
Infrastructure Strategy

Draft PNCC Infrastructure Strategy 2024 – 2054

Setting the scene

1. Introduction and purpose

Legislative requirement

Our 30-year Infrastructure Strategy (“the Infrastructure Strategy”) has been prepared and adopted in accordance with Local Government Act (“LGA”) requirements that apply to all local authorities.

Purpose

The Infrastructure Strategy sits alongside our Financial Strategy and other strategic documents (including the Strategic Asset Management Plan - see Section 3 *Strategic context* for further details). In accordance with the LGA the purpose the Infrastructure Strategy is to:

- a) Identify significant infrastructure issues for the local authority over the period covered by the strategy; and
- b) identify the principal options for managing those issues and the implications of those options.

Scope of the Infrastructure Strategy (inc. 3 waters approach)

In the context of this strategy infrastructure is physical assets owned by Palmerston North City Council. We engage in activities that use the assets to provide services to the community. This strategy goes beyond requirements of the LGA to include the following activities that we consider to be of particular importance to Palmerston North:

- Transport (e.g. roads, bridges, footpaths, cycling facilities, public transport)
- Property (e.g. social housing, community and cultural facilities, Council operational buildings)
- Recreational Assets (e.g. reserves, playgrounds, cemeteries, swimming pools)
- Resource Recovery (e.g. recycling services, rubbish collection and disposal)
- Three Waters:
 - Water supply (e.g. dams, bore sites, treatment, pipelines, property connections)
 - Wastewater (e.g. property connections, pipelines, pump stations)
 - Stormwater ((e.g. property connections, pipelines, pump stations, treatment)

Focus of the Infrastructure Strategy

There are several key infrastructure outcomes we are seeking to achieve through the Infrastructure Strategy:

- meeting the development capacity commitments for our growth planning;
- providing targeted interventions that maintain capacity and levels of service (LOS);
- continuing to stimulate economic development;
- maintaining legislative compliance.

This strategy considers the impact of the following on the provision of the activities:

- Demand for services (growth and decline)
- Level of Service (“LOS”) (increases and decreases)
- Condition (e.g. quality, responsiveness, sustainability)
- Performance (e.g. efficiency and reliability)
- Risk
- Legislative requirements and changes

2. Contents of the Infrastructure Strategy

The Infrastructure Strategy responds to the requirements in the Local Government Act 2002, specifically section 101B. The alignment to these requirements is described in the table below.

Topic	Section	Description	Linkage to LGA 2002 Clause 101B
Setting the Scene	1. Introduction and purpose	High level context on the Strategy and it's drivers	2 and 3
	2. Contents of the Infrastructure Strategy		
	3. Strategic context		
	4. Key drivers for the IS		
	5. How our city is changing		
	6. Planning to act at the right time		
Current state of play	7. Existing infrastructure overview	Summary of the core infrastructure in the district and how that infrastructure is doing now	4(c) and (d)
	8. Existing levels of service		
	9. Future demand for services and levels of service		
	10. Existing state of our infrastructure		
Confirming and managing our significant infrastructure issues	11. Our significant infrastructure issues	Confirming the significant issues stemming from the key issues and current state of play	4(a) and (b)
	12. How these significant issues intersect with our activities		
	13. Increasing what we know about future demand and levels of service		
	14. Continuing to grow our evidence base on the categories to help decision making and budgeting		
Our planned response	15. Significant portfolios for our significant infrastructure issues	Details Council's response to the significant issues for major programmes	4(a) and (b)
	16. Our plan		
Financial Summary	Total investment by category	Identifying the costs related with the principal options	4(a)
	Overall expenditure by activity		
	Overall renewal investment by activity		
	Overall capital expenditure by activity		
	Overall growth capital investment by activity		

3. Strategic context

Every asset-based service we deliver to our community contributes to achieving the Vision, Goals and Strategies that form the strategic direction our elected members have set for the city. Our strategic direction is as follows:

Our vision: Small City Benefits, Big City Ambition.

Our goals and outcomes:

Goal 1: An innovative and growing city

Outcomes:

- a city that fosters pride, and supports the aspirations of people and communities
- a business environment that encourages investment and delivers career opportunities in a range of sectors
- enough land and infrastructure to enable housing development and business growth
- the efficient movement of goods and services alongside safe and affordable transport options for people
- a globally connected city that fosters opportunities for local people, businesses, and organisations
- an economy that embraces innovation and new ideas, and uses resources sustainably
- a resilient, low-carbon economy

Goal 2: A creative and exciting city

Outcomes:

- a vibrant city that connects people, and where creativity is built into our city scape
- an arts community and cultural facilities that are well supported and invested in
- our unique heritage preserved and promoted

- opportunities to celebrate our many cultures
- access to exciting, well-managed events and activities throughout the city and its neighbourhoods
- places across the city and its neighbourhoods for communities to take part in play and recreation

Goal 3: A connected and safe community

Outcomes:

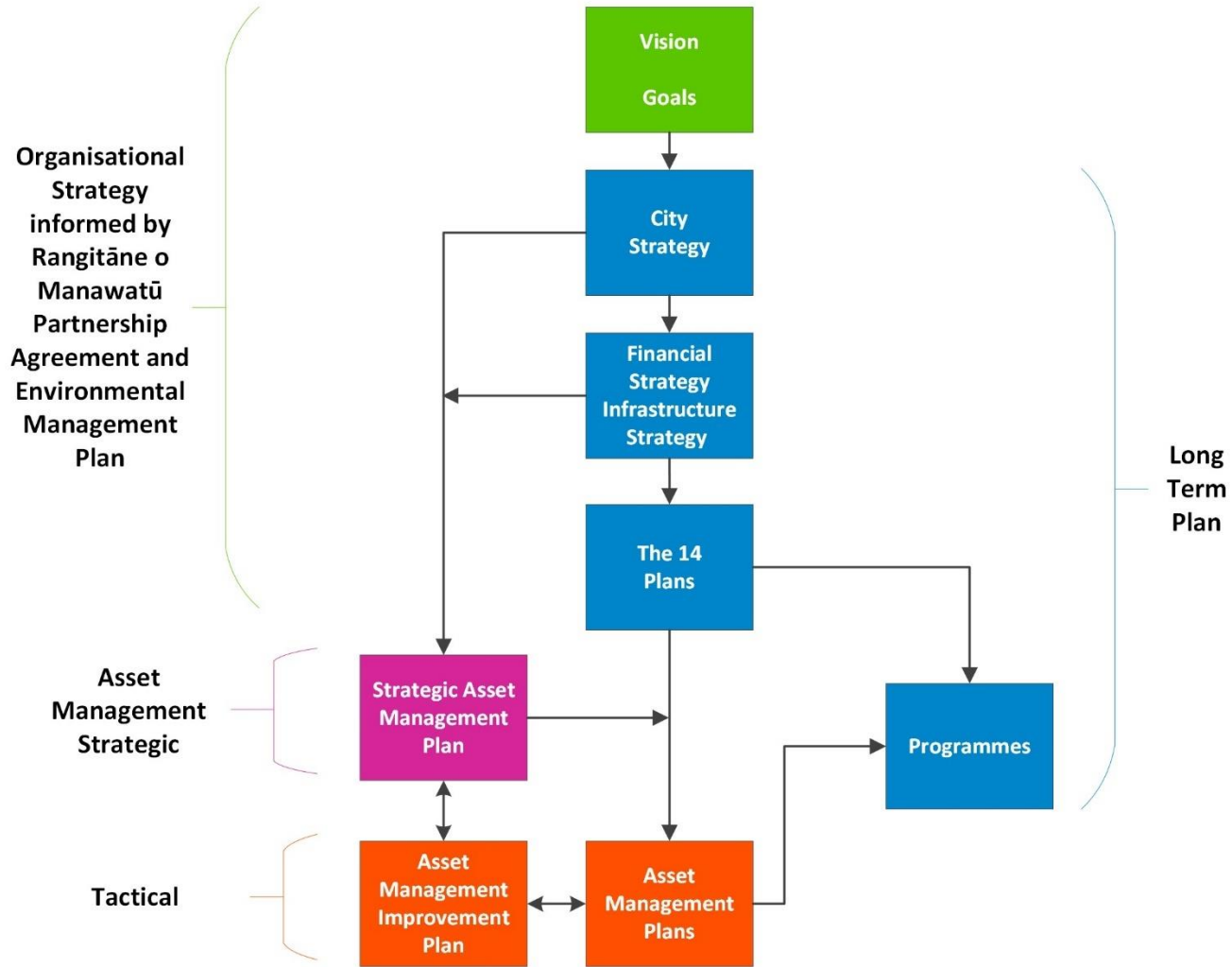
- access to services and facilities that are inclusive and appropriate for their needs
- the support they want to live healthy lives
- access to healthy and affordable housing
- opportunities to contribute to the design of our city

Goal 4: A sustainable and resilient city

Outcomes:

- a sustainable and low-emissions city
- a resilient city and communities, prepared for the impacts of climate change
- a circular economy with more resource recovery and less waste
- a healthy, thriving, ecosystem, including native biodiversity and food security
- the Manawatū River and waterways restored to a healthy, respected, and connected state
- sustainable urban planning with a low-carbon built environment
- a safe, affordable, sustainable, and resilient water supply
- effective, low-carbon, wastewater collection and treatment
- infrastructure designed to manage projected one-in-fifty-year flood events
- access to relevant information and education to support more sustainable choices

The relationship between this strategy and the strategic documents that form part of the Long-Term Plan are shown in the diagram below.



To acknowledge that some strategic matters are addressed in other parts of the Long-Term Plan and hence prevent duplication we have not repeated that content within the Infrastructure Strategy. Rather, strategic content of relevance is in other parts of the Long-Term Plan as follows:

Strategic component	Location in Long-Term Plan
Our four overarching goals	Chapter XX
Strategic plans for key matters	Chapter XX
Integrated growth map	Chapter XX
Assumptions	Chapter XX

4. Key drivers for the Infrastructure Strategy

There are several principal external drivers that have influenced council's decision making in this strategy. These drivers have been identified within this strategy because they are of particular relevance to managing Palmerston North's infrastructure, but they are not unique to our city. Most represent principal external influencers for infrastructure for cities across Aotearoa New Zealand and beyond.

Our key drivers for infrastructure decision making are:

- Growth
- Climate change
- Resilience
- Sustainability
- Legislative requirements and changes
- Technology advances

A summary overview of each principal external driver is included below.

Growth

Upward change in population and economic growth and a growing urban environment¹ has a significant influence on decision making for infrastructure across the city to accommodate this growth. The National Policy Statement on Urban Development ("NPS UD") removes barriers to development to enable growth up and out in the right locations to ensure there is good access to existing services and infrastructure. Managing growth also needs to take into

¹ Urban environments include: Residential, Business and Industrial land

account how people want to live, where people want to live, urban design principles, what constitutes well-functioning environments and how connectivity with the region can be optimised. All of this informs decisions on where investment in infrastructure is required and what type of infrastructure is needed.

Climate change

Climate change is a significant environmental challenge. In the future the city's climate will be different from now and will require changes to infrastructure assets. We will consider climate change as part of our asset management planning. This includes addressing the causes of climate change and adapting to its effects on communities. This includes rainfall increases and decreases, as well as temperature increases.

The effects of climate change are global, and they are already being felt across Aotearoa New Zealand. It is important, therefore, that infrastructure provision in Palmerston North occurs in a way that enables a low carbon, climate resilient future. We need to invest in infrastructure that minimises greenhouse gas emissions and waste across the whole of the life cycle of the asset. This is essential in Council achieving its goal of a 30% reduction in emissions by 2030 and net zero by 2050. Infrastructure provision will also need to address the predicted impacts of climate change on communities. This includes rainfall increases and decreases, as well as temperature increases.

Resilience

Infrastructure resilience is the ability to reduce the magnitude and/or duration of disruptive events that affect infrastructure. Resilience in infrastructure involves not only investment in the robustness of structures, but also in the adaptation and recovery of infrastructure systems and the communities they serve. Resilient infrastructure is a key means to achieve sustainable development and requires knowledge sharing, networking, and collaboration among sectoral specialists and disaster risk management experts.

Sustainability

Sustainable infrastructure requires the development and management of infrastructure in a way that maintains the social, economic, cultural and environmental processes required to support equity, diversity, and the functionality of natural systems. Infrastructure investment decisions must be positively linked to sustainable development and should provide a synergy between climate mitigation, societal outcomes, cultural inclusion and growth.

Legislative requirements and changes

In recent years central Government has been progressing a suite of legislative reforms, including for the three waters, resource management, local government, and waste. These reforms all impact on infrastructure decision making and investment in some way with key reforms (such as those listed) having a significant impact on infrastructure decision making for the Council. Council will also need to react to other legislative change that may occur.

In addition, we have a number of resource consents that are due to be renewed in the next 4 –10 years across our water, wastewater, stormwater and resource recovery activities. If these were to expire, they would have direct impact on our levels of service.

Technology Advances

Advances in technology provide us with the capability to operate in a different way, managing assets and providing levels of service in more efficient, better, easier, or more cost-effective ways. Breakthrough technologies are rapidly changing the way infrastructure is built and operated, reshaping the way the infrastructure industry operates, bringing major implications for us and our customers. The Government encourages the use of new technology commissioning the development of a Digital Government Strategy to “set the direction and create the conditions to transform the way government operates in an increasingly complex and fast-changing digital world”.

We use digital transformation and smart new technology to bring about greater organisational efficiency. We aim to replace obsolete technology, along with staff training, redesigning, and updating business processes and organisational structures.

5. How our city is changing

Statistics NZ estimated the city population to be 90,400 in June 2022 with no change from June 2021. This compared with estimated population growth of 0.2 percent nationally, over the same period. Population growth in Palmerston North was negatively impacted by border closures in force due to COVID-19. This affected access to highly skilled international workers particularly in specialised health care roles, a decline in international student numbers and fewer refugee arrivals over the period 2020-2022. Despite this, Palmerston North’s share of the total national population remained stable at 1.8% between 2016 and 2022 as population growth across other metropolitan areas were also significantly impacted by border closures.

The Palmerston North economy has proven resilient over the period of disruption created by COVID-19 and restrictions on economic activity. While economic growth has exceeded expectations, as above the population growth needed to support the city economy fell away between 2020-2022. The reopening of the New Zealand borders has driven a sharp turnaround with a record 110,200 new residents relocating to the country in the year to August 2023. The city benefited from this record net international migration, boosting the city population by 1,600 over the year to June 2023. Alongside the estimated \$8 billion in investment planned for the Manawatū region, strong population growth is expected to continue with the population of the city expected to reach 118,000 by 2054.

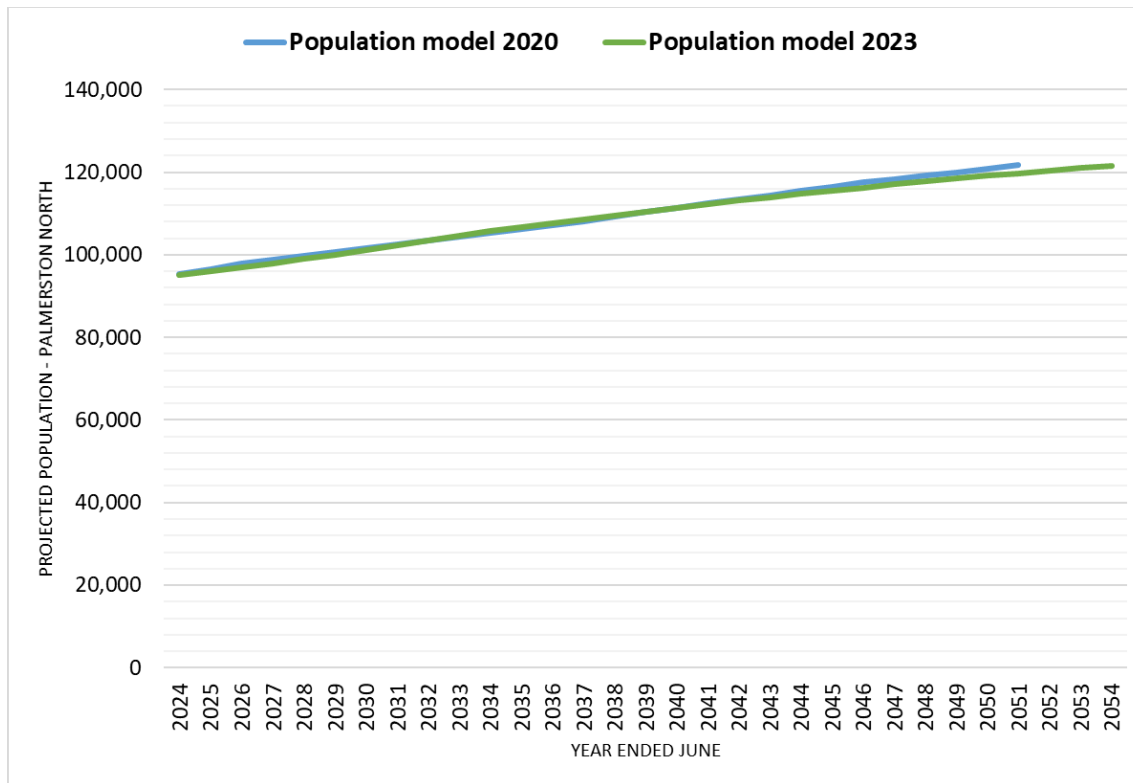
Population Projections

Council has developed a hybrid population and household growth model that reflects higher near-term growth than anticipated by Infometrics. This model was completed in May 2023 in preparation for the Long-Term Plan. We based the projections on both the Statistics New Zealand population projections (2022) and the Infometrics medium growth scenario for the period 2024-2054. As above, recent projections indicate a much higher growth scenario than that initially envisaged by Infometrics for 2022-2024. For that reason, the Statistics NZ high population projection has been employed as a starting point for the 2024-2034 LTP, with the Infometrics medium growth scenario (annual percentage growth) applied over the 30-year planning period.

