

Cardinia Shire Council - Asset Plan

The Asset Plan has been developed to align with Council's Council Plan 2021-25, Community Vision 2040, and 2022/23 budget.

June 2022

Community Vision 2040

Our [Community Vision 2040](#) articulates the long-term aspirations of the community; what Cardinia Shire will be like in 2040. The vision has been prepared by the Imagine Cardinia People's Panel, a representative sample of the Cardinia Shire community. This Community Vision has led the development of the Asset Plan.

Community Vision statement

We acknowledge that we are on the traditional land of the Bunurong, Boonwurrung and Wurundjeri people. We value their contributions past, present and future.

We are all valued for who we are. We are different, but we are together as a community.

We empower everyone to have a voice. We speak with the optimism and insight of our young people, the energy of our community members, and the wisdom and memory of our older citizens including those who came before us.

We support the people of Cardinia Shire to be strong, resilient, socially connected and physically and mentally well. We protect the vulnerable, who come from all walks of life in our community. We look out for each other.

We care for our country. We recognise the effects of climate change on our community, environment, and the planet. We take action by leading Victorian councils in the prevention of, and adaptation to, climate change.

We are sustainable in the way we live; we work close to home, we grow food and we make valuable contributions to the nation.

We strive to protect our community, family farms, industries, landscapes and biodiversity to ensure they are resilient.

Our population growth inside the urban growth boundary follows and serves the community that we are building and protecting. Growth will be managed at a speed that does not hinder our progress towards these community priorities.

We plan for the growth of our community through consultation with residents and have infrastructure in place to meet the needs of the community.

Creativity and expression are at the heart of what we do.

Community Vision priority areas

Alongside the community vision, the People's Panel identified a series of community priorities that fall under the following themes:



Support Local Jobs



Strong Healthy and Connected Communities



Plan for all modes of transport



Protect natural Assets



Environmental Sustainability, waste and protection of agricultural land



Planning and infrastructure for community growth

Glossary¹

Accumulated Depreciation – The part of an asset's value which has been used over its life to date.

Capital expenditure – Funds used to acquire, upgrade or renew assets which provide long term benefits.

Current Replacement Cost – The current cost to acquire or construct the asset. Determined by the minimum it would cost to replace the existing asset with a new, modern equivalent asset.

Depreciated Replacement Cost – The Current Replacement Cost of an asset less Accumulated Depreciation.

Depreciation – The reduction in value of an asset over time to deliver service.

Gifted assets – Assets gifted to Council as part of the completion of a development including local roads, footpaths etc.

Infrastructure assets – Physical assets that contribute to meeting the needs the community and council's need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycleways.

Whole of life costs – Costs that consider all stages of an asset's life: including construction, renewal, maintenance and eventually disposal and replacement.

¹ Definitions adapted from [Local Government Asset Management Better Practice Guide](#)

Asset Plan Overview

The Asset Plan is one of Council's corporate Strategic Planning documents, which shows how we plan to use assets to deliver on the *Community Vision 2040*. Cardinia Shire Council's Asset Plan is targeted at helping our community understand the assets we use to provide services and our approach to managing the assets. The Asset Plan is a new requirement for all local governments to produce as part of the reforms in the *Victorian Local Government Act 2020*. As required by the act this 10 year plan presents information about the maintenance, renewal, acquisition, expansion, upgrade, disposal and decommissioning for each class of infrastructure asset under the control of Cardinia Shire Council.

A deliberative engagement process "Imagine Cardinia" was undertaken to develop the *Community Vision 2040*, *Council Plan 2021-2025* and other strategic documents, this has been used to inform this draft Asset Plan. Council has also considered other community engagement undertaken to support the development of strategies and policies (including the community satisfaction survey and targeted campaigns).

Council considers equitable access for our changing demographics when planning for assets. Council is continually working to improve its management of infrastructure assets including through adapting to emerging practice. As we mature we will have more information available to empower the community through the deliberative consultation process required for the 2025 revision of Council's strategic plans, including the Asset Plan. Council is also focussing on improving our delivery of projects to ensure they are efficiently and consistently delivered.

The Asset Plan does not include non-infrastructure assets which Council may own such as plant, furniture, and land. It also does not consider non-Council assets such as highways and arterial roads and other assets not under the control of Council. These assets may however be considered when Council plans the delivery of services, to ensure that equitable service is provided to the community. Council also works with other agencies (VicRoads, LXP, Melbourne water etc) to deliver services and infrastructure projects to the community.

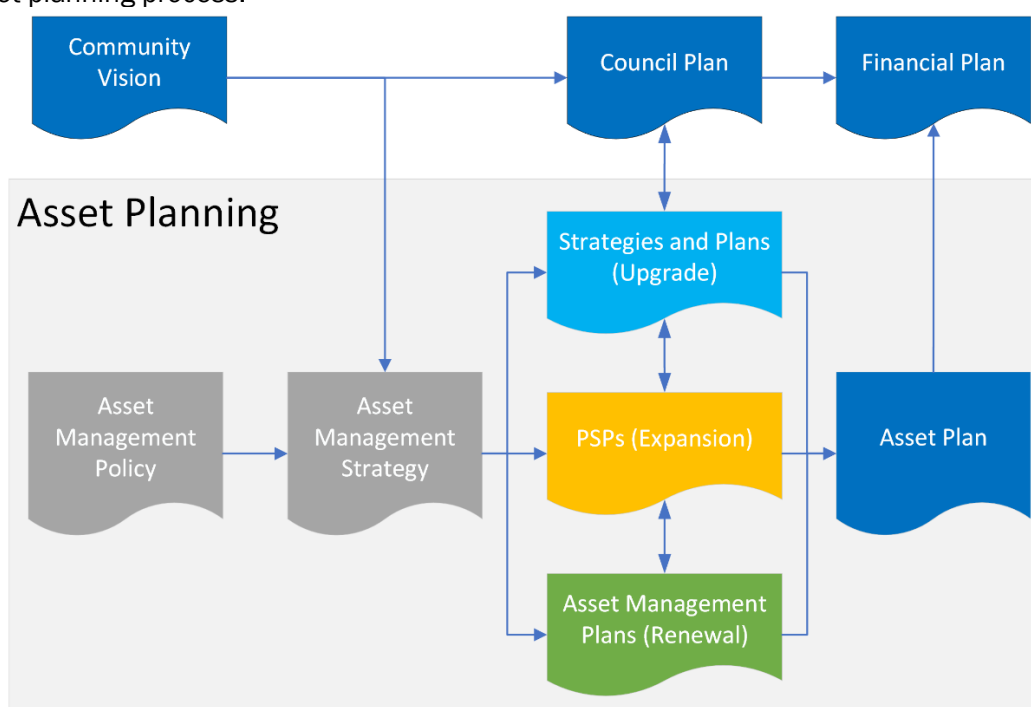
Strategic Intent

Council's strategic intent for asset management is set by our [Asset Management Policy](#):

Cardinia Shire Council will optimise the whole of life costs of its infrastructure assets, while meeting the present and future service delivery needs of the community and minimising exposure to risk.

Asset Planning Structure

The below diagram indicates how council's other strategic planning documents and Council documents relate to Cardinia's asset planning process:

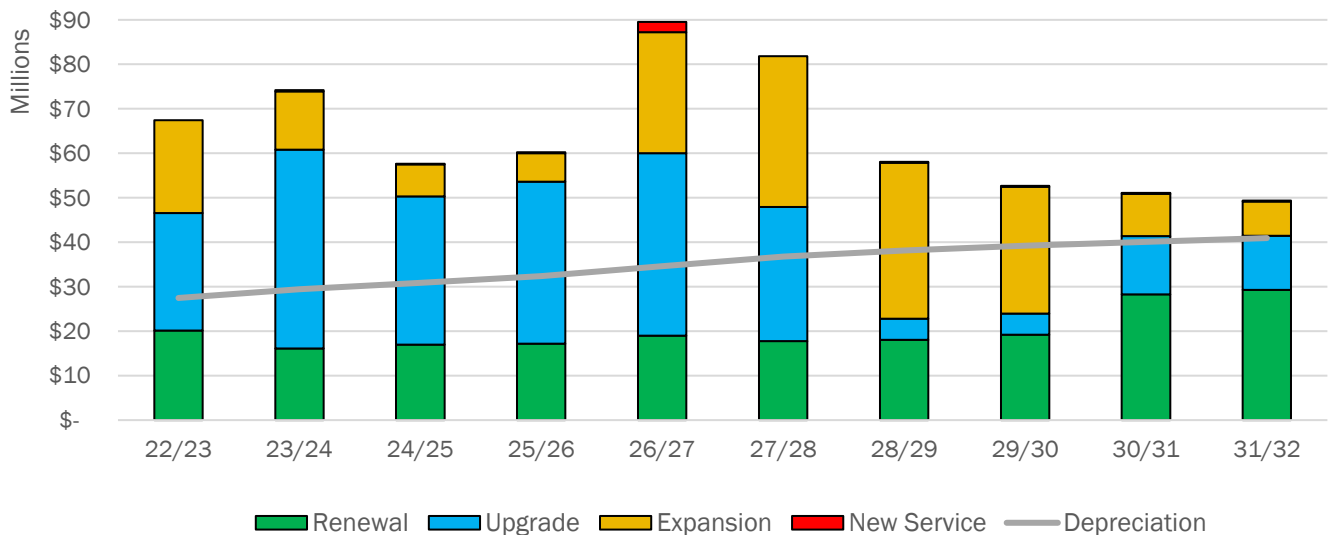


Key Asset Plan Figures

These figures show key information about Council's assets as well as our future trend in capital spending.

The below graph shows what Council is planning on spending money on over the next 10 years. these categories of spending are defined in the Asset Spending Types section of the Asset Plan. Depreciation measures how much the condition of Council's assets is reduced by each year. This graph is replicated for each asset class later in the document.

