due to changing consent requirements.
- The Te Puke wastewater treatment plant requires major infrastructure upgrades expected to cost \$42 million. This is budgeted 2021-30, to provide needed capacity and to meet new resource consent conditions.
- Transportation continues to have peaks throughout the 30 years. A significant focus over the first ten years is the implementation of the Ōmokoroa structure plan with most of these projects funded from financial contributions.
- Investment in swimming facilities will see the delivery of indoor pools at Te Puke, Katikati, and Ōmokoroa.

- Investment in walking and cycling will continue to increase with an additional \$12.2 million over 2021-2031.
- An increase in expenditure for water supply from 2021 relates to an upgrade of the treatment plant in the eastern supply zone and further source exploration. Security, resilience and increased compliance for water supply is identified as a significant issue. Additional bores are required in the Central Supply Zone to service growth. This is planned to occur in 2043.
- Due to the age of assets in the water supply activity, there are a number of renewal projects around 2040 for replacement of the Maketū reservoir and water reticulation improvements in the Western Supply Zone.

While the expenditure peaks put pressure on Council expenditure at times, they are considered manageable within Council's planned debt management approach (i.e. room to move), and do not indicate any potential affordability issues in the future.

Through the LTP consultation, changes to levels of service for a number of activities have been identified as the preferred approach. This includes planned development of swimming facilities in Te Puke, Katikati and land purchase at Ōmokoroa. Investment in our elder housing stock. Delivery of libraries and community hubs for our four urban centres, is a change in approach to our libraries' service provision. Additional level of service changes are likely to occur within the next 30 years, and this means that the financial profile could change in the future. Council has ensured that there is 'room to move', in our financial planning, to accommodate these potential changes (and any other unforeseen events).

Operational expenditure gradually increases over the 30 years primarily due to additional assets coming into Council ownership and inflation. Council does not have any significant backlogs of expenditure or deferred expenditure that may create issues further down the track and is in a comfortable position to ensure assets continue to be maintained to meet level of service requirements. The transportation activity however, will require increased investment. This will address the increased demand placed on our network (seal width deficiency, an ageing network and network safety).

Figure 3: Projected Infrastructure Expenditure by Type 2021/22 - 2050/51

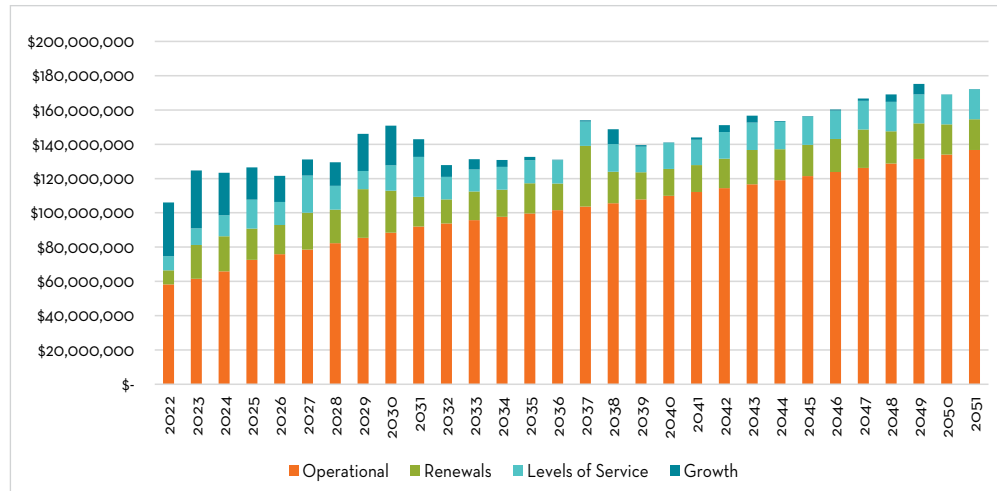
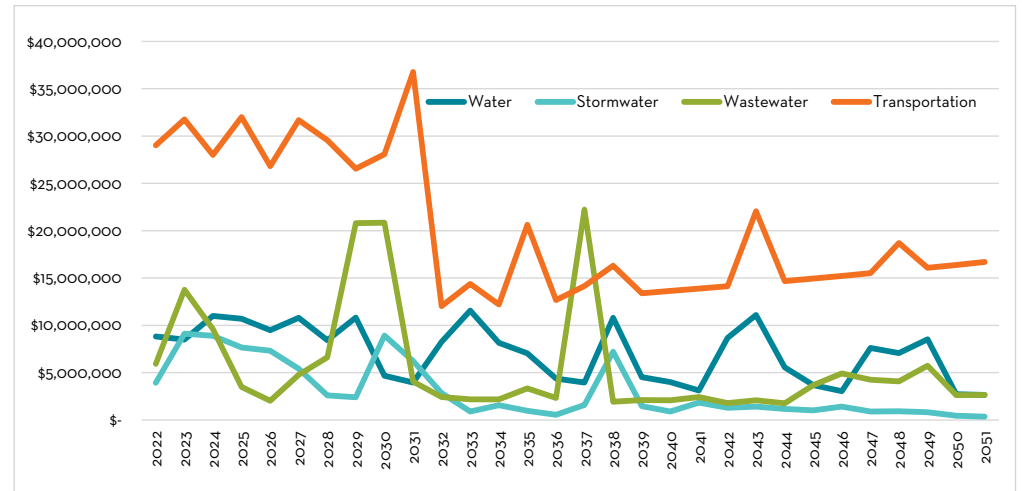


Figure 4: Projected Capital Expenditure by Activity 2021/22 - 2050/51



Explanation

- **Growth** is used to describe new projects identified in structure plans for the urban growth areas, and funded (either wholly or partially) from financial contributions.
- **Level of service (LOS)** is used to describe projects that deliver on Council's adopted level of service, and are not growth related or renewals. It is not about new levels of service or any specific change in levels of service.
- **Renewals** are used to describe projects that replace or upgrade existing assets.
- **Operational** is what we need to do on a day-to-day basis to plan for and deliver services and ensure our assets are maintained. Operational expenditure includes costs, interest (expenses only), depreciation and overheads.
- **2022** is the 2021/22 financial year.
- All financial information in the strategy includes inflation from 2022 onwards.

Figure 5: Projected Operational Expenditure by Activity 2021/22 - 2050/51

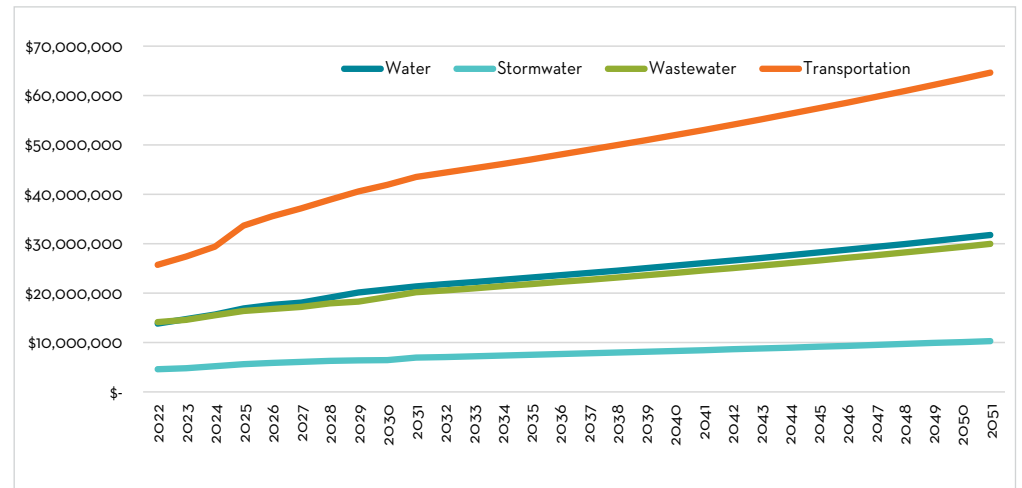
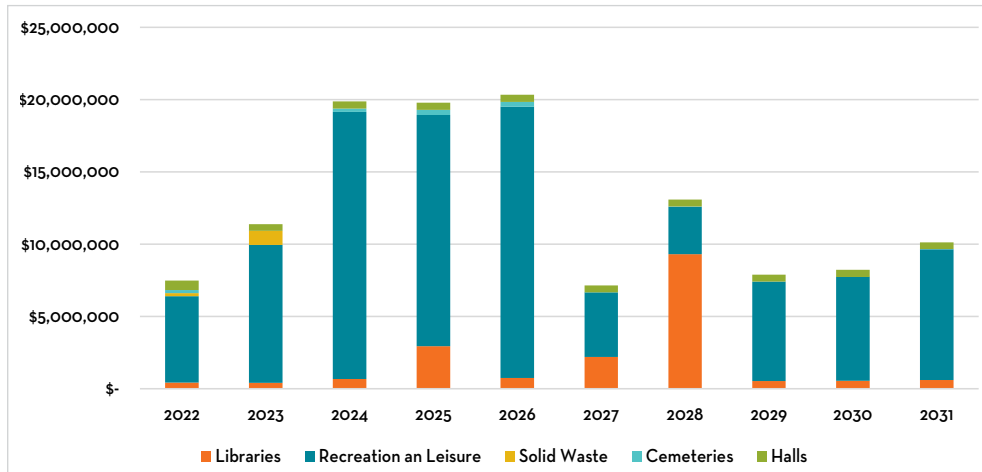


Figure 6: Projected Capital Expenditure for Community, Recreation, Solid Waste 2021/22 - 2030/31



Note: Community hall expenditure is included in the graph to demonstrate expenditure over the 10 years, however it is categorised as operational as it involves a grant to community hall committees who own the facilities to complete improvements.

Key assumptions

The 'Big Picture' is determined by applying a number of assumptions, for example population increases, climate change and demographic changes. The assumptions are outlined in the Strategic Assumptions from page 39.



Significant Infrastructure Issues

Significant infrastructure issues are those which are likely to cost a lot, have an impact across several infrastructure activities, and/or are have the potential to be a big change to the current approach and levels of service. We deliver infrastructure to support on community wellbeing, with all our projects providing a range of benefits across the four aspects of community wellbeing - social, cultural, economic and environmental.

The below are the significant infrastructure issues facing Council over the next 30 years. This is not exhaustive.

 Means Council's most likely scenario.

Issue	Why this is significant	2021-2031 LTP funding	Principal options	Implications
1. Significant investment in growth infrastructure for Ōmokoroa, in particular implications of Ōmokoroa Stage 3 Structure Plan.	Significant infrastructure investment is required in Ōmokoroa over the next 30 years to service a population that will grow to 12,086 people by 2045.	\$15.6 million from 2021-2031 (Ōmokoroa stormwater capital works including renewals). \$11.6 million from 2021-2031 (Ōmokoroa wastewater capital works). Approximately \$72.3 million for Ōmokoroa urban growth transport works for 2021-2031.	Continue with 'just in time' approach to infrastructure investment.	Provides a balance between enabling development to occur in a timely manner and reducing financial risk to Council if growth was to slow down in the future.
			Adopt a lead or lag approach to infrastructure provision	Lead approach carries risk of high investment, slowing down of growth and inability to repay debt from growth contributions (similar to 2007 situation). Lag approach may discourage development occurring and have implications for housing costs.
			Stop infrastructure investment.	Ōmokoroa zoned to provide for future urban development as part of SmartGrowth settlement pattern. Central government pressure to meet housing needs. Reduced land supply could lead to increased house prices.

Issue	Why this is significant	2021-2031 LTP funding	Principal options	Implications
<p>2. Development of the Rangiuru Business Park and associated infrastructure.</p>	<p>The development of Rangiuru Business Park provides much needed industrial and commercial land for the sub-region.</p> <p>Enabling infrastructure is needed for its development. This includes wastewater connections, water supply improvements and transportation links.</p>	<p>\$21 million budgeted for 2021-30 for Te Puke Wastewater Treatment Plant upgrades to accommodate Rangiuru Wastewater.</p> <p>\$14.5 million budgeted for 2024 Water Supply infrastructure.</p> <p>This is a Quayside project with the obligation resting on them to deliver. Council is acting as a facilitator to secure potential Waka Kotahi funding for the project on Quayside's benefit.</p> <p>Associated roading projects are expected to cost \$52 million. This may not be led by Council.</p> <p>\$18 million provincial growth funding for the motorway interchange has also been received for its development by 2023.</p>	<p>Co-fund with Quayside holdings the development of enabling infrastructure. Recovery of costs from Quayside.</p> <p>Council solely funds infrastructure investment.</p> <p>Council does not progress.</p>	<p>Enables joint sharing of risk and effective cost recovery. Enables economic development in the District. Funding received from the Provincial Growth Fund for roading connections is already in place. It is expected that ultimately the developer will pay. Stage 1 operational 2023. Our role is mostly an administrative mechanism for funding.</p> <p>Council enables economic development but takes on a large level of risk. If demand slows down inability to repay debt from growth contributions.</p> <p>Economic benefits for the District are not realised.</p>
<p>3. Implementation of SmartGrowth / UFTI growth infrastructure. Including the implications on local roads from the construction of the Takitimu North Link and Ōmokoroa four laning.</p>	<p>The Urban Form and Transport Initiative (UFTI) and SmartGrowth set out a growth vision for the western Bay of Plenty sub-region. This sees increased intensification in Tauranga, continued growth in Ōmokoroa, Katikati and Te Puke, and, beyond 2050, the development of Te Puna and a new town in the east of the District.</p> <p>The construction of the TNL including a major new bridge and cycleway will see the Council vested with a significant portion of the existing SH2 from Ōmokoroa Road to the Tauranga City boundary at the Wairoa River. The project will also require new local road connections and improvements with actions to encourage modal shift.</p>	<p>\$14 million from 2021-2031. This includes some transportation budgets for public transport.</p> <p>\$10 million for public transport infrastructure (including park and rides and ferry wharf upgrades).</p> <p>\$2.8 million in 2026 (subject to revocation agreements with Waka Kotahi) for additional works as a result of the SH2 revocation and vested land development assets.</p> <p>Future investment will depend on Council decisions regarding future growth nodes.</p>	<p>Delivery of enabling transportation and growth infrastructure.</p> <p>Future planning for future growth areas.</p> <p>Council does not deliver on UFTI or SmartGrowth.</p>	<p>Council, alongside its partners in SmartGrowth have committed to the implementation of the UFTI recommendations. This will help enable urban growth in the sub-region.</p> <p>Council will begin planning for future identified growth nodes. Infrastructure planning and development may need to begin within the next 10 years.</p> <p>Significant decision required for 2027-2037 LTP process.</p> <p>Council does not meet its obligations to its partners and growth is hindered. This will have negative impacts for all aspects of community wellbeing.</p>

Issue		Why this is significant	2021-2031 LTP funding	Principal options	Implications
4.	Provision of community and recreation facilities for a growing community – swimming pools, libraries/community hubs and recreation facilities.	<p>Our community and recreation assets are well used and valued by the community.</p> <p>Our swimming pools are ageing and need to better meet community aspirations and the needs of a growing community.</p> <p>Our libraries need to meet community aspirations and deliver multi-use spaces alongside traditional library services. These will be redeveloped alongside renewal schedules.</p> <p>Investment into our recreation assets is necessary to meet the increased demand placed on them by growth.</p>	<p>Te Puke Pool \$15 million in 2024-2026.</p> <p>Katikati Pool \$15 million in 2040.</p> <p>Interim covering of Katikati pool for \$2 million, and interim upgrades for Te Puke pool of \$300,000, 2021-2023.</p> <p>Ōmokoroa land purchase for a future pool, \$1 million in 2023-27.</p> <p>Ōmokoroa pool \$15 million post 2040.</p> <p>\$2.8 million in 2024-2027 for Waihi Beach Library.</p> <p>\$9 million in 2026-28 for Te Puke Library.</p> <p>\$8 million in 2032 for Ōmokoroa library.</p> <p>\$6.2 million for Ōmokoroa Active Reserves in 2022-27.</p> <p>\$13.3 million for District-wide reserves acquisitions. Primarily Ōmokoroa.</p>	<p>Council invests in indoor swimming pool facilities.</p> <p>Council provides multi-use hubs as part of library redevelopments.</p> <p>Council provides recreation facilities, in line with its levels of service, to meet growth needs in Ōmokoroa.</p> <p>Council maintains the current outdoor swimming pools and current libraries as is. Council does not formalise recreation land in Ōmokoroa.</p>	<p>Provision of indoor swimming pool facilities in the District, multi-use spaces in libraries, and recreation facilities deliver on multiple aspects of community wellbeing. It particularly strengthens social and cultural wellbeing.</p> <p>Significant decision made through 2021-2031 LTP process, and significant decision required for 2036-46 LTP process.</p> <p>Council provides two outdoor swimming pools only and does not look to deliver community hubs alongside libraries. These will likely incur increased maintenance costs as the assets continue to age and service provision does not meet communities' stated aspirations and service expectations.</p>
5.	Increased roading costs due to asset maintenance needs and growth pressures.	<p>The significant growth in population in the sub-region has increased demand on our roading network. Alongside this, our network is ageing and requires increased attention. This has meant that several of our roads are unsuitable for the traffic volumes now using them. Increased investment in replacement and maintenance is needed.</p>	<p>Our total roading spend on projects across the 10 years is \$300 million (this includes projects covered elsewhere in this list, such as Growth-related works, public transport enabling projects and walking and cycling).</p> <p>Expenditure has increased to \$96.1 million for the maintenance programme (2021-31).</p>	<p>Increased funding for maintenance and network improvements. That a lower level of service for our roading network is acceptable.</p> <p>Maintain funding levels and reduce maintenance to less than current levels.</p>	<p>Increased costs for ratepayers through the increased asset base and network investment required.</p> <p>Significant decision made through 2021-2031 LTP process.</p> <p>A lower level of service may be acceptable to the community.</p>

