



Knox City Council



**ASSET PLAN
2022-2032**

DRAFT¹

Asset Plan 2022 – 2032

Document Control

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Date Approved	

This Asset Plan will be owned and managed by:

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ACKNOWLEDGEMENT OF TRADITIONAL LAND OWNERS

Knox City Council acknowledges the Wurundjeri Woi-wurrung people and Bunurong people of the Kulin Nation as Traditional Custodians of the land. The Knox Aboriginal and Torres Strait Islander Community come from a variety of different Nations within Australia and Torres Strait, including the Traditional Custodians and Stolen Generation. As such we pay respect to all Aboriginal and Torres Strait Islander Elders, past and present, who have resided in the area and have been an integral part of the region's history.

Located at the foot of the Dandenong Ranges, Knox has many places of historic significance to the Kulin nation. Important cultural and historical sites within Knox hold both the traditional knowledge of the First Nations People and the traumatic stories of colonisation.

The journey ahead for Knox involves the land, the traditional custodians, the local Indigenous community, the wider community and the Council itself. Walking together and listening together to create a culturally safe and culturally rich community for all.



1 INTRODUCTION

1.1 Our City

Located approximately 25 kilometres from Melbourne's central business district, the Knox municipality is a major hub of cultural, commercial, business and innovative activity in the eastern suburbs of Melbourne. It is a diverse municipality with residents from 130 different countries who speak 54 languages. The city of Knox has an estimated resident population of 166,791 (as at 30 June 2021) and covers an area of 113.84 square kilometres. The area boasts a green, leafy image extending to the foothills of the picturesque Dandenong Ranges, Knox consists of the following suburbs Bayswater, Boronia, Ferntree Gully, Knoxfield, Lysterfield, Rowville, Scoresby, The Basin, Upper Ferntree Gully, Wantirna and Wantirna South.



166,791
people call
Knox home

35%



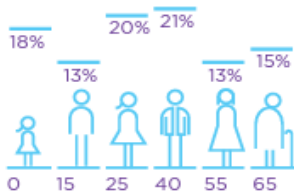
of residents
were born overseas

China:	3.9%
United Kingdom:	3.7%
India:	2.6%
Malaysia:	2.1%
Sri Lanka:	2.1%



30%

of working
residents are
employed in Knox



39
is the average
age of residents



49% male
51% female



Family composition

51%	Couple family with children
33%	Couple family
15%	One-parent family
1%	Other family configurations

Source: 2016 Census & Id. Estimated Residential population

1.2 Our Assets

We manage approximately **\$1.237 billion** of infrastructure assets (*excludes land value*) on behalf of our community. These assets, which range from significant structures such as roads, bridges and buildings, through to park furniture and play equipment are fundamental to supporting services for the community. It is important that we care for this infrastructure appropriately to make sure that it is safe and functional.

This Asset Plan specifically covers our infrastructure assets, the majority of which falls into major asset classes, being:

- Facilities (buildings).
- Open Space (parks, reserves and playgrounds).
- Pathways (footpaths and shared Paths).
- Roads and Carpark.
- Stormwater (drainage network).
- Structures (Bridges, major culverts, and other infrastructure).

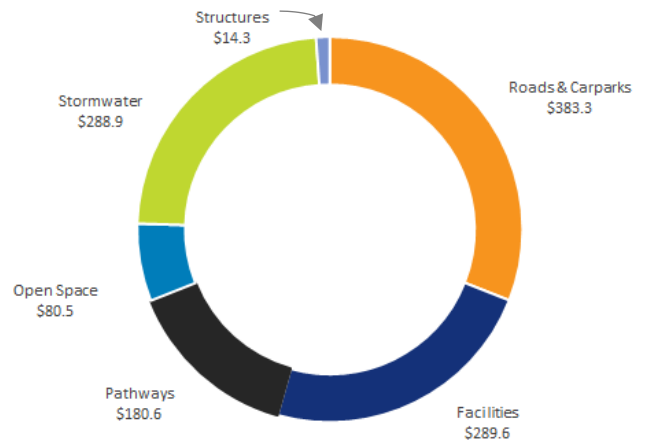


Figure 1 - Summary of Council Infrastructure Assets (\$1,237 millions)

1.3 What is Asset Management and why is it important?

Asset management represents our strategic approach which allows Council to most effectively and efficiently manage its assets across their life cycle, while meeting the service needs of the community. This requires balancing risk, cost, and performance criteria. Effective asset management answers the following fundamental questions:

- What assets does the community need now and in the future?
- How can we best manage our assets to serve the community?

Infrastructure enables the provision of services to the community over its life. The choices we make today can impact the quality of life for future generations. Sound asset management provides us with the ability to understand the immediate, medium, and long-term impacts of our asset lifecycle decisions and provide solutions on how to mitigate risk. The benefits of sound asset management include:

- Improved cost efficiency by looking at the costs of assets over their entire lifecycle.
- Being able to target critical assets to ensure performance is maintained and risks are managed.
- Aligning levels of service for assets to meet community needs.
- Making sure infrastructure assets are appropriately funded for the long term.

Over the next 10 years we are planning to budget a total of approximately **\$698.3 million** to renew, improve, and care for our infrastructure. Given this sizeable investment and the importance of these assets to achieving community outcomes, it is vital that we are good asset managers.

1.4 What is an Asset Plan

The Asset Plan outlines how we will acquire, build, look after, and use infrastructure assets over the next 10 years and beyond to ensure they meet our community's needs now and into the future. It is a new requirement under the Local Government Act 2020, and is an integral part of strategic planning to ensure we achieve our community vision.

The outcomes from the Asset Plan will demonstrate:

- Improved understanding of Council's capability to achieve Vision.
- Council as a trusted and responsible steward of its assets.
- How Council can meet current and future service needs of the community.
- The funding required to support management of our assets.



1.5 Scope of the Asset Plan

This Asset Plan covers each class of infrastructure assets council owns and manages, which represents the majority of our assets we use to support community services. Our infrastructure asset classes include:

Asset Class	Description	Quantity	Replacement Cost
Facilities	Buildings and associated assets supporting Council services such as civic facilities, community halls, sporting pavilions, public toilets, pre-schools, youth and aged care facilities, etc.	<u>Council owned Buildings:</u> •244 <u>Council maintained Buildings:</u> •249	\$289.6M
Pathways	All Footpaths and Shared Paths (pedestrian/cycling) to support accessibility and safe access for the community.	<u>Footpaths:</u> •1,241.49 km <u>Shared paths</u> •102.4 km	\$180.6M
Open Space	Open space assets allow us to enjoy many outdoor aspects of our community. This includes parks and reserves, playgrounds, sporting fields and sites of biological significance.	<u>Playgrounds</u> •289 <u>Sports courts</u> •141 <u>Sports fields</u> •65 <u>Areas of Biological Significance</u> •30.4 km ²	\$80.5M
Roads and Carparks	Our local roads and car parks enable movement of people, goods and services safely and efficiently within the Knox community.	<u>Roads</u> •724.7 km <u>Kerb and Channel</u> •1,318.6 km <u>Carparks</u> •244	\$383.3M
Stormwater	Stormwater assets help to manage piped and overland flow of water during rainfall events and includes drainage pits and pipes, water sensitive assets such as rain gardens and wetlands and pollutant traps to keep our waterways clean.	<u>Pipes</u> •1,176.6 km <u>Pits</u> •38,625	\$288.9M
Structures	Bridges and major culverts assist us in promoting connectivity across Knox for vehicles, cyclists and pedestrians.	<u>Pedestrian Bridges</u> •46 <u>Vehicle Bridges</u> •7 <u>Culverts</u> •38	\$14.3M
Total Value			\$1237.30M

Table 1 – Summary of Knox City Infrastructure Assets

2 Strategic Context

We are committed to planning for the future of Knox in a sustainable way. We do this by working with our community to understand their needs and aspirations identified in our Community Plan 2021-2031, delivering the initiatives set out in our Council Plan 2021-2025, and ensuring we have the right resources to do so (our Financial Plan, Asset Plan and Workforce Plan).

2.1 Integrated Strategic Planning and Reporting Framework

Knox's integrated strategic planning and reporting framework illustrates the medium and long term plans that guide and manage our city. The Asset Plan 2022-2032 plays a key part in this framework.

The ***Knox Community Plan 2021-2031*** incorporates a Community Vision statement and describes our community's aspirations for the future. It sets out Key Directions which articulate what we, as a collective, need to focus on to achieve our vision.

"Knox: where we connect with our people and our environment, ensuring they are safe, supported and have every opportunity to thrive"

Knox's ***Council Plan 2021-2025*** is our key strategic document. It describes how we're going to contribute to the achievement of the Community Vision and shows how we're going to measure our success. It also demonstrates our commitment to the health and wellbeing of our community by incorporating Knox's Municipal Public Health & Wellbeing Plan (MPHWP).

The ***Asset Plan 2022-2032*** (this document) outlines how we will responsibly maintain and manage our assets in a cost-effective way. It will ensure we deliver our Council Plan initiatives, the services we provide to the community, and ultimately help achieve our Community Vision.

There are a number of other plans that also guide our work and support the achievement of our Community Vision. They include plans about how we're going to manage our financial resources (the Financial Plan, Budget and Revenue and Rating Plan) and how we can make sure we have the right staff to deliver our services and initiatives (the Workforce Plan).

Figure 5 on the following page shows how our plans fit together, and how we track our progress against them, ensuring we remain open, transparent and accountable.