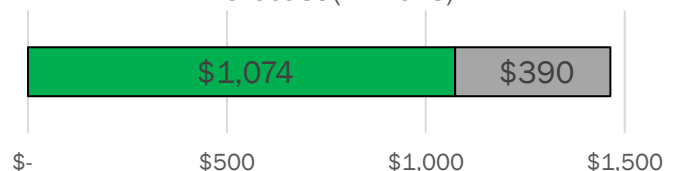
Forecast Council Spending - Infrastructure Assets



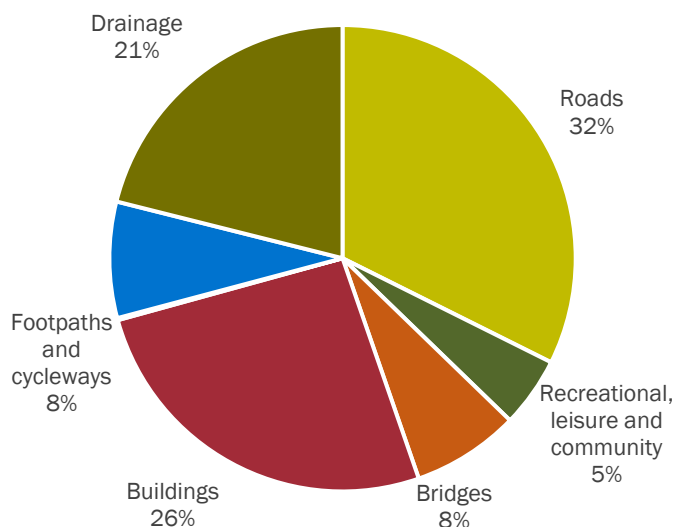
The below graph shows what percentage each asset class is of Council's current asset value. As can be seen the majority of Council's asset value is in Roads (and other assets, such as bridges, which support the provision of the transport service). Council's Buildings also have significant value. The Recreational, leisure and community assets support important services but have a low infrastructure value (as much of their costs are in the land and landscaping).

This graph shows the cost to replace all of Council's existing infrastructure assets (almost \$1.5 Billion). It also shows overall we have consumed approximately 27% of the asset's service (represented by the accumulated depreciation).

Depreciated Replacement Cost and Accumulated Depreciation - 21/22 forecast (Millions)

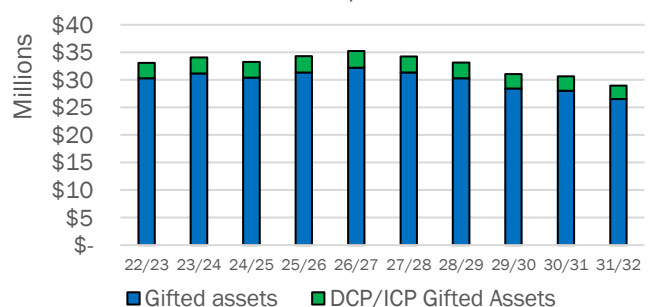


Infrastructure Asset Value Split



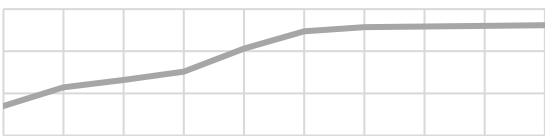
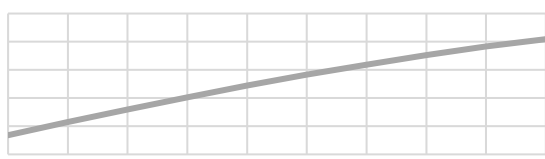
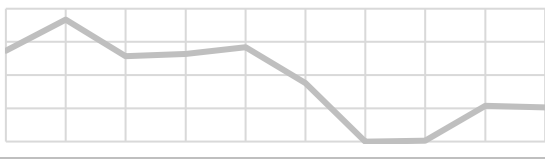
As part of development Council is given assets to care for. This increases the amount we need to spend on maintenance and renewal. Over the next 10 years its estimated that Council will be given \$336M more assets to look after.

Forecast Assets Gifted to Council by Developers



Asset Plan Performance Measures

The Local Government Act identifies planning and reporting as a strategic planning principle which needs to be applied across all Council's corporate strategic plans including the Asset Plan. We've identified the below measures of our asset planning challenges and successes, as well as trends and commentary on what they mean for Cardinia Shire Council. Further reporting can be found at [Know Your Council](#).

Community Satisfaction – Overall performance index		Overall performance has returned to 61 points after an isolated dip last year believed to be due to COVID-19 impacts.
Current: 61 points out of 100 (2021)		
Council’s assets exist to help us meet the community’s needs. Various targeted measures of the community’s satisfaction with Council’s assets exist but the overall performance is a key measure of how Council is achieving the community’s vision. The state-wide average for this is 61 with interface councils scoring 59.		
Infrastructure per head of municipal population²		
22/23 estimate: \$8,851	10 year average: \$9490	
Council’s value of infrastructure per person is close to similar councils listed on Know Your Council but significantly lower than all councils average (41% lower). Much of Cardinia’s asset value is in transport assets which may indicate lower value of assets supporting other services relative to other councils. The value per person is forecast to grow over the next 10 years.		
Population Density per length of road		
Current: 78.40	10 year average: 87.67	
Council’s population density per length of road is significantly less than similar councils (133) and all council (113) values listed on Know Your Council. This highlights Cardinia Shire Council’s significant road network and the requirement to maintain it by a relatively small population. While the population density per length of road is anticipated to increase, at the end of 10 years it will still be lower than similar Councils.		
Asset renewal and asset upgrade as a percentage of depreciation¹		
Current: 170%	10 year average: 135%	
Council is currently delivering more upgrade and renewal than the depreciation. Overall, this is forecast to start to decrease in the later years of the plan (as significant road programs such as “Sealing The Hills” finish). It is important to consider if the balance between renewal and upgrade is correct to ensure that Council is not upgrading levels of service at the cost of long term sustainability. Upgrades result in increases to future depreciation and renewal requirements. Council’s overall asset renewal and upgrade relative to depreciation (including assets excluded from the Asset Plan) is similar to other councils on Know Your Council.		
Capital program delivery		Council has been delivering increasing amounts of capital works over the past 10 years. The overall delivery has fluctuated between 49% and 69% of total.
20/21 financial year: 67% of total project budget		
Council’s ability to deliver on the adopted capital budget is key for achieving the Community’s Vision and expected outcomes of the Asset Plan. While there are several external factors that impact on delivery of the program, ongoing significant shortfalls may indicate that improvements or increases to operational delivery resources are required or the program needs to be rationalised.		

² The value reported in Know Your Council includes non-infrastructure assets which are excluded from this Asset Plan such as plant, furniture and equipment

Asset Spending Types

Asset Renewal³

Asset Renewal extends the life of our existing assets, so they continue to serve our community. This can include replacing all or part of an asset. Examples are: painting buildings, road overlays, and replacing playgrounds.

Council plans for renewal by using current condition to estimate future condition. We can then estimate when assets will need to be renewed and the impacts of different budgets. Historic data and data captured in the field is combined to determine the overall condition on the below scale.

Rating	Condition Description
0 Excellent	Brand new asset or recently refreshed to as new condition.
1 Very Good	Asset is in very good overall condition only routine maintenance is required.
2 Good	Superficial defects may be present requiring minor maintenance
3 Fair	Moderate deterioration. More frequent maintenance is required in addition to routine maintenance
4 Poor	High deterioration is evident. Maintenance costs rising to maintain serviceability.
5 Very Poor	Evidence of high level of deterioration affecting serviceability. Maintenance cost is high.
6 End of Life	Asset is no longer serviceable

Asset Upgrade³

Upgrades to Council assets increase the service provided to each person and also increases the cost per person. Examples may include widening a pathway, sealing an unsealed road, or enlarging a grandstand at a sporting facility.

Upgrades are normally planned through strategies which consider equitable delivery across the shire. It is often most efficient to deliver upgrades at the same time as an asset is due for renewal.

Asset New³

Assets created to provide a new service to the community. It will result in an additional burden on future operating, maintenance and capital renewal expenditure, but this may be offset by addition income.

Asset Maintenance³

Maintenance is the regular activities that are undertaken to look after our assets and make sure they last as long as expected. Examples include: fixing a leaking tap, repairing a pothole, and repairing the deck on a wooden pathway. Maintenance can either be planned or reactive to a customer request.

Council's maintenance approaches may be specified under a plan, such as the Road Management Plan, or are managed operationally in instances of low risk. Council's Customer Service Charter also sets timeframes that staff must respond within when investigating a customer request.

Council's future projections for maintenance are largely tied to asset growth and increase in cost. Where Council's assets grow, through Council spending or development, this increases our maintenance requirement. This maintenance often begins as soon as an asset is constructed but can increase as assets get into poorer condition. Sometimes asset upgrade projects, such as Sealing the Hills, can reduce the ongoing maintenance for assets.

Council's maintenance growth is tied to our asset growth, the key trends in asset growth are listed below:

- Open Spaces: 182m² / new dwelling
- Roads: 11.1m road / new dwelling
- Pathways: 17.5m pathway / new dwelling
- Buildings: Maintenance is percentage of value
- Bridges: Approx. 1% increase per year in growth
- Drainage: 18.1m pipe / new dwelling, 0.67 pits / new dwelling

Asset Disposal and Decommissioning³

When an asset is surplus to the community's needs or there is insufficient use of the asset or continued existence of the asset is not justified Council may dispose or decommission the asset. There may be some rationalisation of assets which are inconsistent with Council's levels of service (over serviced) when renewing to ensure equitable service to the community. Disposal reduces the ongoing maintenance, depreciation, and renewal costs to the community.