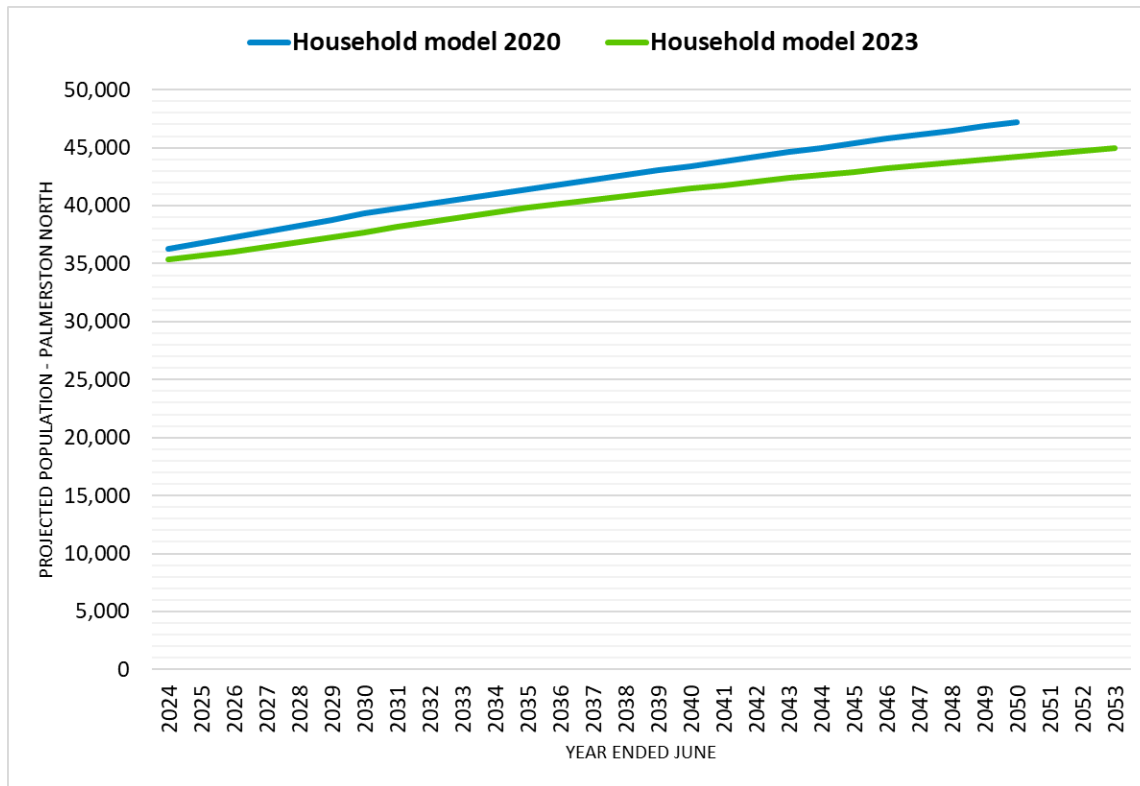
The population and the number of households in Palmerston North are predicted to grow at a moderate rate over the next 30 years (2024-2054) as shown in **Table/Figure x**. Primarily, our population is growing due to increases in international net migration with more people from overseas arriving than departing (including refugee resettlement as part of the Manawatu commitment). **Natural increase is also expected to stay positive over the 30-year planning period, due to the relatively young population of the city.**

For infrastructure planning purposes, the projections include an additional 20% (2024-34) and 15% (2034-54) to accommodate additional housing capacity required by the National Policy Statement on Urban Development (NPS UD). These adjusted figures for both population and households are included in **figures x and x below**. Including the NPS UD margin, Council needs to plan for the development of an additional **9,885** homes over the next 30 years. This demand may be higher due to factors such as overcrowding and steady economic investment and growth in Palmerston North.

Table/Figure X: Population growth model 2020 versus population growth model 2023



Table/Figure X: Household growth model 2020 versus population growth model 2023



Demographic Changes

This projected population growth, increasing diversity, changes in our city’s average household size, and the number of residents in particular age groups mean that demand for the number of houses and core infrastructure services will increase. It will also change the types of housing our residents want over the next 30 years. As for business land, our commercial footprint is projected to increase with a growing population. We will need to upgrade or build new assets across all infrastructure services to ensure we can continue meeting agreed levels of service.

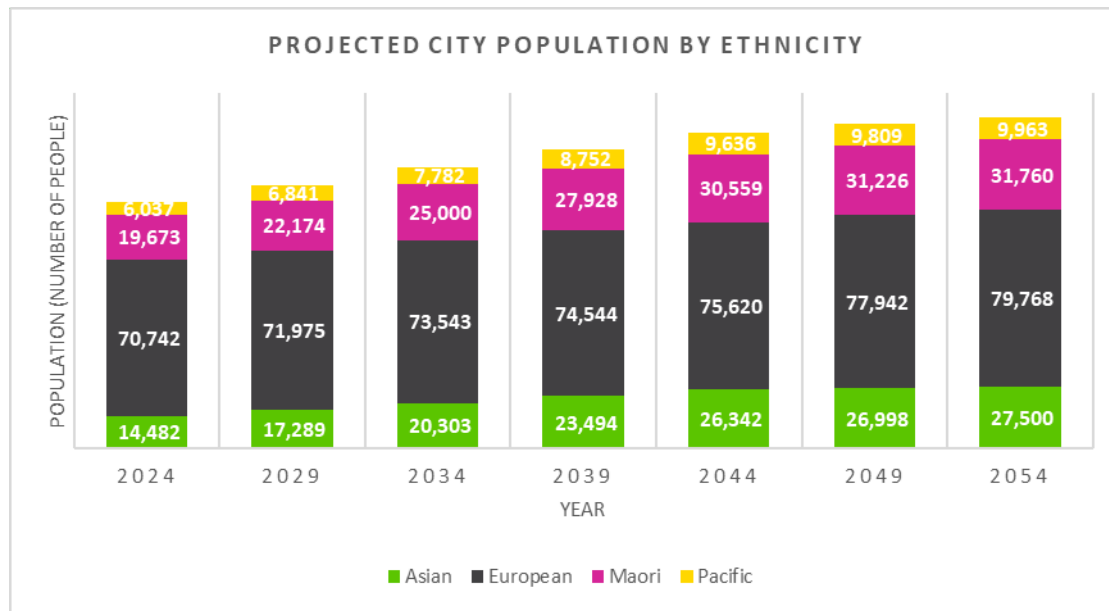
Ethnicity projections

The increasing diversity of the Palmerston North population is reflected in the ethnicity projections for 2054. As a proportion of total population, the projections indicate that, the:

- Māori population will increase by 3.6% by 2054.
- Pasifika populations will increase by 1.2% by 2054.
- Asian population will increase by 5.4% by 2054.
- European population will decrease by 10.2% by 2054.

The projected change in the broad ethnicity in Palmerston North to 2054 is illustrated in the graph below.

Table/Figure X: Projected city population by ethnicity



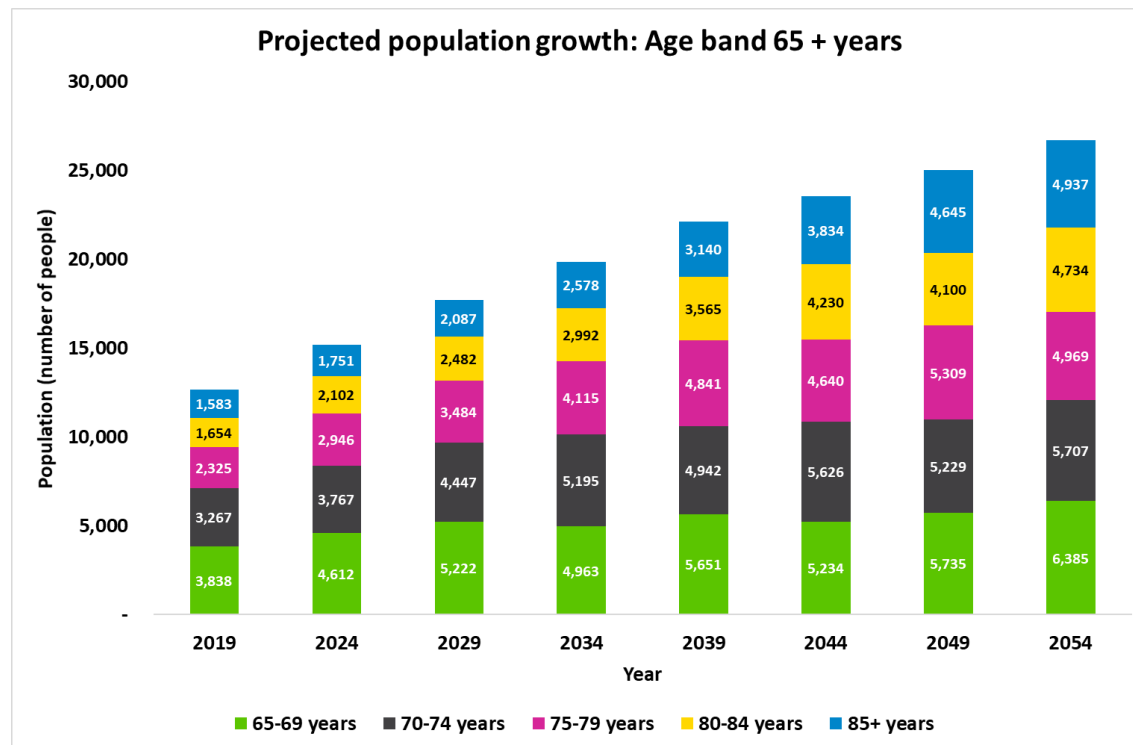
Age projections

With people living longer and easing fertility and birth rates, the proportion of city residents aged over 65 years old is expected to continue to increase to 2054. We project the city's population over 65 years old to increase from 15,178 (16% of the population) in 2024 to 26,732 (22.7% of the city's population) in 2054.

This represents a 76.1% increase in residents aged over 65 years old. This ageing population is defined by the 'baby boom' generation, which started to reach 65 years old in 2011 and is expected to continue to pass 65 years old until 2030.

The projected change in the population of the city over 65 years is shown in the graph below.

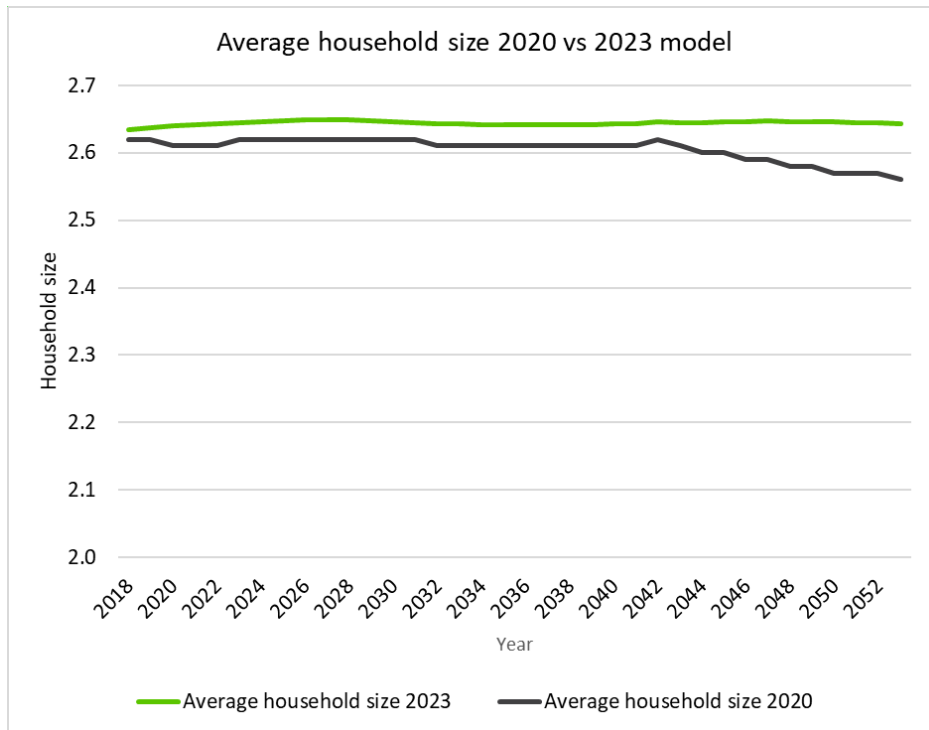
Table/Figure X: Projected population growth by age



Household size projections

The combined changes in ethnicity and age influence the average household size of dwellings in the city with the expectation of a greater number of large families driving an increase in the average household size from that projected in the 2020 households growth model. The increase in the average household size projected over time has driven a slight reduction in the city's overall number of dwellings projected to be developed (see graph XX below). Specifically, the 2020 household growth model projected a total of 45,750 dwellings in the city in 2053, compared to 43,289 in the 2023 household growth model.²

Table/Figure X: Average projected household size under the 2020 and 2023 model



² These figures are based on actual figures without the NPS UD the average household size cannot be calculated on amended numbers.

Economic projections

Palmerston North has experienced a period of strong economic growth over the five years to December 2022 with Gross Domestic Product increasing by 21.5%, compared with 17.8% nationally. Strong public sector activity, elevated construction investment and substantial growth in high value services has driven economic activity over the period.

The city faced its peak growth in residential construction two years ahead of the country. Market conditions also increased residential construction with a record 572 new dwelling consents issued in Palmerston North over the year to July 2020. New dwelling consents across the country peaked almost two years later, with 51,015 building consents issued over the year to May 2022. While New Zealand is now in a period of negative growth, Palmerston North has already experienced this and is now in a positive growth period. The first four months of 2023 indicate strengthened investment in new dwellings in the city from a weak 2022. New dwelling consent numbers continue to decline nationally.

The Palmerston North economy grew by \$300.2 million (5.1%) over the year to March 2022. Some of our largest sectors saw a dip in economic activity due to factors outside of the city's control. Public administration and safety sector Gross Domestic Product contracted by \$7 million, driven by a fall in central government administration activity and a reduction in employment in the defence force. GDP in education and training fell by \$4 million due to reduced international student enrolments.

We will have strong economic growth for the next fifteen years, major development and construction projects announced for Palmerston North and the Manawatū region amount to close to \$8 billion of construction activity over the period to 2035. A major increase in public and private sector capital investment is providing a significant boost to our economic activity and population growth, including Te Utanganui Central New Zealand Distribution Hub and Palmerston North Integrated Transport Initiative (PNITI) Regional Freight Ring Road both of which are underway.

6. Planning to act at the right time

Responding to our city's infrastructure needs at the right time to achieve these outcomes requires integrated thinking over different planning horizons. It also requires an understanding of the function of different infrastructures to identify what infrastructure actions are required now (to enable short term growth and manage existing levels of service) and what can happen over time (to respond to future change). It is critical that housing and business land supply is adequately serviced over the short (within the next 3 years), medium (3-10 years) and long (10-30 years) term. We have completed our Housing and Business Development Capacity Assessment to provide information on the demand and supply of housing and business land. This in turn will inform our (currently draft) Future Development Strategy.

In particular, growth will play a significant role in shaping our city over the Infrastructure Strategy period. **Figure X** shows the expected sequencing of future residential development over the next 30 years. This sequencing has heavily informed our infrastructure investment decision making in the Strategy.

Residential growth:

We are currently progressing a range of district plan changes to support increasing future demand for homes. Over 50% of new homes are built within the existing Residential Zone. Within the existing Residential Zone, intensification will become a more common feature of the urban environment over the coming years, so we will be looking to enable intensification in our urban environment where appropriate.

More greenfield options will become available in our already zoned greenfield areas – Mātangi, Kikiwhenua, Whakarongo and the Napier Road Residential Extension Area in the short to medium term. Further greenfield land will be rezoned for housing and will become available in Aokautere, Kākātangiata and Ashhurst in the medium to long term, however these are intended to be the final extent of greenfield growth in the city. Development in these areas is still subject to the planning process and the construction of development and additional infrastructure which will take several years.

In the short-term, growth will need to be accommodated through infill in our existing urban environments and development of our existing greenfield areas, which has been provided for through our existing District Plan and upcoming Medium Density Residential Zone plan change.

In order to keep growth affordable, we have opted to fund only infrastructure for new growth within existing urban areas, or in areas which are already zoned, or about to be zoned for residential development. Infrastructure in areas identified for growth post Year 10 of this LTP, such as Kākātangiata (excluding Kikiwhenua), Ashhurst and some aspects of development at Aokautere, is proposed to be funded by external mechanisms such as IFF or developer agreements.

