

Imagine Monash in 2040

What do you want Monash to be in 2040?



DRAFT ASSET PLAN 2021-2031

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1 Introduction

Providing effective and efficient management of assets is a key obligation of the City of Monash (Council).

As custodian of community assets, Council has the responsibility for managing these assets in the most cost-effective manner. This is achieved through managing our assets through their lifecycle from creation and acquisition to maintenance and operation, through to rehabilitation and disposal. These actions are undertaken with the goal of providing efficient, safe, and reliable services for current and future generations.

The *Asset Plan* represents one of the keystones in the way we manage our community's assets. It provides a strategic and financial view of we will manage the assets that we own and control over the next ten (10) years and beyond. It defines our high-level strategic asset management priorities and addresses all aspects of the lifecycle management of our assets.

1.1 What is an Asset?

The most basic definition of an asset is something that is of value to a person or an organisation.

Assets can be tangible, meaning that they are physical and can be touched, or they can be intangible like financial assets.

Physical public assets that Council manages like buildings and property, roads, playgrounds, sports fields, etc are tangible assets and are covered by this *Asset Plan*.

1.2 What is Asset Management?

Asset management in short

The right assets, in the right place, at the right time, managed by the right people.

Asset management refers to the coordinated series of activities that monitor and maintain things of value —in this case, physical assets. This involves balancing risk, cost, opportunities, and performance to realise the value of an asset fully and effectively over its entire lifespan.

Ultimately, asset management is a way to align strategic planning with infrastructure and service delivery in the real world considering what assets people need and how these assets are made to last and perform best.

1.3 Why is Asset Management Important?

We manage a portfolio of assets that have a combined value and replacement cost of **\$4.2 billion**. This includes all our property, plant and equipment, and infrastructure. These assets have been built up progressively over many years.

These assets are predominantly used to provide services and amenity to our community. The standard to which they are maintained and the extent to which they are grown and improved are a key consideration in setting and delivering on our Community Vision and Council Plan.

Without these assets we could not provide our diverse range of services to the quality that our community expects.

Assets enable the delivery of services

The quality, quantity and location of Council's asset affect the quality of services experienced by the community.

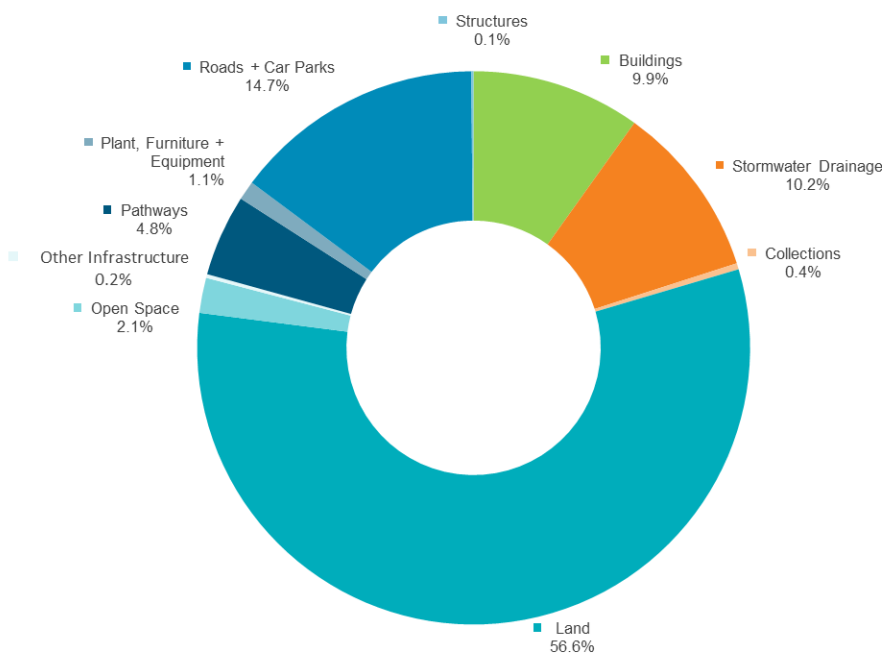


Figure 1 - Asset Class by Value

Over the next ten (10) years we expect to budget a total of **\$432 million** for renewing, improving, and growing our assets. We are also projected to allocate around **\$365 million** over the same period to operate and maintain our assets. Combined, on average **35 per cent** of our total annual expenditure is asset related.

This investment is made so that our assets remain fit-for-purpose, are safe, and support the

delivery of services to our community.

It is vital that we are good asset managers so that our assets support community outcomes. Asset management helps us effectively plan the maintenance and renewal of our assets as timely investments save money in the long term.

1.4 Asset Management Framework

Our Strategic Asset Management Framework shown in Figure 2 aims to ensure that a systematic approach to asset management delivers prudent and efficient outcomes that meet both our corporate and asset management objectives.

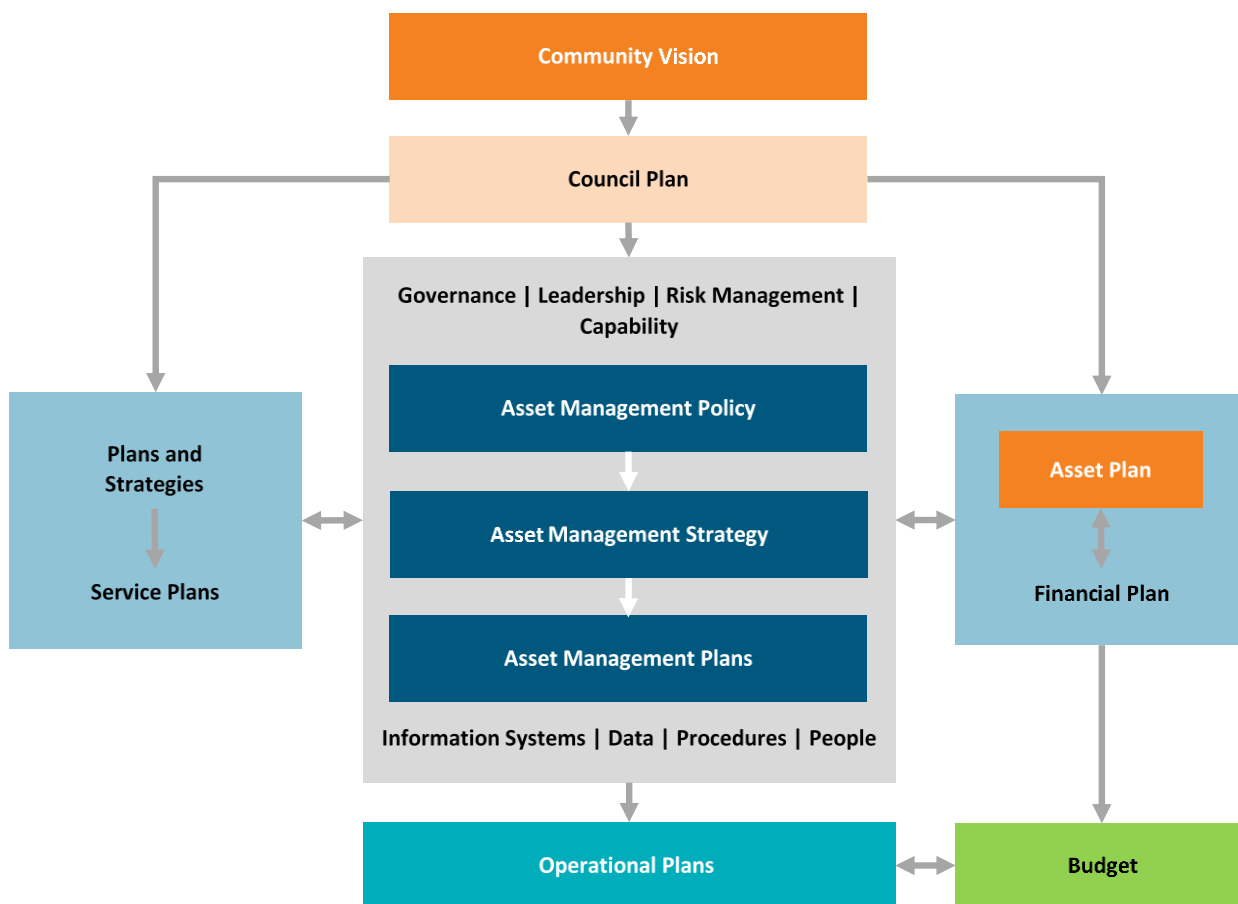


Figure 2 - Strategic Asset Management Framework

Document	Role	Details
Asset Plan	High level 10 year view of Council's priorities around maintenance, renewal, acquisition, expansion, upgrade and disposal of infrastructure asset under the control of the Council.	Combines key information from the Asset Management Strategy and Asset Management Plans and also links to Financial Plan
Asset Management Policy	Guides sustainable management of Council's assets to support services that will meet current and future community needs	Outlines Council's vision and principles
Asset Management Strategy	Outlines how we will deliver our asset management policy intentions	Establishes the direction and actions necessary for improvement of relevant asset management practices to achieve the Council's vision and organisational objectives
Asset Management Plans	how we intend to manage our assets to meet the demands of our community in the future	Provides a roadmap for achieving value from our assets by optimising cost, risk, and performance across the lifecycle of an asset

1.5 The Purpose of Asset Plan

This *Asset Plan* has been prepared to meet the requirements of section 92 of the *Local Government Act 2020*. We need have our *Asset Plan* in place by 30 June 2022. We are preparing it now, so it is included as part of our integrated approach to planning our long term goals. The *Asset Plan* along with our Community

Vision and Council Plan will all be developed input from our community via deliberative engagement.

