

# ***2021-2051***

# ***Infrastructure***

# ***Strategy***

Supporting documentation  
for the 2021-31 Long Term Plan  
Consultation Document



**NAPIER**  
CITY COUNCIL  
*Te Kaunihera o Ahuriri*

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# 1. Executive Summary

This Infrastructure Strategy covers the Council’s provision of transportation, water supply, storm water, wastewater, parks and reserves, and buildings

Infrastructure is the area that oversees the physical assets that the Council owns and maintains to deliver services to the community. This includes cemeteries, public bathrooms, parks, sportsgrounds as well as the water network, roads that are not state highways and buildings such as libraries, aquariums and theatres.

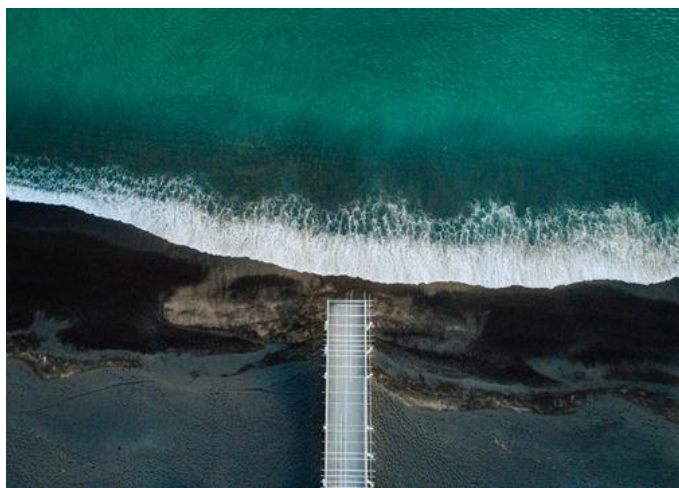
Infrastructure is the foundation upon which Napier is built; without these fundamental assets the town could not function and flourish.

## What has happened since the last Long Term Plan ...

Since the last Long Term Plan our city has grown, and development is occurring faster than expected. We have also come together in the national fight to contain Covid 19 and have experienced a one in 250-year flooding event that left many without habitable homes and stretched infrastructure past its designed capacity.

On the heels of the Havelock North Water Crisis there has been a Three Waters review by the Government and we have undertaken a chlorine free review. We have developed masterplans and strategies for the majority of our key infrastructure and Council is reviewing and moving forward with these plans.

These events have changed the way we have viewed our infrastructure, how we maintain and use it, and ultimately has shaped the way that we have developed our infrastructure strategy.



## History of Napier Infrastructure

Napier First Surveyed	1852	
	1857	First Main Road Built
Severe Earthquake	1863	
	1867	Ngaururoro River Bridged
Napier- Taradale Rd Built	1870	
	1873	Flood Destroys Napier - Taradale Road
Street Forming & Lighting (gas)	1877	
	1883	Reservoir, pipeline & well completed (150,000 gallons / day)
Great Fire (26 Buildings Destroyed)	1886	
	1897	Major Flooding (3/5 of Heretaunga Plains)
Land donated for McLean Park	1910	
	1912	McLean Park Grandstand Built
Electric Street Lights	1915	
	1931	Napier Earthquake
First Streets in Onekawa Sold	1949	
	1950	Napier Proclaimed City
Anderson Park Land acquired.	1962	
	1964	Hawkes Bay Airport Opened
New Outfall Pipeline- Awatoto	1973	
	1991	Miliscree Plant Opened
MTG Opened	2013	
	2014	Biological Trickling Filter (Wastewater) Opened
McLean Park Drainage & Re-turf	2018	

## 1.1 Context

Council provides various services to a community of around 25,000 households. The key infrastructure identified in this strategy includes:

- Water Supply
- Wastewater
- Stormwater
- Roads and Footpaths
- Community Property
- Parks and Reserves

These assets contribute to the wellbeing and prosperity of Napier city and have a combined value of around \$2 Billion.

## 1.2 Key Issues to be addressed

The internal and external landscape at Council has changed significantly over the last three years since the last Long-Term Plan. There are a number of major factors that influence the decisions being made by staff, and elected members, to enable service levels to be maintained and for infrastructure to be kept at a level that compliance with legislation is maintained in a changing environment. The standards that are required, particularly in the Three Waters Activities, are becoming more stringent and Council is planning for this.

Below are the nine Key Issues that have been identified for this Long-Term Plan period and the main actions required to address the issues:



### Affordability

Napier has historically operated with a very financially prudent perspective combining low debt and minimised operational spend. With increasing regulatory requirements and aging assets that require improved levels of operational and maintenance expenditure alongside capital upgrades, this promotes a change in the operating ethos for both the Council and the community.

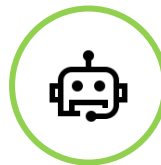
**Council's Response:** Council is concentrating on maintaining what we already have, including increasing allowances for renewals and deferring a number of non-essential projects.



### Enabling Growth

Napier is a medium- high growth city with a requirement to enable and provide affordable development under a National Policy Statement – Urban Development. This external driver coupled with increased regional migration, productive soil protection, low-lying risk prone land and a small geographical area makes it a difficult balancing act to provide for sustainable growth.

**Council's Response:** Three major developments are underway or planned in Napier. Council are delivering properties through its own development - Parklands Residential Estate. Te Awa is experiencing significant development and infrastructure is going in now to support this growth. The Mission development is progressing. Council is looking at how to encourage intensification through the District Plan Review.



### Future Proofing

Napier is moving from a small regional centre to a more modern, vibrant city. To support this change and to meet increasingly stringent regulatory and environmental guidelines whilst balancing risks around natural hazards and climate change, the city needs to plan carefully to optimise its investment in the future. Providing for this growth is a large component of this strategy and the associated Long-Term Plan.

**Council's Response:** Ultimately Council wants to deliver timely, robust infrastructure in a sustainable way. Part of this involves detailed planning, which was the focus of the last Long-Term Plan, now the teams are reviewing the long-term master plans and prioritizing work to make our infrastructure more resilient and compliant. Superimposed on this is understanding the highest risk areas in the city and various studies are underway with external parties to understand the impact of natural hazards, evacuation routes and what Infrastructure is required to support the community during an incident. Together, these pieces of work, combined with climate change planning and growth planning will assist Council to provide appropriate infrastructure that meets compliance and the city's needs.



## Supporting Improved Environmental Outcomes

The environment sustains our city, is the cornerstone for our tourism sector and the reason we love living here. There is a need to protect our natural resources in alignment with cultural values. This promotes the need to focus on supporting our Natural Heritage through meeting increased regulatory requirements, while working with the local community and stakeholders collaborating to ensure that all of us are invested in improving outcomes.

**Council's Response:** Over the last few years, Council has been building an Environmental Solutions team of scientists who are focused on improving the quality of our open waterways and reducing the contamination of our stormwater network. This team and other infrastructure teams are working on projects such as: reduced leakage, optimised water use on Parks and Reserves, fixing and replacing the wastewater outfall pipe, planning for increased requirements around wastewater treatment and discharge. Longer term we are also going to store and treat stormwater at Lagoon farm, assisting with the quality of water going into the Estuary.



## Natural Hazards and Climate Change.

Until now, there has been no targeted approach to monitor and address climate change, hazards management, sustainability and the journey towards Carbon Zero. The next 30 years will see significant changes in these areas and Napier needs to have sufficient resources to guide our local direction, and a policy that is aligned with research and direction regionally and nationally. This will support the delivery of appropriate infrastructure and provide for a resilient and sustainable future.

**Council's Response:** In addition to the actions mentioned above around understanding natural hazard risks and how to manage these, the Council is focussing more closely at energy use, optimising equipment, setting materials standards and is moving towards reducing our Carbon footprint.



## Capacity to Deliver and Supporting Economic Recovery

The government is driving economic recovery through stimulus packages. This will increase the number of projects to be delivered, which results in additional workload and reporting requirements over a condensed timeframe. E.g., Shovel Ready Projects and Three Waters Reform projects. Council has been delivering capital plans over the last 4 years that range between \$20 and \$50m in total. The projections for the latest Long-Term Plan significantly exceed this value (excluding stimulus work) and given current staffing levels and potential industry constraints there are hurdles to jump through to ensure that Council can deliver the planned capital programme.

**Council's Response:** Council has a large amount of work to deliver in a constrained industry with a lot of competition. Council is working with other Regional territorial authorities to see how we can work together to deliver these programs of work. This is already starting with five regional projects being delivered as part of the three waters reform. The opportunity for Council is to encourage new players into the Hawkes Bay market by reviewing our procurement methods, bundling work together and also prioritising the work that is most important to complete. Where Council resources are stretched, we are looking at external assistance where needed, for example where we need additional technical expertise or project management assistance.



## Streamlining BAU Processes and Data Quality

The Council is in a state of transition, moving from outdated models of working to embracing new technology and an efficient future. The systems we use are outdated and no longer fit for purpose, which takes officer time away from delivering our services in the most efficient way and optimising our operational capacity.

Having the appropriate tools, systems, processes and data to understand our current state, the risks and improvements required, will enable optimised decision making and reduce uncertainty and will deliver costs savings.

**Council's Response:** This is a high priority area that is being worked on by a number of teams. Leading up to this Long-Term Plan Council are investing in new computer systems, one of which includes an upgrade of Council's main Asset Register. This is funded via the three waters reform programme. An Asset Management Continuous Improvement Plan (AMCIP) has been developed and this will guide the Infrastructure related BAU processes.



## Preparing for Three Waters Reform Programme

Council is operating within an uncertain environment regarding the future of Water. The industry is undergoing major reform that may result in these services being delivered at a regional or multiregional level. The objectives of the reform are to provide everyone with more equitable access to safe and affordable water and improved environmental outcomes.

Napier has been provided with an initial \$12.51m to work towards meeting the reform objectives between November 2020 and March 2022. This will enable Council to make good headway with the management of data, systems, tools, and processes in combination with some key capital projects. This stimulus package adds additional workload to teams that are already at or over capacity. The funding provides for additional staff or resources which should assist with these capacity constraints.

**Council's Response:** This is a great opportunity for Council to bolster the upfront work on the Three Waters Capital programme and to set up the Three Waters team in a way that enables greater focus on operational planning, strategic planning and project planning. In addition, the programme is enabling improvements in asset management tools, systems and practices and will also assist the broader Council team when asset management practices improve in this area. There will be a balance to ensure that the Three Waters reform projects are delivered, this is why additional external resources have been engaged to assist.



## Deferred Renewals

Council has not kept up with replacing and upgrading all of its assets. Some are well past the end of their useful life and are getting beyond repair. At the same time, the money historically put aside each year to save for when we need to work on our assets has been too low.

**Council's Response:** Costs to renew assets have increased alongside industry standards. It is simply unaffordable to commit to all the work that needs to be done at once.

Prioritisation of asset replacements and upgrades are taking place to identify what is essential, and what is well utilised along with what is affordable.

Council's plan is to ensure that more money is set aside for depreciation over the next 10 years and ensure that we are proactive in our management of upcoming renewals, rather than waiting for their end of life before attending to them.

## 1.3 Overall Vision for Council Infrastructure

Council's overarching vision for Infrastructure is:

"Providing infrastructure that supports and enhances the quality of life in our city"

Over the thirty-year period of this plan the main vision for Infrastructure is to maintain what we have and optimise our networks and services and ensure that these are kept to a standard that meets levels of service and meets compliance. Due to affordability issues there were discussions around potential changes to levels of service. The decision has been made to postpone some projects that are not core infrastructure and to loan fund some renewals to cover funding gaps.

### 1.3.1 What are the major projects?

The main projects that have been put forward in this strategy are summarized very briefly here:

#### Water:

- Install New Borefields
- Replace Enfield Reservoir
- Demand Management- Network and Control Zones

These will help deliver the vision of safe, clean water.

### Wastewater:

- Replace Outfall Pipe and Pump Station
- Pump Station Improvements (SCADA)
- Treatment Plant Upgrade

### Stormwater:

- Stormwater Storage at Lagoon Farm
- CBD & Onekawa Flood Alleviation
- Marewa- Whitmore Park Flood Alleviation

Improve the quality of discharged stormwater.

### Parks, Reserves, Sportsgrounds, Cemeteries, and Public

#### Toilets:

- McLean Park Turf Renewal and Harris Stand Replacement

These will assist with compliance, improved operation and future proof our network.

- Onekawa Park Upgrade
- Purchase of Cemetery Land
- Ahuriri Masterplan

To maintain and improve existing assets used by the community

### Community Buildings:

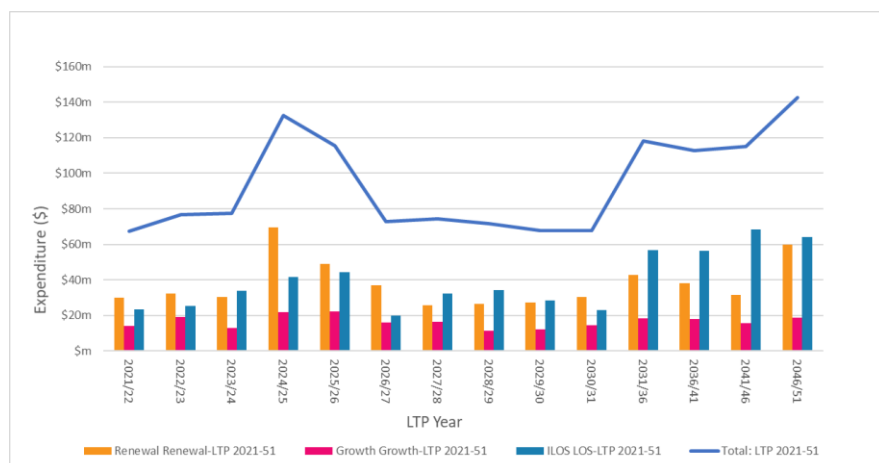
- Faraday Centre
- Civic Precinct

To ensure that community buildings are fit for purpose

## 1.3.2 What is the Cost?

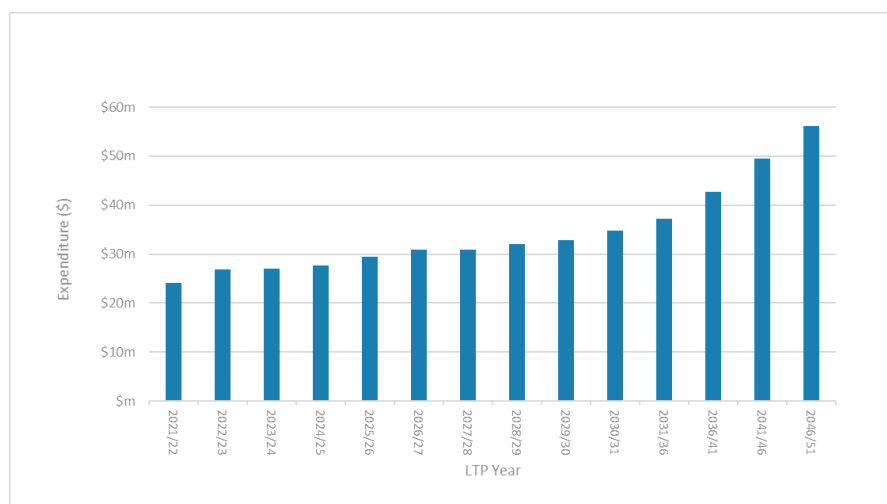
The Capital cost for this thirty-year plan equates to \$824.45million the profile for this expenditure is shown below

Figure 1: Total Capital Expenditure - Infrastructure



As compliance standards change and the city grows and assets age it is necessary to spend more to maintain assets to meet the level of service. The total operational spend for the 30 years is \$482.3 million, an average of \$16 million per year. The breakdown by Activity group is provided later in the document

Figure 2: Total Operational Expenditure - Infrastructure





## 2. Introduction

### “Providing infrastructure that supports and enhances the quality of life in our city”

This is Napier City Council’s 2021-2051 Infrastructure Strategy. The strategy sets out our longer-term plan for managing our assets over a 30-year period to ensure that Council continues to deliver on levels of service. It has been prepared from Council’s 2020 suite of underlying documents including the Activity Management Plans provided by each area of the Infrastructure team and it ultimately forms part of Napier City Council’s Long-Term Plan. The Infrastructure Strategy should be read in conjunction with the Financial Strategy.

The goal that underpins our strategy for Napier over the next 30 years is to provide infrastructure that supports and enhances the quality of life in our city. Through the provision of infrastructure that supports a good quality of life for all residents in the city, by addressing issues such as water quality and an enhanced transport network, growth and positive environmental outcomes will naturally follow.

Our strategy is based on the Council’s vision of:

“A vibrant and innovative city that provides for the wellbeing of our community now and into the future”

The Council has identified community outcomes and from these we have formulated the top eight Infrastructure issues that are addressed in this strategy.

Council is focused on ensuring our infrastructure services meet both current and future requirements.

This Infrastructure Strategy covers the following core Assets owned and managed by Council:

- Water Supply
- Wastewater
- Stormwater
- Roads and Footpaths
- Community Property
- Parks and Reserves

The issues discussed within this document reflect the current legislative environment and the communities’ priorities across the city and anticipates the coming changes in requirements and standards in the Water Industry and works towards achieving anticipated higher standards, which have not yet been set.

This infrastructure strategy:

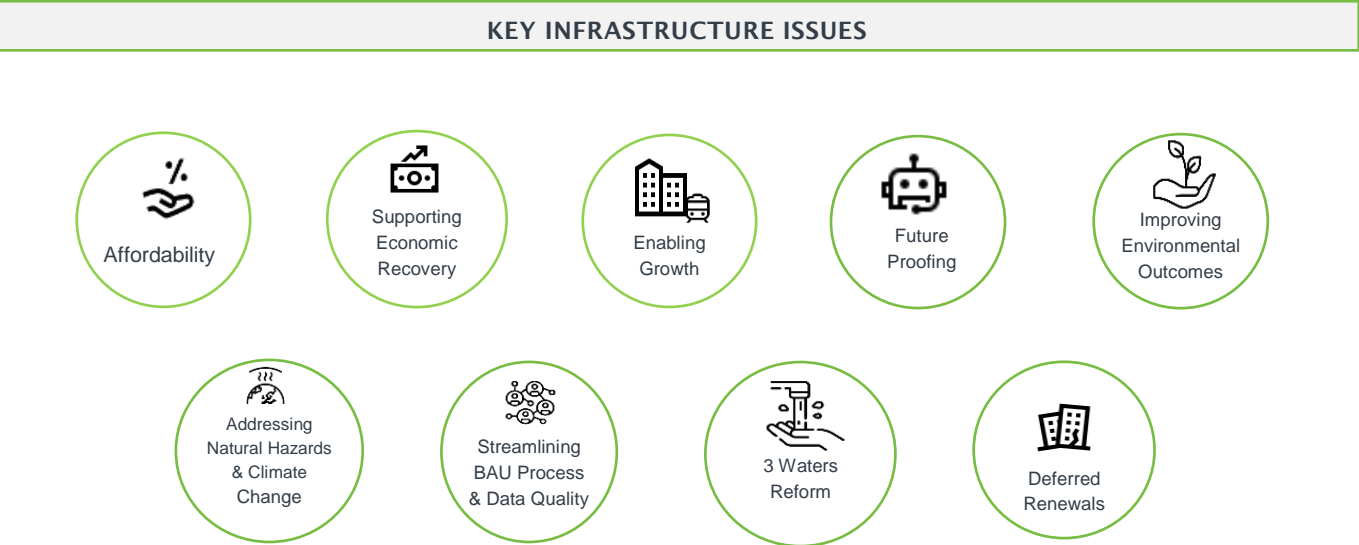
- Identifies our significant infrastructure issues for roading, water, wastewater, stormwater, parks and reserves and buildings over the next 30 years (2021-2051)
- Highlights our vision for the activities and where we would like to be by 2051
- Summarises the main options we have for managing those issues, our strategic response and likely course of action
- The likely cost implications of managing infrastructure over the next 30 years.

The financial forecasts are estimates and while the reliability of the forecasts decreases beyond ten years, they are indicative of current thinking within Council and of the direction in the medium to long term.

Assets Covered	Asset Components	Replacement Cost	Depreciated RC
Water Supply	Pipes, Valves and Hydrants Treatment Plants and Pump stations	\$205,625,903 \$34,750,974	\$106,874,424 \$15,821,753
Wastewater	Pipes, manholes Treatment Plants and Pump stations	\$337,936,600 \$81,523,093	\$139,815,551 \$48,365,483
Stormwater	Pipes, manholes, outfalls, culverts and pump stations	\$306,808,041 \$34,588,944	\$178,604,372 \$25,497,022
Roads and Footpaths	Roads, footpaths, bridges, streetlights	\$451,498,542.82	\$261,096,540
Community Facilities	Community housing and facilities.	*	\$134,685,065
Parks, Reserves, Sportsgrounds and public toilets		*	\$239,660,563

\*This figure is not calculated

Council has set six Community Outcomes that support the overall vision for Napier. These are provided below in addition to the Key Infrastructure Issues that are addressed in this strategy.



## 2.1 Serving our Community

Council provides key services to the community and engages on a regular basis to understand what is important to our residents and ratepayers. During the last customer engagement survey (undertaken quarterly over the last year), it was clear that drinking water and wastewater services were not meeting the community's expectations. The results showed that although satisfaction had increased over the year there was still considerable dissatisfaction with drinking water. Sewerage had the largest fall in satisfaction in 2020. Sportsgrounds had the highest satisfaction rating at 94% and improvement is required in swimming pools and parking in the CBD. Overall customer satisfaction with Council as a whole has increased from 67% to 75% over the last year.

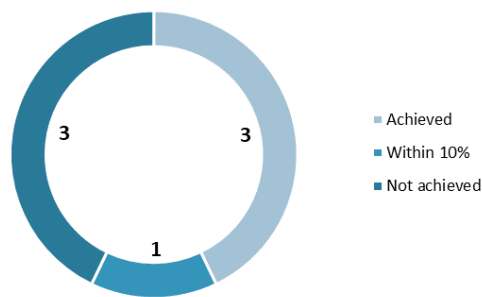
In August and September last year, Council undertook some pre-engagement work with the community. This involved empathy interviews, online and physical blackboards ("my big dream for Napier is...") and focus groups to understand what the community needs. Key themes included safety, connectedness, water, fun, nature and local amenity. A subsequent campaign went ahead in December. Respondents were asked to rank five statements in order of importance. The two themes about water were ranked as the most important, with drinking water being ranked slightly higher than wastewater and stormwater. Of those who responded, 51% rated drinking as their top priority: 31% as their second priority.

Local and accessible amenities and safe communities were ranked as third most important, and city vibrancy and green/open spaces coming in fourth and fifth respectively.

Council reports on a number of defined levels of service on a quarterly and annual basis. Overall Council meets its levels of service across most of its activities but the results from last year do show that there are some areas for improvement. The graphic below shows how Council achieved across the key Activity areas:

Transportation:

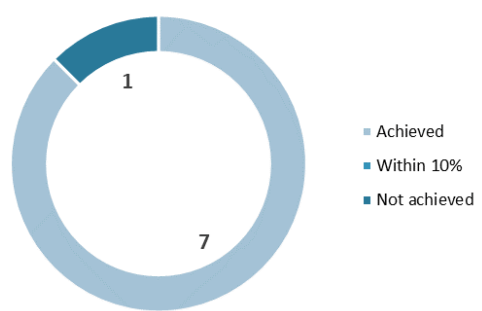
How We Performed Against Performance Measures



The three performance measures that were not met last year include resident’s satisfaction with road maintenance and lighting, and the adequacy of renewal of road surfacing and maintenance of footpaths. The transportation team had an audit from NZTA last year where the audit showed that our reseal programme is outdated and the condition of road surfaces exceeds requirements. Footpaths do need a greater focus.

Wastewater:

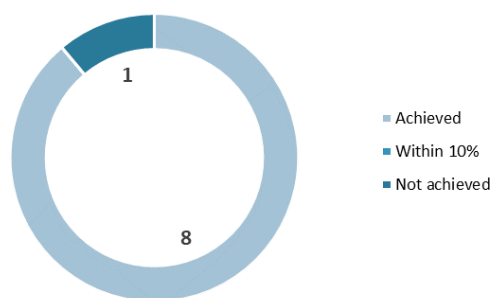
How We Performed Against Performance Measures



The reason for not meeting all performance measures in wastewater related to the leaks detected in the wastewater outfall pipe. These leaks initiated an abatement notice from the regional Council. These repairs have now been completed.

Stormwater:

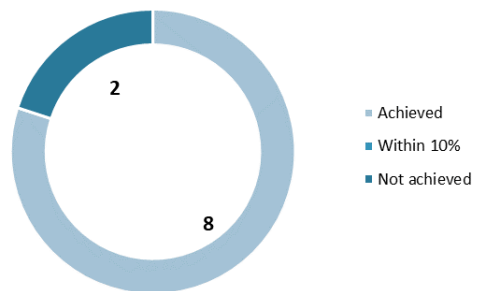
How We Performed Against Performance Measures



The one performance measure not achieved last year involved resident’s satisfaction with the service. Satisfaction fell from 61% to 60%, the target being 89%. Customers in Ahuriri and Nelson Park wards were less satisfied with the urban drainage network.