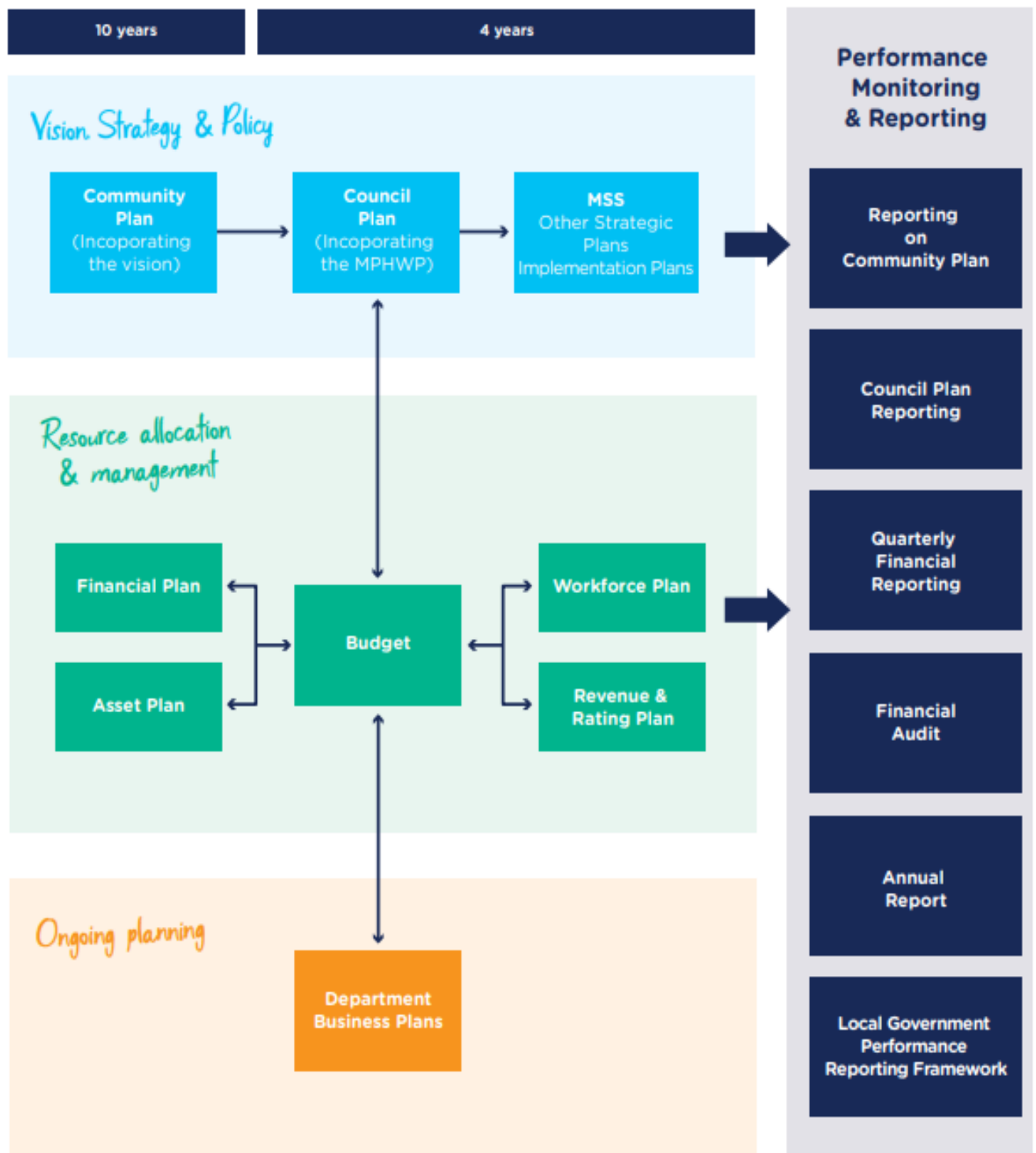


Figure 2 - Integrated Strategic Planning and Reporting Framework

2.2 How the Community Helps Inform our Decisions and Actions

Many people use and rely on our assets in their daily activities. These include people and groups who may not use our assets directly but have shared interests in how we manage them.

Our community plays an important role in helping us to determine the ‘what, when, where, and how’ of our assets and their sustainable asset management.

2.3 Community Engagement

During 2020-21 Council undertook a large research and engagement project to shape the future of Knox and inform the development of its new plan.

The engagement activities were multi-layered to ensure broad, as well as in-depth, community input. Contributions from each step informed the next activity. The initial engagement was focused more on the community’s aspirations and vision, with later stages looking at priorities and Council’s role.

Almost 4,500 community members and organisations, businesses, stakeholders, partners and members of Council’s Advisory Committees took part in various engagement activities to:

- Gain and understanding on the community’s aspirations for the future of Knox.
- Gain feedback on the goals in the current plan.
- Identify priority areas for the community and Council.
- Test the data gathered through research.

Based on the information gathered through the engagement, five Key Directions were established to provide the framework for our plans and guide the future direction of Council.

Through effective management of our assets, Council will work together, focusing on these Key Directions over the next 10 years to achieve our visions:



Opportunity and Innovation - Knox strives to be a city of opportunity, embracing innovation and change, and providing local learning and employment opportunities. It’s a place where people and business can thrive.



Neighbourhoods, Housing and Innovation - Building on what’s great about our city, Knox’s housing and infrastructure will meet the changing needs of our community.



Natural Environment and Sustainability - Knox’s natural environment is protected and enhanced to ensure sustainability for future generations.



Connection, Resilience and Wellbeing - Knox is a place to call home. Our community is strong, healthy and we support and respect each other.



Civic Engagement and Integrity - Knox Council is a trusted and respected leader in our community, acting appropriately and ensuring all voices are heard.

3 MANAGING OUR ASSETS

The long-term costs of owning and operating infrastructure assets represents a considerable financial challenge and requires us to take a whole of life approach to managing our infrastructure. We prioritise achieving the best outcomes for our community while promoting resilience and economic, social, and environmental sustainability.

3.1 Lifecycle Management

Our approach to asset management is centred on asset life-cycle management decision making processes that are used to manage our infrastructure.

Through careful and efficient lifecycle management, our goal is to meet our agreed levels of service in the most cost-effective manner over the life of assets.

The management strategies we follow in each asset lifecycle phase are (refer Figure below):



Figure 3 - Asset Lifecycle

Planning and Design

- Asset planning and analysis to meet long term service needs.
- Asset design balances affordability, equity, and environmental performance.
- Whole of life cost considerations

Creation/ Acquisition

- Before building or acquiring new assets non-asset service delivery solutions such as leasing, strategic partnerships, etc. are considered.
- Assets are constructed according to planning and design documentation.
- Efficient procurement strategies are utilised.
- Asset performance standards are met when Council assets are delivered by Knox or others.

Maintenance and Operations

- Systems and processes record information about assets.
- Cyclic condition assessments are undertaken.
- Assets are operated and maintained to reduce risk/failure.
- Assets are available to meet community needs
- Optimisation of works and intervention to minimise ongoing costs.

Renewal

- Optimisation of asset renewal to minimise cost and risk
- Maximise the use of our assets through reuse or co-location of services, where possible.

Disposal or Rationalisation

- Where assets do not directly support service objectives they are considered for decommissioning, disposal or rationalisation to reduce lifecycle costs and financial burden.

3.1 Lifecycle Costs

Life cycle costs are essentially how much money we will need to spend on an asset over the course of its useful life. This includes costs from the time an asset is acquired or built, while it is in use (e.g. maintenance) through to the time it is either replaced or disposed of.

The true cost to deliver, use, and maintain assets (including future costs) needs to be forecast over the long term so that we can budget appropriately.

There are a number of ways we determine when and how much we need to allocate to fund the lifecycle costs of our assets.

Operational	Operational or recurrent costs (i.e., asset maintenance and care) are determined according to our levels of service and the required frequency of operational activities (e.g., mowing, street sweeping, etc).
Renewal	Renewal costs are determined using our analysis/modelling tools that predict when an asset needs to be replaced based on its current condition and our understanding of how assets age and deteriorate over time.
Growth	The priority and amount we need to allocate to grow/expand our asset base are guided by our various strategies, plans and community expectations. The selection of discretionary projects such as these must pass through our investment evaluation processes before they are selected for inclusion on our capital works program.

Table 2 - Asset Lifecycle Cost Determination

3.2 Our Asset Management Framework

The key elements of Council's *Asset Management Framework* are:

Asset Management Policy

This policy provides Council with a framework to administer and manage the asset network to ensure responsible and sustainable decisions are made now and into the future. The current policy is due for renewal and will be undertaken following adoption of the Asset Plan by Council.

Asset Plan

The Asset Plan outlines how we will acquire, build, look after, and use infrastructure assets over the next 10 years and beyond to ensure they meet our community's needs now and into the future.

It is a new requirement under the Local Government Act 2020, and is an integral part of strategic planning to ensure we achieve our community vision. The Asset Plan aligns with Council's Financial Plan and responds to the Community Plan.

Strategic Asset Management Plan

Outlines the need for a strategic approach to asset management across asset categories and aims to guide Council in:

- Supporting the implementation of Council's Asset Management Policy.
- Supporting the integration of service planning and asset management.
 - Aligning with external guidelines

Asset Management Plans

Our Asset Management Plans provide information on how we intend to manage each of our asset classes to meet the demands of our community in the future. They provide the roadmap for achieving value from our assets by optimising cost, risk, and performance across the lifecycle of an asset. Council has developed and continually updates the suite of Asset Management Plans below.

MAJOR:

- Footpath & Shared Path AMP
- Road AMP
- Building AMP
- Stormwater AMP
- Open Space AMP

MINOR

- Bridge & Culvert AMP
- Carpark AMP
- Playground AMP
- Street Tree AMP

It's also to be acknowledged that there exists a wider cluster of supporting assets across Knox that are not formally valued and financially accounted for that assist in provide service amenity to the wider Knox community

3.3 Our Asset Management Principles

We are committed to making all asset decisions in accordance with our asset management principles articulated in our Asset Management Policy. The policy, most recently updated in 2019, is shortly to be reviewed and for the purposes of this document we have reviewed the principles in the existing policy to strategically frame our Asset Management Principles.

These principles are:

- 1 Strategic Planning for Assets** – Council will invest in its asset knowledge and strategically plan for future asset needs across the municipality
- 2. Asset Stewardship** - Council will be a responsible steward of assets across their service life.
- 3. Financial Responsibility** - Council will adhere to relevant financial standards and guidelines when accounting for its assets and will plan for asset investment needs when budgeting.
- 4. Community Engagement** - Council will engage with the community to define service expectations and manage its asset base to best respond to community needs
- 5. Resource and Funding Allocation** - Council will appropriately resource asset needs across their life and prioritise expenditure in line with its financial plan and funding policy
- 6. Risk Management** - Council will manage its asset base within its financial capacities to mitigate risk to people and property.
- 7 Legislative Compliance** - Council will manage its asset base to ensure compliance with relevant legislation and regulations.