It is a general overview document that summarises the key elements of the individual Asset Management Plans that we have developed for each of our major asset classes.

The purpose of this *Asset Plan* is to:

- Show how we will responsibly manage our assets to meet the service delivery needs of our community into the future in a cost-effective way.
- Summarise the operating and capital expenditure requirements for our assets.
- Ensure that there is integration between our asset management planning outcomes with our strategic objectives, Financial Plan, and Budget.
- Maximise alignment with Council, Regional and Government Strategies, Policies and Plans that effect the management of our assets.
- Make sure that we comply with our legislative obligations.

The development of this *Asset Plan* is dependent and relies upon our understanding of the performance of our assets and number of key assumptions. Assumptions and forecasts will change based on enhancement of our asset knowledge along with ever evolving internal and external drivers. This *Asset Plan* will be actively monitored and updated to reflect any major changes.

1.6 Scope of the Asset Plan

While we manage an extensive portfolio of assets, this *Asset Plan* only covers all infrastructure that is under the control and is recognised as an asset of the City of Monash. Our infrastructure assets include:



Roads



Pathways



Public Lighting



Facilities



Stormwater



Open Space



Structures
(bridges culverts
and retaining walls)

2 Strategic Context

The delivery of services to the community is guided by the Community Vision, Council plans, strategies, and policies. These also drive our approach to asset management. **Error! Reference source not found.** illustrates an example of integrated planning framework.

2.1 The Financial Plan

The Financial Plan provides a long-term view of the resources that we expect to be available to us and how these will be allocated and prioritised over the next ten (10) years.

Our Financial Plan identifies our current and projected financial capacity to continue delivering high quality services, facilities, and infrastructure while identifying critical new capital investment to support our community's prosperity and to respond to our future challenges.

This *Asset Plan* is based on and intrinsically linked with the budgets and projections outlined in our Financial Plan. Ongoing affordability and financial sustainability are our key objectives.

The Financial Plan in combination with the *Asset Plan* supports us in achieving this aim.

2.2 The Council Plan

Our Council Plan makes a commitment to outcomes and priority initiatives across a number of strategic objectives. Effective asset management supports the outcomes of the Council Plan and also the delivery of sustainable services.

We recognise our stewardship role in appropriately managing the assets we have and aim to fulfil our obligations to future communities to provide sustainable assets and services.

2.3 The Regulatory Framework

We operate in a complex legislative and policy environment that directly influences the way we do business.

The principal legislation in Victoria governing the establishment and operation of councils is the *Local Government Act 2020* ('The Act'). This defines the purposes and functions of local government as well as providing the legal framework for establishing and administering councils.

The Act requires all councils to develop an integrated, longer-term, and transparent approach to planning organised around a ten (10) year community vision. This *Asset Plan* is an important part of our integrated planning framework.

As well as the general powers and responsibilities given under the Act, we are responsible for a wide range of services and functions under various other Acts of Parliament. In fact, we have responsibilities under more than 120 different Victorian pieces of legislation.

2.4 Relevant Strategic Documents

This plan supports a number of other strategic Council documents including but not limited to:

- Monash Health and Wellbeing Plan
- Monash Integrated Transport Strategy 2017
- Environmental Sustainability Strategy 2016-2026
- Zero Net Carbon Action Plan 2020-2025
- Open Space Strategy

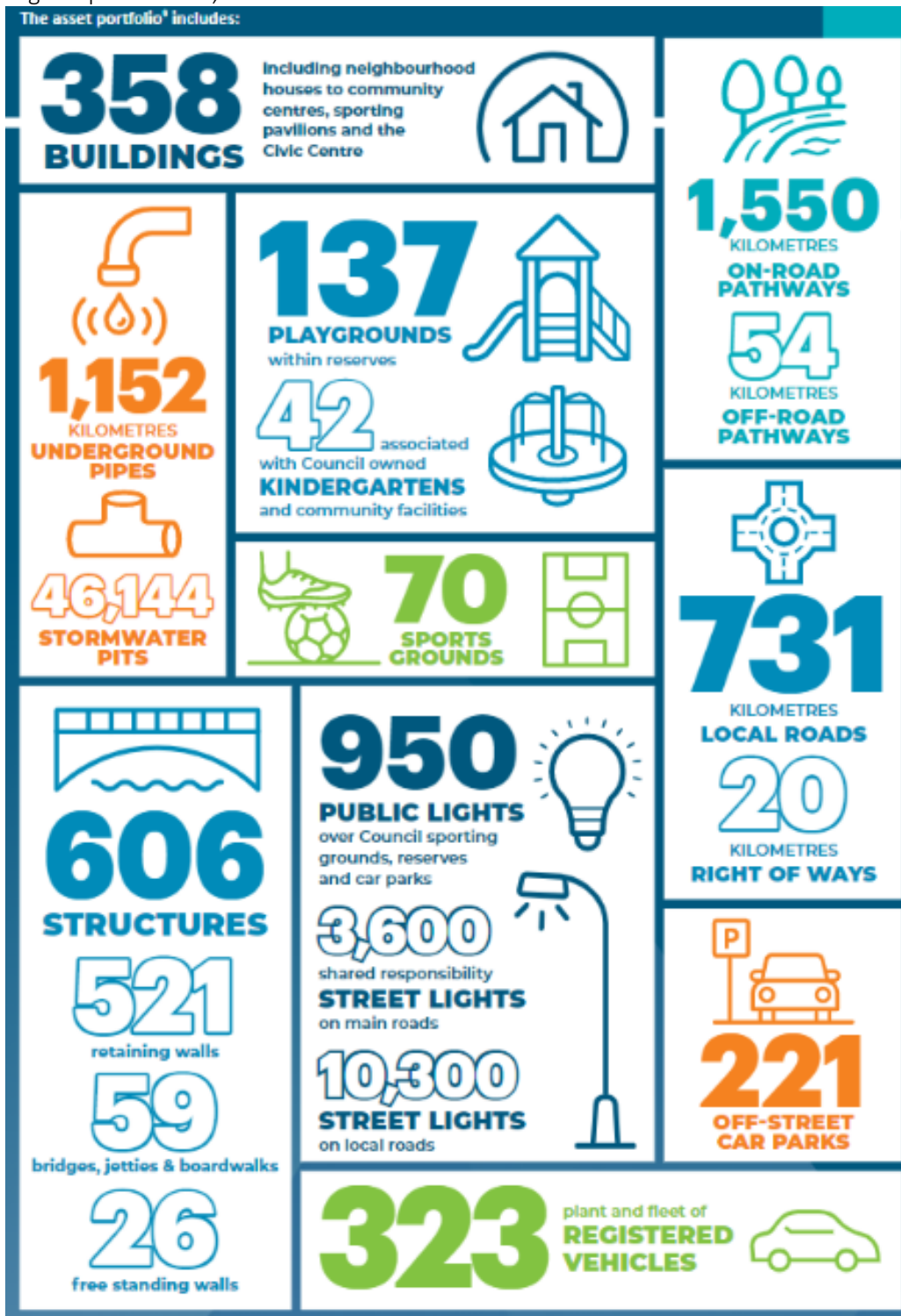
- Road Management Plan 2021
- Early Years Plan Infrastructure Plan 2021

3 Our Assets

We manage a portfolio of assets worth over **\$4.2 billion**. This includes all our property, plant and equipment, and infrastructure. These assets have been built up progressively over many years.

All our infrastructure assets, collectively worth close to **\$1.8 billion**, belong to ratepayers and are managed and operated on their behalf.

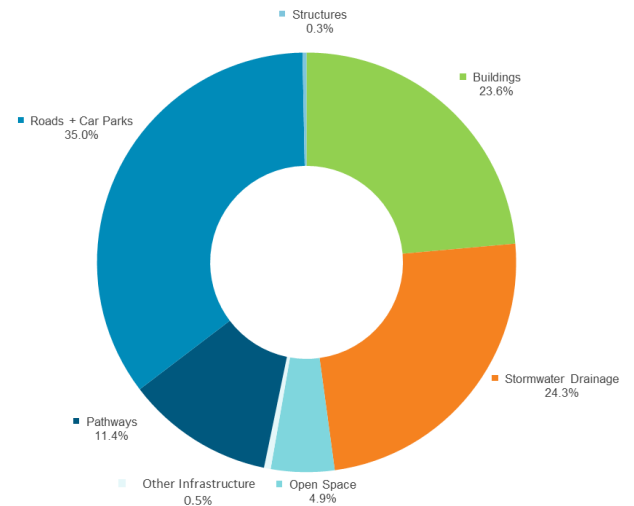
Ensuring our assets are appropriate for the city's needs enables us to deliver the services that make the City of Monash a great place to live, work and visit.