Water Supply:

How We Performed Against Performance Measures



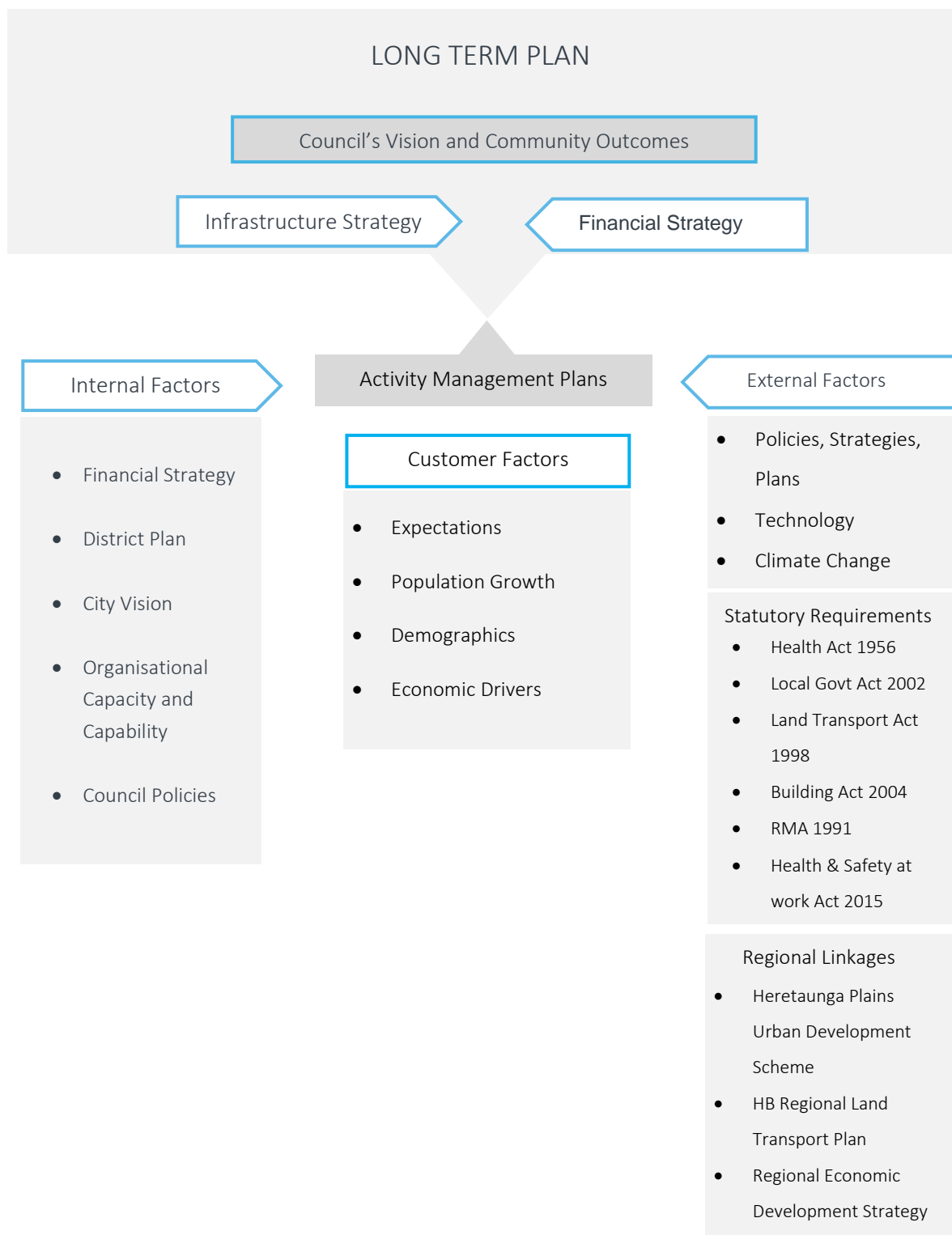
The two measures here relate to customer satisfaction with the service and the total number of complaints per 1,000 connections. Current complaints are excessive due to the current dirty water issues. Some work is required with service providers to better identify customer complaints and categorize these appropriately. A significant amount of work is underway to address the dirty water issues and complaints fell in the second half of last year when reliance on two bores that are higher in manganese levels was reduced.

## 2.2 Purpose of this document

The Infrastructure Strategy is a legislative requirement under the 2014 amendments to the Local Government Act 2002. The aim of the strategy is to identify:

- the key infrastructure issues facing the Council,
- the implications of the identified issues; and
- the principal options for managing these issues.

It is a guiding strategy that sets out how we want to develop our various networks and assets into the long term so that we can meet required levels of service. The following figure shows how Council's various documents work together to form our Long-Term Plan.



## 3. Introduction to Napier

### 3.1. Context

#### 3.1.1 Location and Geography

Napier City is situated on the Hawke's Bay coastline near the bottom of the Hawkes' Bay bite. It extends from Bayview in the North to Awatoto in the South and into the hills near Porirangi and Puketapu in the West. It is bounded on the Eastern side by the Pacific Ocean (Hawke Bay). Napier's main topography is flat, with a large amount of land having been uplifted during the 1931 Earthquake.

Napier covers 105.75 square km, with 43.04 square km of this being urban (this currently excludes both Parklands and Mission subdivisions that are not yet re-zoned as urban), which means that approximately 41% of its territory is urban.

Napier's boundaries contain both Hawke's Bay Airport and the Port of Napier, both of which service the wider Hawke's Bay and East Coast regions. On the landside it is bounded in all directions by the Hastings District, and both Napier City and Hastings District are located within the catchment area of the Hawke's Bay Regional Council.

Figure 3.1 Location Map

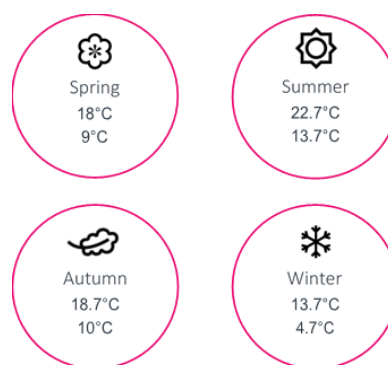


#### 3.1.2 Climate

Napier, Hawke's Bay has a temperate marine coastal climate that is by global standards mild with no dry season, and warm summers. Heavier precipitation occurs during the mild winters which are dominated by mid-latitude cyclonic weather patterns (lows).

The average annual temperature is 14.3 degrees Celsius. Average monthly temperatures vary by 10.3 °C. Total annual Precipitation averages 809.7 mm which is equivalent to 809.7 litres /m<sup>2</sup>. On average, there are 2281 hours of sunshine per year.

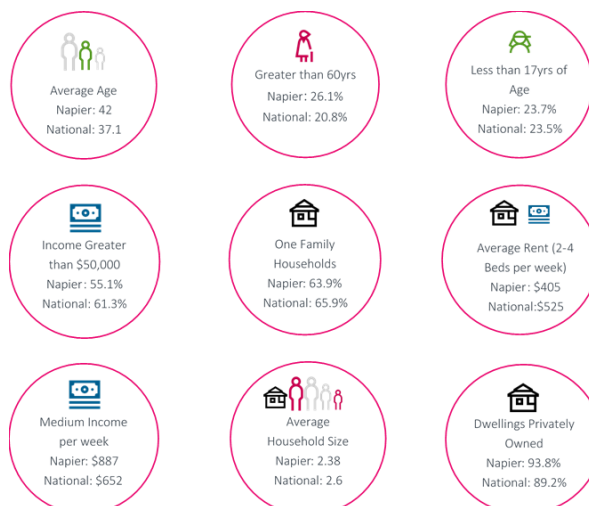
#### Average High and Low Per Season



#### 3.1.3 Population

Napier has experienced a steady level of growth since 2001 increasing in population from 53,661 (2001 census) to 62,241 (2018 census) and is projected to rise to approximately 71,140 by 2051 (an increase of 11.6% over the next 30 years).

The city experienced 9% growth between 2013 and 2018 and with 500 applications for social housing and Council's own residential housing with a long waiting list, the need to provide and service additional growth is a necessity. With the rapid growth experienced over the last decade, the 11.6% projection to 2051 may be a conservative projection.



### 3.1.4 Natural Hazards

Napier is located in a seismically active area adjacent to the Hikurangi Subduction Zone and has experienced a number of large magnitude large earthquakes in known history.

The most recent substantial event was in 1931 which resulted in destruction of large parts of the city and the up thrust of large areas of the former estuary. This event provided additional land into which the city has grown and on which the airport is now located. The presence of the subduction zone and potential for megathrust earthquakes also poses a known tsunami risk to the City and wider coastal region. (Figure 1)

Napier contains suburbs which are built on hill formations including; Hospital and Bluff Hill, parts of western Taradale, Porirangi and Heipipi (above Bay View), however approximately 90% of the city, by developed area, is low-lying and very flat ranging in elevation from at or just below sea level at in some foreshore suburbs, to about 5m above sea level at the base of the northern and eastern parts of the hills. This means this infrastructure is vulnerable to movement during earthquakes and flooding events. It is also unfavorable for new development and is expensive to service.

Developments in this flat area are built on a mixture of alluvial gravels, former swamp, and the portion of the former lagoon bed that was lifted in the 1931 earthquake and subsequently drained to convert the swamp to useable land. As such, the low-lying suburbs not directly adjacent to the waterfront are vulnerable to both ground-water level rise and liquefaction (see Figure 3.3), this places additional pressure on the ability to convey wastewater and storm water.

The map of Napier (Figure 2) illustrates the extent of low lying land in Napier, where mean sea level (sea level at half tide) is set to 10 meters in elevation and the dark green shaded areas show land up to 12 meters in elevation (i.e. up to 2 meters above mean sea level).

Figure 3.3 Land Topography, Napier

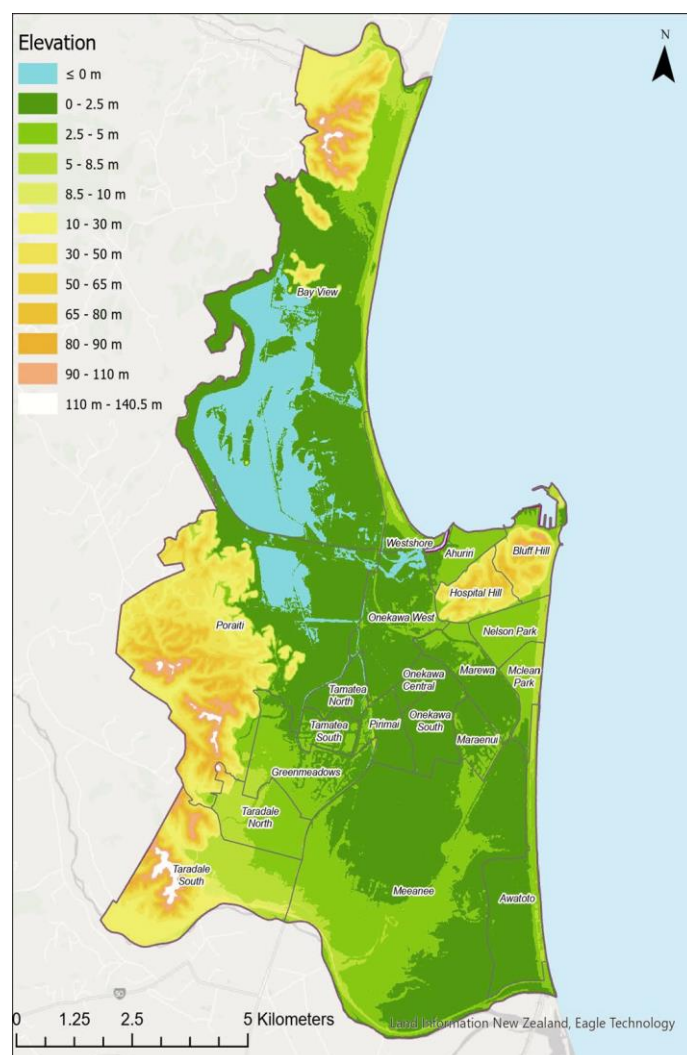
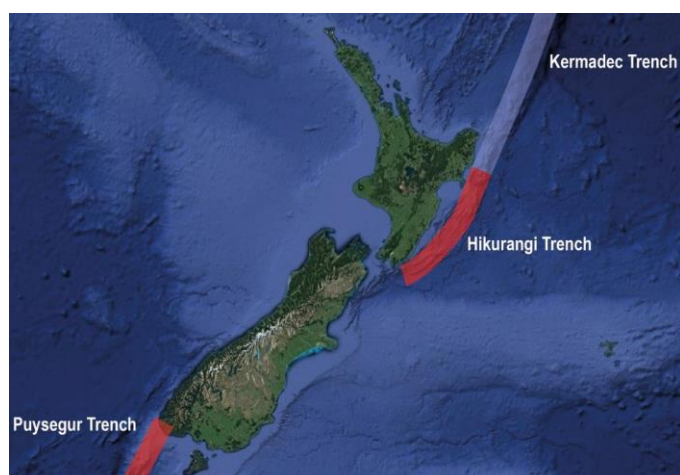


Figure 3.2 Hikurangi Subduction Zone



## 4 Key Assumptions

In order to plan for the long term, it is necessary to understand the current intern and external environment to make assumptions about future scenarios.

Schedule 10 of the Local Government Act 2002 requires that the Council identifies the significant forecasting assumptions and risks underlying the financial information set out in the Long-Term Plan. Where there is a high level of uncertainty the Council is required to state the reason for that level of uncertainty and provide an estimate of the potential effects on the financial assumptions. The level of uncertainty is determined by reference to both the likelihood of occurrence and the financial materiality.

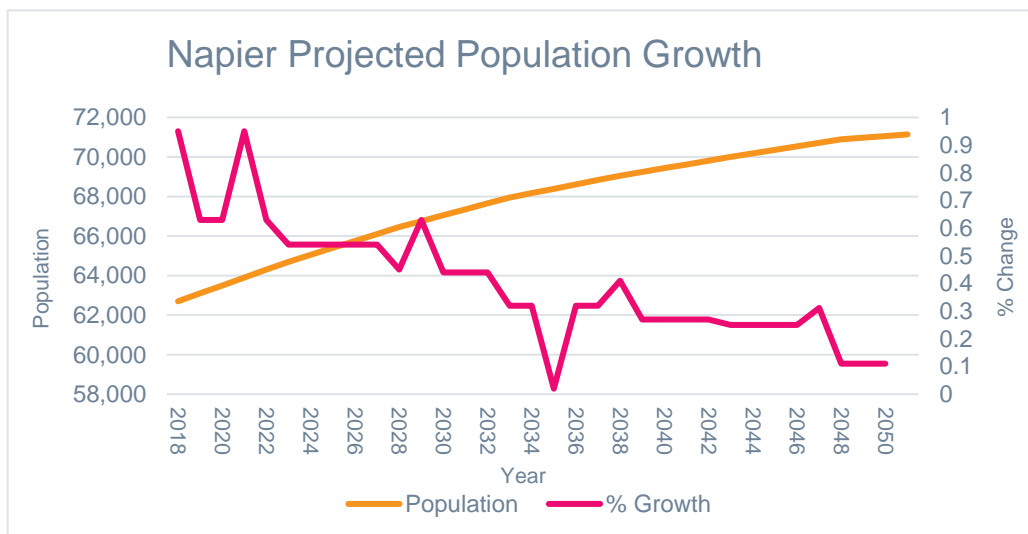
All key assumptions have an inherent level of uncertainty. The assumptions that have a high level of uncertainty include:

- Natural disasters causing significant harm.
- Outcome of the three waters reform and future delivery options.
- Exposure drafts for the new drinking water standards.
- Impact of Covid-19 and recovery.

The following sections summarise some of the underlying assumptions used to develop the Infrastructure Strategy.

### 4.1 Growth

Projected total City population growth over the ten years of the Long-Term Plan is 3,450 (5.4%). The projections are halfway between Medium and High Statistics NZ projections. As previously noted, Napier experienced an increase in population of 9% between 2013 and 2018, there is therefore the potential that population increases may be higher than anticipated.



Variations in the projected population growth will impact the growth of households and the demand for community facilities over time. Changes may require acceleration or slow-down of growth-related projects. Council's Financial Strategy outlines how such projects are to be funded. Impacts on individual ratepayers will not be significant unless growth is significantly above that forecast or the cost of development in new greenfield areas is excessive. The following assumptions have been applied:

- Any impacts from the changing demographics of

Napier's population during the term of this Long-Term Plan is not considered significant.

- Napier's population will also continue to age, and ethnic diversity will increase.
- The projected total City household growth over the next ten years is 1,853 (7.1%) The projections are halfway between Medium and High Statistics NZ projections.
- Based on historic data and the growth assumptions in this Long-Term Plan, an allowance



of 0.30% per annum has been included for additional rates revenue. As a result of growth in the rating base it is possible that the rate of growth will differ materially from the above projections. This would impact the revenue from Development Levies/ Financial Contributions and Consents. Council will carefully monitor growth and adjust the timing of growth-related projects based on revised market demand and revenue timing. Council is in the process of reviewing the current District Plan and is proposing changes to the existing contributions policy to provide clarity around the way that contributions are charged and to ensure that sufficient funds are collected to support growth.

The current level of growth is evident in subdivision developments occurring including those in Te Awa and multiple sites in the Western Hills near Puketitiri

#### 4.1.2 Heretaunga Plains Urban Development Strategy (HPUDS) Updated Projections and Forecasts 2015 – 2045

Napier City Council is a participant of the Heretaunga Plains Urban Development Strategy (HPUDS) which has shaped its approach to managing urban growth since the adoption of this regional strategy by the Council in 2010.

HPUDS considers the following growth drivers and the relative demands they place on land in both Hastings and Napier:

- Commercial and Industrial
- Retirement sector
- Rural Residential development
- Urban residential development
- Intensification (infill)
- Affordability and sustainability

In the move towards more compact urban form for the Heretaunga Plains sub- region, an increasing proportion of the residential growth has been identified to take place through intensification, by redevelopment within existing residential and rural residential areas.

Development is expected to transition from current development allocation levels to the following by 2045:

- 60% intensification (10 – 20% intensification of brownfields)
- 35% greenfield

Road and Puketapu Road. These developments are being serviced by the existing infrastructure networks with no immediate risk to continued levels of service. Various network models currently being developed and/or updated will inform Council on the impacts of future development on these networks.

Two main Greenfield developments are underway in Parklands (administered by Council) and Te Awa (Private developments). The cost of servicing these developments is high and work is underway to address Council’s responsibilities under the National Policy Statement –Urban Development and to plan for growth in a way that provides the best outcome for the city. Parklands will fund itself until it is complete when it is expected that a fund of around \$30m will be available at the end of the ten years to fund other key projects.

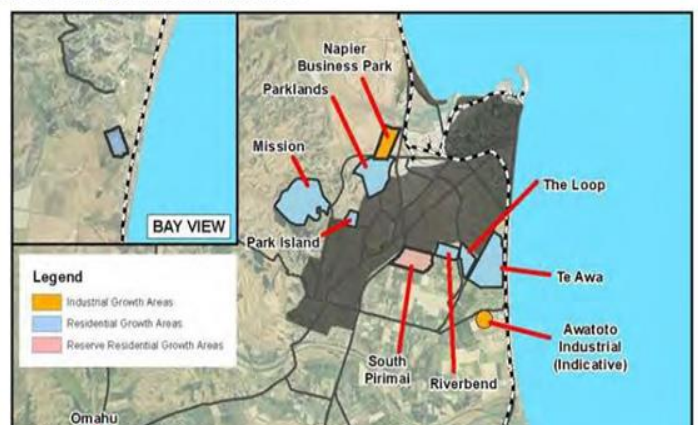
- 5% in rural areas.

To achieve the intensification targets above, HPUDS aspires to a general residential density target of 15 households per hectare for greenfields/suburban development, and 20-30 households per hectare for intensification areas by the end of the Strategy period.

During this period most new greenfield developments have been limited to the areas indicated in Map 3 below (note that this does not include greenfields sites already within the urban boundary which are not included in HPUDS).

Note that HPUDS is due to be reviewed over the next couple of years. As part of the preparation for this review, Council is working on the development of a Spatial Picture that will involve the development community and help to form a summary vision for growth across the city.

Map 3: Heretaunga Plains Settlement Pattern





## 4.2 Covid 19- Impacts

Covid 19 has had a minor impact on physical Infrastructure works over the 2019 / 20 year, as essential work could still be undertaken under the essential work banner during lockdown. All maintenance activities and some operational activities were reduced during the lockdown but resumed as normal following return to Level 1. Capital works were put on hold and Council's Parklands development fell marginally behind due to contractors being unable to continue to work. Remediation of the wastewater outfall pipe in Awatoto was also affected by the country lockdown and Auckland's lockdown (due to vessels being contained in Auckland) however other factors such as weather have played a part in this also.

The effects across other areas of the Council have however been far reaching and primarily financial due to a reduction in revenue. In the case of Parklands, this has had a knock-on budgeting effect delaying anticipated revenue for the year as sales of sections were completed after initial estimated dates.

With visitor numbers drastically reduced due to the cessation of cruises throughout the Pacific there has been a flow on effect with substantially less revenue for our main

tourist attractions including the National Aquarium and the Art Deco festivals (the Winter one primarily) that would have been held in a normal year.

Napier City Council conducted a wellbeing survey to identify the impacts of Covid-19 on the Napier Community. Overall, the residents felt that Napier is safer than other cities and the risk of catching the virus is considered low. The main concern raised was related to the economy, loss of jobs, income and business closures coupled with uncertainty around the severity and duration of these impacts. From the survey the council identified six goals for recovery:

- Everyone has access to safe drinking water, food and housing.
- We are healthy and active.
- Our businesses and not-for-profit organisations are resilient and innovative.
- Our city centre and local centres are vibrant and sustainable.
- Our community is safe, fair, connected, and resilient
- Renewal of our city respects, protects, and celebrates our cultural heritage and environment.

This recovery plan was fed into a regional approach.



### 4.3 Three Waters Reform

In July 2020, the Government launched the Three Waters Reform Programme - a three-year programme to reform local government three waters (3W) service delivery arrangements. (Water Supply, Wastewater and Stormwater). The reform is an outcome of the Havelock North Enquiry and covers aspects of delivery and regulation of water services to communities. On the 1<sup>st</sup> July 2021 a new regulator, Taumata Arowai, will come into existence. This Crown Entity will be responsible for administering and enforcing a new regulatory system for drinking water. Water supply will be the initial focus with wastewater and stormwater to follow.

IN 2019, the Councils across Hawkes Bay worked together to develop a Three Waters review for the Bay. This was to investigate how a regional water supplier could be set up and the various issues surrounding the potential change. This project was cofunded by the government and the result was a report that was issued July 2020. Due to the government's three water reform process the local review was halted.

The Government's starting intention is to reform local government's three waters services into a small number of multi-regional entities, which will remain in public ownership, to improve access to safe water and to manage affordability issues around meeting required standards. The exact size, shape and design of these entities is still being worked through and is due to be consulted on in early- mid 2021.

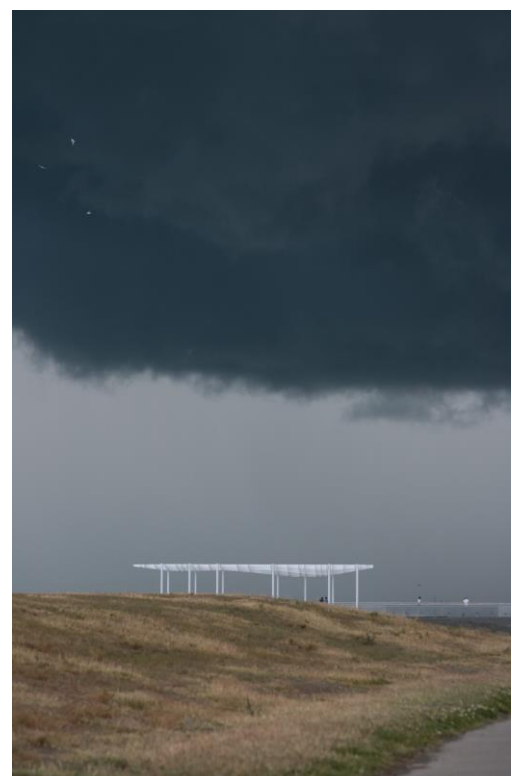
The Water Service Bill proposes the removal of the reasonableness provisions of the Health Act, which places the emphasis on service providers to meet the Drinking Water Standards, with affordability issues no longer being a valid reason for not undertaking required work. In addition, the Bill outlines powers of the regulator and mechanisms for enforcement.

Participation in the initial stage of the reform is voluntary, with local Councils given the opportunity to receive funding to deliver Three Waters projects. To this end Napier signed an Memorandum Of Understanding (MOU) with the Government and has \$12.51 million to deliver projects that are additional to Council's current Annual Plan. A number of the projects agreed upon look to streamline the delivery of Three Waters services and address some of the key issues identified in this Infrastructure Strategy around data management, processes and systems used for decision making.

The assumption applied to this Infrastructure Strategy and the Long Term Plan is that the Drinking Water Standards will change within the first year of the Long Term Plan (based on Exposure Drafts released in late 2020) and that suppliers will

need to comply with these in the first year of the Long Term Plan. Funds have been set aside to address these changes through the early delivery of the Water Master Plan. Council is committed to the permanent, resilient changes that need to be made to the Water Supply network. This means that instead of reaching compliance within the one-year timeframe driven by central government that it may take 4 to 5 years. The reason for this is to achieve a long-term, resilient solution that will hold the city in good stead for the next 30-50 years rather than taking a quick fix approach that would delay the modernisation of the supply.

Council is responsible for the ongoing delivery of the service and is therefore moving forward with the delivery of key projects that help to maintain our assets, our services and to continue to meet current and future compliance requirements.



## 4.4 Natural Hazards and Infrastructure Resilience

Seismic events in Canterbury and the Kaikoura/Marlborough Regions as well as recent nation-wide flooding events have taught Emergency Management and Infrastructure professionals that resilience to earthquakes, flooding and other significant natural hazards is not solely an Infrastructure matter.

Resilience to seismic and other significant natural hazards is now considered to be a matter of multi-faceted community resilience, of which Infrastructure resilience is a part of. This recognises that it is impractical and unaffordable to build network wide infrastructure that can withstand significant seismic or flooding events.

The communities of the Hawke's Bay, and in particular Napier are at the beginning of the journey to develop robust community resilience. Napier City Council and Hawke's Bay Emergency Management are partners in this regard and have the benefit of the learnings of the Canterbury and Kaikoura events.

Progress towards community resilience will involve community education (underway with Hawke's Bay Civil

Defence Emergency Management Group), planning related initiatives (building Act/RMA/District Plan) and infrastructure augmentation. These initiatives are identified by the Council and the community to enhance effective resilience within a realistic cost model. This will determine the most effective and practical actions for each of these aspects' investigations into likelihood of disruption events and relative timeframes of inoperability of core infrastructure.

Insurance Companies and GNS are starting to work with councils in this space. Council anticipate utilising their modelling knowledge to better assess Napier's challenges with a view to making Napier as resilient as it can be.

A programme of work to commence such investigations will need to be developed and implemented.

The main natural hazard events that have been identified for Napier have been summarised in [Table 1](#).