As part of renewal projects assets or facilities may be disposed of to renew their services in a more appropriate or larger location. This type of spending may be considered renewal spending however this is reliant on the existing assets being disposed or decommissioned and no further spending on these assets.

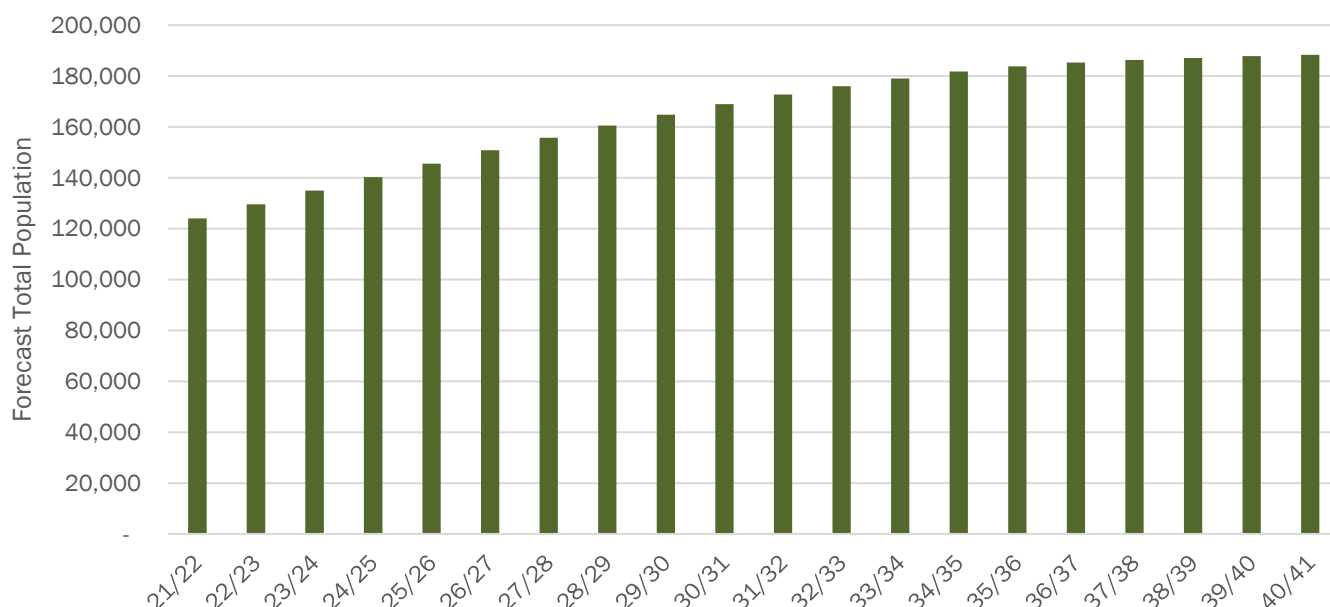
³ Definitions adapted from [Local Government Asset Management Better Practice Guide](#)

Asset Expansion and Population Growth

Council's Community Vision 2040 says "Our population growth inside the urban growth boundary follows and serves the community that we are building and protecting. Growth will be managed at a speed that does not hinder our progress towards these community priorities.

We plan for the growth of our community through consultation with residents and have infrastructure in place to meet the needs of the community."

Understanding the population growth and expansion of our assets needed to serve this growth is vital to ensure we can deliver on the community's vision for a strong, resilient, social connected, and physically and mentally well community.



Percentage growth rates based on [population forecasts, 2016 to 2041](#), prepared by .id (informed decisions), October 2019. Current population based on June 2021 ERP Australian Bureau of Statistics, Regional Population Growth, Australia (3218.0)

Asset Expansion³

Asset expansion expands Council's assets to cater for increases in population. Much of Council's asset expansion is delivered through the local assets delivered as part of development; the roads and pathways outside of houses etc. These are known as "Gifted" assets.

The majority of Cardinia's growth is within and controlled by the growth corridor's Precinct Structure Plans (PSPs). These PSPs structure the neighbourhoods and guide the major infrastructure to be delivered to support our growing communities

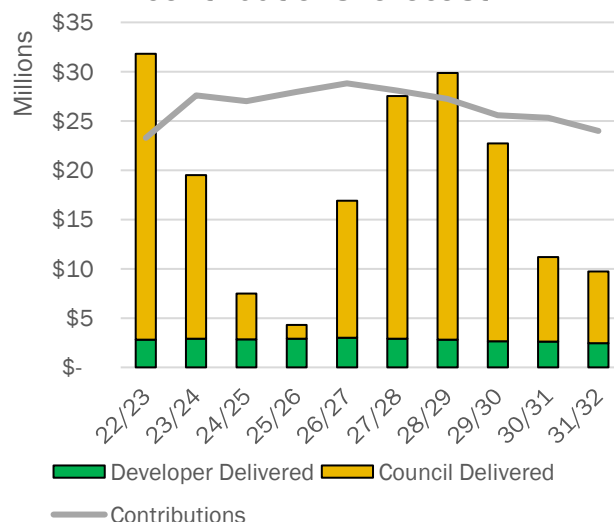
In addition to gifted assets the PSPs identify various major projects to be delivered for these communities. These works might be delivered by developers or Council. Where delivered by Council the timing of these projects is considered as part of the broader needs of the service and is funded in part by contributions.

Council has various strategies which outline how we equitably service our communities. These strategies may identify expansion projects to support growth in areas outside the growth corridor. These strategies may consider factors such as population, distance from service and individual community needs and priorities.

Council's adopted Structure Plans include:

- [Beaconsfield Precinct](#)
- [Cardinia Road Employment Precinct](#)
- [Cardinia Road Precinct](#)
- [Officer Precinct](#)
- [Officer South Employment Precinct](#)
- [Pakenham Precinct](#)
- [Pakenham East Precinct](#)

PSP Assets and PSP contributions forecast



Recreation, Leisure, and Community Asset Class (Open Spaces)

Open spaces, providing for both organised sport (active recreation) and play and relaxation (passive recreation), have a key role in achieving the community's vision for "the people of Cardinia Shire to be strong, resilient, socially connected and physically and mentally well." Our open spaces help us to "care for our country." "We strive to protect our community, family farms, industries, landscapes and biodiversity to ensure they are resilient."

Our open spaces and a revised open space strategy are key to identifying how Council can delivery on the Community Vision priority areas of "Strong, healthy and connected communities", "Protect natural assets" and "Environmental sustainably".

Council is responsible for a growing number of open spaces currently over 600 with an area in excess of 1500 ha and over 120 playgrounds. Our updated Open Space Strategy will ensure this growth is delivered equitably. We are increasing future renewal spending to keep our existing assets in good condition (particularly play spaces) and deliver master planned upgrades.

Customer feedback

Council's open space results from [the annual customer satisfaction survey](#) are (out of 100):

Performance Measure	2020	2021
Recreational Facilities	67	69
Appearance of Public Areas	64	68

Creating Cardinia highlighted the importance that our customers place on our open spaces and a desire for increased shade and supporting facilities (public toilets etc) in open spaces.

Key Open Space Strategies

[Recreational Open Space Strategy](#) (under review)

Active Cardinia Strategy (under development)

Community Infrastructure Plan (under development)

[Liveability Plan](#)

[Recreation Reserve Facility Standards Policy](#)

[Play Space Strategy](#)

[Skate and BMX Strategy](#)

[Equestrian strategy](#)

Climate emergency consideration

Open Spaces are vital for managing urban heat island effect and supporting our community's adaptation to climate change.

Managing the risk to our open spaces due to more frequent fire events will impact on future open space design and maintenance practices.

Improvement focus

Improving the equity of our open spaces through a reviewed Open Space Strategy.

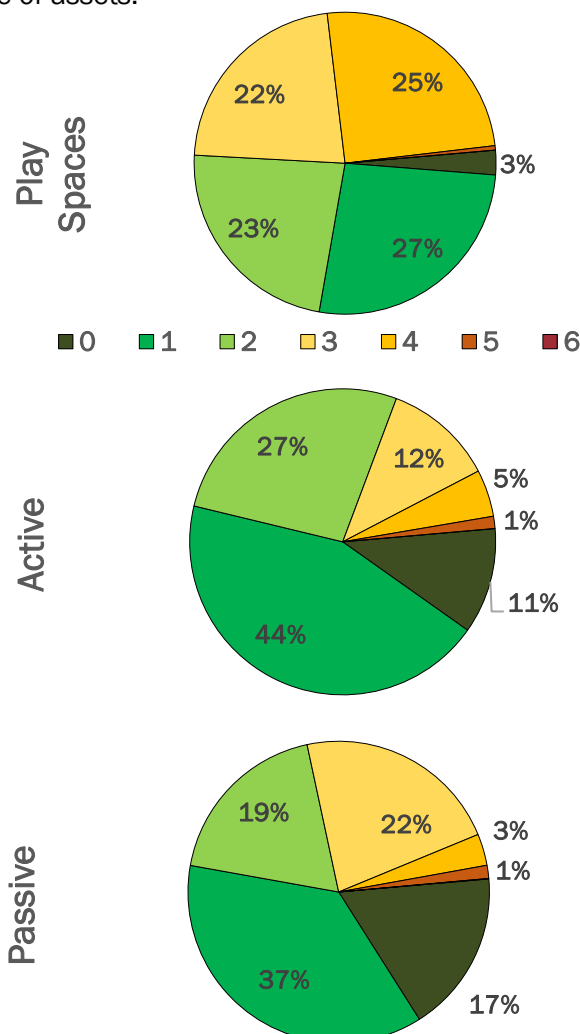
Delivering better renewals through targeted condition-based programs.