Issue	Why this is significant	2021-2031 LTP funding	Principal options	Implications
<p>6. Increased standards of compliance for treatment of and method of wastewater discharge.</p>	<p>Katikati wastewater ocean outfall is the consented discharge for the Katikati wastewater system which is due for renewal in 2037. The pipeline crosses the Tauranga Harbour and Matakana Island before discharging highly treated wastewater in the ocean.</p> <p>The discharge consent will require Council to potentially implement an alternative discharge for wastewater. Actual costs for the implementation of the alternative discharge location cannot be identified until options have been worked through with the community.</p>	<p>\$14 million for replacement of the existing Katikati outfall in 2037.</p>	<p>Undertake an assessment of options for wastewater disposal for the Katikati wastewater system including consideration of:</p> <ul style="list-style-type: none"> land based discharge reduction of inflows increase in treatment standards upgrade or replacement of pipes alternative disposal options combination of the above options. <p>This assessment will occur within the next five years.</p> <p>Note: No alternative options identified as this assessment will be a requirement of the renewed resource consent and to meet an increased population.</p>	<p>The option assessment will include identification of criteria that will be used to assess each option including cost, cultural impact, planning implications, community impact.</p> <p>Significant decision required for 2024-2034 LTP process.</p>
	<p>Alternative discharge options are to be considered for Te Puke Wastewater Treatment Plant within the next 30 years and prior to the end of the current resource consent. Upgrades for the Wastewater Treatment Plant are planned within the LTP to deliver renewals, improve treatment and increase capacity.</p>	<p>\$20 million budgeted for 2021-30 for Te Puke Wastewater Treatment Plant upgrades for capacity and quality improvements. This is additional to the upgrades also required for the development of Rangioru Business Park.</p>	<p>Undertake investment to meet population growth and quality requirements.</p> <p>Includes investigating options.</p>	<p>Upgrades to the Te Puke Wastewater Treatment Plant will deliver environmental and cultural benefits.</p> <p>Investigations on future discharge options will have to be considered and discussed with the community in a later LTP process.</p>
	<p>Introduction of reticulation in the Te Puna commercial area has been identified as an environmental issue. External Central Government funding can fund this. This funding can also support marae wastewater services.</p>	<p>Te Puna commercial wastewater reticulation and associated wastewater projects delivered by external funding.</p>	<p>The Three Waters Review funding package allows for a number of projects to be delivered. Scale and method is to be determined.</p>	<p>Helps deliver environmental benefits for the area, with consequential cultural and social advantages too. Specifically benefits those properties connecting.</p>

Issue	Why this is significant	2021-2031 LTP funding	Principal options	Implications	
7.	Increased demand for new and improved walking and cycling facilities.	<p>Council will continue to build on the progress made in development of the walking and cycling network, and implement the Cycle Action Plan. This includes completion of sections of the Tauranga Moana Coastal Cycle Trail and extending network connections across the District.</p> <p>As part of Council's commitment to the Transport System Plan and SmartGrowth's future planning, we will look to encourage modal shift and transport choice. Walking and cycling infrastructure is a major part of this.</p>	<p>Council's total investment in walking and cycling is \$16.6 million over the next 10 years which includes \$2.7 million through recreation and open space budgets, \$13.4 million for District-wide cycling and urban footpath development, and \$500,000 for off-road walkways in rural areas.</p> <p>Council will also use this investment to leverage external funding to assist with development of the walking and cycling network.</p> <p>An ongoing investment is expected across the next 30 years as part of the delivery modal choice.</p>	<p>Implementing the Cycle Action Plan and continued investment in the network.</p>	<p>This recognises the multiple benefits of this network including recreation, health, amenity, tourism (and associated economic benefits), and commuter links. It supports Council's role in encouraging modal shift and transport choice.</p> <p>Significant decision made through 2021-2031 LTP process.</p>
				<p>Maintain the current network only.</p>	<p>This does not deliver on the multiple benefits offered through investment in walking and cycling. It does not directly increase costs.</p>
8.	<p>Council's level of service for Solidwaste, kerbside services a greenwaste/recycling/resource recovery centre in Ōmokoroa and waste infrastructure investigations.</p>	<p>A Council-led kerbside service is being introduced in July 2021. This will see a change to the current levels of service.</p> <p>Council has recognised the need to deliver a recycling centre in Ōmokoroa to meet residual recycling needs after kerbside recycling has been introduced, and for greenwaste drop-off.</p> <p>Further investigation and delivery of future waste infrastructure needs is necessary in the next 30 years. There is a need to meet a growing population. This includes looking at transfer station provision in the District.</p>	<p>\$2.6 million operational costs from 2021/22 onwards (with increases for population growth and inflation) for the delivery of kerbside services.</p> <p>\$1.2 million from 2021/22 to 2022/23 for development of a greenwaste/recycling resource recovery centre at Ōmokoroa.</p> <p>\$675,000 has been budgeted for community re-use facilities and rural recycling drop-off points for 2021-24.</p>	<p>Council has committed to the delivery of kerbside services.</p>	<p>Council has committed to the delivery of kerbside services, following community consultation in 2019. This will principally deliver environmental benefits.</p>
				<p>Council will need to investigate and plan for the delivery of waste infrastructure, including greenwaste/recycle facilities at Ōmokoroa. Investigations are also required for future waste infrastructure in the District.</p>	<p>Waste and recycling infrastructure is needed to deliver on environmental and social wellbeing.</p>

Issue		Why this is significant	2021-2031 LTP funding	Principal options	Implications
9.	Increased standards of compliance for treatment of stormwater discharge.	<p>Increased standards require a change to the approach taken to development and management of the stormwater network.</p> <p>Implementation of the Comprehensive Stormwater Consent requirements including water quality, network capacity and monitoring.</p> <p>This includes monitoring and compliance of stormwater discharge and improvements to the quality of stormwater discharge.</p> <p>Upgrades are required to the network to deliver better environmental outcomes and network performance.</p>	<p>Stormwater network upgrades of approximately \$55.8 million for 2021-2031. Including funding for water quality discharge improvements.</p> <p>Increased operational costs for monitoring and to ensure compliance with resource consent conditions.</p> <p>\$5.4 million to address undersized pipes in Te Puke (2035-2039).</p>	<p>Increase stormwater budgets to respond to increased water quality standards.</p> <p>This includes additional operational costs to monitor and respond to compliance issues, and implementation of additional projects that improve the quality and/or velocity of stormwater discharge into water courses.</p> <p>Through changes to the District Plan, Council may require new development to provide onsite retention/detention devices to reduce peak flows recognising the multiple benefits of this (for example, water storage for onsite use during dry periods).</p>	<p>Ensures adequate resources are in place to respond to changing requirements for management of stormwater. Delivers environmental and social benefits.</p> <p>Recognises that further change may still occur that could have future cost implications and impact Council's current approach to stormwater management.</p> <p>Progress through a change to the District Plan. Places the responsibility on private property to provide for onsite retention/detention devices and recognises benefits of this for use during dry periods of weather (eg watering of lawns and gardens). Reduces volume of stormwater entering into Council's stormwater network.</p>
10.	Provision of boat launching facilities to cater for growth.	<p>Demand on coastal marine facilities has increased and is expected to continue to increase over time as the population (in Tauranga and Western Bay) grows. Council has a coastal structures renewal and upgrade programme.</p> <p>Council needs to ensure that this investment responds to current and future demand for water access.</p>	<p>Northern Harbour boat ramp - \$4.5 million primarily in 2024-26.</p> <p>Ōmokoroa boat ramp and associated facilities - \$5.5 million across the LTP, but mostly in 2028-2031.</p> <p>Renewal of various other jetties, boat ramps and sea walls \$10.4 million for 2021-2031.</p>	<p>Protect remaining land available at boat ramps.</p> <p>Identify location for development of an all-tide boat ramp for the Northern Harbour and undertake works. Undertake upgrades at Ōmokoroa.</p> <p>Take into consideration District Plan provisions and Coastal Erosion Responses Policy.</p> <p>Continue to implement capital programme of improvements through LTP process.</p>	<p>Applies a strategic approach to future provision, looking at demand across the sub-region.</p> <p>Nexus to growth will inform discussion on potential funding sources of coastal marine facilities (if any).</p> <p>Need to ensure delivery programme meets current and future demand for boat launching facilities.</p>

Issue	Why this is significant	2021-2031 LTP funding	Principal options	Implications	
11.	Security, resilience and increased compliance for water supply.	<p>Western Bay's water supply is generally in good shape, as we've invested in deep bores and water treatment systems. However increase in compliance standards, monitoring and treatment are expected, such as UV treatment.</p> <p>Increased growth, increasing environmental standards and potential implications of climate changes will put increasing demand on our water sources and the need for new sources. This is particularly an issue in the Eastern Supply Zone with some areas currently over-allocated for water takes.</p>	<p>\$7 million for actions to meet increased treatment requirements (2021-31).</p> <p>\$1 million for actions required for resource consent renewal (2021-31).</p> <p>\$13 million for water source exploration and new bores (2021-31) of which \$4.6 million (2021-2024) is for alternative supply in the east.</p> <p>Investment into new sources and storage will be required across the 30 years, with \$17.7 million capital expenditure between 2031-2051.</p>	<p>Increase water budgets to respond to increased water quality requirements and supply needs.</p> <p>Note: No alternative options identified as changes will more than likely be a requirement of legislative change, Taumata Arowai and water supply regulations.</p> <p>Council would rather be prudent and proactive in its approach to planning and budgeting for this change.</p>	Ensures adequate resources are in place to respond to changing requirements for water quality management.
12.	Investment into provision of elder housing stock.	<p>Our elder housing requires redevelopment to address an ageing stock, to provide better use of sites and to deliver more units for a growing ageing population.</p>	<p>\$4.9 million for the redevelopment of three Elder Housing sites and delivery of up to 20 additional units (2021-2031).</p> <p>Further redevelopment of the existing stock across the 30 years to increase number of available units and quality (\$9.8 million between 2032-51).</p>	<p>Council invests in elder housing provision.</p> <p>Council maintains current elder housing stock.</p> <p>Council divests elder housing stock.</p>	<p>Council elder housing provision delivers on community wellbeing. Initial investment in 2021, but further investment is forecast across the 30 years.</p>

Significant decision made through 2021-2031 LTP process.

Note: figures in the above table do not include inflation.



Activity Overviews

• Stormwater	113
• Water supply	118
• Wastewater	123
• Transportation	127
• Solid waste	134
• Recreation and open spaces	138
• Community facilities	143
How we manage our assets	148

Stormwater



Stormwater is water that originates during rainfall events. Stormwater is of concern for two reasons; stormwater quantity and stormwater quality. If not managed correctly, the volume and timing of the surface run-off can create flooding. The run-off can also collect contaminants from the land crosses to the waterways, and this can result in water pollution.

Council is responsible for the urban stormwater networks that generally protect buildings and property from the effects of flooding and coastal erosion. The network is made up of pipes and open channels linked to guide stormwater to streams, rivers and the ocean. Council's philosophy is to use natural contours and waterways rather than hard infrastructure, wherever practical. The road network (managed within the Transportation Activity) also helps to capture and manage stormwater flows.

The District has experienced a number of flooding events over the years due to increased rainfall intensities and development particularly in coastal and low-lying areas. Council takes an integrated catchment approach to mitigating as much as possible and practicable, the extent of flooding and the impact this has on people's property.

What influences our approach?

Issue	Response
<p>Population growth</p> <p>Urban areas have less permeable surfaces and a greater concentration of people affected by rainfall and flooding events. Therefore these areas require the highest investment in stormwater infrastructure.</p> <p>The greatest areas of demand for stormwater infrastructure are Waihi Beach, Katikati, Ōmokoroa and Te Puke.</p> <p>In some areas undersized stormwater infrastructure does not have the capacity required to dispose of stormwater runoff or deliver the required levels of protection from flooding.</p>	<p>Stormwater modelling is used to determine infrastructure requirements and uses adopted population projections.</p> <p>A level of service is in place that specifies no more than 30 properties per 1000 (3%) serviced by the stormwater network will experience flooding of homes (above floor level of habitable dwellings) in a 1-in-10-year rainfall event.</p> <p>Prioritisation of improvements to stormwater infrastructure is undertaken based on the properties most at risk of flooding.</p> <p>The District Plan rules require new dwellings to have habitable floor levels above the 1:50 year rainfall event. Building/resource consent waivers are in place for existing dwellings as incentives to landowners who want to raise their floor levels in a flood-prone area. Similarly, there are specific rules for the Minden area with overland flow paths identified.</p>
<p>Climate change</p> <p>Increased rainfall intensities require more capacity within the network to discharge stormwater run-off. More overland flow is expected for larger rainfall events.</p> <p>Sea level rise is increasing flooding and the boundaries for the 50 and 100-year floodable areas.</p>	<p>New and upgraded stormwater infrastructure incorporates the latest climate change information in design and implementation.</p> <p>Overland flow paths are identified and incorporated into new development. Identify key infrastructure subject to increased risk due to sea level rise.</p>

Issue	Response
<p>Environmental sustainability and legislative changes</p> <p>Increasing environmental standards impacting on the quality and amount of stormwater that is discharged into streams, rivers and oceans.</p> <p>Our comprehensive stormwater consents guide some of the environmental targets we aim to achieve. The National Policy Statement Freshwater Management and accompanying regulations will also bring new environmental requirements.</p> <p>There are ongoing investigations regarding who will be responsible for delivery of Stormwater, through Central Government’s Three Waters Review.</p>	<p>Water quality is likely to continue to be a focus for both central and regional government. It is also an area our community has indicated they would like to see improved.</p> <p>We use an integrated catchment management approach to provide a stormwater network that avoids impacts on water quality. We will increase monitoring and encourage options for low impact design solutions that manage flood risk and impacts on water quality and receiving environments.</p>

What we want to achieve



Council aims to deliver a stormwater management system that manages flood risk, contributes to improving water quality and contributes to enhancing ecological and cultural values. We want to see a reduction in flooding events that result in stormwater entering a habitable floor. This will help us all to enjoy a healthy and safe lifestyle, have vibrant and welcoming communities and a clean, green and valued environment.

In achieving this outcome, the focus over the next 30 years is to improve community resilience from potential flooding by ensuring that:

<p>There is a localised reduction of the risk of flooding events in existing floodable areas.</p>	<p>There is no increase in flooding event risk to existing development from new development or land use change.</p>	<p>Urban development is avoided in flood-prone areas unless mitigation measures can be provided.</p>	<p>The extent to which these goals are achieved is largely measured by Council’s stormwater level of service and customer perception surveys.</p>
<p>Communities are engaged and informed about stormwater and coastal erosion management approaches.</p>	<p>Compliance and monitoring activities are carried out.</p>		

How we will achieve this

Current approach

Council will use an integrated catchment based management approach to provide the following outcomes:

1. A stormwater network that minimises risks of flooding events.
2. Avoid negative impacts on water quality.
3. Be responsive to customer's stormwater issues.