3.4 Asset Investment Categories

For the purposes of this *Asset Plan*, our expenditures on infrastructure assets are categorised in the table below. Classifying our expenditure in this way helps us to plan our budgets and track how we spend our money on our assets and services.

Expenditure Category	Activity	Description
Operational	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 3 - Expenditure Categories

3.5 Levels of Service

Service levels define the standards to which we want our assets to perform. Depending on the asset, these may be defined, measured and evaluated using a technical definition (potholes no bigger than 10cm) or a more subjective measure (“I want to be safe”) in line with community expectations. The need for defining and measuring levels of service for all Council assets represents an advancement on traditional asset management practices, however it forces us to test our assumptions of what our community want.

When Council developed its Building Asset Management Plan (BAMP) in 2019, it recognised the need to both define and measure the Levels of Service provided by its facilities (buildings). This required the ability to understand the users of its facilities and identify their key needs from both the asset and the service it supported, prior to making a decision about asset investment.

In developing its BAMP there was recognition that levels of services came in many forms, which specifically for the buildings plan could be categorised by place, service and asset:

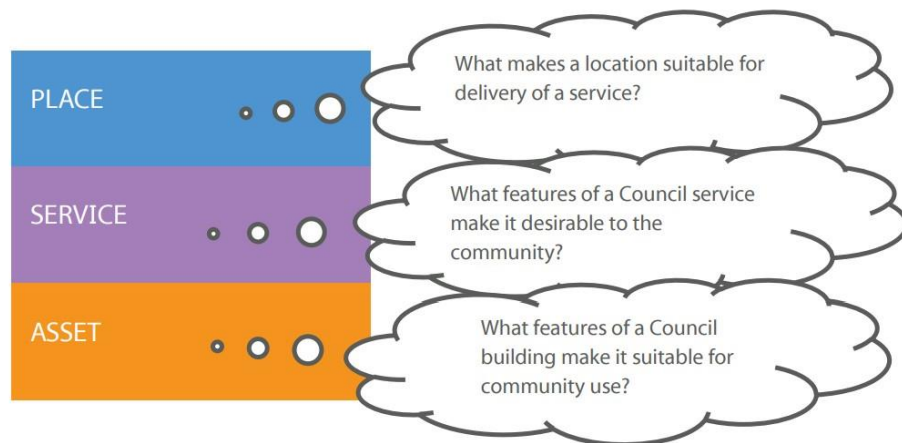


Figure 4 – Example Level of Service categories as prescribed in Council’s Building Asset Management Plan

These broad categories could then be broken down further into specific levels of service which may make for a better experience for the user. This included specific objectives which could be evaluated, measured and reported against.

Council still has an ongoing journey to ensure its assets are meeting the needs of its users and ongoing engagement with its community is critical to achieving success. Defining levels of service represents a unique challenge for the broad range of assets that we manage. Council needs to continue to engage with the community to ensure that Levels of Service are meeting community expectations.



Figure 5 – Example Level of Service categories as prescribed in Council's Building Asset Management Plan

3.6 Council's Financial Plan

Knox City Council's Long Term Financial Plan (LTFP) is the key financial planning document that is governed by a series of financial strategies and accompanying performance indicators that Council considers and adopts. It establishes the financial framework upon which sound financial decisions are made. The LTFP covers a 10-year period from 2022-23 to 2031-32. The LTFP is a decision making tool and is not intended to be a document that specifically indicates what services/proposals or funds should be allocated; rather it identifies Council's current and projected financial capacity to continue delivering quality services, facilities and infrastructure, whilst living within our means

Source Section Executive Summary - Knox Proposed Financial Plan (2022-2032) - Draft

3.7 Financial Planning Principles

Our Financial Plan demonstrates the following financial management principles:

- Revenue, expenses, assets, liabilities, investments, and financial transactions are managed in accordance with our financial policies and strategic plans.
- Management of the following financial risks:
 - The financial viability of the Council.
 - The management of current and future liabilities of the Council.
- Financial policies and strategic plans are designed to provide financial stability and predictability to the community.
- Council maintains accounts and records that explain its financial operations and financial position.

Source Section 2.2 Knox Proposed Financial Plan (2022-2032) - Draft

3.8 Service Performance Principles

Council services are designed to be purposeful, targeted to community needs and value for money. The service performance principles are listed below:

- Services are provided in an equitable manner and are responsive to the diverse needs of the community. The Council Plan is designed to identify the key services and projects to be delivered to the community. The Financial Plan provides the mechanism to demonstrate how the service aspirations within the Council Plan may be funded.
- Services are accessible to the relevant users within the community.
- Council provides quality services that provide value for money to the community. The Local Government Performance Reporting Framework (LGPRF) is designed to communicate Council's performance regarding the provision of quality and efficient services.

Source Section 2.4 Knox Proposed Financial Plan (2022-2032) - Draft

3.9 Long Term Resource Planning

Our *Asset Plan* and *Financial Plan* along with the *Workforce Plan* and *Council's Revenue and Rating Plan* frame the budget setting process for Council and serve as foundation elements of our long term resource allocation and management process. These plans work together to ensure that community expectations are achievable and sustainable.

The development of our *Asset Plan* and *Financial Plan* requires an iterative approach whereby the asset needs of the community are framed by community expectations for both assets and services. The iterative relationship acknowledges that trade-offs need to be made (be they service, financial or asset quality) when delivering a wide variety of services to the community and managing the assets which support these services. Although this represents the first generation of Council's Asset Plans, it will likely grow and change as the community's needs grow and change and our financial capacities remain constrained.

Together the Financial Plan and Asset Plan seek to balance projected investment requirements against projected budgets.

3.10 Funding Allocation Policy

As part of our annual budget process, judgement is required to determine the allocation of our available funding. In making such decisions, we seek to deliver the best overall outcome for the community in line with the goals articulated in our Community Plan and Council Plan.

As part this process, available funding is allocated between capital and operating expenditure, and between discretionary and non-discretionary funding.

Error! Reference source not found. The diagram below (Figure 7) shows our framework for prioritising our a vailable funding across both capital and operational programs, as articulated in Council’s Funding Allocation Policy, adopted in July 2020.



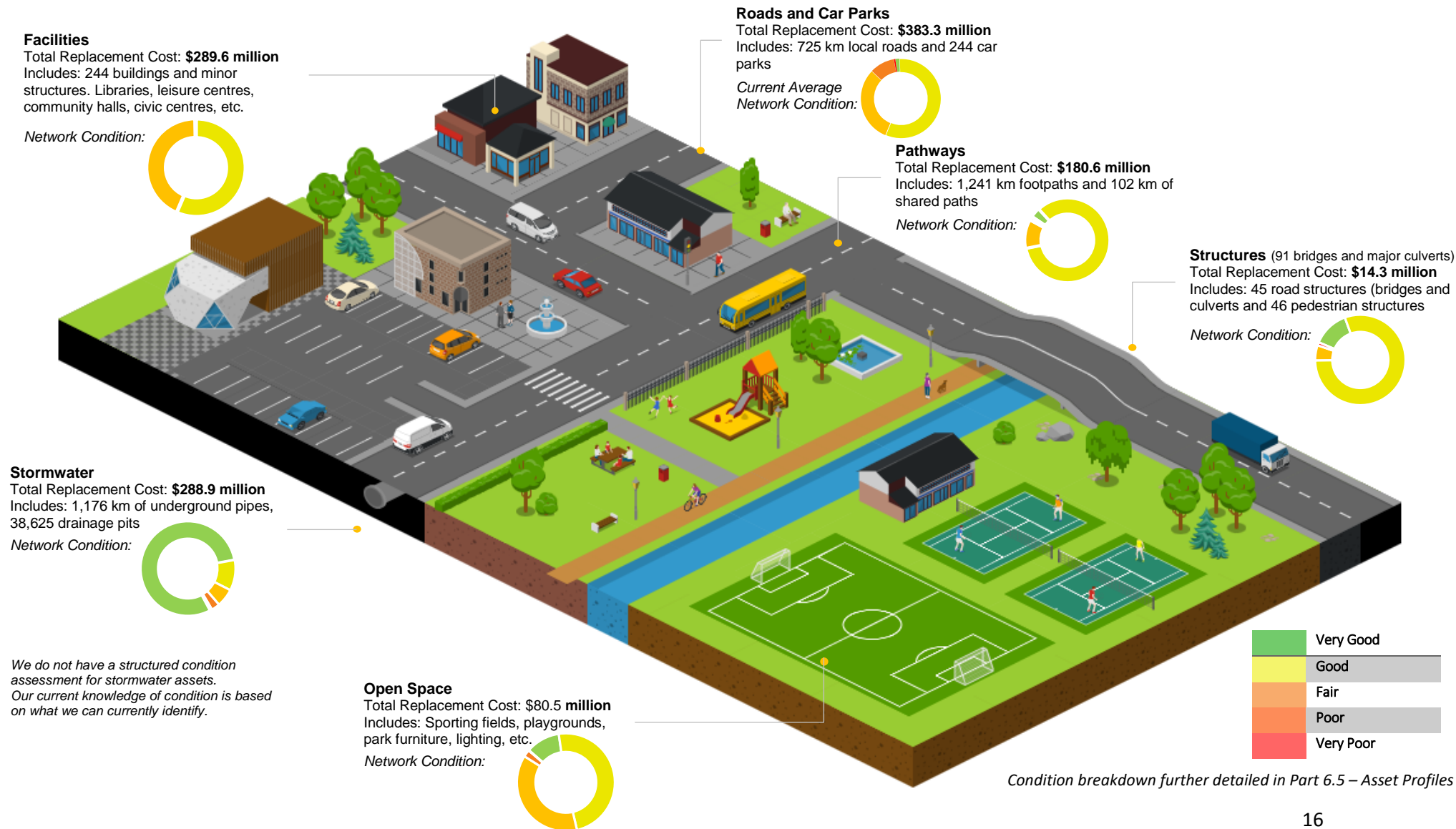
Figure 6 - Funding Allocation Framework

Our Funding Allocation Framework ensures that:

- Non-discretionary projects and programs are funded as a priority over discretionary items.
- Legislative and regulatory requirements for both our services and assets are prioritised over other programs.
- Business improvement initiatives, where approved inform both operational and capital requirements.
- Existing assets are managed as a priority over new, upgraded, or expanded assets.
- Operating funds are provided to maintain any additional asset stock managed by us.