**Table 1: Summary of Natural Hazards and Related Actions**

Natural Hazard	Description	Risk for Napier	Action/Investigations
Seismic Impacts	Risk of earthquakes up to MM8 (New Zealand Modified Mercalli Intensity).  Location to the Hikurangi trench	Risk of earthquakes with ground level changes, liquefaction, lateral spread and tsunami	Council is working with various parties to better understand the risks associate with earthquakes and to identify evacuation routes and to better support community resilience
Ground level changes	The 1931 raised significant parts of Napier, however Recent geological research indicates that over the long term the ground levels in the area have also gone down during earthquakes of similar or greater intensity.	This could lead to widespread damage, particularly of underground infrastructure.	Council needs to consider the consequences of this and what the appropriate infrastructure responses are to be to this risk. This can include reviewing material types, redundancy and emergency response.
Liquefaction	Liquefaction is a known risk across all the low-lying suburbs and has recently been re-evaluated as part of the Hawke's Bay Liquefaction Hazard Assessment Report released in November 2017.	The implications have yet to be properly considered. However, it is known that the liquefaction risk is amplified by the presence of high groundwater which will be exacerbated by forecast sea level rise.	Spatial planning that is underway is considering the best areas for growth and intensification and takes into account natural hazards.
Lateral Spread	This impacts ground conditions in close proximity to Napier's extensive open drain network.	Damage to Napier's open waterways.	Recent works undertaken in relation to open drains has involved the construction of gravel curtains flanking open drains where space is available as well as the



Natural Hazard	Description	Risk for Napier	Action/Investigations
			installation of box culverts where required.
Tsunami	As a coastal city located in a seismically active area, Napier's low-lying suburbs are considered to be vulnerable to a major tsunami.	The HB Civil Defence planning and Community Services Directorate have identified the need for the development of suitable evacuation routes throughout the city that are resilient to a severe earthquake.	Studies are underway to assess the potential for strategic overland corridors and vertical evacuation routes (earthquake and tsunami resilient structures). These routes will require strategic consideration, and likely collaboration between different public and / or private sector stakeholders to enable cost effective solutions.

#### 4.4.1 Critical Infrastructure

All Infrastructure networks inherently contain critical assets. Critical assets are the key elements of our infrastructure that sustain a service and would have a major consequence if they failed.

To improve knowledge and ultimately mitigate its risk, Council have completed a criticality study of the Three Waters networks and have documented their critical assets. These include (but are not limited to):

- Awatoto Wastewater Treatment Plant.
- Enfield Reservoir water rising main.
- Trunk sewer main into the Wastewater Treatment Plant.
- Stormwater Pump Stations.
- Water Reservoirs.
- Wastewater Outfall Pipe.

Transportation whilst maintaining a lot of assets, has no one critical asset and retains a lot of redundancy within the network.

Building on Council's existing knowledge base, further work is required to identify specific plans incorporating operations, maintenance and renewal approaches for each of the critical assets identified, in order to improve the resilience of the city networks to continue to operate when events may occur. This work will also need to consider what level of resilience is required of these assets to enable an appropriate level of service to be delivered in the wake of a significant disruption event.

Resilience has been a key requirement in the development of Master Plans over the last two years.

The criticality analysis undertaken to date has focused on assets owned and operated by Council. It has been identified that Council's ability to provide infrastructure related services is to some degree reliant on the availability of assets and/or services delivered by third parties, such as electrical and communications services. Another example is the reliance on Hawke's Bay Regional Council's assets to discharge stormwater.

Understanding the interdependences of council and non-council assets and what actions are necessary to provide a greater level of assurance of such critical enabling services being available during/following disruption events will form a key component of the future work programme.

Council recognises that this will require working together with many organisations including energy and telecommunications companies, and GNS to complete this work.



## 4.5 Climate Change

A detailed review of the impacts on the wider impacts of climate change have been provided within the Long-Term Plan. The following table summarises the predicted impacts on Councils Infrastructure and the plans to address these issues.

**Table 2: Summary of Climate change Impacts**

Activity	Main Impacts	Action/Investigations
Water Supply	<p>Drier summers, low river flows, increased and competing demands for water.</p> <p>Sea level rise and potential saltwater intrusion potentially impacting water abstraction</p>	<ul style="list-style-type: none"> <li>Water Restrictions introduced each summer</li> <li>TANK plan change implications on water takes</li> <li>Likely cap on water take for Napier's Supply in the future</li> <li>Leak detection programme underway</li> <li>Two borefields planned for resiliency</li> </ul>
Wastewater & Stormwater	<p>High intensity rain events with stormwater network capacity exceeded.</p> <p>Ability to pump during storm events</p> <p>Sediment runoff impacting plant</p> <p>Infiltration into the Wastewater network reducing capacity and potential overflows.</p>	<ul style="list-style-type: none"> <li>Projected rainfall changes are factored into the stormwater model and master plans</li> <li>Additional storage being provided at the Wastewater treatment plan to assist with flooding events and maintenance shutdowns</li> <li>Storage to be provided at lagoon farm to assist with water being taken away from impacted areas faster</li> <li>Review of materials for below ground assets</li> </ul>
Parks and Reserves	<p>Reserve plantings and street trees may be impacted by drier weather, increased salinity in soils and damage during severe rain events.</p> <p>Potential loss of coastal reserves</p>	<ul style="list-style-type: none"> <li>Water Conservation study completed for Parks and Reserves.</li> <li>Water meters to be installed on parks and reserves</li> <li>Move to drought resistant plants and tree species</li> <li>Ensuring sufficient reserve space is available</li> </ul>
Council buildings & Facilities	<p>Increased susceptibility to flooding due to increased intensity and frequency of flooding events.</p> <p>Key assets susceptible to sea level risk (aquarium, MTG, Bayskate, Ocean Spa)</p>	<p>Any investment in existing buildings must consider the impacts of climate change and be designed appropriately, and any proposed new builds must be underpinned by robust site analysis which takes climate projections into account.</p>
Transportation & inner Harbour	<p>Roading network acts as storage during severe flooding events, reducing levels of service and likely damage.</p> <p>Potential tomo development due to rising groundwater levels.</p> <p>Rising sea levels impacting the inner harbour infrastructure</p>	<p>Investment decisions will need to be made on those inner harbour assets owned and managed by Napier City Council, as well as involvement in future decisions of Council-owned leased land occupied by various clubs.</p>

## 4.6 Legislation Change

Significant legislative changes that impact Council are either underway or are on the horizon.

This is a changing landscape that Council and its various teams need to adapt to. The main changes that will impact Council in the short to medium term include:

1. **Water Services Bill** – this bill is currently being consulted on and various groups such as Water New Zealand, SOLGM and many water suppliers are submitting feedback on the bill. The main impacts on the bill relate to role of the new regulator, Taumata Arowai, the need for water safety plans, a multi-barrier approach and the provision of a residual disinfectant.
2. **Exposure Drafts** – Drinking Water Standards New Zealand – drafts of the new drinking water standards have been released and they indicate that “bore security status” will not apply; meaning that source water treatment will be required and additional monitoring of the source water and network will be required.
3. **Changing Discharge Standards** – the Government has signalled that changes are to be made to the standards applied to discharge of treated wastewater. These standards are not yet known; however Council has prepared masterplans to work towards increased wastewater treatment requirements.
4. **Climate Change Response (Zero Carbon) Amendment Act** – This act sets the framework for New Zealand’s transition to a low emissions and climate resilient economy. More emphasis will be placed on Council’s emissions related to the delivery of services and development of infrastructure.

## 4.7 Technology Change

Popular and mainstream discussions around new technologies suggest that there will be a considerable social shift over the coming years as emerging and future technologies affect what work is done, how it is done, and how this flows on to affect economic and social paradigms. A variety of studies have been carried out, but as yet no definitive guidance is available as to what the future may hold or when any changes might occur, or how the City intends to respond to the various scenarios. Consideration of the following issues should be clearly articulated as part of the City’s strategic development plan.

## 4.8 Asset Management Journey

Council has a number of systems that support Asset Management functions that are out of date and have not been optimised in the past. Council is in a position - due to the teams it has set up, resources employed and funding from the three waters reform- to really bring life back into transformation of asset management for Council.

Over the last three years more emphasis has been placed on automating planned maintenance scheduling and this is moving into the next stage with teams using devices in the field and automating information and workflows. In addition, two reviews have been underway to identify the Asset Management improvements that need to be addressed and an assessment of the quality of our data.

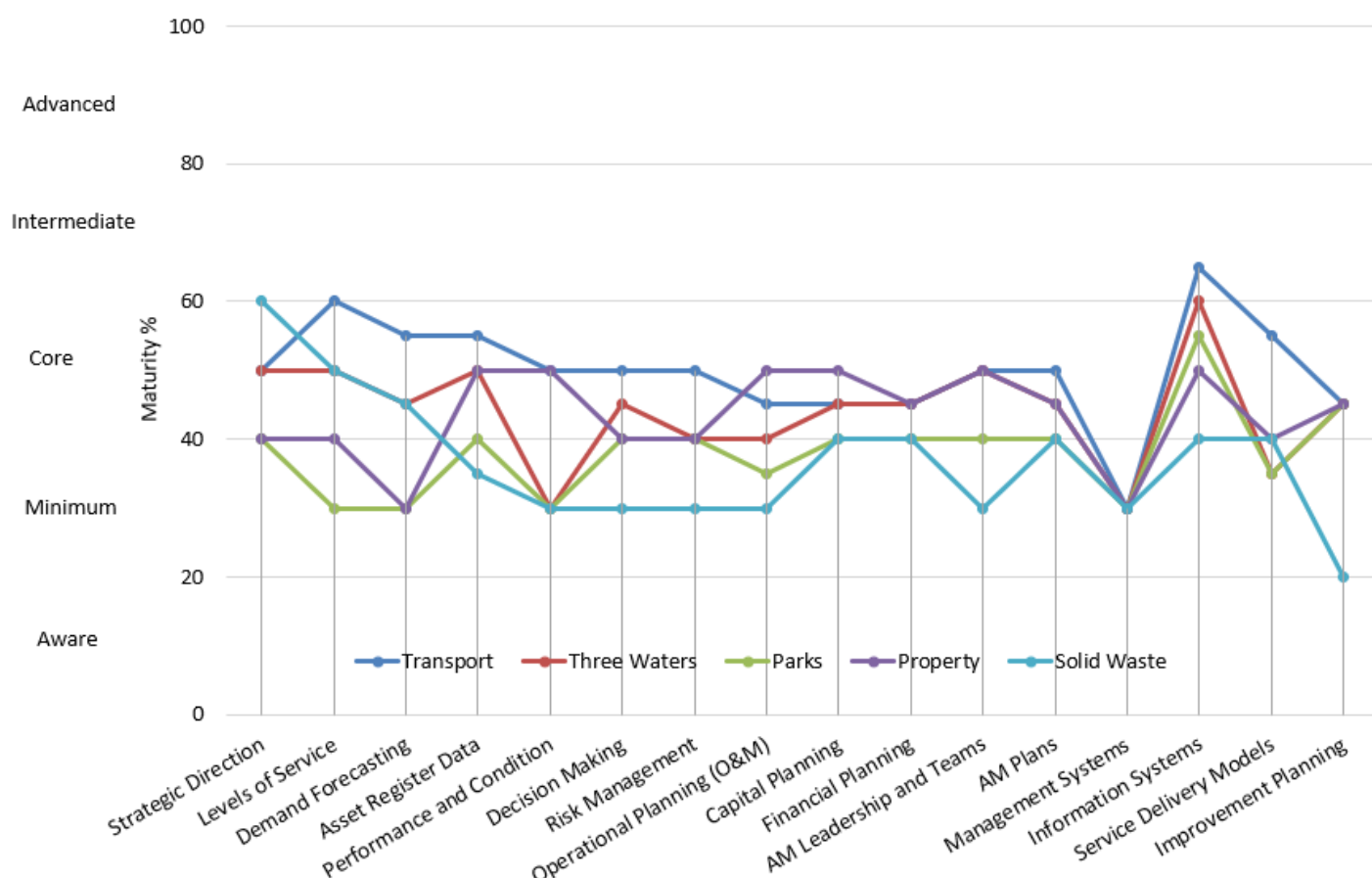
These two pieces of work form the backbone of the Improvement Plan. By March 2022 it is anticipated that a new cloud-based asset management system will be in place and our data set will be vastly improved. There is a cultural change to occur within relevant teams to prioritise the management of asset data and this will set the organisation up for the future and will support optimised decision making.

## 4.8.1 Data Quality and Confidence

In 2020 Council undertook an assessment of the completeness and accuracy of our Asset Data. This was an extensive piece of work and covered all attributes assigned to each asset. The outcome of this report highlighted that Council needed to review the data collected for each asset, and to work towards asset completeness rates that align with the importance of the assets being managed. An external review was also completed in 2019/2020 to look at Council's asset management practice. This highlighted that Napier's asset register data and performance & condition data is generally at a "core" level which needs substantial improvement in order to assist with decision making and operational management.

Part of the data improvement strategy is to move towards a cloud - based version of Accela, Councils main asset register. This will enable greater functionality of the system. As part of the Three Waters Reform, Council is specifically focused on improving information on Three Waters assets. To enable this, an exercise to finalise the minimum attributes required for critical assets will occur and existing datasets will be checked prior to starting field surveys. Council are distributing handheld devices to field staff so that information can be captured, and any changes or errors can be made to data in the field once the new system is in place.

Napier City Council Data Quality and Confidence Maturity 2019 / 2020



## 5 Key Infrastructure Issues

### 5.1 Our Infrastructure Teams

Napier City Council Infrastructure is comprised of nine teams: Transportation, Water Supply, Wastewater, Stormwater, Parks and Reserves, Building Asset Management, Major Developments, Environmental and Asset Intelligence. Asset Intelligence and Environmental are not included in this Infrastructure Strategy – both are included in the overall Long-Term Plan for the Council and therefore would be duplicated in this document.



- Transportation is responsible for all roads that are not NZTA owned (state highways or parts thereof) footpaths, streetlights, bridges etc.



- Water Supply, Wastewater and Stormwater sit under the Three Waters banner and have unique roles within this team. They are accountable for all drinking water and associated assets, wastewater, and the dispersal of stormwater.



- The Parks and Reserves team manages all sportsgrounds, parks, reserves, and cemeteries within Napier including McLean Park and the Marine Parade foreshore.



- Building Asset Management is a reasonably new team that looks after the planning and compliance requirements of all buildings owned by Napier City Council. They are responsible for maintaining the buildings to a high standard and the procurement of services to maintain them.



- Major Developments oversees the development of large greenfield subdivisions across the city. The team manages the Parklands Residential Estate on behalf of Council and works closely with the development community to service growth in other areas such as The Mission and Te Awa areas. The Parklands subdivision provides revenue to the council through the sale of the serviced land to invest in further infrastructure across the city.



TRANSPORTATION



WATER SUPPLY



WASTEWATER



STORM WATER



PARKS AND RESERVES



BUILDING ASSET  
MANAGEMENT



MAJOR DEVELOPMENTS



ENVIRONMENTAL



ASSET INTELLIGENCE



## 5.2 Key Infrastructure Issues

Council is going through an important period of change and the internal and external influences that Council experiences have changed significantly over the last three-year period. Over the last two years water has become Council's number one priority and subsequently the government has signaled major reform of the industry which will have major implications. Through the development of the Infrastructure Strategy and the Long-Term Plan, an assessment has been made, with elected members and staff, around the key issues that Council is currently facing. There are eight main issues that have been identified and these are explained below.



### Affordability

Napier has historically operated with a very financially prudent perspective combining low debt and minimised operational spend. With increasing regulatory requirements and aging assets that require improved levels of operational and maintenance expenditure alongside capital upgrades, this promotes a change in the operating ethos for both the Council and the community.

**Council's Response:** Council is concentrating on maintaining what we already have, including increasing allowances for renewals and deferring a number of non-essential projects. Significant discussions have been had with staff and elected members to look at non-essential work that can be pushed out of the 10-year plan so that the workload is affordable and manageable in the medium term. This rationalization means that rates increases can be capped at around 9% per year but it also means that Council will not have a balanced budget until year 10 of the plan.

Although this is the case, Council does have a strategy to get us back into balance and it means that some important and "nice to have" projects are just not affordable at this stage. Council is concentrating on the core assets that need to be managed to continue to provide services and replacing where assets are at the end of their lives or don't meet compliance standards. Improving asset management practices, including data collection, condition and performance modelling will also assist with the prioritization process and optimizing future expenditure.



### Enabling growth

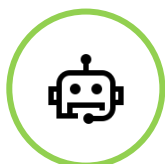
Napier is a medium growth city with a requirement to enable and provide affordable development under a National Policy Statement – Urban Development. This external driver coupled with increased regional migration, productive soil protection, low-lying risk prone land and a small geographical area makes it a difficult balancing act to provide for sustainable growth.

**Council's Response:** Three major developments are underway or planned in Napier. Council are delivering properties through its own development - Parklands Residential Estate. Te Awa is experiencing significant development and infrastructure is going in now to support this growth. The Mission development is progressing. Council is additionally looking at how to encourage intensification through the District Plan Review.

Various modelling exercises were run in 2020; these scenarios looked at future growth and the impacts of this growth on existing infrastructure. The National Policy Statement requires us to have a clear understanding of the influences on housing and have a plan for short, medium- and long-term affordable housing supply to the market. To inform this process an assessment has been made to understand the infill capacity of the city and there is a drive to encourage development in the CBD and in other key

centres. The current master plans have growth projects identified which have been included in the long-term plan. These will be refined with the review of the models and master plans in 2021.

Council has recently started a collaborative process to develop a spatial plan that will help to form an idea of how Napier can grow in a sustainable way into the future. The Government has announced changes to planning legislation and processes and this looks more to regionally based spatial planning. Hawke's Bay already has a regional growth plan (Heretaunga Plains Urban Development Strategy (HPUDS)) which will need updating and to highlight what we need to tie in all the key elements. These include land availability, cost of development and servicing, natural hazards, productive soils, and climate change alongside the new legislation that is expected to be passed in late 2022 or in 2023. With Napier being a small, land constrained city this work is essential to make sure that we can grow and that this is sustainable.



### Future Proofing

Napier is moving from a small regional centre to a more modern, vibrant city. To support this change and to meet increasingly stringent regulatory and environmental guidelines whilst balancing risks around natural hazards and climate change, the city needs to plan carefully to optimise its investment in the future. Providing for this growth is a large component of this strategy and the associated Long-Term Plan.

**Council's Response:** Ultimately Council wants to deliver timely, robust infrastructure in a sustainable way. Part of this involves detailed planning, which was the focus of the last Long-Term Plan, now the teams are reviewing the long-term master plans and prioritising work to make our infrastructure more resilient and compliant. Superimposed on this is understanding the highest risk areas in the city and various studies are underway with external parties to understand the impact of natural hazards, evacuation routes and what Infrastructure is required to support the community during an incident.

Together, these pieces of work, combined with climate change planning and growth planning will assist Council to provide appropriate infrastructure that meets compliance and the city's needs.



### Supporting Improved Environmental Outcomes

The environment sustains our city, is the cornerstone for our tourism sector and the reason we love living here. There is a need both locally and nationally to protect our natural resources in alignment with cultural values. This promotes the need to focus on supporting our Natural Heritage through meeting increased regulatory requirements, while working with the local community and stakeholders collaborating to ensure that all of us are invested in improving outcomes.

**Council's Response:** Over the last few years, Council has been building an Environmental Solutions team with scientists who are focussing on improving the quality of our open waterways and reducing contamination into our stormwater network. This team and other infrastructure teams are working on project such as: reduced leakage, optimized water use on Parks and Reserves, fixing and replacing the wastewater outfall pipe, planning for increased requirements around wastewater treatment and discharge. Longer term we are also going to store and treat stormwater at Lagoon Farm, assisting with the quality of water going into the Estuary.

The National Policy Statement (NPS) for Freshwater became active in September 2020. This NPS prioritises the health and wellbeing of water bodies and gives effect to Te Mana o te Wai. Council has a current focus on stormwater management and with a dedicated Three Waters and Environmental Solutions teams, is working towards improved outcomes for the Ahuriri estuary and the Bay. Future improvements in stormwater and wastewater discharges will assist with this, meeting the required outcomes and assisting with appropriate management of freshwater.



## Addressing Natural Hazards and Climate Change

Until now, there has been no targeted approach to monitor and address climate change, hazards management, sustainability and the journey towards Carbon Zero. The next 30 years will see significant changes in these areas and Napier needs to have sufficient resources to guide our local direction, and a policy that is aligned with research and direction regionally and nationally. This will support the delivery of appropriate infrastructure and provide for a resilient and sustainable future.

**Council's Response:** In addition to the actions mentioned above around understanding natural hazard risks and how to manage these, the Council is focussing closely on energy use, optimising equipment, setting materials standards and is moving towards reducing our Carbon footprint. In 2019 Hawkes Bay Regional Council declared a climate emergency.

Regional Council is appointing an ambassador who will bring councils, mana whenua, youth and other organisations together to form a meaningful plan for climate action in the region.

A NIWA report commissioned by Hawkes Bay Regional Council in November 2020 called "Climate change projections and impacts for Tairāwhiti and Hawke's Bay" indicates that changes to the future climate of Tairāwhiti and Hawke's Bay are likely to be significant. Some of the most significant impacts will include an increase in extreme hot days, a reduction in frost days, and a shift to more and larger extreme rainfall events.

Council will work with Regional Council and other key stakeholders to plan for climate change. The report also found: "Napier City is the most exposed territorial authority to extreme coastal flooding and sea-level rise in terms of infrastructure. There is a large range of flood protection and three-waters infrastructure exposed to fluvial flooding across the Gisborne District and Hawke's Bay Region". Long term planning options will need to incorporate the impacts of climate change.



## Capacity to Deliver and Economic Delivery

The government is driving economic recovery through stimulus packages. This will increase the number of projects to be delivered, which results in additional workload and reporting requirements over a condensed timeframe – for example Shovel Ready Projects and Three Waters Reform projects. Council has been delivering capital plans over the last four years that range between \$20 and \$50m in total. The projections for the latest Long-Term Plan significantly exceed this value (excluding stimulus work) and given current staffing levels and potential industry constraints there are hurdles to jump through to ensure that Council can deliver the planned capital programme.

**Council's Response:** Council has a large amount of work to deliver in a constrained industry with a lot of competition. The impacts of Covid-19 are being felt in some areas, mainly in the extension of lead times for some key assets. There is also a more limited pool of contractors with overseas parties not being able to enter the country at this time.

With the economic recovery packages such as the three waters reform and the Council is working with other Regional territorial authorities to see how we can work together to deliver these programs of work. This is already starting with 5 regional projects being delivered as part of the three waters reform and collaborating across the region via a regional procurement group.

The opportunity for Council is to encourage new players into the Hawkes Bay market by reviewing our procurement methods, bundling work together and also prioritizing the work that is most important to complete. Where Council resources are stretched, we are looking at external assistance where needed, for example where we need additional technical expertise or

project management assistance. There has also been a concerted effort to reduce peaks in the delivery profile of our capital plan and to keep the annual quantum as low as possible. Projects have been moved around to make the plan as achievable as possible. This next Long-Term Plan period is still an ambitious program of work to deliver and there could be resourcing constraints both internally and externally that hinder completion of the program. Working on some of the solutions above should help to minimize the risks of under delivery.



### Streamlining BAU Processes

The Council is in a state of transition, moving from outdated models of working to embracing new technology and an efficient future. The systems we use are outdated and no longer fit for purpose, which takes officer time away from delivering our services in the most efficient way and optimising our operational capacity. Having the appropriate tools, systems, processes and data to understand our current state, the risks and improvements required, will enable optimised decision making and reduce uncertainty and will deliver costs savings.

**Council's Response:** This is a high priority area that is being worked on by a number of teams. Leading up to this Long-Term Plan, Council are investing in new computer systems, one of which includes an upgrade of Council's main Asset Register. This is funded via the three waters reform programme. An Asset Management Continuous Improvement Plan (AMCIP) has been developed and this will guide the Infrastructure related Business as Usual processes. A greater focus has been placed on understanding our asset risks, the information requirements and understanding the current and future performance requirements for our assets.



### Preparing for Three Waters Reform

Council is operating within an uncertain environment regarding the future of water. The industry is undergoing major reform that may result in these services being delivered at a regional or multiregional level. The objectives of the reform are to provide everyone with more equitable access to safe and affordable water and improved environmental outcomes.

Napier has been provided with an initial \$12.51m to work towards meeting the reform objectives between November 2020 and March 2022.

There are significant alignments with the general Infrastructure Strategy themes and the Three Waters reform funding provided. This will enable Council to make good headway with the management of data, systems, tools and processes in combination with some key capital projects. This stimulus package adds additional workload to teams that are already at or over capacity. The funding provides for additional staff or resources which should assist with these capacity constraints

**Council's Response:** This is a great opportunity for Council to bolster the upfront work on the Three Waters capital programme and to set up the Three Waters team in a way that enables greater focus on operational planning, strategic planning and project planning. In addition, the programme is enabling improvements in asset management tools, systems and practices and will also assist the broader Council team when asset management practices improve in this area.

There will be a balance to ensure that the Three Waters Reform projects are delivered, this is why additional external resources have been engaged to assist. In mid-2021 Council will have a clearer understanding of how any future water entities will be set up and information around the opt-in process.

The Long-Term plan and Infrastructure Strategy have been written with the assumption that Council will remain responsible for the delivery of the services. Regardless of who ends up providing these services in the long term, Water is Council's number one priority and we are moving forward with our masterplans to ensure that this important work is progressed.



## Deferred Renewals

Council has not kept up with replacing and upgrading all its assets. Some are well past the end of their useful life and are getting beyond repair. At the same time, the money historically put away each year to save for when we need to work on our assets has been too low.