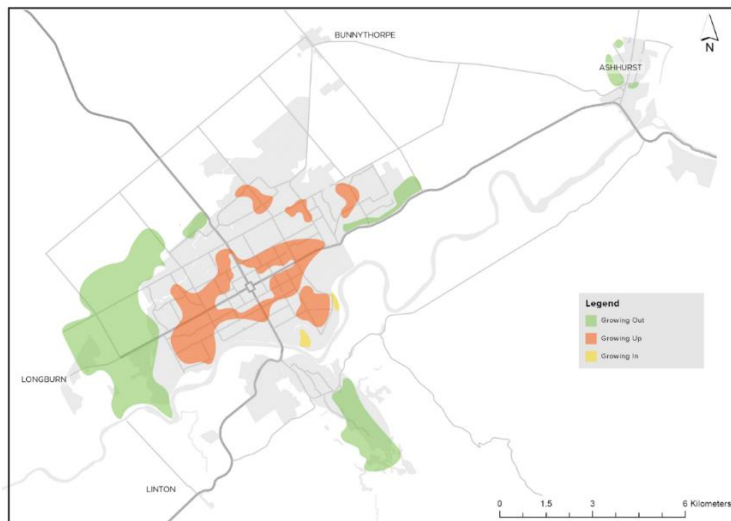


Figure x: Future Residential Development Timing Summary (homes)

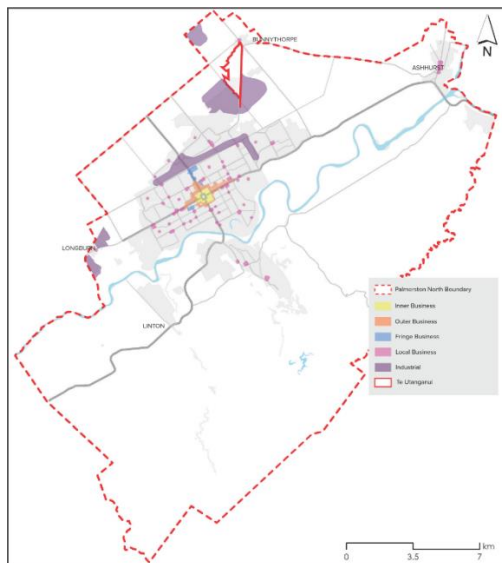
	Short term within the next 3 years			Medium term between 3 and 10 years									Long term between 10 and 30 years																	
	2024	2025	2026	2026/2027	2028	2029	2030	2031	2032	2033	2033/2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Existing Urban Environment	592			1,078									2,651																	
Hokowhitu Lagoon Residential Area	110																													
Whakarongo Residential Area	88			411																										
Napier Road Residential Extension Area		1	6	34																										
Mātangi Residential Area		60		100																										
Roxburgh Crescent Residential Area		2	5	80																										
Kākātangiata Urban Growth Areas (Excl. Stage 1)										591	2,368																			
Kikiwhenua (Stage 1 of Kākātangiata)		92		188																										
Kākātangiata (beyond the next 30 years a further 4,241 homes)																														
Ashhurst Urban Growth Areas										228	172																			
Aokautere Residential Area				300						700																				

Business and Industrial growth:

Our existing Industrial Zone caters for a wide range of industrial activities. The Te Utanganui / Central New Zealand Distribution Hub is a project to create a multi-modal freight distribution hub connecting air, road, rail and sea in the lower North Island. It is anticipated the KiwiRail Regional Freight Hub will be a catalyst for further growth of freight and logistics industries in Palmerston North. The Te Utanganui masterplan provides direction to the location, timing and extent of supporting infrastructure needed to support this growth.

The City Centre Framework coordinates public and private investment and identifies strategic development sites within the city centre (Inner Business Zone). Council's vision for the city centre is to make it a place where people want to visit and live, meet up with their friends and family, be entertained, stay longer and support local retailers.

There are no plans for expanding the business zones in the next 30 years aside from the Local Business Zone in the medium term, as land is rezoned to support neighbourhood centres in the Aokautere (1.5 hectares) and Kākātangiata urban growth areas. Our business zones have sufficient capacity to support the business sector demand. To make efficient use of our business land supply, vacant sites and buildings nearing the end of their useful life should be developed and redeveloped at more intensive rates than we have seen historically.



Moving forward it will be important for our infrastructure planning to be responsive to District Plan Changes to optimise our implementation timing. Further details on the funding mechanisms that Council can use to support implementation can be found in the Financial Strategy that also forms part of the Long-Term Plan.




Figure x: Future Business and Industrial Development Timing Summary (hectares)




	Short term within the next 3 years			Medium term between 3 and 10 years									Long term between 10 and 30 years																				
	2024	2025	2026	2026/2	2028	2029	2030	2031	2032	2033	2033/2	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054		
	Existing Urban Environment																																
Te Utanganui North East Industrial Zone Extension Area	78.5																																
Te Utanganui Industrial Area Stage 1				26																													
Te Utanganui Industrial Area Stage 2													~ 150																				
Te Utanganui Industrial Area Stage 3																									112								


Current State of Play

7. Existing infrastructure overview

Council has many assets across the city. Table X provides a summary of our assets across the activities covered by the Strategy.

Activity	Infrastructure Summary	Critical Assets	Replacement value (\$m)	Percentage breakdown replacement value activity
Recreational assets 	<ul style="list-style-type: none"> 7 city reserves (including walkways), 106 local reserves (including suburb reserves, neighbourhood / small neighbourhood reserves, esplanade reserves, ecological and special character reserves) 3 aquatic facilities 24 sports fields. 4 cemeteries 1 crematorium 	<ul style="list-style-type: none"> Cemeteries Crematorium 	\$176	6%
Property 	<ul style="list-style-type: none"> 33 operational properties 8 cultural properties (including libraries) 431 social housing units 8 community centres Central Energy Trust Arena multi-use events complex. Civic Administration Building and Central Energy Trust Arena 	<ul style="list-style-type: none"> Civic Administration Building Central Energy Trust Arena 	\$796	26%
Resource recovery 	<ul style="list-style-type: none"> Materials recovery facility 694 public bins Around 29,000 properties use our rubbish collection service 28,721 - 240L Wheelie bins 	<ul style="list-style-type: none"> Materials recovery facility 	\$32	1%

Activity	Infrastructure Summary	Critical Assets	Replacement value (\$m)	Percentage breakdown replacement value activity
Transport 	<ul style="list-style-type: none"> • 556 km of road • 106 bridges • 569km of footpaths • 8,600 streetlights • 33 sets of traffic signals • 2,700+ central city car parking spaces • 105km of on and off-road cycle lanes / paths • 13,900+ street trees. • Te Ara Kotahi footbridge • Fitzherbert Ave and Saddle Road bridges 	<ul style="list-style-type: none"> • Fitzherbert Ave and Saddle Road bridges • Bridges to the Water Treatment Plant 	\$821	27%
Stormwater 	<ul style="list-style-type: none"> • 305km of piped drains • 8 km of culverts • 5,588 manholes • 17,500+ property connections • 89 floodgates and other structures. • Large-diameter pipelines and major pump stations 	<ul style="list-style-type: none"> • Large-diameter pipelines • Major pump stations 	\$332	11%
Wastewater 	<ul style="list-style-type: none"> • 433 km of pipelines • 6,028 manholes • 40 wastewater pumping stations • Approximately 30,000 property connections • Totara Road wastewater treatment plant 	<ul style="list-style-type: none"> • Wastewater treatment plant • Major pump stations • Large-diameter pipelines 	\$498	16%

Activity	Infrastructure Summary	Critical Assets	Replacement value (\$m)	Percentage breakdown replacement value activity
Water supply 	<ul style="list-style-type: none"> • 2 Dams at Turitea Reserve • 21 water supply bores and pump stations • The Turitea Water Treatment Plant • 586km of main distribution pipelines • 196km of service distribution lines • 5,167 valves • 3,296 hydrants • 2,097 meters • 448 backflow preventers • 29,817 property connections with tobies. 	<ul style="list-style-type: none"> • Turitea dams • Water treatment plant • Water reservoirs • Large-diameter pipelines 	\$407	13%

We apply different decision-making techniques throughout the lifecycle of an asset. We use professional judgement and accepted industry best practice to define the general methodology that will be used to understand the problem and define the preferred way forward. Over time we will use a more structured approach that incorporates the use of tools such as business cases, as there are some risks with the current approach. Risks in the current approach include inadvertent run to failure, which is not an intended lifecycle strategy.

We have a range of options available to deliver services associated with assets and asset management. Service delivery options range from full in-house delivery of all asset activities by our staff, to outsourcing part, or all asset services and functions. We have progressively put in place contracts with our infrastructure service providers, and we will continue to formalise these arrangements.

Further details of how we manage the lifecycle of our assets and deliver services can be found in our Strategic Asset Management Plan, and specific details in the Asset Management Plans.

8. Existing levels of service

Our Levels of Service are underpinned by our strategic direction. However, outside of the LTP consultation process there has not been a coordinated cross-activity levels of service engagement directly with the community since 2005. We monitor the appropriateness of current levels of service through

customer enquiries and the Residents' Survey. These have shown general satisfaction with the levels of service. In determining the appropriate level of service for our customers we consider service options to balance the trade-off between risks, costs and benefits.

Our Asset Management Plans explain the levels of service, how each activity is performing against these, and the intended actions to close the gaps. As the current customer performance measures require further refinement, however, some preliminary work has been carried out by staff to draft performance measures for a wider range of service attributes.

9. Future demand for services

Until now there has been little demand pressure on many Council services and assets. As the city enters a growth phase, however, this may change. To help respond to any growth in demand the Council has the following existing activity demand management strategies in place and further strategies can be adopted as required:

- Water supply: Education, flow restriction, pressure reduction, and metering
- Wastewater: Education, trade waste charges, peak discharge restrictions
- Stormwater: Education regarding illegal discharges to drain, attenuation and detention requirements for new development
- Solid Waste: Education and waste fees
- Parks and Property: User fees, charges and rentals, sports field scheduling

FORECASTING FUTURE DEMAND







Forecasting future demand for infrastructure considers how future changes may impact on the demand for our assets and services. Once the implications of future changes are understood a plan about how best to meet the level of demand, or not, can be made. Understanding the key drivers of demand is the first step in forecasting future demand. Details on our key drivers is contained at section 4 of this strategy.









The draft Future Development Strategy (FDS) provides strategic direction to address growth and is intended to provide infrastructure to enable growth and a transport system that links people and opportunities. The FDS reflects our goal to provide appropriate infrastructure to support growth in a timely way and assist with the goal of an innovative and growing city. The FDS also informs the market's investment decisions regarding where growth and supporting infrastructure will occur. Our improvement focus is on supporting individual activities to improve their future demand forecasting practices and assessing and planning for the impact of growth on our networks and services, particularly transport, stormwater and resource recovery.








10. Existing state of our infrastructure

The table below provides a high-level summary of the state of our infrastructure by activity with a focus on the condition (e.g. quality, responsiveness, sustainability), performance (e.g. efficiency and reliability) and resilience (to manage health and outcomes in response to risks from natural hazards).

Condition information provides insight into where an asset is in its overall lifecycle. Understanding where an asset is in its lifecycle enables us to identify the interventions required to optimise the lifecycle performance of an asset.

Infrastructure Activity	Measure Category	Commentary	Indicative Score
Transport	Condition	We have a backlog of renewals - 40% of our roading network is in poor condition and at risk of failure. Many assets have reached a state that they can no longer be maintained and need to be rehabilitated.	
	Performance	Road deaths and serious injuries are an ongoing issue on our roading network. Poor condition assets and overdue renewals are creating performance risks.	
	Resilience	Given its urban 'grid', Palmerston North enjoys a high level of resilience in the event some roads become unusable. Six bridges are identified as critical assets with the Fitzherbert Bridge being a critical regional asset. It is the only nearby bridge across the Manawatu River, is a key transportation route and it carries several critical lifelines such as water, power, telecommunications, etc.	
Property	Condition	Overall condition is currently good but improving. This because of several projects to improve condition and gaining of a better understanding of the portfolio condition due to the latest assessment programme.	
	Performance	Portfolio reliability has improved with more proactive maintenance rather than reactive. Levels of service are being maintained.	
	Resilience	Portfolio resilience is good as we have identified our critical buildings. We are seismic strengthening our earthquake prone buildings and building for climate change where we can.	


Resource Recovery	Condition	We are working towards having formalised condition assessment programme for our plant and equipment assets.	
	Performance	We are working towards having formalised performance assessments for our plant and equipment assets.	
	Resilience	We have identified our critical plant and equipment assets and we are working towards having a preventative maintenance programme. Across the Resource Recovery activity our current staff and equipment are at or beyond capacity delivering the stated levels of service. If we do not undertake a full replacement programme of the MRF assets there is a risk that we might not always be able to meet our levels of service for our customers in the future.	
Water Supply	Condition	Water supply condition assessment is done by ad-hoc inspection. Based on their age, there is a significant amount of plant equipment, hydrants and water meters which are nearing, or past, the end of their lives.	
	Performance	Customer complaints about low pressure that have required an investigation are minimal.	
	Resilience	The need for increased operational flexibility in the network will also increase costs for both capital and operational expenditure. Improving resilience and service reliability is incorporated into capital and operational improvement programmes as part of usual business practice. However, there are some key programmes focussed on improving resilience.	
Wastewater	Condition	Wastewater pipes are the only wastewater assets for which condition assessments have been carried out and recorded (17% of all assets by value). Criticality has been used to prioritise assets that do not have a condition grade. Those with the biggest risks are inspected first and we intend to do this on a more regular basis as they age.	
	Performance	Assessed considering overflows, blockages, complaints and compliance.	

	Resilience	Improving resilience and service reliability is incorporated into our capital and operational improvement programmes as part of our usual business practice	
Stormwater	Condition	Stormwater pipes are the only stormwater assets for which condition assessments have been carried out and recorded. Annual budget has been designated for CCTV condition assessment, and a corresponding programme developed for inspecting pipes of 900mm diameter or larger. It is noted that our stormwater network is not relatively old.	
	Performance	Performance of stormwater assets is largely indicated through customer complaints, especially properties that repeatedly experience flooding issues. New GIS and modelling tools have been developed to understand the cause of issues as they are reported by customers.	
	Resilience	Where the current level of resilience is less than desired, further work is to be undertaken to determine options for increasing the resilience of the asset and managing service delivery following a seismic event. This will include a review of the desired level of resilience. The average resilience of the stormwater network as a whole is medium.	
Parks and recreation	Condition	An audit has been conducted, which has picked up gaps that are being filled in. We have some gaps where new asset information not provided in timely manner but this is being addressed. Overall condition has improved in recent years as we have applied additional resources, for example to signs and furniture.	
	Performance	Portfolio reliability has improved with more proactive maintenance rather than reactive. Significant portion of reactive maintenance is in vandalism or relating to storm events. These are dealt with as required and have been resourced appropriately. Levels of service are being maintained.	
	Resilience	We have a criticality framework in place. Cemeteries disaster recovery criteria understood and managed e.g. wired for portable generator access, earthquake strengthening prioritised.	



Confirming and managing our significant Infrastructure issues

11. Our significant infrastructure issues

The following three significant issues have been identified for Council's infrastructure.

Significant Issue	Description	Key drivers	Council goals	Projected capital expenditure (capex) over 30 years (\$B)	Percentage breakdown of Projected capital expenditure by activity ³
Supporting growth, liveability and expected levels of service 	As the city grows pressure increases on our existing infrastructure to maintain levels of service and new infrastructure is needed to support growth areas. Our plan is to enable infrastructure ready growth in a timely way, stimulate economic development by providing suitable infrastructure, and maintain levels of service in existing urban areas through renewals and upgrades.	<ul style="list-style-type: none"> • Growth • Sustainability • Legislative changes • Technology advances 	Goal 1: An innovative growing city Goal 2: A creative and exciting city Goal 3: A connected and safe community	\$1.8B	Transport – 50% Property – 27% Parks and Reserves – 6% Resource recovery – 1% Water supply – 7% Stormwater – 5% Wastewater – 4%







³ For Supporting growth our activity percentages total 99%.



Significant Issue	Description	Key drivers	Council goals	Projected capital expenditure (capex) over 30 years (\$B)	Percentage breakdown of Projected capital expenditure by activity ⁴
	<p>Over time the condition of our assets reduces, impacting on how they perform and how resilient they are. By age, we have a backlog of assets to be renewed.</p> <p>Our intention is to use high quality data and work proactively to renew our assets at the right time to maintain levels of service, meet demand and increase resilience.</p>	<ul style="list-style-type: none"> • Sustainability • Climate change • Resilience 	<p>Goal 1: An innovative growing city</p> <p>Goal 3: A connected and safe community</p>	<p>\$1.5B</p>	<p>Transport – 49%</p> <p>Property – 7%</p> <p>Parks and Reserves – 7%</p> <p>Resource recovery – 2%</p> <p>Water supply – 18%</p> <p>Stormwater – 1%</p> <p>Wastewater – 16%</p>
	<p>Risk and resilience from climate change and hazards and increasing standards of compliance present an increasing challenge.</p> <p>Our response is to understand our risks so that we can be prepared and make good decisions, invest in resilience, primarily through renewals, and to review our practices and priorities to meet new compliance requirements and move towards a low carbon future.</p>	<ul style="list-style-type: none"> • Resilience • Sustainability • Climate change • Legislative change 	<p>Goal 4: A sustainable and resilient city</p>	<p>\$1.9B</p>	<p>Transport – 26%</p> <p>Property – 4%</p> <p>Parks and Reserves < 1%</p> <p>Resource Recovery – 1%</p> <p>Water supply – 15%</p> <p>Stormwater – 7%</p> <p>Wastewater – 47%</p>



⁴ For Supporting growth our activity percentages total 99%.