4 State of Our Assets

Our infrastructure asset portfolio represents not only a significant community investment, but also it is a substantial financial asset for Council with an estimated replacement value of **\$1.237 billion** (as at 30 June 2021).



5 Our Changing City

Various external and internal factors such as local, national, and global trends all have the potential to impact the future outlook of our City. We need to understand these trends, harness their benefits, and adaptively respond to preserve the health, vibrancy, resiliency of Knox.



Population Growth and Demographic Changes

Current projections indicate that our population is estimated to increase by 14.6% people between now and 2041, from 167,975 to 192,407. Over the same period:

- Pre-schoolers – Increase of 1,042 (10.4%).
- Working age population – Increase of 8,769 (11.2%).
- People aged 60 and over - Increase of 9,859 (25.1%).
- Community expects us to be able to quickly respond to their emerging needs, without understanding the implication.



Aging Infrastructure

One of the biggest financial challenges facing us is the cost of renewing and upgrading our ageing infrastructure.

Our ageing assets have been built reflective of the standards of the time, which doesn't always align with current needs. As much of Knox was built in the 1960's/70's/80's a large peak in asset needs is looming.

Lifestyle choices will influence the quality and standards of services and assets we provide. Taking a critical look at community needs, we are planning to cater for assets that are responsive and adaptable to meet shifting community needs (such as multipurpose facilities).



Rising Cost of Services

Cost increases to items such as electricity, petrol, and raw materials all impact on our ability provide value for money services.

Recent investment in infrastructure assets by other levels of government is pushing up prices of projects and reducing the availability of contractors to deliver Council projects

For us, this occurs within an expectation of doing more with less or improving our efficiency to ensure more can be achieved with less money.

What does this mean for asset management and service delivery?

We strive to enhance/improve our services and assets to cater for the needs of our growing community. We will need to balance our financial investment in infrastructure so that our assets support capacity for growth without diminishing servicing provided by existing assets.

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 assets that promote access and equity for community health & wellbeing and social outcomes.

As our assets continue to age/deteriorate, more investment in maintenance and operational expenditure may be required to ensure that the current levels of service enjoyed by the community continue to be supported.

There is a critical need to introduce robust lifecycle asset management practices to ensure that our spending on our existing assets is optimised.

We will need to aim to continually balance the affordable provision of services against the needs of our community. This may at time results in us not meeting the service expectations of the community.

There exists an ongoing requirement to ensure that the cost of delivering Council assets provides value for money to the Knox community.



Political and Regulatory Influence

We operate in a complex legislative environment that directly influences the way we manage our assets. Cost shifting from other levels of government will continue to play a key role in Council's ability to maintain service level provided to the community.

There is an expectation that Council will continue to deliver services, even when State and Federal government funding is withdrawn or reduced. This may result in Council consideration for reduced levels of service than may be currently be provided or potentially consideration for not providing certain services.



Climate Change and Technology Changes

We are already experiencing the impacts of climate change. In the future, we can expect; storm damage to infrastructure; decreased water quality and security of water supply; reduced summer outdoor activities due to higher temperatures, and hotter urban spaces.

New technologies are emerging at an increasingly rapid rate and offer possibilities for our city that we may not have thought of yet. We are expected to make more use of available and emerging technology to make asset information and services more accessible. We have started to use emerging technologies such as Artificial Intelligence to optimise data collection, planning and decision-making spanning over large network of assets we are managing.



Meeting Current and Future Needs

The community expects us to be able to quickly respond to emerging needs which can be influenced by numerous drivers such as generational change, legislation, environmental standards, facilities experienced elsewhere, and new technology.

There is ongoing pressure from the community for higher quality assets and services to be provided for most of our activities. More advanced and functional buildings, enhanced open space areas, 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.

What does this mean for asset management and service delivery?

We strive to meet our regulatory and 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.

We may also need to commit to key advocacy activities to identify our challenges and seek resolution on key issues, both through State and Federal Government channels.

We will need to recognise climate change risks and examine the vulnerability of our asset network.

If and when disasters occur, we will need to focus on energy and resources on supporting the recovery of our community.

Our assets will need to be rebuilt to a higher standard in the expectation that risks will only increase in the future.

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. COVID-19 has had effects on our City's social, cultural, economic, and recreational fabric, as well as the local economy. This situation created significant impacts on our income and that of our community.

We will need to plan assets that are responsive and adaptable to meet shifting community needs. We will continue to strongly advocate to other levels of government for support in meeting the current and future needs of the community.

We will look to form service delivery partnerships with organisations where appropriate for non-asset service delivery solutions in turn optimising the use of Council's asset portfolio.

Our assets must cater for the expectations of the community by remaining accessible, well maintained, and fit for purpose. This must be balanced and prioritised against investment in new and expanded assets to support the City's future and the ability of the community to pay.

6 Funding Our Asset Plan

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

Providing services from our infrastructure assets in a sustainable manner requires managing service levels, risks, projected expenditures, and matching funding to achieve financial sustainability.

6.1 Our Strategic Lifecycle Approach

Looking ahead to the next 10 years, our approach is to be careful in our investment decisions using a holistic lifecycle approach to asset management. This means that we will aim to plan our infrastructure assets so that they will continue to support quality living, economic development, and the environmental integrity of our city in the long-term.

In planning and providing infrastructure requirements in the next 10 years, we will aim to:

Continue to Maintain our infrastructure in efficient manner to provide sustainable service delivery	<ul style="list-style-type: none">▪ We will continue to use a combination of operations and maintenance practices such as preventive maintenance, reactive maintenance, run-to-failure (breakdown maintenance), predictive maintenance, and risk-based maintenance for critical assets.▪ We will continue to improve our current operations and maintenance practices through performance-based maintenance management and use of advanced systems and processes.▪ We have enhanced the quality of our asset information and staff capabilities over recent years and are now taking steps to develop predictive models and identify optimum funding mix to sustain existing services.▪ This covers holistic lifecycle approach to maintain current services, and evidence driven decisions to identify sustainable funding levels to continue current asset-based services.
Optimise Asset Renewals to replace and/or upgrade our ageing infrastructure	<ul style="list-style-type: none">▪ We will continue to improve asset renewal and upgrade decisions based on asset performance (condition, risk-criticality, utilisation, capacity and maintenance history) when better data becomes available.▪ Through asset management improvement actions, we will progressively improve the selection and timing of renew and upgrade options of our assets as they reach the end of their useful lives. We will continue to improve decision making capability and transparency of decisions through use of tools and robust processes.
Manage the impacts of growth and land use change	<ul style="list-style-type: none">▪ Our strategic plans (Community Plan and Council Plan) along with Planning Controls will provide guidance on future asset needs by identifying location and scale of growth. Contributions from development will be taken either as directly contributed through assets or through part funding of essential infrastructure in line with Council's Special Rates and Charges Policy and Developer Contribution Plan (currently under development). These approaches will ensure costs are not unfairly borne by existing communities.▪ We will continue further work to establish an affordable funding plan to cater new assets coming from growth and planning concepts.

Comply with legislative requirements	<ul style="list-style-type: none"> ▪ We acknowledge and will action legislated standards in infrastructure planning and development. We will maintain transparent communication with our community for decision making processes.
Provide sustainable and affordable services	<ul style="list-style-type: none"> ▪ We will continue to review the Financial Plan which defines our broad fiscal boundaries for the Council Plan, Asset Plan, other supporting policies and strategies and budget processes. ▪ The Financial Plan reflects how we are balancing planned investments with ratepayer affordability and community needs and aspirations.

Rate capping constrains our ability to control revenue. Under the rate capped environment, greater emphasis is required on the maintenance and renewal of existing assets as opposed to the improvements or development of new assets.

Our *Revenue and Rating Plan* identifies “that the introduction of rate capping under the Victorian Government’s Fair Go Rates System (FGRS) has brought a renewed focus to Council’s long-term financial sustainability. The FGRS continues to restrict Council’s ability to raise rate revenue above the rate cap unless application is made to the Essential Services Commission for a variation. Maintaining service delivery levels and investing in community assets remain key priorities for Council. This strategy will address Council’s reliance on rate income and provide options to actively reduce that reliance.:

Source Section 2 Knox Revenue and Rating Plan (2021-2025)

Council Rate Cap

The Minister for Local Government sets local council rate caps. The cap is the maximum amount we can increase our general rates and municipal charges within a financial year. The rate cap set for 2022/23 is 1.75%. (Source: Victorian Government – Essential Services Commission)

6.2 Investment Evaluation- Decision Making

MAINTENANCE DECISION MAKING PLANNING

Planned maintenance work is identified either through routine and programmed inspections/investigations conducted by Council. Unplanned maintenance is reactive work resulting from customer requests and unscheduled inspections. All activities (whether planned or reactive) are managed via an asset management system, which captures both proactive and reactive inspections, the identification of the issue/defects, the need for intervention and/or make safe measures, prioritisation and scheduling of works, based on risk and completion of works to rectify the defect. The advantage of planned maintenance over reactive maintenance is that it lowers risk exposure by identifying and correcting defects before they reach an unacceptable level.

RENEWAL DECISION MAKING PLANNING

Condition inspection programs for major Council asset categories are proactively scheduled on a routine cycle to assess the current condition of asset. By adopting a whole of asset assessment, relative priorities for investment can be programmed and delivered on an annual basis through Council’s Capital Works program. Asset Renewals are prioritised over upgrades and expansion of assets and represents the backbone of Council’s Capital works program.

NEW AND UPGRADE DECISION MAKING PLANNING

New and upgraded assets are determined based on a priority ranking assessment across key infrastructure delivery programs. Council officers assign a ranking method to each of its New and Upgrade programs, which allows for transparency of decision making and consistency of assessment, should a new request come in from a customer/community group. The ranking criteria are reviewed and endorsed by Council on an annual basis.