Financial Values (21/22 forecast)

Asset Class	Current Replacement Cost	Depreciated Replacement Cost
Recreation, leisure, and community	\$73.61M	\$49.91M

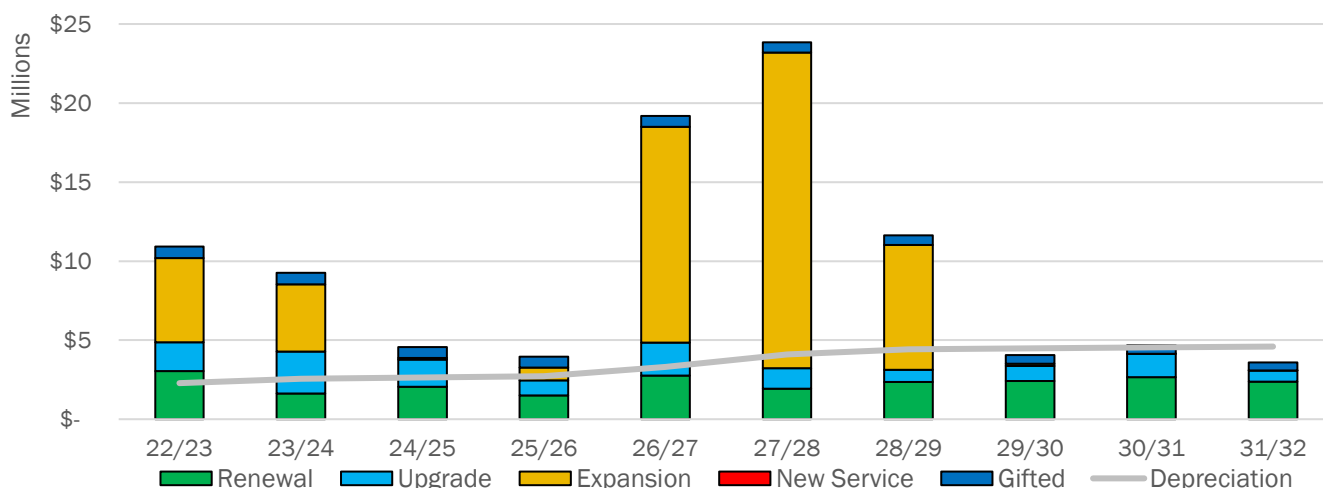
Current condition distributions

Condition of Play spaces are based on regular inspections. Condition of active and passive recreation assets is primarily based on age and expected useful life of assets.



Recreation, Leisure and Community Asset Class (Open Spaces)

Open Space Asset Spending Forecast



Key projects and programs

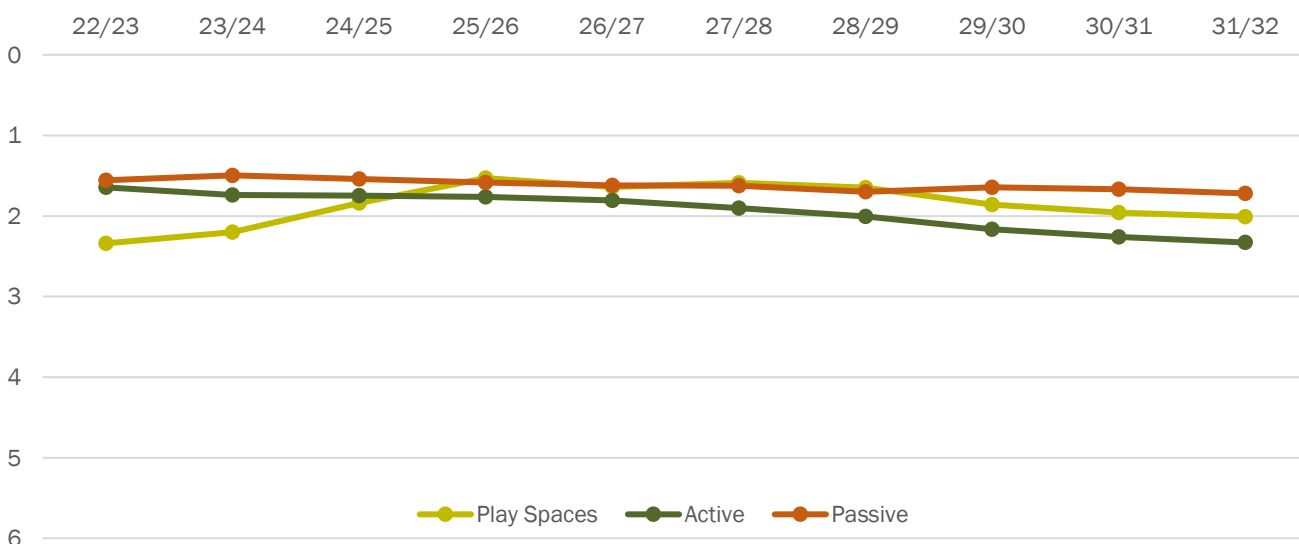
Play Space renewal – Council actively manages its play spaces to ensure they remain in good condition and meet the evolving needs of the community. Council renews play spaces on an equitable basis, where the standard is based on the [Play Space Strategy](#) and the hierarchy of the park. This may mean in some cases there is not a 1 for 1 replacement of the existing equipment. This enables play spaces to serve evolving demographics and changing needs and empower the community to have a voice in the components provided. Play spaces are prioritised for renewal based on condition and any gaps in the play space strategy.

Master Plans – Including [Emerald Lake Precinct](#) - Council has a number of master plans for the renewal and upgrade of various parks, including the Emerald Lake Precinct. Emerald Lake Precinct is considered a regional level open space and upgrading and renewing it in consultation with community is key to it continuing to be a key place for our community to come together.

Sport field renewals – Council’s management of sport fields is evolving. As we gain more sports fields to serve our growing community we need to be better at how we plan for their renewal. We’re working with experts to better predict when they need work and how we can make them last longer.

Open space renewal program – The open space renewal program has determined the overall trend in required open space spending. The works are delivered through multiple projects including individual park renewals, cricket practice net renewals, skate park renewals etc. As Council captures more condition data we will identify additional programs of work and refine the delivery timing to improve the efficiency of the program.

Open Space condition trend



Footpaths and Cycleways Asset Class (Pathways)

Council's Community Vision 2040 highlighted "plan for all modes of transport" as a priority area. "Work(ing) close to home" helps us use our pathways to commute and for recreation. Increasing the use of active transport will help us as a community in "leading Victorian councils in the prevention of, and adaptation to climate change". Pathways can also "support the people of Cardinia Shire to be strong, resilient, socially connected and physically and mentally well."

The connectivity, condition and quality of Council's pathway network will support our community in achieving its vision.

Council has over 820km of pathways. Improving connectivity of this network through capital spending will increase the use of our pathways. We are seeing early failures in some footpaths which may need changes to standards or policies. We are working to plan more strategically for renewal.

Customer Feedback

Council's pathways results from the [annual customer satisfaction survey](#) are (out of 100):

Performance Measure	2020	2021
Local streets and footpaths	52	57

This measure includes both streets and footpaths and may also be influenced by the Roads Asset Class.

Key Pathway Strategies

[Road Management Plan](#)

[Road Safety Strategy](#)

[Pedestrian and Bicycle Strategy](#)

[Equestrian strategy](#)

[Recreational Open Space Strategy \(under review\)](#)

[Liveability Plan](#)

Climate emergency consideration

Climate Change will impact on our pathway infrastructure:

- More frequent significant events damaging pathways
- Changed climate patterns will impact regular maintenance of gravel paths.

Adapting to Climate change will also impact our pathways:

- Changing transport demands including use of active transport (walking & cycling etc)

Improvement focus

Delivering more connected networks through the pedestrian and bicycle strategy will help Council to achieve the objectives of the liveability plan.

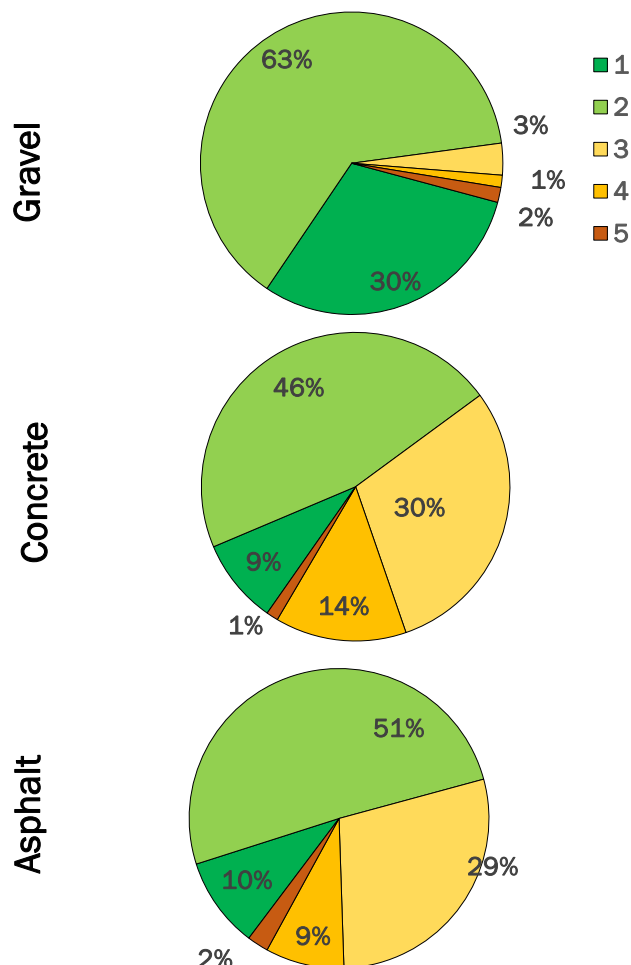
Improving what condition data we collect about our pathway network will let us strategically plan for replacement of pathways.