12. How these significant issues intersect with our activities

The table below confirms, at a high level, how the activities covered in the Strategy intersect with our significant infrastructure issues.

Activity	Growth, liveability and expected LOS	Deterioration of assets	Risks, resilience and compliance
			
Transport 	<ul style="list-style-type: none"> Ongoing issue of road death and serious injury on our roading network Provision of a regional freight ring road including an additional river crossing Facilities to encourage alternative transport modes (also contributes to a low carbon, climate resilient future). 	<ul style="list-style-type: none"> We have a backlog of renewals, 41% of the network is either condition grade 4 or 5 (poor or very poor) Parts of the network have been repaired repeatedly and now require rehabilitation because further repair is not possible. 	<ul style="list-style-type: none"> Risks have been identified with the transport structures assets and are to be gradually address as noted in the AMP. Additional resilience is required in the identified critical transport assets.
Recreational Assets 	<ul style="list-style-type: none"> Providing larger parks in growth areas will be critical as residential sections get smaller. There are periods of the day when we cannot meet demand for swimming pool lanes and indoor courts. 	<ul style="list-style-type: none"> Our assets are generally in good to very good condition, but some parks offer a higher level of service provision than others – investment is needed to address this 	<ul style="list-style-type: none"> Some of our walkways are located in gullies prone to slips. A warmer and wet environment as a result of climate change means we need to change the way we manage our green assets.
Property 	<ul style="list-style-type: none"> More demand for community facilities as our city grows. More demand for social housing units. 	<ul style="list-style-type: none"> Asset performance varies across the portfolio but has improved over the last few years. Our condition assessments are up to date and are scheduled accordingly. 	<ul style="list-style-type: none"> We have a seismic strengthening programme for our earthquake prone buildings. Upgrading our facilities to meet compliance requirements around fire, accessibility, weathertightness and other compliance matters

Activity	Growth, liveability and expected LOS	Deterioration of assets	Risks, resilience and compliance
<p>Resource Recovery</p> 	<ul style="list-style-type: none"> Growth is not consistent across collection routes and requires careful planning for customers whose collection day changes. People want kerbside rubbish bins; however, we have considerable capacity constraints around collection and processing of more material. 	<ul style="list-style-type: none"> The condition of our assets is deteriorating faster than expected. The historic reactive approach to maintenance has not maintained our assets. Asset performance is primarily monitored through customer service performance. 	<ul style="list-style-type: none"> Government direction and changes in legislation. Compliance conditions that must be met at central government level. The Awapuni Closed Landfill has various consents that are expiring in the next 5-7 years for discharge to land, compost operations, discharge to air permits. We need to respond to natural hazard risks such as flooding and erosion which will be exacerbated by climate change
<p>Stormwater</p> 	<ul style="list-style-type: none"> As we grow storm water challenges include a reduced permeable area to allow water to percolate into the soil to filter out pollutants and recharge the water table, increased levels of construction site pollution, and the need for new pumps and drainage. To understand the effect of the projected growth and development scenarios on storm water operation and maintenance the stormwater model will need to be regularly updated and maintained. 	<ul style="list-style-type: none"> Our Stormwater network (pipes, sumps, manholes and outlet structures) and pump stations require ongoing renewal to manage deterioration. Many older pipes are under capacity and will need to be upsized in tandem with renewal. Renewal often requires replacement, upgrading and rehabilitation of elements of the network, pump stations and the associated outlet works which can be disruptive to the network. There are ongoing renewals programmes for our network and pump stations. 	<ul style="list-style-type: none"> Maintaining storm water operation and service requires us to manage distribution network risks, including climate change, associated with resilience through our capital works programme. Unacceptable substances entering/ unwanted discharge into the storm water network represents a significance compliance risk.

Activity	Growth, liveability and expected LOS	Deterioration of assets	Risks, resilience and compliance
Wastewater 	<ul style="list-style-type: none"> Accommodating growth and maintaining levels of service will require targeted expansion of our existing wastewater network and greater wastewater treatment capacity. To understand the effect of the projected growth and development scenarios on wastewater the wastewater model will need to be regularly updated and maintained. 	<ul style="list-style-type: none"> Our treatment plant, pump stations and network assets require ongoing renewal to manage deterioration. A backlog of trunk and non-trunk renewals means that criticality and condition will be used to prioritise works. Plant and pump station assets which are at/near the end of their useful lives require replacement. Increased investment is required to better understand the condition and performance of our assets and optimise capital decision making. 	<ul style="list-style-type: none"> Maintaining wastewater reticulation requires us to manage distribution network resilience risks, including climate change through our capital works programme. Equipment/ plant failure and reliance on external inputs (e.g. power) represent significant Wastewater Treatment Plant risks. Further testing, inspection and analysis is required to confirm compliance risks around unwanted discharge. Our current resource consent for wastewater treatment and discharge expires in the next few years. We have applied for a consent with Horizons Regional Council.
Water Supply 	<ul style="list-style-type: none"> As we grow our increasing population will require new treatment plants, bores, pump stations and network (pipes, water tobies, meters, hydrants and valves). To understand the effect of the projected growth and development scenarios on water supply the water supply model will need to be regularly updated and maintained. 	<ul style="list-style-type: none"> Our treatment plants, bores, pump stations and network (pipes, water tobies, meters, hydrants and valves) require ongoing renewal to manage deterioration. Watermains are nearing the end of their useful lives and require investment. The current renewal backlog will be addressed by Y10. 	<ul style="list-style-type: none"> Not all of our existing activities, bores, pump stations and other facilities comply with the Drinking Water Quality Assurance requirements and on-going improvements are required to manage quality, integrity and resilience. There are risk and compliance issues in association our Turitea Water Treatment Plant and with the operation of the supply dams. More broadly, there is an ongoing risk of failures within the distribution

			<p>network due to aging and under capacity pipes. This is managed by our operations and maintenance teams</p> <ul style="list-style-type: none"> • Renewal of resource consents for the Turitea Dams are needed over the next 5 years.
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13. Increasing what we know about future demand and levels of service

Much of the intersect between our significant issues and our activities links to the management of future demand and levels of service. Further details are provided below on how we intend to continue increasing what we know about future demand and levels of service to support the response to our significant infrastructure issues across our activities.

FUTURE DEMAND

As outlined in section 9 above, current practices for understanding future demand for different types of infrastructure assets include using forecast information prepared by the Council's Strategic Planning Unit and leveraging from the strategic direction in the City Growth Plan. Moving forward Council will strengthen these practices by implementing our Future Development Strategy and by continuing to grow our understanding of uncertainties and their associated implications.

LEVELS OF SERVICE

Council has existing processes in place to track levels of service for assets. While these have sufficed to date new processes are being developed to help improve the information we hold. Several new systems are being rolled out to better capture asset information, including a new project module that will incorporate asset data collection as a task. Council will also begin working with third party partners to ensure robust data collection is included as part of their commitment to service their respective activities. In addition, Council have engaged in a proactive data collection programme that will see our Asset Information Analysts "uncovering" historical Asset information to record.

IMPACT OF CLIMATE CHANGE

Climate change will impact on future demand and levels of service, and it is important that we increase our understanding of the potential implications as more data becomes available. National Institute of Water and Atmospheric Research (NIWA) have produced for the Ministry of the Environment (MfE) a range of climate change predictions for the regions out to 2090. This predicts that projected impacts are likely to become more noticeable towards the end of this period. We have based our climate change scenario on these NIWA projections.

MfE/NIWA predict that over the longer term, the Manawatū-Wanganui region will become warmer and be subject to more extreme weather, with the region experiencing more frequent heavy rainfall events as well as more frequent droughts. This has significant implications for infrastructure, with many assets having life cycles of more than a hundred years, and in some cases much more.

We currently anticipate the largest impact will be on stormwater infrastructure but there are also likely to be additional peak stormwater flows in the existing network because of infill development. Changes to rainfall patterns could also lead to issues for our sports fields and walkways because there will be more heavy downpours, leading to flooded surfaces (and possibly short-term closures) and slips. In addition to more intense rainfall it is likely long dry periods, or drought events, will also occur more frequently. We will continue to grow our understanding of expected long-term changes when building new infrastructure and undertaking renewals of existing infrastructure.

14. Continuing to grow our evidence base to help decision making and budgeting

Our Asset Management Improvement Plan prioritises a review of our policy governing our asset condition and performance assessment. With the completion of our Condition Assessment and Performance Monitoring Policy and Criticality Framework that outlines our approach to assessing the physical condition and monitoring the performance of all assets our improvement focus is now on:


- Align processes for inspection frequency, response time and interventions to the criticality of assets, and embed into work practices.
- Develop processes for contractors and inhouse staff to collect and update static condition information in conjunction with operational and maintenance activities.

Budget has been allowed for condition assessments and we are in the process of undertaking condition surveys on all our critical assets. The scheduling and frequency of regular inspections is based on asset criticality. While unexpected failure of our water assets in the past has prompted a programme to increase the collection of condition data through physical surveys, we are developing a comprehensive condition assessment programme across all our assets. We are working towards developing processes for contractors and in-house staff to collect condition information using real time mobile data applications to increase efficiency in this area.

Our planned response

15. Significant portfolios for our infrastructure issues

To respond to our significant infrastructure issues we have identified a suite of significant portfolios that will best help us to meet our infrastructure needs, including maintaining expected levels of service, meeting future demand and compliance, increasing resilience and reducing risk. These significant portfolios represent our significant decisions and are timed as shown in the table at Section 16 of the Infrastructure Strategy. The table below confirms our significant portfolios and which significant issue each seeks to address.

Significant Issue	Significant Portfolios (groups of programmes)
<p>Supporting growth, liveability and expected levels of service</p> 	<ul style="list-style-type: none"> • Infrastructure for residential growth at Whakarongo, Kākātangiata (including Kikiwhenua), Aokautere, Napier Road, Matangi, Roxburgh Crescent, Ashhurst and urban intensification. • Te Utanganui Central New Zealand Distribution Hub • Palmerston North Integrated Transport Initiative (PNITI) - Regional Freight Ring Road • Te Motu o Poutoa Development Plan – Implementation • City Centre Revitalisation • Arena Masterplan • Social Housing Redevelopment • Community Hubs and Centres Portfolio • Food Scrap Waste Collection Introduction • Pedestrian and Active Transport Improvements
<p>Managing the deterioration of assets</p> 	<p>Infrastructure Renewal Programmes, including:</p> <ul style="list-style-type: none"> • Citywide water main renewal • Road resurfacing • Wastewater reticulation renewal • Local reserves renewal • Cycle network renewals • Property renewals

Significant Issue	Significant Portfolios (groups of programmes)
<p data-bbox="203 236 707 300">Responding to risks, resilience issues and compliance</p> 	<ul data-bbox="898 240 1574 491" style="list-style-type: none"> • Tōtara Road Wastewater Treatment Plant Upgrade • Wastewater Network upgrades • Upgrades to comply with Drinking Water Regulations • Stormwater Capacity Upgrades • Seismic Strengthening of Council Properties • Materials Recovery Facility Development • Transport Safety Improvements

16. Our plan

The tables below confirm how we intend to respond to our three significant infrastructure issues through our significant portfolio programmes and other programmes.

The proposed programme of works in the likely scenario represents a significant increase on the volume of capital work that we have delivered over the past three years. However, during that time we have been building our internal capacity and capability to deliver projects. We now have an in-house Project Management Office; we have engaged a design panel and coordinate planning, design and consent to be completed in the year prior to construction; we have major contracts with Fulton Hogan for Road Maintenance and Max Tarr for our plant maintenance; and we regularly bundle smaller projects to make them more attractive to contractors. This proposed programme also includes several large, discrete projects such as the Wastewater Treatment Plant Upgrade, the Central Library rebuild and seismic strengthening work. These projects are likely to be delivered by large, out of town contractors, and will not impact the ability of our local in-house and external construction resources to deliver our bread and butter works. We are confident that we can deliver on the proposed programme.

SIGNIFICANT ISSUE 1: Supporting growth, liveability and expected levels of service

Urban Residential Growth

<i>Infrastructure for residential growth at Whakarongo, Kākātangiata, Aokautere, Napier Road, Roxburgh Crescent, Ashhurst and urban intensification.</i>	Year Decision needs to be Made	2024			
<p>Growth projections adopted by PNCC indicate that the city will need a significant increase in housing stock over the next 30 years. The growth areas identified for new housing growth, including growth through intensification of existing urban areas, will be serviced by implementation of the programmes and budgets listed below. It should be noted that the timing for opening of new greenfield and brownfield areas for development depends on many factors outside the control of Council. Council must balance the need for “infrastructure ready” sites, against the risk of over-investment, or too early investment.</p>					
<p>Key Options for this decision – Preferred option in BOLD</p> <ul style="list-style-type: none"> Do nothing. This would result in Council not enabling growth and therefore not reaping the benefits or meeting its obligations under the NPS UD. Concentrate on growth in just one area at a time. This would enable growth, but would not meet Council’s obligations under the NPS UD Adopt a “just in time” approach and fund infrastructure only for sites where development is commencing and defer funding for other areas. This approach may result in delays for developers and slowing of city growth, and may not meet Council’s obligations under the NPS UD. Complete the programme as presented, making the city proactively prepared for development in all identified growth areas (preferred option). 					
<p>Key relevant projects and Programmes (\$M): 2023 cost (including inflation)</p>					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
Urban Growth - Infill and Urban Intensification	Capital Growth	8.3 (8.6))	13.3 (15.1)	24.5 (34.4)	13.9 (26.9)
Whakarongo	Capital Growth	13.5 (13.9)	13.1 (14.5)	0.2 (0.3)	5.0 (8.9)
Kakatangiata	Capital Growth	3.0 (3.2)	73.8 (86.3)	36.9 (45.1)	5.5 (7.5)
Kikiwhenua	Capital Growth	10.3 (10.6)	6.5 (7.2)	20.0 (25.0)	-
Ashurst	Capital Growth	-	18.1 (20.7)	10.9 (16.7)	20.7 (36.9)
Aokautere ⁵	Capital Growth	10.2 (10.4)	43.4 (49.4)	6.0 (8.3)	3.3 (6.9)
Roxburgh	Capital Growth	0.6 (0.6)	2.4 (2.6)	-	-
Matangi/Whiskey Creek	Capital Growth	-	0.8 (0.9)	-	-
Napier Road Extension	Capital Growth	3.0 (3.1)	6.3 (7.2)	-	-

⁵ Note that programmes for Aokautere Stormwater are required in Years 1 -3 to mitigate ongoing environmental damage from previous development, as well as to prepare for new development

Te Motu O Poutoa

<i>Te Motu O Poutoa</i>		Year Decision needs to be Made	2024		
<p>Te Motu o Poutoa/Anzac Park is the City's most significant cultural site. Rangitāne o Manawatu and Council have been working in partnership over the past 3 years to develop a plan to restore the mana and identify of the site.</p> <p>The proposed development includes a civic marae at the site with public facilities and visitor and education attractions. Detailed design would occur in Year 1, utilising Better Off funding previously secured. Construction would commence once all external funding (\$5M) had been secured.</p>					
<p>Key Options for this decision – Preferred option in BOLD</p> <ul style="list-style-type: none"> • Development of Te Motu O Poutoa does not proceed and Council and Rangitane partnership outcomes for the site are not able to be realised. • Proceed with design and consenting, and commence development regardless of funding status • Proceed with design and consenting works in Year 1 while seeking external funding, and do not commence construction until all funding for the project has been secured (preferred). 					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
City Reserves - Manawatu River Park - Te Motu o Poutoa Development Plan - Implementation	Capital LOS	13.2 (13.7)	-	-	-
City Reserves - Te Motu o Poutoa - Design and Consenting - BOF	Capital LOS	1.2 (1.2)			
Cliff Road Upgrade - Te Motu o Poutoa Development	Capital LOS	4.2 (4.3)	-	-	-

Te Utanganui Central New Zealand Distribution Hub

<i>Te Utanganui Central New Zealand Distribution Hub</i>		Year Decision needs to be Made	2027		
<p>Te Utanganui, Central New Zealand Distribution Hub, is a proposed regional multi-modal distribution hub envisaged to consist of rail, road, air, and sea connections. The rail hub will be constructed by KiwiRail within Palmerston North City boundaries, and the Palmerston North Integrated Transport Initiative (PNITI) will support access to this hub. In turn the hub will enable parts of PNITI. At present progress is dependent on other agencies, and there is not sufficient detail for Infrastructure programmes to be prepared. Meanwhile development of the adjacent North East Industrial Zone (NEIZ) will continue, affording improved access to the Te Utanganui site.</p>					
<p>Key Options for this decision – Preferred option in BOLD</p> <ul style="list-style-type: none"> • Decisions and options around Infrastructure to support Te Utanganui are currently unclear will not be required until the next LTP, pending progress by KiwiRail and other agencies • PNCC have already endorsed PNITI and options for that the implementations of that decision are contained elsewhere in this document. • Meanwhile we will ensure that development in the adjacent NEIZ proceeds and aligns with future development of the Te Utanganui site, and fund an operating programme to prepare Business Cases for New Zealand Transport Agency - Waka Kotahi (seeking co-funding) in Years 4 to 10, in preparation for physical works during the next LTP period. 					

Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
Urban Growth - NEIZ - Transport	Capital Growth	4.5 (4.7)	16.8 (18.3)	-	-
Te Utanganui Transport Improvements Business Case	Operating		0.9 (1.0)		

Palmerston North Integrated Transport Initiative (PNITI)

Palmerston North Integrated Transport Initiative (PNITI) - Regional Freight Ring Road	Year Decision needs to be Made	2024/2027
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In 2015, the New Zealand Central Government, in consultation with Horizons and local councils, commissioned a Regional Growth Study which identified several opportunities and key enablers to help realise the economic prosperity of Manawatu-Whanganui. One of the enablers identified was investment in the regional transport network. New Zealand Transport Agency - Waka Kotahi has since developed several business cases in support of this, including the Palmerston North Integrated Transport Initiative (PNITI). Programme budgets for business cases to be prepared for the major Infrastructure works required to realise PNITI have been included in the 2024-34 LTP.

Key Options for this decision – Preferred option in BOLD

Business Cases

- Do nothing. Not considered an option as Council has already endorsed PNITI.
- Prioritise Business Cases according to risk and criticality of physical works. This may have the effect of delaying parts of the overall programme.
- **Proceed with Business Case preparation early, as shown, to understand full cost and likelihood of funding from New Zealand Transport Agency - Waka Kotahi (preferred)**

Infrastructure Construction Programmes – Proposed pending outcome of Business Case work

- Do minimum: Prioritise safety improvement programmes, such as intersection and bridge improvements and HMPV Improved Network Access programmes. The implications of deferral will be to create a disconnected network of improvements, which will not realise the intended benefits of the integrated strategy.
- Some PNITI programmes will not be required until the KiwiRail hub is further developed, these programmes could be deferred if the KiwiRail hub development is delayed
- **Proceed with the full suite of proposed programmes (preferred)**

Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
PNITI Business Case Preparation	Operating	1.0 (1.0)	6.6 (7.4)		
PNITI – Strategic Transport Corridor Improvements	Capital LOS	-	58.0 (69.2)	90.0 (124.0)	-
Enabling PNITI, Bunnythorpe bridge replacements	Capital LOS	1.0 (1.0)	14.0 (15.1)	-	-
HMPV Improved Network Access / Culvert & Bridge Structures	Capital LOS	1.8 (1.9)	5.6 (6.4)	8.0 (11.1)	8.0 (14.4)

City Centre Revitalisation

<i>City Centre Revitalisation</i>		Year Decision needs to be Made			2024
<p>During the last 3 years Council have commenced or completed projects to rejuvenate the eastern side of the Square, whilst also commencing preparation of a Masterplan for creating a cultural precinct to the west of the Square. Plans for upgrade of the Transit Hub, which align with the PNITI group of programmes, are being prepared together with the Regional Council. This will continue the existing work to the east of the Square, and lay some groundwork for implementation of the Cultural Precinct master planning. In addition, some key buildings in the Cultural Precinct (the Library and Te Manawa) have been identified as earthquake prone. The strengthening of these building will be an important part of the revitalisation of the centre city. It intended that during years 1 to 3 we will take the opportunity to consider potential options to seek financial partners for strengthening work in these two buildings.</p>					
<p>Key Options for this decision – Preferred option in BOLD</p> <ul style="list-style-type: none"> • Delay or cancel all works, including development and design. This will result in the parts of the centre city with a different look and feel to other parts, and the benefits of a full rejuvenation of the centre city will not be realised. • Continue with development and design in the short term, but spread implementation and construction works over a longer period. This would delay the realisation of the benefits. In the case of the earthquake prone buildings we may risk moving outside of the legislated timeframes. • Proceed with programmes as planned (preferred) <p>(Note that options for earthquake prone buildings are the same as those detailed the Seismic Strengthening of Council Buildings)</p>					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
Transit Hub Redevelopment	Capital LOS	10.0 (10.4)	10.0 (10.7)	-	-
City Centre Streets for People Improvements	Capital LOS	10.1 (10.4)	10.1 (11.6)	20.2 (27.7)	20.2 (35.8)
Cuba Street Urban Streetscape Improvements – Pitt to Arena (Stage 3)	Capital LOS	-	5.0 (5.7)	-	-
Property – Central Library and Te Manawa Redevelopments	Capital LOS	-	120.0 (131.6)	-	-

Arena Masterplan

<i>Arena Masterplan</i>		Year Decision needs to be Made			2024
<p>The Arena Masterplan was originally developed in 2014 and was revised and formally adopted by Council in 2023. There are five significant projects proposed for completion during this LTP period, which are included in the Programme below;</p> <ul style="list-style-type: none"> • Constructing a second artificial pitch • New Arena 5 • Arena 6 grass fields formation, including new changing rooms and toilets 					

Key Options for this decision – Preferred option in BOLD					
<ul style="list-style-type: none"> Do nothing. Defer or cancel all programmes. Prioritise the project according to alignment with Council vision and goals and spread over a longer time period. Proceed with programme as proposed (preferred). As soon as development is complete, increased revenue is anticipated for Council as there is greater availability of facilities for hire. 					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
CET Arena - Future Masterplan Items	Capital LOS	11.9 (12.2)	22.0 (23.8)	70.0 (94.6)	70.0 (118.8)
CET Arena Property Purchase	Capital LOS	0.8 (0.8)	-	-	-
CET Arena – Upgrade of lighting to LED	Capital LOS	0.8 (0.8)	3.0 (3.3)	-	-

Social Housing Development

<i>Social Housing Development</i>			Year Decision needs to be Made	2024	
<p>There is a shortage of housing in Palmerston North, particularly in the social housing space. The programme provides for the future construction of new council-owned social housing units within the city. This will either be on a greenfield site or redeveloping and increasing the density of one of Council's existing social housing complexes. Housing will be accessible and meet the Healthy Homes Standards and achieve a 4-star Lifemark Accreditation.</p> <p>The preferred option is to undertake the programme as budgeted, as it is unlikely that private providers will provide capacity required.</p>					
Key Options for this decision – Preferred option in BOLD					
<ul style="list-style-type: none"> Do nothing. The lack of community housing will continue to create other issues within the community. Stagger development to complete housing in one location before commencing at another site. Complete programme as presented (preferred) 					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
Social Housing - Additional Social Housing Units (Summerhays)	Capital LOS	17.0 (17.4)	-	-	-
Urban Growth - Huia Street Reserve - Community Housing	Capital Growth	-	15.0 (17.7)	-	-

Community Hubs and Centres Portfolio

<i>Community Hubs and Centres Portfolio</i>		Year Decision needs to be Made				2024
<p>Community Hubs provide a venue to allow community groups to meet and thereby celebrate the diversity of the city. It is proposed to transform existing Community Facilities by creating Hub models.</p> <p>A feasibility study was completed in 2023 to determine the advantages of a hub model and how this could provide services such as community libraries and community centres from a single location. This will shape how and where future community facilities will be built and designed, as we transition to this Hub model.</p> <p>The first hub to be constructed will be at Awapuni and will combine the Library and Community Centre along with other facilities. Work on a Highbury community hub will follow.</p> <p>It has been decided that the Multicultural Facility will be in a leased building, and capital funds are required for fitout only.</p>						
Key Options for this decision – Preferred option in BOLD						
<ul style="list-style-type: none"> • Maintain existing Levels of Service. Only proceed with new Community facilities required in growth areas. • Proceed with the programme as proposed (preferred), and in line with feasibility study outcomes. 						
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)						
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30	
Urban Growth - New Community Hubs	Capital Growth	29.7 (30.6)		-	-	
Cultural Facilities – New Multicultural Facility	Capital LOS	0.8 (0.8)				
Community Centres – Pasifika Centre Expansion	Capital LOS	3.8 (3.9)				

Food Scrap Waste Collection Introduction

<i>Food Scrap Waste Collection Introduction</i>		Year Decision needs to be Made				2027
<p>It is anticipated that Central Government will introduce the requirement for Councils to provide a Kerbside food waste collection service. Currently around one third of kerbside waste presented in Palmerston North is foodwaste. There is potential to divert a significant amount of waste from landfill by providing a foodwaste collection service.</p>						
Key Options for this decision – Preferred option in BOLD						
<ul style="list-style-type: none"> • Do nothing. Do not collect food waste. Accept loss of Central Government funding, failure to meet environmental standards, loss of reputation and possible fines • Wait for Central Government to legislate before proceeding with the programme • Proceed with the programme as set out below, proactively supporting waste minimisation (preferred) 						
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)						
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30	
City-Wide - Kerbside Food Scraps Collection and Processing Service Development	Capital LOS	-	1.1 (1.2)	-	--	

Compost Bunker Processing System Development	Capital LOS	0.1 (0.1)	1.5 (1.6)	-	-
Urban Growth – Food Scraps - City-Wide Food Waste Bins and Caddies	Capital Growth	-	0.1 (0.1)	0.3 (0.4)	0.3 (0.4)

Active Transport

Active Transport	Year Decision needs to be Made	2024			
Many of the active transport programmes listed are considered enablers for the PNITI Strategy. Their intention is to reduce the potential for conflicts between cyclists or pedestrians and heavy vehicles by separating cycle and shared facilities from live traffic lanes.					
Key Options for this decision – Preferred option in BOLD					
<ul style="list-style-type: none"> Do nothing. Council will not be able to access New Zealand Transport Agency - Waka Kotahi CERF (Climate Emergency Response Fund) support. Road safety risks and a high carbon environment will remain. Stage implementation particularly for programmes which cannot attract New Zealand Transport Agency - Waka Kotahi funding Proceed with the programmes as presented. This will assist Council to achieve both Carbon Reduction goals and Road Safety improvements (preferred) 					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
Cycling Network improvements	Capital LOS	6.0 (6.1)	21.5 (24.4)	27.5 (38.6)	27.5 (50.0)
Tennent Drive Improvements - Food HQ & Massey	Capital LOS	1.2 (1.2)	-	-	-
Shared Pathway Network Improvements	Capital LOS	15.0 (15.3)	35.0 (39.8)	50.0 (69.5)	50.0 (89.9)
Pedestrian Network Improvements	Capital LOS	1.5 (1.5)	3.5 (4.0)	5.9 (8.2)	6.0 (10.8)

SIGNIFICANT ISSUE 2: Managing the deterioration of assets**Infrastructure Renewals Programmes**

Infrastructure Renewals Programmes		Year Decision needs to be Made		Every three years	
At each 10 year plan (LTP), Council needs to confirm the level of funding available for the renewal of assets. A full programme is developed using condition.					
Key Options for this decision – Preferred option in BOLD					
<ul style="list-style-type: none"> Do Nothing – not renewing core infrastructure, increasing risk of loss of service due to asset failure. Programme renewal of assets to maintain or improve levels of service over time and minimise the risk of asset failure or unacceptable deterioration. Reprioritise renewals to outer years to an affordable level – this has the potential to create or add to the current renewals backlog. That has the risk that levels of service are affected by unexpected asset failure. As a result, operations and maintenance cost may increase and/or Council may breach consent requirements (preferred) Prioritise earlier completion of the most critical renewals – this will reduce risk of unexpected asset failure even further but may increase cost to unaffordable levels. 					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
Transport Renewals (Total)	Capital Renewal	34.8 (35.50)	126.5 (145.0)	172.7 (238.0)	165.3 (297.2)
Wastewater Renewals (Total)	Capital Renewal	14.9 (15.3)	39.0 (45.2)	52.9 (77.1)	52.4 (104.5)
Water Supply Renewals (Total)	Capital Renewal	17.1 (17.6)	51.8 (59.9)	51.0 (74.5)	62.5 (124.2)
Stormwater Renewals (Total)	Capital Renewal	1.5 (1.5)	2.1 (2.5)	2.8 (4.0)	2.8 (5.5)
Parks and Reserves Renewals (Total)	Capital Renewal	8.1 (8.3)	19.9 (22.5)	23.9 (32.3)	22.1 (37.3)
Property Renewals (Total)	Capital Renewal	9.1 (9.3)	18.9 (21.3)	22.0 (29.8)	22.0 (37.3)
Resource Recovery Renewals (Total)	Capital Renewal	1.3 (1.3)	4.1 (4.6)	4.4 (5.9)	4.3 (7.2)
TOTAL RENEWALS		86.8 (88.9)	262.4 (300.9)	328.7 (461.5)	331.3 (613.1)

SIGNIFICANT ISSUE 3: Responding to risks, resilience issues and compliance

Tōtara Road Wastewater Treatment Plant Upgrade

<i>Tōtara Road Wastewater Treatment Plant Upgrade</i>		Year Decision needs to be Made			2024
<p>Our Wastewater Treatment Plant discharge consent expires in 2028. We lodged an application for the new discharge consent in 2022. Discharge regulations and treatment standards are getting higher which requires a different treatment process to be implemented and new assets to be bought and constructed. The major difficulty faced by this programme is funding, as Council has insufficient borrowing capacity to fund the capital burden of the proposed WWTP modifications. Uncertainty around Water Reform, both the timing and the structure, add to the difficulty of decision for this significant programme. The Financial Strategy contains information relating to proposed funding options for this Programme.</p>					
<p>Key Options for this decision – Preferred option in BOLD</p> <ul style="list-style-type: none"> The option to do nothing has been discounted as the risks to both the Council in terms of reputational damage and potential prosecution are too great. Proceed with Y 1 -3 works, while working towards the Consent renewal deadline. (preferred). The programme costs in Y 1-3 include costs to finalise the new Resource Consent, plus land purchase costs, to provide for future land based discharge, on which the consent application hinges. 					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
Totara Road Wastewater Treatment Plant - Consent Renewal Upgrade	Capital LOS	17.0 (17.5)	549.5 (630.3)	-	-

Wastewater Network Upgrades

<i>Wastewater Network Upgrades</i>		Year Decision needs to be Made			2024
<p>Our wastewater network hydraulic modelling has identified that there is opportunity for improvements to the wastewater network to reduce wet weather overflows on private properties and reduce risk of discharges to waterways. We also need to improve the current operating performance of the Wastewater Treatment Plant by reducing peak flows, storm volumes and operational costs. Our at risk pipes need realignment, particularly where wastewater mains are directly built below natural stormwater gullies which pose a significant risk of stormwater entering the wastewater network. We will also need to upgrade any at risk, old or underperforming wastewater pipes.</p>					
<p>Key Options for this decision – Preferred option in BOLD</p> <ul style="list-style-type: none"> Do nothing - Leave network at its current capacity, this could lead to increased risk of overflows and not meeting levels of service. The option to do nothing has been discounted as the risks to both the Council in terms of reputational, cultural and environmental risk damage Reprioritise programmes and timing based on criticality Upgrade dedicated parts of the network and increase network storage capacity to reduce volume and probability of overflow during rainfall events. Also, realign at risk pipelines (preferred). 					

Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
City-wide Wastewater wet weather overflow mitigation	Capital LOS	1.5 (1.5)	-	7.4 (11.0)	7.0 (14.2)
City-wide Wastewater Pipeline Realignment of at-risk mains	Capital LOS	1.5 (1.5)	1.9 (2.1)	9.9 (14.6)	10.8 (21.3)
City-wide - Wastewater Pipe Improvement	Capital LOS	3.0 (3.1)	5.0 (5.7)	15.0 (22.0)	15.0 (29.8)
City-wide – Wastewater Pump Station – Capacity upgrades	Capital LOS	5.4 (5.6)	-	1.9 (2.4)	
Bunnythorpe – Wastewater Network Upgrades	Capital LOS	0.9 (0.9)	-	0.3 (0.4)	1.7 (3.4)
Wastewater Trunk Main – Infill Upgrades	Capital LOS	1.5 (1.5)	3.7 (4.3)		

Upgrades to comply with Drinking Water Regulations and improve supply

<i>Upgrades to comply with Drinking Water Regulations and improve supply</i>	Year Decision needs to be Made	2024
<p>Resilience of our water supply and water treatment is key. The Turitea Dams and the Turitea Water Treatment Plant (WTP) are critical and strategic assets for PNCC. In order to ensure their reliability now, in the future, and following a natural disaster, upgrade works are necessary.</p> <p>To keep in line with Drinking Water Standards we need to:</p> <ul style="list-style-type: none"> - replace our existing tobies with manifolds - upgrade and renew our water supply bores within the next three years and improve bore head security. - prioritise capital works at all bore sites to improve compliance. This may include the provision of additional storage capacity. - Investigate seismic strengthening of Ngahere Park Reservoir - current rectangular reservoir is earthquake prone. <p>To improve water supply we need to:</p> <ul style="list-style-type: none"> - upgrade water trunk mains (including around the Square and down Fitzherbert Ave) to ensure serviceable condition is maintained within our water supply network. 		
<p>Key Options for this decision – Preferred option in BOLD</p> <ul style="list-style-type: none"> • Do nothing –if we do not carry out upgrades at bore sites there will be a risk to security of water supply and of non-compliance with water quality regulations. • Only carry out work to upgrade Ngahere Park reservoir and delay timing of construction of upgrade works at bore sites, at the Turitea WTP and other proposed upgrades of city wide water supply asset (including tobies and manifolds) . • Upgrade all bore sites within the timing indicated to ensure compliance standards are met and to allow for greater resilience. Complete identified upgrade work at Turitea WTP and upgrades of city wide water supply asset (including tobies and manifolds) in the planned timeline (preferred) 		

Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
City-wide - Water Supply Resilience - Additional Reservoirs	Capital LOS	2.0 (2.1)	-	-	-
City-wide – Drinking Water Standards Upgrades	Capital LOS	1.3 (1.3)	27.1 (30.9)	34.0 (49.4)	11.6 (25.0)
City-wide – Water Supply Resilience - Trunk Mains	Capital LOS	3.0 (3.1)	2.1 (2.4)	12.7 (18.7)	13.6 (26.8)
City-wide - Water Main Improvement	Capital LOS	3.0 (3.1)	7.0 (8.1)	15.0 (22.0)	15.0 (29.8)
City-wide - Water Toby and Manifold enhancements	Capital LOS	2.3 (2.3)	5.3 (6.1)	-	-
–Bunnythorpe - Water Quality Improvements	Capital LOS	0.6 (0.6)	1.2 (1.4)	1.6 (2.4)	-
City-wide – Reservoir Storage and Chemical Facilities Upgrades	Capital LOS	-	-	2.2 (3.3)	1.2 (2.5)
City-wide - Bore Facility Improvements	Capital LOS	1.4 (1.4)	0.4 (0.4)	0.7 (1.0)	1.4 (2.7)
3 Waters Telemetry Upgrades	Capital LOS	0.7 (0.7)	1.2 (1.2)	1.1 (1.5)	1.1 (2.2)
City-wide – Water Main Upgrades - Firefighting	Capital LOS	0.3 (0.3)	0.1 (0.1)	1.0 (1.5)	1.0 (1.9)
Ashhurst – Water Quality Improvements	Capital LOS	4.5 (4.6)	-	-	-

Stormwater Capacity Upgrades

Stormwater Capacity Upgrades	Year Decision needs to be Made	2024			
We have identified areas within our city where there are issues within the storm water network or where areas are not serviced or to match in with other Council works such as roading improvements. We have also identified the need for larger/big scale mitigation projects required to alleviate and minimise flooding city-wide. Most of work here will be projects addressing issues identified in the Citywide Tuflow flood Model or CTSM.					
Key Options for this decision – Preferred option in BOLD					
<ul style="list-style-type: none"> Do nothing - No allocation for capital works to mitigate citywide flooding Maintain current levels of service - Ensure only the current capacity and requirements are met Carry out works as budgeted and address the issues identified in the citywide flood model. Undertake large capital projects to reduce city-wide flooding (preferred) 					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
City-wide - Stormwater Flood Mitigation	Capital LOS	4.6 (4.7)	9.1 (10.5)	16.1 (22.4)	16.9 (34.4)
City-wide - Stormwater Network Improvement Works	Capital LOS	7.2 (7.4)	12.1 (13.7)	8.1 (11.9)	7.3 (14.4)
City-wide – Stormwater Pump Stations Improvement	Capital LOS	1.3 (1.3)	1.0 (1.2)	2.5 (3.5)	2.8 (5.5)

City-wide – Stormwater Network Resilience	Capital LOS	-	0.6 (0.7)	0.5 (0.7)	0.3 (0.7)
Ashhurst - Stormwater Asset Improvements	Capital LOS	1.1 (1.2)	1.5 (1.7)	0.8 (1.2)	1.6 (3.3)
City-wide – Land purchase associated with streams and channels	Capital LOS	-	0.8 (0.9)	1.5 (2.2)	1.1 (2.3)
Citywide – Installation of new Stormwater Assets	Capital LOS	0.9 (0.9)	2.8 (3.2)	0.4 (0.5)	

Seismic Strengthening of Council Buildings

Seismic Strengthening of Council Buildings		Year Decision needs to be Made			2023, 21
Council owns and occupies 26 buildings and structures that have been identified as earthquake prone as they have been assessed as being below 34% of the new build standard. Council has prioritised the upgrade of buildings based on the degree of risk coupled with any other works that provide synergies if undertaken at the same time. The preferred option is to undertake the programme as budgeted, as it provides for all building to be strengthened with legislated timeframes.					
Key Options for this decision – Preferred option in BOLD					
<ul style="list-style-type: none"> • Do Nothing. – This option may result in Council not complying with legislation resulting in the closure of facilities. • Strengthen existing buildings by retrofitting seismic strengthening mechanisms: <ul style="list-style-type: none"> ○ In accordance with current policy to balance maximising percentage of NBS and cost, OR ○ Revisit Earthquake Prone Building Policy – and strengthen only to minimum 34%NBS • Address earthquake prone buildings by rebuilding in accordance with current policy to balance maximising percentage of NBS and cost but address buildings that are part of the Cultural Precinct (Library and Te Manawa) separately* (preferred) 					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
Totara Road Wastewater Treatment Plant - Earthquake Strengthening of Civil Structures	Capital LOS	6.0 (6.2)	2	-	-
Property - Seismic Strengthening of Council Properties	Capital LOS	15.0 (15.4)	20.0 (23.3)	25.0 (31.9)	-
City-wide – Water Supply Resilience – Seismic Strengthening	Capital LOS	0.2 (0.2)	1.2 (1.3)	0.7 (1.0)	0.9 (1.7)

* Refer to City Centre Revitalisation

Materials Recovery Facility Replacement (plant and equipment)

Materials Recovery Facility Replacement (plant and equipment)	Year Decision needs to be Made	TBC
To continue to operate and provide an efficient recycling service we need to develop and improve the plant and equipment that we use to process and sort the recycling waste. Our current Materials Recovery Facility's processing plant and equipment is reaching the end of its useful life, with its expected lifespan being 10-15 years. Technology and the current government Policy and Strategy in Kerbside Recycling and Processing is rapidly evolving. To achieve maximum diversion of target materials at the appropriate quality level needed and to avoid equipment failure we need to upgrade the plant and equipment at the Materials Recovery Facility.		

Key Options for this decision – Preferred option in BOLD					
<ul style="list-style-type: none"> Do nothing - Continue using current equipment – which may result in reduced levels of service and not being able to meet our proposed diversion to landfill target. There is also increased of imminent failure and downtime. Continue with current equipment and replacement plant and equipment in increments over a longer time period Upgrade the Materials Recovery Facility’s processing plant and equipment to increase our processing capacity. This enables levels of service increase and enables regional collaboration and increase in revenue. (preferred) 					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
Recycling - Materials Recovery Facility Development	Capital LOS	5.5 (5.6)	0.5 (0.6)	-	-
Resource Recovery Centre Resilience Improvements	Capital LOS	0.05 (0.05)			

Transport Safety Improvements

Transport Safety Improvements	Year Decision needs to be Made			TBC	
Our road safety record is getting worse. The number of recorded road crashes causing injuries on our roads and streets has been generally flat over the ten-year period. However, the amount of harm from transport crashes on roads and streets in Palmerston North has been increasing resulting in more deaths and serious injuries from road crashes.					
Key Options for this decision – Preferred option in BOLD					
<ul style="list-style-type: none"> Do nothing - remain at current state – risk for current issues exacerbating and potential being able meet level of service target for safety. Reprioritise programmes based on critically and need to deliver levels of service Deliver all the road safety improvements in the preferred timing (preferred) 					
Key relevant projects and Programmes (\$M): 2023 cost (including inflation)					
Project/Programme	Type	Y 1-3	Y4-Y10	Y11-Y20	Y21-Y30
Stoney Creek Road Upgrade	Capital Growth	8.3 (8.6)	3.2 (3.4)	-	-
Network - Low Cost Low Risk joint funded New Zealand Transport Agency - Waka Kotahi projects	Capital LOS	24.0 (24.5)	56.0 (63.6)	116.0 (162.0)	120.0 (215.8)
Kelvin Grove Road – Safety Improvements	Capital LOS	3.0 (3.1)	8.0 (8.8)		
Address Street Racer Issues	Capital LOS	0.2 (0.2)	0.4 (0.5)	0.6 (0.8)	0.6 (1.1)
Network Village – road upgrades to urban standard	Capital LOS	1.8 (1.8)	5.7 (6.5)	7.5 (10.5)	7.5 (13.6)

OTHER PROGRAMMES: Under the significant portfolio cost thresholds (and are not included in the tables above)

SIGNIFICANT ISSUE 1: Supporting growth, liveability and expected levels of service

Programme	Total over 30 years	Total including inflation
Ashhurst - Te Apiti Masterplan - Three Bridges Loop Development	\$ 394,000	\$ 394,000
City Growth - Cemeteries - Expansion of Kelvin Grove Cemetery Roding network	\$ 1,448,000	\$ 1,888,079
City Growth - Cemeteries - Extensions to burial and ashes areas to meet demand	\$ 4,857,600	\$ 6,584,037
City Reserves - Ashhurst Domain - Capital New	\$ 81,250	\$ 82,956
City Reserves - Design of Chinese Themed Garden - Community Initiative	\$ 280,000	\$ 307,356
City Reserves - Linklater Reserve - Capital New	\$ 81,600	\$ 83,170
City Reserves - Te Marae o Hine - The Square - Capital New	\$ 478,500	\$ 576,352
City Reserves - Victoria Esplanade - Capital New	\$ 2,676,000	\$ 3,394,495
City Reserves - Victoria Esplanade - Exotic Aviaries	\$ 145,000	\$ 146,949
Citywide - Biodiversity Enhancement Through Native Planting	\$ 900,000	\$ 1,243,479
City-wide - Car Park Infrastructure Improvements	\$ 500,000	\$ 500,000
City-wide - Edibles Planting	\$ 245,000	\$ 353,606
City-wide - Public Space Rubbish & Recycling Bins Development	\$ 1,770,000	\$ 2,196,996
City-wide - Public Transport - Transport Choices - Additional Bus Shelters	\$ 400,000	\$ 404,000
Collection Vehicles - Safety and Security Development	\$ 245,000	\$ 245,000
Conference and Function Centre - New upgrades	\$ 200,000	\$ 215,210
Industrial Growth - Longburn Stormwater	\$ 1,350,000	\$ 1,472,945
Kikiwhenua Cultural Historic - Reserve Purchase and Development	\$ 790,886	\$ 875,042
Kikiwhenua Cultural Historic - Reserve Purchase and Development	\$ 981,000	\$ 990,810
Local Reserves - Development of Existing Reserves - Capital New	\$ 541,750	\$ 645,161
Local Reserves - Improvements to existing reserves to close identified level of service gaps	\$ 1,938,000	\$ 2,107,595
Local Reserves - Roslyn - Edwards Pit Park Development	\$ 50,000	\$ 50,525
Local Reserves - Waterloo to Roxburgh connection	\$ 70,000	\$ 71,057
Local Reserves - Waterloo to Roxburgh connection	\$ 90,000	\$ 97,803
Palmerston North - District Metering Areas for Water Supply	\$ 710,000	\$ 1,024,669
Parks and Reserves - Shade Development	\$ 620,000	\$ 848,986

Programme	Total over 30 years	Total including inflation
Placemaking Co-created Project (capital)	\$ 2,099,500	\$ 3,279,674
Property - Solar Panel Installations	\$ 1,025,000	\$ 1,160,830
Public Toilets - New City-wide Toilets	\$ 6,100,000	\$ 8,389,860
Public Transport Network Improvements	\$ 18,800,000	\$ 27,584,670
Recycling - City-wide Recycling Services to Commercial/orgnisational Properties Development	\$ 600,000	\$ 828,986
Securing the Future of the Lido Outdoor Hydrosides	\$ 610,000	\$ 675,247
Sportsfield Improvements - Capital New	\$ 964,680	\$ 1,004,356
Sportsfields - Bill Brown Park - Additional Carparking	\$ 460,000	\$ 491,050
Street Trees - New and Renewal	\$ 18,000,000	\$ 25,744,620
Swimming Pools - Splashhurst Pool Enhancements	\$ 112,500	\$ 113,681
Tip Road Development	\$ 4,240,000	\$ 5,411,528
Upsizing of Kairanga Bunnythorpe Road Sewer and Storage	\$ 800,000	\$ 840,775
Urban Growth - Kakatangiata - New Community Centre	\$ 2,000,000	\$ 2,491,400
Urban Growth - NEIZ - Stormwater	\$ 2,048,220	\$ 2,287,669
Urban Growth - NEIZ - Wastewater	\$ 6,217,000	\$ 7,035,632
Urban Growth - NEIZ - Water Supply	\$ 8,500,000	\$ 9,797,600
Urban Growth - Recycling - City-wide Drop Off Facilities - Development	\$ 2,200,000	\$ 2,413,400
Urban Growth - Recycling - City-wide Wheelie Bins and Crates	\$ 2,835,000	\$ 3,922,371
TOTAL	\$ 99,455,486	\$ 130,273,627

SIGNIFICANT ISSUE 2: Managing the deterioration of assets

All programmes are included the summary table above.

SIGNIFICANT ISSUE 3: Responding to risks, resilience issues and compliance

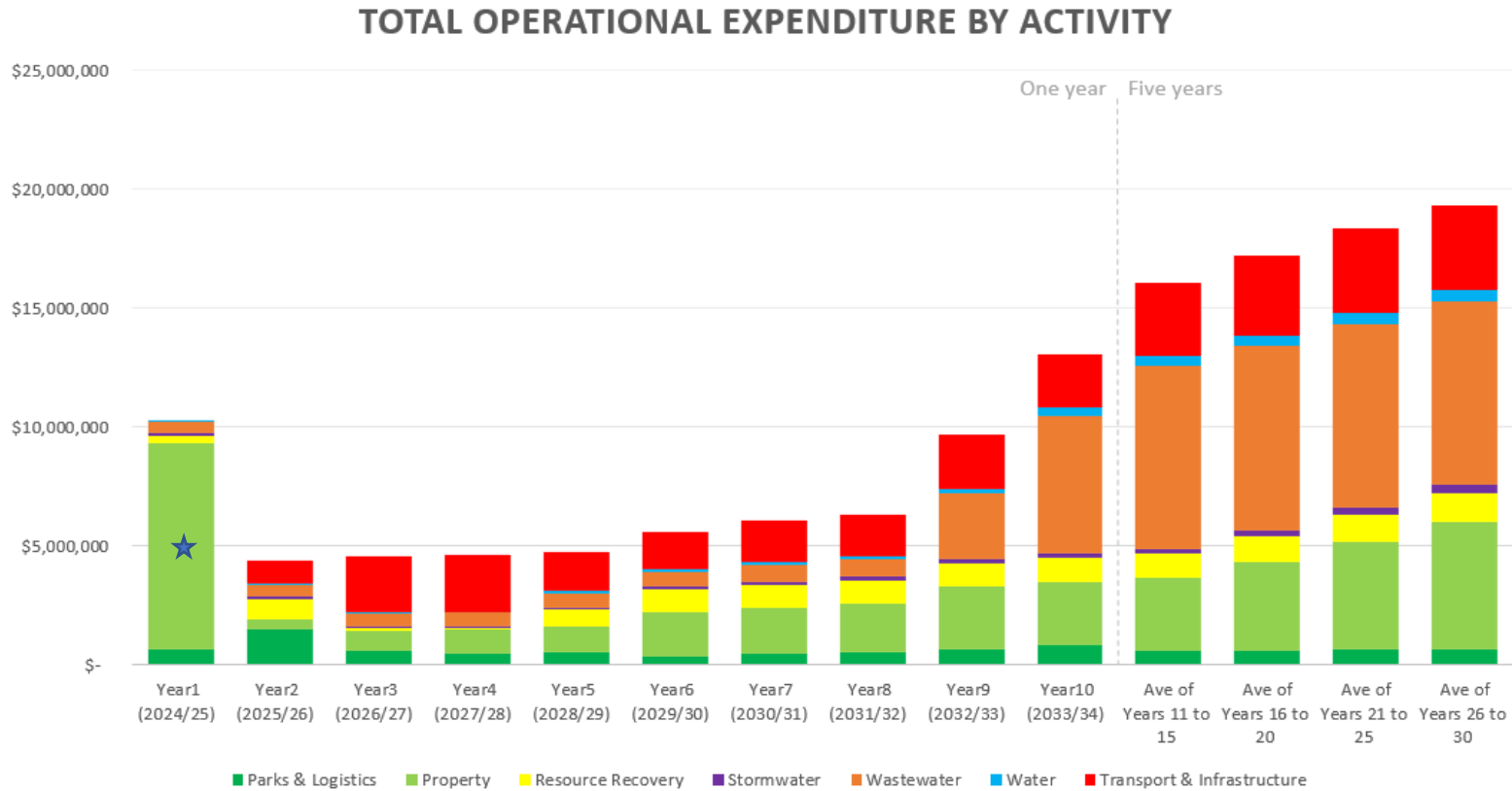
Programme	Total over 30 years	Total including inflation
Citywide - Restoring Flood Capacity of Stormwater Channels	\$ 4,500,000	\$ 6,859,980
Totara Road Wastewater Treatment Plant - Resilience Programme	\$ 5,760,000	\$ 8,625,462

Programme	Total over 30 years	Total including inflation
Turitea Dams - Aeration Upgrade	\$ 200,000	\$ 200,000
Closed Landfills and Transfer Stations - Safety, Security and Development	\$ 1,819,300	\$ 1,845,264
City-wide - Water Supply Resilience - Security of Supply	\$ 4,715,000	\$ 6,436,786
City-wide - Health & Safety - Water Treatment Chemical Handling	\$ 885,000	\$ 1,187,282
Totara Road Wastewater Treatment Plant - Biogas System Improvements	\$ 3,000,000	\$ 3,103,375
Turitea WTP - Water Supply Resilience - Upgrades	\$ 16,200,000	\$ 28,874,885
Road Drainage Capital Improvements	\$ 3,600,000	\$ 5,148,924
Turitea Dams - Health & Safety Improvements	\$ 2,390,000	\$ 3,663,117
3 Waters - Small Plant and Equipment	\$ 2,300,000	\$ 3,762,730
Local Reserves - Accessibility and Safety Improvements	\$ 3,465,000	\$ 4,787,392
Turitea WTP - Raw Water Main Duplicate	\$ 7,500,000	\$ 12,471,960
City-wide - Commercial Water Meters	\$ 1,064,728	\$ 1,416,827
Longburn - Stormwater Asset Improvements	\$ 2,200,000	\$ 3,229,560
Citywide - Discharge Smart Meters for Large Tradewaste Customers	\$ 1,200,000	\$ 1,829,328
Turitea WTP - New Retaining Walls on Access Road	\$ 200,000	\$ 210,510
Turitea Dams - Installation of Dewatering Systems (both dams)	\$ 550,000	\$ 602,155
Citywide - Wastewater Pump Station H&S Upgrades	\$ 2,345,000	\$ 3,871,292
Citywide Wastewater Critical Spares	\$ 1,550,000	\$ 2,336,660
Recycling Contamination Monitoring Development	\$ 55,000	\$ 55,000
Emergency Reinstatement	\$ 7,500,000	\$ 10,726,925
City-wide - Shared Pathways - Slip Prevention	\$ 2,100,000	\$ 2,241,630
Bunnythorpe - Stormwater Asset Improvement	\$ 1,200,000	\$ 1,360,020
Amberley Avenue Bridge	\$ 1,125,000	\$ 1,125,000
Citywide - Data Collection Devices for Stormwater Monitoring and Planning	\$ 420,000	\$ 551,376
TOTAL	\$ 77,844,028	\$ 116,523,440

Financial Summary

Note that the information presented in this section is based around the likely scenario.