This *Asset Plan* provides guidance on all Council infrastructure assets, which are grouped into the following key asset classes:

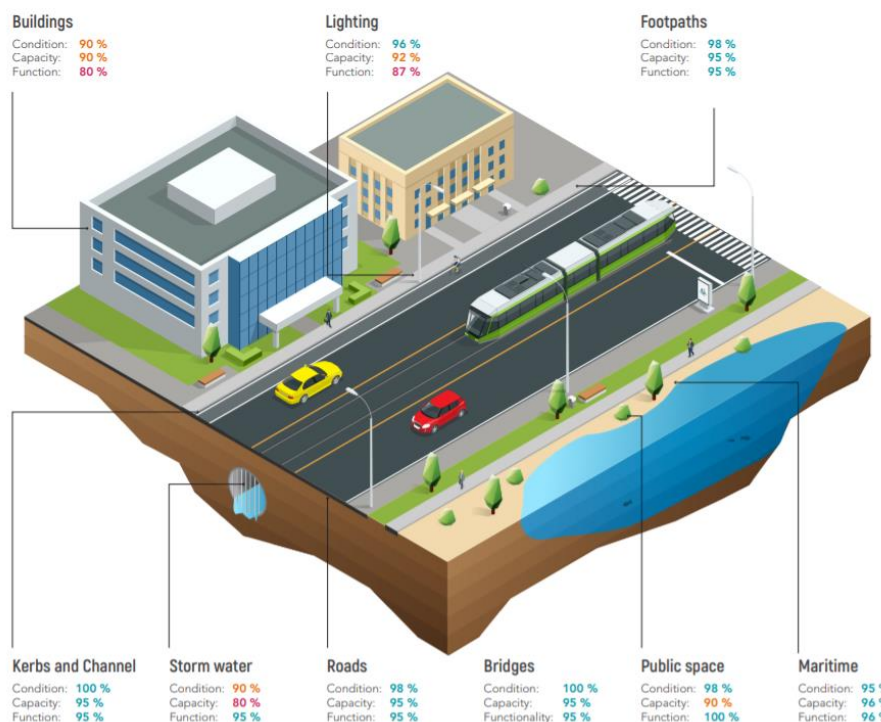
Asset Class	Quantity	Replacement Value (\$ Million)
Buildings	313 buildings	\$414,552
Stormwater Drainage	1,192 km of underground pipes 46,015 stormwater pits	\$426,803
Open Space	148 playgrounds and 70 sportsgrounds	\$86,082
Other Infrastructure	Waste bins	\$9,081
Pathways	1,462 kilometres of on roads pathways 48 kilometres of off road pathways	\$200,336
Roads + Car Parks	748 kilometres of roads 221 off street car parks	\$616,038
Structures	521 retaining walls 59 bridges, jetties, and boardwalks	\$5,481
Total		1,758,373

Table 1 - Asset Summary



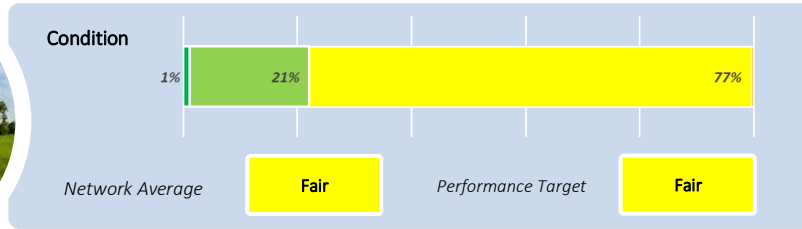
3.1 State of Our Assets

Our community determine the demand and value of the services our assets provide. The performance of our infrastructure is measured on agreed service levels through ongoing condition assessments of our infrastructure.

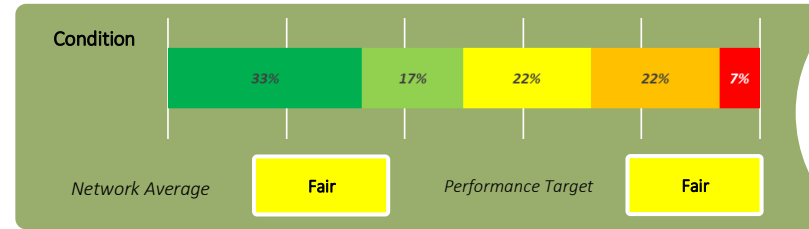




Pathways



Stormwater Drainage*



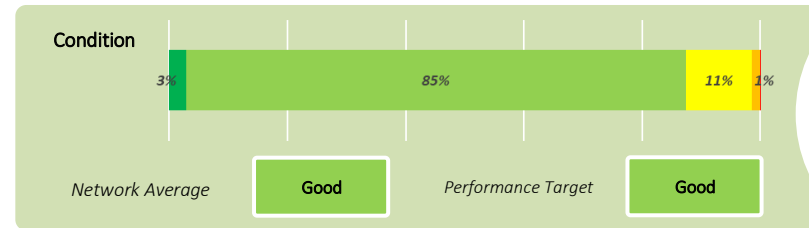
*Note: Condition known for only part of stormwater drainage network.



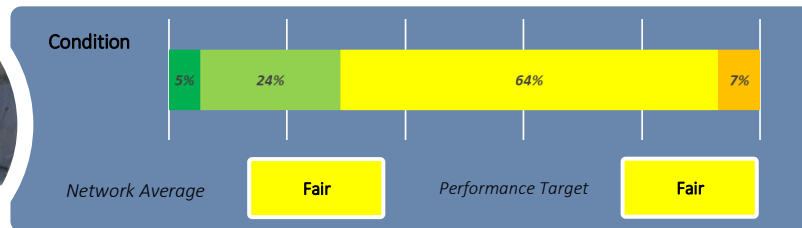
Roads and Car Parks



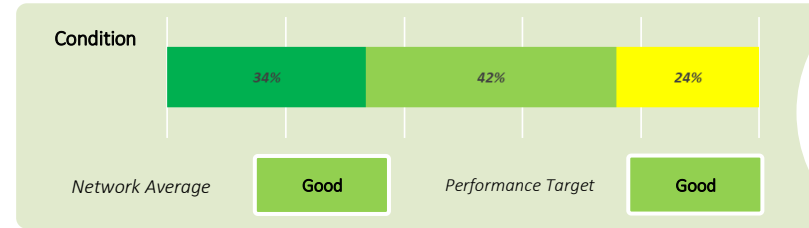
Facilities



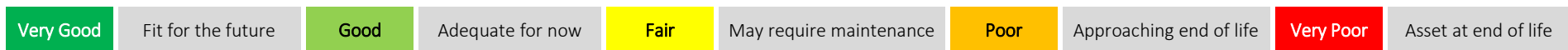
Structures



Open Space*



*Note: Condition known for only play spaces and sporting ovals.



4 Lifecycle Management

The goal of asset management is to meet a required level of service in the most cost-effective manner, through the prudent and efficient management of assets for present and future customers.

The key elements of effective asset management are:

- Adopting a life-cycle approach.
- Developing cost-effective management strategies for the long term.
- Providing defined and agreed levels of service.
- Monitoring performance.
- Understanding and meeting the impact of changing service needs
- Managing risk associated with asset failures.
- Sustainably using physical resources.
- Continually improving asset management processes and practices.

A formal approach to the management of assets is essential to providing our services in the most cost-effective manner. This enhances our ability to demonstrate our approach to asset management to our stakeholders

Our approach to asset management is centred on asset lifecycle management. There are four key stages in the asset lifecycle as shown in Figure 3.

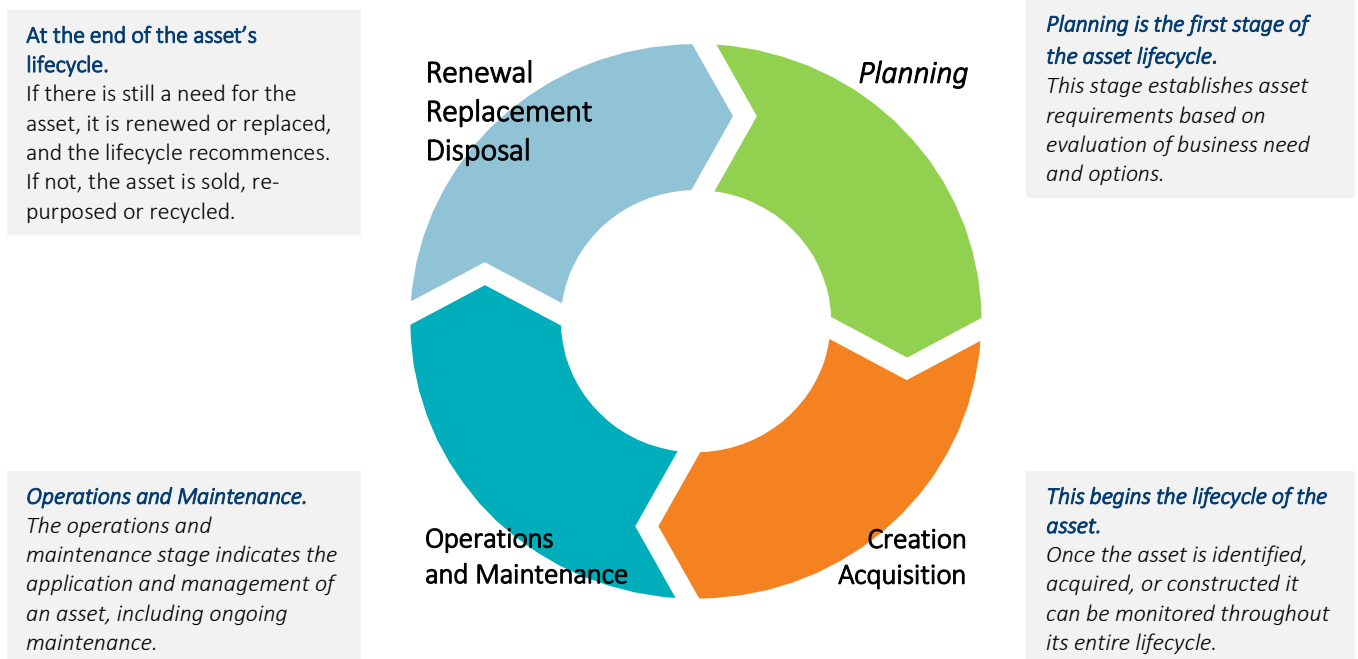


Figure 3 - Asset Lifecycle

4.1.1 Lifecycle Strategies

Each phase of the lifecycle has a corresponding lifecycle strategy, which describes our approach to the activities in that stage, objectives relevant to that stage, and strategies for providing performance to required levels.