Council has set targets that limit the percentage of properties serviced by Council's stormwater network that experience flooding of homes (above the floor level of habitable dwellings) in a 1-in-10 year rainfall event. This is location specific, ranging from 1% in Ōmokoroa and Katikati, to 3% for Te Puke and 6% for Waihi Beach. We are currently meeting this level of service.

A \$7.5 million programme has been included in the 2021-2031 LTP, building on our previous work, focusing on areas of essential upgrades and maintenance.

As the network of stormwater assets is relatively new (62% of stormwater pipes are less than 20 years old, with an 80-100 year life), the majority of renewals sit outside of the 30-year strategy. As some of the network is deemed to be undersized, the need for replacement with a larger pipe is assessed based on the flood risk to properties downstream or upstream. Overland flow paths play an important consideration in this assessment to ensure unimpeded flow.

Extensive modelling has been completed and used to obtain comprehensive stormwater consents. This helps to quantify risks to dwellings and inform priorities within the capital works programme. This information also influences decisions on where future development occurs in the District.

Future thinking and potential changes to current approach

Comprehensive stormwater resource consents have been put in place for the Ōmokoroa and Western areas, with Eastern and Central areas being progressed. These require a greater emphasis on the quality of stormwater discharge. Additional funding is included in this LTP for increased costs of compliance and to implement systems such as water treatment devices that improve water quality standards. Based on an integrated catchment management planning approach, we will carry out monitoring and modelling work to ensure compliance with consent conditions.

The Coastal Erosion Responses Policy 2017 provides a framework for consistent decision making where Council-owned coastal land is affected by coastal erosion or subsidence. This will be applied to all relevant infrastructure decisions in the future, noting that this affects more than just the stormwater activity.

Following the completion of the Tauranga Harbour Coastal Hazards Study, Western Bay has a greater understanding of inundation risks across the harbour. We are now undertaking further analysis of rainfall flooding risks and tsunami risks. These models will be revised over the next 30 years to reflect updated information.

Other issues to note include any potential change to the management and operation of open drains of the Waihi Estuary catchment. This is undertaken by the Waihi Land Drainage Society, a drainage scheme near Pukehina, operated by local farmers and assisted by Council for the protection of pasture against flooding.

Another issue is the impact of residential growth for the Te Puke township on stormwater infrastructure managed by BOPRC in the Te Puke stormwater catchment. The BOPRC has a level of service to maintain in managing a drainage canal system for the prevention of flooding of rural land.

Discussions have also been had with the BOPRC regarding the level of protection and appropriate funding model for the Katikati stopbanks (as they cross a number of individually-owned properties). There may also be future areas for innovation here including moorings and floating utility services and wetland management.

Expenditure Forecast 2021-2051

Figure 7: Stormwater Projected Capital Expenditure 2021/22 - 2050/51

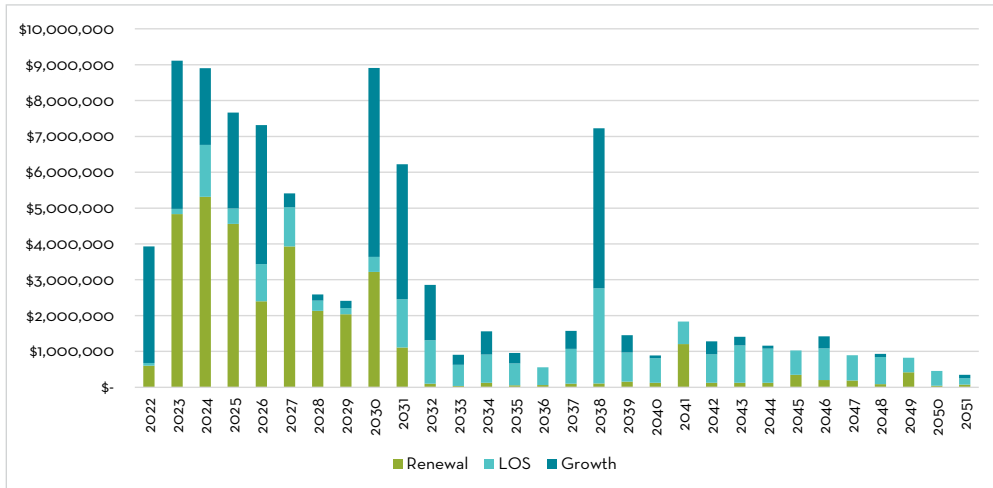
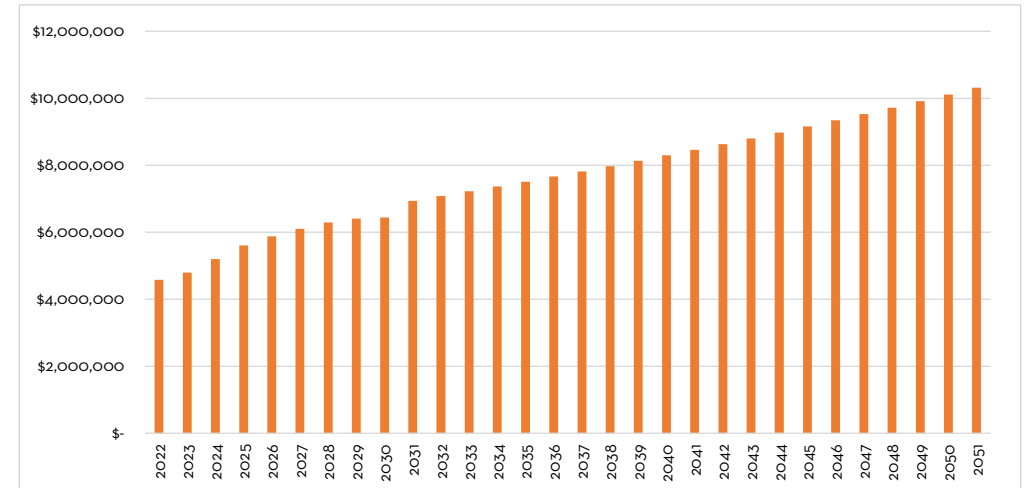


Figure 8: Stormwater Projected Operational Expenditure 2021/22 - 2050/51



Key Projects include:

- A total of \$2.3 million has been planned to assist with the application of a District Wide Resource Consent (including construction of stormwater treatment devices). This project is to be staged over several years.
- The ongoing work of renewals and upgrades of stormwater infrastructure to meet minimum level of service standards will continue. For small settlements, a programme of works totalling \$4.4 million is included in the 2021-31 LTP.
- Recent stormwater modelling for Te Puke identified areas of the piped network that are undersized. Recommended upgrades from the modelling report have been prioritised and included in Council's 30-year plan. Council has \$4.6 million allocated in the 2021-31 LTP for Te Puke stormwater upgrades.
- Growth-related stormwater infrastructure at Ōmokoroa has been budgeted at \$15.6 million across the 2021-31 LTP.
- Council worked with the community to develop a stormwater management plan for Waihi Beach. The stormwater management plan includes a long term strategy for Council and the community to help alleviate stormwater issues. Estimated costs for infrastructure upgrades is \$17.6 million which has been included in the 2021-31 LTP. Includes works at Pio Shores which are budgeted at \$3.3 million in the 2021-2031 LTP.
- Stormwater network upgrades of approximately \$55.8 million for 2021- 2031 . Including funding for water quality discharge improvements.
- \$5.4 million to address undersized pipes in Te Puke (2035-2034).

Key activity assumptions

Relevant strategic assumptions	Activity assumptions	Risk	Impact
Population growth	Estimates of land coverage imperviousness are made based on recommendations in the New Zealand Building Code Handbook	Increased land coverage (above the building code) by hard or impervious surfaces e.g. in-fill, roofing and driveways means less water soaks into the ground and more water runs off at a faster rate into the stormwater system.	The financial impact of responding to this risk is not factored into current budgets which are based on modelling of adopted population projections and building code land coverage estimates.
Climate change, environmental sustainability, legislative changes	Rainfall intensity values are generated from actual rainfall data. Factors have been applied to account for climate change over the next 100 years as determined by the Bay of Plenty Regional Council (BOPRC). These factors are based on Ministry for the Environment Climate Change recommendations.	If changes to rainfall intensity occur significantly faster or at a greater scale than forecast, this will place stress on our networks. Increased rainfall intensity creates more flood events as the rainfall is heavier and runs off the land faster placing greater demands on stormwater infrastructure.	If the rainfall intensity events increase significantly then a greater percentage of the stormwater infrastructure will be undersized. As a result the levels of service may not be achieved, and potentially the investment in stormwater infrastructure may need to increase.
	The sea level value used in relation to stormwater assets is based on the best estimate up to 2100, making allowances for high tide and storm surge as per the requirements of BOPRC outlined in their Hydrological and Hydraulic Guidelines.	Should sea level rise progress at a rate faster than anticipated, the design of the stormwater networks may not be suitable to cope with increased salt water intrusion, reduced fall for some drains and the increased impacts of storm events.	If sea levels are higher than estimated, the impact from storm events will increase, as will coastal flooding and the requirement for coastal protection works or a managed retreat of properties. Expensive redesign of some networks maybe required.
	The Government's Three Waters Review is considering how water services are structured and delivered. This may see changes in Council's role for managing stormwater. There is currently insufficient clarity on what this may finally look like and it is therefore prudent to plan on a business as usual approach with a likely increased focus on water quality.	Stormwater moves away from Council control and to a new body. Risk that the transition period for this is shorter than expected and additional funding is needed to meet these requirements. Alternatively, the risk that this does not occur and we plan investment that is not required.	Increased funding above that planned, may be necessary with implications for rates. If stormwater is no longer a Council role, there will be significant financial and structural implications for Council.

Water supply



Council is responsible for the sourcing, treatment, storage, distribution and management of the District’s water supply. Water is supplied from nine bore fields. The bores tap into deep reliable, plentiful and high-quality water in underground aquifers. Nine water treatment plants are located throughout the District. Water supply customers include residential, commercial, horticultural and agricultural users.

The past 10-20 years have seen the establishment of quality storage, source and distribution network improvements throughout the District to ensure Council can supply sufficient water to meet growing demands. Council has transformed its water supply by changing sources from rivers and streams to secure underground aquifers. This has resulted in a significant improvement in water quality from an ‘Ee’ to a ‘Bb’ Grade. Conversion to bore supplies has also enabled Council to increase its capacity and has improved the reliability of supply.

Installation of District-wide water meters was completed in 2018. Water meters have multiple benefits including customers managing their own usage in response to conservation initiatives and costs, identification of high volume users and system leaks, and the potential to delay investment in additional infrastructure as water demand decreases. Council is constantly aiming to achieve an appropriate balance between water production and water consumption. Water supply needs to be sufficient to cope with peak demand and water storage needs to ensure a minimum of 24 hours average daily demand storage in all systems.

Council’s water supply network services three water supply zones:

- Western Water Supply Zone: Waihi Beach, Athenree, Kauri/Tanners Point, Ongare Point, Aongatete and Katikati areas.
- Central Supply Zone: Te Puna, Minden, Pahoia and Ōmokoroa areas.
- Eastern Supply Zone: Te Puke urban and surrounding rural areas and areas east of Te Puke, Paengaroa, Maketu, Pukehina and Pongakawa.

What influences our approach?

Issue	Response
<p>Population growth</p> <p>Urban areas have a greater concentration of people that require access to water supply. The greatest areas of demand are the urban growth areas of Waihi Beach, Katikati, Ōmokoroa and Te Puke. Waihi Beach in particular has a significant impact on peak demand due to the high number of holiday homes and increases in water consumption during summer.</p>	<p>The use of water meters has helped improve our understanding of water consumption patterns, peak demand, water loss and have guided our planning for future water supply. They have acted as demand reduction tools. Council has also budgeted for additional supply and capacity works, to meet increased demand, \$12.5 million in the first seven years alone.</p>
<p>Economic growth</p> <p>Horticultural and agricultural users have high water consumption. New plantings and changes in orchard management practice encouraging greater use of frost protection and irrigation may increase future demand for water from groundwater and streams.</p> <p>Similarly, industrial/commercial development may require additional water. This would be necessary for workers’ basic drinking water and sanitation needs, but may also be needed for some business operations.</p> <p>This will only impact on Council’s supply and demand projections if they are connected to the Council-reticulated supply.</p>	<p>Council is working with BOPRC and industry leaders such as Zespri and Quayside Holdings to better understand their actual land use trends that have the potential to impact on future land use patterns and water allocation and supply. While some of this use does not affect Council’s water supply, it helps to understand the bigger picture of total water consumption in the District.</p> <p>Council also actively identifies high users and puts in place water conservation measures.</p>

Issue	Response
<p>Environmental sustainability and legislative changes</p> <p>There is a drive to conserve, use and manage water the best way possible to ensure water sources are sustainable. Increasing environmental standards impact on the approach taken to water allocation, quality and compliance.</p> <p>BOPRC is required to give effect to the National Policy Statement on Freshwater Management, which will see a changes to the Regional rules regarding water within the next three years. This creates uncertainty as to how resource consent applications for access to water supply will be considered in the future and what conditions will be imposed.</p> <p>The Government's Three Waters Review is considering how water services are structured and delivered. This may see changes in Council's role for water supply.</p>	<p>Demand management is done through water metering, Uniform Annual Charging on connection capacity, and water restrictions during peak demand periods. Pressure management and leak surveys are two ongoing initiatives to reduce losses and peak demand volumes to extend the life of the water source.</p> <p>Western Bay's water supply is generally in good shape, as we've invested in deep bores and water treatment systems. Our resource consents for water supply are up for renewal from 2024. We've factored in an additional \$1 million to meet expected regulations and standards.</p> <p>The outcome of the Three Waters Review is not yet known. Our planning is based on maintaining our levels of service and assets, and for this we have assumed no change in Council's role.</p>

What we want to achieve



Council aims to ensure that water supply is provided in a sustainable manner. This will help to achieve a clean, green and valued environment, a thriving economy, and enjoyment of a healthy and safe lifestyle.

In achieving this outcome, the focus over the next 30 years is to:

Continue to provide potable water of an appropriate standard and quality to meet the needs of consumers within the three supply zones.

Focus on the sustainable management of our water resource, water supply infrastructure and consumer use of water across the three supply zones.

The extent to which we achieve these goals is measured through levels of service relating to water storage and water quality, regular analysis of water consumption patterns and provision of capacity to enable growth to occur.

How we will achieve this

Current approach

Council will continue with the current approach with no changes to levels of service. This focuses on water conservation and demand management and ensuring there is sufficient capacity to provide water to urban growth areas.

The maintenance and upgrades to water systems will continue as a number of water supply assets will be near the end of their useful life within the next 30 years. These include some of the reservoirs and trunk mains particularly in the Western and Eastern Supply zones.

Council will continue to identify appropriate water sources and extend the water supply network to meet the needs of our growing communities. In the Central Supply Zone planned exploration and a new bore for Youngson Road will cater for growth in the Ōmokoroa and Te Puna area. A new bore and reservoir is planned in 2028 for the Western Supply Zone to cater to Waihi Beach and Katikati. In the Eastern Supply Zone, exploration and construction of new bores is planned to cater for growth and resilience of the water supply network. Much of the Eastern Supply Zone is currently over-allocated for water-takes resource consents, which poses issues now and these may increase over time as further pressures develop.

Future thinking and potential changes to current approach

Options are available in the Eastern Supply Zone for future water supply and storage, including further bores at Pongakawa and other locations, and an access agreement with Tauranga City Council to the Waiari water source that comes on stream in 2021. \$4.6 million (2021-2024) has been budgeted for an alternative eastern supply.

Additional budget of \$8 million is included in the LTP as a proactive response to the potential for increased water quality standards. It is expected that with the water reforms and the water regulator, Council will need to introduce a two-barrier treatment method to its water supplies through Ultra Violet (UV) treatment. Our water supply resource consents require renewal in 2026 onwards and will be assessed against any changes to legislation and water quality standards. This budget has been determined based on the potential requirement to develop UV systems for treating bore water, fluoride treatment systems (noting that this assumes a regulatory requirement to do so), automatic monitoring stations, and multi-barrier solutions.

A review of the water charging regime will be undertaken in 2022. This allows for consideration of District-wide information on water use patterns and water meter data. The purpose of the review is to ensure that the water charging approach continues to be undertaken on a fair and reasonable basis, taking into account actual information on water usage derived from the water meters.