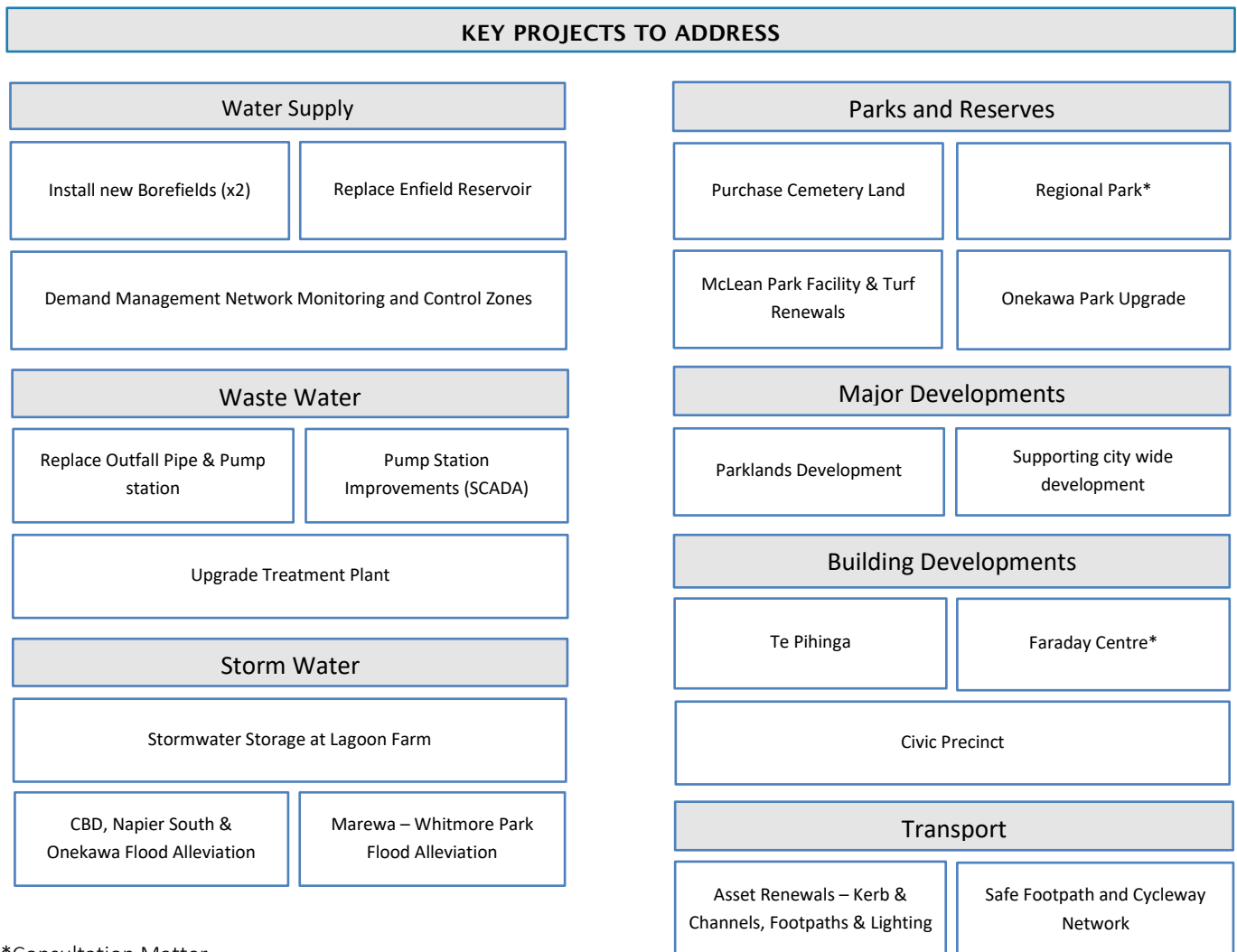
**Council's Response:** Costs to renew assets have increased alongside industry standards. It is simply unaffordable to commit to all the work that needs to be done at once. Prioritisation of asset replacements and upgrades are taking place to identify what is essential, and what is well utilised along with what is affordable. Council's plan is to ensure that more money is set aside for depreciation over the next 10 years and ensure that we are proactive in our management of upcoming renewals, rather than waiting for their end of life before attending to them.

### 5.3 Themes / Summary/ Impacts and key projects to address

The seven teams within Infrastructure have, through their Asset Management Plans (AMPs) identified the key projects that need to be delivered over the next thirty years. They are aligned with the Infrastructure Goal and the key Infrastructure issues that have been identified as well as the overarching Council vision.

A recent survey of Napier residents highlighted that the top priority for them was solving the water issues that Napier currently faces. This aligns with the key projects that Infrastructure would like to prioritise over the next 30 years and with the overall goal of providing infrastructure that supports and enhances the quality of life in Napier

The chart below shows which projects the teams consider to be their key ones for the period 2021-2051 and the following sections look at the key projects for each activity. More detail is provided in the Activity sections around the options, timing and costs.






\*Consultation Matter

#### 5.4 Introduction to Water Supply Projects:




Water, alongside transportation is top of Napier City Council's priority list for this strategy. Napier's residents have identified through consultation that water is still the number one priority.

The vision for Napier's water supply is to provide safe, clean water via a resilient, compliant supply.

Water Supply				
Project	Issue	Options	Implications of Options / Benefits	Cost Estimate & Timing
Install New Bore fields (x2) 	Issue: Water Quality	Install two new bore fields and treatment facilities in Taradale and Awatoto areas.	<ul style="list-style-type: none"> <li>Reduce the risk of water contamination through the source or bores</li> <li>Reduce the water clarity issues</li> <li>Facilitate growth</li> <li>Meet compliance</li> </ul>	\$25.6m (2021-2028)
Replace Enfield Reservoir 	Issue: Replacement of Enfield Reservoir	A new reservoir at Hospital Hill / Mataruahou	Reliable asset, additional storage and resilience, enabling growth, maintain water quality	\$20.1m (2021-2026)
Network Monitoring and Control Zones 	Issue: Demand Management	Create district monitoring and control zones	Control leakage, better level of service in terms of flow and pressure	\$4.6m (2025-2029)

## 5.5 Introduction to Stormwater Projects:










The recent flooding in Napier in November 2020 highlights the need to make our stormwater network more resilient and more responsive during a flooding event. A stormwater model and master plan have been developed over the last two years and the most important project that has come out of this work is the need for storage at Lagoon Farm. Additionally, Council is working on a programme to improve the quality of stormwater discharged to the Estuary. Funds have been put aside for a treatment device and further work over the coming years will identify the most appropriate treatment solution.

Stormwater				
Project	Issue	Options	Implications of Options / Benefits	Cost Estimate & Timing
Stormwater Storage at Lagoon Farm 	Issue: Flooding during high intensity or prolonged rainfall events and improve storm water quality discharged into estuary.	Install storage at Lagoon Farm and install additional water quality improvements later.	This will reduce the widespread flooding risk in urban areas during significant rain events.	\$22.2m (2021-2031)
CBD & Onekawa Flood Alleviation 	Issue: Low- lying Flood Prone Areas affected during high intensity or prolonged rainfall.	Upgrade existing assets or install new assets.	This will reduce the widespread flooding risk in the CBD and Onekawa during significant rain events.	\$32.0m (2031-2036)
Marewa- Whitmore Park Flood Alleviation 	Issue: Low- lying Flood Prone Areas affected during high intensity or prolonged rainfall.	Upgrade existing assets or install new assets.	This will reduce the widespread flooding risk in Marewa during significant rain events.	\$120.8m (2031- 2049)






## 5.6 Introduction to Wastewater Projects:

Council's Wastewater network has a few critical parts that need some attention. The main projects that are planned for the wastewater network over the next ten years involve the replacement of the wastewater outfall pipe and outfall pump station, finalising additional storage at the Wastewater Treatment Plant and increasing capacity at the plant to meet our compliance requirements. Additionally, there is a focus on maintaining the assets that we already have and keeping up with renewals.

Wastewater				
Project	Issue	Options	Implications of Options / Benefits	Cost Estimate & Timing
Replace Wastewater Outfall Pipe & Pump Station   	Issue: Wastewater Outfall Pipe Leaks	Replace the existing outfall pipe and outfall pump station.	Meeting legislative requirements, reduce the environmental pollution due to wastewater leaks.	\$52.7m (2021-2028)
Pump Station Improvements   	Issue: Pump Station Operational Improvements	Upgrade existing SCADA system to meet best industry practice.	Improved reliability of operation of pump stations and the treatment plant, reduced service disruption and less operational and maintenance cost.	\$8.9m (2021-2051)
Upgrade Wastewater Treatment Plant   	Issue: Treatment Plant requires upgrading	Upgrade the wastewater treatment plant as per recommendations of the masterplan.	Improved environmental outcome, meeting the legislative requirements.	\$166.2m (2021.-2051)





## 5.7 Introduction to the Transportation projects:

A new Transportation Master Plan has been drafted which looks at the next 30 years for our network. Elected members have indicated that safety is a key focus for this Long-Term Plan, and this is reflected in the size of the investment indicated below.

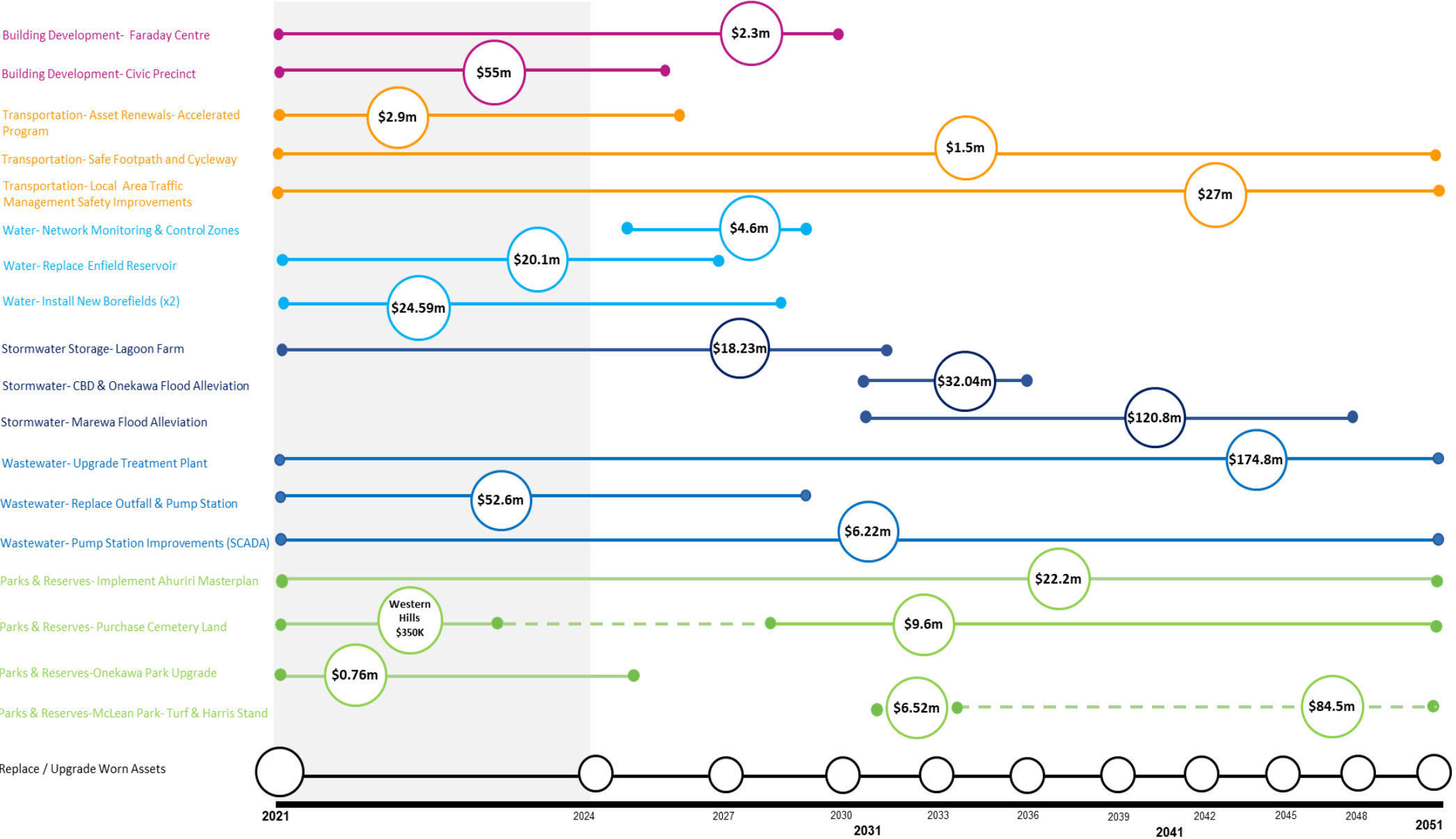
Transportation				
Project	Issue	Options	Implications of Options / Benefits	Cost Estimate & Timing
<p>Asset Renewals:</p> 	Issue: Historic underinvestment in Asset Renewals	Accelerated replacement programme.	<ul style="list-style-type: none"> <li>Addresses highest risk assets early</li> <li>Scale of contract can assist value.</li> <li>Allows for future application of Asset Management best practice.</li> <li>High initial cost</li> </ul>	\$2.9m (2021-2025)
<p>Supporting increased mobility: Safe footpath and cycleway network</p> 	Issue: Supporting Increased mobility: Demographics shift and uptake of micro- mobility	Upgrade defined areas and routes as a long-term programme.	<ul style="list-style-type: none"> <li>Investment targeted at areas of greatest need.</li> <li>Rate of change can be aligned to demographic/ legislative shift.</li> </ul>	\$1.5m (2021-2051)
<p>Local Area Traffic Management - Safety Improvements</p> 	Issue: Increased safety for all residents	Increase the number of LATM schemes to three per year.	<ul style="list-style-type: none"> <li>Greater coverage across the City.</li> <li>All schemes implemented will see reductions in traffic speeds, improved pedestrian and cycle safety.</li> <li>Process entails high levels of community engagement.</li> </ul>	\$2.7m (2021-2023) \$6.3m (2024-2031) \$18.0m (2032-2051)

## 5.8 Introduction to the Parks and Reserves Projects:

Parks and Reserves projects also include cemeteries and public toilets. It has been identified that there is a requirement to procure new land to not only expand the Western Hills Cemetery, but also purchase land for a new cemetery. McLean Park will require some upgrading from 2031, the first of its projects will be the replacement of its turf which has an approximate life of 20 years due to its synthetic components.

Parks and Reserves				
Project	Issue	Options	Implications of Options / Benefits	Cost Estimate & Timing
Park Facility Upgrades / Replacement 	Issue: McLean Park Facility Replacement, McLean Park Turf Renewal,	Renew, Upgrade and Maintain and Repair facilities.	<ul style="list-style-type: none"> <li>Sportsgrounds: Accelerated replacement programme</li> <li>McLean Park: Repair and Maintenance of existing facilities &amp; Repair and maintain the turf at Mclean park used for cricket and rugby</li> </ul>	\$59.2m (2031-2051)
Onekawa Park Upgrade 	Issue: Upgrade of park post-pool decision	Upgrade defined areas.	Renewal work and may include monies for upgrade to some existing facilities (placeholder at this stage).	\$760k (2021-2025)
Ahuriri Masterplan 	Issue: Implementation of Ahuriri Masterplan	Upgrade West Quay South Streetscape and Reserve Upgrade Humber Street Reserve including Te Aratika.	Rejuvenation of Ahuriri as per Masterplan.	\$31.1m (1.1m- 2021-2024) (\$1.4m – 2025-2031) (\$28.6m – 2032-2051)
Purchase of Cemetery Land 	Issue: increasing population is placing pressure on Cemeteries	Acquire additional land for Western Hills and more land for a new cemetery.	There is no other option but to increase land owned for cemeteries.	\$350k (2021/ 2022) \$9.6m (2028-2051)

5.9 Plan on a Page: Infrastructure Programme of Work 2021-2051

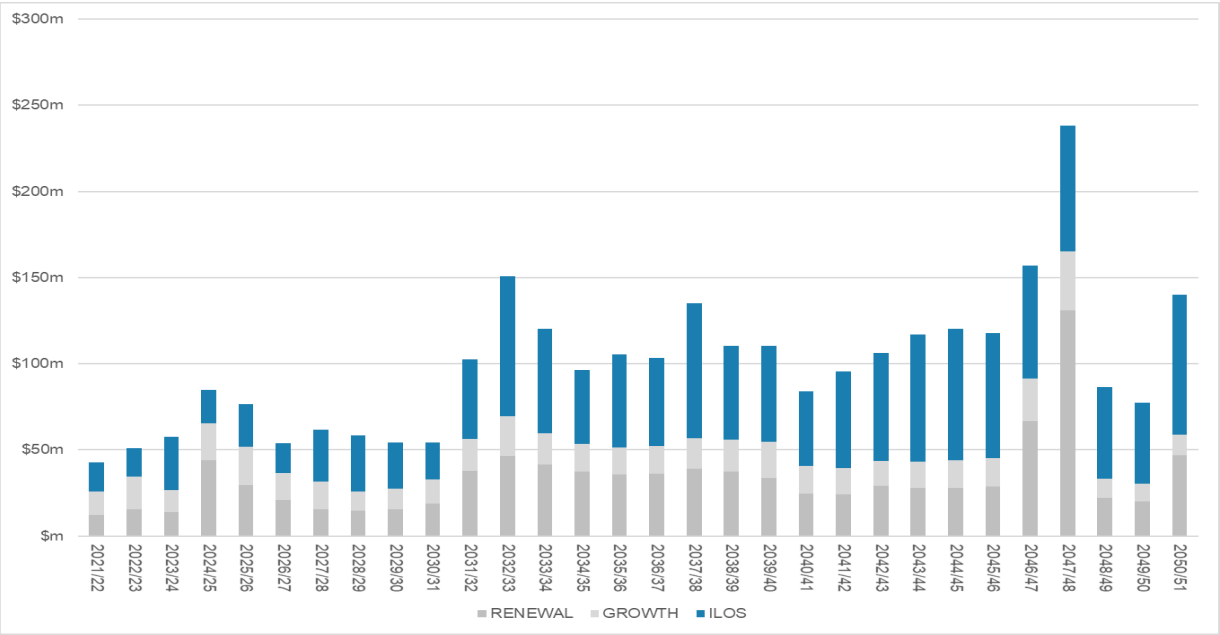


## 6 Infrastructure Summaries

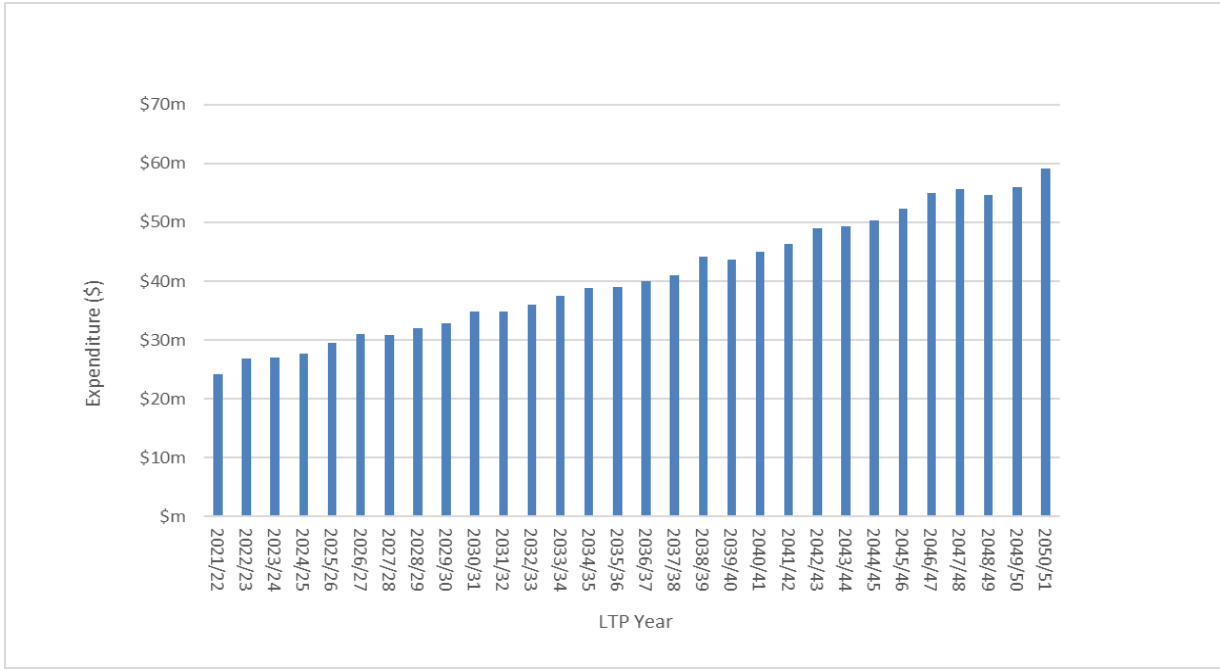
The following section summarises key information about each activity and the main capital projects planned over the 30-year period.

The core assets identified in the introduction have a combined capital expenditure of \$306,293,601 over the 30-year period and this excludes any systems or IT capital projects and relates only to core physical infrastructure. The peak noted in year 30 relates to uncertainty around timing and priority of stormwater projects. It is expected that the stormwater programme will be reviewed over the next year as the model is further calibrated and the master plan is peer reviewed. This will be reflected in the next Long-Term Plan.

**Figure 3: Summary of major capital projects for the three waters, transportation, parks and reserves and community property activities.**



**Figure 4: Summary of operational costs for the three waters, transportation, parks and reserves and community property activities**



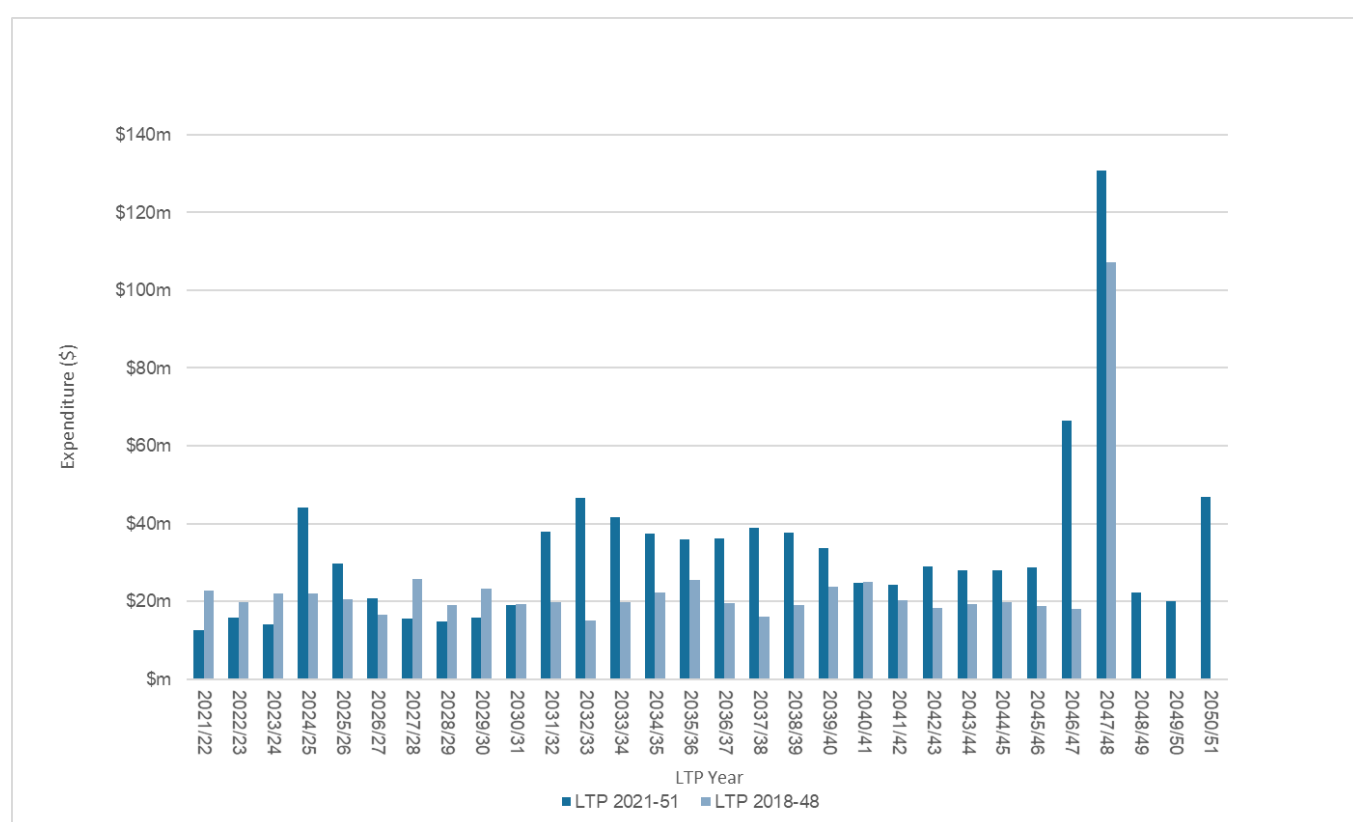
## 6.1 Renewals Expenditure

Renewals expenditure in the past has not met the required level of replacement of our assets. This has been identified, and Council has agreed a pathway whereby renewals funding is increased and key assets, particularly buildings which have historically had low levels of funding, will be renewed at a rate that will reduce the level of deterioration of the assets.

The figures below provide a snapshot of the renewals profiles planned in the last Long-Term Plan compared with this one. You can see that overall renewals are higher than in the 2018 Long Term Plan.

This commitment to renewals is important for the ongoing operation of the services Council provides and leads to a fairer distribution of costs, with current generations contributing to asset replacements as required rather than future generations being lumbered with an outdated and failing infrastructure base.

**Figure 5: Comparison of renewals funding between 2018 Long Term Plan and 2021 Long Term Plan**





## 6.2 Transportation

We own, maintain and develop the local transportation network. The city's road network provides accessibility to Napier residents and visitors within a safe, clean and aesthetic environment. The activities within this group include the installation and maintenance of the physical components: roads, footpaths, traffic and pedestrian bridges and structures, street lighting, drainage, traffic services and safety (e.g. street furniture, traffic lights, signage), as well as the planning, management and amenity and safety maintenance to ensure the system is clean, safe and able to cope with future needs.

### CURRENT STATE

There is generally high level of service across assets and the network; however, some asset groups require accelerated renewals following sustained under-investment.

The transport network operates to a high level of safety with little delay. Car use for short journeys is high and while recreational cycle use is high, commute use is low, particularly given Napier's topography and climate.

Councils priorities for transportation is to maintain the assets that we have and to priorities safety projects. Due to affordability issues the projects such as the Piazza and some CBD improvement s have been deferred.

### KEY RISKS

- Road safety
- Freight and industry
- Growth
- Multi-agency responsibility for transport
- Transport investment
- Car dependence
- Public transport, walking and cycling
- Resilience











### KEY PRINCIPLES

#### Vision:

Napier has a safe, inclusive and low carbon transport system designed for the future

#### Objectives:

- A transport system that supports safer journeys
- An inclusive transport system that enhances access and provides feasible travel choices (multi-modal))
- A transport system that is efficient and resilient, providing reliable journeys for people and goods

 <p>301 Km urban roads &amp; footpaths</p>
 <p>56km Rural Roads</p>
 <p>45 Km Cycle Paths</p>
 <p>15,822m Traffic Islands</p>
 <p>15,607 Street Lights</p>
 <p>6885 Street Signs</p>
 <p>72 Bridges and large culverts</p>
 <p>5,902 Street Trees</p>
 <p>24 Bus Shelters</p>
 <p>5441 Sumps &amp; manholes</p>
 <p>6374 safety barriers &amp; railings</p>
 <p>480km Kerb and Channel</p>
<p>1369 culverts with diameter less than 900mm</p>

- A transport system that meets the needs of today and welcomes innovation and technology to meet the needs of the future
- A transport system that supports wellbeing, providing access to social, economic, environmental and cultural opportunities for residents, visitors, business and industry
- Key freight corridors that are managed to prioritise the safe and effective delivery of goods to the Port, Airport and industry to support a prosperous and diverse economy
- A safe and attractive cycle network reinforced with a strong cycle culture that supports commuter, recreation and tourist journeys.