Financial values (21/22 forecast)

Asset Class	Current Replacement Cost	Depreciated Replacement Cost
Footpaths and Cycleways	\$118.87M	\$93.15M

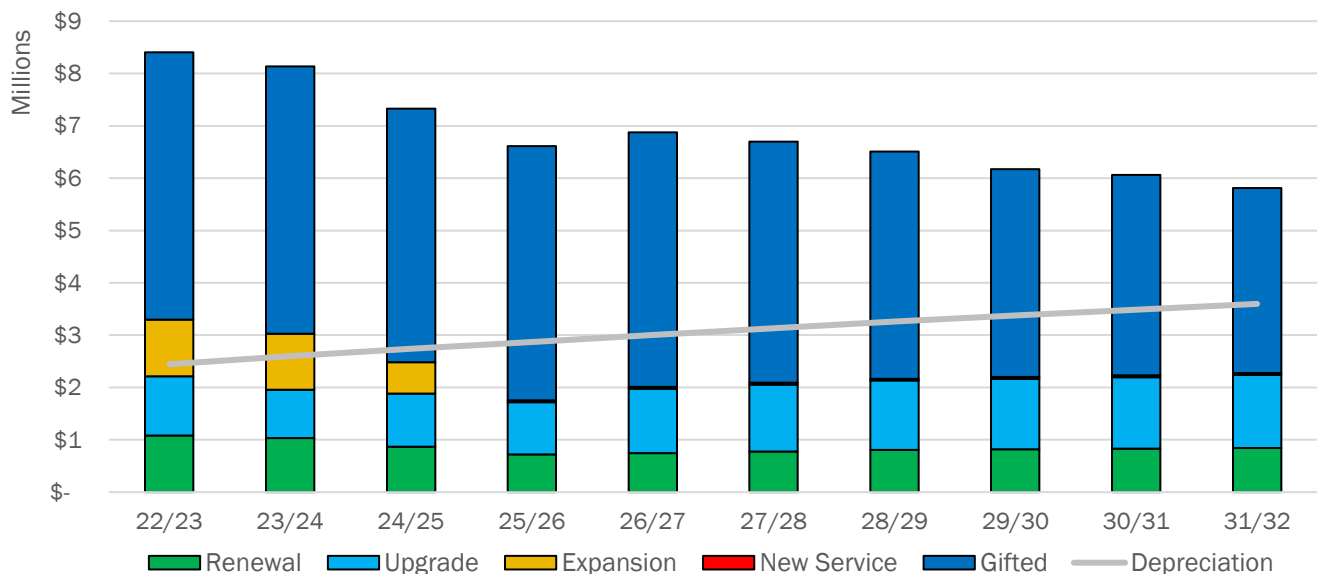
Current Condition Distributions

Surface	Area
Gravel	13%
Concrete	85%
Asphalt	2%



Footpaths and Cycleways Asset Class (Pathways)

Pathways Asset Spending Forecast



Key projects and programs

Pedestrian and Bicycle strategy - Council's Pedestrian and Bicycle strategy focusses on connectivity of pathways and addressing the ad hoc development of Council's pathway network. It identifies the priority of various pathways across the Council area which are being delivered as funding permits. Council has recently gained funding for a number of active transport projects through Local Roads and Community Infrastructure grants.

Pathway renewal and maintenance - Council's pathways are maintained in accordance with the Road Management Plan. Defects can be identified based on customer requests or our regular inspections. Where defects reach an unacceptable level Council fixes these through either maintenance (such as grinding back or adding asphalt to reduce hazards) or through renewing all or part of the footpath. The type of renewal and maintenance will depend on the surface, a gravel path may be resheeted, a concrete path may have bays replaced. The priority of these renewals depends on the hierarchy of the path which is primarily driven by surrounding uses.

Open Space Pathways - Pathways in open spaces are often renewed or upgraded as part of open space projects or targeted programs such as the equestrian strategy.

Pathways Condition Trend

Council pathway condition is determined through inspections, which may be scheduled or because of a customer request. These inspections identify any defects which meet the intervention levels in the Road Management Plan.

Council is currently addressing the identified defects in the pathway network in line with the Road Management Plan. The number of defects in each length of path is utilised to determine the pathway condition. Council has not yet been able to reliably forecast the future condition of pathways. Improvements are planned in how we collect data to better predict future condition which will become more important as our assets age. Currently we have a relatively young portfolio (compared to the 100 year life expect of pathways) so this is considered low risk.

Council's current practice is to primarily use low cost treatments to address defects in the network rather than more expensive replacement (which would address the underlying cause of the failures). Where replacements are completed, they are typically done one bay at a time (vs a longer length) which makes it difficult to forecast the overall condition of the pathways.

Council has identified that some recently constructed pathways are showing defects much earlier than expected (pathways normally have 100+ years life, these defects are showing up within 10 years). Investigations into the cause are ongoing and may highlight required changes to standards or policies.

Roads Asset Class

Council's Community Vision 2040 highlighted "plan for all modes of transport" as a priority area. Part of the community's vision "we work close to home, we grow food and we make valuable contributions to the nation" is reliant on connected transport. It is also important to consider what impact "recognising the effects of climate change" may have on how we travel from place to place.

The vision for Council to plan for all road users will influence how we plan for roads going forward. It may influence what mix of public transport, passenger vehicles, active transport users, and commercial vehicles we need to plan for.

Council's Roads' condition are forecast to improve over the next 10 years due to increased spending on renewal. Council's sealed network will also grow due to development and Sealing the Hills. Through better planning taking into consideration weather we aim to more effectively manage unsealed roads.

Customer feedback

Council's Road results from the [annual customer satisfaction survey](#) are (out of 100):

Performance Measure	2020	2021
Sealed Roads	52	56
Unsealed Roads	38	43
Local streets and footpaths	52	57

Key Road Strategies

[Road Management Plan](#)

[Road Safety Strategy](#)

[Pedestrian and Bicycle Strategy](#)

Climate emergency consideration

Climate Change will impact on our roads due to more frequent significant events damaging roads. The changed climate patterns will also impact on the regular maintenance requirement of unsealed roads.

Adapting to Climate change will also impact our Roads though changing transport demands, including use of active transport (walking & cycling etc) and public transport. It will also increase the importance of resilient transport in reacting to climate events

Improvement focus

Sealing key unsealed roads and increasing our renewal spend will improve the condition of our roads and service delivered to our customers.

Improving our understanding of the roads through automated data collection helps us deliver better and more efficient renewals. Reviewing our condition assessment approach ensures we capture the right data to predict future performance

Financial Values (21/22 forecast)

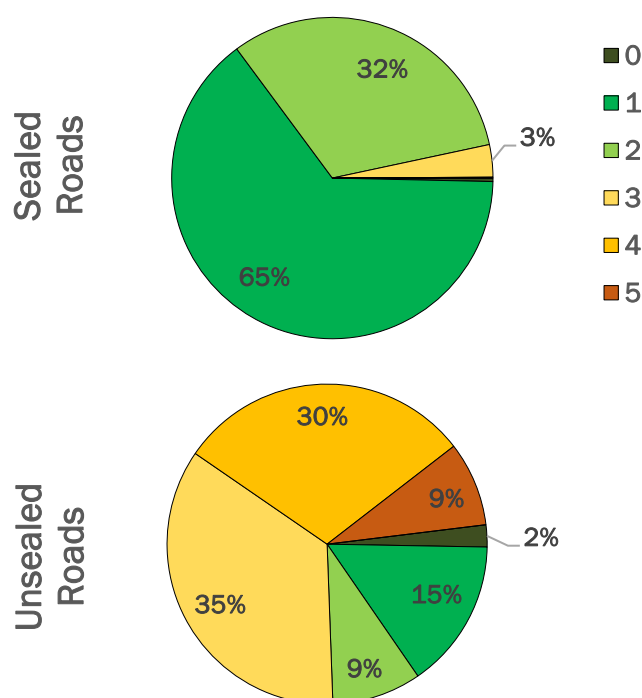
Asset Class	Current Replacement Cost	Depreciated Replacement Cost
Roads	\$465.31M	\$340.05M
Off street car parks	\$16.00M	\$12.05M

Current condition distributions

Council's overall Road Condition is regularly assessed with an onsite inspection program. Multiple measures of the road's condition are combined to give an overall score.

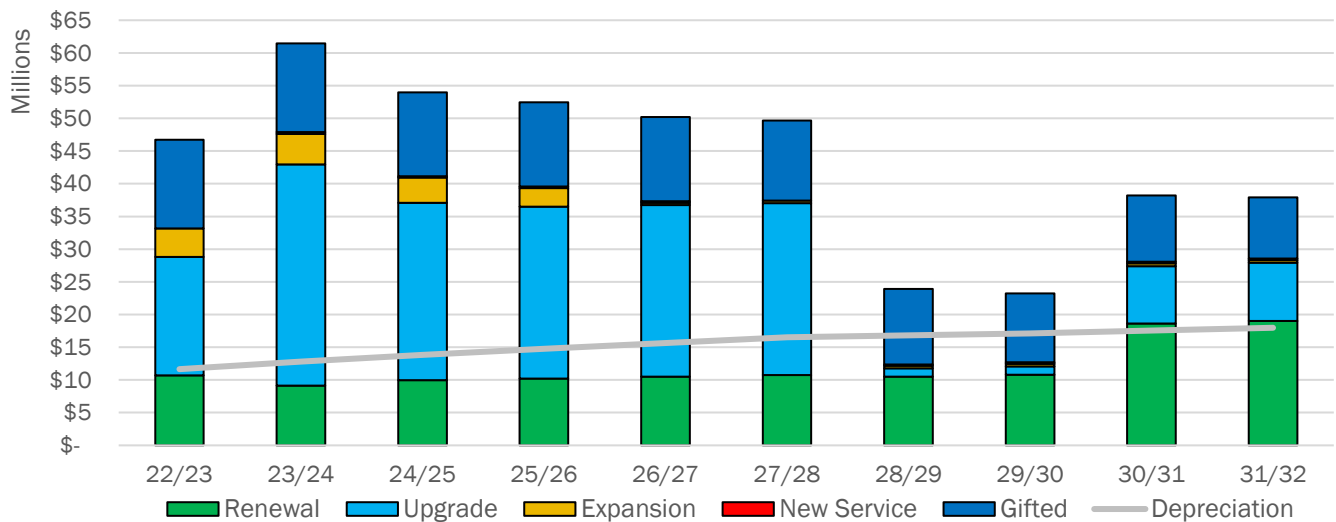
Council is reviewing its methodology for condition assessment of roads to ensure it aligns with industry practice.