Tauranga City Council and Western Bay of Plenty District Council have jointly appointed a three waters contractor. This allows the two councils to work together in the water services space to make the most of their individual and joint resources and expertise and build on national best practice.



Expenditure Forecast 2021-2051

Figure 9: Water Supply Projected Capital Expenditure 2021/22 - 2050/51

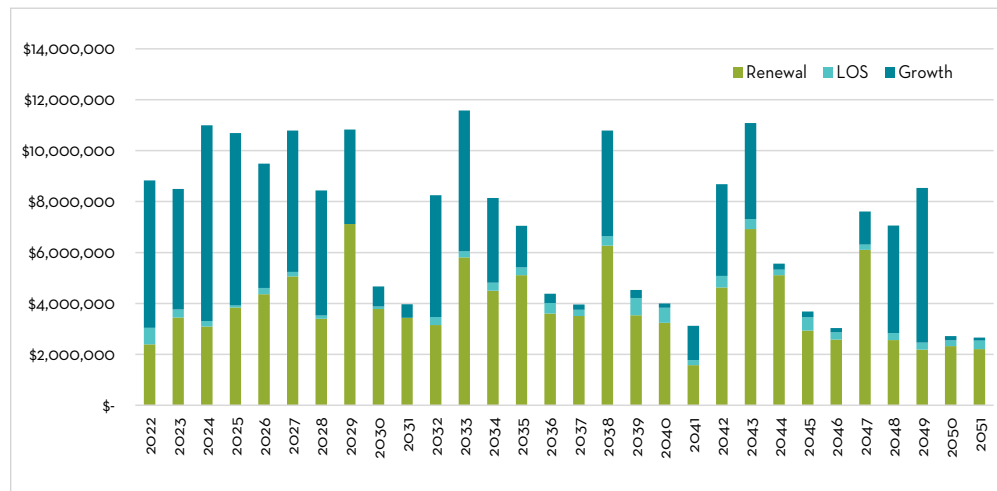


Figure 10: Water Supply Projected Operational Expenditure 2021/22 - 2050/51

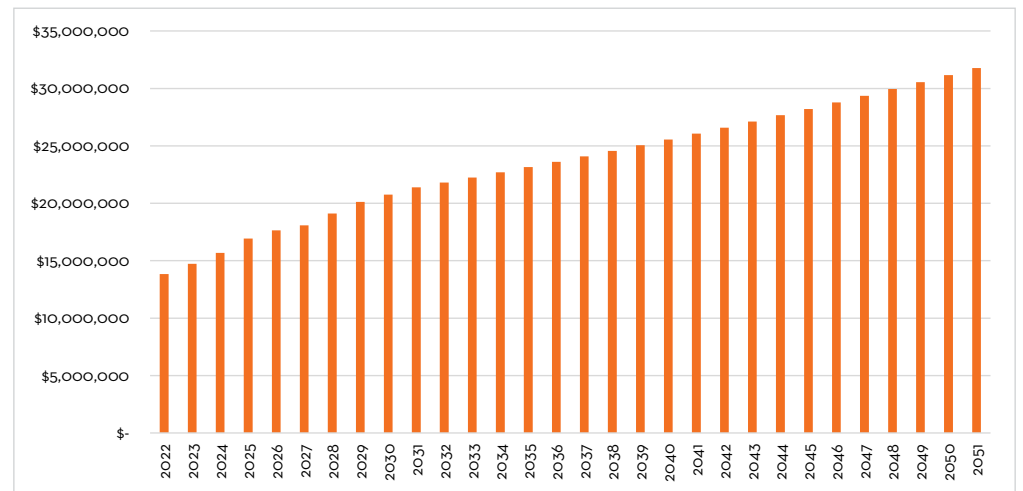


Figure 10 includes interest expense, overheads and depreciation and excludes internal interest income.

There are a number of key projects:

- In the Eastern Supply Zone and Central Supply Zone a number of significant projects for new water storage and water sources are planned to meet growth and demand. This includes \$4.6 million (2021-2024) is for alternative eastern supply.
- A number of resource consents for Council's water source takes are due to expire from 2026. Funding has been included to begin the consent renewals application from 2023. Across the District there is an increase in renewals of ageing asbestos-cement (AC) water mains, for the 2021-2031 period. These renewals have been scheduled in the asset management plan, and have been included in the Long Term Plan.



Key activity assumptions

Relevant strategic assumptions	Activity assumptions	Risk	Impact
<p>Environmental sustainability and legislative changes</p>	<p>There will be changes to legislation seeking to improve water standards.</p> <p>Taumata Arowai (Water Services Regulator), has recently been established. Its full powers are yet to pass into legislation, but it will oversee an increased focus on water quality and compliance. It is likely that increased treatment standards (particularly related to the treatment of water from previously 'secure' sources and chlorination) will be a focus.</p>	<p>That legislative change will require increased investment in this activity.</p>	<p>Council will need to comply with these changes. This may require additional expenditure to upgrade infrastructure and/or change levels of service to better meet new requirements. For example, increased water security and compliance/monitoring systems.</p> <p>Additional budget of \$8 million is included in the 2021-31 LTP for actions required for resource consent renewal from 2024 and meeting new compliance requirements for water treatment. This includes UV treatment at our bores.</p>
	<p>The Government's Three Waters Review is considering how water services are structured and delivered. This may see changes in Council's role for water supply.</p> <p>The outcome of the Three Waters Review is not yet known. Our planning is based on maintaining our levels of service and assets, and for this we have assumed no change in Council's role.</p>	<p>That changes to how water services are structured occur quickly, with a change to the role of Council.</p>	<p>This could see provision of Water Supply removed from Council. This could have implications for local oversight and input into the management of water supply schemes, and could significantly impact the financial and organisational structure of Council.</p>

Wastewater



Wastewater is the water that comes from toilets, showers, dishwashers, washing machines, taps and commercial or industrial processes. It is made up of 'blackwater' from the toilet and 'greywater' which is household water from the shower, bath, basins and washing machine. Demand for wastewater services is driven principally by population growth, environmental degradation and public health issues.

Council is responsible for wastewater collection, treatment and disposal to its customers in seven urban communities: Waihi Beach; Katikati, Ōmokoroa, Te Puke, Maketu/Little Waihi, Te Puna West and Ongare Point. The service applies to all residential, commercial and industrial users.

Wastewater from urban areas is collected and conveyed in pipes, manholes and pump stations to one of five wastewater treatment plants (WWTP) owned and operated by Council. Wastewater from Ōmokoroa and Te Puna West is an exception as it flows through the pressurised Ōmokoroa Transfer Pipeline and gets treated at the Chapel Street WWTP owned by Tauranga City.

What influences our approach?

Issue	Response
<p>Population growth</p> <p>Urban areas have a greater concentration of people that require provision of wastewater services. The greatest areas of demand for wastewater services are Waihi Beach, Katikati, Ōmokoroa and Te Puke. Waihi Beach experiences additional demand driven by holidaymakers.</p> <p>Requests for new wastewater connections are also received from areas currently not serviced, usually from the margins of urban areas and or industrial development proposals from outside existing wastewater service areas.</p>	<p>Demand management planning ensures that there is capacity within the wastewater network for existing and future customers. Planned improvements to WWTPs at Waihi Beach, Katikati and Te Puke will ensure that capacity is provided for the growing population and that consent standards are adhered to.</p>
<p>Environmental Sustainability and Legislative Changes</p> <p>Higher discharge quality requirements are expected in the future. The National Policy Statement for Freshwater Management, potential changes to the Resource Management Act, establishment of Taumata Arowai, and potential new water quality legislation will impact on this activity. From a cultural perspective there is a strong desire to remove discharge of wastewater into waterways and explore alternative discharge options such as discharging to land.</p> <p>Demand can be driven by requirements or changes to the BOPRC On-site Effluent Treatment (OSET) Regional Plan rules resulting from environmental assessments that confirm serious adverse environmental effects in specific areas due to continued septic tank use.</p> <p>Government's Three Waters Review is considering how water services are structured and delivered. This may see changes in Council's role for wastewater.</p>	<p>Council will be looking at a range of discharge options over the next five years to inform decisions on renewal and expenditure of the Katikati ocean outfall, taking into account changing environmental standards, cultural expectations, increasing discharge capacity to cater for growth and changes in technology. Similarly, Council has committed to exploring alternative discharge options for Te Puke WWTP.</p> <p>Council will work closely with BOPRC to understand future changes to the OSET Regional Plan rules and the implications for our communities.</p> <p>The outcome of the Three Waters Review is not known. Our planning is based on maintaining our levels of service and assets and for this we have assumed no change in Council's role.</p>

Issue	Response
<p>Healthy and safe communities</p> <p>Provision of reticulated wastewater systems in the District provides public health and sanitation benefits to the community. If adequate wastewater disposal systems were not available, economic development may be constrained, or environmental standards may be constrained or compromised. This would affect the community as a whole.</p>	<p>Council has a programme to encourage households to connect to the wastewater system where it is available for public health reasons.</p> <p>Reticulation in the Te Puna commercial areas and improved Marae wastewater services, externally funded.</p>

What we want to achieve



Council aims to deliver wastewater services that are well planned and maintained to ensure a clean and healthy environment. This will help us all to enjoy a healthy and safe lifestyle and a clean, green and valued environment.

In achieving this outcome, the focus over the next 30 years is:

That all Council's reticulated wastewater disposal systems meet acceptable health, safety and environmental standards.

To assist small urban communities along the Tauranga Harbour to ensure that the wastewater disposal options available to them meet health and safety requirements.

Council's wastewater network assets have been carefully developed to mitigate untreated or inadequately treated wastewater entering the local surface water, groundwater or land that cause adverse effects on public health and natural resources. The extent to which the outcomes are achieved is measured by compliance with environmental and health standards outlined in consent requirements.

How we will achieve this

Current approach

Council will continue with the current approach with no changes to levels of service. This focuses on continuing to meet standards required for operation of the wastewater network and providing wastewater capacity for urban growth areas.

Work will continue to maintain and upgrade plant and equipment through the capital and renewals programme.

Future thinking and potential changes to current approach

Higher discharge quality requirements are expected in the future. Council will progress investigations for alternative discharge options for both Katikati and Te Puke. The ocean outfall pipe in Katikati requires renewal in 2037 at an estimated cost of \$14 million.

Council will be looking at a range of discharge options over the next five years to inform decisions on this renewal and expenditure. This will take into account changing environmental standards, cultural expectations, increasing discharge capacity to cater for growth and changes in technology that increase water quality discharge.

New innovative technologies that find cheaper and more efficient ways to reduce volumes, and treat and dispose of wastewater are a key consideration in Council's approach to future options for the wastewater network. Most recently this thinking has been applied to the Ongare Point and Te Puna West wastewater schemes where low-pressure pump systems (sometimes including a grinder) have been installed to collect and pump all sewage from the property to the treatment plant. The low pressure sewer system significantly reduces wet weather flows caused by infiltration and influent. Council will be using a sealed gravity system in Ōmokoroa.

Expenditure Forecast 2021-2051

Figure 11: Wastewater Projected Capital Expenditure 2021/22 - 2050/51

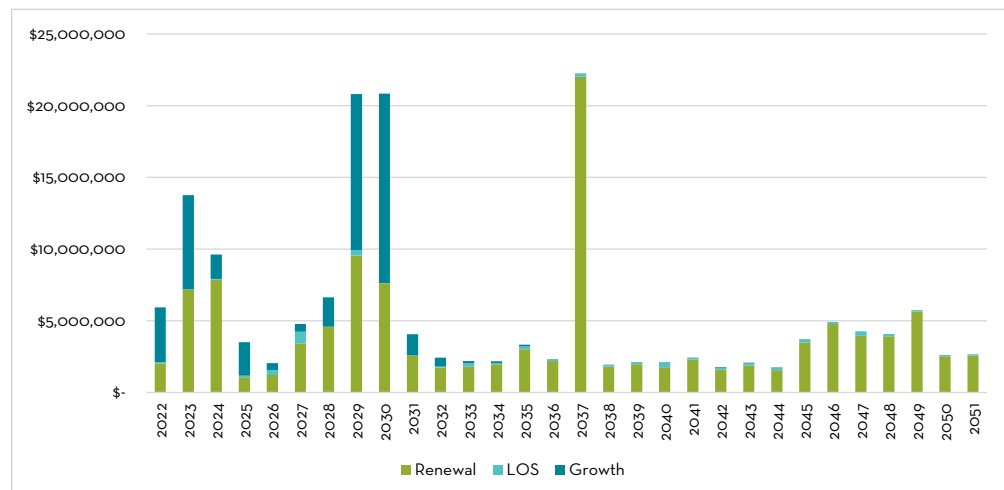


Figure 12: Wastewater Projected Operational Expenditure 2021/22 - 2050/51

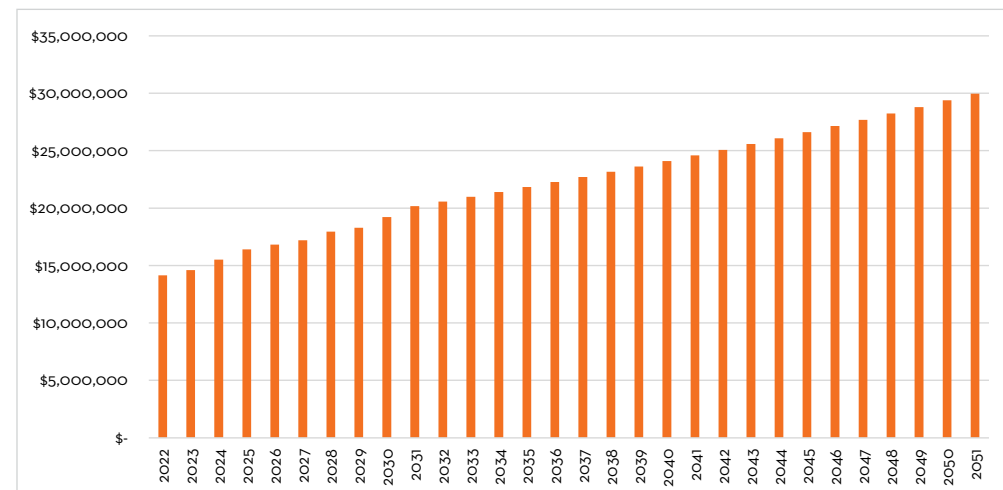


Figure 12 includes interest expense, overheads and depreciation and excludes internal interest income.

Key Projects include:

- Construction of new treatment infrastructure at Te Puke Wastewater Treatment Plant contributes towards the high capital expenditure for 2023-25 to meet increased demand due to growth, Rangiuru Business Park coming online, and new discharge consent conditions.
- Large capital expenditure is also expected over the 10-year period at the Waihi Beach Wastewater Treatment Plant to undertake upgrades and improvements for resilience.
- Katikati Wastewater Treatment Plant requires capacity upgrades to cater to growth and to continue to meet resource consent. The large capital expenditure anticipated in 2037 relates to the Katikati Wastewater Treatment Plant ocean outfall renewal.

Key activity assumptions

Relevant strategic assumptions	Activity assumptions	Risk	Impact
<p>Environmental sustainability and legislative changes</p>	<p>There will be changes to legislation and regulations that seek to improve water quality standards.</p> <p>This may be through increased national standards as a result of anticipated regulations, the National Policy Statement Freshwater Management, or similar mechanisms. It may also be through Regional Council's OSET standards or Regional Plan changes regarding water quality.</p>	<p>That legislative and regulatory changes will occur at a greater pace, or require a greater level of investment than forecast.</p>	<p>If legislation and regulations change then Council will need to comply with these changes. This may require additional expenditure to upgrade infrastructure and/or consideration of alternative methods and levels of service to better meet new requirements.</p>
	<p>The Government's Three Waters Review is considering how wastewater services are structured and delivered. This may see changes in Council's role for water supply.</p> <p>The outcome of the Three Waters Review is not yet known. Our planning is based on maintaining our levels of service and assets, and for this we have assumed no change in Council's role.</p>	<p>That changes to how wastewater services are structured occur quickly, with a change to the role of Council.</p>	<p>This could see the management of wastewater removed from Council. This could limit local oversight and input into the management of wastewater schemes, and could significantly impact the financial and organisational structure of Council.</p>



Te Ara Kahikatea Pathway, Te Puke

Transportation



Council is responsible for the provision of local roads, footpaths, bridges, streetlights, road signs, work site safety and network operations in the District. Waka Kotahi NZ Transport Agency (NZTA) funds and maintains the state highway network.