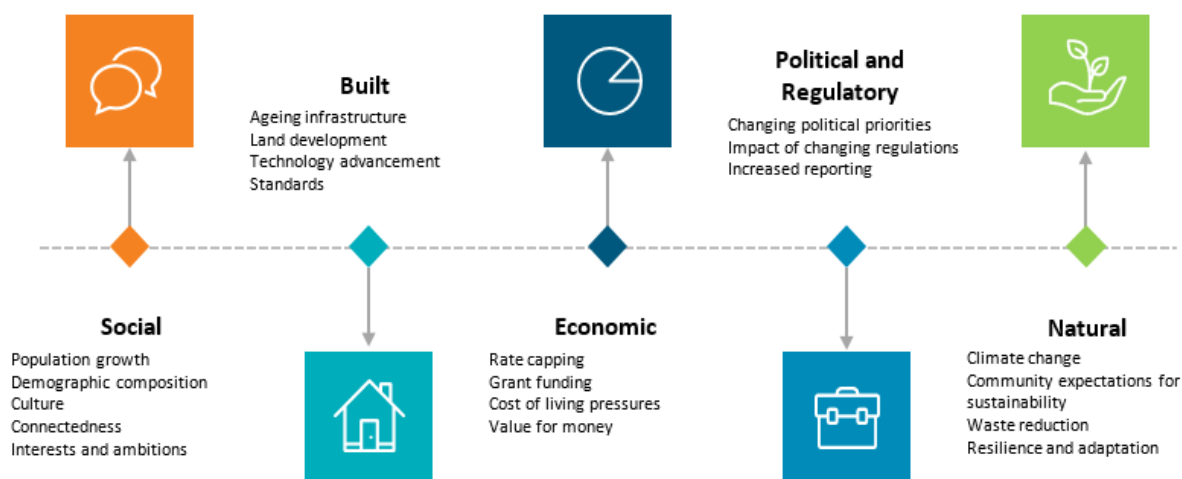
Our lifecycle strategies that we employ in each phase are summarised in Table 2.

Lifecycle Phase	Our Lifecycle Strategies
Planning	<ul style="list-style-type: none"> ▪ We consider asset requirements necessary to support our long term objectives and to ensure that the right assets are provided to meet service needs. ▪ Future asset planning and service design considers and balances the key principles of affordability, equity, and the environment. ▪ We use transparent, informed decision-making processes that consider the whole-of-life implications of acquiring, operating, maintaining, and disposing of an asset.
Creation or Acquisition	<ul style="list-style-type: none"> ▪ Our projects are comprehensively defined so that its objectives are clear. ▪ We select appropriate procurement strategies to ensure we work with the right project partners and achieve value for money. ▪ We use systems and processes to plan, manage, and control projects that result in the creation of assets. ▪ We integrate environmentally sustainable approaches to the design and construction of assets. ▪ Newly acquired assets are checked for quality before they are put into service.
Operations and Maintenance	<ul style="list-style-type: none"> ▪ We act to enable existing assets operate to their service potential over their useful life. ▪ We regularly inspect, service, and maintain our assets so that they are safe, compliant, and are continuously available for use. ▪ Maintenance is planned to minimise the risk of critical asset failure and ongoing lifecycle costs. ▪ We use systems and processes to help record information about our assets and monitor their performance.
Renewal, Replacement, or Disposal	<ul style="list-style-type: none"> ▪ We continuously assess the condition of our assets. ▪ We aim to optimise the timing of the renewal or replacement of our assets so that they remain safe and functional and to minimise overall lifecycle costs. ▪ Our goal is to maximise the use of our assets through adaptive reuse or colocation of services where appropriate. ▪ Where assets do not directly support core service delivery they are considered for rationalisation.

Table 2 - Lifecycle Strategies

5 Future Challenges and Opportunities

There are some issues facing Council that can dictate how we plan for the future and what direction is taken. They may impact on how we deliver our assets and services.



Some of the main issues facing the provision of our assets and services are outlined in Table 3.

Issue	What does this mean for asset management and service delivery?
Social Demand	
<p>Population Trends</p> <p>Our present population is 204,396 people and is expected to grow to more than 249,287 people by 2041.</p>	<p>We will need to expand our services and assets to cater for our growing community. Council will need to make a financial investment in infrastructure so that our assets are of a suitable capacity to cater for growth and that exemplary urban renewal is achieved.</p>
<p>Demographic Change</p> <p>Between 2016 and 2031, the age structure forecasts for the City of Monash indicate a 12.7% increase in population under working age, a 14.0% increase in population of retirement age, and a 19.9% increase in population of working age.</p>	<p>Change in the age structure of the population will mean it is critical for us to plan age-based facilities and services. A changing demographic will mean that we will need to maintain a focus on providing that promote access and equity.</p>
<p>Changing Community Needs</p> <p>The community expects Council to be able to quickly respond to emerging needs, without knowing how long the demand might last.</p>	<p>We will need to plan assets that are responsive and adaptable to meet shifting stakeholder needs. We will need to seek to form strategic alliances with service delivery partners to enhance non-asset based service delivery solutions in turn optimising the use of Council's asset portfolio.</p>

Issue	What does this mean for asset management and service delivery?
Built Environment	
<p>Ageing Infrastructure</p> <p>One of the biggest financial challenges facing us is the cost of renewing our ageing infrastructure. Council's assets have been built and developed in the past. Many years on, this period of development has created a large peak in the need to invest in asset maintenance and renewal.</p>	<p>There is a critical need to introduce systems and processes to ensure that our spending on our existing assets is optimised.</p> <p>As our assets continue to age, more investment in maintenance and renewal expenditure will be required to ensure that the current levels of service enjoyed by the community continue to be delivered.</p>
<p>Rapid Technological Change</p> <p>The world is becoming more connected. People, businesses and governments are increasingly moving online to connect, deliver and access services, obtain information and to perform day to day activities. These changes will affect how we deliver services and how we manage our assets.</p>	<p>We will also have the capability to share our data on our assets to others enabling them to interact with our services digitally. We will also be able to enable a more mobile workforce.</p> <p>Council may also be expected to be able to make more use of available and emerging technology to make data more accessible to all.</p>
Economic Demand	
<p>Diminishing Own Source Income</p> <p>We are experiencing a significant reduction of our own source revenue. This had previously contributed to the consolidated revenue of Council and was able to be utilised for the cross-subsidy of other services or had minimised the impact of the net cost to the community</p>	<p>Loss of own source income due to commercial competition and changed patterns of use will materially affect Council's financial sustainability. This will impact the way we invest in our assets and services in the future.</p>
<p>Increasing cost of providing services</p> <p>Cost increases to items such as electricity, petrol, and raw materials impact on the Council. For the Council, this occurs within an expectation of doing more with less or improving our efficiency to ensure more can be achieved with less money.</p>	<p>We will need to aim to continually balance the affordable provision of services against the needs of our community.</p>
<p>Delivering on community expectations while keeping it affordable</p> <p>There is ongoing pressure from the community for higher quality assets and services to be provided for most Council activities. Smoother roads, modern technology and convenience are some examples. The expectation is for a higher level of service for the same amount of money – in other words doing more with less.</p>	<p>Community expectations can be influenced by numerous drivers such as generational change, legislation, environmental standards, facilities experienced elsewhere and new technology.</p> <p>Our assets must cater for the expectations of the community by remaining accessible, well maintained, and fit for purpose. All of this costs money, and must be balanced and prioritised against building our City's future and the ability of the community to pay</p>
Political and Regulatory Influence	
<p>Legislative and Policy Influence</p> <p>We operate in a complex legislative and policy environment that directly influences the way we do business:</p> <ul style="list-style-type: none"> There is an expectation that Council will continue to deliver services, even when State and Federal government funding is withdrawn 	<p>We need to meet our statutory obligations while being conscious of maintaining affordability and financial sustainability. This requires good decisions to be made to manage competing funding demands across a broad range of projects, programs, and services.</p>

Issue	What does this mean for asset management and service delivery?
<ul style="list-style-type: none"> ▪ The cap on rate increases means our ability to control revenue is constrained ▪ Compliance and reporting requirements are increasing 	
Natural Environment	
<p>Climate Change</p> <p>We are already experiencing the impacts of climate change. In the future, we can expect; increased flooding of coastal properties and public facilities; storm damage to infrastructure; beach erosion; decreased water quality and security of water supply; reduced summer outdoor activities; and hotter urban spaces.</p>	<p>Changing weather may lead to increased need for reactive maintenance for storm and flood damage repair. Assets will need to be built and renewed to a standard that can withstand at least 1.5 degrees of warming. This may require different materials, methods of construction and other innovative approaches. There may also be Increased expectation for leadership from Council to make use of sustainable energy sources and to provide assets that are environmentally efficient. In the longer-term, there may be greater community demand for weather protection, for sports and leisure activities that have traditionally occurred outdoors.</p>

Table 3 - Summary of Key Challenges and Opportunities

6 Funding for Long-Term Sustainability

The main theme underpinning our *Asset Plan* and broader asset management planning principles is ensuring responsible stewardship of our assets to meet the needs of tomorrow's community.