6.3 Financial Plan Integration

The integration of the Asset Plan and the Financial Plan is critical so that the resources we need to manage our assets are provided in our financial planning instruments. The balance between maintaining and renewing our assets and accommodating funding for improvement and growth is a constant challenge. Underfunding renewal can lead to lower levels of service and deferring important asset upgrades, which can result in assets that are no longer fit for purpose. The forecasts included in this Asset Plan for the projected asset costs are consistent with our Financial Plan and cover the planned asset activities in the next 10 years.

Funding provision for assets represents a balance which acknowledges the current condition of assets, their service performance and asset provision in line with community expectation and the overall financial capacity of Council, as defined in Council's Financial Plan. This will require future monitoring and further analysis as new asset information becomes available such a new asset condition data. This requires an ongoing commitment measuring and monitoring performance of assets in line with community expectations. There is a strong likelihood in the near future that trade-offs will need to be made between the community's service expectations for assets and Council's ability to fund these expectations.

Funding requirements may potentially change and require adjustment to both this Asset Plan and the Financial Plan.

6.4 Financial Projections

The spending we make 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 future use of our infrastructure. Our planned expenditure across our infrastructure assets included in this Asset Plan over the next 10 years is shown in Figure 7.

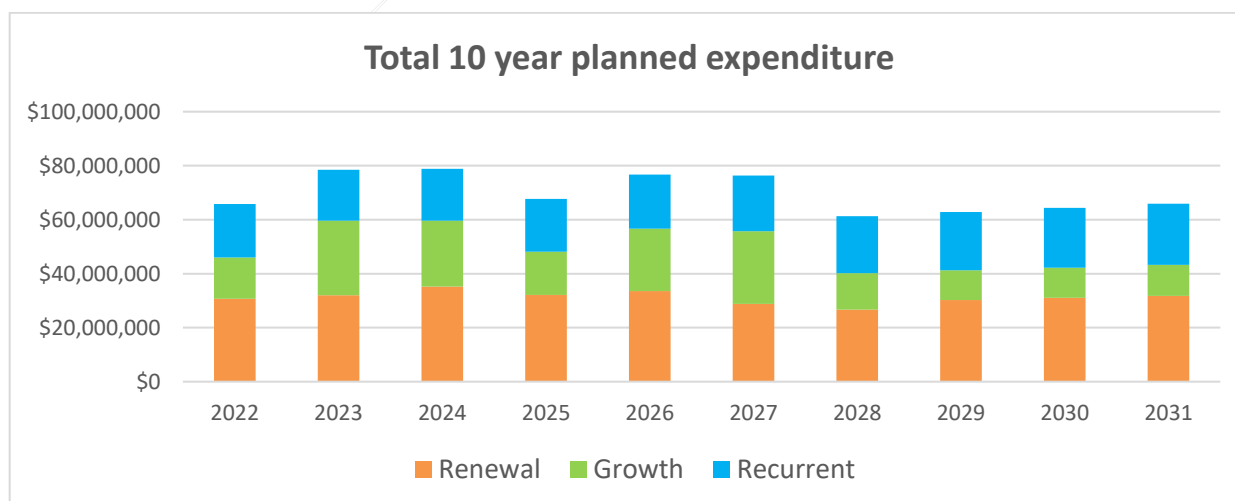


Figure 7 - Projected Total Asset Expenditure

This is further summarised in Table 4. which shows the total planned expenditure related to renewal, growth, and operating activities (i.e., operations and maintenance) over the next 10 years for each asset class.

Asset Class	Renewal (\$'000)	Growth (\$'000)	Operational (\$'000)	Total (\$'000)
Roads and Car Parks	109,620	19,614	44,412	173,646
Facilities	54,547	60,741	9,948	125,236
Pathways	44,473	24,198	5,284	73,955
Open Space	62,431	65,668	127,369	255,468
Stormwater	28,218	9,249	18,473	55,940
Bridges and Major Culverts	7,912	6,025	131	14,068
Total	307,201	185,495	205,617	698,313

Table 4 - Planned Expenditure by Asset Class

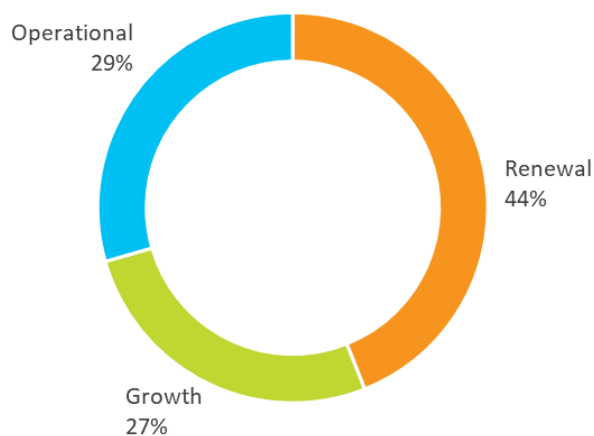


Figure 8 - 10 years Expenditure by Expenditure Category

Over the next 10 years we expect to budget a total of **\$307.2 million** for renewing our assets and **\$185.5 million** improving existing and creating new assets.

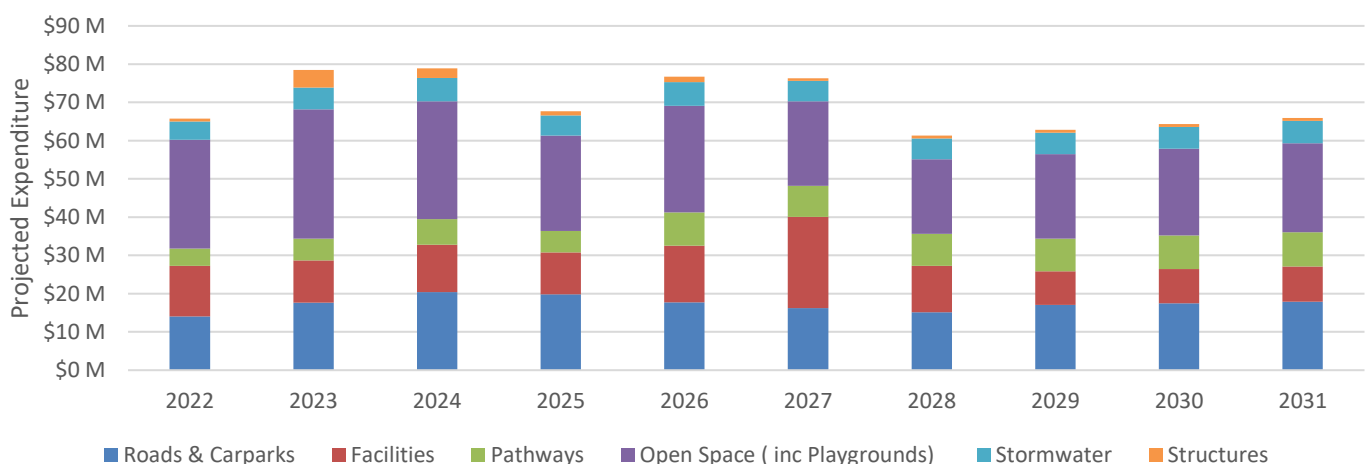
We are also projected to allocate around **\$205.6 million** over the same period to operate and maintain our assets.

Combined, it is an investment of **\$698.3 million** in our assets over the next 10 years which represents on average **34.21%** of our total annual expenditure.

This investment is made so that our assets remain fit-for-purpose, are safe, and support the delivery of services to our community.

Our forecast spending is based on the best available information we have about our assets and the planning we have done to formulate our capital works program. As our data and processes improve, the financial forecasts to renew, improve, and maintain our infrastructure will be refined and will be used to inform future versions of this *Asset Plan* and the *Financial Plan*.

Planned Renewal Expenditure - All Asset Classes



6.5 Asset Profiles

Roads and Car Parks

Why do we have these assets?

Our local roads are the assets that enable people, vehicle and goods to move safely and efficiently around our city.

How we manage our assets?

Renewal	Growth	Operational
<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> Installing traffic calming treatments	<ul style="list-style-type: none">> Maintenance and repairs to roads such as patching potholes, crack sealing etc.> Line marking> Street sweeping> Inspections of the road network.

How much do we plan to spend?

10 year Planned Spending: Roads and Car Parks

Period	Renewal	Growth	Operational	Total
2023	9,000	1,000	4,000	14,000
2024	9,000	5,000	4,000	18,000
2025	11,000	5,000	4,000	20,000
2026	11,000	4,000	4,000	19,000
2027	13,000	1,000	4,000	18,000
2028	11,000	1,000	4,000	16,000
2029	10,000	1,000	4,000	15,000
2030	12,000	1,000	4,000	17,000
2031	12,000	1,000	4,000	17,000
2032	12,000	1,000	4,000	17,000

What do our projections tell us?

Over the next ten (10) years, we forecast to spend around \$173 million maintaining, renewing, and improving the City’s road system. We will receive new roads assets contributed through major developments.

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’.

Replacement Value

\$383.3 M




30.9% of total \$1.24 B

Asset Age / Life

Link Road	90 years
Collector Road	130 years
Industrial Road	90 years
Access Road	185 years
Unsealed Road	30 years
Kerb & Channel	70 years
Carpark	185 years

	Planned Expenditure (\$'000)										Total
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Renewal	8,899	8,776	11,039	11,226	12,789	11,108	9,887	11,671	11,963	12,262	109,620
Growth	1,040	4,795	5,230	4,345	625	695	712	730	712	730	19,614
Operational	4,103	4,108	4,180	4,243	4,349	4,457	4,569	4,683	4,800	4,920	44,412
Total	14,042	17,679	20,449	19,814	17,763	16,260	15,168	17,084	17,475	17,912	173,646

What are the future challenges and opportunities?

