Infrastructure Strategy

Te Rautaki Hanganga

Background

Why have an Infrastructure Strategy?

Infrastructure is one of the most significant elements of council planning and expenditure. Most council services rely on having fit-for-purpose infrastructure to support that service and infrastructure is a significant driver of council costs.

Much of the Council's infrastructure has a lifespan of many decades. Having a longer-term view (30 years) focuses attention on the opportunities and challenges for infrastructure, both now and over the next 30 years. Trade-offs will inevitably be needed to get the balance right between what we can afford, what we expect our infrastructure to provide and the impacts it will have on our communities and our environment. These trade-offs need to be guided by a framework that provides direction for planning and action.

Central Government have recognised the need for this level of planning at the national level and in 2022 released New Zealand's first long-term Infrastructure Strategy. The national strategy sets out five strategic objectives:

1. **Enabling a net-zero carbon emissions Aotearoa** through rapid development of clean energy and reducing the carbon emissions from infrastructure.
2. **Supporting towns and regions to flourish** through better physical and digital connectivity and freight and supply chains.
3. **Building attractive and inclusive cities** that respond to population growth, unaffordable housing and traffic congestion through better long-term planning, pricing and good public transport.
4. **Strengthening resilience to shocks and stresses** by taking a coordinated and planned approach to risks based on good-quality information.
5. **Moving to a circular economy** by setting a national direction for waste, managing pressure on landfills and waste-recovery infrastructure and developing a framework for the operation of waste-to-energy infrastructure.

These objectives can equally apply at the local level and the New Plymouth District Council (NPDC) Infrastructure Strategy aligns with, and gives effect to, these objectives.

Preparation of the Council's Infrastructure Strategy has to align with the requirements of the Local Government Act 2002 which requires all councils to prepare an Infrastructure Strategy as part of their three-yearly long-term planning process. The Infrastructure Strategy must cover a period of 30 years and identify:

- the key infrastructure issues facing the council;
- the principal options for managing those issues; and
- the implications of the various options.

Who provides infrastructure?

Delivering New Plymouth's infrastructure requires co-ordination across a number of public and private organisations depending on the type or scale of infrastructure. Typically:

- Government provides state highways, railway lines and some social infrastructure, such as schools and hospitals. It also subsidises other transport infrastructure.
- NPDC provides arterial roads and sustainable transport options (cycling, walking paths etc), water supply, wastewater and stormwater networks, waste management and minimisation facilities, and social infrastructure such as community facilities and parks. The Council also, through our council-controlled organisation Papa Rererangi i Puketapu Ltd, provides the New Plymouth Airport.
- Taranaki Regional Council own the Taranaki Port, Yarrow Stadium, regional gardens, provides public transport and provides and manages significant flood protection on the Waitara and Waiwhakaiho rivers.
- Developers initially construct local streets and pipe networks which are then vested with the Council to own and maintain.
- Energy and communications infrastructure is typically supplied by private utility companies.

Council's infrastructure

NPDC currently has infrastructure assets worth almost $2.8 billion and it costs approximately $60m each year to maintain and operate these assets - representing 30 per cent of the Council's total operating costs.

Making timely and well-informed decisions on these investments during the long-term plan process is essential - as the consequences of those decisions will be with the district for many years, in some cases generations, to come. The Infrastructure Strategy is a 30 year plan for the assets of the key activities of Council (not all assets) and is complemented by the Financial Strategy. The Financial Strategy considers the financial and funding impacts of these decisions and sets out the impacts on both the council finances and the direct implications for ratepayers.

Over the next 30 years the environment in which these decisions are made will continue to change. We need to provide for ongoing population growth (currently expected to grow by 24 per cent over the 30 years) and where new housing and employment areas will be situated to cater for that growth; an ageing population and what that means for much of our infrastructure; ongoing growth in tourism; and the effects of climate change (e.g. coastal infrastructure at increasing risk and managing increasing flooding events).

Where we are heading

Our strategic framework

In order to make good decisions about future investments in our infrastructure assets, NPDC needs to have a clear vision of what it is trying to achieve. In June 2023 we confirmed our strategic framework.

Vision: Sustainable Lifestyle Capital

Mission: Ensuring Taranaki is a place of opportunity where people want to live, learn, work, play and invest now and into the future with a focus on kaitiakitanga.

Goals (community outcomes):

Trusted	• Strengthening Te Tiriti partnerships with hapū and iwi to improve well-being • Building trust and credibility with community, business, fellow councils and government • Demonstrating leadership and striving for operational excellence
Thriving Communities and Culture	• Connected and engaged communities • Safe and active communities • An equitable and inclusive approach to delivering for all our people and communities • Communities that embrace Te Ao Māori
Environmental Excellence	• Restoring our ecosystems • Mitigating further environmental impacts • Tackling the challenges of climate change • Delivering resilient infrastructure efficiently
Prosperity	• Developing and supporting initiatives to achieve a diversified high-performing economy • An equitable economy where people have access to quality employment and opportunities to build wealth • Contributing to NZ Inc's environmental sustainability and economic performance

How we maintain, renew and invest in our infrastructure networks will be driven by delivering on this mission and goals. The level and speed at which we can achieve the mission will be constrained by the affordability of providing everything that the community and Council may wish to do. Our Financial Strategy sets out the limits within which we need to work in order to keep our spending affordable for the community. In setting out the options for each of these major infrastructure decisions in this document we have been guided by the limits set in the Financial Strategy.

Key strategies and plans

Sitting below the Council's high-level vision, mission and goals are a number of strategies and plans to guide delivery at a more detailed level. Four key strategies or plans that have major impact on the Infrastructure Strategy are:

- Future Development Strategy for Ngāmotu New Plymouth 2024-2054 provides the strategic framework for providing for urban growth to meet the needs of New Plymouth District. It sets out how the Council will achieve well-functioning urban environments, provide at least sufficient development capacity, and integrate planning, infrastructure and funding decisions
- Proposed New Plymouth District Plan. A key tool to manage the location and speed of growth in the district. The Council notified its decisions on the Proposed New Plymouth District Plan on 13 May 2023 and on 14 September 2023 we released the Appeals version of the Plan. The Proposed District Plan addresses urban growth through intensification of existing suburbs, structure plan development areas zoned and with infrastructure planning progressed to support greenfield development, as well as future urban zones for residential and business growth in the medium to long term. The District Plan seeks to ensure good quality subdivision and development outcomes.
- Ngāmotu New Plymouth City Centre Strategy (the City Centre Strategy) sets the strategic direction for New Plymouth's City Centre over the next 30 years. Addressing the challenges with current changes in the way that people shop, do business and spend their leisure time, the strategy aims to deliver a city centre that will be the thriving cultural, leisure and community hub for the district with a diversity of retail, cultural and social experiences for the community to enjoy. It envisages walkable neighbourhoods in and around the city centre with a greater mix of residential options. The presence of Ngāti Te Whiti and Te Ātiawa will be visible, recognising the past, present and future.
- Community Board Plans. These plans are prepared by each of New Plymouth's five Community Boards (Clifton, Kaitake, Inglewood, Puketapu-Bell Block and Waitara) and represent the priorities of the local communities. The purpose of these plans is to build on the New Plymouth District Blueprint and facilitate a more integrated approach to planning, infrastructure development and community development in the community board areas. Development of the plans has been successful in encouraging grassroots engagement in our statutory planning and governance processes.

Our decision drivers

To help us prioritise the investment in our asset infrastructure, while delivering on the mission and goals, we have identified the following key drivers of our decisions.

Ensuring our existing assets remain fit for purpose	Resilience and adapting to climate change	Providing for sustainable growth and the changing needs of our community
We need to ensure that we invest in maintaining, renewing or replacing our existing infrastructure assets to preserve and extend their useful life while ensuring that they also: a) Meet the changing needs of the community. b) Respond to increasing standards for public health and safety. c) Support the physical, mental and social well-being of our community. d) Reflect Te Ao Māori by working with, and improving, our natural environment. e) Mitigate our impact on climate change.	As we grow, build new assets and renew our existing infrastructure we must ensure we build in resilience to issues from natural hazards including, volcanic and seismic activity, sea level rise, coastal erosion, flooding events and droughts, along with the forecast impacts of climate change. Wherever possible our solutions should work with the natural environment and existing features of the landscape.	It is important that we manage infrastructure provision in existing and developing areas of the district to support: a) Population growth. b) The aspirations of Māori. c) The changes driven by different demographics. d) Evolving technology and new ways of working. e) Improving environmental outcomes.

Partnership with iwi

The Long-Term Plan (LTP) identifies the role that Māori play in relation to the decision-making of the NPDC in the section titled "Working with Tangata Whenua". As set out in this section, there are a range of mechanisms at both the governance and management levels where iwi and ngā hapū engage with the Council and participate in the decision-making process.

Council is working more collaboratively with iwi and ngā hapū to develop sustainable outcomes for the community. For example, Ngā Kaitiaki will work with Council on district-wide environmental policy and planning matters, including reserves management policy planning.

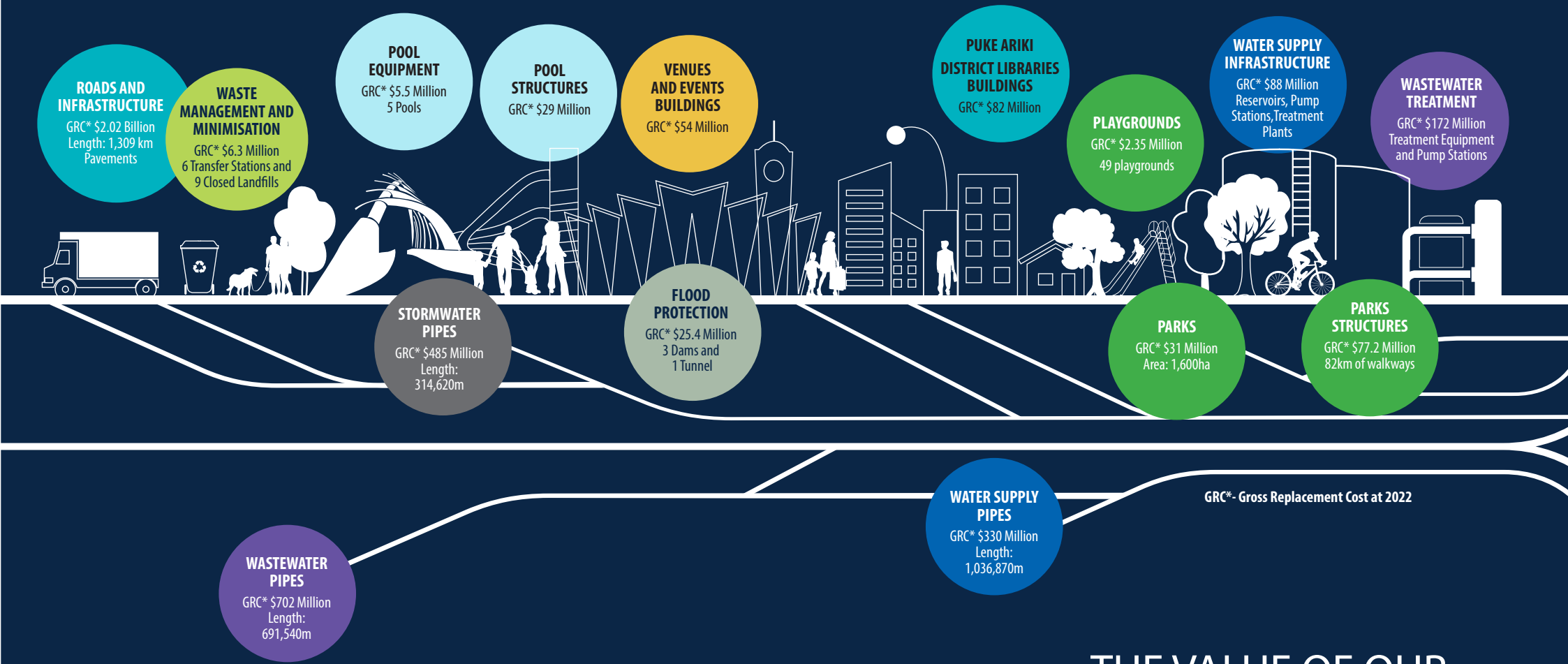
The Council is moving its engagement model to the front-end of project planning processes to better recognise tangata whenua's connection to place. Building on the success of the New Plymouth Airport Terminal, the Waitara-Bell Block Coastal Walkway Extension is being co-designed with ngā hapū. Similarly, collaborations with ngā hapū and iwi are also occurring for the Tūparikino Active Community Hub and the Taranaki Traverse Project.

This approach will better ensure that the footprint and aspirations of tangata whenua are recognised in the delivery of infrastructure projects. Council has also committed to providing an additional carpark for the North Egmont Visitor Centre which aligns with iwi and ngā hapū aspirations for Taranaki Maunga.

Where we are now

Our current assets

The Council's infrastructure assets are valued at almost $2.8 billion. This diagram illustrates the gross replacement cost of each major group of infrastructure assets, totalling $4.1 billion.



GRC*- Gross Replacement Cost at 2022

THE VALUE OF OUR INFRASTRUCTURE

Our current challenges

In the earlier section we outlined the three key drivers that will influence the prioritisation of NPDC's investment in infrastructure.

Ensuring our existing assets remain fit for purpose

Looking after the very significant investment that has been made over many years in New Plymouth's infrastructure is a high priority. Much like looking after a house, it is important we maintain the condition of our infrastructure assets to make sure they perform, that they are safe and that they have as long and useful life as possible. We do this through:

- Maintenance programmes – keeping an asset in good repair. This would be comparable to regularly painting your house and cleaning your gutters.
- Renewals - replacing all or part of an asset to extend its life. In the house analogy this would be comparable to replacing the roof.