This acknowledges the many and varied factors that influence the delivery of our community's infrastructure. Some of these challenges are legacy issues (e.g., decisions of past Councils or how things were built over 40 years ago). Others are simply the demands of a progressive society that is constantly seeking to improve. Either way, we are responsible for ensuring built infrastructure enhances community wellbeing and is fit for purpose, good quality, safe, future-proofed, cost effective and appropriately funded.

6.1 Spending Categories

For the purposes of this *Asset Plan*, our spending on our infrastructure is categorised as follows:

Expenditure Category	Activity	Description
Recurrent	Maintenance	Ongoing work required to keep an asset performing at the required level of service.
	Operations	Recurrent expenditure that is continuously required to provide a service.
Renewal	Renewal	Returns the service potential or the life of the asset up to that which it had originally
Growth	Upgrade	Enhancements to an existing asset to provide a higher level of service.
	Expansion	Extends or expands an existing asset at the same standard as is currently enjoyed by residents, to a new group of users.
	New	Creates a new asset that provides a service that does not currently exist.

Table 4 - Expenditure Categories

Classifying our expenditure in this way helps us to plan our budgets and track how we spend our money on our assets and services.

6.1.1 Investment Evaluation

As an organisation which relies on assets to deliver our services, we follow an investment philosophy that:

- Ensures that capital investment for infrastructure assets aids in the achievement of our strategic objectives.
- Aids the development of a service needs directed long-term capital works program, to better inform our Financial Plan.
- Ensures capital investment delivers best value.
- Ensures that capital investment is financially sustainable, and in accordance with asset management principles for the whole life cycle costs of our infrastructure.
- Builds a robust capital infrastructure asset investment system, that is impartial and priority-based for allocating Council resources.
- Enhances transparency and public confidence in our capital investment decision-making process.

It is essential that we make sound capital investment decisions with its finite capital resources that maximise public value for current and future generations.

Our approach provides a means of evaluating and appraising proposed infrastructure investments, as well as Asset Plan 2021

setting priorities within the context of our long term asset and service needs.

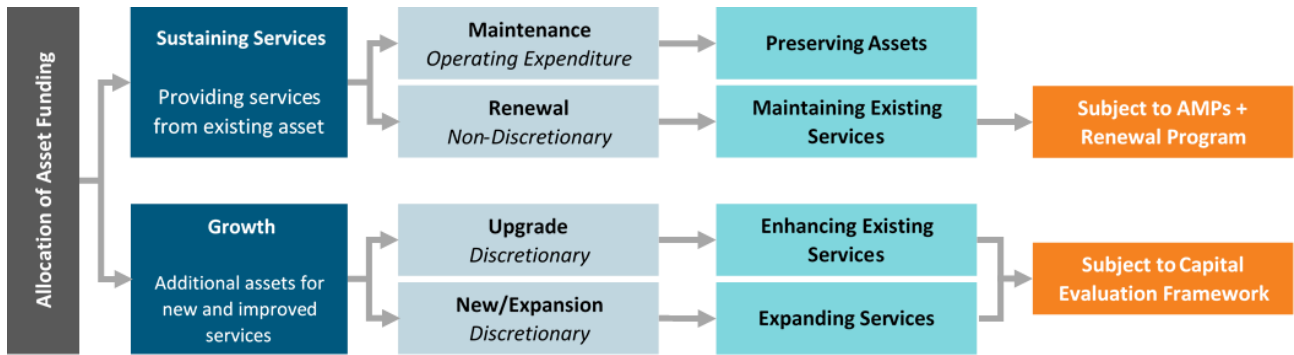


Figure 4 - Capital Evaluation Framework

6.2 Timing and Deliverability of Works Programs

We attempt to optimise our proposed works program in terms of capital and maintenance tasks.

In particular, the optimisation of the timing and sequencing of asset renewal projects considers several factors, including the costs and benefits of aligning asset renewal with improvement projects or with maintenance activities. Where possible, we try to coordinate our works to:

- Take full advantage of our asset investment.
- Ensure the achievement of our strategic goals.
- Maintain performance, safety, and compliance of our assets.
- Ensure an acceptable risk profile across all assets.
- Ensure delivery of the works program.

Timely delivery of the capital works program is essential to minimising the likelihood of additional operating expenditure to sustain our assets beyond their expected service lives where run-to-failure is not employed.

6.3 Financial Projections

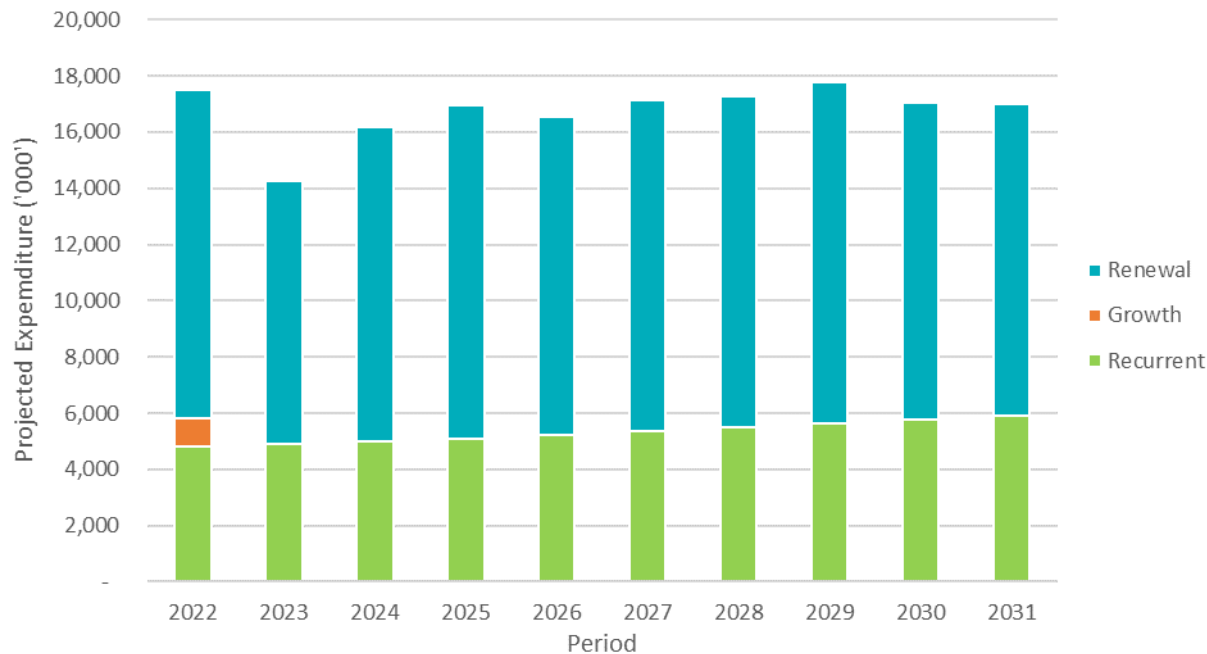
This section outlines the projected expenditure requirements for our infrastructure over the next 10 years. These outlays have been determined based on the affordability assessments made in our Financial Plan and represent the investment that is required to maintain our existing levels of service

6.3.1 Roads and Carparks

The projected capital and recurrent expenditure associated with our roads and car parks over the next 10 years is shown here.

Goals for Investment		To provide our ratepayers, community, road users, and others with a safe and fit for purpose road network.			
Activity Examples					
Renewal		Growth		Recurrent	
<ul style="list-style-type: none"> Resurfacing of existing roads Road reconstruction or major patching of road failures Replacement of sections of kerb and channel in poor condition 		<ul style="list-style-type: none"> Road safety improvements Widening or duplication of existing roads Traffic calming treatments 		<ul style="list-style-type: none"> Maintenance and repairs to roads such as patching potholes, crack sealing etc. Linemarking Street sweeping Inspections of the road network. 	

Financial Projections



Over the next ten (10) years, we are a forecast to spend around \$167 million maintaining, renewing, and improving the City’s road system.

We allocate renewal and maintenance funding at a level that aims to keep pace with the deterioration of our road network with the aim of retaining an average condition index ‘Good’ and ‘Very Good’.





This allocation is informed by strategic modelling analysis that predicts deterioration of our road assets and the impact of various renewal funding scenarios on asset condition.