 <p>Changing Population</p> <ul style="list-style-type: none"> > Projected increases in vehicle ownership. > Increases in number of people driving to work. 	 <p>Sustainable Transport</p> <ul style="list-style-type: none"> > Community demand for more accessible public transport > The need to accommodate electric vehicles (including charging station infrastructure) and driverless vehicles on the existing road network 	 <p>Increased Freight Task</p> <ul style="list-style-type: none"> > Increases in number of heavy vehicles and increased gross loadings leading to deterioration of the road network. 	 <p>Climate Change</p> <ul style="list-style-type: none"> > Increased risk to damage to assets through more intense and frequent storms. > Resiliency to be considered in the design and construction of assets.
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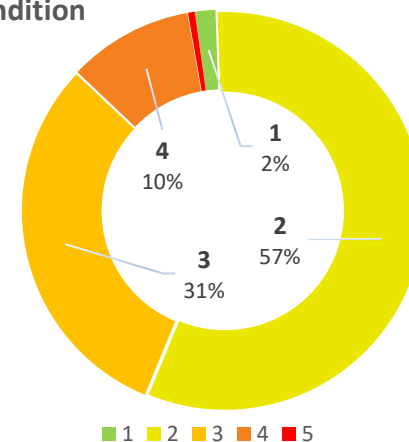
Improvement actions and significant projects

- An ongoing annual program of road reconstruction projects and road resealing projects
- A review of Council's Road Management Plan, which defines maintenance service levels and response times when managing Council's road network.
- Continued expansion of Council's road asset base over the next 10 years resulting from receipt of contributed road assets via major private residential subdivisions across Knox, including Jenkins Orchards, Boral Quarry and Kingston Links estate.
- Accelerated rollout of electric vehicle charging infrastructure and the need to manage these assets.

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	✓	Developed Contributions	✓		

Condition



Facilities

Why do we have these assets?

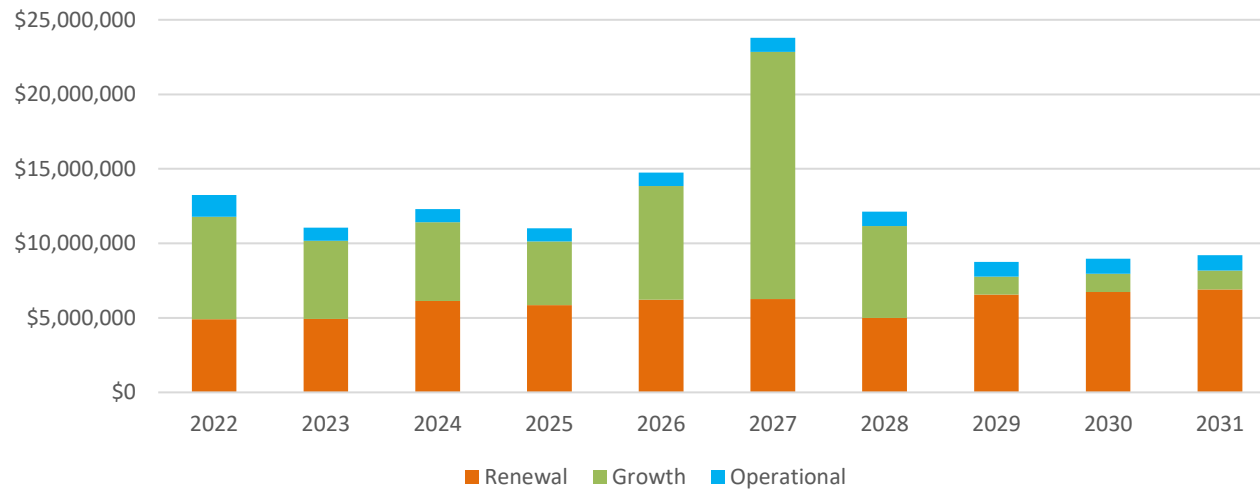
Buildings assets facilitate the provision of services within our city. This includes community buildings, libraries, civic facilities, early years services, sports pavilions, and shelters.

How we manage our assets?

Renewal	Growth	Operational
<ul style="list-style-type: none"> > Major structural repairs > Replacement of building components such as roof or wall cladding > Replacement of heating and cooling systems 	<ul style="list-style-type: none"> > Construction of a new building to cater for increased or changing demand. > Building expansions. > Sustainability improvements (e.g., Solar panels, water harvesting and reuse systems, etc.) 	<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

How much do we plan to spend?

10 Year Planned Spending: Facilities



What do our projections tell us?

Our projections indicate that we will spend approximately \$125 million on our buildings over the next ten (10) years.

Along with maintaining the condition of our buildings as they age and deteriorate; we will also need to provide facilities that are of a contemporary standard, making sure that they are accessible, environmentally sustainable, and also meet the service needs of our growing and changing population.

Replacement Value Asset Age / Life

\$289.6 M



23.4 % of total \$1.24 B

The age distribution of Council's buildings varies from 1 - 138 years with the median age being 42 years.

Building Components expected lifetime range from 20-60 years

	Planned Expenditure (\$'000)										Total
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Renewal	4,918	4,933	6,144	5,856	6,224	6,257	5,585	6,573	6,737	6,905	54,547
Growth	6,874	5,247	5,281	4,264	7,617	16,593	5,586	1,201	1,231	1,262	60,741
Operational	1,450	875	884	893	915	938	962	986	1,010	1,035	9,948
Total	13,242	11,055	12,309	11,013	14,756	23,788	12,133	8,760	8,978	9,202	125,236

What are the future challenges and opportunities?

 <p>Changing Population</p> <ul style="list-style-type: none"> > Facilities will need to be adaptable to meet the evolving needs all users. > Demand for accessible facilities can be expected to increase. 	 <p>Changing Needs</p> <ul style="list-style-type: none"> > Increasing female participation in sports and the need to provide equitable services for all users > Co-location of services within facilities > Higher quality service provision within facilities. 	 <p>Technology</p> <ul style="list-style-type: none"> > Increased demand for technology-enabled buildings is anticipated supporting access, security and services provided within facilities. > Demand for on-line and other innovative service delivery > Greater knowledge of asset utilisation 	 <p>Climate Change</p> <ul style="list-style-type: none"> > Risks due to more frequent and intense weather events and location of existing facilities > Increased demand for Council to minimise its environmental impact. > Demand for smart, energy efficient buildings is anticipated.
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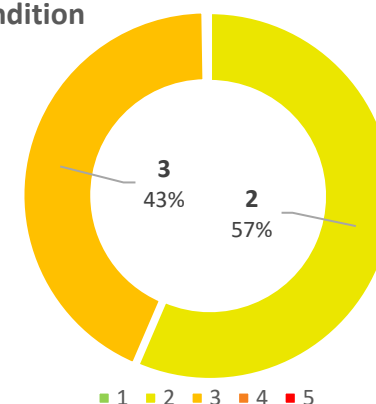
Improvement actions and significant projects

- Ongoing program to support rollout of recreational facility upgrades
- Delivery of the Knox Central Library
- Planning for future community hubs within Bayswater and Boronia.
- Completion of major building upgrades at Knox Regional Netball Centre and Fairpark Reserve.
- Exploring alternate and innovative models for supporting provision of Council services (leasing, co-location, partnerships, etc.).

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		Developed Contributions	✓		

Condition



Pathways

Why do we have these assets?

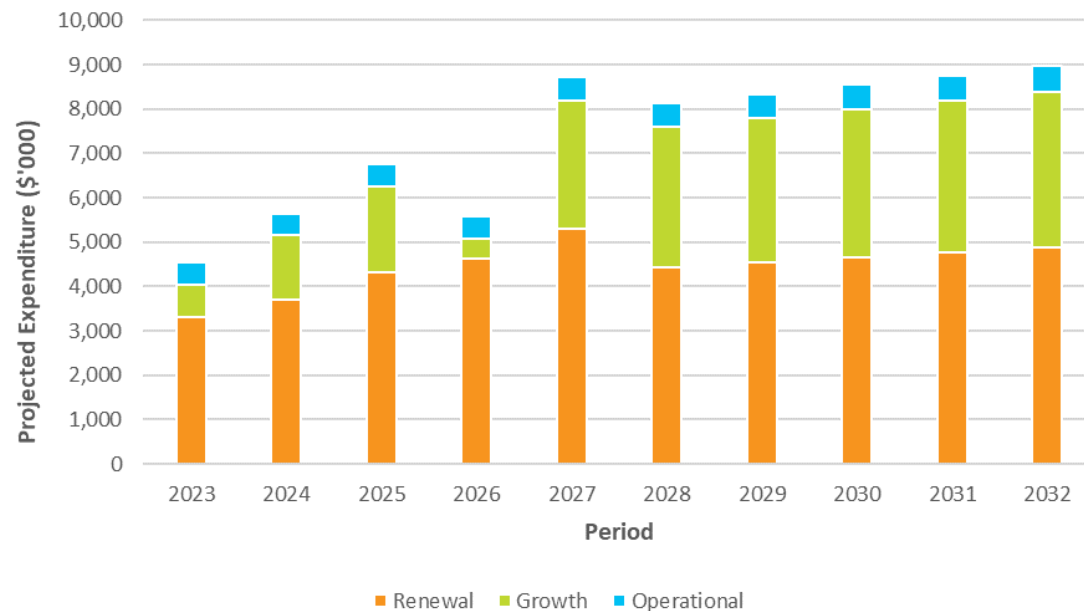
Our paths and shared trails provide a connected network that allows for the safe movement of pedestrians, cyclists, and other users around the city.

How we manage our assets?

Renewal	Growth	Operational
<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., accessible PRAM ramps, installation of tactiles at intersections) > Widening and increased accessibility on existing pathways. > New paths to enhance 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

How much do we plan to spend?

10 year Planned Spending: Pathways



What do our projections tell us?

We plan on spending approximately \$74 million over the next ten (10) years on our vast network of pathways and shared 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.

Replacement Value

\$180.6 M





14.6 % of total \$1.24 B

Asset Life

Asphalt	20 years
Concrete	50 years
Gravel	2 years
Paved	50 years

	Planned Expenditure (\$'000)										
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Renewal	3,319	3,689	4,323	4,620	5,288	4,420	4,531	4,644	4,760	4,879	44,473
Growth	730	1,462	1,935	444	2,904	3,182	3,261	3,342	3,426	3,512	24,198
Operational	494	496	499	503	515	528	541	555	569	583	5,284
Total	4,543	5,647	6,757	5,567	8,707	8,130	8,333	8,541	8,755	8,974	73,955

What are the future challenges and opportunities?