When renewing our infrastructure assets it is not always sufficient to just replace like with like. We need to consider a number of factors, i.e.

a) **Both the current and future needs of the community**

There will be the opportunity to enhance the future use of an asset by considering future needs of the community. For example if renewing a road intersection in an area where there will be more residential development, the intersection may need to be more pedestrian friendly than previously.

b) **Increasing standards of public health and safety**

All of the Council's assets need to be compliant with the increasing standards of health and safety legislation. For example, public buildings such as libraries, community centres, museums and art galleries continue to be subject to more stringent health and safety requirements as time goes on. Renewals of these building are an opportunity to ensure that standards are lifted to current and known future requirements.

c) **Supporting the well-being of our community (economic, cultural and social)**

Infrastructure assets play a key role in supporting the overall well-being of the community. As well as supporting business and the community to move around (transport), maintain a healthy and safe environment (the three waters and waste management), many Council assets support the cultural and social well-being of the community, for example libraries, community centres, art galleries and sports facilities. When renewing these facilities the changing demographics, and the resultant change in focus for these facilities, needs to be considered.

d) **Working with kaitiaki to improve the mauri (life essence) of our natural environment**

Renewing existing assets presents an opportunity to consider the impact that the asset and the service it provides has on the natural environment. Working with kaitiaki the renewal can be planned in a way that mitigates the impact on the natural environment and, where possible enhances it. An example is the Onaero Domain dewatering project where an interceptor was installed with Mana whenua input to reduce contaminants from entering the Onaero River.

e) **Mitigating our impact on climate change**

Similarly to the point above, when renewing an asset, there is an opportunity to consider the impact of the asset (and the service it provides) on climate change and whether the impact can be reduced. For example when renewing transport assets, providing for more active forms of transport (cycle lanes and walkways) as part of the renewal can reduce carbon emissions in the long term.

In recent years we have invested in improving our understanding of the condition of our assets particularly those most critical to the functioning of our district. This work enables us to better plan our spending on renewals, and use of the Monte Carlo risk simulation tool allows us identify those assets where consequences of failure are the most significant. These high risk/high consequence assets will have the highest priority for renewal spending while other, less critical assets, can be allowed to 'sweat', i.e. delaying renewal or replacement to extract maximum value from the asset.

While our understanding of the condition of our assets has, and continues to improve, the job is not yet done and work on this critical component of asset management will continue for the foreseeable future.

Based on current data, our assessment of overall asset conditions shows:

Activity	Condition data	Confidence	Current performance
Water Supply	Sixty-three per cent of water pipes are rated moderate or better condition. Thirty-five per cent are rated poor or very poor condition and two per cent rated as unknown.	Moderate	Aside from some unsatisfactory pressure management and firefighting minimum flows and pressures we are meeting required levels of service.
Wastewater	Seventy-six per cent of wastewater pipes are rated moderate or better condition. Twenty per cent are in poor or very poor condition and four per cent are rated as unknown.	High	Currently meeting required levels of service.
Stormwater	Ninety per cent of stormwater pipes are rated moderate or better condition. NIne per cent are in poor or very poor condition and one per cent are rated as unknown.	High	Generally meeting levels of service with the exception of Waitara and some other discrete areas in the district.
Flood Protection	The network is in very good condition, but recent legislation has introduced new standards for dams.	High	Level of protection requires re-assessment against new standards, including the predicted increased effects of climate change.
Transportation	The asset base is in fair to good condition.	Moderate to high	Currently meeting required levels of service.
Parks and Open Spaces	Overall asset condition is good apart from Urenui swing bridge (very poor) and Onaero Domain vehicle bridge (poor).	High	Currently meeting consent conditions and service level targets.
Waste Management and Minimisation	Overall asset condition is good although historic closed landfills at risk of erosion.	High	Currently meeting service level targets.
Venues and Events	Not currently available.	N/A	N/A
Puke Ariki and Community Libraries	Not currently available.	N/A	N/A

Critical assets

We have identified the following assets whose individual failure would have a significant negative impact on the New Plymouth District – either because they provide essential services and/or are important in an emergency situation. These assets were identified as being the most critical assets for the organisation as a whole.

Note: The following assessments are for the subsets of critical assets only.

Critical assets	Condition data	Comments
Water Supply assets - consists of reticulation of which major components are trunk and distribution mains.	Forty-nine per cent of critical assets are in average to excellent condition, 43 per cent in poor to very poor condition, eight per cent unknown.	Assets that are poor to very poor condition are to be renewed within the LTP.
Wastewater assets - consists of reticulation of which major components are sewer main and rising mains.	Sixty-eight per cent of critical assets are in average to excellent condition, 20 per cent in poor to very poor condition, 12 per cent unknown.	Assets that are poor to very poor condition are to be renewed within the LTP
Stormwater assets - consists of reticulation of which major components are stormwater mains.	Ninety per cent of critical assets are in average to excellent condition, 10 per cent in poor to very poor condition.	Assets that are poor to very poor condition are to be renewed within the LTP.
Roading assets: • Roads with no viable detour. • Tunnels. • Bridges/large diameter culverts. • Retaining structures.	Good but showing signs of slow deterioration.	Planned to increase funding to maintain levels of service.
Foreshore protection assets.	Good.	
Parks - bridges.	Good apart from Urenui swing bridge (very poor) and Onaero Domain vehicle bridge (poor).	Planned to be renewed within LTP.
The cremator within the crematorium.	New cremator - excellent. Old Electfurn cremator - poor.	Electfurn planned to be replaced within LTP.
Cemeteries (Waitara and Mangapouri).	Good.	
TSB Stadium (Emergency Management Centre).	Average.	Approved capital expenditure work 2023/24 to improve seismic rating, upgrade toilet facilities and heating.
The Resource Recovery Facility on Colson Road.	Excellent.	
Transfer stations at Inglewood, Ōkato, Tongaporutu and Waitara.	Average to poor (Inglewood, Ōkato).	Planned upgrades in LTP.

Our renewal budget over the period of the Infrastructure Strategy projects an average of $95m. This level of funding enables us to continue the catch-up work of the last three years of necessary renewals to our key infrastructure. However, we also recognise that these are hard times for our community and that is why we have incorporated a programme of efficiency savings into our budget. We are focused on keeping our costs and rates as low as possible while maintaining existing levels of service and keeping our key assets 'fit for purpose'.

In our last Long-Term Plan (2021) we forecast to fund renewals from a combination of rate funded reserve (set aside annually from rates and evened out over a 10 year period) and debt (for longer life assets). We expect to be fully funding renewals on a 30-year average basis from our rate funded reserves from 2028. For more information refer to the Financial Strategy.

Each asset category has a full programme of renewal projects, some examples of these are outlined below.

Project	Description	Cost	Timing
Wastewater Treatment Plant upgrades	Main control and laboratory building replacement to address a number of issues including seismic risk and upgrading of laboratory facilities.	$18.9m	2026 to 2031
Beach Street, Fitzroy accessible ramp	The current Beach Street to Fitzroy seaside park wooden stairs are at the end of their life without current accessible access.	$1.4m	2024 to 2026
Urenui swing bridge	Storm damage, corrosion and erosion issues has resulted in the need to replace the bridge. As part of this renewal the bridge will have capacity for the future sewer connection to Urenui Domain.	$6.7m	2024 to 2027

Our strategy for ensuring our existing assets remain fit for purpose is to:

a) Continue to improve our knowledge of the condition of our assets through inspection and data collection.

b) Ensure renewal of existing assets is undertaken working with kaitiaki and takes into account the future needs of the community as well as the impact on the environment and climate change.

c) Continue to develop proactive maintenance schedules for all assets.

Resilience and adapting to climate change

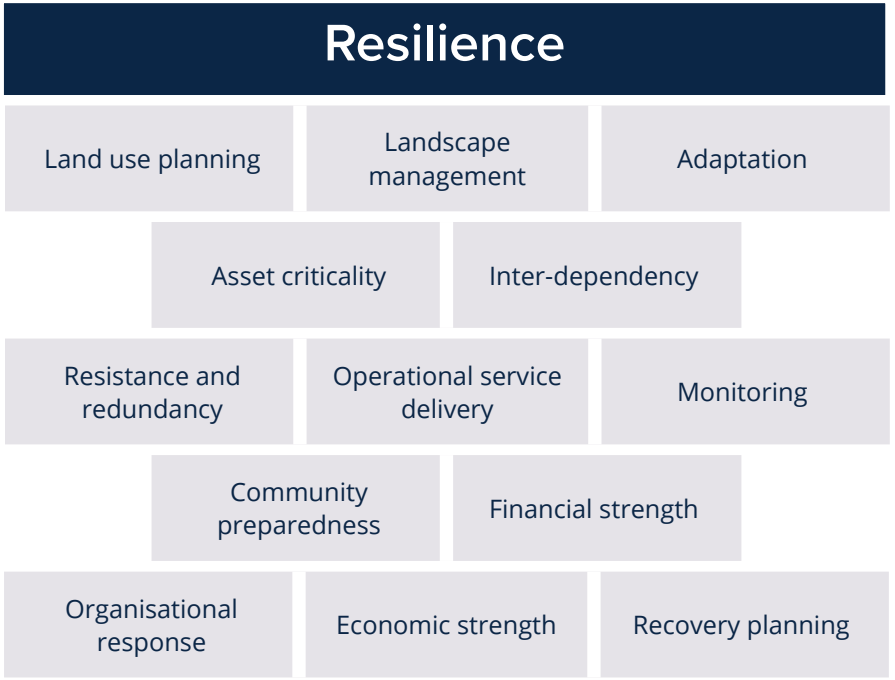
In recent years New Zealand has been subject to significant weather events, the frequency and severity of which have been, at least partially, attributed to climate change. These weather events have on many occasions severely damaged infrastructure assets in the affected regions. The New Plymouth District had some experience of such an event a few years ago when ex-cyclone Gita damaged a main water pipe resulting in water shortages across the district. It is becoming increasingly apparent that our planning and provision of resilience for critical assets (those needed by the community in any form of natural disaster) must meet the challenges ahead.

Currently we are vulnerable to natural disasters because:

- Historically, some of our existing infrastructure has been constructed in areas subject to natural hazards, i.e. along the coast, across rivers, on fault lines and in areas subject to volcanic activity.
- The layout of some of our transport network, and our challenging natural topography, means that during a major event some communities could be isolated.

While climate change is an issue nationally, the Taranaki region is particularly susceptible to volcanic activity and earthquake events. Massey University research identifies that seismic activity is likely in the next 50 years with an 81% probability of Mt Taranaki erupting in that period. There are a number of active fault lines in the district and off-shore and a volcanic event could cause major disruption through lahars and ash fall.

In the face of these risks we need to ensure we improve our resilience. Resilience is more than just building robust infrastructure that can withstand natural disasters. It requires a multi-pronged approach which covers every aspect of the way we plan, build and manage our asset networks, as well as how we respond during and after an event, as illustrated by the diagram.



Using this approach will enable us to:

1. **Reduce risk by actions,** such as improving our knowledge of hazard zones, understanding of risk and criticality of assets, ensuring where practicable that future assets are not built in hazard zones, where necessary removing assets and private property in hazard zones, strengthening assets that remain in hazard zones, or providing alternatives/duplication for critical assets.

2. **Maintain readiness** through maintaining assets to a high standard, removing manageable hazards (e.g. debris, trees creating risks), targeted and well communicated response plans, education of the community for their own preparedness, provision of financial reserves for recovery actions.

3. **Respond during an event** by focusing on and prioritising what is critical during an event, coordinating the response across multiple agencies, shutting down damaged assets and activating alternatives, communicating clearly and frequently with the community.

4. Recover from an event by considering alternatives (e.g. avoiding risk zones, providing alternatives and duplication), using the rebuild to develop skills and knowledge in the community.

Work is underway to identify and fully develop resilience frameworks for our critical assets and this will continue to be a focus in the early years of this LTP.

Some examples of projects we have to deliver on this strategy are outlined below.

Project	Description	Cost	Timing
Waiwhakaiho River second bridge	This project is key to providing resilience to the network through another crossing of the Waiwhakaiho River. It will also provide some additional capacity to the network.	$15.9m	2032 to 2039
Historic landfill erosion protection investigations	Following storm exposure of a historic landfill site at Waitara a stocktake of all historic landfills for which the Council is responsible has been undertaken. Risks and mitigation strategies have been developed for eight high priority sites (includes three on the coast and five close to riverbanks). One Waitara site identified significant remedial works required, with options for erosion protection and/or partial or total removal of waste continuing to be investigated.	$1.5m	2024 to 2027
Kawaroa to Belt Road erosion protection	Erosion of the cliff and foreshore of a length of coastline from Belt Road to Kawaroa Park is threatening the Coastal Walkway.	$6.5m	2024 to 2027
New Plymouth Water Treatment Plant upgrades	We are proposing to perform major upgrades to the New Plymouth Water Treatment Plant to address the earthquake risk and improve the resilience of the system	$30.2m	2024 to 2032

Our strategy for providing resilience and adapting to climate change is to:

a) Fully develop a resilience framework and levels of service for critical assets.

b) Complete seismic and criticality assessments across the asset infrastructure network.

c) Upgrade and/or provide alternatives for critical assets in the network and ensure solutions are adaptive to climate change.

d) Communicate with our community to prepare them for a natural disaster.