A joint performance based, contract arrangement is in place between Council and Waka Kotahi for the management of the state highway and local road network. The contract has been designed for better service delivery and value for money from road maintenance, renewal and capital expenditure through a single contract delivery model. Council works in partnership with Waka Kotahi to ensure integration of the state highway network with the local road network. A Funding Assistance Rate of 51% is provided by Central Government towards agreed local road maintenance and network improvement projects.

The direction provided by the sub regional UFTI project (Urban Form and Transport Initiative) and subsequently the TSP (Transport System Plan) have been incorporated into our planning and the LTP.

Council has a strong focus on development of footpaths, walkways and cycleways in urban areas and where appropriate, on rural roads. These facilities are beneficial for many reasons, including encouraging active living, recreational benefits, providing commuter links and reducing car usage, and attracting visitors to the District. The road network also helps to capture and manage stormwater flows.

Council spends around a third of our annual capital and operating expenditure on transportation – approximately \$35 million each year. This includes everything from; operations, maintenance, asset renewals, capital works such as seal extensions, seal widening, asset upgrades including large urban roading projects and network safety improvements.

New roading assets are obtained from vested land development infrastructure and state highway revocations resulting from new state highways constructed by Waka Kotahi.

What influences our approach?

Issue	Response
<p>Population growth</p> <p>Tauranga is a high growth area and the transport effects of this are also experienced in the Western Bay District on the state highway and local road network.</p> <p>The projected growth in Ōmokoroa will increase the size of this community from 4,575 (2021) to 12,086 (2045). It is expected that traffic volumes will almost triple, in line with the population growth.</p> <p>In small settlements such as the Minden, lifestyle blocks and incremental growth is increasing traffic volumes on rural roads. In some areas, peak time congestion is impacting on travel times between Tauranga and Western Bay.</p> <p>This also increases traffic volumes and results in parts of the roading network being below width and suffering from accelerated pavement deterioration.</p>	<p>Proposed Waka Kotahi improvements to the state highway network such as the Takitimu North Link and Loop Road to Ōmokoroa capacity and safety improvements will provide some relief from congestion issues along SH2 and are anticipated to improve the route’s poor safety record.</p> <p>Council will continue to implement structure plans for urban growth areas and deliver UFTI identified projects. Ōmokoroa transport investment is \$72.3m over the next 10 years.</p> <p>Council will invest in its asset base, increasing the renewal investment. This will see increased seal widening and increased network improvement programmes.</p>

Issue	Response
<p>Economic growth</p> <p>Economic growth has resulted in substantial network traffic volume increases over recent years. This has impacted on reliable journey times and increased congestion particularly along the state highway network. These traffic levels are expected to continue to increase.</p> <p>Rangiuru Business Park will deliver much needed industrial land for the sub-region to enable continued economic growth. Significant roading investment is needed for this development.</p> <p>In rural areas, the transport network serves horticulture, agriculture and forestry and their associated activities. The seasonal nature of the workforce in these industries impacts transport demand through an increase in traffic volumes, especially heavy vehicles. This can increase the rate of asset deterioration and increased maintenance. As seasonal workers are predominately working in rural areas, there is minimal access to public transport and cycleways to access service centres. The projected growth of the kiwifruit sector will increase pressure on the transport network.</p> <p>Tourism increases expectations of the customer experience from the road network including directional signs, pull off and rest areas, freedom camping areas and access to amenities such as public toilets and rubbish bins.</p>	<p>Council has levels of service that seek to provide a quality experience on local roads while meeting affordability levels. This includes responding to customer transport-related issues and ensuring that the network is in good condition and fit for purpose (measured by smooth travel exposure and responding to potential asset deterioration defects). Council monitors traffic volumes on local roads to determine if additional width is required at any point due to increased traffic demands. Increased maintenance and renewals costs have been planned for.</p> <p>Council expects transportation projects at Rangiuru Business Park to cost \$52 million. This is a Quayside project with the obligation resting on them to deliver. Council is acting as a facilitator to secure potential Waka Kotahi funding for the project on Quayside's benefit. \$18 million will also be invested by the Provincial Growth Fund for an interchange to access the site.</p> <p>Council has committed over \$16.6 million to walking and cycling in the 2021-2031 LTP (\$13.9 million through the Transport activity). It is expected that external funding will also contribute to total project costs. Limited public transport options are currently in place for the District. Through the modal shift project, in collaboration with Waka Kotahi and Tauranga City Council, we will be looking at how public transport, cycleways and ferries could be utilised.</p>
<p>Climate change and environmental sustainability</p> <p>The location of roads close to the coast may require sea defences to protect from coastal erosion or may need to be relocated in response to rising sea levels.</p> <p>Increasing frequency and intensity of storm events impacts the stormwater function of the road network due to increased run-off and current drainage may not be able to cope with this (e.g. undersized culverts).</p> <p>Given the increasing impact of climate change there will be a corresponding increasing focus on a low carbon transportation network. This is reflected through the Government's Policy Statements.</p>	<p>The Coastal Erosion Responses Policy will be applied in determining the approach to these assets.</p> <p>Council is working with other Lifeline utility owners to identify assets at risk to climate change risks and develop responses.</p> <p>Council has committed over \$16.6 million to walking and cycling in the 2021-2031 LTP and will be progressing work on modal shift and transport choice.</p>

Issue	Response
<p>Changing make up of our communities</p> <p>Ageing population seeking access to informal and passive recreational opportunities that walking and cycling networks can provide. Also require ease of access to local amenities from residential areas.</p> <p>Medical care and technology has improved, with older people living longer and driving longer than a generation ago. Older drivers are more likely to be injured or die following a crash than younger people. Health problems including diminishing vision, physical and/or cognitive abilities can make driving more difficult and risky. For example, older drivers may find their night vision deteriorates, which leads to difficulty detecting and assessing hazards at night.</p> <p>Older drivers are unlikely to have had any driver education for many years, meaning there may be gaps in general knowledge about the road code and new road rules.</p>	<p>Footpaths are being made wider and smoother to make them as accessible as possible to all ages and capabilities within the community. Pedestrian crossings provide safe access across busy roads.</p> <p>Waka Kotahi has resources that support senior drivers to stay mobile in a safe manner.</p>
<p>Community expectations</p> <p>There are ongoing concerns from residents who live on unsealed roads in rural areas wanting their roads to be sealed.</p> <p>There is a community expectation for the provision of suitable and safe walking and cycling facilities and for transport choice (multi-modal).</p> <p>Waka Kotahi and Local Government established the One Network Road Classification (ONRC) and customer levels of service to ensure that transport assets provide a consistent level of service. It is intended that the level of service is linked to future investment decisions. Therefore, if a road is below the level of service standard it is more likely to receive Waka Kotahi co-funding. If it is above the level of service, then it is less likely to receive Waka Kotahi funding subsidy.</p>	<p>Council allocates over \$1 million per annum towards seal extension, enabling 3-4 km of new seal extension each year. Prioritisation is based on criteria that include the volume of traffic, dust exposure to residents and degree of benefit gained relative to the cost of sealing the road. Council has increased the budget by an additional \$1 million per annum for the ten years of the LTP.</p> <p>Council has funds for off-road footpath and walkway/cycleway development. Council is also involved in planning for public transport options.</p> <p>The comparative measures established under the ONRC suggest that the District is achieving the required service levels for the different road categories. However, the ONRC measures are averages and are not sensitive enough to highlight service level gaps across the network.</p>
<p>Collaboration</p> <p>The timing of transportation projects is assessed on an annual basis as Council works in partnership with other agencies to fund and implement these works.</p> <p>External factors beyond Council's control such as the timing of private land use development, land issues, changes to the Waka Kotahi works and funding programmes, growth in traffic volumes and a change in accident patterns can impact on the prioritisation and timing of projects.</p>	<p>Council will continue to work in partnership with Waka Kotahi to ensure alignment of local and state highway transport projects.</p>

What we want to achieve



Council aims to deliver transportation networks that are safe, affordable, sustainable and planned to meet our community needs and support economic development. Provision of a safe and effective transportation network contributes to a thriving economy, and a healthy and safe lifestyle.

In achieving this outcome, the focus over the next 30 years is:

<p>That transportation networks support and promote economic development.</p>	<p>That the impact on the environment of the transportation system is mitigated where practicable.</p>	<p>That transport systems enable healthy activity and reduce transport-related public health risks.</p>	<p>There are a range of measures that help determine progress against these goals. The measures include compliance with Council's level of service standards for footpaths and road maintenance, customer perception surveys, and the percentage of the sealed road network that is resurfaced.</p>
<p>Transport systems improve access and mobility.</p>	<p>Land use and transportation network planning are integrated.</p>		

How we will achieve this

Current approach

Council will continue with the current approach. This focuses on providing transport infrastructure in urban growth areas in accordance with structure plans (with the majority of investment in Ōmokoroa over the next 10 years, approx. \$72.3 million), roading improvements such as continuation of seal extension programme, new footpaths and the cycleway programme, and working with Waka Kotahi on projects that impact on the state highway and local road network.

The joint maintenance contract will continue to ensure that maintenance is carried out in an appropriate and timely way and that repairs and renewals are sufficient to maintain levels of service on local roads. The contract allows for a number of processes to be undertaken on behalf of Council, this ranges from preparation of our Transport Asset Management Plan, costing of Council's projects and the delivery of Transport projects under our service level agreement. A level of decision making is developed through the contract within the bounds of the performance framework.

Future thinking and potential changes to current approach

Proposed Waka Kotahi projects will continue to have a significant impact on the transport network within the District over the next 30 years and Council will continue to advocate for these projects. This includes a programme of state highway corridor safety and capacity improvements, such as safety improvements along SH2 from Waihi to Te Puna, advocacy for the Ōmokoroa interchange, and support for the Takitimu North Link and Rangiuru Business Park interchange. We will continue to advocate for Waka Kotahi funding towards Katikati Bypass and town centre improvements.

The planned development and completion of the Takitimu North stage one (Tauranga to Te Puna) in 2026 will ease congestion on State Highway Two. Council's local roading network will increase when the old sections of state highway are revoked and are transferred to Council. This will increase road maintenance requirements over time. Additional budget has been included, however the costs may need to be revised as more information becomes available and discussions with Waka Kotahi progress. Stage two of Tauranga Northern Link (Te Puna to Ōmokoroa) has been withdrawn from the central government funded New Zealand Upgrades Programme and is now subject to funding through the National Land Transport Plan process. Indications are that stage two is unlikely to proceed in the next 10 years. Council and Waka Kotahi are working together in partnership to progress the Ōmokoroa interchange as a separate project to the wider stage two works.

Load limits on heavy vehicles have been increased to improve productivity. While most roads can support these heavy vehicles, there are some restrictions on bridges and pavements built on softer soils near the coast and on some bridges located within the state highway network. The longterm effects of heavier vehicles on local roads is not fully known but most likely will appear first on roads that act as detour routes for the state highway or on older pavements limiting their remaining lives. Council is working with Waka Kotahi to fund improvements on identified state highway detour routes to improve network resilience enabling local roads to meet a level of service suitable as a detour and to enhance customer journeys when they are diverted. The key areas of impact for Council are from logging, quarrying and packhouse activity. Council has increased the amount budgeted for maintenance and renewals to reflect the increasing demand placed on the network.

Improvements to environment outcomes driven by Government, Regional Council and the community are likely to impact on existing levels of service for transportation. Council will continue to monitor and consider potential changes that may impact on the transportation activity levels of service and investment.

As part of implementing a modal shift (moving to multiple transport choices) we will be looking at enabling increased public transport options, for example through park and ride facilities, enabling ferry services and developing walking and cycle routes.

We will develop a walking and cycling network that connects our communities, our businesses and can be used to live, work, learn and play. We have a good network that we will incrementally develop, building further links and connectivity. Over the course of the 30 years we will look to build connections across the district using both on road and separated routes.

Council will continue to support effective public transport options. Although predominantly led by Regional Council, Council involvement may include planning for park and ride locations and provision of bus stops. Following the work carried out by UFTI, this may also involve the consideration of the rail corridor from Ōmokoroa, to Tauranga, to Te Puke and beyond.

The joint maintenance contract will be reviewed at the relevant points in the contract cycle. This is to determine the best approach to service delivery going forward and if necessary may see changes to the structure of service delivery and associated costs.



Expenditure Forecast 2021-2051

Figure 13: Transportation Projected Capital Expenditure 2021/22 - 2050/51

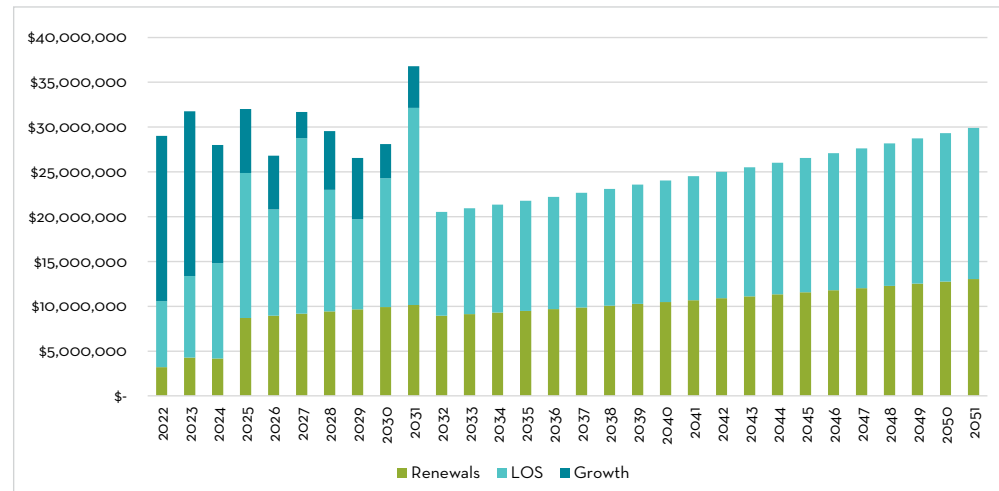


Figure 14: Transportation Projected Operational Expenditure 2021/22 - 2050/51

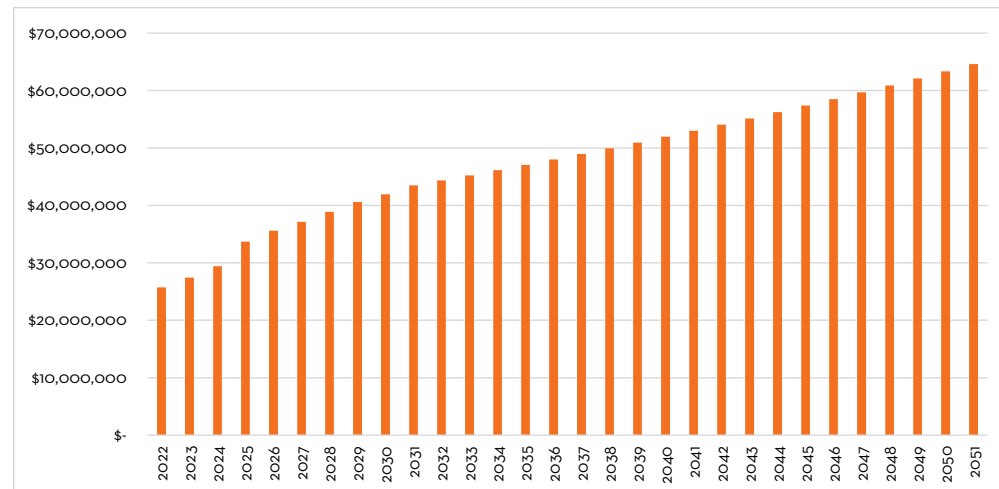


Figure 14 includes interest expense, overheads and depreciation and excludes internal interest income.