## WHERE WE WANT TO BE IN 30 YEARS

### Network:

Compact city with true modal choice for a range of journey purposes.

### Assets:

Evidence based, monitored asset maintenance and renewal strategies providing a high level of confidence for Council and community around future levels of service and investment.

### Strategy:

Well underway with climate change impact planning, with clear understanding of critical interventions for mitigation and avoidance.

## OPPORTUNITIES

- Open network, wide road reserve corridors offering flexibility of use.
- Regional collaboration.
- Scope for improvement in asset data quality and utilisation.
- Ongoing development of new technologies and materials.
- IT supports a smart network management.

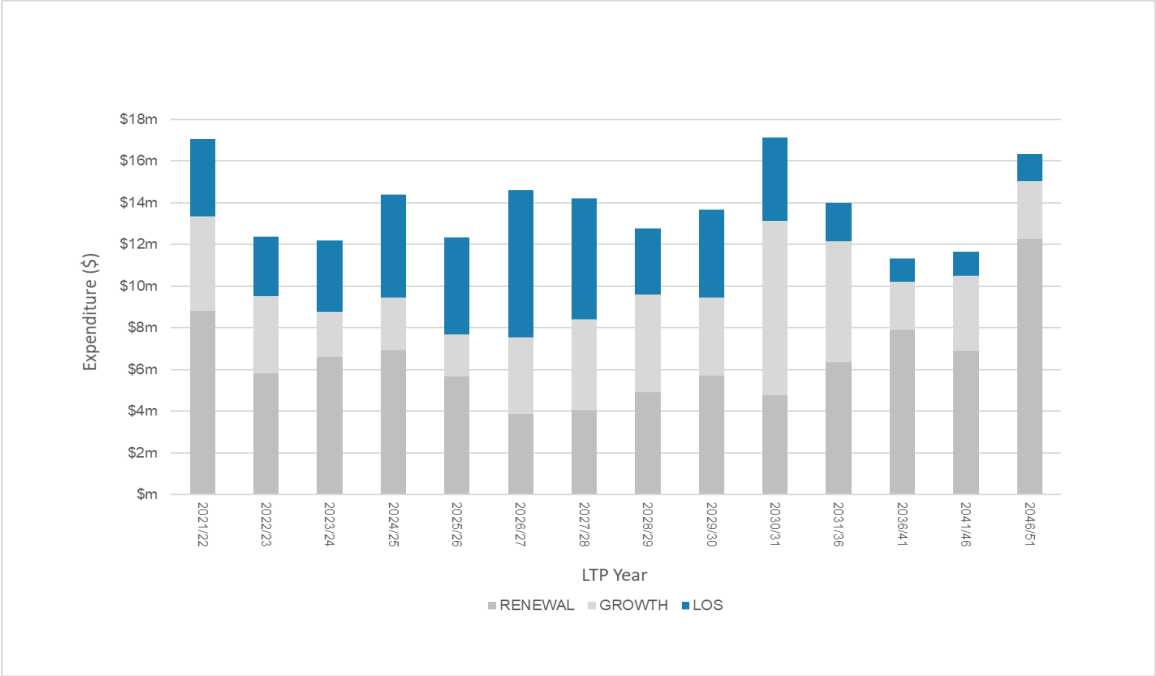




CAPITAL EXPENDITURE FORECAST

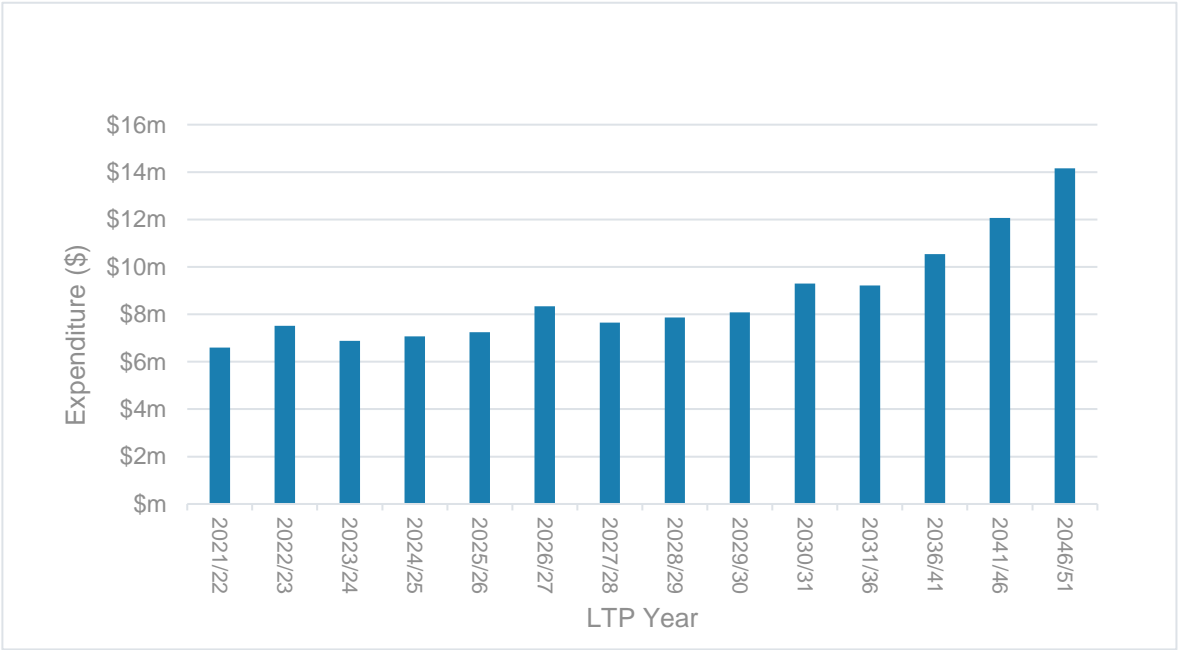
Total Capital expenditure for Transportation and the Inner Harbour over the 30-year period is \$298m. The large peaks at the end of the 30-year period relates to the replacement of Nelson Quay at \$18m. The other two major peaks also relate to renewal of major assets in this case bridges and structures with an estimate of \$15m of renewals over both years.

Figure 6: Transportation 30-year Capital Expenditure Profile)



OPERATIONAL EXPENDITURE FORECAST

Figure 7: Transportation 30-year Operational Expenditure Profile



## SIGNIFICANT EXPENDITURE DECISIONS - 1

<b>Issue to Resolve:</b> Historic underinvestment in Asset Renewals <b>Outcome Required:</b> Safe, resilient assets that are fit for use. <b>Summary:</b> Napier has historically under invested in the renewal of streetlight columns, kerb & channel and footpaths, leading to higher levels of risk, lower levels of service and less predictable future expenditure. Some assets, such as lamp columns, have outlasted their design life and many are no longer electrically compliant. Options assessment and financial forecasts below are for Street Light columns; other assets require additional data improvement, condition assessment and prioritizing before replacement programme can be developed.						
Assumption:						
Options:		Implications of Options / Benefits	Cost estimate and timing	Operational	Growth	Levels of service Renewal
Preferred Options	1	Extended replacement programme. + Addresses highest need + Low, long duration expenditure profile + Allows for future application of AM best practice. - Risk remains high.	\$2.9m 2021 – 2030			✓
	2	Accelerated replacement programme + Addresses highest risk assets early + Scale of contract can assist value. + Allows for future application of AM best practice. - High initial cost	\$2.9m 2021 - 2025			✓
Other Options	3	Do nothing. - Risk increasing over time - Operational costs likely to increase	No extra cost 2020-50			✓
	4	Renew at historic levels + minimal impact on rates - Risk increasing over time - Operational costs likely to increase - Renewal will still be required eventually	No extra cost 2020-50			✓

### YEAR ON YEAR COSTS (Gross expenditure values – preferred options eligible for 51% Waka Kotahi funding assistance)

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$0.87m	\$2.9m	\$0	\$0
2	\$1.7m	\$1.2m	\$0	\$0
3	\$0	\$0	\$0	\$0
4	\$0	\$0	\$0	\$0

## SIGNIFICANT EXPENDITURE DECISIONS - 2

<b>Issue to Resolve:</b> Supporting increased mobility: Demographics shift, uptake of micro-mobility								
<b>Outcome Required:</b> Safe footpath and cycleway network which meets the needs of our current and future communities.								
<b>Summary:</b> Napier is seeing and forecasting a significant increase in older, active residents. These will utilise all forms of transport, but with high proportional use of walking, cycling (self-propelled and e-bike) and mobility scooters. Most of this additional demand will be concentrated on footpaths and shared paths. Most of Napier’s footpath network is 1.4 to 1.5m wide and does not provide adequate capacity for such use levels. Further, legislation is being processed which will allow cycling and micro-mobility devices (such as e-scooters) on footpaths and to safely accommodate this range of users, wider footpaths should be considered.								
Assumption:								
		Options	Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service	Renewal
Preferred Options	1	Upgrade defined areas and routes as a long term programme	+ Rate of change can be aligned to demographic/legislative shift. + Renewals can be included in programme if required. + Investment targeted at areas of greatest need. - Slow progress. Some suburbs will have to wait.	\$250k Every 4 years.			✓	✓
Other options	2	Do nothing.	+ No increase in expenditure - Poor level of service will result in greater use of carriageway.	No extra cost 2020-30				
	3	Upgrade defined areas and routes as an intensive programme	+ Increased level of service across wider portion of the network. - Significant capital commitment \$8m will upgrade 10% of network	\$1m pa 2021 - 2028	✓		✓	✓
	4	Upgrade as footpaths are renewed	+ Minimal financial impact. - Slow, piecemeal upgrades - Unable to prioritise high use areas.	\$100k pa			✓	✓

**YEAR ON YEAR COSTS** (Gross expenditure values – preferred options eligible for 51% Waka Kotahi funding assistance)

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$0.25m	\$0.25m	\$0.5m	\$0.5m
2	\$0	\$0	\$0	\$0
3	\$3m	\$5m	\$0	\$8m
4	\$0.3m	\$0.7m	\$1m	\$1m

## SIGNIFICANT EXPENDITURE DECISIONS - 3

<p><b>Issue to Resolve:</b></p> <p>Local Area Traffic Management - Safety Improvements</p> <p><b>Outcome Required:</b></p> <p>Safer neighbourhoods for all residents.</p> <p><b>Summary:</b></p> <p>These plans aim to increase safety and enjoyment on local streets for all users by managing traffic using physical tools such as installing speed bumps, bollard, chicanes, cycle lands and other measures such as speed limit restrictions and other road changes (e.g. changing intersections, reducing road width etc). These plans take an area wide view rather than a focus on a problematic street / intersection. The plans are developed by Transportation Engineers who look at the accident data, monitoring data (speed and volume) and community and stakeholder feedback.</p>						
Assumption:						
Options		Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service
Preferred Options	1	<p>Greater coverage across the City.</p> <p>All schemes implemented will see reductions in traffic speeds, improved pedestrian and cycle safety.</p> <p>Process entails high levels of community engagement.</p>	<p>c. \$900k p.a.</p> <p>Demand for new schemes likely to reduce after 10 to 12 years.</p> <p>Budget allows for ongoing programme.</p>			✓
Other options	2	<p>Continue to complete one LATM scheme per year.</p> <p>Outcomes will match higher investment programme but will take 3 times longer to achieve benefits.</p>				✓

**YEAR ON YEAR COSTS** (Gross expenditure values – preferred options eligible for 51% Waka Kotahi funding assistance)

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$2.7m	\$6.3m	\$9m	\$9m
2	\$1.5m	\$1.2m	\$2.1m	\$3.5m

## 6.3 Three Waters



### 6.3.1 Drinking Water Supply

Council has a legal obligation under the Health Act 1956 to improve, promote, and protect public health within the City. The Health (Drinking Water) Amendment Act 2007 places a further obligation on Council to comply with the Drinking Water Standards for New Zealand.





Section 11a of the Local Government Act states “that, in performing its role, a local authority must have particular regard to what its core services, including network infrastructure, contribute to the community”.

The Council considers the provision of reliable and safe drinking water to the community as a major contribution to the community's well-being and the City's economy.

Water is drawn from the Heretaunga Plains aquifer, which has sufficient capacity to supply present and next 30-year demand in Napier. Water is reticulated to the Napier urban area and to Bay View.

The long-term goals Council has identified for this activity are:

- Provide and maintain an adequate and safe supply of potable water to consumers meeting the New Zealand Drinking Water Standards
- Supply water for fire-fighting purposes
- Provide affordable service to the community.
- The contribution that the Water Supply activity and group of assets makes towards Community Outcomes is summarised in the following table

 485 Km Pipes
 11 Reservoirs
 7 Booster Pump Stations
 10 million cubic meters per year

### CURRENT STATE

Water is supplied from Heretaunga Plains Aquifer through seven bores. The water system consists of approximately 485km of pipes, 11 reservoirs, and seven booster pump stations and annually produces approximately 10 million cubic meters of water. The Drinking Water Assessor has assigned all water bores as secure water bores. Water is chlorinated at the bore site before it enters into reticulation.

At present, our water supply meets the current Drinking Water Standards. Some bore water contains high manganese levels; this has contributed to water clarity issues in some areas. A study is currently underway to understand the feasibility providing non-chlorinated water and compare costs of chlorinated water supply and non- chlorine supply.

## KEY RISKS

- Contamination of water through the aquifer
- Contamination of water in the reticulation system
- High manganese levels in the water
- Demand exceeds production
- Aging infrastructure

## KEY PRINCIPLES

- Safeguarding public health and safety
- Sufficient and reliable water supply to the community and businesses for their reasonable needs
- Environmentally sustainable supply
- Affordability
- Customer satisfaction

## WHERE WE WANT TO BE IN 30 YEARS

The overarching vision is to minimise public health risk, improve the aesthetic quality of water to the satisfaction of our customers and ensure reliable and resilient supply.

In 30 years' time, we will have a water system with two bore fields that will supply water to the network- following appropriate treatment- to meet best industry practices alongside a much younger water network with reduced water leakage.

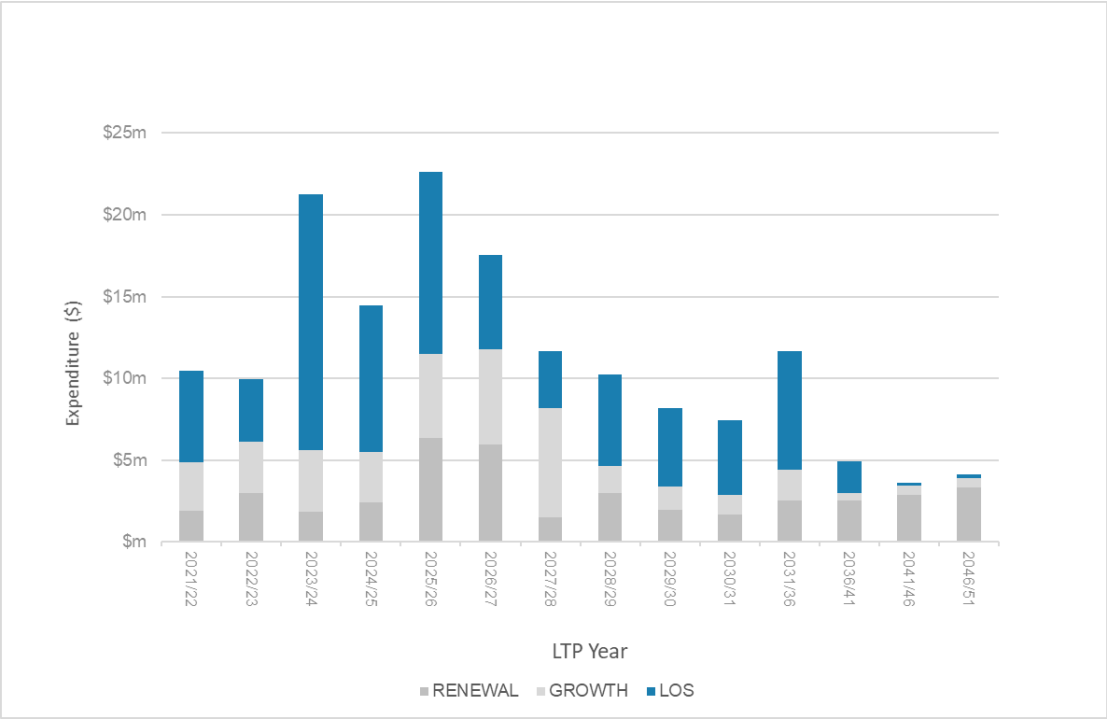
## OPPORTUNITIES

- Update water Bylaws
- Better water pricing
- Improved automated monitoring and control system
- Improve data collection and data management
- Develop an up to date asset register
- Develop standards, processes and procedures for management and operation of the water system

CAPITAL EXPENDITURE FORECAST

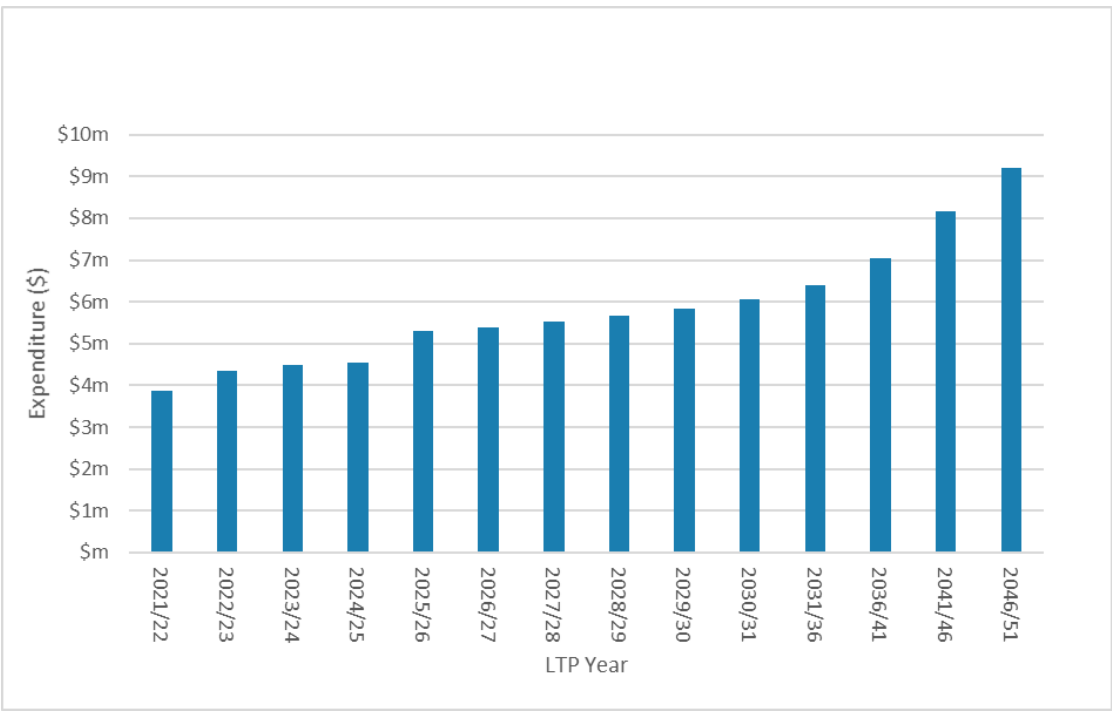
The bulk of expenditure for water supply occurs in the first ten-year period as the network is modified to meet current and future standards and is made more resilient. In year three, water treatment plants are developed and in year five the Enfield reservoir is replaced.

Figure 8: Water Supply 30-year Capital Expenditure Profile



OPERATIONAL EXPENDITURE FORECAST

Figure 9: Water Supply 30-year Operational Expenditure Profile





## SIGNIFICANT EXPENDITURE DECISIONS - 1

### Issue to Resolve:

The existing network is not fit for purpose moving into the new era of Taumata Aorwai and changes to the Drinking Water Standards. The network is not easily managed and controlled, and treatment processes are temporary and will not last long term. The dirty water issues experience by residents can be alleviated through better source water, consistent treatment and a well-designed and managed system that performs in a predictable way.

### Outcome Required:

A modernised, resilient network that helps to manage public health risks, water quality and provides a resilient network that will take us into the longer term – 30-50 years.

### Issues:

Most of the current bores are situated in the urban area where the risk of contamination is high, and it is difficult to install appropriate treatment methods.

A high level of manganese in the source water from some bores is causing dirty water in the reticulation and affecting residents.

### Summary:

The resolution would be to Install two bore fields: one in Taradale area and one in Awatoto area, alongside the installation of appropriate treatment. If water with low manganese levels is not available, there would be the need to install additional treatment to remove the manganese.

Assumption:		Suitable sites can be found following investigations with good quality water and sufficient quantities to make them viable.						
		A resource consent will be granted to the future bore fields.						
Options		Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service	Renewal	
Preferred Option	1	Install two new bore fields and treatment facilities in Taradale and Awatoto areas.	Reduce the risk of water contamination through the source or bores Reduce the water clarity issues Facilitate growth	\$22.6 million (2021/2028)		✓	✓	✓
Other Options	2	Do nothing.	High risk to public health from drinking water Public dis-satisfaction due to water clarity issues	Additional annual opex \$400k	✓			
	3	Replace at existing sites	High risk of contamination taking water in close proximity to sewer network. Difficulty installing treatment. Not a resilient design to meet compliance requirements moving forward.	\$14m (2021/2028)				✓

## YEAR ON YEAR COSTS

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$17.5m	\$5.1m	\$0	0
2	\$0.6m	\$1.2m	\$1.8m	\$1.8m
3	\$2m	\$12m		

## SIGNIFICANT EXPENDITURE DECISIONS - 2

### Issue to Resolve:

Replacement of Enfield reservoir due to age and condition and implications regarding water safety

### Outcome Required:

Install a new reservoir on Hospital Hill /Mataruahou with increased capacity to futureproof for the city's growth

### Issues:

The Enfield reservoir needs replacement and it has reached the end of its useful life due to capacity and its overall condition. The need to increase capacity (additional water storage) is paramount to futureproofing the city for growth.

### Summary:

There are few options for this as the reservoir is at the end of its useful life and the size of the land it currently occupies does not enable additional capacity to be added.

### Assumption:

A site is to be procured on Mataruahou for a new reservoir – complete.

		Options	Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service	Renewal
Preferred Option	1	A new reservoir at Hospital Hill	Reliable asset, additional storage and resilience, enabling growth	\$18.0m (2021-2026)		✓	✓	✓
	2	Do nothing.	Risk of contamination, reservoir failure in earthquake scenario and not future proofed	No extra cost	✓			
Other options	3	Replace	Like for like at the same location- not future proofed as same capacity and construction difficulties and difficulties installing rising and falling mains under properties around the site.	\$8m	✓		✓	✓

## YEAR ON YEAR COSTS

Option	Year 1-3	Yr. 4-10	Yr. 11-20	Yr. 21-30
1	\$1.2m	\$16.8m	\$0	\$0
2	\$0	\$0	\$0	\$0
3	\$1.5m	\$6.5m	\$0	\$0



### 6.3.2 Wastewater

Under the Local Government Act 2002, the Resource Management Act 1991 and the Building Act 2004, Council is obliged to provide a sewerage service, which collects, transports and disposes of household wastewater.

Council aim to protect human health and the environment and are best placed to provide this 'public good' service. Section 11a of the Local Government Act states "that, in performing its role, a local authority must have particular regard to what its core services, including network infrastructure, contribute to the community".

The Council considers the provision of safe, effective and efficient domestic sewage collection, treatment and disposal system as a major contribution to the community's well-being and the City's economy.

The long-term goals the Council has identified for this activity are:

- To provide and maintain an adequate wastewater collection, treatment and disposal system.
- To protect community health.
- To minimise adverse environmental effects.

#### CURRENT STATE

The wastewater system comprises of 390km of pipes, 49 pump stations, Milliscreen plant, a (BTF) Biological Tricking Filter plant and a sea outfall pipe. Wastewater is collected through the reticulation system and pumped into the treatment plant situated at Awatoto. After treatment, it is discharged into the sea via a 1.6km long sea outfall pipe.

At present, there are issues with overflows from the reticulation during the wet weather events due to inflow and infiltration.

The outfall pipe is in a bad condition and has had a number of leaks. Some repairs have already been completed, and two more repairs are currently underway.

#### KEY RISKS

- Failure of the outfall pipe due to its condition
- Increased overflows from the reticulation during wet weather events due to inflow and infiltration resulting in polluting the receiving environment
- Service disruption due to aging asset failures
- Not meeting regulatory requirements due to insufficient treatment and unauthorised overflows
- Increased public dis-satisfaction due to wastewater overflows



## KEY PRINCIPLES

- Safeguarding public health and safety
- Reliable service to the community and businesses for their reasonable needs
- Affordable
- Customer satisfaction



## WHERE WE WANT TO BE IN 30 YEARS

We want to provide a reliable wastewater service to the community that meets community expectations, reduced wastewater overflows, minimise negative environmental impacts on receiving environment following treatment, facilitates growth and meet regulatory requirements consistently.