Providing for sustainable growth and the changing needs of our community

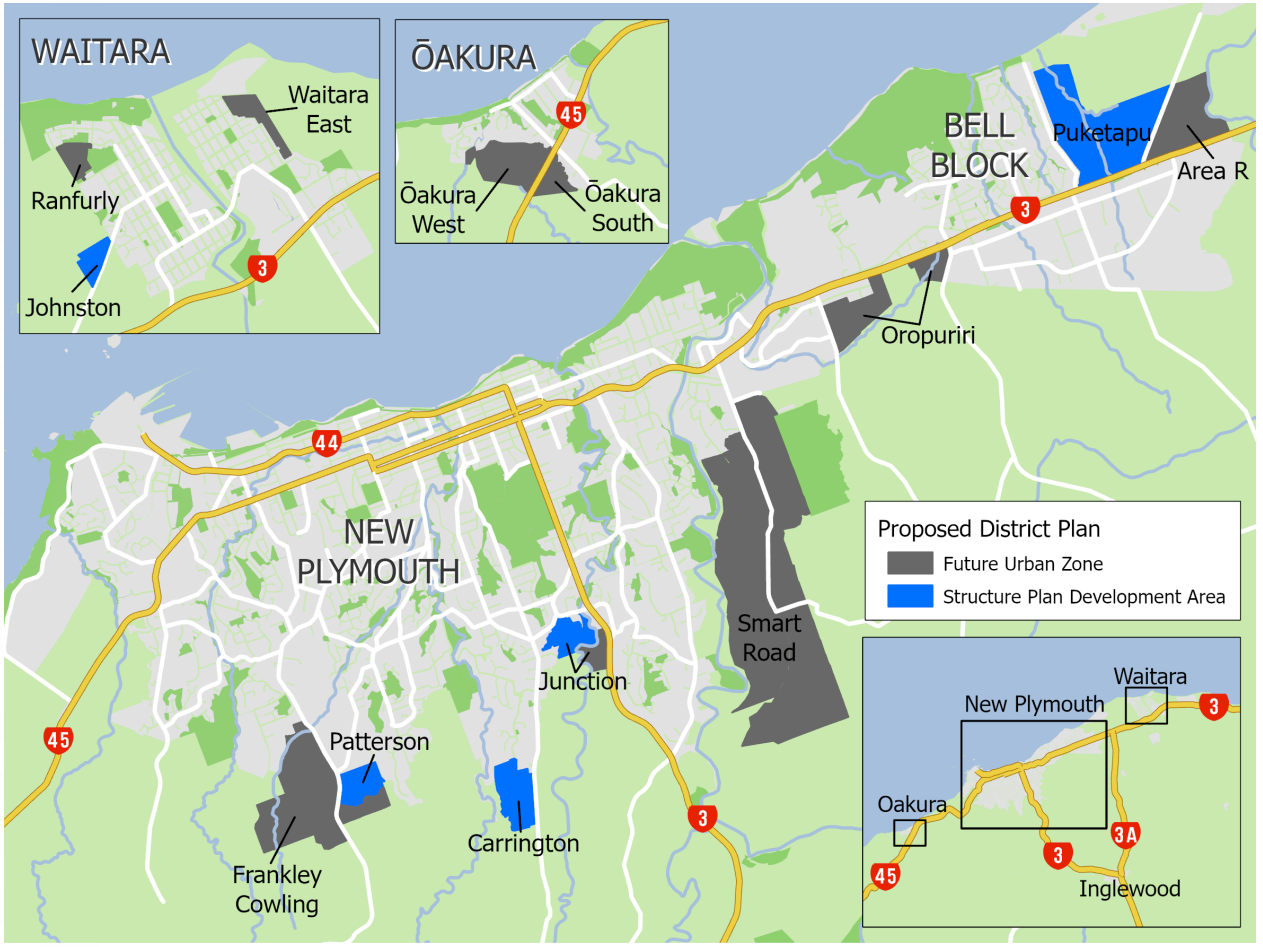
The New Plymouth District is growing and changing. In 2024, our population will be 89,000, almost 70 per cent of the Taranaki region. The population is projected to grow to 98,800 over the next 10 years and to 110,400 by 2054 (an increase of 24 per cent). Currently 20 per cent of our population are over 65 years old, by 2034 this is expected to increase to 23 per cent and by 2054 to 25 per cent.

To meet our strategic vision and support a sustainable and connected community we must plan for future growth and the changes in demographics in our community.

Key tools for managing growth are the Future Development Strategy and the Proposed District Plan. Through these documents urban growth is provided for through centres, intensification of existing suburbs, Structure Plan Development Areas zoned for short to medium term greenfield development, as well as Future Urban Zones for residential and business growth in the medium to long-term.

Short to medium term growth (next 0 to 10 years) will be met within centres, existing undeveloped residential areas, infill development and structure plan development areas. The District Plan review rezoned a lot of land for growth and intensification and there is now approximately 400ha of land zoned Medium Density Residential. Key areas for greenfield urban growth are Carrington, Johnston, Junction, Patterson and Puketapu Structure Plan Development Areas. Infrastructure projects to support this growth are planned in these areas.

Longer term growth (10 to 30 years) will expand into Future Urban Zones on the urban boundaries of New Plymouth, Bell Block, Ōākura and Waitara.



As new infrastructure assets are built to service growth areas we also need to consider the changing needs of our community and support:

- **A Te Ao Māori perspective.** We are working with iwi and hapu to develop a clear understanding of their values and aspirations for urban development. Once this is complete it will be incorporated into the planning and delivery of infrastructure.
- **The changes driven by different demographics**. As the population ages and household sizes change there will be different demands on our infrastructure assets. For example, public buildings and spaces will need to take into account accessibility requirements and social interaction spaces. Pedestrian walkways and traffic safety design will also require consideration of accessibility needs.
- **The changes driven by evolving technology.** Technology (and the pandemic) have already seen significant changes to the way people work and move around. Planning for infrastructure needs to take this and other technologically driven trends into account as well as utilising new technologies in the planning, design and building of assets.
- **Improving environmental outcomes.** Building new assets gives the opportunity to consider how any impact on the environment can be mitigated, both in the design and build of the asset, and in its ongoing performance. It also gives the opportunity to look at achieving decarbonisation and our emissions reduction targets. Our partnership with kaitiaki is key to this process.

Future growth will require investment in both network wide infrastructure, such as main arterial roads, and in upgrading, or slightly extending, existing infrastructure on the boundary of our urban areas. We will lead any large scale infrastructure projects in the district and recover a portion of expenditure from property developers. Property developers are responsible for smaller scale and less complex infrastructure upgrades at the time they undertake their developments.

To manage the cost of expensive new infrastructure we will ensure that we utilise what we already have as well as considering tools for managing demand on existing infrastructure, for example reducing water consumption, providing travel choices and options for waste reduction.

Where additional infrastructure is required to support the growth enabled in the District Plan, the council needs to plan and sequence our investment in line with the identified growth areas.

Our strategy for providing for sustainabile growth and the changing needs of our community is to:

a) Plan and deliver necessary infrastructure projects in sequence with the growth of the district, ensuring future proofing for growth and changing demands.

b) Improve environmental outcomes by reducing and mitigating emissions, reducing the waste stream, improving biodiversity and encouraging more sustainable practices in transport.

c) Protect public health and safety by designing and building assets in compliance with current and known future improvements in health and safety standards.

d) Ensure that new recreational, social and cultural infrastructure reflects Te Ao Māori and provides for the expected future changes in our demographics.

Some examples of key projects we have identified to deliver on this strategy are outlined below.

Project	Description	Cost	Timing
Library redevelopment	We have identified the need to expand and/or upgrade our library network to meet the changing needs of the community as well as keep pace with growth across the district. This involves redeveloping the Bell Block Library in years 5 to 7 and the Waitara Library in year 9. Puke Ariki and Inglewood and Ōākura libraries will be delivered from year 16 onwards.	$40m	2030 to 2045
Parklands Avenue extension (Waitaha Stream bridge – Airport Drive)	This project is the land purchase and construction of a new arterial road between Airport Drive and the Waitahi Stream bridge. This project supports the development of Puketapu Structure Plan.	$12.7m	2024 to 2031
Metro Plaza Building demolition – Ngāmotu New Plymouth City Centre Strategy	Future demolition in order to open up the Huatoki Stream and provide public access along the Huatoki awa and provide linkages to NPDC reserves in the City Centre.	$4m	2026 to 2030
Huatoki Valley sewer main upgrade	This upgrade will enable growth in the Carrington area by providing capacity downstream.	$1.3m	2026 to 2028

Key decisions

Introduction

In this section we highlight the significant infrastructure issues we are likely to face over the life of this strategy within the following infrastructure asset groupings: Water Supply, Wastewater, Stormwater, Flood Protection, Transportation, Parks and Open Spaces, Waste Management and Minimisation, Puke Ariki and Community Libraries and Venues and Events.

Within each grouping, we discuss the infrastructure issues related to that asset group and present the possible options for managing those issues in relation to our three key drivers and the strategies that we have outlined in the previous section:

Ensuring our existing assets remain fit for purpose.

Resilience and adapting to climate change.

Providing for sustainable growth and the changing needs of the community.

Our recent focus on improved project management, planning and resourcing has allowed us to lift capex delivery from around $45m in 2018/19 to $85m in 2022/23, such that we are confident of continuing to improve our capex deliverability. In developing the options for decision making we have also taken into consideration:

- The overall affordability of the work programme in the context of the limits set in the Financial Strategy. The preferred options have been selected with a balance between maintaining levels of service while keeping costs as low as possible. Incorporating a programme of efficiency savings has assisted in this regard, but we have also had to make the difficult decision to defer some projects.
- Our ability to deliver the full programme of works. Phasing projects across multiple years provides time for planning, land acquisition and resource consents before construction. We have also aligned our processes and levels of resourcing to manage this work. Because many of our projects involve renewing our existing assets, we won't have as many delays with issues such as land acquisition and resource consents.

Water Supply

The Council operates four separate water supplies in the district, providing approximately 33.2m litres of water per day to just under 30,000 households and businesses. We develop, operate and maintain water treatment plants to meet water quality standards. We also manage pump stations, pipe networks and storage facilities such as reservoirs to ensure our community has a reliable and sustainable supply of fresh water. The costs of operating these networks is funded through a targeted rate on those properties that receive the service.

The supply of clean and plentiful water is an essential service for our community. It is a key contributor to our Sustainable Lifestyle Capital goals of:

- Thriving Communities and Culture – by ensuring communities are kept safe and healthy with a continuous supply of clean drinking water.
- Prosperity – businesses rely on access to clean drinking water for the health and safety of their staff and, in many cases, as an essential part of the process of providing their goods or services.
- Environmental excellence – managing the way we collect and treat water has an impact on the natural environment. Our approach to this process and our demand management programme ensures we minimise our impact on the environment.
- Trusted – our partnership with hapū and iwi is a key part of our ongoing planning and development of water supply services.

Key Water Supply issues

There are four key issues that are relevant to the planning and management of our water supply over the next 30 years:

1. Ageng infrastructure in poor condition and there is a renewals backlog. Our water infrastructure is aging, leading to a backlog of assets requiring renewal. Since 2021 additional funding has been applied to address the backlog. However, better information, reassessment of assets and inflation mean the backlog is not reducing as fast as anticipated. There are 250km of water mains in poor or very poor condition ($91m replacement cost). Addressing the condition of the existing network is a priority through improved data collection on the condition of the network and further increases in funding for renewals.

2. Capacity of the network and enabling growth. Growth areas are currently unserved or need major upgrades to enable growth. Currently there is insufficient capacity in the Eastern Feeder. The Water Conservation Programme

has been helping to offset and reduce this problem; however, it is expected that as we grow the water supply levels of service will be severely compromised due to capacity issues and upgrades will be required for the network. Having a supplementary source close to the Mountain Road Reservoir will enable growth in the eastern areas by avoiding the duplication of the Eastern Feeder.

3. Continuity of water supply in the event of a natural disaster. We have lack of resilience or redundancy in critical assets that are vulnerable to natural events. Protection of our network from weather events, seismic and volcanic activity is a priority to ensure public health is safeguarded in these circumstances. To address this, we intend to improve existing assets to withstand seismic activity and natural disasters, look for a supplementary source for the New Plymouth system, manage the risk of damage to the network from existing hazards and, where possible, provide duplicate assets as an alternative supply.

4. The National Policy Statement for Freshwater Management that introduced Te Mana o te Wai concept. This has a potential major impact on the Council as this concept prioritises the health and wellbeing of water bodies and freshwater ecosystems first. Much of our water supply relies on the ability to take water from our rivers and changes to the standards of freshwater management could impact on resource consent conditions and on our ability to take what we need. Water conservation initiatives and a supplementary source will be an important factor in managing this impact.

Options for decision

Future planning for water supply has been considered in relation to the key decision drivers and strategies outlined earlier and the following options developed.

Ensuring our existing assets remain fit for purpose

In order to improve, or even maintain, the existing condition of our water supply network, we need to further increase our investment in renewals.

Option 1

Keep our average annual renewals expenditure the same as the LTP 2021-2031 for LTP 2024 at a 10 year average of $8m each year which will take approximately 30 years to clear the backlog.

Option 2 - Our preferred option

Increase our average annual renewal expenditure to $9.3m each year and clear the backlog over about 20 years (as committed to in the LTP 2021-2031).

Option 3

Increase our average annual renewal expenditure to $15m and clear the backlog over 10 years.

Resilience and adapting to climate change

There are a number of improvements we can make to our drinking water systems to make them more resilient to natural hazards and the effects of climate change. We propose to do a combination of some of these options.

Option 1 - Our preferred option for years 1 to 4 (planning) and years 9 to 15 (construction)

Investigate a supplementary water source for the New Plymouth system to provide additional redundancy and reduce the impact on the awa during low flow periods - $8.7m capital expenditure and $2.4m operating expenditure in years 1 to 10 with an additional $33m over years 11 to 30.

Option 2 - Our preferred option for years 1 to 8

Upgrade the New Plymouth Water Treatment Plant (earthquake prone) to address the earthquake risk and improve the resilience of the system - $30.2m.

Option 3 - Our preferred option for years 6 to 10

Spend up to $10.3m renewing the main central and eastern feeder pipes (until the Waiwhakaiho crossing) in order to improve the resilience of these critical assets.

Option 4

Manage the landscape in the catchments that feed our drinking water systems to reduce the risk to our water supplies by spending up to $900,000 to undertake a riparian planting programme.

Option 5

Work with our community so that they have the information and advice needed to be well prepared to bridge the gap until Council services are back up and running.

Option 6

Invest up to $6.6m on adapting water infrastructure to lower the risk posed by natural hazards (e.g. seismic improvements to our reservoirs, installing additional flow meters and supply zone isolation valves, protecting pipe bridges).

Providing for sustainable growth and the changing needs of the community

As our population grows, we need to plan for upgrades to our treatment plants, reticulation networks and a new water source. However, to minimise the costs and environmental implications, we need to make sure we are being efficient with the water we already have consented. Reducing water consumption will also have the benefit of delaying or removing the need for some large upgrade projects. The Universal Water Metering project is the key action to conserve water and is well underway together with the Wai Warrior education programme. By June 2024 it is expected that 80 per cent of water meters will be installed.