Asset Type	Area (m ²)	Length (km)
Sealed Road	5,277,416	760
Unsealed Road	4,226,226	852



Roads Asset Class

Roads Asset Spending Forecast



Key projects and programs

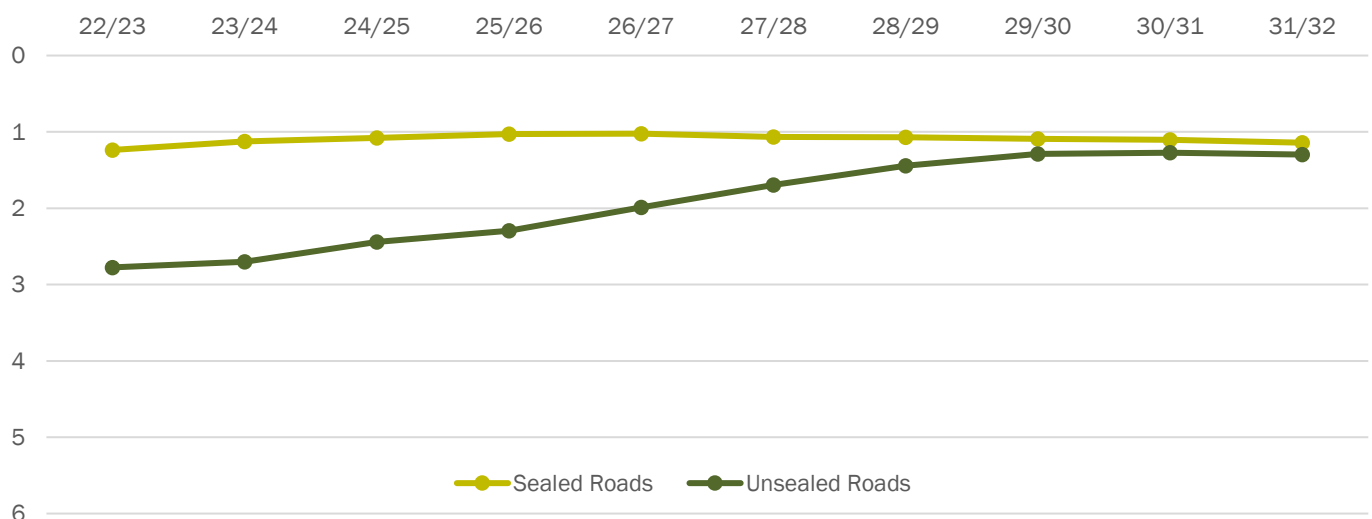
Sealing the Hills – Council secured federal funding to accelerate sealing of our unsealed roads in the Dandenong Ranges and surrounds. This program is expected to upgrade unsealed roads to sealed surfaces over the next 10 years. These roads have been prioritised based on cost benefit analyses considering; missing links in the sealed network, user convenience, safety, and ongoing costs. This program is expected to reduce the area of unsealed roads allowing Council to deliver increased maintenance on the remaining unsealed network.

Unsealed Road Renewal – There are a number of factors which impact on unsealed road condition including remaining gravel depth, time since last graded, weather conditions, and condition of drainage. Council is working to improve all of these over the next 10 years through both increased capital renewal spend and better maintenance planning.

Sealed Road Renewal – Sealed roads failures have different causes and need different remedies. Council considers many condition factors when determining the most efficient treatment including, history of patching, age of the surface, rutting, and multiple types of cracking. The works are based on timely efficient interventions and considering the road hierarchy. Council's spending on sealed road renewal is growing over the next 10 years and will result in better conditions for roads

Traffic Management Devices and Local Area Traffic Improvements – These upgrade budgets are used to respond to customer requests addressing safety and capacity issues in existing areas.

Road Condition Trend



Buildings Asset Class

“We support the people of Cardinia Shire to be strong, resilient, socially connected and physically and mentally well. We protect the vulnerable, who come from all walks of life in our community. We look out for each other.” Cardinia’s Community Vision is committed to building a resilient and socially connected community, which the buildings we provide play a large role in. By providing locations for social connection, supporting recreation, and supporting service delivery to our vulnerable our buildings help build community.

Our buildings will be significant in Council’s and the community’s adaptation to climate change through more environmentally friendly buildings and clean energy.

Council’s Buildings Asset Class is expanding rapidly to support our growing community. A Community Infrastructure Plan will ensure that community buildings are equitably planned and delivered. Renewal budgets are growing to manage the increasing number of assets.

Customer Feedback

The variety of services buildings support makes it difficult to determine the community’s satisfaction with buildings. The recent “Imagine Cardinia” community consultation identified the desire of the community for improved public toilets and shade as part of open spaces.

Key Buildings Strategies

[Building and Facilities Maintenance Policy](#)

[Access Design Policy and Guidelines](#)

[Aspirational Energy Transition Plan](#)

[Enhanced Standard: Sustainable Buildings](#)

[Public toilet strategy](#)

Community Infrastructure Plan (under development)

[Liveability Plan](#)

[Climate change adaptation strategy \(draft\)](#)

Climate Emergency Consideration

Our buildings provide important places of emergency shelter for our communities. To address climate change we will need to ensure these buildings function during emergencies, which might include changes to air handling, managing roof runoff (ash contamination) amongst other changes.

There will also be a greater demand on our buildings in day to day use as respite from increasing temperatures.

Improvement focus

Understanding the community’s future needs better through a Community Infrastructure Plan will help us plan for the community buildings we need and make the best possible use of our existing buildings.

Through upgrades and renewal of our buildings we deliver more accessible and sustainable buildings. Better planning of renewal makes our spending more efficient and causes less disruption for our customers.

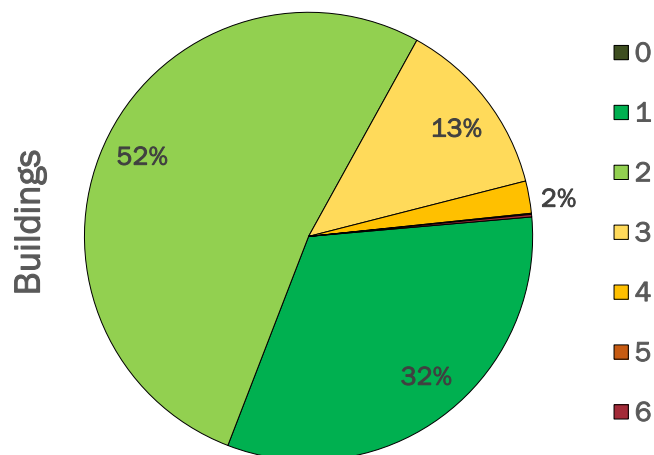
Financial Values (21/22 forecast)

Asset Class	Current Replacement Cost	Depreciated Replacement Cost
Buildings	\$377.54M	\$250.62M

Includes Heritage Buildings, Buildings – specialised, Buildings Non-Specialised, Building improvements, and Leasehold improvements

Current Condition

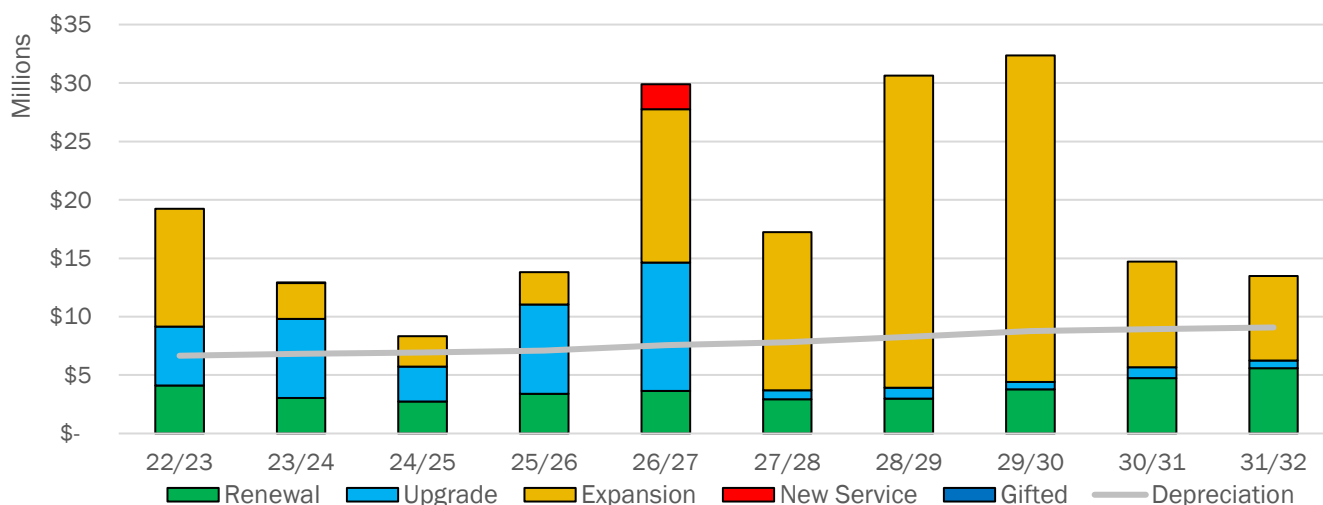
Building conditions inspections look at different structural and cosmetic issues with the buildings. This ranges from roof conditions to kitchen appliances to painting and carpets. These conditions are combined to determine the overall condition of the Buildings.