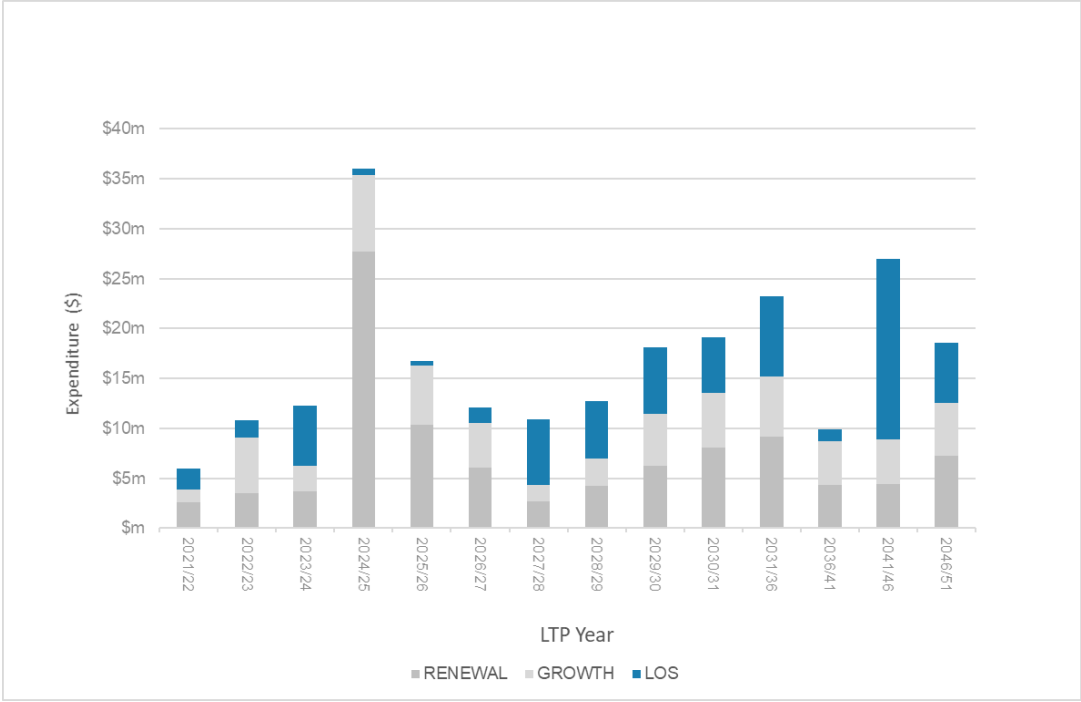
## OPPORTUNITIES

- Up to date wastewater and trade waste Bylaws
- Improved automated monitoring and control system
- Improve data collection and data management
- Develop an up to date asset register
- Develop standards, processes and procedures for management and operation of the wastewater system
- Improved wastewater discharge quality

CAPITAL EXPENDITURE FORECAST

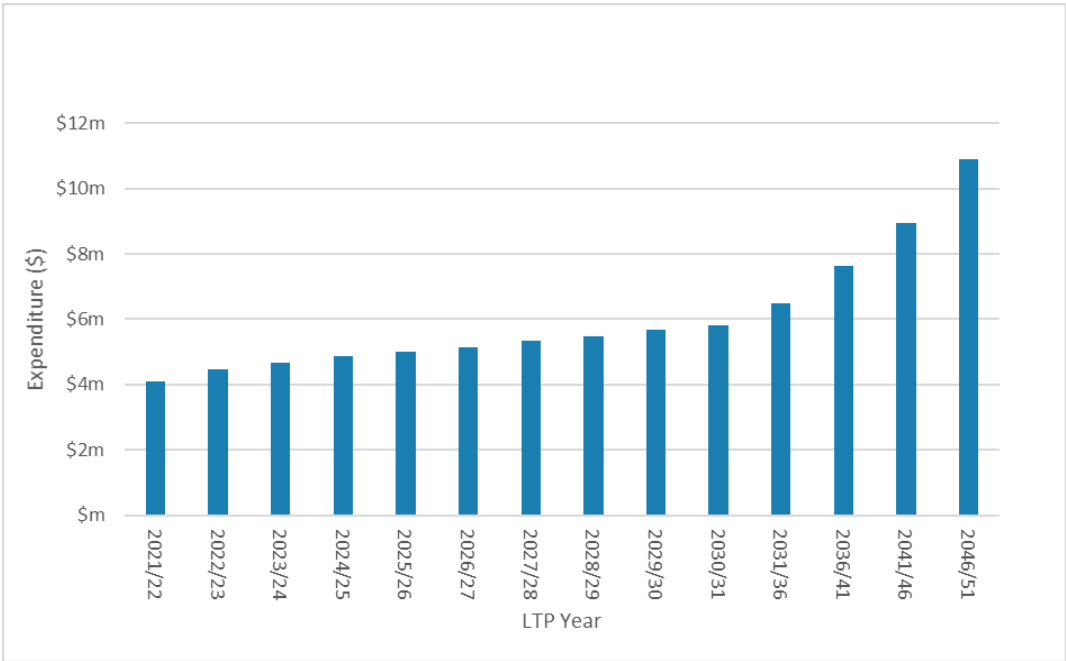
The wastewater network has a few major renewals that will occur in the early part of the 30-year plan. The most important and high cost replacement is the wastewater outfall pipe which is expected to be replaced in year four to assist with network operation consent compliance and asset integrity. This has been brought forward to meet compliance and levels of service.

Figure 10: Planned 30-year capital expenditure for Wastewater



OPERATIONAL EXPENDITURE FORECAST

Figure 11: Planned 30-year operational expenditure for Wastewater



## SIGNIFICANT EXPENDITURE DECISIONS - 1

<b>Issue to Resolve:</b> Wastewater outfall pipe leaks						
<b>Outcome Required:</b> Replace the outfall pipe to ensure compliance with legislative requirements, also ensure that increased flow can be accommodated with the growth of the city						
<b>Summary:</b> Replacement of existing outfall pipe with upgraded pipe						
<b>Assumption:</b>		Outfall Pipe can be replaced with a variation to the existing resource consent. Costs include consent, outfall pipe replacement and a new pump station.				
<b>Options:</b>		<b>Implications of options / what are the benefits?</b>	<b>Cost estimate and timing</b>	<b>Operational</b>	<b>Growth</b>	<b>Levels of service</b>
Preferred option	1	Replace the existing outfall pipe and outfall pump station	Meeting the legislative requirements, reduce the environmental pollution due to wastewater leaks	\$48.28 million (2021/28)	✓	✓
					✓	✓
Other options	2	Do nothing.	Significant increase in maintenance and not meeting resource consent condition and risk of abatement notices from HBRC and infringements	\$10m (2021/36)	✓	
	3	Repair	Increased maintenance costs and not meeting existing consent conditions	\$10 million (2021/36)	✓	✓

## YEAR ON YEAR COSTS

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$4m	\$41.3m	0	0
2	\$3.3m	\$3.3m	\$3.3m	
3	\$3.3m	\$3.3m	\$3.3m	

## SIGNIFICANT EXPENDITURE DECISIONS – 2

<b>Issue to Resolve:</b> Upgrade the existing treatment plant <b>Outcome Required:</b> Improved wastewater treatment <b>Summary:</b> Upgrade the existing treatment plant as recommended in wastewater treatment plant masterplan							
Assumption:		No significant changes to legislative requirements and growth assumptions are correct					
	Options	Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service	Renewal
Preferred option	1	Upgrade the wastewater treatment plant as per recommendations of the masterplan	Improved environmental outcome, meeting the legislative requirements	\$104.7m		✓	✓
						✓	✓
Other options	2	Do minimum	Additional biological trickling filter to meet current standards and provide for some growth, no additional improvement of wastewater quality	\$13.4m			
	3	Do nothing.	Unable to meet conditions of the existing resource consents, constraints obtain a new resource consent in 2036 at the expiry of existing consent to discharge treated effluent into the sea.		✓		

## YEAR ON YEAR COSTS

Option	Year 1-3	Yr 4-10	Yr 11-30
1	\$6.2m	\$24.9m	\$73.6m
2		\$1m	\$12.4m
3	\$0	\$0	\$0





### 6.3.3 Stormwater

Council have a statutory responsibility to ensure stormwater is managed through ownership and management of its own stormwater drainage network. Council are the only viable provider of this 'public good' service for the well-being of the community.

Council provide and maintain a stormwater disposal system for Napier with the aim to minimise the effects of flooding. The system, serving approximately 97% of the city's population, consists of open drains, stormwater mains and pump stations with about 75% of Napier reliant on pumped systems for stormwater drainage.

The long term goals the Council has identified for this activity are:

- Provide and maintain an adequate stormwater system
- Protect community health and property
- Minimise adverse environmental effects

#### CURRENT STATE

Napier's storm water drainage system mainly relies on an open drains and pumping systems to dispose of storm water.

There are approximately 241km of pipes, 9 pump stations, over 100km of channels/drains and 2 detention dams owned and operated by the Council.

Approximately 70% of storm water from Napier City is discharged into the Ahuriri Estuary.

Although our desired level of service is providing storm water protection for houses and habitable floors from a one in fifty-year rainfall event, currently, we are not meeting this level of service in all areas due to the inadequate capacity of our storm water system

#### KEY RISKS

- Flooding of properties during high intensity rainfall events due to capacity issues
- Impact on receiving environment due to storm water contamination
- Climate change impacts



241 Km Pipes



9 Pump Stations



100 Km Drains & Channels



2 Detention dams



70% Discharged to Ahuriri Estuary

## KEY PRINCIPLES

- Safeguarding public health and safety
- Protection of properties from flooding
- Minimise negative environmental impacts
- Affordable
- Customer satisfaction



## WHERE WE WANT TO BE IN 30 YEARS

Our desired level of service is to provide flood protection to houses and habitable properties from one in one hundred-year rainfall event. However, this is not possible to achieve in all areas in Napier due to flat nature of the majority of the catchment and high cost. Instead, we will have a stormwater system that provides maximum protection for an affordable cost. This means, some areas in the catchment will have a lesser degree of flood protection than others. We also will reduce the negative environmental impact on receiving environment by improving the storm water quality.

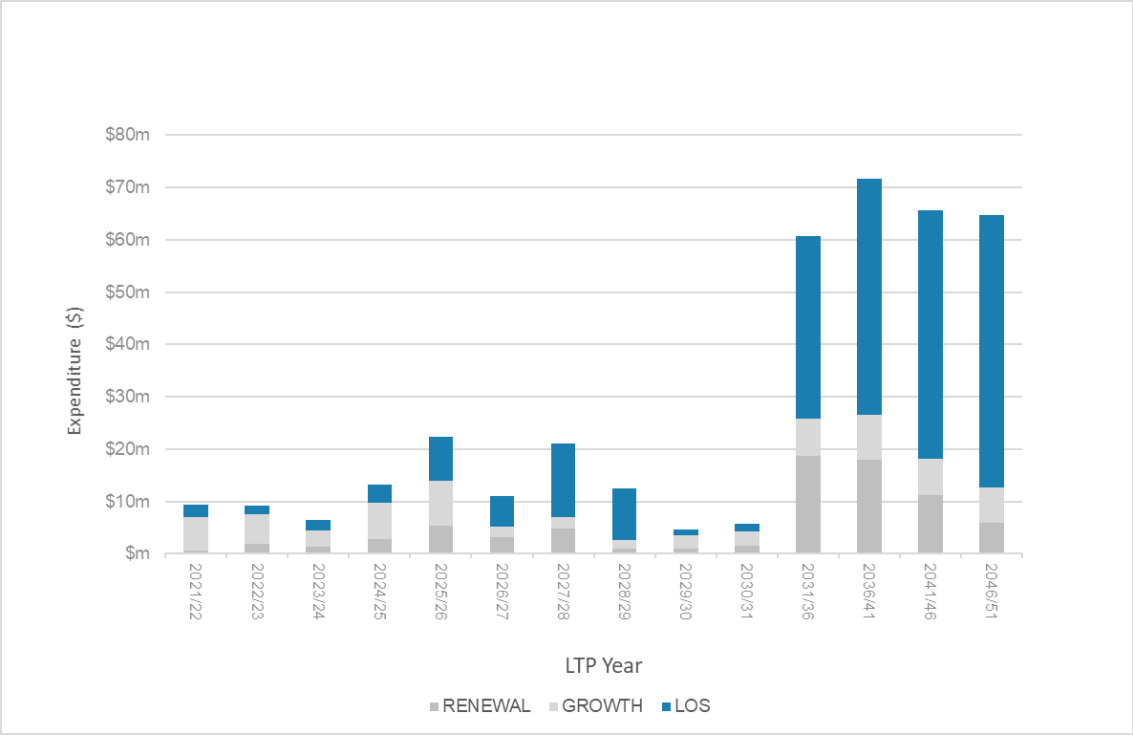
## OPPORTUNITIES

- Up to date and calibrated hydraulic model
- Improved automated monitoring and control system
- Improve data collection and data management
- Develop an up to date asset register
- Develop standards, processes and procedures for management and operation of the water system

### CAPITAL EXPENDITURE FORECAST

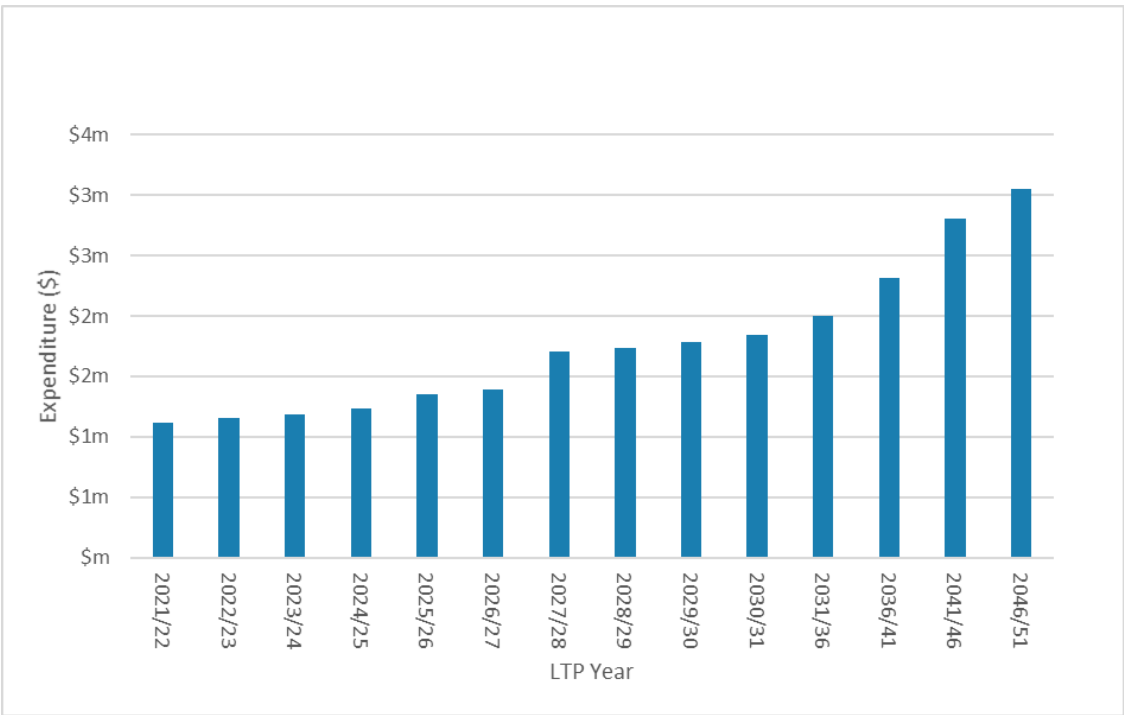
Following the flood in November 2020 Council has prioritised stormwater storage at Lagoon Farm, in addition to a treatment solution that will be developed as part of the new discharge consent to the estuary. As noted, the peer reviewed master plan will provide more guidance regarding the wider city and project priorities.

Figure 12: Planned 30-year capital expenditure for Stormwater



### OPERATIONAL EXPENDITURE FORECAST

Figure 13: Planned 30-year operational expenditure for Stormwater



## SIGNIFICANT EXPENDITURE DECISIONS – 1

### Issue to Resolve:

Flooding during high intensity or prolonged rainfall events and improve the storm water quality discharged into estuary.

### Outcome Required:

Install storm water storage/detention facility at Lagoon Farm to enhance stormwater quality.

### Summary:

The stormwater masterplan has recommended installing additional storage at Lagoon Farm to reduce the flooding risk in the Napier urban catchment with the total storage to be 450,000m<sup>3</sup>. This facility also will contribute to the improvement of stormwater quality.

This can be further improved by adding additional treatment such as wetlands.

This project includes only a stormwater storage requirement and the removal of sedimentation from the stormwater.

### Assumption:

	Options	Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service	Renewal
Preferred option	1 Install storage at Lagoon Farm and install additional water quality improvements	This will reduce the widespread flooding risk in urban areas during significant rain events and improve discharge water quality substantially	\$40m (high level estimation)			✓	✓
	2 Install storage at Lagoon Farm and install additional water quality improvements later	This will reduce the widespread flooding risk in urban areas during significant rain events.	\$18.2m			✓	✓
Other options	3 Do nothing.	Flooding in urban areas during significant rainfall events will be more frequent. Not enough measures in place to reduce the impact of floodwater on the estuary.	Clean up costs from events 2020-50	✓			

## YEAR ON YEAR COSTS

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$0.15m	\$17.9m	\$21.8m	\$0
2	\$0.15m	\$17.9m	\$0	
3	\$0	\$0	\$0	

## 6.4 Parks, Reserves, Sportsgrounds, Cemeteries and Public Toilets

The Reserves portfolio of Napier City exists to enhance the quality of life of Napier's citizens, by providing high quality passive and recreational facilities throughout the city.

Napier is fortunate to have a wide range of parks, reserves and public gardens uniformly located throughout the urban environment. The Reserves assets support a large number of tourism events and local events, delivering highly maintained grounds and gardens ranging in location from coastal foreshore to formal botanical gardens.



### CAPITAL EXPENDITURE FORECAST

The following graph shows the planned 30 year spend for parks, reserves, sportsgrounds, cemeteries, and public toilets. The major renewal within the 30-year plan is the upgrade of the Harris stand at McLean Park which is anticipated to occur in Year 27 of the plan and is estimated to cost \$84.5 million. A breakdown for each asset group is provided in the following sections.

**Figure 14: Planned 30 year capital expenditure for Parks and Reserves, Sportsgrounds, Cemeteries and Public**

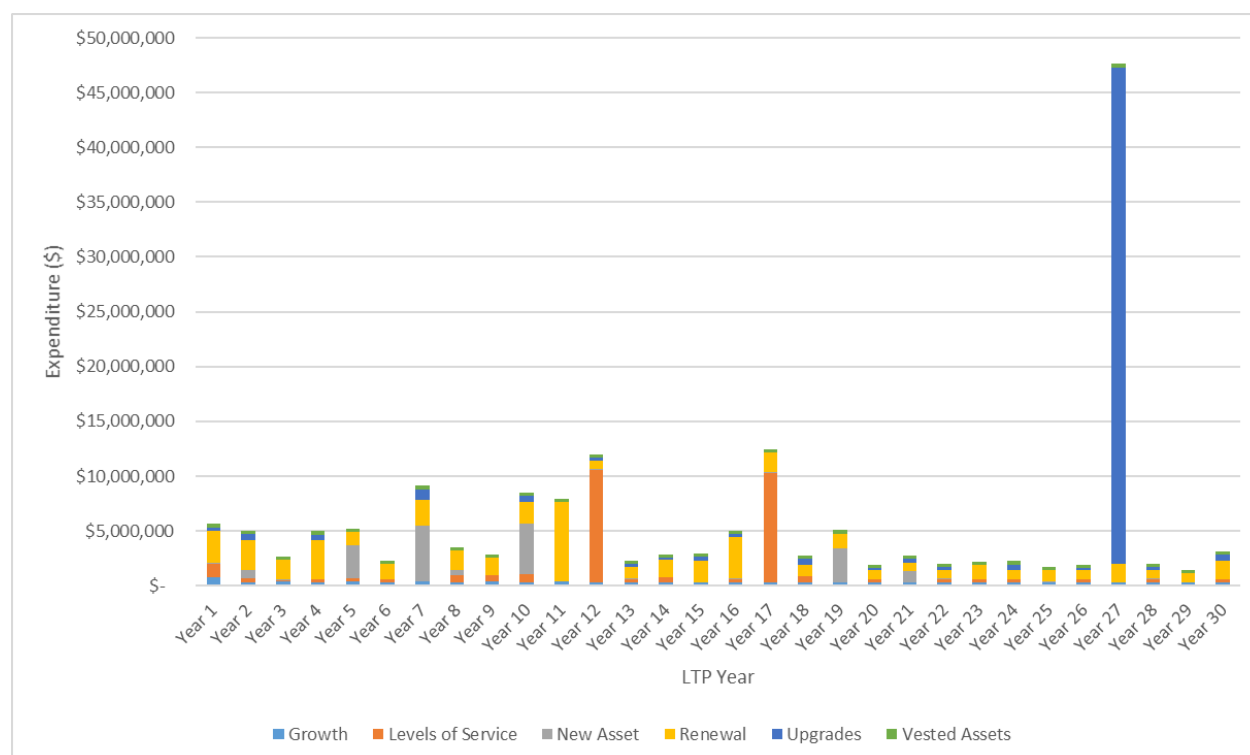
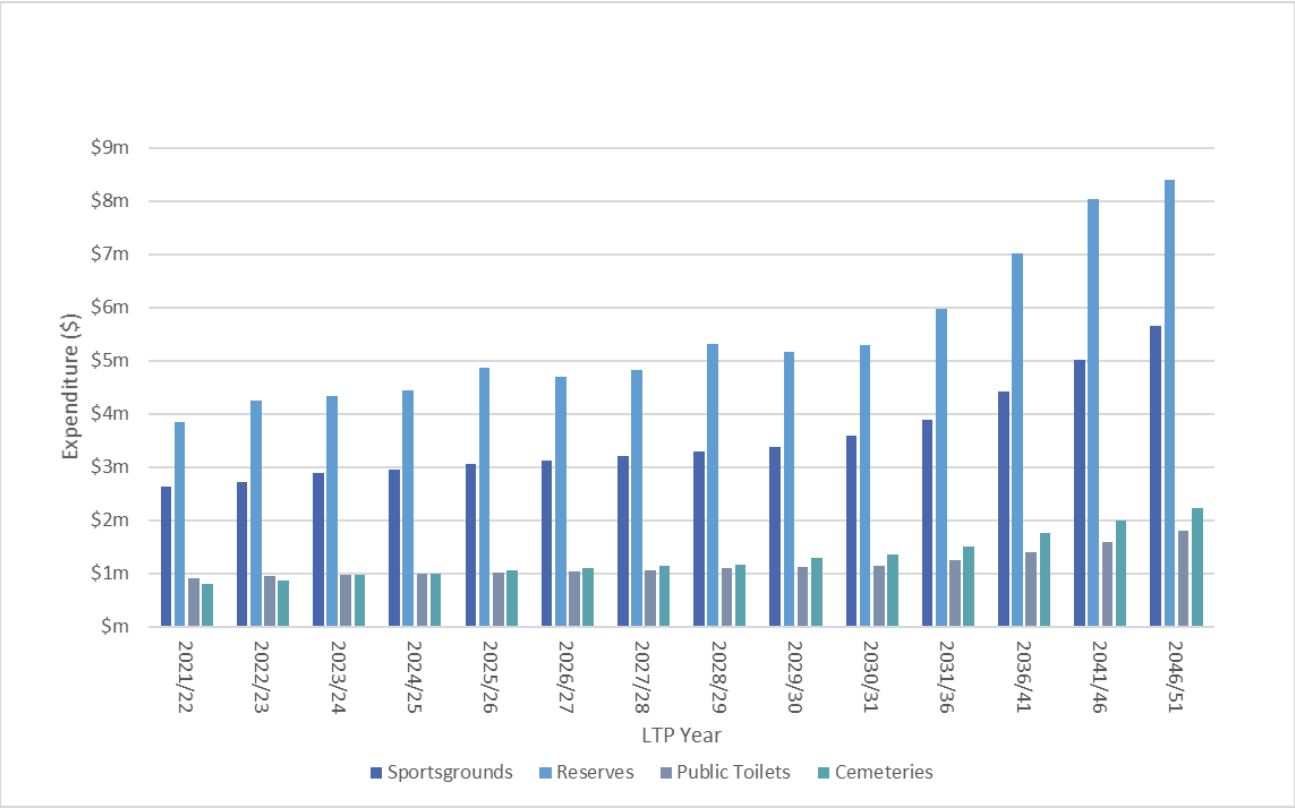


Figure 15: Planned 30-year operational expenditure for Parks and Reserves, Sportsgrounds, Cemeteries and Public Toilets





### 6.4.1 Sportsgrounds

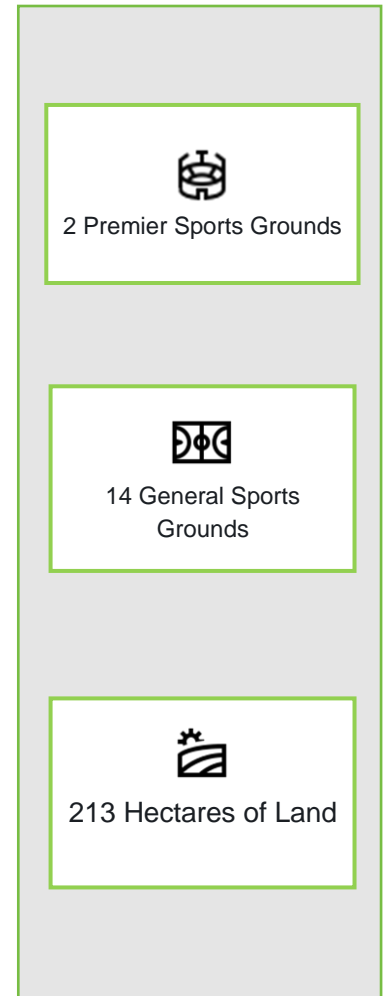
Council provides and maintains 16 sports grounds throughout Napier equating to an area of 213 hectares of land set aside for sports purposes across the city.

Napier's sports grounds range from facilities of regional and national significance; McLean Park, Nelson Park and Park Island, to grounds principally serving local club demand; for example, Petane War Memorial Reserve, Bledisloe Park and Whitmore Park.

The Sportsground portfolio of Napier City exists to enhance the quality of life of Napier's citizens, by providing high quality sport and recreational facilities throughout the city.

Council's sports grounds and associated facilities provide for the majority of the city's sporting demand, although increasing pressure from population growth, diversification of sport, crossover between seasons and more extreme weather events is making it increasingly challenging to meet all demands.

In a rapidly changing local sports environment, and a highly competitive market for major events, Council needs to be nimble in its response to pressure points and changes in demand. Council's provision of sports facilities needs to respect traditional aspects of sport (for example, club structures), while ensuring decisions now are sufficiently flexible to respond to changing future demand.