Costs											
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Renewal	11,666	9,382	11,184	11,867	11,318	11,768	11,771	12,144	11,252	11,076	113,429
Growth	1,022	-	-	-	-	-	-	-	-	-	1,022
Recurrent	4,808	4,892	4,990	5,102	5,230	5,361	5,495	5,632	5,773	5,917	53,201
Total	17,496	14,274	16,175	16,970	16,548	17,129	17,266	17,776	17,025	16,993	167,653

Funding Sources - Expenditure is funded through the following mechanisms

General Rates	✓	Grants and subsidies	✓	Dividends from Investments		Other Sources	
User fees and charges		Special Rates of Charges	✓	Developer Contributions	✓		

Challenges and Opportunities

			
<p>Changing Population</p> <ul style="list-style-type: none"> - Population growth and increasing dwelling density - Monash National Employment and Innovation Cluster - Increased number of heavy vehicles on roads 	<p>Sustainable Transport</p> <ul style="list-style-type: none"> - Community demand for more accessible public transport - The need to accommodate electric vehicles and driverless vehicles on the existing road network 	<p>City Redevelopment</p> <ul style="list-style-type: none"> - Development works that can damage roads during construction - Utility renewals and connections affecting the condition of road assets. 	<p>Climate Change</p> <ul style="list-style-type: none"> - Greater environmental sustainability requirements placed on the construction industry

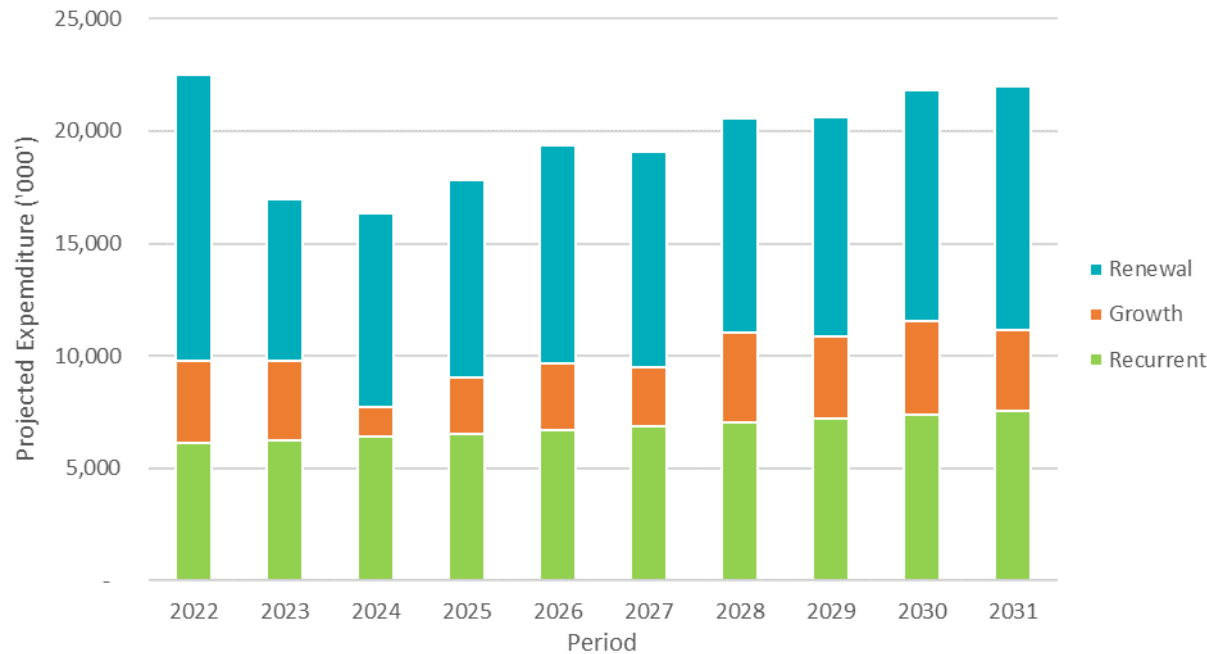
Projects and Initiatives

- Reconstruction at Normanby Street, Hughesdale between Dallas Avenue and Kangaroo Road
- Road resurfacing priority works as identified in the Asset Renewal Program
- Annual kerb and channel renewal program
- Annual road hump replacement program
- Local Area Traffic Management Study for Hughesdale
- Traffic Management Treatments - Windsor Avenue, Mount Waverley
- Public Lighting Replacement

6.3.2 Facilities

The projected capital and recurrent expenditure associated with our buildings and facilities over the next 10 years is shown here.

Goals for Investment		Activity Examples		
To ensure our buildings and facilities are safe, suitable, and accessible to the broad range of people who use them.				
Renewal	Growth	Recurrent		
<ul style="list-style-type: none"> Major structural repairs Replacement of roof or wall cladding Replacement of heating and cooling systems 	<ul style="list-style-type: none"> Building extensions. Sustainability improvements (e.g., PV systems, water harvesting and reuse systems, etc) Construction of a new building to cater for increased or changing demand. 	<ul style="list-style-type: none"> Minor repairs to building components due to failure, vandalism, etc Unblocking drains, service checks, carpet repairs Painting Safety, compliance, and condition inspections Cleaning and pest control 		
Financial Projections				



Our projections indicate that we will spend approximately \$197 million on our buildings over the next ten (10) years.

Along with maintaining the condition of our buildings as they age and deteriorate; our greatest challenge will be ensuring that we provide facilities that are of a standard that are able to meet the demands and service needs that our growing and changing population will have over the medium to long term.

Costs

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Renewal	12,753	7,161	8,600	8,828	9,690	9,598	9,526	9,713	10,303	10,868	97,040
Capital Improvement	3,613	3,520	1,340	2,478	2,951	2,628	3,974	3,670	4,130	3,553	31,857
Recurrent	6,160	6,267	6,393	6,537	6,700	6,868	7,039	7,215	7,396	7,581	68,155
Total	22,526	16,948	16,333	17,842	19,341	19,094	20,539	20,598	21,829	22,002	197,052

Funding Sources - Expenditure is funded through the following mechanisms

General Rates	✓	Grants and subsidies	✓	Dividends from Investments		Other Sources	
User fees and charges	✓	Special Rates of Charges	✓	Developer Contributions			

Challenges and Opportunities



Changing Population

- Population growth may lead to increased demand for Council services.
- Facilities will need to be adaptable to meet the evolving needs of young and older residents.
- Demand for accessible facilities can be expected to increase.



Ageing Assets

- Ageing facilities make up a significant portion of Council's future renewal liabilities.
- Strategic facility rationalisation and consolidation of complementary services into modern multi-purpose facilities can be used to reduce future renewal liabilities



Climate Change

- More frequent and intense weather events will increase risk of facility damage.
- Environmental concerns will result in increased demand for Council to minimise its environmental impact.
- Demand for smart, energy efficient buildings is anticipated.



Technology

- Advances in technology provide opportunity to improve efficiencies and staff productivity.
- Demand for on-line and other innovative service delivery approaches can be expected.
- Increased demand for technology-enabled buildings is anticipated.

Projects and Initiatives

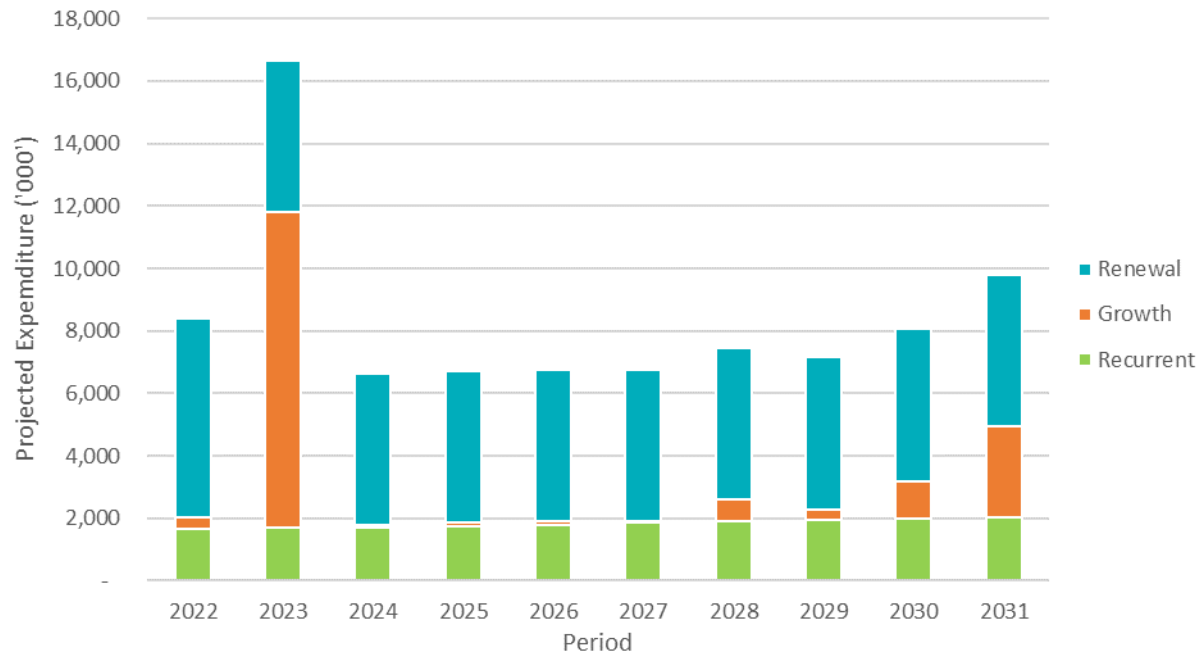
- Construction of Mulgrave Reserve Pavilion
- Construction of the Integrated Child & Family Hub at Wellington Kindergarten
- Implementation of the Zero Net Carbon Action Plan
- Annual Buildings Service and Structure Renewal programs
- Expanded space at Mulgrave Library
- Implementation of the Public Toilet Strategy
- Early Year Infrastructure Plan

6.3.3 Pathways

The projected capital and recurrent expenditure associated with our buildings and facilities over the next 10 years is shown here.

Goals for Investment		To provide a connected network of paths and trails that allows for the safe movement of pedestrians and other users around the city.	
Activity Examples			
Renewal	Growth	Recurrent	
<ul style="list-style-type: none"> Replacement of sections of existing pathways to an equivalent standard 	<ul style="list-style-type: none"> Accessibility improvements (e.g., installation of tactiles at intersections) Widening or improving the surface of existing pathways. Extension of the pathway network to address gaps in connectivity. 	<ul style="list-style-type: none"> Pathway repairs such as pothole patching, joint grinding, relaying of pavers Inspections Weed and vegetation control Sweeping and pathway cleansing 	

Financial Projections



We plan on spending a total of close to \$84.4 million over the next ten (10) years on our vast network of pathways and trails.