Option 1

Discontinue the water meter installation project and carry on with the same minor water conservation programme we currently have. This will maintain the status quo and result in only minor reductions in water usage (no more than five per cent through the leakage programme).

Option 2 - Our preferred option

Complete the installation of water meters district wide and consider charging by volume in the 2027 LTP, while keeping the same minor water conservation programme we currently have. This is expected to reduce water usage by 20 per cent, saving $61m over the next 30 years.

Option 3

In addition to option 2, increase our community and commercial education programmes, reduce the pressure in some of our supply zones, and introduce a green plumber and other incentive tools. This is expected to reduce water usage by 25 per cent, saving $121m over the next 30 years.

Note: the savings outlined above are net of the costs of implementation.

Option 4 - Our preferred option for years 1 to 4 (planning) and years 9 to 15 (construction)

Currently there is insufficient capacity in the eastern area of the district. The Water Conservation Programme will help offset the problem but over time growth will severely compromise existing levels of service for water supply. We also need to prioritise the health and well-being of water bodies and freshwater ecosystems. Much of our water supply relies on the ability to take water from our rivers. The summer period when natural watercourses are already at their lowest coincides with the highest demand period. To reduce the surface water-take during low flow periods and allow for growth, we propose to investigate groundwater as a supplementary water source (5 to 10 million litres of water per day) for the New Plymouth system in the eastern areas of the district. Finding water will avoid the duplication of approx. 6.5km of the Eastern Feeder (estimated $52m) by solving the current capacity issues and enabling growth. Cost $41.9m.

Wastewater

The wastewater reticulation network and pump stations collect domestic and industrial wastewater from more than 27,000 properties in urban New Plymouth, Bell Block, Waitara, Inglewood and Ōākura. We treat wastewater at the central New Plymouth Wastewater Treatment Plant (WWTP) before discharging the treated water via outfall to the sea. We also process the biosolids that result from the treatment process at the Thermal Drying Facility (TDF) into Bioboost fertiliser which we sell throughout the country.

The costs of operating these networks are funded through a targeted rate on those properties that receive the service.

Wastewater services are key contributors to all of the Council's Sustainable Lifestyle goals of:

- **Thriving Communities and Culture** – the safe removal of wastewater from households and businesses is essential for the ongoing health and safety of the whole community.
- **Prosperity** – businesses and economic performance rely on the efficient operation of essential services such as wastewater. A clean and healthy environment is also a key factor in the attraction of both customers and staff for successful businesses.
- **Environmental excellence** – the way in which wastewater is treated and disposed of has a major impact on the natural environment.
- **Trusted** – our partnership with hapū and iwi is a key part of our ongoing planning and development of wastewater services.

Key Wastewater issues

The key issues of relevance to the planning and management of our wastewater network over the next 30 years are:

1. **Ageng infrastructure in poor condition and there is a renewals backlog**. Our wastewater infrastructure is aging, leading to an increasing backlog of assets requiring renewal. Since 2021 additional funding has been applied to address the backlog. However, better information, reassessment of assets and inflation mean the backlog is not reducing as fast as anticipated. There are 110km of wastewater mains in poor condition ($138m replacement cost). The current backlog of wastewater assets requiring renewal is $41m. We have limited understanding of the wastewater treatment and disposal plant and equipment assets, and a review of asset criticality and condition assessment is necessary.

2. **Reducing impact of wastewater network on the environment**. River water quality testing in Urenui has found human faecal contamination in the stormwater system and surrounding environment due to poorly functioning private septic tanks. In addition, the Urenui and Onaero campground sewage schemes are unable to meet consent limits and the Onaero disposal field is at immediate risk of coastal erosion. In Inglewood and Waitara, overflows of untreated wastewater are occurring to waterways via the stormwater system and onto private property from the network at frequencies that are unacceptable to the local communities.

3. **Capacity of the network and enabling growth**. Growth areas currently planned cannot be fully developed without major upgrades to the wastewater network. In particular:
    - The network layout and capacity in the Inglewood-Bell Block and Glen Avon catchments will limit growth in the future;
    - The current overflow risk that exists in Inglewood and Waitara restricts growth that can occur in these catchments;
    - Growth areas in New Plymouth require upgrades to the downstream network to provide additional capacity;
    - The hydraulic capacity of the Wastewater Treatment Plant now reaches capacity during heavy rain and a long-term solution is needed to manage the increased flows that will come with growth and climate change.

4. **Improve resilience and maintain operational efficiency across the wastewater network.** There are a number of risk areas within the network including: the Wastewater Treatment Plant main control building and laboratory which have both a low level of seismic resilience, and a lack of suitable capacity; the Waitara Transfer Pump Station building and associated infrastructure is at risk of failure during a seismic event; risks to wastewater pipe bridges which are not well understood; and many of our pump stations do not have any emergency storage.

Options for decision

Options for dealing with these issues have been developed in the context of our three decision-making drivers and the strategies outlined earlier in this document.

 Ensuring our existing assets remain fit for purpose	In order to improve the existing condition of our wastewater network, we need to increase our investment in renewals.	Option 1 Keep our average annual renewals expenditure the same as the LTP 2021-2031 for LTP 2024 at an average of $12.1m each year and clear the backlog over approximately 30 years.
		Option 2 - Our preferred option Increase our average annual renewals expenditure to $14m each year and clear the backlog over about 20 years (as committed to in the LTP 2021-2031).
 Resilience and adapting to climate change	There are many improvements we can make to our wastewater systems to make them more resilient to natural hazards and climate change. We propose to do a combination of these options.	**Option 1** - **Our preferred option for years 1 to 6** At the Wastewater Treatment Plant, finish the Thermal Drying Facility project ($27m) and replace the main control and laboratory building to resolve seismic resilience issues with the existing building ($18.9m). **Option 2 - Our preferred option for years 11 to 30** a) Spend about $0.35m each year to run a programme of pipe bridge upgrades where our sewers cross rivers and streams so that they are more resistant to damage from natural hazards. b) Upgrade our remaining sewage pump stations so that they have emergency storage and backup power generation (at a cost of up to $5m). c) Carry out detailed investigations and upgrade of the Waitara Transfer Pump Station (at a cost of up to $12.2m).

Providing for sustainable growth and the changing needs of the community	As our population grows we need to plan upgrades to our pipe network, pump stations and treatment plant so that we don't overload the system and cause sewage overflows. We are proposing to do a combination of these options.	Option 1 Continue with our minor upgrade programmes based on our current reactive process when the risk of sewage overflow becomes high. The cost of this option is unknown, but it is likely to have the highest cost of all the options. **Option 2 - Our preferred option for years 5 to 6** Spend $11.4m to update the Wastewater Treatment Plant Master Plan and build buffer storage. **Option 3 - Our preferred option for years 1 to 10** Proactively plan and construct projects worth $53.5m across the district that will provide capacity for forecast growth based on the wastewater model.
	The communities of Inglewood and Waitara are experiencing unacceptable wastewater overflows to the environment during wet weather events.	Option 1 Continue operating and maintaining the existing network and accept the current overflow risk increasing as these communities grow. **Option 2 - Our preferred option** Spend $9.6m in Waitara and $13.1m in Inglewood (both in years 1 to 10) on upgrade programmes and inflow and infiltration reduction programmes for the wastewater networks for these communities.
	The existing septic tanks in Urenui and Onaero township and sewage disposal schemes in the Urenui and Onaero campgrounds have public health concerns, consent non-compliance, cultural and resilience issues.	**Option 1** The only feasible option to meet all of the issues is to spend up to $37m to reticulate the Urenui and Onaero settlements with a small satellite land-based wastewater treatment plant in years 1 to 7.

Stormwater

Over 300 rivers and streams cross Taranaki Maunga's ring plain and run to the lowlands in a distinctive radial pattern. Following high intensity rainfall, water culminates in the various river catchments, draining quickly to the sea. Heavy rain has the potential to overwhelm stormwater systems draining to the rivers and streams and can cause localised surface flooding. These effects are usually short-term and related to a particular storm event. However, there are areas in the district that are more prone to these effects than others.

The predicted effects of climate change for more frequent severe weather events with increasing rainfall intensity will have a particular impact on the management of stormwater.

The management of stormwater contributes to all of the Council's Sustainable Lifestyle Capital goals of:

- **Thriving Communities and Culture** – effectively managing stormwater contributes to public health and safety and the protection of property.
- **Prosperity** – the reliable protection of business property from flooding supports successful economic performance
- **Environmental excellence** – managing stormwater in an environmentally sensitive manner has a major impact on the ongoing health of waterways and surrounding whenua.
- **Trusted** – our partnership with hapū and iwi is a key part of our ongoing planning and development of stormwater services.

Key Stormwater issues

There are three key issues for the stormwater network that will need to be addressed over the 30 years of this strategy are:

1. **A lack of up-to-date information, modelling and planning for the stormwater network**. This results in projects being carried out in a reactive and less than cost effective way. These issues are exacerbated by the predicted increases in severe weather events from climate change. It also means new developments cannot be properly planned with up-to-date information. To address this issue, we have developed a Draft Stormwater Vision and Roadmap, and commenced a stormwater modelling and Catchment Management Plan development programme

2. **The condition of the stormwater network**. Historically the stormwater network has been significantly underfunded. Since 2021 additional funding has been applied to address the backlog. However, better information, reassessment of assets and inflation mean the backlog is not reducing as fast as anticipated. In addition, funding for closed-circuit television (CCTV) should be increased so that we can properly assess the network condition. The condition assessment of the stormwater network is initially evaluated by a desktop study using an age-based assessment. This is further refined with a physical assessment using CCTV.

   As of September 2023, 12.5 per cent of assets by length and 90 per cent of critical pipes have had condition assessment. With current funding and resourcing, three per cent of the network will be inspected per year meaning all pipes will be inspected by 2052. The future inspection programme has a prioritised approach to target key assets.

3. **Waitara stormwater management**. There are some areas of the district that have ongoing flooding issues. Some of these are minor and will be part of an ongoing work programme, but the most significant relates to the Waitara township where surface stormwater flooding is a significant problem that needs a long-term solution.

Options for decision

Options for dealing with these issues have been developed in the context of our three decision-making drivers and the strategies outlined earlier in this document.

 **Ensuring our existing assets remain fit for purpose**	In order to improve the existing condition of our stormwater network, we need to increase our investment in renewals.	Option 1 Keep our average annual renewals expenditure the same as the LTP 2021-2031 for LTP 2024 at an average of $4.7m each year and accept a longer timeframe to clear the backlog. **Option 2 - Our preferred option** a) Increase our average annual renewals expenditure to $6.2m each year which will clear the backlog over about 20 years as committed to in the LTP 2021-2031. b) Increase CCTV inspections to properly assess network condition and prioritise renewals at a cost $100,000 over a five year period.
 **Resilience and adapting to climate change**	Stormwater can cause flooding to people's properties, particularly if development is allowed to occur in areas that are prone to flooding. As our climate changes, rainfall intensity and flooding patterns are likely to change and increase.	Option 1 Move to a risk-based approach where we develop catchment management plans and flood models that can be used to inform where development can or cannot occur and where we need to upgrade our existing networks. Developing catchment management plans and network models for all urban catchments is expected to cost approximately $12.8m over the next 10 years. Option 2 Develop a set of stormwater design guides, expected to cost about $0.3m, that help private developers manage stormwater and encourage the use of more 'soft' infrastructure such as rain gardens. **Option 3 - Our preferred option** Do both options 1 and 2 above, i.e. development of catchment management plans and stormwater design guidelines.
 **Providing for sustainable growth and the changing needs of the community**	Waitara township has longstanding issues with flooding. NPDC has progressed design and consenting to address flooding, stream health and fish passage in two key catchments. From the catchment management planning work done to date it is clear that this will not be enough to address the issues.	Option 1 Stop the Waitara stormwater project to save money, noting our community will still pay to repair property damage from flooding. **Option 2 - Our preferred option** Continue with the budget to $17m over the next 10 years and approximately $36m over years 11 to 30.

Flood Protection

Flood protection and control works protect urban areas in New Plymouth District when stream and stormwater systems become overloaded in heavy rainfall. The service includes monitoring and maintaining existing flood protection schemes and planning of future flood protection measures.

This activity contributes to all four of Council's goals under the Sustainable Lifestyle Capital vision by:

- Keeping communities safe and protecting business employment areas.
- Delivering resilient infrastructure within the context of climate change.
- Building trust by working with iwi and local community groups.

The assets within this activity include three diversion tunnels, three dams and a weir.

Key Flood Protection issues

1. An increasing number of severe weather events as the impact of climate change is predicted to increase. This may require some raising of dam levels in the future to cope with the increased levels of rainfall.
2. New dam safety regulations have been introduced by government and come into effect in 2024. Based on the updated standards, several dam safety issues have been identified which will require additional resources within the coming years to be addressed.

Options for decision

Future planning for flood protection has been considered in relation to the key decision drivers and strategies outlined earlier and the following options developed.

Ensuring our existing assets remain fit for purpose

Resilience and adapting to climate change

Providing for sustainable growth and the changing needs of the community

Over time climate change is predicted to increase the intensity of rainfall and flooding. This will mean that our flood protection dams will get pushed to their limit more frequently and our level of service will gradually erode unless we increase the height of the dams. This is a long-term issue and it is important that we fully understand the long term impact and fully assess options.

Option 1

Upgrade the dams now. Because limited investigations have been undertaken to date it is not possible to estimate the likely costs.

Option 2 - Our preferred option

Complete assessment of the long-term effects of climate change on the level of service the dams provide and assess options for their upgrade in about 20 or 30 years time.