How well a building functions is also important to understanding need for renewal. If a building is in great condition but no longer meets the evolving needs of the community it is not achieving its purpose. As part of the development of the Community Infrastructure Plan Council plans to assess the functionality of its community buildings to ensure they are fit for purpose.

Buildings Asset Class

Buildings Asset Spending Forecast



Key projects and programs

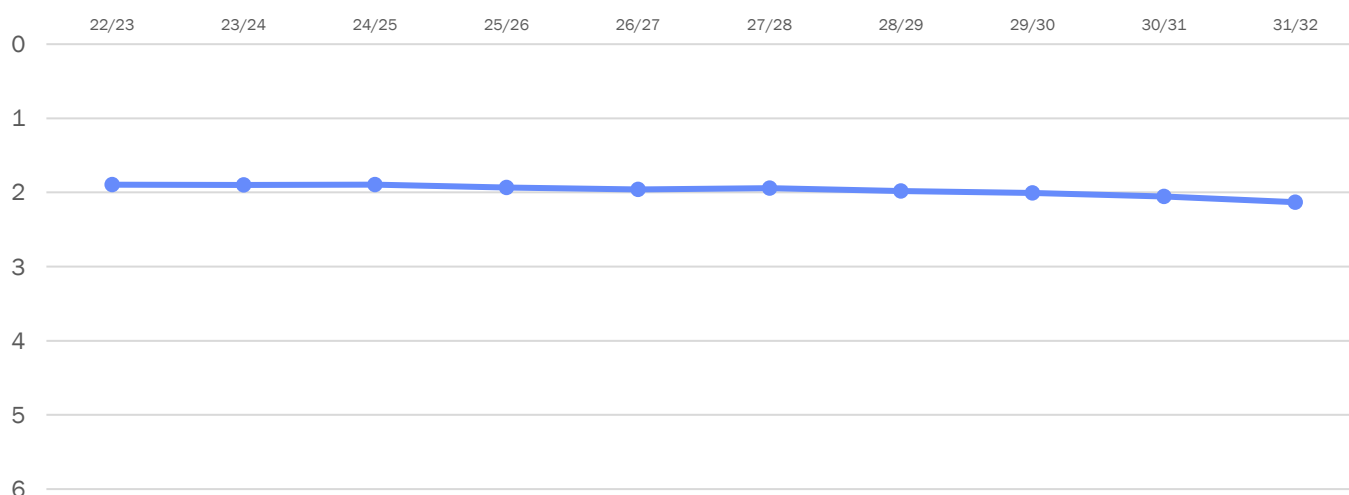
Cardinia Life Extension – Cardinia Life is a signature facility within Council’s building portfolio. Various upgrades are planned over the coming years to increase the capacity and functionality as well as deliver required renewals.

Integrated Children’s facilities – Integrated Children’s facilities provide multiple services to Cardinia Shire’s parents and children, including kindergartens and maternal and child health services. These facilities are typically delivered through Precinct Structure Plans and are prioritised based on population projections for Council’s growth areas. Council is currently assessing the impact of the recent introduction of 3-year-old kindergarten. Facilities may need to be larger, additional locations provided or facilities constructed sooner to cater for this increase in demand.

Universal Design Recreation Facilities Upgrades – This program works ensure that existing buildings, especially active recreation facilities, provide equitable access and meet universal design standards. These upgrades enable a broader cross section of the community to use these facilities. These Facilities are prioritised based on projects identified by stakeholders and determined by evaluation criteria from the Cardinia Access and inclusion Committee

Building Renewal and upgrade program – Council’s renewal budget is planned to grow over the next 7 years. This will allow Council to meet the growing need for renewal to keep our assets in a similar condition to current. When renewing buildings, we try and upgrade to modern standards. Some of these standards are outlined in our Access Design Policy and Guidelines (universal access), Aspirational Energy Transition Plan (green energy) and Enhanced Standard: Sustainable buildings.

Building Condition Trend



Bridge Asset Class

Bridges play a key connecting role, connecting place to place, connecting people to nature through our boardwalks, and connecting us to history through our heritage listed timber bridges in the southern part of the shire.

Bridges are key to achieving the vision that “we work close to home, we grow food and we make valuable contributions to the nation” as bridges are vital to connectivity by commercial vehicles and often support key infrastructure such as NBN, gas and water connectivity.

The bridge asset class supports the drainage, road, pathway, and open space asset classes as they deliver on the Community Vision.

The Bridge asset class includes over 250 structures of various types including boardwalks, marine structures, and major culverts.

The Bridge asset class is in relatively good condition however addressing high maintenance items through capital spending will improve efficiency of our bridge asset class.

Customer feedback

Bridges support various services which makes it difficult to determine the community’s satisfaction with the bridges themselves. The recent “Imagine Cardinia” community consultation identified the importance of open spaces and transport as services.

Key Bridge Strategies

[Road Management Plan](#)

[Road Safety Strategy](#)

[Pedestrian and Bicycle Strategy](#)

[Climate change adaptation strategy \(draft\)](#)

Climate Emergency Consideration

The changing climate will impact on the amount of maintenance required by bridges. This may include increased debris build up, as well as changing weather patterns’ impact on the natural materials used in many bridges.

Bridges may also be more damaged by significant events. Changed rainfall patterns may also decrease the flood immunity of bridges (e.g. bridges may be impassable due to rain more often).

Improvement focus

Better understanding and balancing the needs of the services which bridges support will lead to more efficient delivery of bridge renewals.

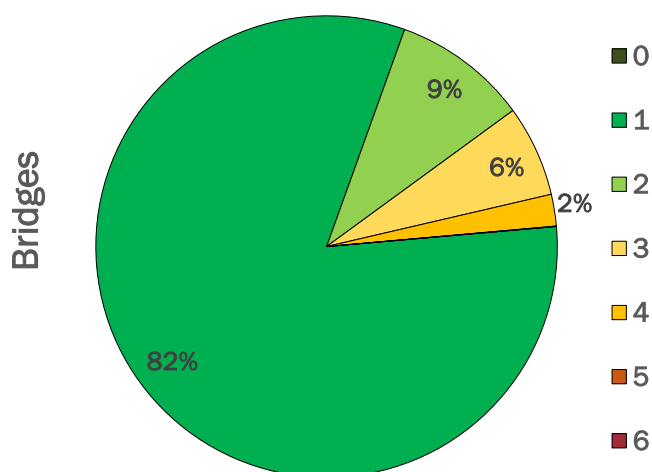
Integrating local knowledge with external expertise will make sure we identify risks as soon as possible and keep assets available for our community

Financial Values (21/22 forecast)

Asset Class	Current Replacement Cost	Depreciated Replacement Cost
Bridges	\$104.47M	\$68.32M

Current Condition

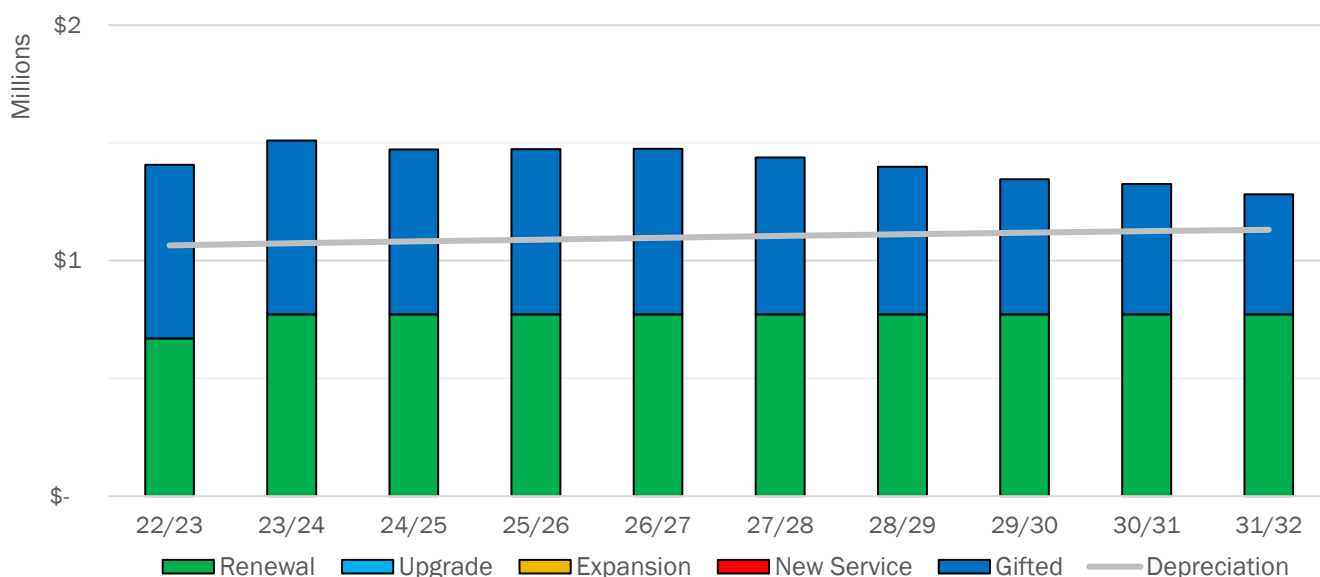
Bridge conditions are determined by external qualified inspectors on a regular schedule as per the Road Management Plan. These inspections determine the condition of different bridge components which are then combined to give the overall condition of the bridge.



Council staff also regularly inspect our bridges to ensure they are in good working order, address urgent maintenance requirements, and are not damaged due to storms and debris build up.