Key activity assumptions

Relevant strategic assumptions	Activity assumptions	Risk	Impact
Collaboration	Council is in a collaborative seven-year (with the option to extend for another two years) performance based road maintenance contract with Waka Kotahi. This ends in 2023. It is assumed that the replacement contract will be a similar model that retains the contract cost structure.	That the current contract cost structure is not maintained when the contract is retendered and costs increase above inflation.	Road maintenance and renewal costs could increase significantly. It is very difficult to reliably predict the likely impact due to the end of the contract being in the future and external commercial influences. The impact could be mitigated by reviewing levels of service or decreasing capital expenditure to manage any potential rates increase.
	The Waka Kotahi Financial Assistance Rate (FAR) is projected to remain constant at 51%. Waka Kotahi / Central Government funding will be available.	Waka Kotahi may reduce the FAR in the future which would increase costs to Council. Waka Kotahi funding may not be sufficient for all listed projects. It is very unlikely that the FAR will increase above 51%. If ONRC standards are below Council's current level of service then funding may reduce as it would be considered that the road maintenance is above that necessary for the road classifications.	Each 1% decrease in the FAR will increase Council's costs by around \$120,000 per annum. Council will need to decide if projects continue, change scope or are delayed if Waka Kotahi funding decreases or is not available. Alternative Central Government funding (e.g. NZ Upgrade Programme) may be available.
Climate change	It is assumed that costs for storm damage to roading will only exceed \$750,000 between two to three times over a 10-year period. The road maintenance contract with WestLink includes a risk transfer for storm damage to Council roads of \$750,000 per annum. Historical tracking shows that this cover is sufficient based on previous storm damage. The Waka Kotahi FAR applies to major events that cause significant damage to the network.	That the cost of damage to roads due to storms is significantly over \$750,000 per annum.	Potential debt increase that would need to be funded from rates if the cost of damage significantly exceeds \$750,000. The Waka Kotahi FAR subsidy would be expected to reduce the impact and increase funding for larger events.
Revocations	The State Highway 2 revocations will result in increasing high demand network assets and network length. This will increase Council's costs, but this maybe offset by contributions from development along the western corridor.	That ongoing land development and rates growth does not occur at the rate expected. That the lengths of SH2 vested in Council are below an adequate standard when transferred.	Maintenance and renewal costs will increase disproportionately without ongoing land development and rates growth to fund the cost of delivering the Levels of Service. There may be a reduction in the level of service or increase in rating required.

Solid waste



Solid waste is the unwanted or unusable materials disposed of or discarded after their primary use. The type of waste is defined by its composition or source, for example organic waste and demolition waste. Council’s main role in this activity is providing kerbside collection services, providing recycling and solid waste facilities, and education and enforcement to ensure individuals, households and businesses are dealing with their waste in the most responsible way. This includes provision of recycling and greenwaste facilities, waste minimisation education, managing illegal dumping and supporting community initiatives to reduce waste.

The Waste Management and Minimisation Plan (WMMP) sets out what Council will do and how we will work together to reduce and manage waste in the most effective way. Waste minimisation initiatives in the WMMP can be partially funded by a Central Government waste disposal levy.

The impact of Central Government’s proposal to extend and increase the levy will provide more opportunities for investment in the waste sector, including infrastructure. Council’s infrastructure in this space is primarily around our waste facilities, such as recycling and greenwaste centres, and the closed landfills we monitor.

What influences our approach?

Issue	Response
<p>Population growth, economic growth</p> <p>Urban areas have a greater concentration of people that produce waste and place greater demand on natural resources.</p> <p>An increase in commercial and industrial activity as a result (most likely) of improved economic conditions will have a direct impact on the amount of waste that is generated. Of particular importance to waste is the ongoing level of construction activity.</p>	<p>An analysis of factors driving demand for waste services in the future suggests that changes in demand will occur over time reflecting increasing population, changing household demographics, changing customer expectations and Central Government requirements (e.g. the introduction of product stewardship schemes).</p> <p>Kerbside services are planned to cater for population growth and to make responsible waste management easier.</p> <p>Future recycle centre and waste facility planning will see development of a site at Ōmokoroa, to meet the growing population's needs, and consideration of rural recycling drop off facilities.</p>
<p>Environmental sustainability</p> <p>Solid waste ‘SWAP’ audits were undertaken in 2018 to quantify what the waste make-up of our kerbside waste was. These identified that a significant amount of waste going to landfill could be recycled or composted. About 70% of what was thrown away did not need to go to landfill, but could have been diverted elsewhere.</p>	<p>Council will introduce kerbside collection services to drive better waste outcomes for the district. This will increase diversion and deliver environmental benefits.</p> <p>Central Government decisions may have implications for how our operations function.</p>

Issue	Response
<p>Climate Change</p> <p>The District has three closed landfills and is responsible to ensure that they are monitored and maintained to the applicable resource consent conditions for each closed landfill. As has been seen elsewhere in NZ (such as the West Coast) severe weather events and natural erosion can put these at risk and see waste and contamination spread in the environment.</p>	<p>Council has actively identified risk factors for all managed closed landfills in the District and these sites are actively monitored. A high level inspection was undertaken late 2019 into the condition of the closed landfills. Apart from minor issues with the closed landfill in Waihi Beach (not Athenree) no issues were noted.</p> <p>Other indirect drivers also impact upon the demand for waste services. Some examples are climate change (extreme storm events) and incidents such as the Rena oil spill which resulted in additional waste to landfill/compost.</p>
<p>Economic Growth (visitor numbers)</p> <p>Western Bay is a well-known holiday destination and experiences a significant increase in population over the holiday season. This influences the level of waste production in the Western Bay as the consumer patterns of holidaymakers differ to that of residents. Consequently, demand for recycling and waste services increases noticeably over the holiday season.</p>	<p>Council having a lead role in the delivery of kerbside services allows for increased direction to address these issues.</p> <p>Community awareness of recycling and waste services through education and signage.</p>

What we want to achieve



Council aims to ensure effective waste management practices that minimise waste to landfill and encourage efficient use of resources to reduce environmental harm. This will help to achieve an environment that is clean, green and valued, and help us all enjoy a healthy and safe lifestyle.

In achieving this outcome, the focus over the next 30 years is to:

Reduce and recover more waste.

Apply the latest proven and cost effective waste management and minimisation approaches.

Collect information to enable informed decision making.

Create benefit for our community.

The extent to which these goals are achieved is measured by customer surveys, the percentage of waste recycled or recovered, the number of initiatives funded by the Ministry for the Environment Waste Minimisation Scheme and waste audits.

How we will achieve this

Current approach

Council has resolved to introduce a Council-led kerbside service, which will start July 2021. The service provision will give households opportunity to divert waste from landfill through mixed recyclables, glass, and food scraps (in urban areas only) collections, with the remaining rubbish service a user-pays PAYT service. The current level of service also focuses on providing incentives (such as access to recycling and greenwaste facilities, and education programmes) to encourage responsible waste minimisation actions. Management of the bins and containers will lie with the contractor until the end of the contract, or Council purchases the assets prior (due to external funding availability).

Future thinking and potential changes to current approach

Council will plan its waste facilities to meet the needs of a growing population. This includes provision of recycling facilities and relocating the greenwaste drop-off in Ōmokoroa to meet increased population growth, and the consideration of other waste infrastructure needs here. The level of growth in the District, may require a future transfer station to be established, however this is a matter for investigations, future community consultation and Council direction.

Council will also look at the use of rural recycling drop-off facilities to provide increased opportunities for remote rural residents to divert waste from landfill and to manage waste responsibly. Council will also look at how future collaboration with community groups can further reduce waste to landfill and deliver wider community benefits such as resource recovery parks and similar initiatives.

The recycling centres at Katikati and Athenree are operating at capacity within their current operating hours, however this may change as kerbside recycling is rolled out. Given the growth occurring in the sub-region and the changes to kerbside services, an assessment of the demand for and location of future waste infrastructure, including transfer stations and recycling facilities, needs to be undertaken on a sub-regional basis, and consider potential business models for procurement of services.

Expenditure Forecast 2021-2051

The solid waste activity currently only has robust financial information to 2028. It is expected that the new asset management system (AssetFinda) will provide improved capability to forecast beyond this and will be used for the 2024-2054 Infrastructure Strategy.



Within the 2021-31 LTP the main delivery projects for this activity are:

- Delivery of the new Council-led kerbside services - \$2.6 million operational costs each year, from 2021/22 onwards.
- Ōmokoroa Greenwaste and Recycling Centre - \$1.2 million from 2020/21 to 2022/23.
- Rural recycling drop-off points - \$230,000 between 2021-2024.
- Community Reuse Centres - investigate and look to establish community-led resource recovery and re-use centres, \$445,000 in 2021-2024.

Key activity assumptions

Relevant strategic assumptions	Activity assumptions	Risk	Impact
Legislative changes	<p>The waste levy funding provided by the Waste Minimisation Act 2008 will not be removed and will increase.</p> <p>While central government has signalled the intention to introduce a container deposit scheme and other waste initiatives, these proposals have not been finalised.</p> <p>The plan has been prepared based on the current legislative framework.</p>	<p>The Act provides funding through a waste levy which is collected on waste delivered to landfill sites and applied to waste minimisation activities. This is a key funding source for projects that deliver on the Waste Management and Minimisation Plan.</p> <p>The risk that the planned expansion and increase to the Waste Levy will not occur.</p> <p>Legislative change will require changes to how Council services operate.</p>	<p>If the funds were not available this would either be a cost to the ratepayer or the project would not proceed.</p> <p>Increased costs may be necessary to address new legislative requirements and changes to services.</p>
Environmental sustainability and community expectations	<p>Environmental protection and improvements will be a community expectation of solid waste activities.</p>	<p>If Council actions are not as extensive or implemented as quick as the community expects, this may create community discontent.</p>	<p>Community discontent can direct energy away from other initiatives.</p> <p>Council revises its WMMP with community input, and Council's actions and approach to waste is aligned with the community's expectations.</p>
Economic markets	<p>The recyclables commodity market has had a significant level of fluctuation and this may continue for some time. COVID-19 has further impacted on these markets and incomes are not consistent.</p> <p>For the purposes of planning we assume that the current recyclables commodity market provides a consist level of return.</p>	<p>That the recyclables commodity market declines significantly.</p>	<p>The cost of operating our recycling services increases, requiring increased rates contributions. That collection of some products will have to cease due to a lack of markets or contamination rates.</p>

Recreation and open spaces



Council is responsible for the provision of facilities that offer a range of recreational experiences and opportunities to the community. This is the most visible type of infrastructure provided and is highly valued as it contributes to active healthy communities, social interaction, and protection of environmental, ecological and cultural areas. The type of infrastructure provided includes active and passive reserves, public toilets, playgrounds, coastal structures and swimming pools.

Council works with the community to identify expectations for the provision of Recreation and Open Space experiences.

Reserve management plans help to understand and respond to these needs, balancing aspirations with competing demands and affordability. Level of Service Guidelines informs decisions on the standard, size and quality of infrastructure required.

What influences our approach?

Issue	Response
<p>Population Growth</p> <p>Urban areas have a higher concentration of people that require access to Recreation and Open Space opportunities. They also often act as local focus points for the surrounding population. The greatest areas of demand are Waihi Beach, Katikati, Ōmokoroa and Te Puke.</p> <p>The rural and coastal nature of the District, as well as adjoining Department of Conservation land, provides a range of recreational experiences in close proximity to the urban environments within the District, Tauranga and the Waikato Region. As population increases, pressure on the use of facilities increases. This can lead to increased maintenance costs and an expectation that additional facilities are required.</p>	<p>We will provide safe, attractive and well-maintained facilities and amenities to our community. We will also provide a neighbourhood reserve (or equivalent) within 400m or within a 10-minute walk to 95% of urban households.</p> <p>We will use structure plans, reserve management planning and community planning processes to plan our reserves network to meet the demands of growth. Through 'green blue' network plans we will look for an integrated approach with other open space assets (such as stormwater reserves).</p> <p>Our swimming pools will need to be upgraded and redeveloped to meet the needs of a growing population.</p> <p>The Places and Spaces Strategy has been developed at a regional level and will inform better coordination of facility development across the region.</p>

Issue	Response
<p>Community Expectations and changing make up of our communities</p> <p>Community's expectations have increased with a greater range of activities emerging often with different requirements to what is currently provided.</p> <p>The impact is seen across this activity and includes:</p> <ul style="list-style-type: none"> Increasing expectations of the quality of play experience. This includes providing a variety of play equipment and adaptable equipment that can change over time. Increasing expectations of the type of experience provided at swimming facilities including covered pools for year-round use. New recreational activities being introduced to reflect a growing migrant population. Increasing expectations for facilities that provide access to the water. The ageing population could increase demand for low impact recreational experiences such as walking and cycling, and swimming and wellness facilities. 	<p>It is important that facilities are located and designed to be adaptable to changing community expectations particularly given the growth occurring and the changing demographics within our community (ethnicity and age).</p> <p>The recent review of the region-wide Spaces and Places Strategy will inform our approach here. Similarly, community involvement in the review of our Reserve Management Plans provides an opportunity to hear about community aspirations directly.</p> <p>We have planned for:</p> <ul style="list-style-type: none"> Greater community engagement and bigger budgets for playgrounds to address higher community expectations. Swimming pools are proposed to change from outdoor pools operating in summer only to indoor pools operating all year around. Wider, all-tide boat ramp and increased trailer parking facilities. Increased budgets to fund development of shared path cycleways throughout the District.
<p>Climate Change</p> <p>Rising sea levels and changes to rainfall patterns will impact on investment decisions for recreation assets. Many are located to provide a coastal and harbour experience (e.g. reserves, walkways, boat ramps) and at risk of increased erosion and inundation.</p> <p>Maintenance of sports fields and the need for irrigation and/or drainage may be of increasing concern in the future.</p>	<p>Council's Coastal Erosion Responses Policy is a key consideration in determining the future approach to renewal, upgrade or provision of public land and infrastructure located in coastal and harbour areas.</p> <p>The design and location of boardwalks in coastal/harbour areas takes into consideration sea level rise projections known at the time of construction.</p> <p>We will monitor ongoing trends to inform future planning.</p>
<p>Visitor Growth</p> <p>Tourism has an increasing impact on the recreation network through pressure on existing popular destinations such as boat ramps, and 'hidden gems' as tourists seek natural environment experiences.</p> <p>Tourism and population growth is increasing (80% of the tourism in the district has historically been domestic tourists) so this pressure will continue. For example Bowentown and Ōmokoroa experience significant congestion for carparking and boat launching at peak times.</p>	<p>Council has identified a number of projects that could improve the visitor experience and provide additional capacity. Some of these projects are included in the LTP and others may be included if external funding is achieved. This includes development and upgrade of public toilets at popular recreational destinations, boat ramps and carparking. Installation of Kiwicamp facilities to service freedom camping activities at Bowentown and the TECT All Terrain Park have also been progressed.</p> <p>Council will continue to seek Central Government funding towards tourism related infrastructure.</p>

Issue	Response
<p>Partnerships with Māori</p> <p>Treaty of Waitangi settlements have seen greater levels of involvement of Māori in planning and decision making processes. This can be through a formal structure such as co-governance and co-management arrangements, or through less formal planning and delivery processes.</p>	<p>Council is ensuring that new formal structures are integrated into our practices for delivery of this activity and will continue to apply the Te Ara Mua framework to engagement with Tangata Whenua.</p>
<p>Healthy and Safe Communities</p> <p>Physical activity levels have declined over the past decade, especially among children and young people. Obesity rates are rapidly increasing in both adults and children. Like other areas in New Zealand, the District needs to respond to increasing health related issues like cancer, cardio vascular disease and diabetes. Participation in recreation and active living contributes not only to the wellbeing of individuals but also in creating community cohesion and identity.</p>	<p>Recreation opportunities is a key way to encourage and motivate people to be active in their daily lives.</p> <p>Council will look to invest in swimming pools and walkways/cycleways alongside its sportsfields and active reserves.</p> <p>Council provide annual funding to Sport Bay of Plenty to deliver a number of sport and active living initiatives to the community such as Play in the Bay and City on its Feet.</p>

What we want to achieve



Council aims to deliver facilities that are well planned and safe to meet the diverse and changing needs of our community. This contributes to us all enjoying a healthy and safe lifestyle, our communities being vibrant and welcoming, and a clean, green and valued environment.

In achieving this outcome, the focus over the next 30 years is to:

<p>Provide appropriate opportunities to access the recreation and open space network.</p>	<p>Connect our spaces and places to each other and to destinations such as schools and community gathering places.</p>	<p>Protect and enhance important environmental, cultural and heritage values.</p>	<p>Provides spaces and places that our community are proud of, that are safe and that encourage participation.</p>
<p>Collaborate and partner with tangata whenua and the community to provide recreation and open space experiences.</p>	<p>Proactively plan for future recreation and open space needs taking into consideration the range of factors that influence this including growth, current provision, changing trends, access and environmental factors.</p>	<p>Achievement of goals is measured by a range of factors including condition ratings, customer surveys, user numbers and number of engagement processes.</p>	

How we will achieve this

Current approach

The current approach focuses on providing recreational experiences in growth areas such as local reserves and walkways, and maintaining existing assets to ensure they remain fit for purpose and provide a safe and enjoyable experience for users. Council will continue to work with Transportation to develop the walking and cycling network recognising the multiple benefits gained from this investment. Council, through the LTP 2021-31 process, is consulting on improvements to swimming pools and provision of indoor pools.