Transportation

Transportation is a key enabler of the achievement of our Sustainable Lifestyle Capital vision. In particular, it plays a significant role in the goals of:

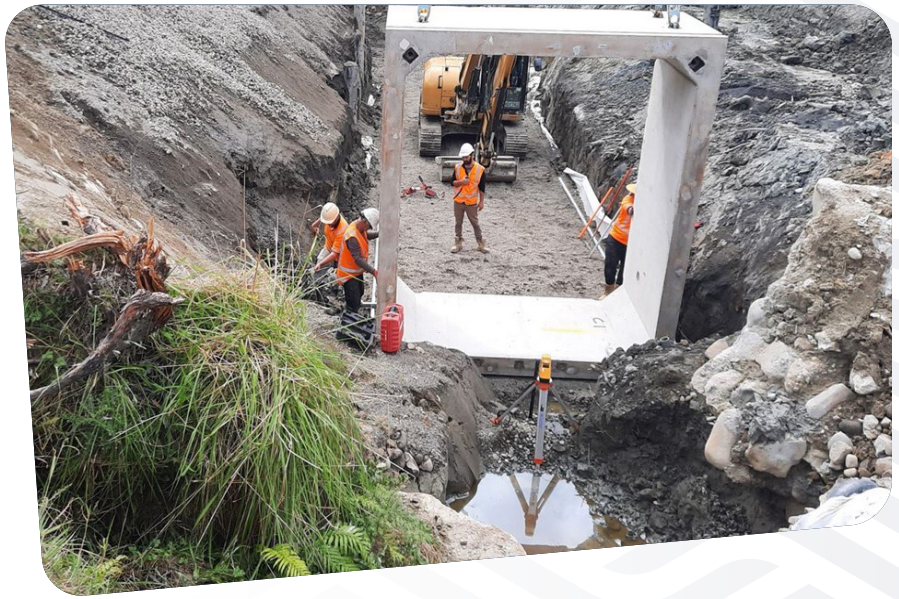
- **Thriving Communities and Culture** – by ensuring communities are physically connected through providing safe and sustainable transport options. Walking and cycling assets also encourage an active community.
- **Prosperity** – business and a high-performing economy rely on efficient transport systems for the movement of both goods and services, as well as equitable access for employees.
- **Environmental excellence** – building sustainable transport options (walking and cycling) is key to reducing our carbon emissions. In addition, resilience in the face of climate change driven weather events and other natural disasters is a key factor in transport infrastructure planning.
- **Trusted** – our approach to building infrastructure by working with the community and other key partners (e.g. NZ Transport Agency Waka Kotahi) and Taranaki Regional Council), builds both trust and credibility.

Transportation infrastructure includes 1,313 kilometres of road with 347km in the urban area and 966km in the rural area. 1,145km of our roads are sealed. Across the network there are 255 bridges, 537km of footpath and 326 retaining walls. These transport assets are contained in approximately 220,218 hectares of road reserve across the district.

In general, the district's transport assets are in good condition, however they are showing signs of slow deterioration. Compared with other parts of New Zealand, our roads have relatively low traffic volumes, so roading failure because of wear, generally occurs in high stress areas. This is typically where heavy vehicles turn at key intersections and along some key regional and arterial roads. An increase in forestry activity is also seeing deterioration of some low volume roads that were not designed for this level of loading.

Key Transportation issues

1. **Natural topography and layout of infrastructure** - the district's natural topography and the layout of infrastructure makes it more challenging to move east to west, creating network pinch points particularly at river crossings. The coastline and river valleys provide walking and cycling connections to central locations. However, our topography, provides challenges for our walkers and cyclists.



2. **The layout of our city and land use** - the city centre is dissected by state highways, making walking and cycling to our coast and outer suburbs more challenging. Freight from Port Taranaki is trucked through the city centre and residential areas, impacting the quality of these areas. Employment and residential growth in the city are focused to the east of the city. The layout and nature of our towns and cities and our roading infrastructure encourages motor vehicle use which is a significant contributor to district-wide emissions. There are limited public transport and rail options.

3. **The safety of the network** - the number of serious and fatal crashes in the District has been increasing. Previously our focus has been on addressing specific crash types, however it is now recognised that due to the wide-spread nature and location of the crashes in the district a 'safe system' approach to address our complex network is required.

4. **The contribution of the transport network to the regional economy** - the transport network contributes to our regional economy and provides a vital link for employment and for significant industry across Taranaki. Investment to maintain these links is essential to ensure that economic opportunities are not lost through deterioration of the network.

Options for decision

Options for dealing with these issues have been developed in the context of our three decision-making drivers and the strategies outlined earlier in this document.

Ensuring our existing assets remain fit for purpose	Our transportation assets have been experiencing a slow decline in condition in recent times. Supply chain disruptions, post-Covid construction cost increases and general inflation have had a significant impact on our ability to deliver an appropriate renewal programme within the constraints of the existing budget. We need to increase our renewal budgets significantly in order to restore the transportation assets to existing levels of service.	Option 1 'Sweat' the assets - No increase in funding for transportation asset renewals. This reduces the short term impact on rates but results in a controlled decline of the network condition. **Option 2 - Our preferred option** **Double renewal funding for transportation assets. This option increases funding of renewals of transportation assets from $146m to $307m over 10 years and enables existing levels of service to be maintained. Renewals continue at the increased level for the remaining 20 years of the strategy.**
Resilience and adapting to climate change	Transport networks are vital connections and one of the big risks to the resilience of our roading network is severance caused by the loss of bridges that cross the river. This includes the Waiwhakaiho River.	Option 1 Do nothing. **Option 2 - Our preferred option** **Plan for a second bridge across the river during the 10 years of the LTP and construct it during years 11 to 20 of the Infrastructure Strategy at a cost of $15.9m.** Option 3 Plan for and build a second bridge during the 10 years of the LTP at a cost of $12m.

Providing for sustainable growth and the changing needs of the community

Population growth, freight route limitations and severance through the centre of New Plymouth are all issues we need to address. In addition, we are committed to tackling climate change impacts through more sustainable transportation options. There are a number of projects that help to address these issues:

- Western ring road – land acquisition to enable the construction of the ring road diverting heavy transport around the town - $20m.
- Implementation of the Ngāmotu New Plymouth City Centre Strategy - developing the City Centre as a destination for locals and visitors to work, shop, dine out and play, with greener, safer, pedestrian-friendly routes linking the City Centre with Pukekura Park.
- Walkway Extension to Waitara – continuing the work on this extension of the walkway at a cost of $44m.
- Land purchases - for road widening to accommodate growth in accordance with the District Plan at a cost of $28.5m.
- Environmental renewals – improving environmental outcomes as transportation assets are renewed (e.g. with the provision of fish passage in culverts) at a cost of $25m.

Option 1

Do nothing - do not provide for the growth and increased sustainability..

Option 2 - Our preferred option

Phase the implementation of these projects over the life of the 30 year Infrastructure Strategy, i.e.

a) Western ring road land purchase – years 11 to 20
b) Ngāmotu New Plymouth City Centre Strategy – over 30 years of the strategy
c) Walkway extension to Waitara – years 1 to 10.
d) Land purchase for road widening – over 30 years of the strategy.
e) Environmental renewals – over 30 years of the strategy.

Option 3

Accelerate the projects and do all in first 10 years of strategy (LTP period).

Parks and Open Spaces

Parks and open spaces contribute to our Sustainable Lifestyle Capital vision by improving well-being through a thriving community and culture that is safe, creative, active and connected and by nurturing our environment under the environmental excellence goal. It also supports prosperity through the goal of providing places where people want to work, live, learn and play.

Our parks and open spaces promote sustainability of the environment and strengthening of trusted partnerships, through managing and protecting our natural landscape, untouched native forest (remnant stands and regenerating), and coastal environments. They also provide opportunities for people to be active, whether it be along our walkways, within sports parks, playgrounds or other uses. Sport and recreation activities are an essential part of many people's lives. Participation in recreation and sport contributes to a healthy community, provides ways for people to interact with each other and improves social cohesion.

New Plymouth District is unique for its diversity of recreation and open spaces including beaches, walkways, rivers and streams, recreational trails, neighbourhood parks, swimming pools, playgrounds, skateparks, sports parks, the mountain and cemeteries. The access that is available to these recreation and open spaces, to Taranaki Maunga and to the sea forms part of the district's identity. These are important features that attract people to New Plymouth.

Another distinctive consideration of these spaces is the long-standing relationships that local iwi and hapū have to the land (whenua). Council is actively partnering with tangata whenua on the planning and management of these spaces, including co-management arrangements.

Most of the parks and open spaces facilities are directly planned for and managed by NPDC and include 1,600 hectares of local, historic, coastal, esplanade and recreation reserves and 82km of walkways, along with the associated playgrounds, public toilets and public art. Pukekura Park and Brooklands Zoo are two of our major facilities that fall within this category of assets.

Key Parks and Open Spaces issues

New Plymouth wants to maintain and build on its unique diversity of recreation and open spaces. Our key issues for the future will be:

1. **Ensuring that we continue the provision of parks and open space in new growth areas** - while developers contribute to the provision of parks and walkways in the area of their development, we need to ensure that the provision is appropriately located, planned and that the public continues to have access to significant waterways and there are safe connections to and from open space areas.

2. **Taking care of our existing assets** – most of the park and open space assets are in reasonable condition but there is some deterioration in some park structures such as bridges, stock fencing and similar assets that will require renewal. In addition for some assets, such as playgrounds, we need to ensure that our renewal programmes provide for play spaces that are inclusive and respond to emerging play trends.

3. **Parks and open spaces contribute to community resilience** – our parks play an important role in community resilience in times of stress such as natural disasters or pandemics. Parks and open spaces will be vulnerable with the predicted effects of climate change i.e. increases in severe weather events and rising sea level. While some parks and open spaces are located in vulnerable coastal environments, they are important for recreational use and access and will need appropriate adaptation responses. Climate change may also cause increases in plant pests and diseases.

4. **Extending our network of walking tracks** – we have an extensive network of walking tracks and there is a desire to continue to improve these through extensions, additional connections and improved accessibility. A key area of focus is our connections between townships and providing safe commuter and recreational access with environmental/restoration outcomes so that we achieve biodiverse recreational corridors.

5. **Meeting the changing needs of our community** - as some of our major facilities require renewal (e.g. Brooklands Zoo and Bellringer Pavilion) there is an opportunity to reconsider the focus of the facility in the context of the changing needs of the community. Our planning and management will also need to take into consideration reconnections for our iwi and hapū partners with key parks and open spaces where cultural values and relationships are important.

6. **The role of parks and open spaces in improving environmental outcomes** – appropriate planting programmes and pest management in our parks and open space can play an important role in helping to mitigate climate change through the sequestering of carbon. Our parks also contribute to improving biodiversity. New Plymouth City is the most biodiverse city in New Zealand currently with 8.9 per cent of its urban area vegetated and is well placed to meet evolving national targets of 10 per cent.

Options for decision

Options for dealing with these issues have been developed in the context of our three decision making drivers and the strategies outlined earlier in this document.

Ensuring our existing assets remain fit for purpose

Pukekura Park Bellringer Pavilion

This area of the park was reviewed as part of the Pukekura Park Management Plan review (RMP) to address:

- the impending loss of first class cricket status due to the facilities no longer complying with sports code requirements; and
- the recent assessment showing the full extent of the compromised structure of the pavilion.

The proposal preferred through the RMP was for a new pavilion incorporating the needs of the park and sports ground users including:

- New public toilets.
- An adaptable, bookable pavilion space for up to 100 people.
- Facilities and changing rooms fit for first class cricket and other sports.
- A park information 'kiosk'.
- Low impact design such as water recycling, green roof and insulation.
- Accessible options to the second storey and terraces (ramp and lift).

Option 1

Replace the Bellringer Pavilion in a more appropriate location identified in the RMP with planning in year 2025/26 and delivery in year 2028/29 $16.3m).

Option 2

Repair existing pavilion at a cost of $1m.

Option 3

Demolish the existing pavilion and do not replace at a cost of $420,000 with annual operational savings of $3,000.

Option 4

Delay programme and accept risks.

Option 5 - Our preferred option

Repair the Bellringer Pavilion or explore other alternatives with $3.6m in years 2030/31 and 2031/32.

 Ensuring our existing assets remain fit for purpose	**Brooklands Zoo** Brooklands Zoo attracts over 135,000 visitors every year and has consistently high levels of community satisfaction. However, some of the enclosures and facilities are ageing and will need to be replaced. A draft strategic vision has been developed, i.e. • Phase 1: New otter exhibit (budgeted for in the last LTP). • Phase 2: New aviary exhibit. • Phase 3: New primate and agouti exhibit. • Phase 4: New meerkats exhibit. • Phase 5: New tortoise exhibit and nature play zone (1). • Phase 6: New central flyway, forest discovery amd nature play zone (2). • Phase 7: New quarantine, retrofit barn to party place and classroom.	Option 1 Do not upgrade and progressively close the zoo over a number of years giving cost savings of approximately $900,000 per annum. Option 2 Undertake upgrades to Brooklands Zoo vision phases 1, and 3 only across 10 years to meet minimum MPI compliance with removal of phase 2 - the aviary facility and parrot species from the zoo at a cost of $5.5m. **Option 3 - Our preferred option** **Implement Brooklands Zoo vision phases 1, 2 and 3 across 10 years to meet minimum MPI compliance at a cost of $9m over 10 years.** Option 4 Complete the full vision for Brooklands Zoo at a cost of $14.4m spread across 30 years, with phases 1,2 and 3 in the first 10 years.
 Ensuring our existing assets remain fit for purpose	**Pukekura Park main lake dam** The main lake dam does not meet the new government dam standards/guidelines. Renewal of the dam will involve, at minimum, widening and strengthening of the dam spillway. This is located in a main thoroughfare of the park needs to be designed with high amenity as well as providing for dam/ lake functionality. The work isn't an immediate safety threat but does need to be programmed to occur within 10 years. There is only one feasible option.	**Option 1 - Our preferred option** **Upgrade the main lake dam – concept design 2024/25 and delivery 2032/33 at a cost of $3.9m.** Option 2 Delay the upgrade to the main lake dam to years 11 to 15.