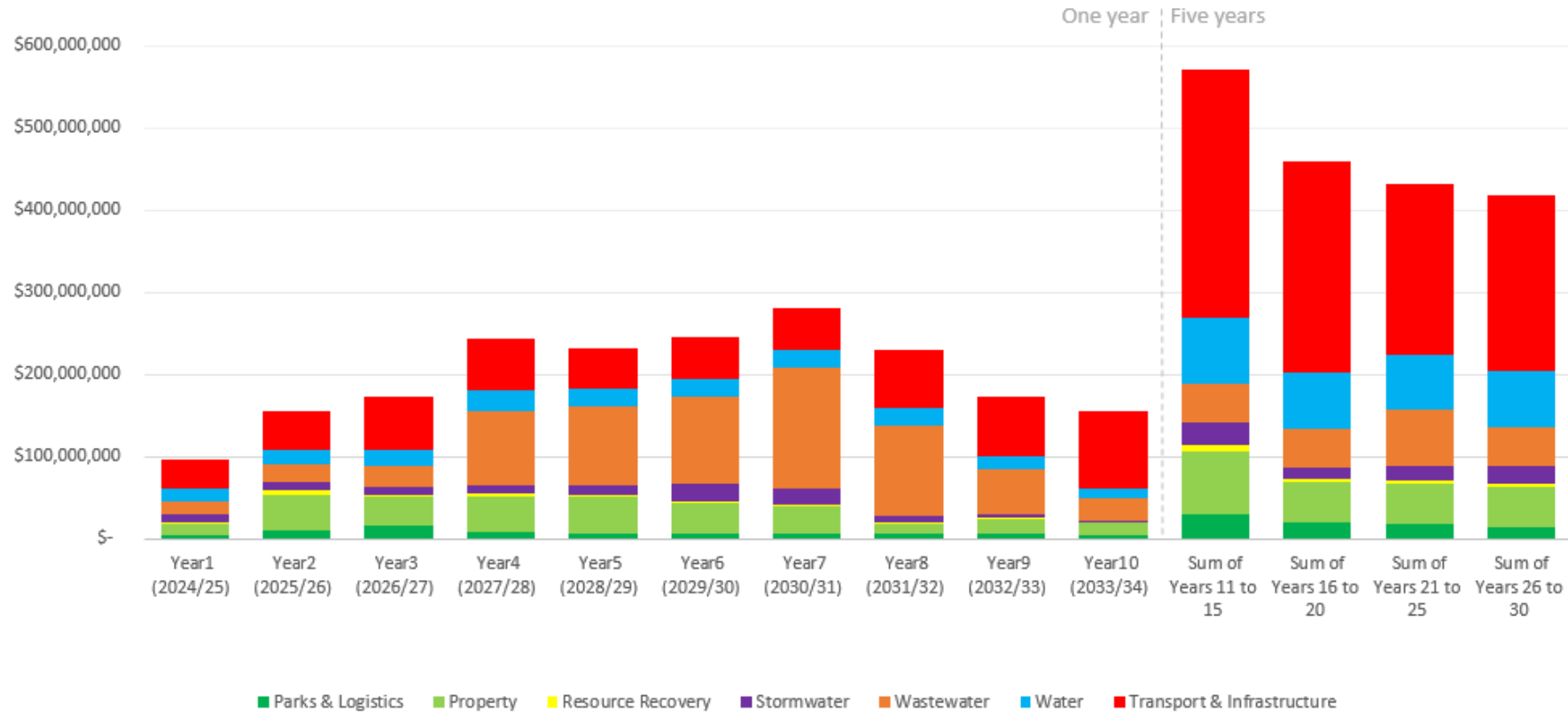
1. Total operational expenditure by activity



★ Year 1 Operating costs include construction of the Tamakuku Terrace subdivision, which will be transferred to Inventory on completion

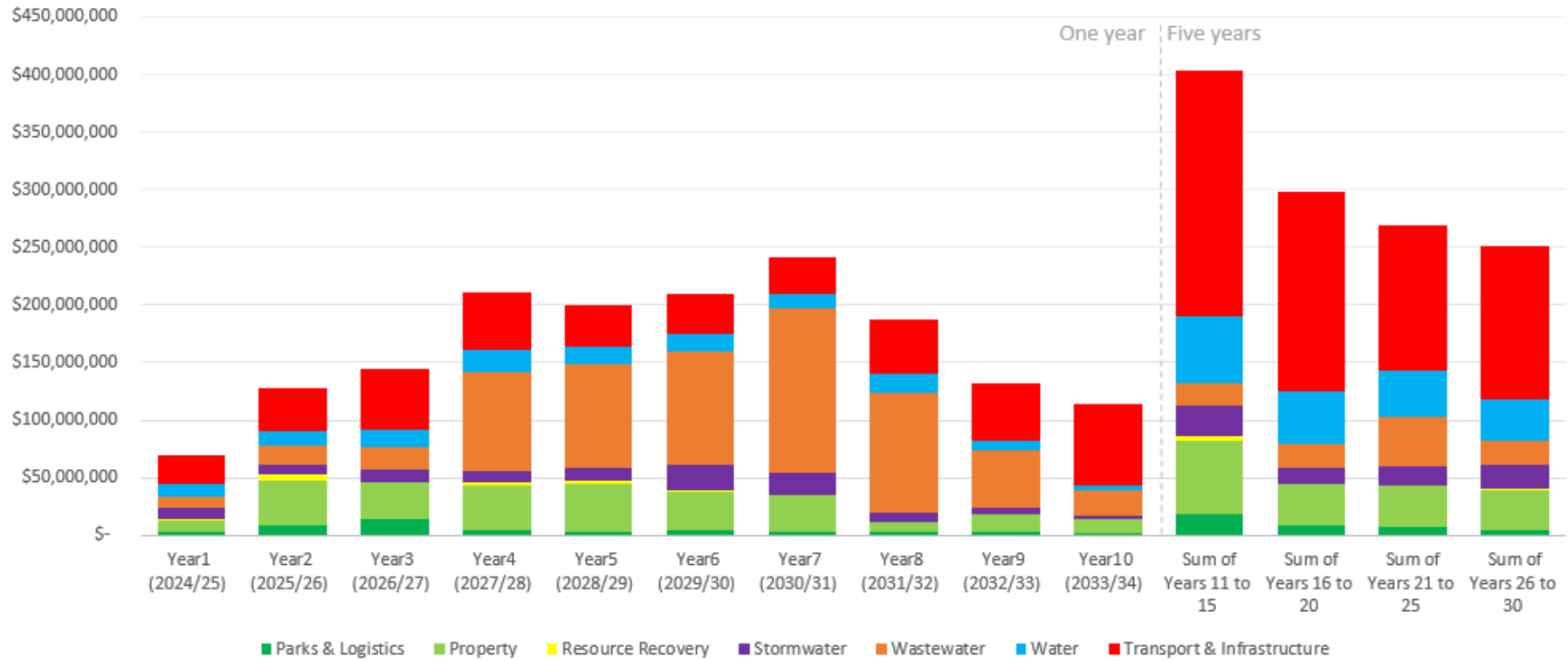
2. Total capital expenditure by activity

TOTAL CAPITAL EXPENDITURE BY ACTIVITY



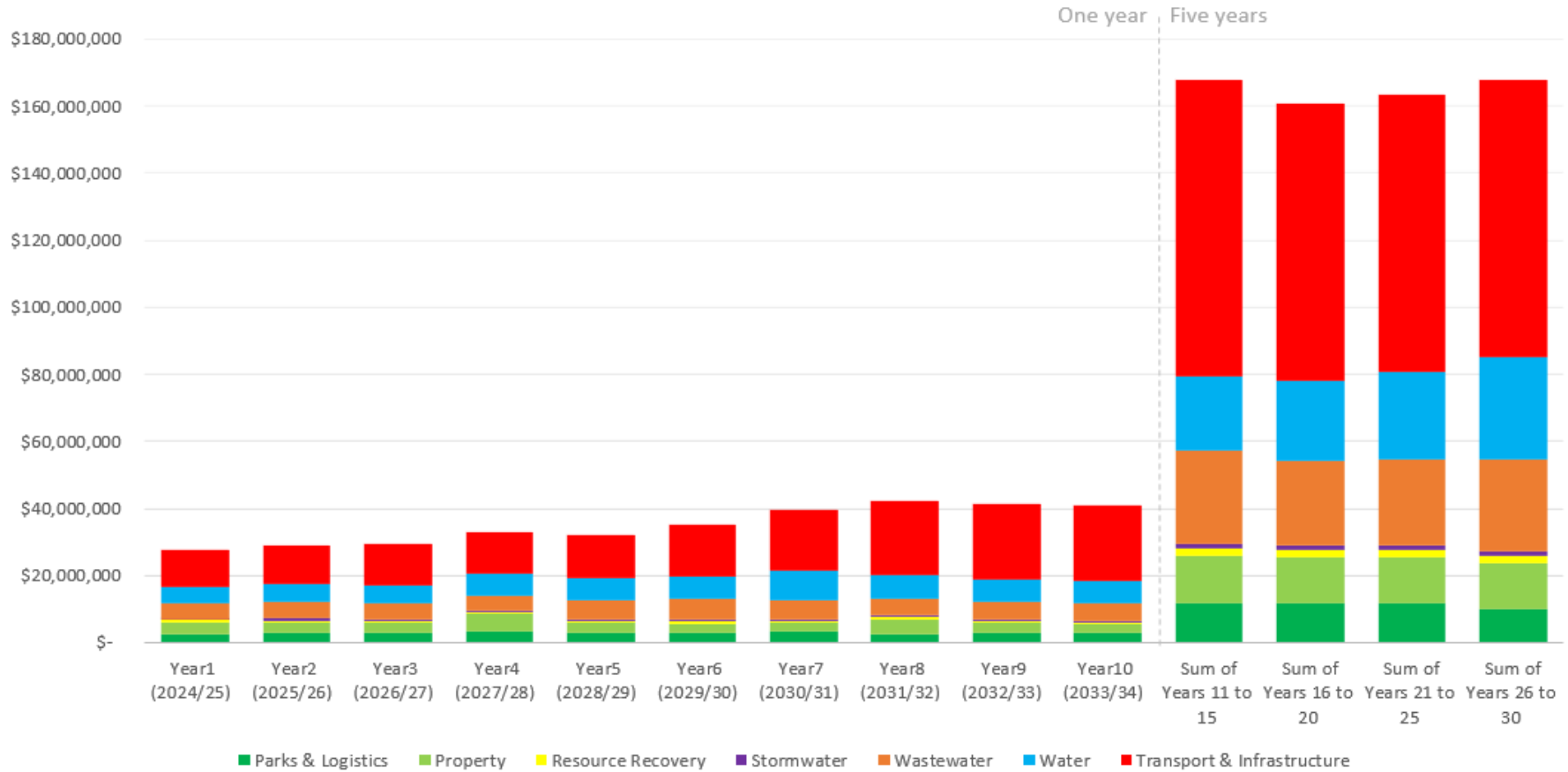
3. Total capital new by activity

TOTAL CAPITAL NEW BY ACTIVITY (CAPITAL LOS + CAPITAL GROWTH)