Future thinking and potential changes to current approach

The Regional Spaces and Places Strategy (originally prepared in 2017) will be used to guide decision making on future planning and investment in sport and recreation within the District. This includes actions for Council to work in partnership with Tauranga City Council on future facility provision. Council's proposals regarding swimming pools have been informed by this strategy and community engagement.

Council included over \$30 million in the LTP to provide for swimming facilities in the District. \$15 million (\$10 million Council funded) has been scheduled in 2025 for the development of the Te Puke swimming pool, \$15 million (beyond 2040) for Katikati facilities and an additional \$2 million for interim funding for to cover the outdoor pool, and provision made for land purchase in Ōmokoroa to provide a pool beyond 2030. The existing swimming pools were built in the 1960s/70s and require a high level of maintenance. They are also not meeting the growing population needs or recreation aspirations.

Coastal marine assets are maintained to provide existing levels of service. However, demand on coastal marine facilities (e.g. boat ramps, jetties) is expected to increase over time as the population grows. As structures become due for renewal, upgrades are often undertaken (either to accommodate climate change, erosion effects or improve harbour access provision). A significant all-tide boat launching facility upgrade or new facility is signalled for Ōmokoroa and the location of the Northern Harbour Boat Ramp will need to be resolved. A sub-regional assessment of harbour access and demand has been undertaken, and further information is needed to be collected regarding users and to better understand the future demand. The main issues are having adequate land-based facilities (sufficient parking) and properly sized ramps. The projects also need to be assessed against Council's Coastal Erosion Responses Policy 2017.

Significant growth in the development of cycleway networks within the Western Bay of Plenty has been underway since 2017. The Walking and Cycling Strategy has been revised, including an Action Plan in preparation for public consultation. The Ōmokoroa to Tauranga cycleway is almost completed and urban cycleway connections within Waihi Beach, Katikati and Te Puke are advanced. The Paengaroa to Rotorua Lakes now connects the Tauranga region to Rotorua. Within 10 to 20 years it is expected that new shared-use cycleways will be established from Waihi Beach to Ōmokoroa, Papamoa to Maketu/Pukehina. Planning is underway to connect Ōmokoroa to Pahoia and ultimately beyond, towards Katikati. Funding for these projects will be largely supported from the transportation budget and accessing external funding, including from Waka Kotahi.

Council is not the only provider of recreation facilities in the District. A number of facilities have been or are planned to be developed by community groups using external funding. While Council may not be a direct provider of these facilities, it can often support development through provision of Council land or a partial funding contribution. Examples are a future cricket pavilion at Pongakawa, and Te Puke Sports rugby fields and grandstand.



Expenditure Forecast 2021-2051

The Recreation and Open Space activity only has robust financial information to 2031. The new asset management system (AssetFinda) is providing improved capability to forecast beyond this but requires increased data integrity.

Within the 2021-31 LTP the main delivery projects for this activity are:

- Northern Harbour Boat Ramp - \$4,500,000 in 2022, and 2025-2026.
- Ōmokoroa Boat Ramp - \$5,500,000 in 2022, 2024 and 2029-2031.
- Coastal marine structures renewals - \$10,350,000 from 2022-2031.
- District-wide reserves acquisition - \$13,300,000 from 2022-2031.
- District reserves asset renewals - \$6,700,000 from 2022-2031.
- District reserves erosion protection works - \$2,000,000 from 2022-2031.
- Cycleways & Walkways \$2,700,000 from 2022 - 2031.
- Ōmokoroa Active Reserve development - \$6,200,000 in 2024 and 2026.
- Te Puke new indoor pool facility \$15,000,000 from 2024 - 2026.
- Dave Hume pool – pool roof covering \$2,000,000 from 2022 - 2023.

Key activity assumptions

Relevant strategic assumptions	Activity assumptions	Risk	Impact
Changing make up of our communities, community expectations, population growth and economic growth	Recreation trends and community expectations - An ageing, growing and more diverse population will see changing expectations for the type, quality and access to Recreation & Open Space activities.	Expectations could significantly change the current levels of service provided and/or the types of services provided.	Potential for increased funding to deliver places and spaces of a higher quality, greater variety of experiences and with greater levels of accessibility.
Collaboration	TECT All Terrain Park (jointly owned with TCC) - The Park will become self-funding through generation of forestry income and revenue from commercial activities. The estimated forecast for this is in 10-15 years.	The forestry revenue is not sufficient to achieve a self funding park and/or decisions are made to retain the forestry that impact on the ability to achieve this objective.	Ongoing ratepayer funding required for development and operation of the park.

Community facilities



For the purpose of this strategy, community facilities incorporate the libraries and service centres activity, and the community facility activity which includes community halls, cemeteries and housing for older people.

Council provides library and service centre facilities at Waihi Beach, Katikati, Ōmokoroa, and Te Puke, an information and community centre at Maketu, and a service centre at Barkes Corner in Tauranga. The library and service centre model provides a one-stop-shop of information. The importance of community halls is reflected in local community ownership of 19 halls across the District. Council provides land for 15 of these halls and collect rates on behalf of the hall committees for maintenance and agreed capital development requirements. These facilities are highly valued by the community as they provide opportunities to socialise, recreate, connect and learn.

Councils have had a long standing role in providing housing for older people, enabling older people on low incomes to 'age in place' in a safe, secure and well-maintained environment. Council owns 70 elder housing units in Te Puke, Katikati and Waihi Beach built between 1963 and 1989. We are currently reviewing the Elder Housing Activity, and consulting with the public through the Long Term Plan. Council is looking to increase expenditure in this area to deliver an increase in housing stock.

Cemeteries provide families, friends and visitors a place to remember their loved ones. Council is legally required to provide cemeteries to ensure the burial and cremation needs of our District are met now and in the future. Five cemeteries are provided in Katikati, Maketu, Oropi and Te Puke (old cemetery and new cemetery).

What influences our approach?

Issue	Response
<p>Population Growth</p> <p>The greatest areas of demand for community facilities are the urban growth areas of Waihi Beach, Katikati, Ōmokoroa and Te Puke.</p> <p>Increasing population corresponds with increasing capacity requirements for cemeteries.</p>	<p>Demand for library services has reached a point where building expansion is required; some locations with greater urgency than others. Pātuki Manawa, in Katikati has provided a larger library space and a multi-use community space. Ōmokoroa Library has recently moved to the new Western Avenue sports pavilion. A programme for library and service centre development is included in the LTP to ensure facilities are fit for purpose and future proofed. Upgrades/a new library and community hub are planned for Waihi Beach in 2025/28 and for Te Puke in 2027/28.</p> <p>Katikati cemetery has approximately 10 years remaining to reach capacity. The cemeteries at Maketu and Te Puke have substantial capacity beyond 20 years. We are looking at land for a new cemetery with urupa near Katikati.</p>

Issue	Response
<p>Community expectations</p> <p>The community’s expectations of facility standards and service quality have increased and there are a greater range of activities emerging often with different requirements to what is currently provided.</p> <p>The function of libraries is changing to become multi-purpose community facilities and places that provide access to technology learning centres and multimedia hubs.</p> <p>A variety of ways to memorialise people’s lives and funerary practices is expected.</p>	<p>It is important that facilities are located and designed to be adaptable to changing community expectations particularly given the growth occurring, and the changing demographics within our community (ethnicity and age).</p> <p>The review of the Communities Strategy identified a clear need for libraries and combined community hub model for across the district.</p> <p>Council is looking to progress natural burial areas within the Te Puke Cemetery and a future Katikati cemetery. We will look for other remembrance and memorial options as we review the Reserve Management Plans.</p>
<p>Legislative changes</p> <p>A review of the Burials and Cremation Act 1964 and related legislation is being undertaken by the Ministry of Health. This may see increased responsibilities for Council in this space.</p>	<p>Council will continue to monitor the legislative process. It is currently too early in the process and there is limited certainty, to inform any changes to our planning.</p>
<p>Changing make up of our communities</p> <p>The District is experiencing increasing numbers of people living longer than before. At the same time there has been a decline in the affordability of housing across the District. As a result we are likely to see an increased demand for housing for older people on low incomes.</p> <p>The District is experiencing an increase in the number of residents from Asia, the Pacific and other ethnic groups.</p> <p>Seasonal workers are heavy users of library facilities for Wi-Fi access and social connections. This is a key consideration in the design of new library spaces and the availability of existing library services.</p> <p>Increased diversity requires consideration of different cultural customs regarding burial methods when planning for future cemetery provision.</p>	<p>The challenges and opportunities that an ageing population present are being increasingly considered in planning processes.</p> <p>Council is actively looking at ways to improve housing affordability and better understand housing needs. Examples are development of the special housing area in Ōmokoroa that has 50% affordable housing (approx. 120 houses) and development of a housing needs assessment for the sub-region. Council has been reviewing its approach to Council owned elder housing, and is consulting on it through this LTP. Council’s preferred option is to increase investment in this area to deliver increased housing stock.</p> <p>The ageing population is a key driver in planning for the future provision of cemeteries. As well as this the cultural diversity of our community is changing, bringing different burial and cremation needs which may change the current level of service for cemetery/urupa provision and associated facilities.</p> <p>Multi-use spaces, as part of our libraries, have been identified as key aspects for the future of our libraries. These act as a hub for the community and a venue for a range of groups.</p>

Issue	Response
<p>Fast Moving Technology</p> <p>There is an increasing reliance on Council-provided community facilities to be places where people can use technology (e.g. free Wi-Fi and computer access) and/or learn to use technology (e.g. technology learning centres).</p>	<p>We recognise the importance that digital connectivity plays in today's world. We provide free Wi-Fi at our libraries, and offer computer literacy sessions as well as online learning course. We also offer ebooks, eAudio and online magazines through our library service.</p> <p>In line with priorities for libraries to progress digital literacy, Council has partnered with Central Government to establish the Katikati hub as a regional digital hub.</p>

What we want to achieve



Council aims to ensure that social infrastructure (community facilities, services and networks that help individuals, families, groups and communities) meets the diverse needs of communities; and that communities are strong and can influence their futures. This contributes to us all enjoying a healthy and safe lifestyle and our communities being vibrant and welcoming.

The focus for community facilities over the next 30 years is to create facilities, services and networks that mean that in the Western Bay of Plenty, no matter what age you are:

People feel safe and welcome.

People are connected and feel they belong.

People can be active and healthy, and enjoy the outdoors.

People have access to adequate housing.

People can learn and contribute.

Key measures that determine how we are progressing against this outcome include the number of library visits, number of maintenance programmes in place with existing hall committees and customer satisfaction with the services provided. For cemeteries the target relates to the percentage of plot availability. For elder housing targets are set regarding occupancy rates and service provision.

How we will achieve this

Current approach

Council will continue with the current approach. This focuses on implementing projects that achieve level of service requirements such as library and service centre improvements and provision of additional cemetery land. Work has been completed on moving the Ōmokoroa Library to the new Sports Pavillion, offering the growing community a bigger space.

Council has reviewed the approach to elder housing through the LTP. Council will invest \$4.9 million over 2021-2031 to redevelop and increase the number of units available. This would see 17 units replaced with 34 new units at two of our sites.

Future thinking and potential changes to current approach

Council has reviewed the Communities Strategy, to reflect our changing population and community aspirations. A key change has been Council's approach to developing community hubs alongside our libraries in the District. Our level of service is to provide a network of libraries and service centres that provide safe, welcoming, inclusive and flexible spaces for community connection in each of the four urban centres. Through this LTP, \$2.8m has been budgeted to build a new library and hub at Waihi Beach. Within the 10 years of the plan to either refurbish the existing library, or construct a new library in Te Puke. A \$9 million budget has been included for this. Similarly, a new library and hub will be built at Ōmokoroa, once the Ōmokoroa Structure Plan and plans for the town centre are finalised. This would be in 2032 and is budgeted to cost \$8 million. The Council's Head Office, at Barkes Corner, will need replacement within the next 30 years. Waka Kotahi has also indicated the need to use the current site for state highway improvements. Exact timing and scale depends on the asset condition and potential changes to local government organisation and use of the current site (Waka Kotahi may need to use part of the site for roading purposes). Investigations are planned in 2025-26, with a budget of \$250,000. A new building would be expected to cost around \$31.5 million (in 2021 figures). A provisional date of 2035-2040 has been made for the purposes of this strategy.

It is possible that the way people use community halls may change in the future, where the expectation is for development of multi-use facilities that offer a range of spaces catering to a wider range of activities (rather than one large space). The future role of community halls will be a consideration included in the Communities Strategy review.

Katikati cemetery has approximately 10 years remaining to reach capacity. The cemeteries at Maketu and Te Puke have substantial capacity beyond 20 years. New cemetery land to service the Katikati area, is currently being developed using Council-owned land, further up Hot Springs Road from the existing cemetery. This land is also providing for urupa. Additionally, provision for natural burials are being considered through the 2021-2031 LTP. A cemetery land capacity review will be undertaken prior to 2025 (when the funding is available) to determine a wider approach. This will consider where population growth is occurring across the sub-region, changing demographics and associated requirements for cemetery space. Council is also intending to work with Tangata Whenua to identify current and future requirements for urupa.

Council has reviewed its role in the provision of elder housing. Council's preferred option will see increased investment to deliver more housing and maximise the sites we currently own. \$4.9 million has been included in the first 10 years of the LTP to replace 17 units with 34 new units. From 2031-2051, Council will budget a further \$9.8 million to redevelop other sites which will see 39 units replaced by 59 new units.



Expenditure Forecast 2021-2031

The community facility activities only have robust financial information to 2031. The new asset management system (AssetFinda) is providing improved capability to forecast beyond this but requires increased data integrity.

Within the 2021-31 LTP the main delivery projects for this activity are:

- A capital expenditure programme of improvements to library and service centres to meet the level of service of a library and service centre providing multi-use community spaces in each of the four urban centres (Te Puke, Katikati, Waihi Beach and Ōmokoroa):
 - Waihi Beach - \$2.8 million in 2024-2027.
 - Te Puke - \$9 million in 2026-2028.
 - Ōmokoroa - \$8 million in 2032.
- Cemetery land purchase in the west of the District - \$860,000 in 2024-2026.
- Community hall improvements - \$4.5 million from 2021-31.
- Elder housing improvements and increased stock- \$4.9 million from 2021-2031 (funded from rental income).








Key activity assumptions

Relevant strategic assumptions	Activity assumptions	Risk	Impact
Legislative changes	Central Government funding arrangements for elder housing will not change.	A change in funding arrangements could either increase funding available for Council's delivery of this activity, or increase costs to tenants.	This would have implications for the financials of the activity. Changes to legislation will take time and Council will be able to prepare and make suitable decisions in advance.
Changing make up of our communities	<p>The District's population will get older and will become more diverse.</p> <p>This will have implications for the level of demand on elder housing; it may change how our libraries and community halls are used; it may have implications for funerary practices.</p>	That change will happen quicker than planned for and Council facilities and services no longer meet community expectations.	<p>Council has planned for multi-use hubs as part of new libraries, to enable flexible spaces for a variety of council uses.</p> <p>Council will continue to monitor trends and engage with the community to plan for the future of services.</p> <p>Council has planned to increase the number of units available as elder housing.</p>

How we manage our assets

Council provides the community with infrastructure managed to deliver the agreed levels of service, cost effectively and within an acceptable level of delivery risk. To do this, Council must make decisions and manage its assets throughout their entire lifecycle: build, operate, maintain and renew.