 Resilience and adapting to climate change	**Planting our Place** Parks and open spaces can play an important part in sequestering carbon. Planting will also contribute to biodiversity outcomes as Council strives to have 10 per cent of its urban area planted with native vegetation. The first years of the programme have been highly successful and good progress is being made to reach the 10 per cent. Three options have been identified regarding the programme.	Option 1 Maintain remaining seven years of existing programme but do not extend further to meet the 10 per cent threshold. **Option 2 - Our preferred option** Fund over years 1 to 10 to reach the 10 per cent minimum at an operational cost of $200,000 each year from forestry reserve funding including project management costs. Option 3 Increase fund over years 1 to 10 to $400,000 each year from forestry reserve funding, including provision for project management, to reach the 10 per cent minimum earlier.
 Providing for sustainable growth and the changing needs of the community	**Puketapu growth area** The Puketapu growth area, although plan-enabled is not yet ready for development, particularly the eastern side of Waitaha Stream. In order to ensure a cohesive approach to development it is proposed that Council deliver infrastructure. This includes significant land purchase for open space, roading and stormwater infrastructure (of which there are alignment opportunities between these infrastructure components). This would unlock 75 hectares for development and approximately 670 properties. Note. Associated budgets will be required in transportation and three waters.	Option 1 Retain developer-led approach to Puketapu growth area with no co-ordinated approach or integration of infrastructure at a cost of $3.5m. **Option 2 - Our preferred option** Provide for Council-led approach to delivery of infrastructure including purchase of land and providing for new park development at a cost of $9m spread across 10 years.

Providing for sustainable growth and the changing needs of the community

Tracks and trails

Council has a long term aspiration of creating walking and cycling connections between the mounga and moana. This will allow accessibility to key natural and cultural assets, linking to and leveraging existing attractions, open spaces and walking and cycling networks. Walking and cycling options link strongly to the provision for mode changes and more sustainable transport options.

Note: Shared pathways are being considered a transport asset (delivering transport initiatives) so maintenance and capital costs are eligible for 51 per cent NZ Transport Agency Waka Kotahi contribution.

Option 1
Increase focus on tracks and trails and continue with the full range of projects.

Option 2 - Our preferred option
Prioritise projects that provide links between townships in close proximity to New Plymouth such as Waitara and Ōākura and delay other projects to beyond year 10:

a) Years 1 to 10 - develop the Coastal Walkway extension to Waitara and initiate planning for the Waiwhakaiho River link.
b) Years 11 to 30 - develop remaining planned areas and commence development of the Waiwhakaiho River link and plan for the White Cliffs and Fort St George walkways ($30.1m).

Option 3
Maintain existing range of tracks and trails but do not implement further extensions and connections.

Waste Management and Minimisation

To work towards our vision of Zero Waste 2040 and shift towards a circular economy, we encourage waste minimisation in the district through behaviour change and education programmes. We also deliver kerbside collection and resource recovery services to the community through four rural transfer stations, The Sorting Depot and the New Plymouth Resource Recovery Facility.

Waste management and minimisation is a key contributor to all of Council's goals:

- **Trusted** – the delivery of the Waste Management and Minimisation service aims to grow the community's trust, particularly through embedding Te Ao Māori aligned guiding principles across the waste services, being a leader in the sector and being transparent in what we do for the community.
- **Thriving communities and culture** – there is a collaborative approach across many areas in this activity. For example, strong partnerships have been formed with neighbouring councils, primary processors and iwi to develop a regional approach to recovering organic materials and many reuse initiatives have been successful by working with businesses and households.
- **Environmental excellence** – encouraging waste minimisation and more circular waste practices protects the environment for current and future generations. Our kerbside collection services enable people to divert waste easily and conveniently from landfill. We also deliver services to recover valuable resources from waste disposed to landfill, for reuse or recycling without significant impact on the environment and public health, all of which contributes to the social and environmental well-being of our community.
- **Prosperity** – the circular economy proposition of waste management promulgates an efficient use of resources which in turn helps business economic performance. A particular focus on encouraging the establishment of local services where waste diversion is prioritised contributes to the prosperity of the district. For example, The Sorting Depot has been set up to support additional recovery and incentivise local recycling business.

Key Waste Management and Minimisation issues

During late 2023 Council consulted on its revised Waste Management and Minimisation Plan. The Council's aspirational vision 'Zero Waste 2040' supports the national Te rautaki para - Waste Strategy for a low-emission, low-waste society built upon a circular economy.

Key issues that need to be addressed in the coming years to achieve this vision are:

1. **Responding to national changes** – the waste sector is going through significant change and in conjunction with addressing climate change, we need to ensure our region is well set up for success. Wholescale changes to how we view waste will be required and a significant reduction in waste to landfill will need to be achieved. Success relies on key policy to drive this change and Te rautaki para - Waste Strategy provides a roadmap to a 2050 circular economy.

2. **The impact of climate change** – achieving a circular economy is also a key driver for emissions reduction and this cannot be done by Council alone. Progress will rely on everyone taking responsibility, including looking at how we can enable our community and collaborate locally and nationally. Key waste infrastructure will be increasingly at risk of climate change related events. Historic landfills (particularly those on the coast and close to riverbanks) are being assessed for risk and to have mitigation strategies developed.

3. **Maximising use of existing facilities and services** – is a cost effective way of leveraging off our existing investment in waste infrastructure and is aligned with the approach set out in the national infrastructure strategy. We need to ensure that all parts of the community are aware of, and have access to, existing facilities and services.

4. **Expanding behaviour change programmes** – behavioural change will be key to achieving both the council and national vision. There are ongoing opportunities to leverage off existing community groups and incentivise waste reduction behaviours.

5. **Enhancing the environment through Te Ao Māori** – partnering with iwi and hapū to identify and deliver outcomes will work towards a Tiriti approach and allow mana whenua to implement kaitiakitanga. Empowering partnerships will also focus on connecting people to each other and the environment.

Options for decision

Options for dealing with these issues have been developed in the context of our three decision-making drivers and the strategies outlined earlier in this document.

Ensuring our existing assets remain fit for purpose	Two stormwater culverts under the resource recovery facility are nearing the end of their asset life and need to be replaced to avoid failure and resulting impact on critical resource recovery infrastructure.	**Option 1** Resleeve of culverts in years 8 to 10 (subject to review of capacity) – budget $2m. **Option 2 - Our preferred option** Replace culverts (worst case, depending on the review outcome) – budget $6.9m. Option 3 Delay project further based on review of findings – years 10 to 20.
Resilience and adapting to climate change	There are a number of historic community dump sites in the district. The historic dump site at Battiscombe Terrace in Waitara has already been exposed due to storm surges and coastal erosion. Ongoing monitoring and protection of these historic sites is necessary.	Option 1 Continue to assess the risk and needs of the sites and then seek additional funding once the scope of the protection works are known. **Option 2 - Our preferred option** Continue to assess the risk and needs of the individual sites and budget $0.5m for investigations in 2024/25 and $1m in 2026/27 for remedial work.
Resilience and adapting to climate change	The recently closed Colson Road landfill needs infrastructure improvements to ensure resilience to the ongoing impacts of climate change. There is also an opportunity to establish a clean fill site as part of the rehabilitation and enable appropriate future uses on the site.	Option 1 Monitor the risk and delay improvements until the risk is considered more immediate. Option 2 Implement the improvement works over the next five years at a cost of $2m. **Option 3 - Our preferred option** Implement the improvement works and establish a clean fill site at a cost of $2.5m.

Providing for sustainable growth and the changing needs of the community	Council's Waste Management Minimisation Plan sets a goal of zero waste to landfill by 2040. In order to achieve this, additional reuse and recycling services will be required on top of the zero waste education programmes and other services council currently offers. The options listed will contribute towards this goal.	**Option 1- Our preferred option** Expand recovery options through transfer station upgrades between years 1 and 6 ($1.8m). Option 2 Prioritise upgrades to Ōkato and Inglewood transfer stations in years 1 to 4 ($1.1m).. **Option 3 - Our preferred option** Establish a regional organic processing facility ($3m).

Puke Ariki and Community Libraries

Puke Ariki's central library, five community libraries, mobile library, museum and i-site connect Taranaki residents and out-of-region visitors to a wealth of knowledge, exhibitions, experiences and resources. We protect and promote access to the heritage of the district and our country. We provide an accessible mix of print and digital lending and reference resources to meet the changing needs of our community.

These facilities support the Council's vision and mission through their contribution, in particular, to the goals of Trusted, Thriving Communities and Culture, Prosperity. They do this by:

- Supporting the connection and engagement of communities with the museum and library facilities and services and making these services relevant to all parts on the community.
- Contributing to the desirability of New Plymouth as a place where people want to live, work and play.
- Building partnership, trust and credibility across all sectors of the community.

Key Puke Ariki and Community Libraries issues

Council's strong network of libraries is serviced by the central hub at Puke Ariki, community libraries and associated community facilities at Bell Block, Waitara, Ōākura, Inglewood and Urenui. We also make the service more accessible to the community through our mobile library. Looking to the future of the service, there are a number of relevant issues:

1. **Providing for our growing population** - our growing population will place pressure on our community libraries and facilities. For example, Bell Block will be a focus for growth in the short to medium term and a redevelopment will be required to service this community as it reaches it development potential.

2. **Libraries connect communities** - libraries are people centred places that can provide more than just library needs. Libraries are important anchors in our town centres and can facilitate the partnering with government and NGOs to provide a range of services.

3. **Responding to technology and societal changes** - technology is advancing at a rapid rate. Libraries can merge physical and digital excellence, technology and learning and foster innovation and social enterprise.

Investigations in 2019 identified the role of libraries in building vibrant and connected communities and specifically identified the need for Council to consider:

- Redeveloping Puke Ariki to better utilise the available space.
- Providing new or expanded library facilities in the communities of Bell Block, Waitara, Ōākura and Inglewood, including considering wider customer service activities.

Options for decision

The key focus areas for Puke Ariki and Community Libraries relate to the strategy 'Providing for sustainable growth and the changing needs of the community.'

Ensuring our existing assets remain fit for purpose

Resilience and adapting to climate change

There are no major issues for decision on renewals or the resilience of the existing assets.

Providing for sustainable growth and the changing needs of the community

New Plymouth is growing and there will be increased demand for library services. The needs of the community are also changing with technology and societal needs.

Option 1
Maintain the current network of libraries and undertake a like with like replacement programme.

Option 2
Align the redevelopment investment programme for our libraries with the decisions of the last LTP:

d) Redevelop the Bell Block Library for the growing community of the area in years 8 to 12 ($11m);
e) Redevelop the Waitara Library to accommodate growth in years 8 to 12 ($15m).
f) Redevelop the Ōākura Library ($2.6m), the Inglewood Library ($0.6m) and Puke Ariki ($10m) in years 13 to 17.

Option 3 - Our preferred option

Reprioritise the library redevelopment investment programme to better align with the expected growth across the district.

a) **Redevelop the Bell Block Library with planning starting in years 1 to 2 and delivery in years 5 to 7 to ensure it can provide a fit for purpose facility for the growing community ($12.6m).**
b) **Redevelop the Waitara Library with planning in year 1, review in year 5 and delivery in years 11 to 15 ($15m).**
c) **Redevelop Puke Ariki library in years 16 to 20 ($10m).**
d) **Redevelop the Ōākura ($2.6m) and Inglewood ($0.6m) libraries in years 21 to 25.**

Venues and Events

New Plymouth has vibrant programme of events and activities on offer for the local and regional community as well as attracting national and international visitors. Our events team plans and delivers the annual TSB Festival of Lights, the newly introduced CBD Winter Festival over the Matariki long weekend and several civic and community events, including local Waitangi Day celebrations. We also facilitate a number of local events in other parts of the district.

This service is also responsible for the Todd Energy Aquatic Centre and other community pools. The Aquatic Centre provides for a range of ages and activities, including learn to swim and fitness classes. The district's four community pools are seasonal, operating over the summer months. NPDC also provides financial support for the Bell Block Community Pool.

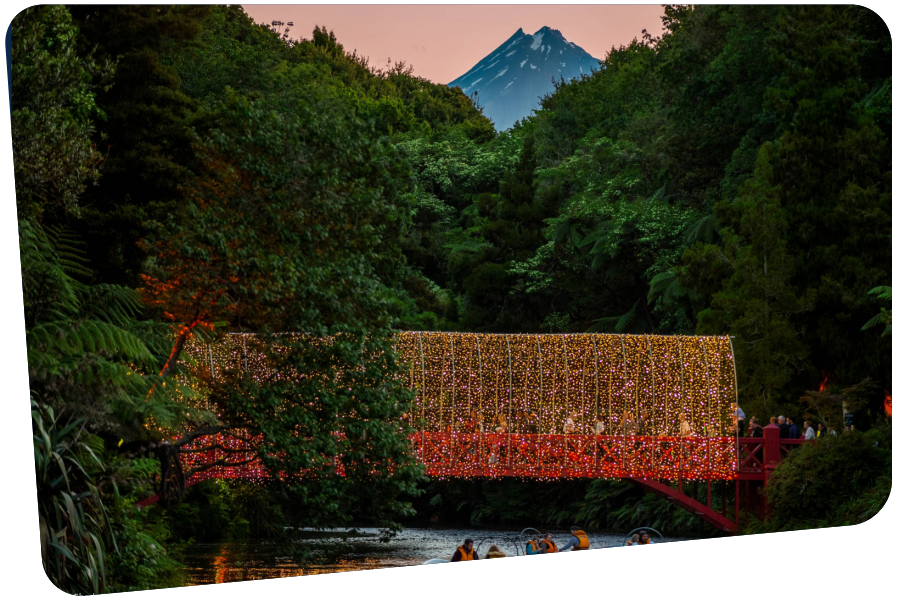
Supporting the provision of these services are the following assets:

- TSB Stadium.
- TSB Showplace.
- Bowl of Brooklands.
- Todd Energy Aquatic Centre.
- Four community pools.

We also operate the Yarrow Stadium which is owned by the Taranaki Regional Council.

These assets and the community activities that they support are significant contributors to the Council's goals of:

- **Thriving Communities and Culture** – by providing facilities where diverse communities can come together and participate in sport, exercise and cultural events.
- **Prosperity** – by ensuring New Plymouth offers a range of facilities and service to enhance the lifestyle of the community and attract population growth and investment
- **Trusted** – by supporting key community partnerships.



Key Venues and Events issues

The key issues for venues and events assets are:

1. **Capacity and fit for purpose** – as the district's population grows and changes, ensuring that the assets continue to meet the needs of the community

2. **Remaining life of the assets** – some of these facilities are coming to the end of their lives and decisions need to be made on renewing or replacing them.