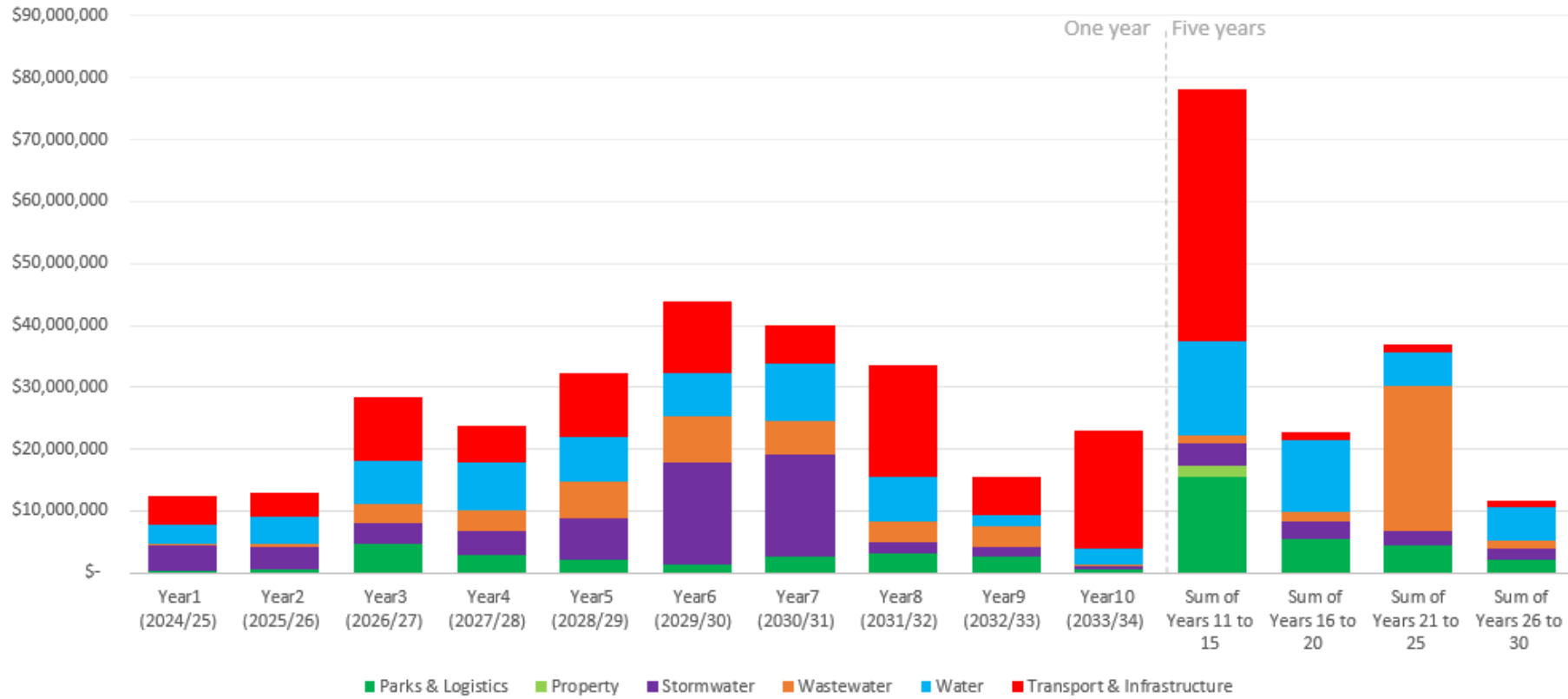
4. Total capital renewal by activity

TOTAL CAPITAL RENEWAL BY ACTIVITY



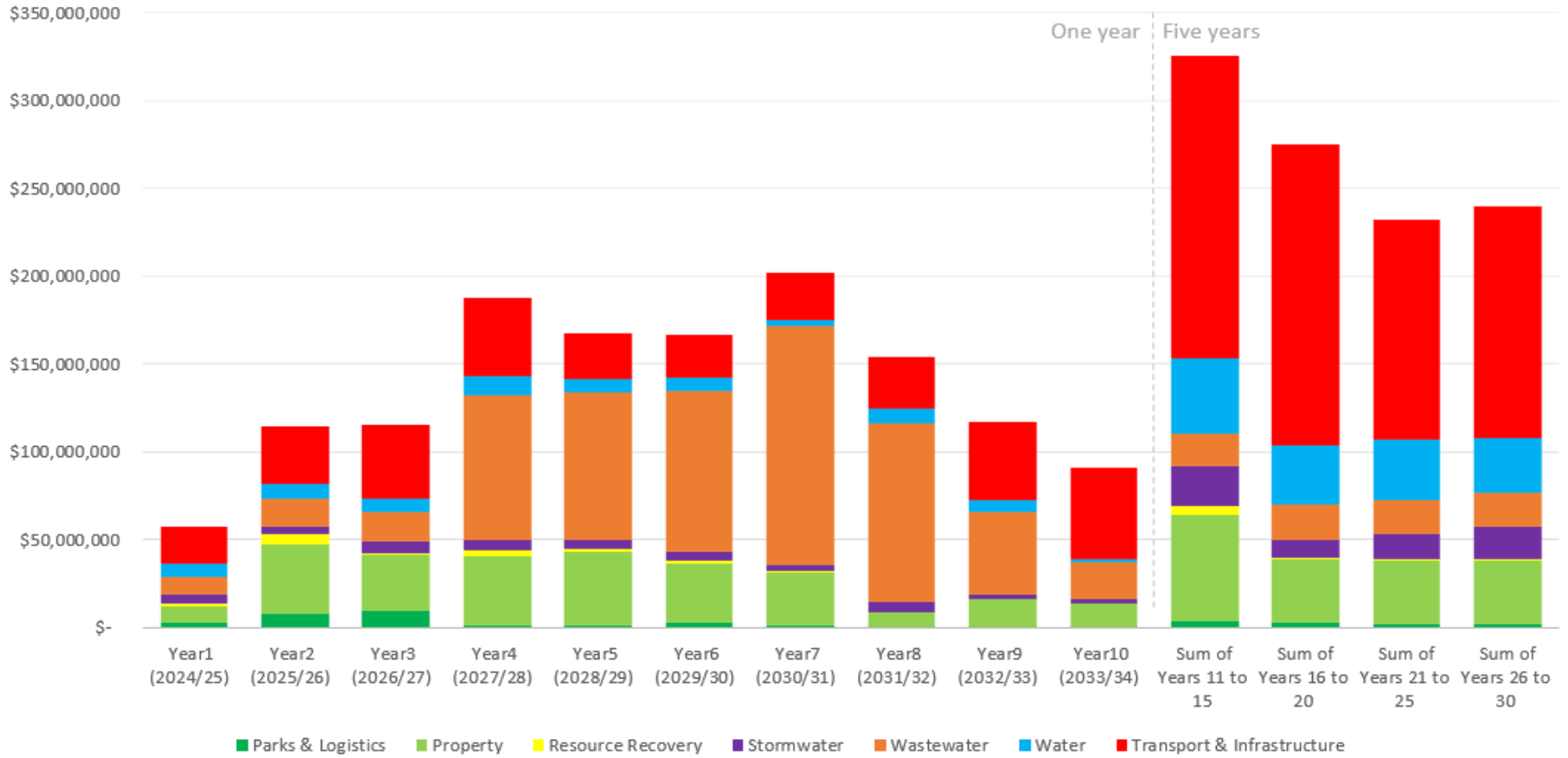
5. Total capital growth by activity

TOTAL CAPITAL GROWTH BY ACTIVITY



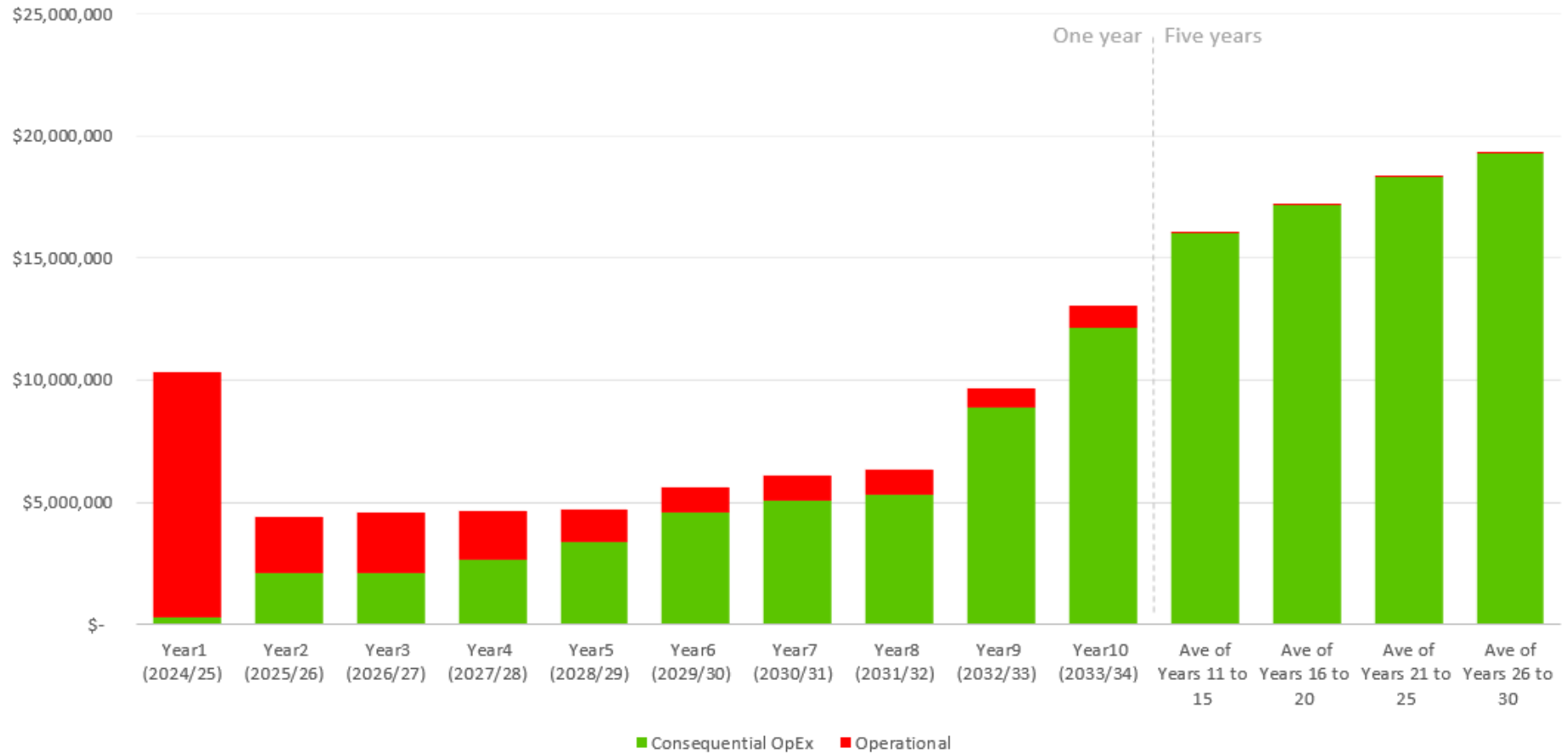
6. Total capital Level of Service (LOS) by activity

TOTAL CAPITAL LEVEL OF SERVICE BY ACTIVITY



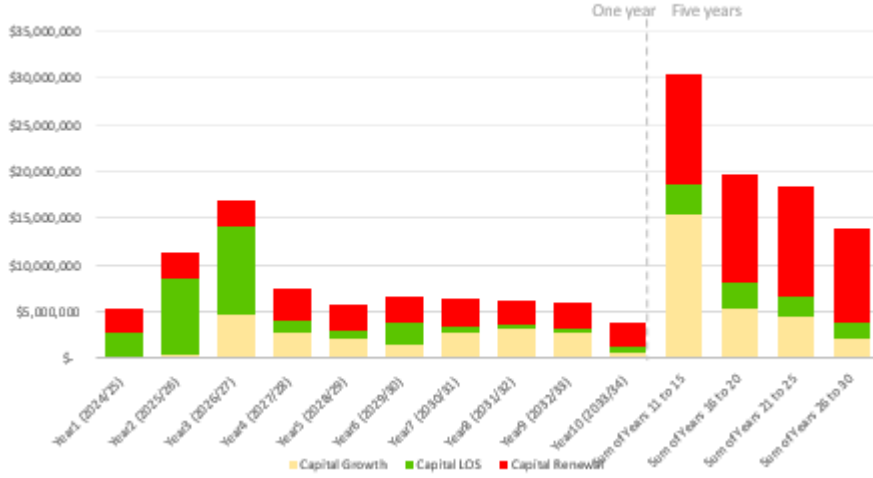
7. Operational programmes and consequential opex proposed budget

TOTAL CONSEQUENTIAL OPEX & OPERATIONAL PROGRAMMES

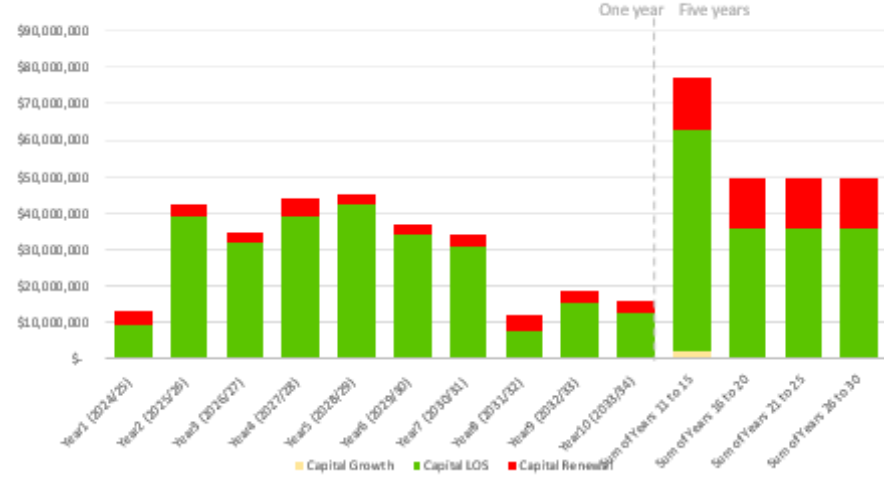


8. Capital Expenditure breakdown by Activity

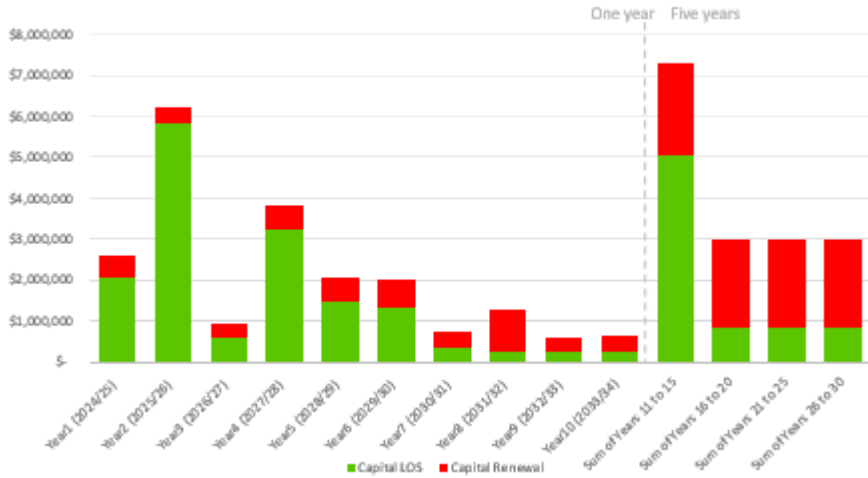
PARKS & RESERVES TOTAL CAPITAL EXPENDITURE



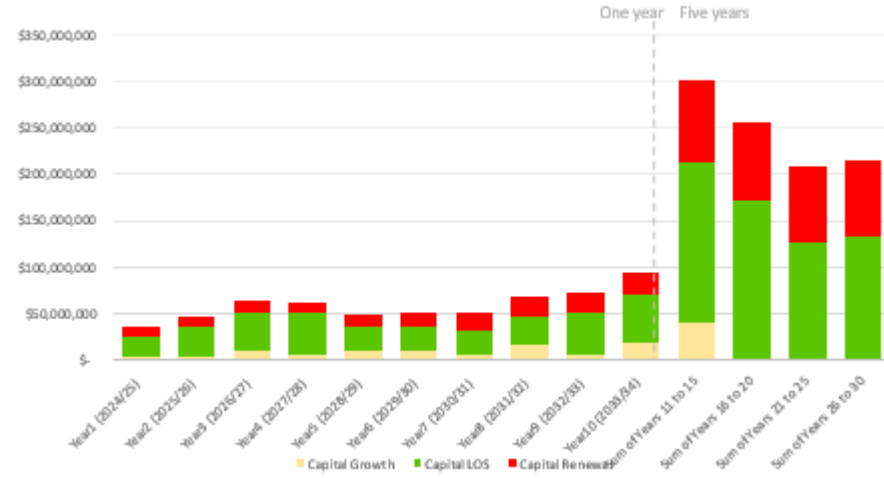
PROPERTY TOTAL CAPITAL EXPENDITURE



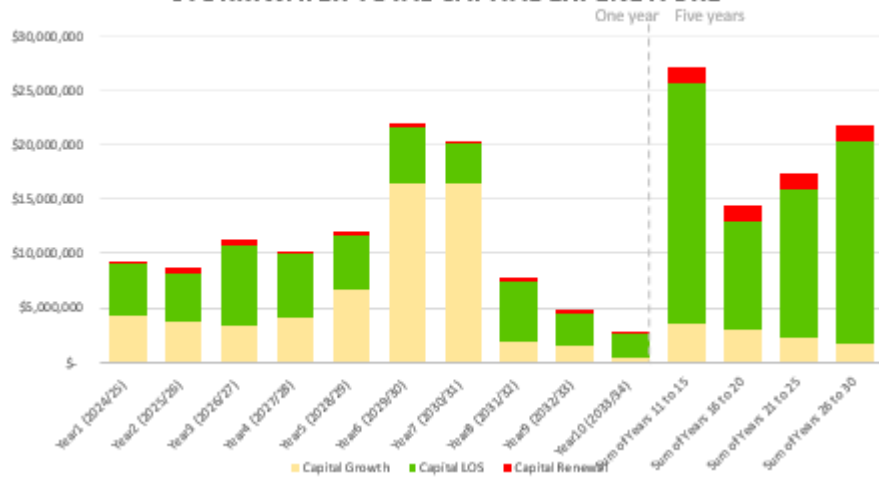
RESOURCE RECOVERY TOTAL CAPITAL EXPENDITURE



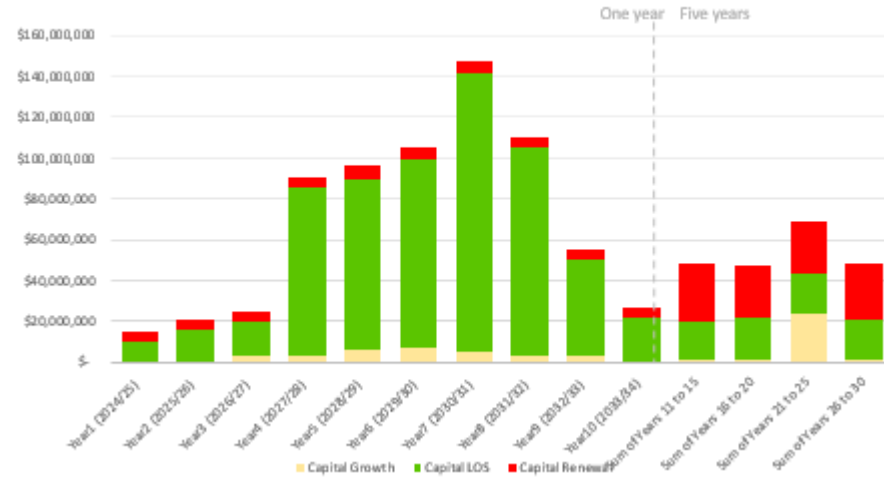
TRANSPORT TOTAL CAPITAL EXPENDITURE



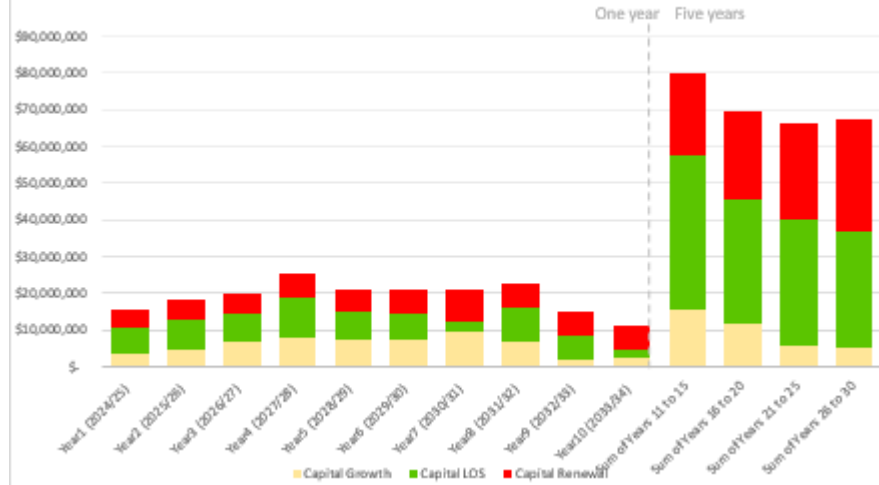
STORMWATER TOTAL CAPITAL EXPENDITURE



WASTEWATER TOTAL CAPITAL EXPENDITURE



WATER TOTAL CAPITAL EXPENDITURE



Assumptions and disclosures

There is inherent uncertainty in predicting some of the issues, pressures, or risks associated with infrastructure over a long time period.

The assumptions made in this strategy are consistent with those made for the whole Long-Term Plan. The assumptions and approach to funding of the proposed capital expenditure programme are addressed in the Financial Strategy.