Infrastructure overview

Activity	Asset type	Approximate asset replacement cost	
 Stormwater	<ul style="list-style-type: none"> Reticulation (pipes and pump stations) Drainage reserves (including stormwater ponds) Open drains 	<ul style="list-style-type: none"> Open drains Coastal protection works Earth dam 	\$170 million (does not include coastal protection works (it comes under recreation & open space))
 Water Supply	<ul style="list-style-type: none"> Source (stream intakes, groundwater bore sites, water treatment plants) Reticulation (mains and submains, booster pump sites) 	<ul style="list-style-type: none"> Storage (treated water reservoirs and tank sites) 	\$242 million
 Wastewater	<ul style="list-style-type: none"> Pipes Pump stations 	<ul style="list-style-type: none"> Treatment plants 	\$210 million
 Transportation	<ul style="list-style-type: none"> Roads (sealed and unsealed) Bridges Culverts 	<ul style="list-style-type: none"> Footpaths (hard surface and metalled surface) Streetlights Road signs 	\$826 million
 Solid Waste	<ul style="list-style-type: none"> Recycling and greenwaste centres (including land) Greenwaste drop-off 	<ul style="list-style-type: none"> Closed and capped landfills 	\$2 million
 Recreation & open space	<ul style="list-style-type: none"> Active reserves Passive reserves TECT All Terrain Park and Huharua Park Forestry 	<ul style="list-style-type: none"> Public toilets Playgrounds and furniture Coastal and marine structures (jetties, boat ramps, wharves, seawalls) Swimming pools 	\$72 million excluding land
 Community facilities	<ul style="list-style-type: none"> Library and Service Centres Community Halls 	<ul style="list-style-type: none"> Cemeteries Elder housing units 	\$20 million for libraries and service centres \$1 million for cemeteries \$8 million for elder housing \$2 million for dog pounds and other community buildings

Asset Management Plans

Asset management plans (AMPs) are in place for all activities included in this strategy. The plans have been prepared based on standard industry practice and are used to forecast expenditure needed to operate, maintain and renew assets. The financial forecasts in AMPs are a result of analysing asset requirements based on three key assumptions:

- the future service level being delivered to the community
- the future demand for the service, and
- the age, performance and life of the asset.

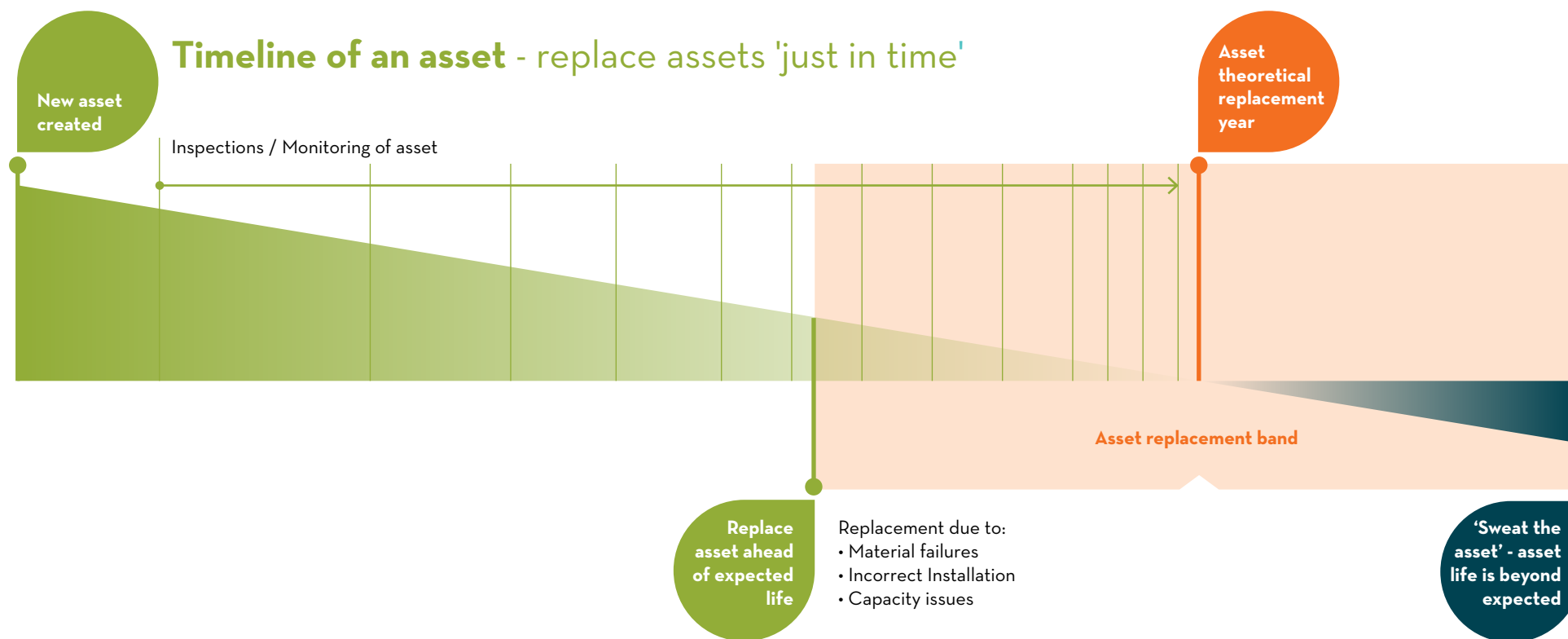
The LTP, Financial Strategy and Infrastructure Strategy then balance the forecasted spending needs with Council and ratepayer affordability.

Replacement of assets

Council has a renewal and upgrade programme to replace assets before they fail or do not have sufficient capacity for users. When considering the renewals programme, Council looks at both the condition and performance of the asset, taking into account the level of service being delivered and whether the asset is still fit for purpose. The aim being to get the best possible use of an asset from when it is constructed to the point when it is no longer usable. This includes the servicing and maintenance of assets to extend the asset life and gain additional service benefits.

Council also receives new assets from developers, which are checked for compliance before they become a Council asset. The expected useful lives of Council assets are detailed in AMPs and an overview is provided in the significant accounting policy regarding depreciation.

The diagram below illustrates the timeline of an asset and application of the 'just in time' approach.





Most infrastructure in the District is relatively new and only a short way into its asset life. This means that the majority of significant asset renewals sit outside the 30-year strategy. The focus is instead on regular monitoring of the condition and performance of the assets. The exception to this is water assets, and some recreation and open space and road assets.

Changes in demand and growth

Growth and demand, although related, have different implications for each activity. Growth generally relates to the growth or change in population, these changes will in turn create demand. Demand however may also be influenced by factors separate to growth such as a change in trends.

Council's infrastructure is analysed and modelled to determine when and how additional capacity should be implemented to cater for forecasted population growth. Growth rates are regularly monitored so that the investment programme can be adjusted if required to recognise a slowing down or speeding up of development on the ground. Other demand factors are identified in AMPs and in the activity overview section of this strategy.

Levels of service

Infrastructure planning allows the relationship between levels of service and the cost of the service to be determined. Council agrees levels of service with the community and then these provide the platform for infrastructure decisions. Climate change, natural hazards, community expectations, and improving public health and environmental outcomes tend to be the main drivers that result in a change to levels of service. While the strategy identifies a 'business as usual' approach for infrastructure, it also identifies where potential level of service changes may occur in the future.

Public health and environmental outcomes

With increasing knowledge of public health and the environment, and corresponding increasing community expectations, the requirements to improve public health and environmental outcomes inevitably increase. The AMPs and activity overviews in this strategy identify the likely implication of these changes on the management of infrastructure, in particular wastewater and stormwater discharge and water quality.

Natural hazards and risk management

Council is aware of the importance of managing the effects of more intense storm events, rising sea levels and other natural hazards. Many initiatives are in place that seek to better understand, plan for and respond to the impact of natural hazards on Council infrastructure and operations. Council takes a Regional and District approach to the management of natural hazards and risk.

At a regional level, Council is part of the Bay of Plenty Lifelines Group along with other utility and service providers. The focus of this group is on investigating the resilience of our infrastructure, and understanding the interdependencies of the infrastructure network. The group aims to reduce the vulnerability of Bay of Plenty lifelines including improving disaster preparedness planning. The group assesses the vulnerability of various types of infrastructure to hazards including floods, earthquake, volcanic eruption, tsunami, storm surge, fire, wind and landslide. Work is underway to examine the risk profile of these lifelines assets against the impacts of climate change.

A Natural Hazards Charter is in place between Council, TCC and BOPRC. This outlines how the councils will give effect to the natural hazard risk assessment requirements of the Regional Policy Statement, and includes implementation of a natural hazards research programme.

At a District level, the Risk Management Policy (2013) provides the framework for the management of risks by Council. The aim is not to eliminate risk but rather to manage the risks involved in all activities to maximise opportunities and minimise adversity. The Policy uses a standard methodology consistent with ISO 31000 2018 (international risk management standards). A risk profile identifies the top level strategic and operational risks for the organisation and District. The most significant risks identified are macro-economic impacts (including Central Government policies), natural disasters and crises, and the renewal and maintenance of infrastructure. Mitigation measures include our detailed asset management planning, civil defence planning and testing, annual review of insurance cover, and ongoing monitoring of emerging Central Government issues.

The risk framework is applied at an activity level within AMPs. Risk is assessed against the ability to achieve the activity outcome and levels of service. The risk category tables identify the type of risk, frequency and impact ratings, and mitigation approaches. Critical asset data is included in the AMP and the management approach to these assets. For example, in the AMP for water supply, it is recognised that severe failure of critical water assets could compromise levels of service, provision of supply or ability to meet normal demands or contamination of supply. A 'Vulnerability Analysis' for water assets identifies individual critical assets and the likely impact of failure from natural events and asset priority ratings. The Utilities Operational Emergency Manual deals with the practical effects of asset failure, impact and restoration methodology. The criticality of the asset is taken into account when developing the renewal profiles.

Planned improvements to the risk management framework seek to move from a quarterly monitoring and reporting process, to a more integrated and consistent approach. The aim is to ensure risk management is a part of what we do on a regular basis and ensure that we focus on the areas that need the most attention.

The most vulnerable parts of our infrastructure to various hazards have been identified through the Regional Lifelines work and included in our GIS mapping information. This is Council-owned infrastructure identified as 'almost certain' or 'likely' to be vulnerable to hazard and include water supply in each of the three zones with vulnerability to earthquakes (and flooding, storm surge in the central zone) and roads such as Welcome Bay Road which is vulnerable to flooding.



Council has a Disaster Contingency Fund which currently sits at \$9.26 million and insurance cover. However, in the event of major infrastructure failure this amount would not cover the total cost of replacement or repair. The Financial Strategy outlines the options for funding infrastructure repairs if this situation was to occur.

Council has commissioned infrastructure modelling to better understand the impact of extreme events on underground and above ground assets and ensure that the appropriate level of insurance is in place for replacement. This will highlight areas of vulnerability and ensure that the appropriate financial and management response is in place.

The resilience of assets is a key consideration in asset renewal, replacement and investment decisions. Examples include:

- Provision of earthquake sensors and planned installation of automatic shut off valves to water supply in the event of an earthquake to minimise loss of water.
- Polyethylene pipes that are more flexible to ground movement and less likely to break.
- Installation of pressurised systems (including the use of grinder pumps) to reduce the amount of inflow (or rainwater) into the stormwater and wastewater network.
- Considering resilience in the use of construction materials and design for development of a replacement jetty.
- Exploring ways to share water within and across each water supply zone.
- Continuous improvement in the approach to materials and fitting selection. Council has a development code that lists approved materials for use and an assessment process that provides rigour to new products that come on the market, including consideration of the potential to improve the resilience of the assets.

Technological improvements play a big part in improving the resilience of assets and it is important that Council continues to keep connected with what is going on in this area.

At an organisational level, business continuity plans identify critical and non critical council functions and ensure effective systems and processes are in place should a major event occur.

Asset condition

Overall asset condition data is considered to be extensive and reasonably accurate, particularly in the transportation activity due to the nature of the performance based contract. Wastewater and stormwater assets are relatively young in age so there is a limited need to confirm condition assessments. In some cases there is still data to be obtained and this is a focus moving forward to ensure all asset condition data is captured. This information will improve future investment decisions. For example, the installation of water meters has significantly improved data and information on water usage patterns and influences implementation of future capex programmes.

Regular condition assessments help to inform the maintenance and renewals approach. For underground assets a variety of methods are used to assess asset condition including CCTV and maintenance contracts.



Continuous improvement

Council has a good degree of confidence in the reliability of information about its assets and regular analysis is undertaken to identify opportunities for improvement and to maintain these confidence levels.

One of the key changes implemented in June 2018 was the introduction of a new asset management system for three waters, Recreation and Open Space, solid waste and community facilities assets called AssetFinda. The overriding benefit was to improve both the quality of the asset information and the ability to use it in asset management practices. The software is helping to reduce corporate risk by allowing for improved renewal forecasting, reporting processes and new features such as predictive modelling which weren't available with our previous system. Good data is fundamental to making good decisions and a data cleansing programme has been underway since the system was introduced. A new team has also been established to drive improvements in our asset information quality and to assist with the integration of the system into Council practices.

From a long term planning perspective, there is good information in place for the three waters and transport to determine a financial capital and operational programme of expenditure and highlight any forecast issues. Recreation and open space, solid waste and community facility activities have begun to improve the information outside of the 10 year period but will require further improvements for planning beyond this timeframe. AssetFinda, along with IBIS Breeze (a new financial forecasting tool), provides improved capability to do this and we should see an increase in the quality of information for our asset and planning processes.

All AMPs have a Plan Improvement Programme in place. Progress against these actions is reviewed annually and prior to the three yearly AMP review. Operational performance measures, monthly progress reports, and annual reviews of the operational and financial components of the AMP all contribute to improved asset information.

Asset performance

Water, Wastewater and Stormwater

Council considers its three waters networks perform to acceptable standards as determined by levels of service and key performance indicators. Performance issues include rare instances of low pressure, pipe bursts and occasional sewage overflows due to blockages and or inflow/infiltration. There is an ongoing programme of improvements in place to address these issues.

The stormwater level of service seeks to minimise the impact of flooding events on the number of habitable floors affected, reducing as much as possible the impact on the liveable areas of peoples houses. The known issue of undersized stormwater pipes is managed by prioritising replacement for stormwater areas most at risk of flooding habitable floors.

It is expected that with the water reforms and the water regulator that Council will need to introduce a two barrier treatment method to its water supplies through UV treatment. Provision has been made for this for the first few years of the LTP. Continued compliance costs are expected across the 30 years.





Transportation

Condition measures suggest the road network is being managed to an appropriate level. Western Bay of Plenty District is performing well when compared against peer networks. Measures show:

- Smooth travel exposure is above 90% across the different road types in the network and an average of 94%.
- Condition index (0 = defect free; 5= unsatisfactory) for sealed roads is 0.36 and unsealed roads is 2.26.
- Percentage of sealed network that is more than one metre under width is currently 23%.

To address under width roads we will focus on widening the higher volume roads where the deficiency is greater than one metre. Council is also looking to increase the amount of pavement rehabilitation and reseals through this LTP.

There is an increased demand for a quality walking and cycling network. The value of the existing network was shown through the community's response to COVID-19, where user numbers increased. We are now proposing increased investment in the walking and cycling network. Council has approved the Walking and Cycling Action Plan.

The joint principles Council/Waka Kotahi performance-based One Network Maintenance Contract requires operational performance targets and levels of service to be met as contractual deliverables. This ensures that the maintenance contract is operating to the right standard and preserving the assets overall. The maintenance contract includes a measurement regime to ensure that maintenance is carried out in an appropriate and timely way and that the repairs and renewals are sufficient to maintain the overall condition of the assets. The service delivery contract measures delivering the Council's customer levels of service are prepared and reported every year to both the contract management board and to the Council.

Recreation and open space

Council considers its reserves and facilities networks perform to acceptable standards as determined by levels of service and key performance indicators. Council has consistently achieved the level of service that requires over 90% of recreational facilities to have a condition rating of acceptable to excellent (as defined in the New Zealand Park and Recreation Asset Grading Standard manual). Condition assessments of assets are undertaken on an annual basis. Information on the performance of assets is generally received through community feedback, and industry benchmarking. Investment in our swimming pools will see performance levels improved or maintained in this area.

Solid waste

Condition assessments are undertaken on solid waste assets. The assets are determined to perform to acceptable standards with condition ratings as very good condition and minor defects only.

Community facilities

Council considers the community facilities network performs to acceptable standards as determined by levels of service and key performance indicators. A hold and maintain approach is taken to asset management to ensure that facilities are adequate for their intended purpose, and to recognise that due to the age of many of the assets, they may no longer be fit for purpose and future proofed for our growing community. Council direction regarding potential changes to levels of service will provide direction on this alongside the LTP, for example increased investment into elder housing.