3. **Sporting facilities** – there is a shortfall of fit for purpose sporting facilities particularly around indoor court space, movement facilities and specialist turf facilities and aquatic space. This will have wide impacts on community well-being.

Tūparikino Active Community Hub (TACH)

There is evidence that our current facilities across the district are not adequate to meet existing demand for sports and recreation, let alone future growth. Many of our existing facilities are ageing or not fit for purpose and most do not cater for disabled people. In addition, the Taranaki region has been unable to attract significant sporting tournaments and events due to a lack of multiple, suitable courts, fields, and turfs in one location.

As part of the LTP 2021-2031 we consulted on the Multi-Sport Hub, a project designed to address the sporting needs of the community going forward. The proposal received significant support. At that stage the Council was proposing to contribute $40m to an estimated $91m project with the remaining funds to be sought externally.

However, post-Covid escalation of construction costs, resulted in the project being put on a temporary pause to reassess and prioritise the main components of the project.

We are now proposing an updated project – the Tūparikino Active Community Hub (The Hub). The proposed full project will address the issues outlined above and consists of the following components:

- Minimum four-court indoor stadium building;
- Multi-use artificial turf and grass field remediation;
- Upgrade of four grass fields, two cricket wickets and landscaping
- Community and cultural components.
- Outdoor courts.

The preferred option provides for a Council funded component that would deliver immediate sporting needs through indoor basketball courts to complement the TSB stadium facilities.

The broader project will seek external funding to provide for an additional diverse range of intergenerational active recreation and well-being activities, accessible to the whole community including artificial turf fields and other outdoor sporting facilities. It will be a site of health, celebrating mana whenua identity and links to the whenua. The facility will have the capacity to host secondary school, regional and national cultural and sporting events. As populations change, it will provide a more adaptable, attractive and multi-purpose venue, meeting the needs of a wider range of activities and users.

The project is a collaborative effort between Ngāti Tūparikino and Ngāti Te Whiti, Sport Taranaki and NPDC.

Artist impression of the front entrance of the proposed indoor stadium at the Tūparikino Active Community Hub

Todd Energy Aquatic Centre

The future of the Todd Energy Aquatic Centre needs to be planned for in the long term. A concept plan was developed in 2017 for the existing site to redevelop a fit for purpose facility. This would better meet the needs for lane swimming and learn to swim facilities as well as casual swimming, all of which currently compete for space.

The extent and nature of any redevelopment needs to sit in the context of the district's and wider region's aquatic network as well as the location of Destination Play. The outdoor pool has an estimated life of 10 years and a renewals programme is in place to ensure the facility continues to deliver for the community.

A Regional Aquatics Strategy is currently in development and will inform the direction of redevelopment and renewal of the Todd Energy Aquatic Centre.

Options for decision

In the context of these key issues and major proposals, the options for decision relate to the strategy for 'Providing for sustainable growth and the changing needs of the community'.

Ensuring our existing assets remain fit for purpose

Resilience and adapting to climate change

There are no major issues for decision on renewals or the resilience of the existing assets.

Providing for sustainable growth and the changing needs of the community

Tūparikino Active Community Hub

A number of our sporting facilities are ageing and not fit for purpose. Many don't meet existing sporting needs, let alone future growth and don't cater for the diversity of our community, including people with disabilities. In the LTP 2021-2031 LTP we consulted on a Multi-Sport Hub. This project was paused for reassessment due to post covid cost escalation and there is now an opportunity to refocus existing budgeted funding to a multi-use, minimum four-court indoor stadium building and to direct any remaining funding to multi-use artificial turf and grass field remediation. External funding will be sought to achieve the full scope of the project.

Option 1

Do not proceed – delay entire project to years 10 to 20.

Option 2 - Our preferred option

Proceed with the $51.7m - continue developing the multi-use community hub within the current Council funding levels using a phased approach over years 1 to 5 to meet the minimum viable community needs. This includes a multi-use, minimum four-court indoor stadium building, and if funding allows:

- **Multi-use artificial turf.**
- **Grass field remediation.**

External funding will be sought to achieve additional functional components for added community and cultural value.

Additional costs of between $5 to $8m for 12 outdoor courts to be allowed for in years 11 to 20 of the Infrastructure Strategy.

Option 3

Increase Council funding allocation to $60m to develop a multi-use community hub using a phased approach over years 1-10. This includes:

- A multi-use, minimum four-court indoor stadium building with additional community functional components.
- A multi-use turf complex with two artificial turfs and amenity.
- Upgrade of four grass fields, two cricket wickets and landscaping.

External funding will be sought to achieve additional functional components for added community and cultural value

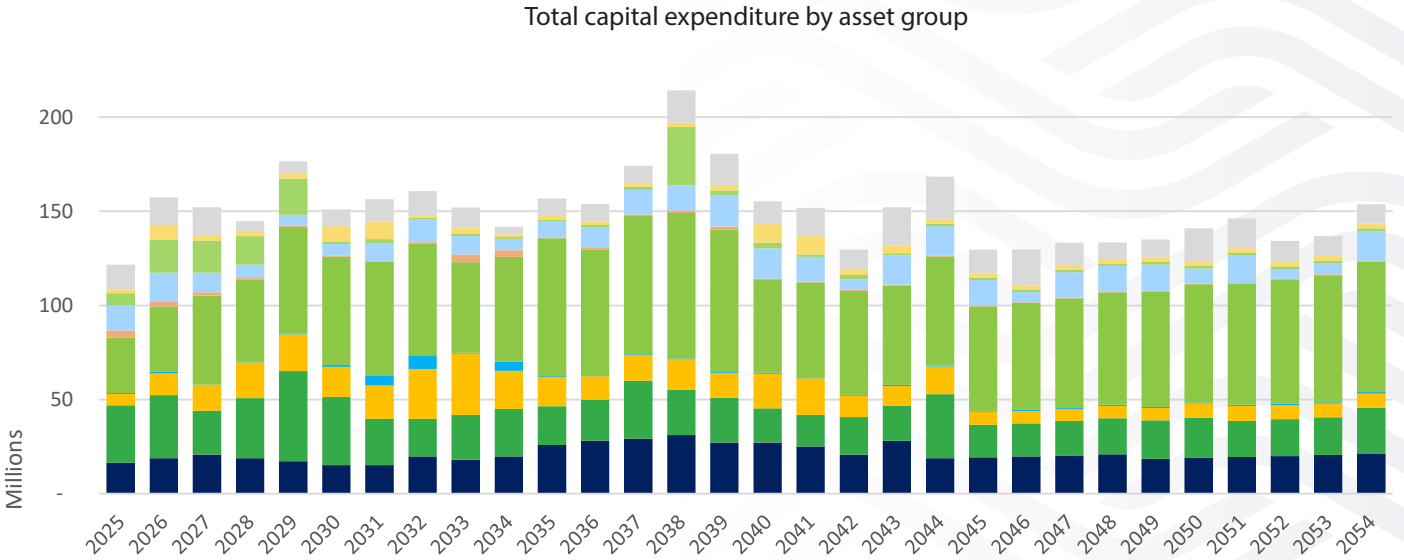
Additional costs of between $5m to $8m for 12 outdoor courts to be allowed for in years 11 to 20 of the Infrastructure Strategy.

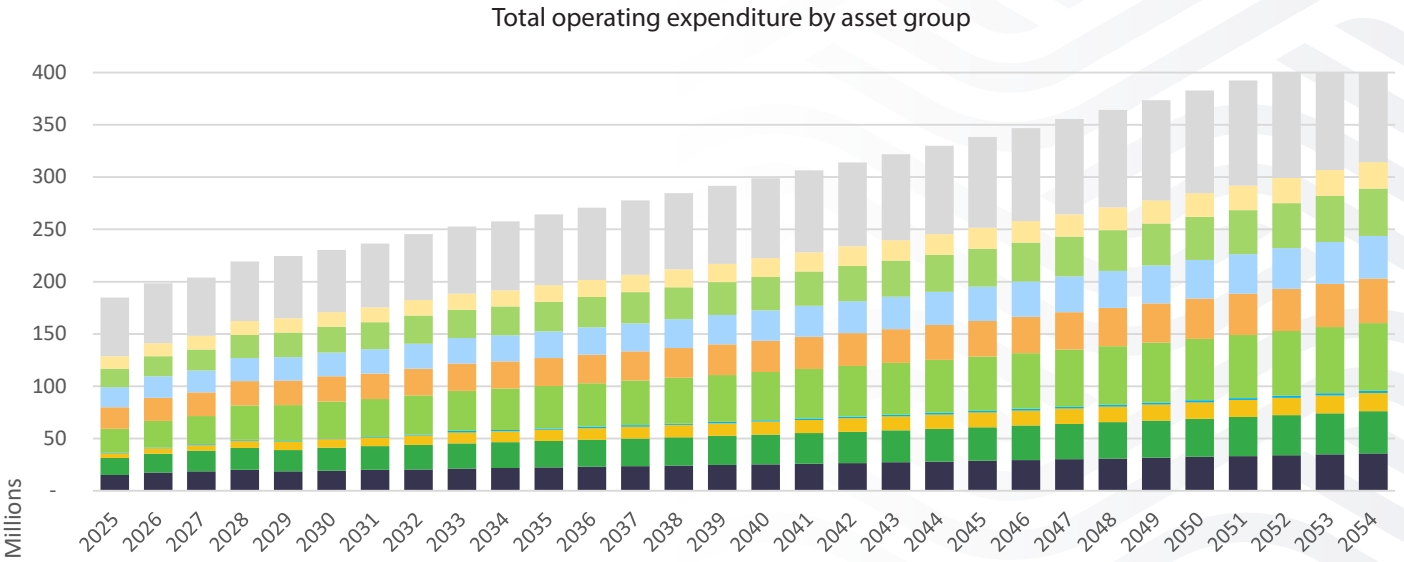
Our plan

Based on the preferred options outlined in the above section we have forecast our capital and operating expenditure over the 30 years of the Infrastructure Strategy and this is set out in the graphs.

Capital expenditure is further analysed by type:

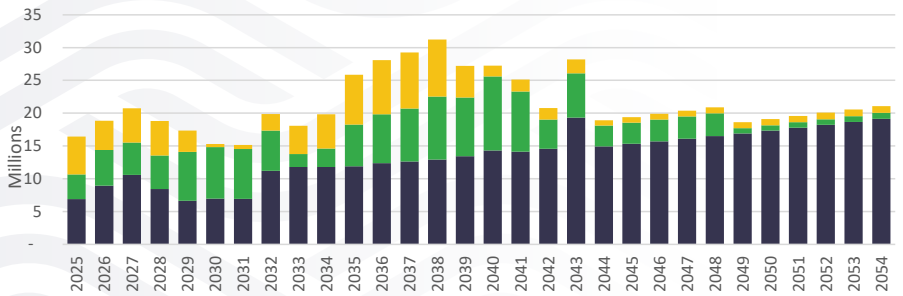
- Renewal - replacing or extending the life of our existing assets.
- Increased level of service - improving the level of service that we provide to the community.
- Growth - providing additional capacity for a growing community.



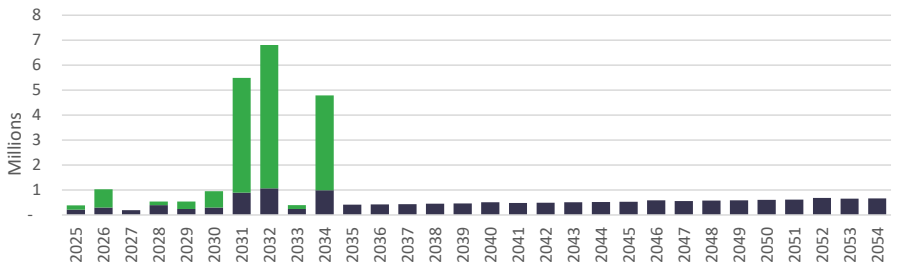


- Water Supply
- Wastewater
- Stormwater
- Flood Protection
- Transportation
- Waste Management and Minimisation
- Parks and Open Spaces
- Venues and Events
- Puke Ariki and Community Libraries
- Other