 <p>Changing Population</p> <ul style="list-style-type: none"> > Population growth and increasing dwelling density. > Ageing population and associated increase in mobility needs. 	 <p>Sustainable Transport</p> <ul style="list-style-type: none"> > Supporting uptake of active transport modes - walking, cycling, scooters. > Managing conflict between key path users > Designing for all modes, all users 	 <p>City Redevelopment</p> <ul style="list-style-type: none"> > Managing development works during construction) > Maintaining connectivity of path networks 	 <p>Climate Change</p> <ul style="list-style-type: none"> > Achieving circular economy outcomes when procuring construction materials. > Supporting access to public transport > Managing interface between hard and soft asset (trees/vegetation)
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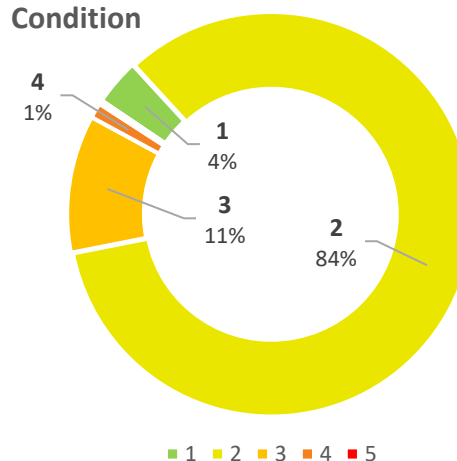
Improvement actions and significant projects

- Ongoing program of new and renewed footpath and shared path assets
- Completing missing links in our path network
- Developing and promoting path user protocols
- Continuing to trial and analyse use of recycled materials in constructed paths

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	✓	Developed Contributions	✓		

Condition



Open Space

Why do we have these assets?

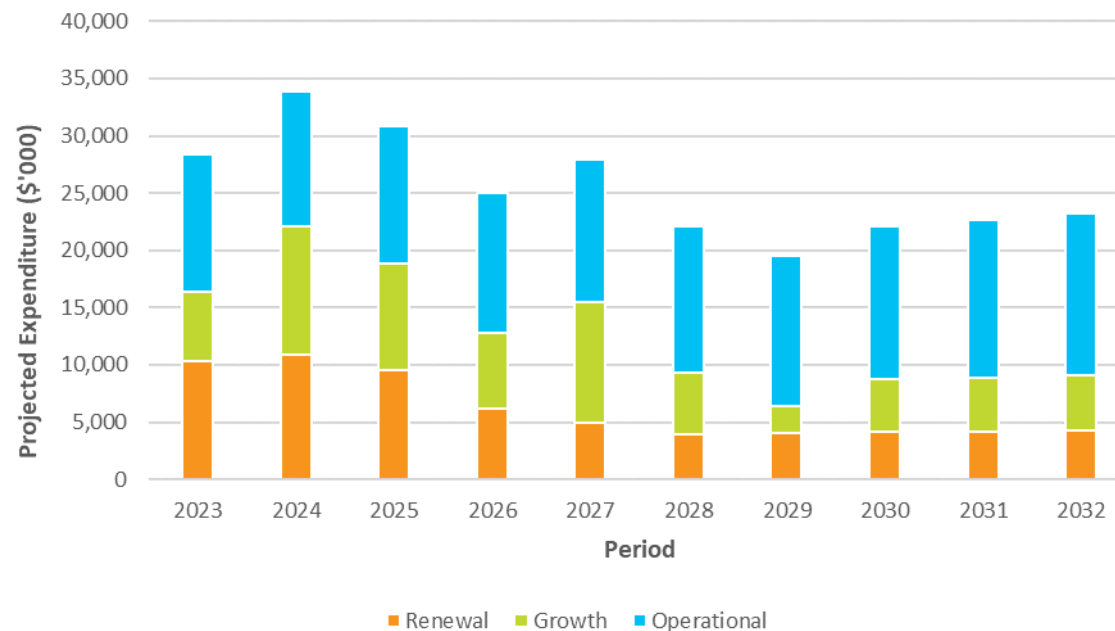
Open space assets allow us to enjoy many outdoor activities, both passive and active in nature. This includes our parks, creek corridors, sensitive vegetation areas, reserves, playgrounds, and sporting fields.

How we manage our assets?

Renewal	Growth	Operational
<ul style="list-style-type: none"> > Replacement of playground equipment > Replacement of park furniture > Renewal/replacement of playing courts or sportsfields to an suitable standard > Trees/sensitive vegetation 	<ul style="list-style-type: none"> > Playing court extension > New/Expanded playground asset > Development of new park or reserve > Expanded path connections within reserves 	<ul style="list-style-type: none"> > Hazard/defect inspections and repairs > Mowing, pruning, vegetation/weed control > Garden bed maintenance > Litter collection and facility cleaning > Management of sensitive vegetation sites

How much do we plan to spend?

10 year Planned Spending: Open Space



What do our projections tell us?

Approximately \$255 million will be allocated to our open space assets. A significant proportion of this (\$127 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.

Our community place high importance on protecting and improving the green spaces available within Knox.

Lockdowns and other restrictions put in place during the COVID-19 pandemic also highlighted the value that quality open space brings to our city and lifestyles.

Replacement Value

\$80.5 M





6.51 % of total \$1.24 B

Asset Life

Skate Park	80 years
Netball Crt	10-50 yrs
Tennis Crt	50 years
Athletics Track	15 years

	Planned Expenditure (\$'000)										
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Renewal	10,299	10,924	9,538	6,197	4,910	3,912	4,010	4,110	4,213	4,318	62,431
Growth	6,060	11,228	9,275	6,620	10,520	5,445	2,394	4,593	4,708	4,825	65,668
Operational	12,046	11,668	11,982	12,146	12,450	12,761	13,080	13,407	13,742	14,086	127,369
Total	28,405	33,820	30,795	24,963	27,880	22,118	19,484	22,110	22,663	23,229	255,468

What are the future challenges and opportunities?

 <p>Changing Population</p> <ul style="list-style-type: none"> > Increased demand for both passive and active recreation activities across Knox City Council > Supporting services within our open space facilities, pathways, accessibility, furniture 	 <p>Open Space Provision</p> <ul style="list-style-type: none"> > There will be an increased expectation that we will work towards preserving and increasing the current amount and quality of green space within the city. > Daylighting of currently channelled creek corridors within Knox 	 <p>Participation Patterns</p> <ul style="list-style-type: none"> > Participation and leisure trends have a greater focus on health and enhanced social connectivity. > A diverse range of high quality facilities will be needed to meet community demand and all user types. 	 <p>Environmental Sustainability</p> <ul style="list-style-type: none"> > Impacts on parks, gardens and local flora and fauna due to prolonged drought conditions increasing the need for planting of drought tolerant plants and grasses. > Potential for higher levels of water consumption to maintain the presentation of open spaces and the safe function of sporting ovals.
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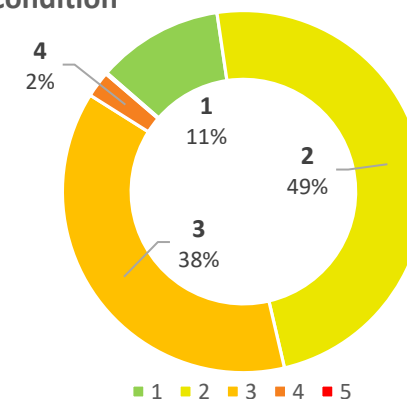
Improvement actions and significant projects

- Delivery of open space enhancements at major sites including Stamford Park and Lewis Park in line with site masterplans
- Continued investment in masterplans to improve open space amenity across Knox
- Management of sensitive vegetation sites and protection of habitat corridors within Knox
- Floodlighting projects to support expanding use of our recreational facilities
- Ongoing investment in Council's playgrounds
- Expansion of the Knox Regional Sports Park by the State Government with contributions from Knox.
- Continued advocacy to support the daylighting of major creeks within Knox

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		Developed Contributions	✓		

Condition



Stormwater

Why do we have these assets?

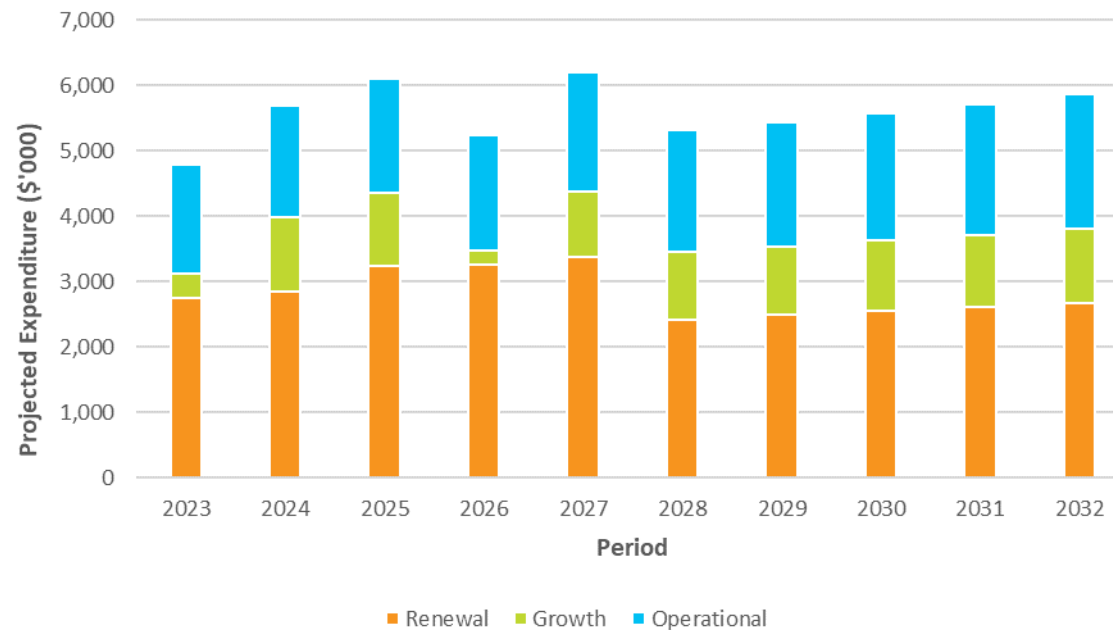
Stormwater assets help to manage the rainfall runoff across our City. This includes not only our drainage pits and pipes, but also our water sensitive assets, such as rain gardens, wetlands, that help to keep our waterways clean.