Over the next number of years, we will have a strong focus on replacing parts of our pathway network that are in poor condition., with a commitment to cover the whole of the municipality within a reasonable timeframe.

Costs											
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Renewal	6,364	4,862	4,862	4,862	4,862	4,862	4,862	4,862	4,862	4,862	50,123
Capital Improvement	363	10,100	50	100	100	50	700	350	1,197	2,900	15,910
Recurrent	1,658	1,687	1,721	1,760	1,804	1,849	1,895	1,943	1,991	2,041	18,350
Total	8,386	16,650	6,633	6,722	6,766	6,761	7,457	7,155	8,050	9,803	84,383


Funding Sources - Expenditure is funded through the following mechanisms											
General Rates	✓	Grants and subsidies	✓	Dividends from Investments		Other Sources					
User fees and charges		Special Rates of Charges	✓	Developer Contributions							

Challenges and Opportunities




Changing Population

- Population growth and increasing dwelling density.
- Ageing population and associated increase in impaired mobility.



Sustainable Transport

- Uptake of active transport modes, such as: walking, cycling, scooters.



City Redevelopment

- Development works (which can damage paths during construction) and introduce additional pathways through development.

- ### Major Plans and Initiatives
- Annual Footpath and Cycleway Renewal Program
 - Construction of the Scotchmans Creek Trail from Waverley Road to Betty Court (Rear), Mount Waverley.
 - Construction of the Gardiners Creek Trail from Highbury Road to High Street Road, Ashwood.
 - Kingsway Redevelopment Consultation and Design

6.3.4 Open Space

The projected capital and recurrent expenditure associated with our open spaces including, parks, reserves, playgrounds, sports fields, etc over the next 10 years is shown here.

Goals for Investment		To enhance the city’s public open space to enhance quality of life and promote social connectedness		
Activity Examples				
Renewal		Growth		Recurrent
<ul style="list-style-type: none"> Replacement of playground equipment Replacement of park furniture Rejuvenation or replacement of entire playing courts or sports fields to an equivalent standard 		<ul style="list-style-type: none"> Playing court extension Replacement of playground equipment to a higher standard Development of new park or reserve 		<ul style="list-style-type: none"> Hazard/defect inspections Mowing, vegetation/weed control Garden bed maintenance Litter collection and facility cleaning Graffiti removal

Financial Projections



Approximately \$277 million will be allocated to our open space assets. A significant proportion of this (\$171.2 million) is planned to be spent on the day-to-day activities that we undertake to maintain and care for our parks, playgrounds, sportsgrounds, gardens, and streetscapes.

We will also place an emphasis on investing on the improvement of these spaces through the implementation of the recommendations within our *Open Space Strategy*.

Costs											
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Renewal	9,049	6,189	6,784	6,435	6,018	6,501	6,684	6,862	6,765	6,835	68,122
Capital Improvement	1,600	16,979	8,160	-	2,500	1,000	1,898	1,300	1,650	2,648	37,735
Recurrent	15,472	15,743	16,058	16,419	16,829	17,250	17,681	18,123	18,577	19,041	171,194
Total	26,121	38,911	31,002	22,854	25,347	24,751	26,263	26,285	26,992	28,524	277,051

Funding Sources - Expenditure is funded through the following mechanisms											
General Rates	✓	Grants and subsidies	✓	Dividends from Investments		Other Sources					
User fees and charges	✓	Special Rates of Charges	✓	Developer Contributions	✓						

Challenges and Opportunities



Changing Population

- Population increase will have increased demand for specific outdoor recreation activities, features and landscape settings, as well as new open spaces in proximity where people live



Open space provision

- Implementation of Open Space Strategy improvement actions will lead to additional provision of open space consequently creating more assets and increased demand for their maintenance management



Participation Patterns

- Sporting trends may change demand on traditional recreational opportunities such as football grounds, with use moving towards skate parks, and exercise stations, etc.



Environmental Sustainability

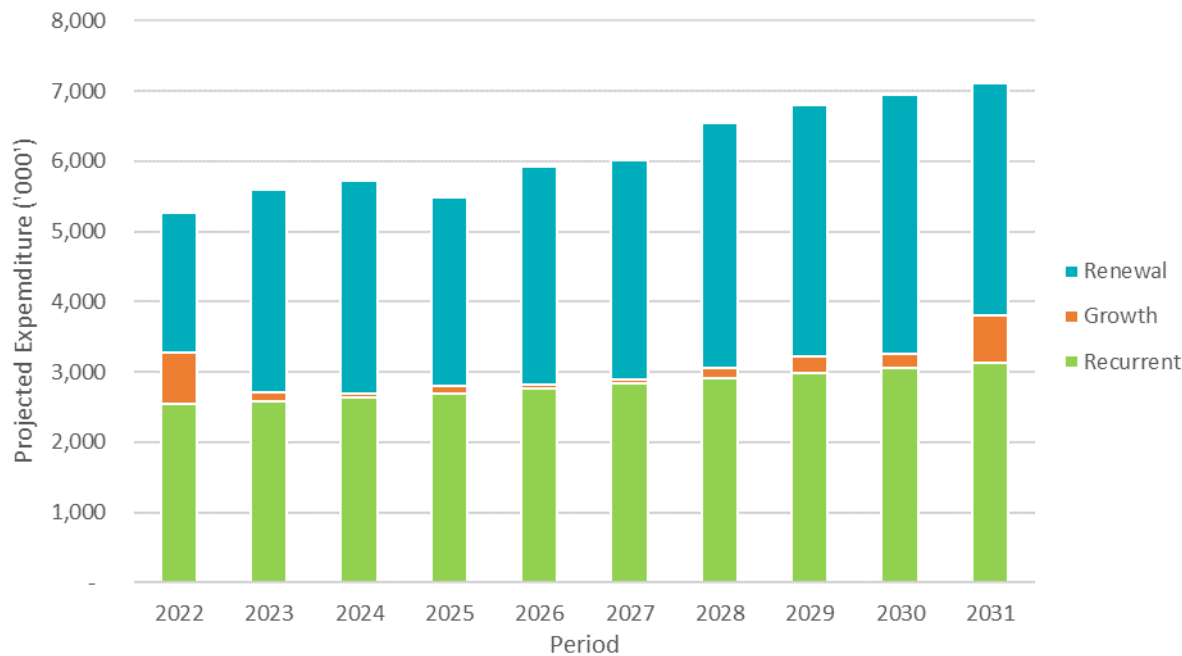
- Impact on viability of providing ongoing services such as irrigation to open space assets or pressure to prioritise open space assets for continued irrigation over others
- Demand for more sustainable sources of energy and water, cost-effective alternative would increase

- ### Major Plans and Initiatives
- Deploy and commence implementation of a Light Detection and Ranging (LiDAR) for Urban Forest Performance Monitoring
 - Implementation of funded priorities from the Street Tree Strategy
 - Feasibility study for a new tennis centre in Monash located at the Glen Waverley Golf Course
 - Redevelopment of the Tally Ho Reserve Sportsground
 - Renewal of Monash's Playspaces
 - Development of an Active Recreation strategy for open space areas across Monash
 - Upgrade and expansion of the open space at Cambridge Reserve

6.3.5 Stormwater

The projected capital and recurrent expenditure associated with our stormwater network over the next 10 years is shown here.

Goals for Investment		To protect the community from flooding and improve the quality of stormwater runoff discharged to natural water courses	
Activity Examples			
Renewal		Growth	
<ul style="list-style-type: none"> Replacement of pits and pipes 		<ul style="list-style-type: none"> Replacement of pipes to a higher hydraulic capacity Extension of the stormwater drainage network Installation of stormwater quality improvement devices (e.g., raingardens, litter traps, etc) Stormwater harvesting initiatives 	
		Recurrent	
		<ul style="list-style-type: none"> Pit cleaning Pipe cleansing and removal of debris, sediment, etc Removal of litter from Gross Pollutant Traps Programmed inspections 	
Financial Projections			




The forecast lifecycle cost associated with our stormwater drainage assets of the next ten (10) year period is \$61.4 million.

Along with maintaining the function of our stormwater drains, we also plan to complete strategic upgrades to the network to improve its capacity. This is to cater for increased water flows resulting from changing land use. Such projects are generally funded via developer contributions.