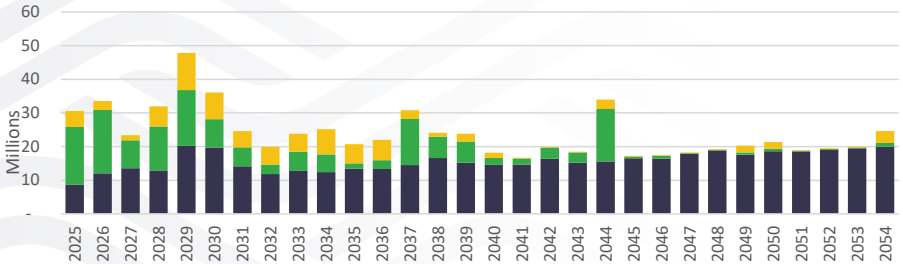
Water Supply



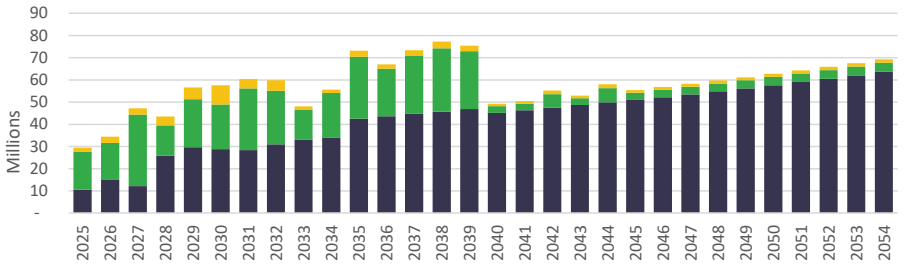
Flood Protection



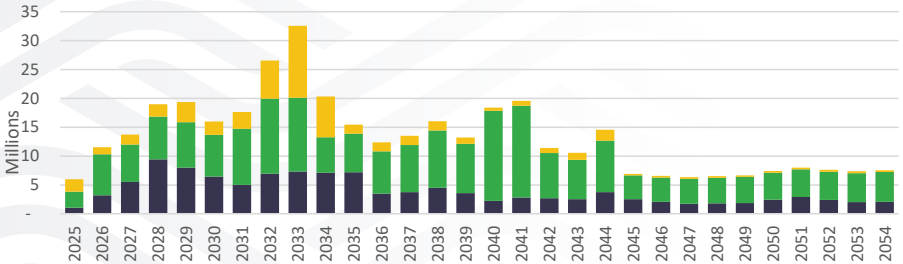
Wastewater



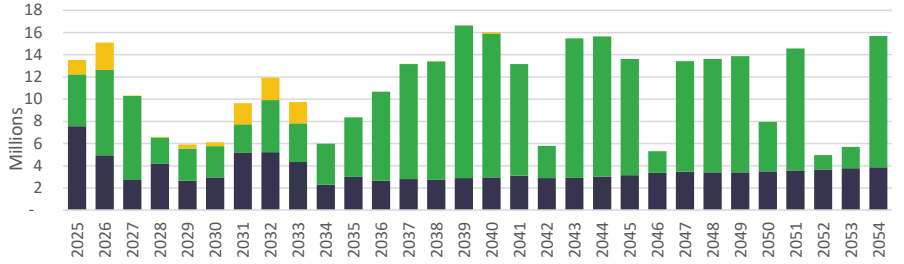
Transportation



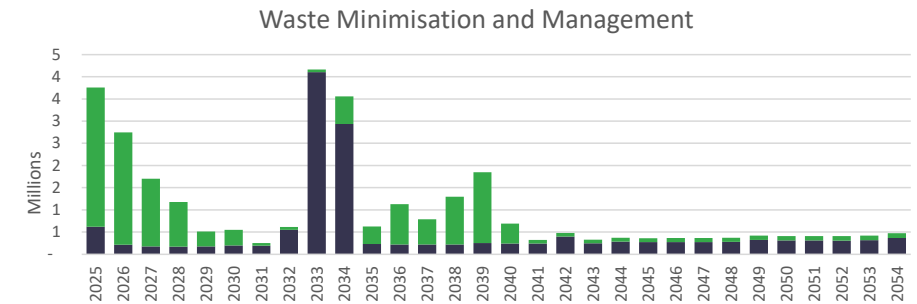
Stormwater



Parks and Open Spaces



Renewals Levels of Service Growth


Waste Minimisation and Management
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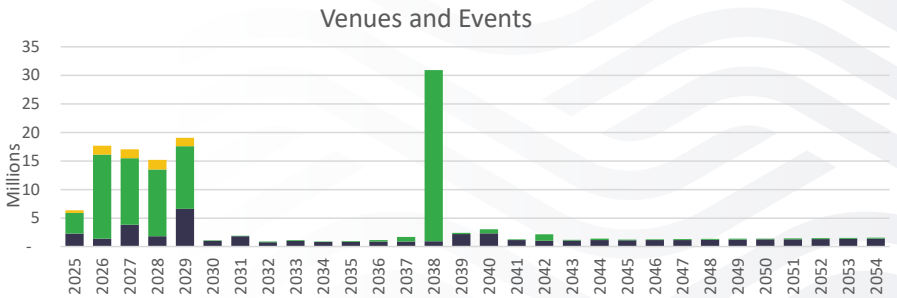
Venues and Events
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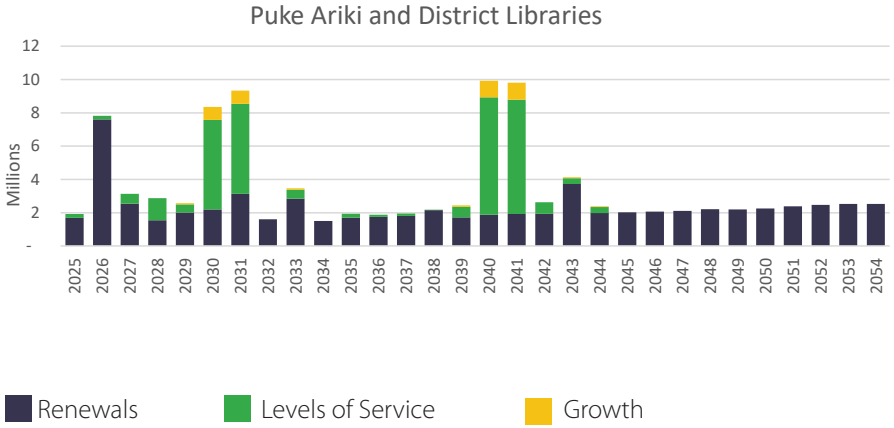
Puke Ariki and District Libraries
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Renewals
Levels of Service
Growth

Assumptions

Life cycle of assets	Uncertainty/risk
This Infrastructure Strategy is based on the following assumptions about the life cycle of significant infrastructure assets. Further information on the lifecycle management is availabe in the NPDC Asset Management Strategy.	
Three Waters - Water Supply, Wastewater and Stormwater • **Water and wastewater treatment plants** – these assets (excepting some mechanical equipment and pumping stations – see below) have a long life cycle (80 years) and all of the current assets are within the first half of this life cycle. It is therefore, not expected that any replacement will be required within the 30 year timeframe of this strategy • **Mechanical equipment** – these assets are subject to more wear and tear and therefore have a shorter design life. Renewal programmes will be based on more sophisticated assessment of condition and run times of equipment rather than just age. • **Wastewater pump stations** – the design lifecycle of these pumps will extend through the 30 year timeframe, however, with new expectations of performance it is likely that many of the existing pump stations will no longer be fit for purpose and require upgrade before the end of their lives. • **Reticulation networks** - due to several years of underinvestment in renewals, the average age (from a condition perspective) of the network is getting older and the condition deteriorating. Increased investment is proposed to address this	There is a high degree of certainty on all of these assets, except wastewater pump stations which are considered medium-high certainty. The associated risk is an increased cost of reactive maintenance from unanticipated failure of the assets, as well as not meeting the community expectations of levels of service.
Flood protection These assets are earthworks based and have a long lifecycle. Some upgrades are likely required to adapt the assets to current standards that include climate change and other considerations.	There is higher level of certainty on the life of these assets; performance assessments are required to demonstrate compliance with current regulation and mitigate risk associated with non-compliances. Additional budget for upgrades will be required.

Life cycle of assets	Uncertainty/risk
This Infrastructure Strategy is based on the following assumptions about the life cycle of significant infrastructure assets. Further information on the lifecycle management is availabe in the NPDC Asset Management Strategy.	
Transportation	
• **Bridges** – most of the road bridges in the network were built around the same time. Consequently about 40 bridges will come to the end of their design life in the next 10 years and about half of our bridge stock will have reached the end of their design lives within 20 years. In the last LTP, the Council implemented a programme of large component replacement to extend the life of some of these bridges rather than demolish and rebuild, but this is not viable for all bridges. • **Roading network** – local roads are largely in fair to good condition and the renewal programme will be reduced to a more appropriate level, releasing capacity to increase renewals of arterial roads with our regional and arterial roads being the exception – these high-volume roads are deteriorating quickly and are performing below the national average for Smooth Travel Exposure (STE). • **Rural roads** – short term, high use activity on specific rural roads (e.g. logging of a particular area for a short period) will be monitored and renewals carried out at the conclusion of such activity.	There is a high level of certainty on the overall roading network, but moderate on the condition of the bridges. The risk associated with bridge renewals is that renewals keep getting deferred, creating a bow wave of costs in the future. Note: The rural road renewal programme is based on the current forestry harvest programme – any change in that programme will require changes to the renewal expenditure profile.
Waste management and minimisation	
The Bonny Glen landfill has a 30 year agreement in place to take the landfill waste of the district. Land has been secured for a further landfill should this required.	The level of certainty is high and the risk would be needing to find an alternate approach earlier.
Other asset groups	
There are no significant issues related to other assets for lifecycle planning. Routine renewals or upgrades for growth and level of service changes will be considered as necessary.	

Demand for services	Uncertainty/risk
Demand for services is driven by a range of factors – population change, economic activity, rate and location of residential and commercial development. The assumptions for these factors are covered below.	
Population change	
Over the 30 year period of the strategy, population is expected to grow by 22 per cent. The rate of growth is expected to be slightly higher in the first 10 years and decline slightly in the remaining years. The population will continue to age with 25 per cent aged over 65 by the end of the period versus 20 per cent currently. Overall, the population is expected to continue to predominately be European and Māori. The Māori community is expected to increase the most from around 20 per cent to 24 per cent over the next 10 years.	There is a low level of uncertainty for ethnicity and age changes, but overall population growth has a medium level of uncertainty as it is driven by net migration as well as natural population growth (births and deaths). The key risk is with provision of infrastructure for residential development- see below.
Economic activity	
NPDC anticipates that New Plymouth District's economy will grow at similar levels to the national average. Using information from BERL, NPDC anticipates that national gross domestic product (GDP) will remain steady over the life of the LTP. Economic activity is estimated to increase to around 1.5 per cent in the short term and remain stable over the ten years out to 2034.	There is a medium level of uncertainty. Uncertainty arises as local economics growth and activity is driven by national and global economies and politics. The predominant risks are: a) Improved infrastructure provision for increased activity (e.g. roading) – this can be managed through monitoring changes in activity. b) New infrastructure for development areas.
Rate and location of residential and commercial development	
Residential development is driven by both population growth and change in household size. A decline in average household size in New Plymouth is expected, driven by an ageing population, growing life expectancy and societal trends. The average household size in New Plymouth is projected to decline from an estimated 2.5 individuals per household in 2024 to 2.4 individuals in 2054. Commercial development will be driven by the level of economic activity. The District Plan identifies areas of new growth for both residential and commercial development and has new growth areas as well as some inward growth to deal with the expected growth over the period of the strategy.	There is a medium level of uncertainty with the speed of growth - as reflected in the population growth and economic activity assumptions. Infrastructure provision for new growth areas will only happen in sequence with growth.

Levels of service	Uncertainty/risk
This strategy is assumed to deliver existing or improving levels of service across our infrastructure assets. Reductions in levels of service are not planned for. The key focus of investment varies in each asset category depending on the current condition and challenges faced.	
Water Supply	
Investment focused on renewals and resilience will ensure water quality and consistency of supply service levels can be maintained. Capacity for growth will primarily be created through demand management but further supply options for the eastern area of the district are also being investigated.	There is a medium level of uncertainty for the levels of service assumptions. They rely on the levels of expenditure being maintained over the long term and this is subject to review every three years.
Wastewater	
Investment focused on renewals and resilience will ensure continuity of service levels can be maintained. The impact of wastewater on the environment will be improved through investment in projects to reduce wastewater overflows.	There is a medium level of uncertainty for the levels of service assumptions. They rely on the levels of expenditure being maintained over the long term and this is subject to review every three years.
Stormwater and Flood Protection	
Investment in stormwater is focused on improving levels of service through renewals and resilience projects and addressing those areas most vulnerable to flooding	There is a medium level of uncertainty for the levels of service assumptions. They rely on the levels of expenditure being maintained over the long term and this is subject to review every three years.
Transportation	
Service levels for transportation will be improved in the areas of safety (particularly at intersections), resilience (though the second crossing of the Waiwhakaiho River) and demand management (through increased provision of walking and cycling infrastructure). Other service levels will be maintained at existing levels.	There is a medium level of uncertainty for the levels of service assumptions. They rely on the levels of expenditure being maintained over the long term and this is subject to review every three years.
Other infrastructure assets	
All other asset categories are expected to maintain or improve service levels over the long term. Improvements are planned through projects such as: • Upgrading the Brooklands Zoo. • Increasing biodiversity and plantings in parks. • Continuing to strive toward the zero waste target. • Implementing the library strategy. • Upgrade of the Todd Energy Aquatic Centre. • Support of the Tūparikino Active Community Hub.	There is a medium level of uncertainty for the levels of service assumptions. They rely on the levels of expenditure being maintained over the long term and this is subject to review every three years.

Climate change

Scientific evidence is clear that the climate is changing and New Plymouth district will, over time, experience more impacts from climate change, climate hazards and climate extremes. The assumptions that have underpinned the development of this infrastructure strategy are covered below.

Uncertainty/risk

NIWA forecasts for the Taranaki region

- An increase in hot days and decrease in frost days, with annual average temperatures expected to increase by 0.5-1.5°C by 2040 and 1.0-3.5°C by 2090. (Medium greenhouse gas concentration path RCP4.5).
- Rainfall is projected to increase for most of the region, with increasing seasonal variation. Extreme rainfall events are projected to become more severe, while drought potential is expected to increase across Taranaki. For some parts, winter increases of 8 to 22 per cent and spring decreases of up to 6% are projected. (High greenhouse gas concentration pathway RCP8.5).
- Annual average discharge from the region's rivers is projected to remain stable or slightly increase, while mean annual low flow (MALF) magnitudes are expected to decrease, with a potential 50 per cent reduction in MALF by the end of this century.
- Global mean sea level has risen over the past century at a rate of about 1.7mm/year and has very likely accelerated to 3.2mm/year since 1993. Rising sea level is already observed in Taranaki, with an average increase of 4.0mm/year, just slightly below the national average of 4.4mm/year. By 2090, sea level rise of 0.5m (RCP4.5) or 0.7m (RCP8.5) is projected.

Impacts for New Plymouth District

- **Coastal hazards**. Within the next 10 years there could be increased risk to coastal properties, roads and infrastructure from coastal erosion and storm inundation. While the entire coast is at risk from coastal erosion, the risks from coastal inundation are localised to areas of developed low-lying coastal land around river mouths, such as Waitara, Puke Ariki landing and Ōākura.
- **Flooding**. With increasing rainfall intensity it is likely that increased flooding will occur in some areas.
- **Drought**. With increasing water demand and the increasing likelihood of extended dry periods during summer months, the district is at risk of not meeting water supply levels of service at certain times of year.

There is significant uncertainty in the short term and long term implications of climate change. However, it is unlikely that any of the investment undertaken will be an over-investment in the long term. There is risk that climate hazards occur earlier than current forecasts meaning that asset capacity/resilience has not been increased early enough. This will result in infrastructure failure (whether temporary or permanent), requiring additional resource and financing.