#### Suburban Sportsgrounds

Bledisloe Park  
Maraenui Park  
Petane War Memorial Reserve  
Tamatea Park  
Taradale Park

#### City Sportsgrounds

Marewa Park  
Onekawa Park  
Tereha Park  
Whitmore Park

#### Restricted Use Facilities

Marewa Park  
Nelson Park  
Onekawa Park  
Papakura Domain  
Park Island  
Petane War Memorial Reserve  
Sir Donald McLean Memorial Park  
Taradale Park  
Tereha Park  
Port Ahuriri Bowling Club  
Napier Sailing Club

#### Regional Sportsgrounds:

Nelson Park  
Park Island  
Sir Donald McLean Memorial Park



## KEY RISKS

- Viability of Clubs
- Ageing Facilities and Infrastructure
- Changing Recreation Trends
- Documentation and Procedures
- McLean Park

## KEY PRINCIPLES

- Encourage Recreation
- Involve and Collaborate
- Encourage Innovation
- Enhance Networks and Corridors
- Promote Sustainability



## WHERE WE WANT TO BE IN 30 YEARS

- Accessible, Equitable and Connected with our community
- Diverse and Appropriate- Sports facilities that can be used by all and for a wider range of uses
- Safe and Secure so that all who participate or spectate can feel safe doing so.
- Well maintained and clean- our sports facilities are of a standard that the city can be proud of
- Enhanced and Protected
- Sustainable and Resilient- leading the way towards carbon zero.
- Community Collaboration and Partnerships- ensuring that the community has a say about how these grounds are used and by whom.

## OPPORTUNITIES

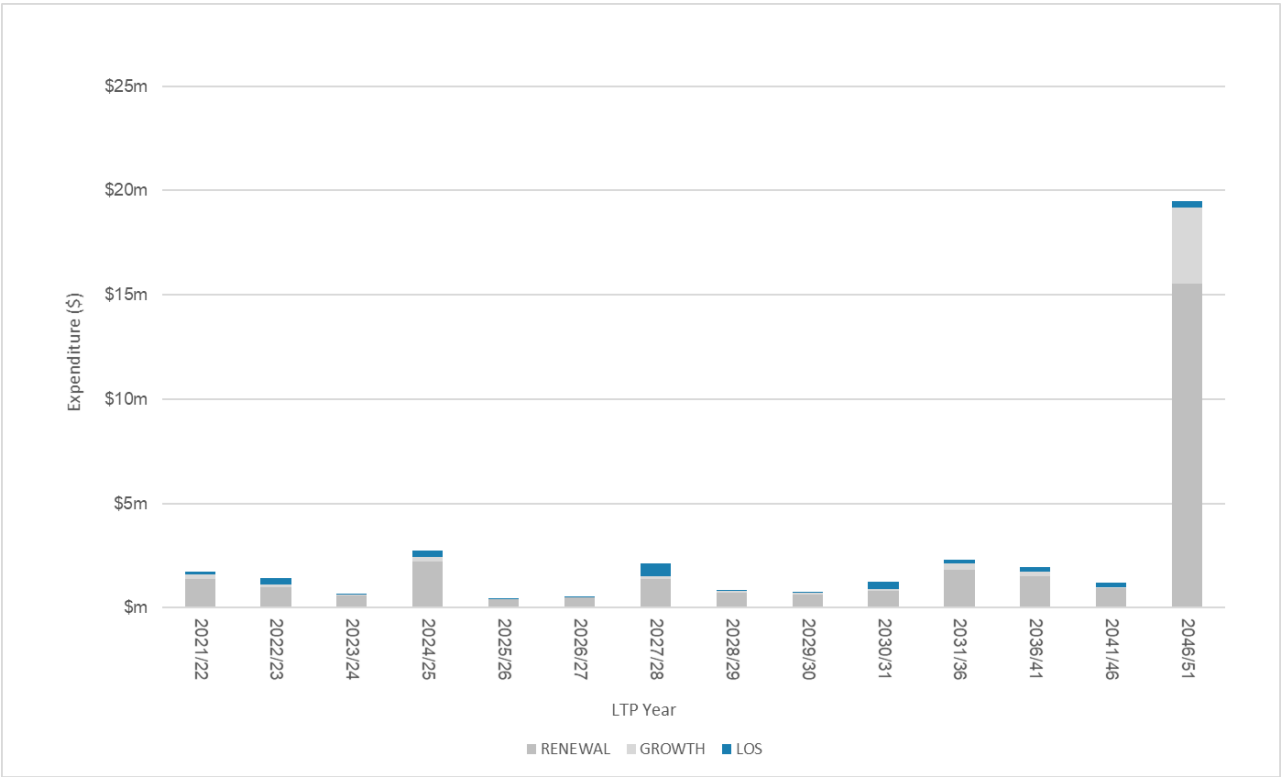
Diversifying the use of facilities like McLean Park for different events including concerts and other events

Adapting facilities to changing trends that have a positive environmental impact to allow a more diverse population use.

CAPITAL EXPENDITURE FORECAST

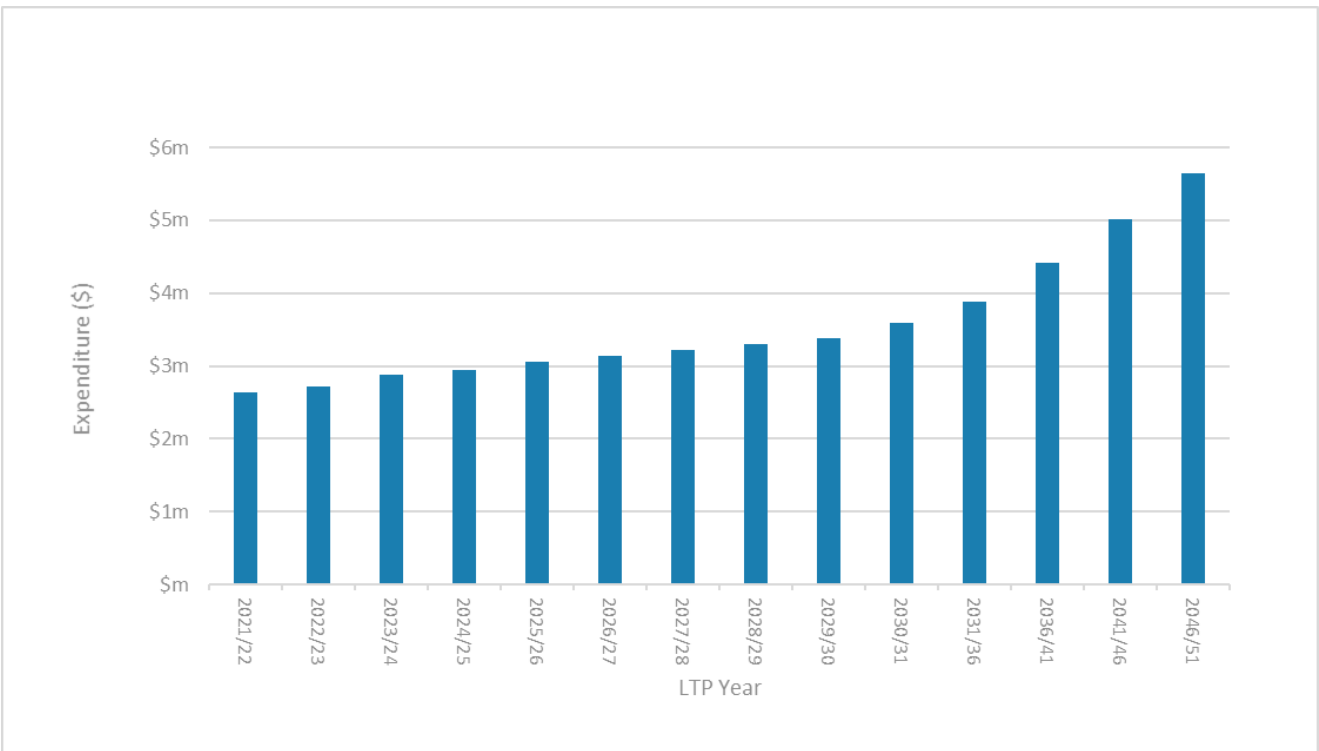
Renewals and minor upgrades for Council owned sportsgrounds are fairly static at around \$1.2m a year except for Year 11 which has the renewal of the McLean part turf, estimated at \$5m and the replacement of the Harris stand in Year 27.

Figure 16: Planned 30-year capital expenditure for Sportsgrounds



OPERATIONAL EXPENDITURE FORECAST

Figure 17: Planned 30-year operational expenditure for Sportsgrounds



## SIGNIFICANT EXPENDITURE DECISIONS -1

### Issue to Resolve:

McLean Park Renewals- capacity issues and turf renewals

### Outcome Required:

McLean Park Facility Renewals- Replacement of the Harris Stand which is coming to the end of its useful life, as well as scheduled replacement of the turf which has a 20-year life span.

### Summary:

McLean Park is used for high profile sporting fixtures and other large events. Its composite turf requires replacement every 20 years approximately to maintain quality of the pitch as the artificial component of the turf has a 20-year shelf life. The Harris stand will be at the end of its life both physically and capacity wise by 2047 and will need to be replaced with a more user friendly stand – it is currently challenging for those who are not able bodied to move with ease around the stand.

### Assumption:

	Options	Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service	Renewal
Preferred option	1	Turf Renewal for the whole pitch enabling the continuation of major sporting events	\$6.5m (2032)	✓			✓
		Re-build of the Harris stand to increase capacity and improve accessibility	\$84.5m (2047)		✓	✓	✓
Other Options	2	Establish new			✓		
	3	Do nothing.	No extra cost 2021-51	✓			
	4	Replace existing					

## YEAR ON YEAR COSTS

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$0	\$0	\$6.5m	\$84.5m
2	\$0	\$0	\$0	\$0
3	\$0	\$0	\$0	\$0
4	\$0	\$0	\$0	\$0



## 6.4.2 Cemeteries

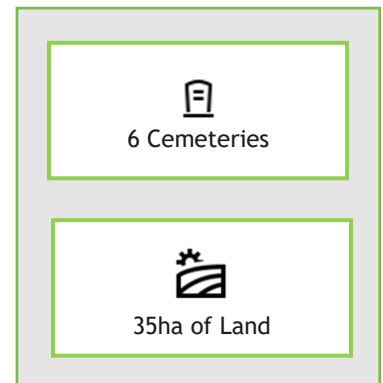
### CURRENT STATE

The team currently administers six cemeteries with a total footprint of 35ha. These cemeteries are Eskdale, Wharerangi, Napier, Taradale, Western Hills and Park Island, with some of these nearing capacity.

The response to this upcoming shortage of space will require some thought as to how this is managed going forward, and the viable options available to the Council.

### KEY RISKS

- Procedural (operational)
- Inadequate land to provide for interments (management)
- What we don't know (management)
- Heritage Protection responsibilities (management and operational)
- Not understanding our service role (management and operation)



### KEY PRINCIPLES

- Encourage Recreation
- Involve and Collaborate
- Encourage Innovation
- Enhance Networks and Corridors
- Promote Sustainability
- Culture and Heritage

### WHERE WE WANT TO BE IN 30 YEARS

- Accessible, Equitable and Connected
- Diverse and Appropriate
- Safe and Secure
- Well maintained and clean
- Enhanced and Protected
- Sustainable and Resilient
- Engaged in Community Collaboration and Partnerships.

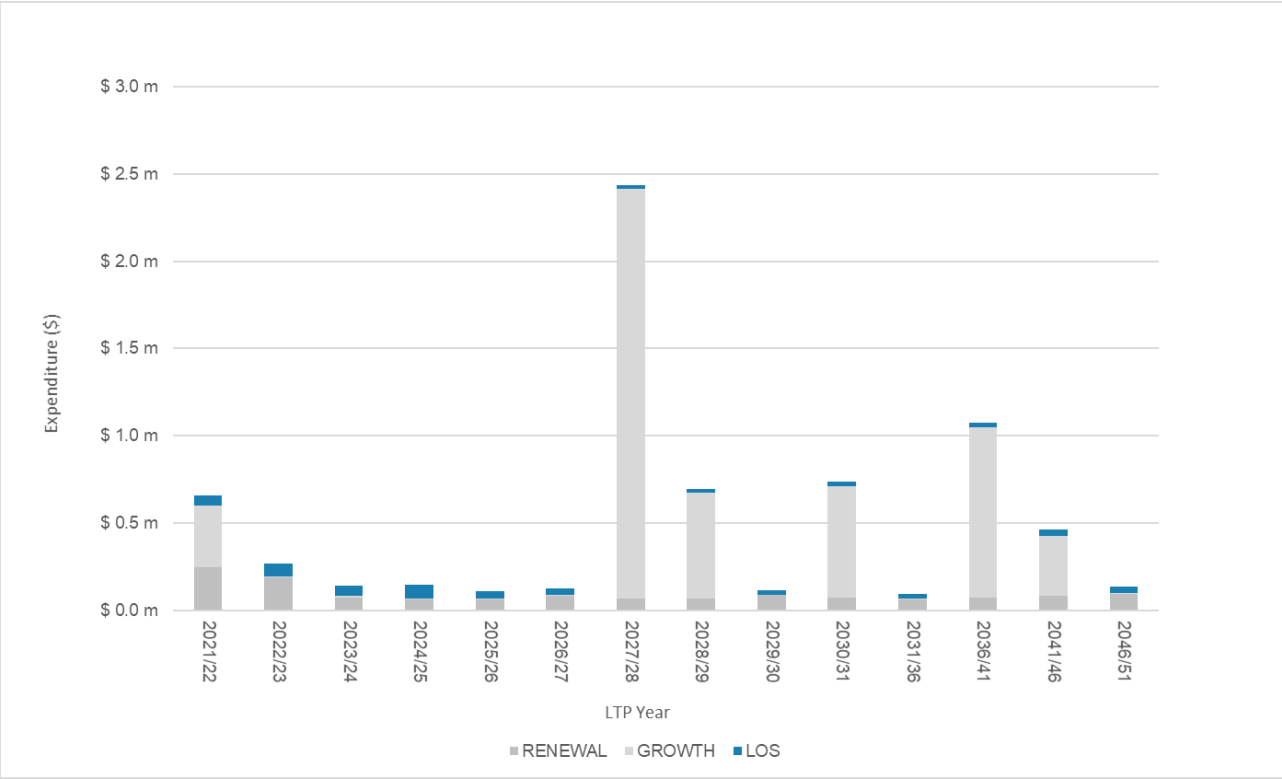
### OPPORTUNITIES

- The development of clear processes and policies
- Work with the community and the funeral industry to achieve more sustainable interment practices
- Planning for the future as bare land becomes scarcer and increasingly costly to buy.
- To incorporate more multi- cultural design into new cemeteries as Napier's population continues to be more diverse
- Work to make cemeteries more accessible for those with disabilities, incorporating into new designs and practices.

### CAPITAL EXPENDITURE FORECAST

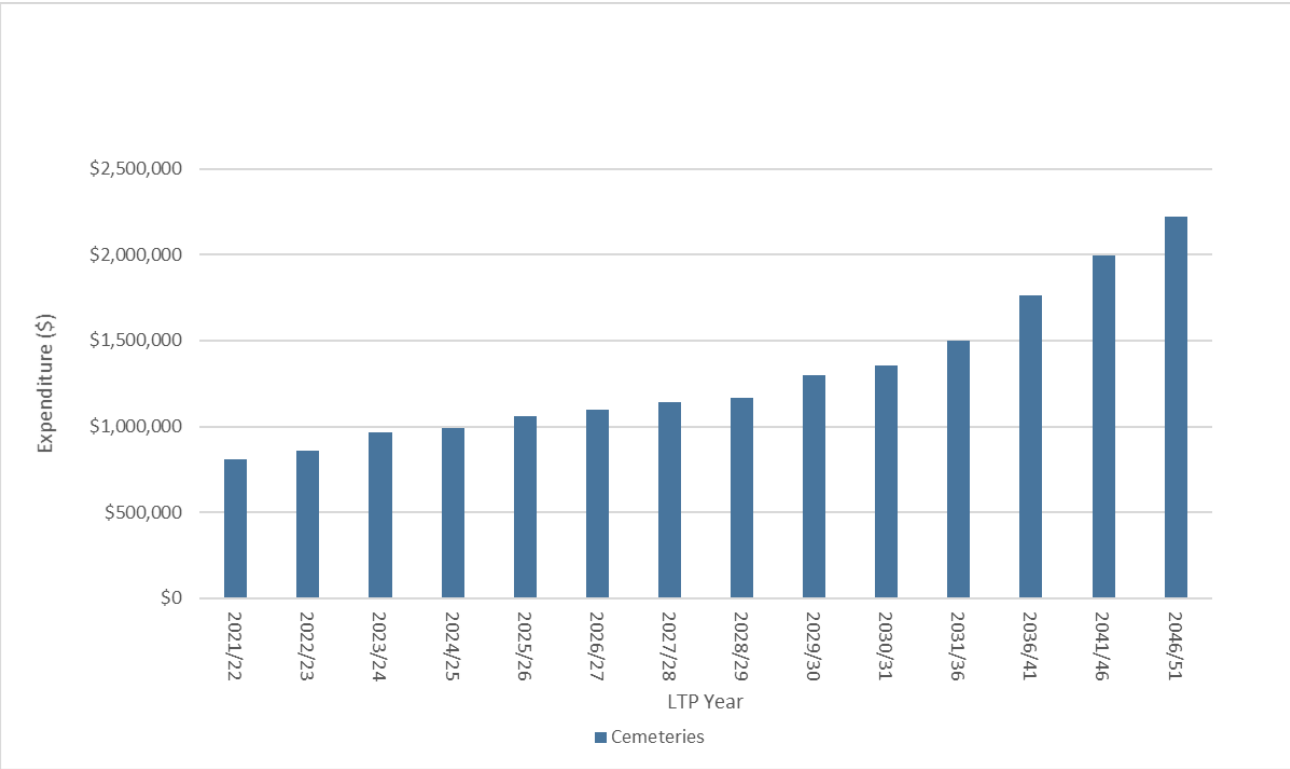
Cemetery space in Napier is now in short supply, therefore in Years 7, 8, 10, 19 and 21 additional land is planned to be purchased to keep up with demand.

Figure 18: 30 Year Capital Expenditure for Cemeteries



### OPERATIONAL EXPENDITURE FORECAST

Figure 19: 30 Year Operational Expenditure for Cemeteries



## SIGNIFICANT EXPENDITURE DECISIONS -1

Issue to Resolve:

Purchase Land for new cemetery

Outcome Required:

More land to cater for Napier's increasing population to be purchased within easy reach of town and at a competitive price.

Summary:

Napier is running out of cemetery space, and while stage 2 of the Western Hills Cemetery is currently being progressed, the space provided will not be enough as Napier's population, and therefore the number of interments increases. The only viable option is to establish a new cemetery within the Napier area.

**Assumption:** That there will be land available to procure

	Options	Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service	Renewal
Other Option Preferred Option	1	Establish new Acquire additional land for a new cemetery. Cost is the biggest factor in this option. Addition to Western Hills	\$9.6m (2028-2051) \$0.35m (2021-2022)			✓	
	2	Do nothing. This is not an option as we will run out of space within the next few years	No extra cost 2020-50	✓			

## YEAR ON YEAR COSTS

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$0.35m	\$0	\$4.8m	\$4.8m
2	\$0	\$0	\$0	\$0





### 6.4.3 Public Toilets

#### CURRENT STATE

Napier City Council provides, maintains and develops public toilet facilities to meet the needs and demands of the community and visitors to the City. Currently the city has 48 operational public toilets.

Public toilets are provided in key areas generally related to tourism (e.g. i-SITE Visitor Centre), recreation -both at sportsgrounds and passive recreation areas, and shopping activities e.g. Dickens Street and Maraenui Shopping Centre. Facilities are cleaned and inspected at least daily with the emphasis on hygiene, safety, discouragement and removal of graffiti.

#### KEY RISKS

- Covid 19 (changing trends and expectations)
- Lack of clarity around asset responsibility
- Understanding utilisation
- Changes in legislation (e.g. Freedom Camping)

#### KEY PRINCIPLES

- Encourage Recreation
- Involve and Collaborate
- Encourage Innovation
- Enhance Networks and Corridors
- Promote Sustainability

- Culture and Heritage

#### WHERE WE WANT TO BE IN 30 YEARS

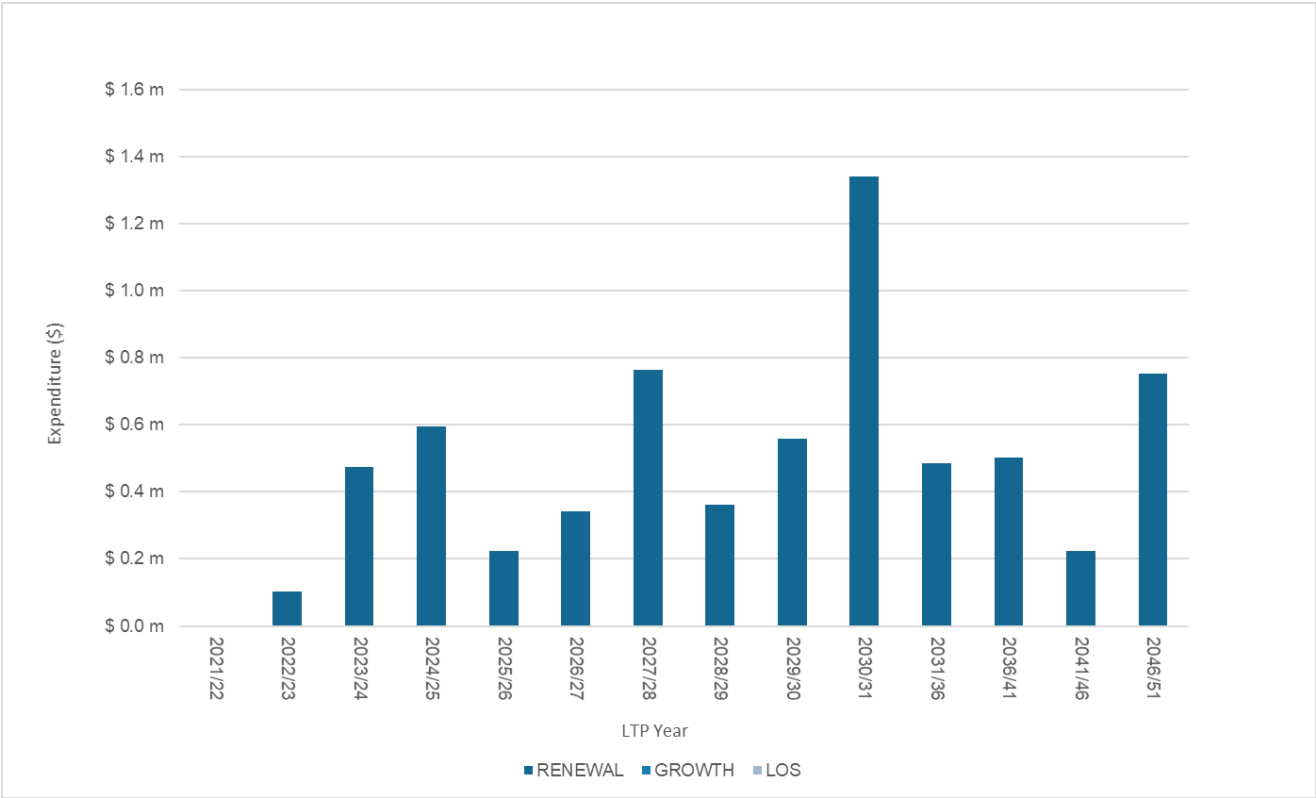
- Accessible,
- Equitable and Connected
- Diverse and Appropriate
- Safe and Secure
- Well maintained and clean
- Enhanced and Protected
- Sustainable and Resilient
- Community Collaboration and Partnerships





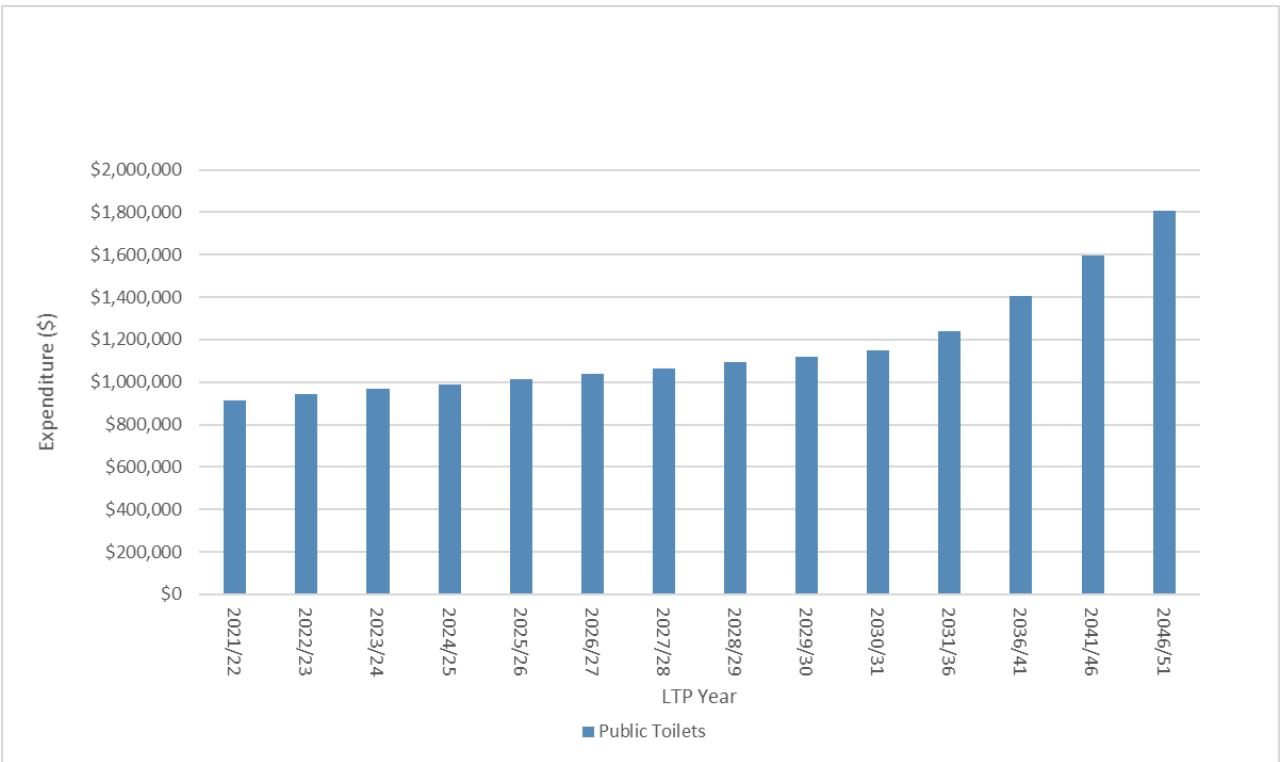
CAPITAL EXPENDITURE FORECAST

Figure 20: 30 Year Capital Expenditure Public Toilets



OPERATIONAL EXPENDITURE

Figure 21: 30 Year Operational Expenditure Public Toilets





## 6.4.4 Reserves

### CURRENT STATE

Napier City Council's reserves cover a total of 398 Hectares around the city including 38 Neighbourhood Reserves (16ha), 46 Greenbelt Reserves (252ha), 9 Foreshore Reserves (118ha) and 9 Public Gardens (12ha).