Costs											
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Renewal	1,991	2,879	3,027	2,687	3,104	3,128	3,482	3,572	3,686	3,300	30,857
Capital Improvement	730	127	50	100	50	50	150	250	200	684	2,391
Recurrent	2,543	2,587	2,639	2,698	2,766	2,835	2,906	2,978	3,053	3,129	28,133
Total	5,265	5,593	5,716	5,485	5,920	6,013	6,538	6,800	6,939	7,113	61,381


Funding Sources - Expenditure is funded through the following mechanisms											
General Rates	✓	Grants and subsidies	✓	Dividends from Investments		Other Sources					
User fees and charges		Special Rates of Charges	✓	Developer Contributions	✓						

Challenges and Opportunities




Changing Population

- Increased demand for high and medium density developments, change to drainage system function and capacity
- Subdivision growth will lead to increment on more run-off creating pressure to the stormwater network causing overload on system




Ageing Assets

- Increased customer requests on issues, consequently increasing reactive maintenance cost
- More recurrent flooding incidents
- The ability to fund timely renewal and upgrade of poor condition of stormwater assets consequently increasing the maintenance cost



Climate Change

- More frequent and intense storm events will pose an increased risk of flooding and reduce the reliability of capacity of the stormwater system



Environmental Sustainability

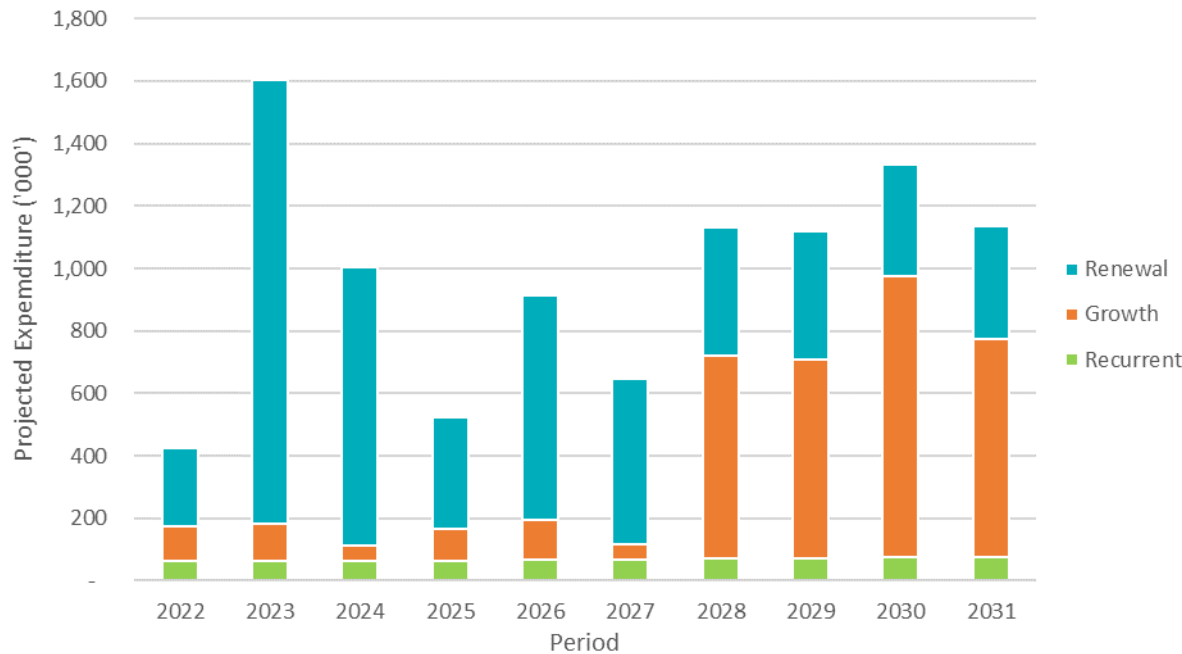
- Stormwater quality to the waterways may be compromised due to: Acid attack to the pipe by industrial activities
- The cost of implementing sustainable alternative creating a financial strain to the available resource

- ### Major Plans and Initiatives
- Doubell Close, Glen Waverley - Development Contribution Plan (DCP) Program
 - Stocks Road, Mount Waverley Stage - Strategic Drainage
 - 8-12 Simpson Drive, Mount Waverley - Development Contribution Plan (DCP) Program
 - Drainage Rehabilitation, View Street, Clayton
 - Maureen Street, Kathleen Avenue, Mount Waverley – Development Contribution Program (DCP)

6.3.6 Structures

The projected capital and recurrent expenditure associated with our structures assets over the next 10 years is shown here.

Goals for Investment		To ensure that our bridges, retaining walls, and access ways such as stairs and ramps, are safe and functional.	
Activity Examples			
Renewal		Growth	
<ul style="list-style-type: none"> Replacement of bridges, culverts, stairs, and retaining walls 		<ul style="list-style-type: none"> Replacement bridges to a higher standard Construction of retaining walls to enable the use of land Meet current accessibility requirements 	
Recurrent			
<ul style="list-style-type: none"> Deck and handrail repairs Weed and vegetation control Programmed inspections 			
Financial Projections			



While our bridges, retaining walls and other structures are a relatively small asset class based on total value they are often critical features within the public realm and carry significant risk should they fail.

Over the next ten (10) years we are projected to spend around \$9.8 million towards our efforts making sure that such elements are safe, compliant, and well maintained

Costs

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Renewal	251	1,420	890	360	717	530	410	410	360	360	5,704
Capital Improvement	114	120	50	100	129	50	650	637	900	700	3,450
Recurrent	62	63	64	65	67	69	70	72	74	76	682
Total	426	1,602	1,004	525	913	648	1,130	1,119	1,333	1,135	9,835

Funding Sources - Expenditure is funded through the following mechanisms

General Rates	✓	Grants and subsidies		Dividends from Investments		Other Sources	
User fees and charges		Special Rates of Charges		Developer Contributions			

Challenges and Opportunities



Changing Population

- Increased traffic and number of heavy vehicles on roads putting pressure on assets



Ageing Assets

- Increased demand for timely asset renewal and upgrade as ageing assets begin to show increasing signs of deterioration, or non-compliance with newer design standards.



Climate Change

- More frequent and intense storm events will pose an increased risk of damage to assets through:
 - Falling trees
 - Erosion and scouring around the foundations and approaches
 - Intense sunlight causing damage to protective coatings
 - Cracking caused by ground movement



Environmental Sustainability

- Use of more sustainable materials in reconstruction of assets

Major Plans and Initiatives

- Napier Park Culvert Replacement
- Duerdin Street Culvert Replacement

6.4 Total Expenditure

Figure 3 shows the planned expenditure across the infrastructure assets included in this Asset Plan over the next 10 years.

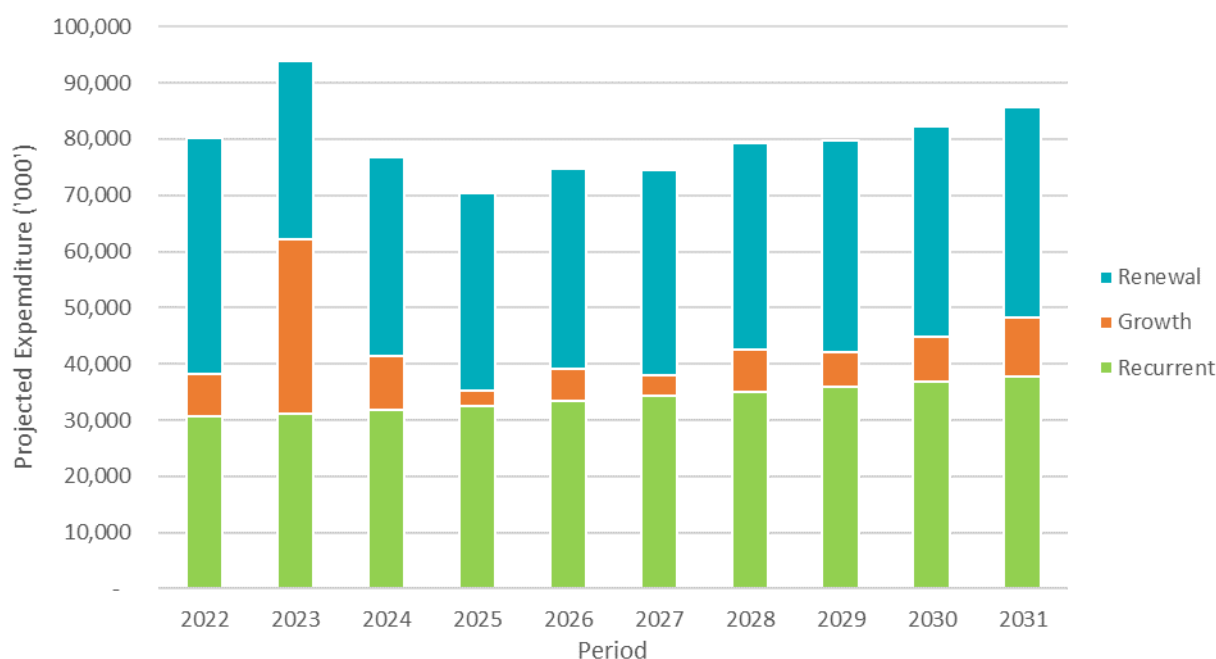


Figure 3- Forecast Total Asset Expenditure

This is further summarised in table below, which shows the total planned expenditure related to asset renewal, improvement, and recurrent activities (i.e., operations and maintenance) over the next ten (10) years.

Asset Class	Renewal	Growth	Recurrent	Total
Road + Car Parks	53,201	1,022	113,429	167,653
Facilities	68,155	31,857	97,040	197,052
Open Space	171,194	37,735	68,122	277,051
Pathways	18,350	15,910	50,123	84,383
Stormwater	28,133	2,391	30,857	61,381
Structures	682	3,450	5,704	9,835
Total	339,715	92,366	365,274	797,355

Table 5 - Forecast Expenditure by Asset Class

There is an estimated total of \$797 million of asset expenditure planned in the next ten (10) years. Of this:

- Around 45% (\$339 million) is renewal expenditure for replacement of assets that are reaching the end of their lives.
- Around 12% (\$92 million) relates to expenditure to meet growth or additional future demand.
- Around 43% (\$365 million) relates to caring for our assets through ongoing maintenance and other activities to make sure that they are safe and functional.

Our spending on our assets represents a significant investment that is made on behalf of the community and is fundamental in enabling us to meet ever changing demands and to safeguard its future use of our infrastructure

6.5 Assumptions

The assumptions made for the projected asset costs in this *Asset Plan* are consistent with our Financial Plan and reflect the issues that may impact on our activities in the next ten (10) years.

These assumptions underpin our determination of the most likely scenarios for management of key assets, and the significant decisions on expenditure over the period of this *Asset Plan*.