How we manage our assets?

Renewal	Growth	Operational
<ul style="list-style-type: none"> > Replacement of drainage pits and pipes > Renewal of water sensitive urban design (WSUD) assets/sites 	<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 	<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

How much do we plan to spend?

10 year Planned Spending: Stormwater



What do our projections tell us?

We have recently completed a study of the capacity of the network in order to identify areas that need improvement to control flooding. The costs of these upgrades still need to be quantified. These costs will be assessed over time and will be reflected in future revisions of our Asset Plan and Financial Plan.

Our financial projections will also be further refined as our knowledge of the condition of the drainage network improves through the various inspections and planned improvements. This will aid in optimising the replacement of parts of the network that are in most need.

Replacement Value

\$288.9 M





23.4 % of total \$1.24 B

Asset Life

Pits & pipes: 80 years
 Table drain Concrete: 80 years
 Box drains: 80 years
 Earthen open drain: indefinite

	Planned Expenditure (\$'000)										Total
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Renewal	2,755	2,839	3,239	3,258	3,384	2,424	2,485	2,547	2,611	2,676	28,218
Growth	375	1,155	1,120	210	1,000	1,025	1,051	1,077	1,104	1,132	9,249
Operational	1,665	1,706	1,738	1,771	1,815	1,860	1,907	1,954	2,003	2,053	18,473
Total	4,795	5,700	6,097	5,239	6,199	5,309	5,443	5,578	5,718	5,861	55,940

What are the future challenges and opportunities?

 <p>Development Density</p> <ul style="list-style-type: none"> > Continued urban consolidation increases impermeable areas, resulting in increased stormwater runoff. > Strained capacity of the existing drainage network > Strategic approach required to mitigate flooding and stormwater quality improvement initiatives 	 <p>Ageing Infrastructure</p> <ul style="list-style-type: none"> > Lack of knowledge of condition of drainage network due to expense of analyse underground assets > Older stormwater assets are under capacity and require upgrade to improve flood protection. > Impacts of tree roots on drainage infrastructure > Under-investment in drainage capacity results in increased maintenance costs. 	 <p>Climate Change</p> <ul style="list-style-type: none"> > Increase in both scale and frequency of extreme weather events leading to flooding. > Reduced capacity of existing current system to provide flood protection > Desire to slow/detain stormwater through water sensitive design to enhance local amenity and reduce stormwater flow 	 <p>Environmental Sustainability</p> <ul style="list-style-type: none"> > Increasing need to make use of stormwater runoff as a sustainable resource. This will mean that we will need to provide infrastructure to capture, treat and reuse collected stormwater and wastewater. > Ongoing maintenance costs associated with Water Sensitive Urban Design solutions.
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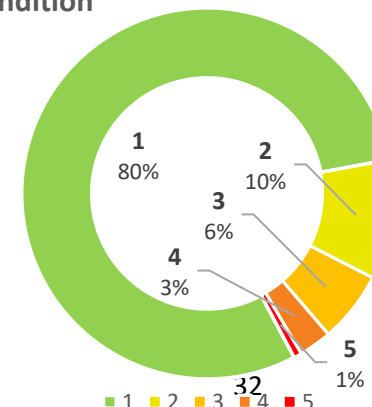
Improvement actions and significant projects

- Continue to invest in upgrades of asset infrastructure in line with Council's Flood Mapping and Modelling output
- Enhance performance and asset management practices to inform management of Water Sensitive Urban design assets
- Increased use of CCTV data to analyse asset condition
- Ongoing program to upgrade undersized sillage pipes.

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	✓	Developed Contributions	✓		

Condition



Structures (Bridges, Culverts, other Infrastructure including street furniture, bus stops, fire hydrants)

Why do we have these assets?

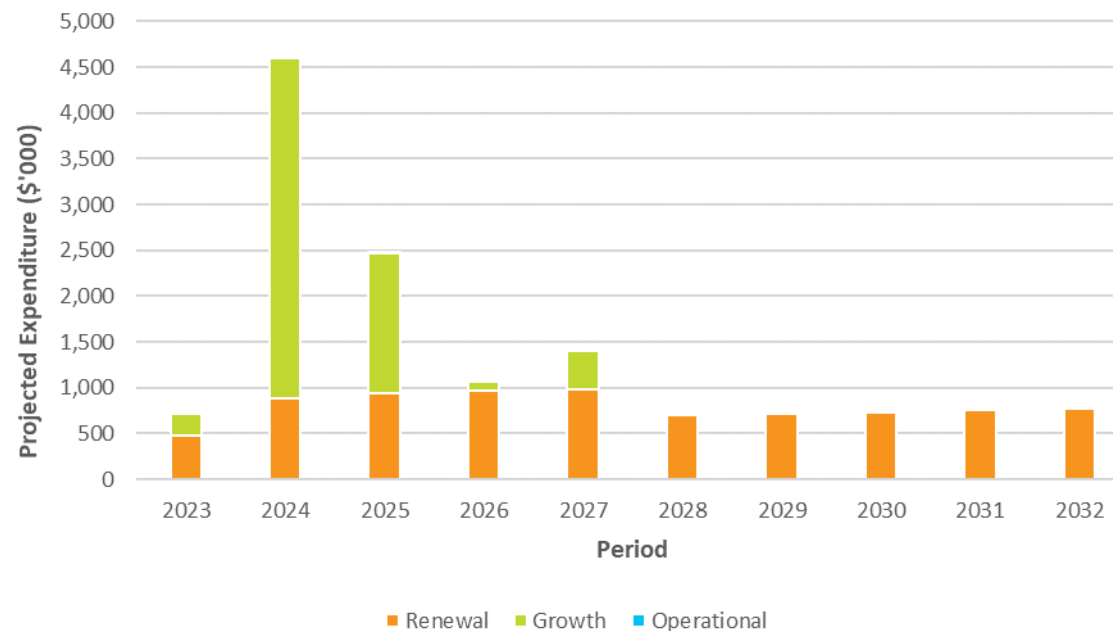
Bridges and major culverts assist us in promoting connectivity across the City for vehicles, cyclists and pedestrians.

How we manage our assets?

Renewal	Growth	Operational
<ul style="list-style-type: none"> > Replacement of bridges or major components > Renewal of existing major culverts 	<ul style="list-style-type: none"> > Strengthening or widening of an existing bridge > Works to meet current accessibility requirements 	<ul style="list-style-type: none"> > Deck and handrail repairs > Weed and vegetation control > Maintaining waterways free of debris > Programmed inspections

How much do we plan to spend?

10 year Planned Spending: Structures



What do our projections tell us?

While our bridges and major culverts 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 \$14 million towards our efforts making sure that such elements are safe, compliant, and well maintained.

Replacement Value

\$14.3 M

1.16 % of total \$1.24 B

Asset Life

Bridge concrete	100 years
Bridge timber	30 years
Major Culvert	100 years

	Planned Expenditure (\$'000)										Total
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Renewal	474	879	936	965	987	699	716	734	752	770	7,912
Growth	247	3,712	1,537	107	422	-	-	-	-	-	6,025
Operational	12	12	12	13	13	13	14	14	14	15	131
Total	733	4,603	2,485	1,085	1,422	712	730	748	766	785	14,068

What are the future challenges and opportunities?



Increased Freight Task

- > Increased traffic and number of heavy vehicles on roads putting pressure on bridge assets.
- > Unauthorised loading of road bridges and major culverts can result in increased deterioration and risk.



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
 - Cracking caused by ground movement
- > Changes to flood levels resulting in increased risk



Environmental Sustainability

- > Use of more sustainable materials in reconstruction of assets
- >

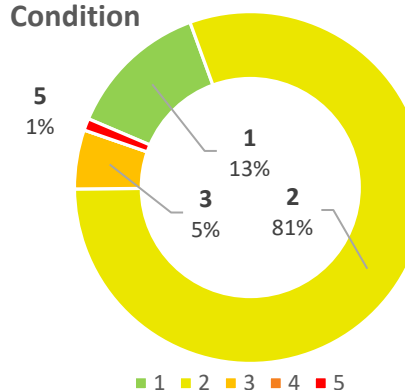
Significant future projects

- Program of bridge renewal works as identified in latest Vicroads level II bridge condition audit
- \$100k/yr. Roadside furniture renewal/replacement. Entrance signs, bus stops, retaining walls, etc.
- Likelihood of increase in contributed assets due to new developments

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		Developed Contributions	✓		

Condition



7 Monitoring and Review

A full review of the *Asset Plan* will be undertaken every 4 years following Council elections in accordance with the *Local Government Act 2020*.

As the funding requirements for asset investment are reviewed annually as part of the Council budget process, it follows that the data within the *Asset Plan* working tools will also be updated annually to align with most recently available data. Council's Asset Strategy team continue to undertake ongoing condition audits of Council assets, analyse performance of assets and modelling key asset requirements to maintain requisite asset performance and inform budget setting process. This work is all undertaken to ensure that annual budgeting decisions are informed by the best available data and reflect:

- Our available financial resources.
- The best available data to inform asset condition and performance
- Asset needs identified in long term capital works programs that are reviewed annually.
- Any external factors that are likely to influence the *Asset Plan*.

The assumptions in this document have been derived using the best data and information we currently have available to us.

We are committed to managing our assets in accordance with recognised best practice and are continuously working to improve what we know about our assets and enhance the tools we use to manage them.

Future versions of this *Asset Plan* will build on the work we have done and will reflect our improved knowledge base, deliberative engagement with the Knox community and technical analysis which reflects changes in asset knowledge, revenue, demands, financial sustainability, and external drivers.