These Reserves assets support a large number of tourism events and local events, delivering highly maintained grounds and gardens ranging in location from coastal foreshore to formal botanical gardens. These areas enjoy a high profile within the city, resulting in increased expectations and standards. The Reserves department also manages the day-to-day maintenance and operation of play equipment located throughout the city, including destination playgrounds with enhanced accessibility.

### KEY RISKS

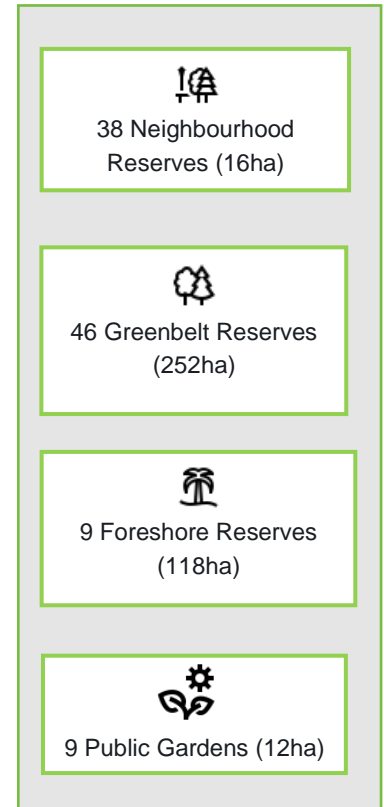
- Data (management); Asset and Compliance (Reserves Act and RMA Matters)
- Risk Assurance (management) – Audit/quality Control
- Coastal Erosion/Sea level Rise (strategic and management)
- Bluff Hill Rock Fall (Management)
- Tree Management (management)
- Heritage Management (Management)
- Procedural Operational

### KEY PRINCIPLES

- Encourage Recreation
- Involve and Collaborate
- Encourage Innovation
- Enhance Networks and Corridors
- Promote Sustainability

### OPPORTUNITIES

- Work with the community to realise our sustainability goals
- Work with community groups to improve accessibility for all
- Contribute to the work being done nationally in the fight against coastal erosion and inundation
- Create more reserve space to balance the increase in new housing developments
- The ability to support more local and tourism events



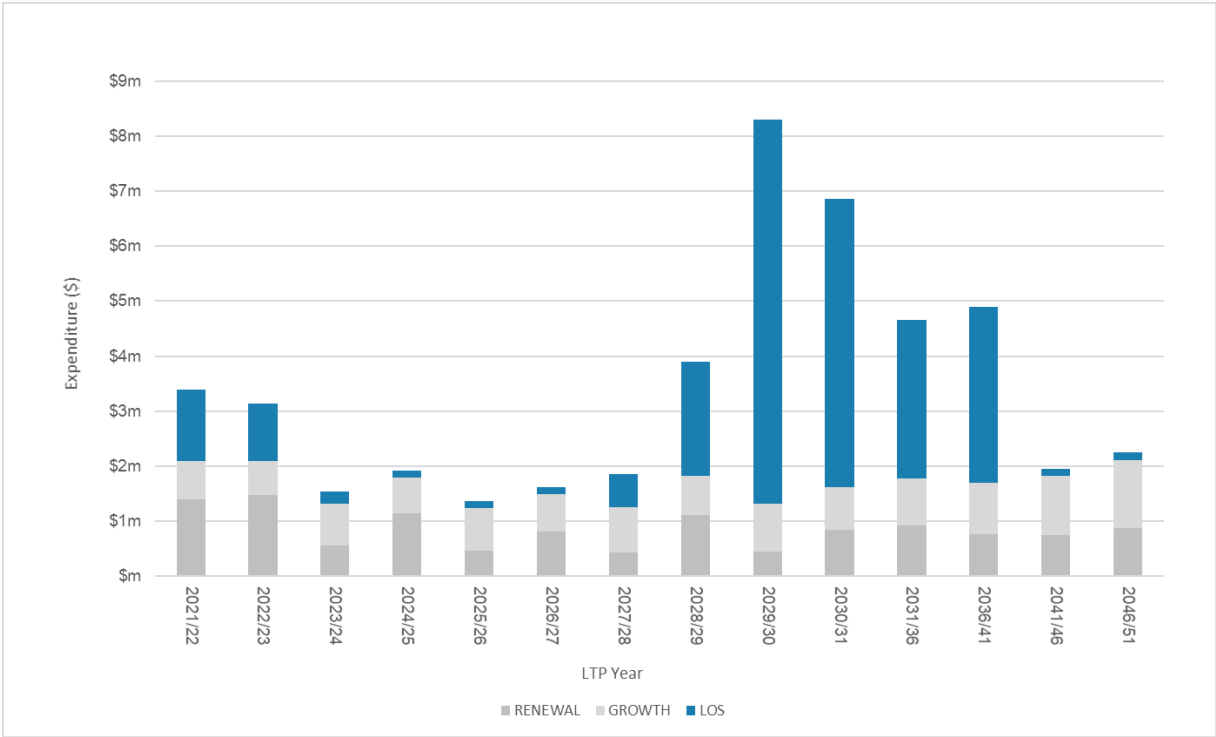
### WHERE WE WANT TO BE IN 30 YEARS

- Accessible, Equitable and Connected
- Diverse and Appropriate
- Safe and Secure
- Well maintained and clean
- Enhanced and Protected
- Sustainable and Resilient
- Community Collaboration and Partnerships



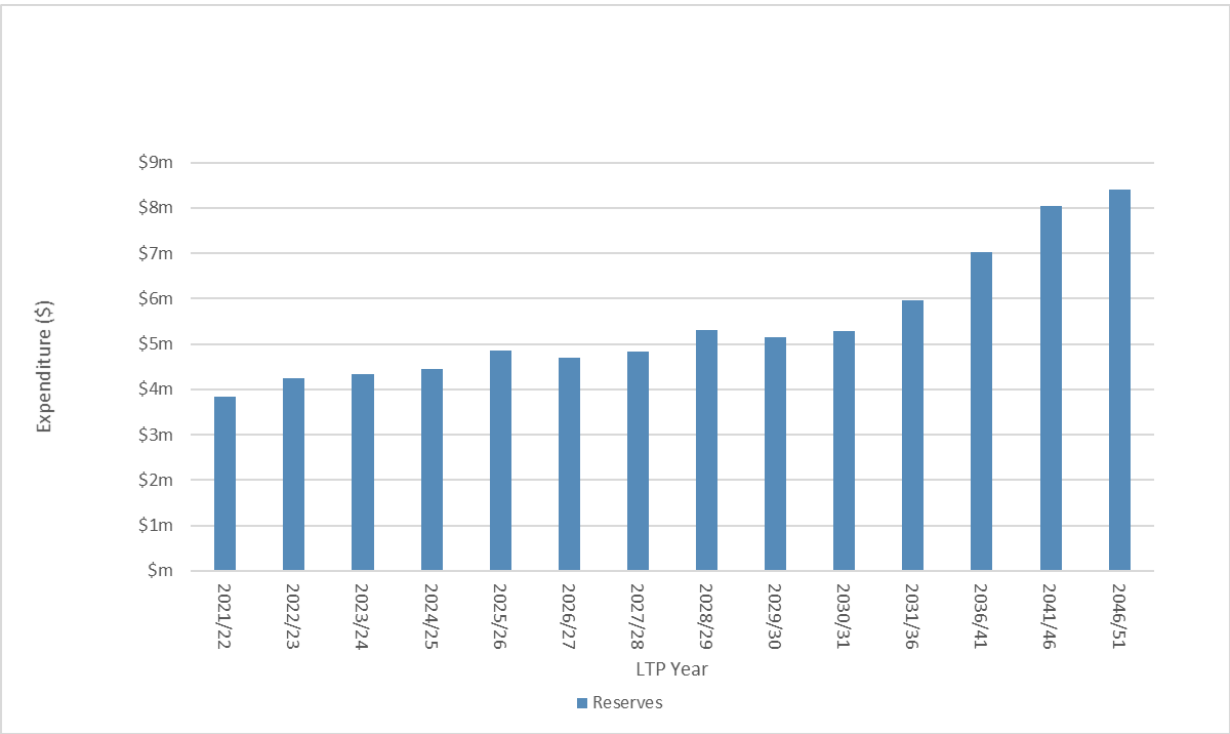
CAPITAL EXPENDITURE FORECAST

Figure 22: 30 Year Capital Expenditure for Parks and Reserves



OPERATIONAL EXPENDITURE FORECAST

Figure 23: 30 Year Operational Expenditure for Parks and Reserves





## 6.5 Building Asset Management

The building assets consists of 85 buildings, 377 rental units, 7 Memorials, 12 pools and various plant and equipment. Napier city has an extensive portfolio of properties and buildings used to accommodate staff and to provide services to residents and visitors. The Building Asset Management (BAM) Activity involves owning and managing of the building assets on behalf of the community of Napier City.

The Activity aims to ensure that the buildings are maintained for their specific purposes throughout their life cycle.

Building Asset Management (BAM) at Napier City Council is at a low level of maturity and is being developed as specific needs are identified and resourcing allocated to support the respective activities that own the building assets.

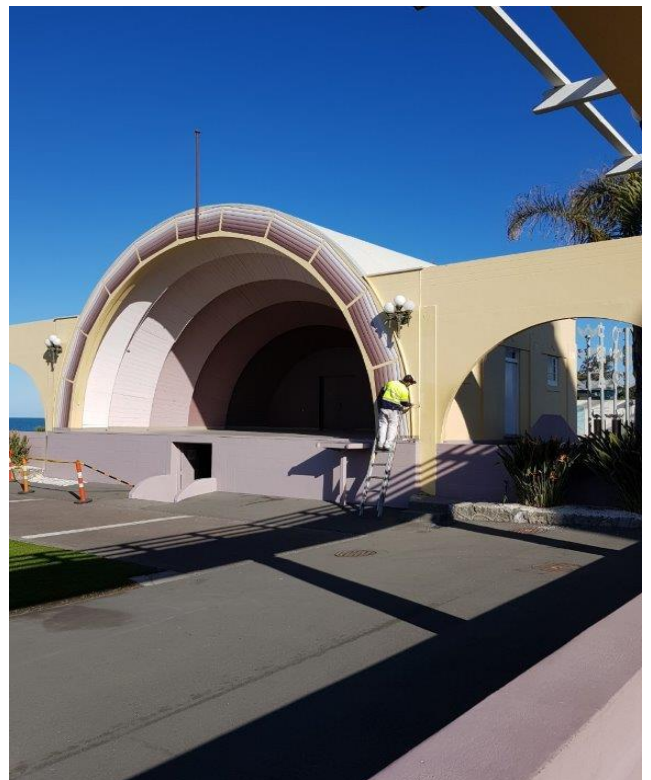
The BAM team is under development and proposing to grow capacity. It is currently in a discovery phase across the Buildings portfolio.

### KEY RISKS

- Levels of service have not been clearly set.
- Over or under investment in buildings.
- Buildings and/or critical plant and machinery becoming unsafe.
- Levels of service not met.
- Incomplete risk analysis.

### KEY PRINCIPLES

- Ensure buildings and associated plant are safe and fit for purpose.
- Service, maintain & renew buildings to agreed levels of service.
- Provide specialist advice to Activity Managers regarding building development, refurbishment & renewals.
- Building Compliance – Ensure that Napier City Council owned buildings meet legislative requirements
- Gather, interpret and use quality data to implement maintenance & renewal programs



## WHERE WE WANT TO BE IN 30 YEARS

We want to have a mature Building Asset Management strategy with resources, systems, reliable data and good decision-making tools. These will ensure that buildings are safe, the value of buildings is maximised and lifecycle (total) cost of ownership is minimised whilst taking into account zero carbon philosophies.

## OPPORTUNITIES

Develop clear policies, processes and procedures aligned with best practice and wider Council objectives.

Embrace modern and developing technology to improve and enhance reporting and provide real-time information.

Collaboration with similar sized Councils to share resources & minimise duplication of effort where practicable.

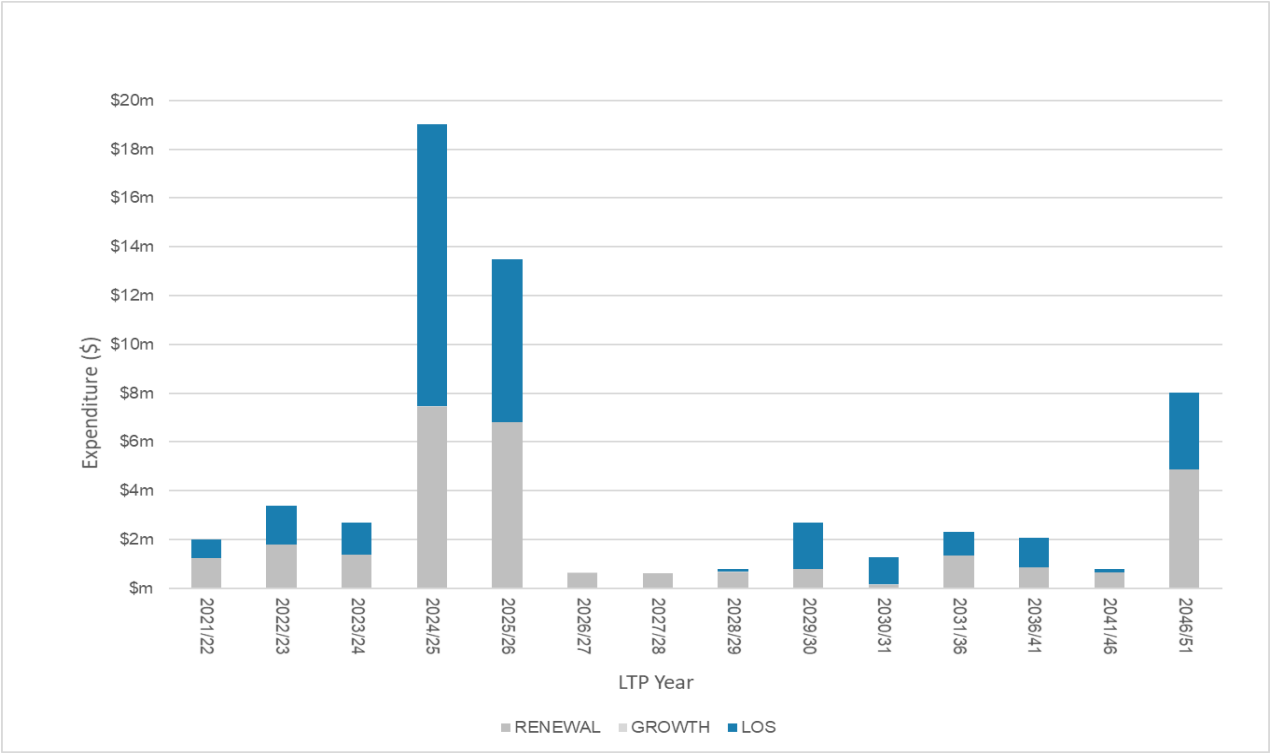




CAPITAL EXPENDITURE FORECAST

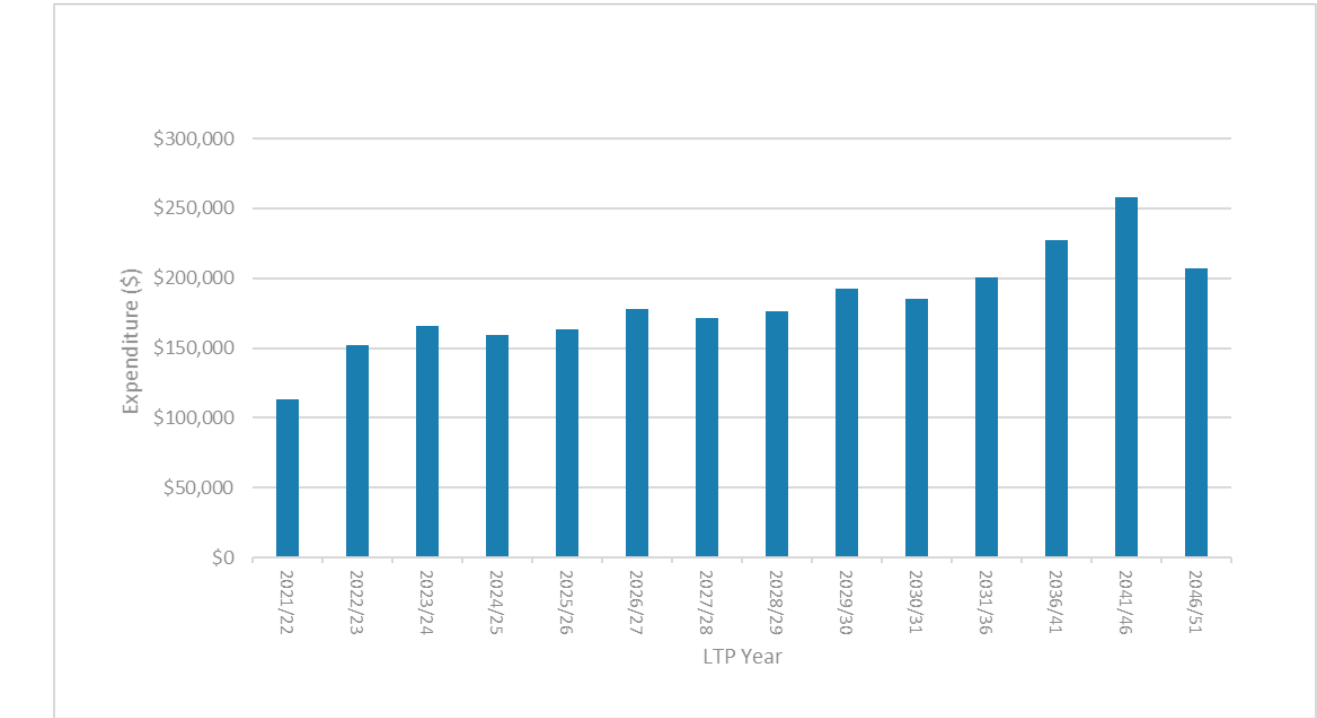
\$34.55m is planned to be spent in the first 5 years and the main contributor to this expenditure is the new community centre in Maraenui – Te Pihinga, estimated at \$10.25m over years 1 to 3 and the rebuild of the Napier Library and Civic Precinct during the first 5 years of the plan, at an estimated total of \$54m.

Figure 24: 30 Year Capital Plan for Council Buildings and Facilities (note excludes Te Pihinga and Kennedy Park)



OPERATIONAL EXPENDITURE FORECAST

Figure 25: 30 Year Operational Plan for Council Buildings and Facilities (note excludes Kennedy Park)



## SIGNIFICANT EXPENDITURE DECISIONS -1

Issue to Resolve:

The Faraday Centre building is not owned by the Council, and needs upgrading

Outcome Required:

To be able to maintain the building and the collection in its current place.

Summary:

The building that the Faraday Centre occupies is leased by the Hawke's Bay Museums Trust for a very low cost. The building has been assessed as 'earthquake-prone' and needs to be strengthened. There has been little spent on the building over the years and even without the need for strengthening, it is in need of an upgrade to make it function safely and more effectively for staff and volunteers, visitors and the collection itself. Making these improvements would also open the opportunity to offer education programmes and school visits. To enable the works to proceed the Council would have to purchase the building from the Hawkes Bay Museums Trust.

Assumption:		That there will be land available to procure				
Options	Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service	Renewal
Preferred Option	Keep the Centre Open	Continue to provide operational support to keep the Faraday Centre open until the business case is completed and options are considered. Would allow the centre to continue to provide a unique experience to visitors and residents, and further develop its collection and services.	\$2.3m (2021-2031)	✓	✓	✓
Other Option	Close the Centre	Close the centre until the business case is completed and options are considered. This would save staff costs, but some operating costs would remain.	\$1.92m (\$30k approx. to close, \$10k per annum for 9 years) \$1.8m Held	✓		

## YEAR ON YEAR COSTS

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$1m	\$2m	\$0m	\$0m
2	\$0.05m	\$1.8m	0	0

## SIGNIFICANT EXPENDITURE DECISIONS -2

Issue to Resolve:

Civic Precinct is no longer habitable due to earthquake prone status and needs regeneration

Outcome Required:

Library to return to its original site and the return of Council staff to a single office.

Summary:

We have brought these two projects together and have started developing a masterplan for the entire site and will consult with the community in the coming months. Dealing with the project as one means that we can avoid duplication in the facilities themselves and save money overall.

Assumption:		That there will be land available to procure					
Options		Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service	Renewal
Preferred Option	Rebuild	Dealing with the project as one means that duplication can be avoided in the facilities themselves thus saving money overall	\$55m (2021-2027)	✓			✓
Other Option	Do Nothing	Not an Option					

## YEAR ON YEAR COSTS

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$1.2m	\$53.8m	\$0m	\$0m



## SIGNIFICANT EXPENDITURE DECISIONS -3

### Issue to Resolve:

An urban development plan focusing on growing economic and social prosperity in the area.

### Outcome Required:

A facility that provides a flexible environment that can respond to changing needs while recognising the community's identity and values. A focus on employment, training and entrepreneurship will provide facilities that grow talent and enable the community to thrive.

### Summary:

We have been working with appropriate agencies to come up with an urban development plan focusing on growing economic and social prosperity in the area. Changes have already started to happen in the area with new houses being built and more planned. To support this growth and to create positive opportunities for whānau development, particularly for rangatahi, we have developed a concept for a new community facility.

Assumption:		That there will be land available to procure					
Options		Implications of options / what are the benefits?	Cost estimate and timing	Operational	Growth	Levels of service	Renewal
Preferred Option	1	<b>Build Now</b>	If we spend 2021 finishing the design, working up the operating model and completing tendering processes. These timeframes would challenge our ability to achieve added benefits such as social procurement (jobs and training for locals) and environmental outcomes (smart building practice etc).	\$10.5m (2021-2023) \$740k (2024 onward)	✓		✓
	2	<b>Build Later</b>	Develop our design, explore options for the operating model, confirm partnerships and other funding sources, and develop a social procurement plan to achieve jobs and training for locals.	\$10.5m (2023-2025) \$740k (2026 onward)	✓	✓	✓

### YEAR ON YEAR COSTS

Option	Year 1-3	Yr 4-10	Yr 11-20	Yr 21-30
1	\$10.5m	\$0.44m	\$0.74m	\$0.74m
2	\$0m	\$10.5m	\$0.74m	\$0.74m

## Appendix A:

## COUNCIL VISION:

A VIBRANT AND INNOVATIVE CITY THAT PROVIDES FOR THE WELLBEING OF OUR COMMUNITY NOW AND INTO THE FUTURE

### COMMUNITY OUTCOMES



Our community and Council are one



Our Water is clean and safe



We are a city that thrives with its community



Our services and infrastructure meet our community's needs



Our Community is connected, safe, healthy and resilient.



We treasure our culture, our heritage, our environment

### KEY INFRASTRUCTURE ISSUES



Affordability



Supporting Economic Recovery



Enabling Growth



Providing appropriate Infrastructure



Improving Environmental Outcomes



Addressing natural hazards & prepare for Carbon 0



Streamlining BAU Processes, & Data Quality



3 Waters Reform

### INFRASTRUCTURE GOAL

Providing infrastructure that supports and enhances the quality of life in our city

### HOW TO GET THERE



Manage Change Effectively



Optimise Infrastructure Funding



Improved Community Engagement



Review Funding Mechanisms



Use Existing Opportunities & Initiatives



Investigate Future Needs

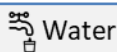


Investment in People



Strategic Asset Management

### OUR INFRASTRUCTURE PRIORITIES



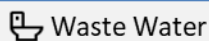
Water

Install new Borefields (x2)

Network Backbone Upgrades

Replace Enfield Reservoir

End of Life Asset Replacement



Waste Water

Replace Outfall & Pump station

Upgrade Treatment Plant

Upgrade or Create New Assets

Network Backbone Upgrades



Storm Water

Stormwater Storage at Lagoon Farm

CBD, Napier Sth & Onekawa Flood Alleviation

Marewa-Whitmore Park Flood Alleviation



Building Asset Management

All NCC Buildings Meet Legislation

Civic Precinct

Te Pihinga



Parks and Reserves

Sportsground Asset Replacement

Onekawa Park Upgrade

McLean Park Facility & Turf Renewals

Park Island Development

Reserve Asset Maintenance and Renewal

Westshore Erosion

Purchase Cemetery Land

Regional Park\*



Transport

Asset Renewals – Kerb & Channels and Footpaths

Safe Footpath and Cycleway Network

















Major Developments






Parklands Development





Supporting City Wide Development










## Appendix B:

### Key Facts at a Glance

 Transportation	 301 Km urban roads & footpaths	 56km Rural Roads	 45 Km Cycle Paths	 15,822m Traffic Islands
	 15,607 Street Lights	 6885 Street Signs	 72 Bridges and large culverts	 5,902 Street Trees
	 24 Bus Shelters	 5441 Sumps & manholes	 6374 safety barriers & railings	 480km Kerb and Channel
	 1369 culverts with diameter less than 900mm			

 Water Supply	 485 Km Pipes	 11 Reservoirs	 7 Booster Pump Stations	 10 million cubic meters per year
 Waste Water	 390 Km Pipes	 49 Pump Stations	 1 Biological Trickling Filter	 1 Milliscreen Plant
 Storm Water	 241 Km Pipes	 9 Pump Stations	 100 Km Drains & Channels	 2 Detention dams
	 70% Discharged to Ahuriri Estuary			

 Building Assets	 85 Buildings	 377 Rental Units	 7 Memorials	 12 Pools	 Plant & equipment
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 Parks and Reserves	 38 Neighbourhood Reserves (16ha)	 46 Greenbelt Reserves (252ha)	 9 Foresore Reserves (118ha)	 9 Public Gardens (12ha)
	 14 General Sports Grounds	 2 Premier Sports Grounds	 6 Cemeteries (35ha)	 48 Operational Public Toilets