Bridge Asset Class

Bridge Asset Spending Forecast



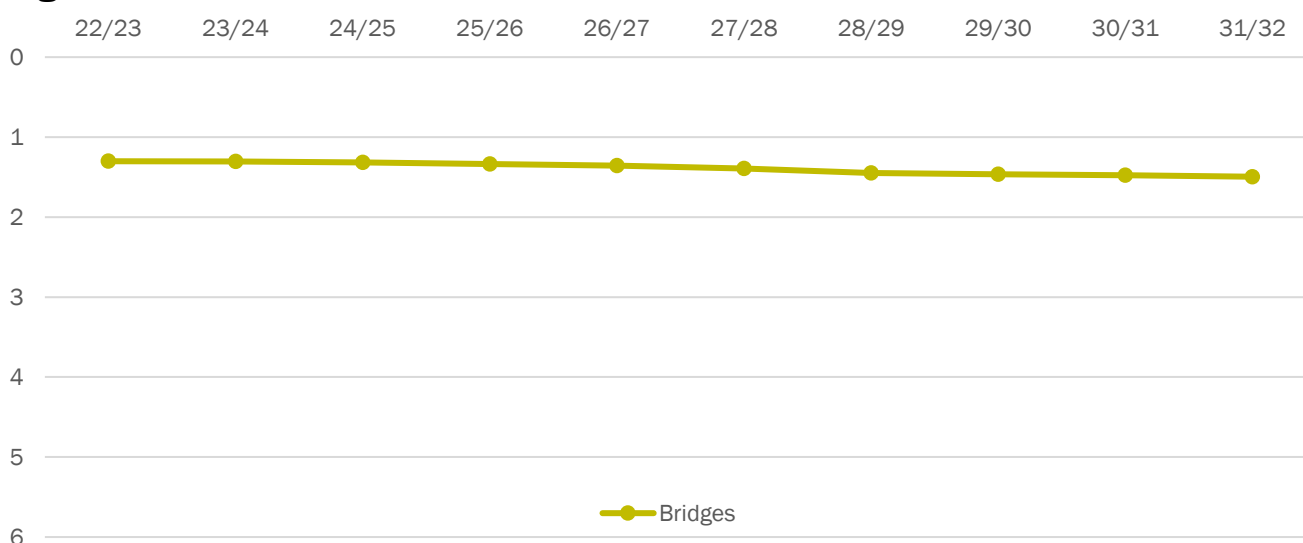
Key projects and programs

Composite deck replacement – Council is trialling replacement of timber decks on existing structure with composite materials. This is aimed to increase the condition of these structures and decrease the amount of required maintenance. The use of sustainable long-life materials will also help Council adapt to climate change. These structures will be used as a test case for rolling out composite deck replacement for other high maintenance timber pedestrian decks and informing future designs for new structures.

Bridge Renewal – Council uses condition inspections to identify bridges currently in need of renewal or forecast to be in need of renewal over the next 10 years. Council considers various factors including usage, alternative routes and construction material when prioritising bridges for renewal.

Timber road bridges – Council has two remaining timber road bridges (Little Road and South Bank Road) associated with the Koo Wee Rup swamp reclamation, the bridges and associated drainage have been identified as having regional heritage significance. The ongoing management of these structures is aimed at balancing community safety, bridge service, and heritage value. The Little Road bridge is currently used as a pedestrian only structure predominantly for its historical value (given the close proximity of alternative bridges).

Bridge condition trend



Drainage Asset Class

Council's Community Vision 2040 asked that "We care for our country. We recognise the effects of climate change on our community, environment, and the planet. We take action by leading Victorian councils in the prevention of, and adaptation to, climate change. ...

We strive to protect our community, family farms, industries, landscapes and biodiversity to ensure they are resilient."

Council's drainage assets support this aim in two key ways; through protection from flooding, and protection of biodiversity. Council's drainage network capacity will come under increased pressure due to growth (resulting in increased run off) and due to climate change impacting weather patterns. In addition, Council has drainage assets which improve stormwater quality; these assets are vital to ensuring biodiversity of downstream waters.

Drainage assets include underground drainage as well as overland drainage. Council's over 912km of pipes help mitigate the impacts of different rainfall events. Council also has Water Sensitive Urban Design (WSUD) assets to reduce the impact of stormwater pollution on waterways.

Overall Council's drainage asset portfolio is growing rapidly due to development but is relatively young. Priorities include ensuring assets don't fail early, adapting to climate change, managing impacts of development and water pollution.

Customer Feedback

The Drainage asset class support various services which makes it difficult to determine the community's satisfaction with the assets themselves. The recent "Imagine Cardinia" community consultation identified the importance of open spaces and transport as services.

Key Drainage Strategies

[Road Management Plan](#)

[Integrated water management plan](#)

[Climate change adaptation strategy \(draft\)](#)

Climate Emergency Consideration

The changing climate will increase the importance of our drainage network. Changed rainfall patterns may decrease the capacity of drains (e.g. pipe capacity may be exceeded more often).

Some measures of adaptation to climate change including increased capture and reuse of stormwater may reduce the quantity of water entering the drains.

Improvement focus

Embedding WSUD maintenance and management into Council's business as usual and ensuring it is delivered effectively as part of development will protect waterways.

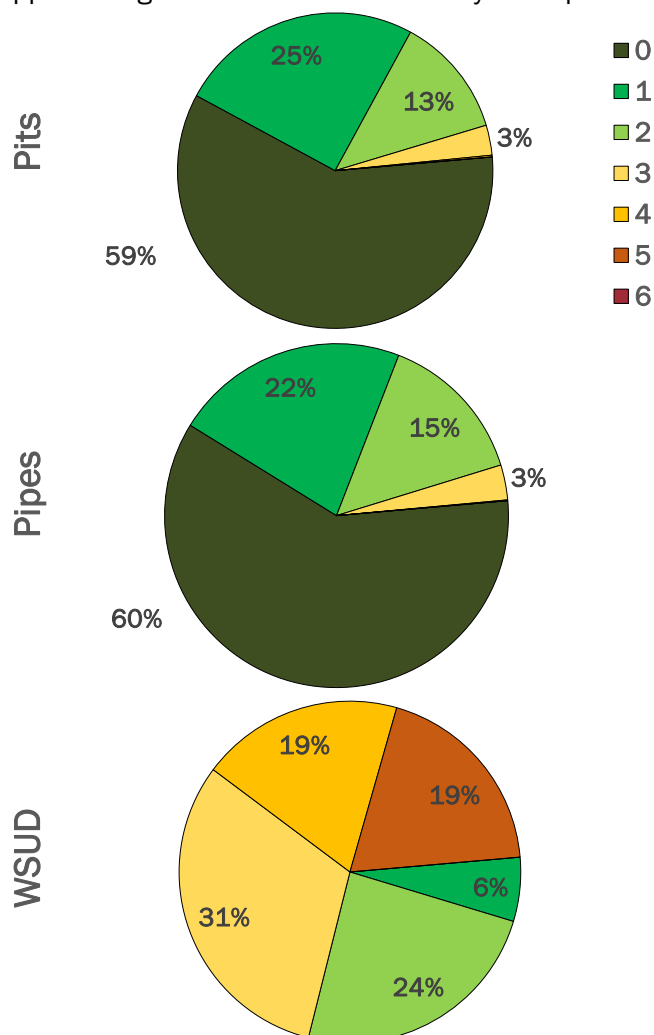
Identifying critical pits and pipes will empower Council to balance spending on stormwater between upgrade and renewal to give the best overall outcome.

Financial Values (21/22 Forecast)

Asset Class	Current Replacement Cost	Depreciated Replacement Cost
Drainage	\$306.22M	\$258.59M

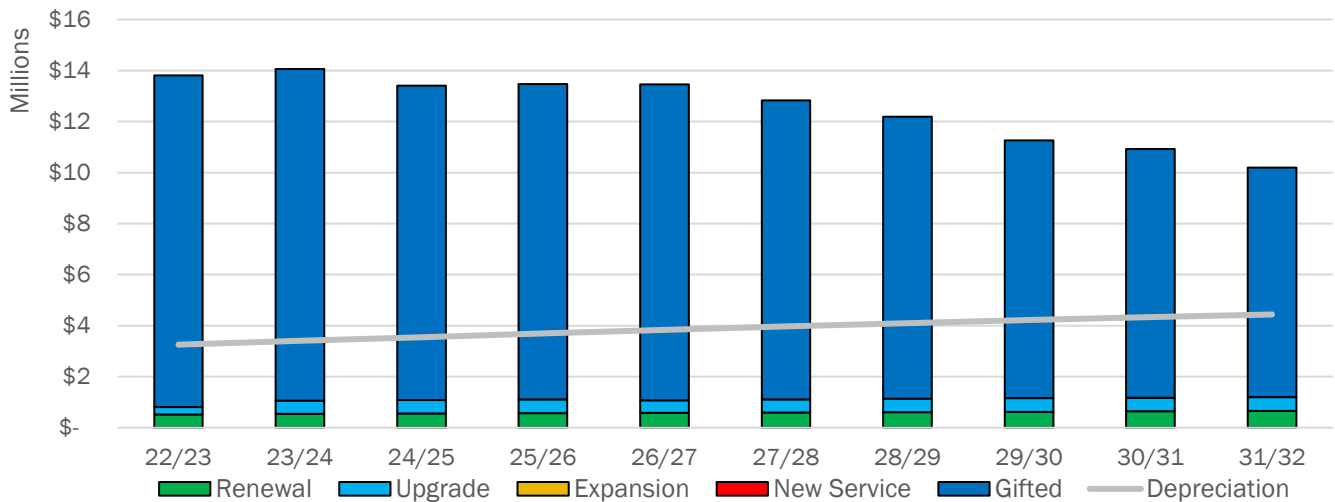
Drainage condition

The vast majority of drainage pits and pipes are under 50 years old. Typically these assets have lives in excess of 100 years so only a small proportion of assets are approaching a level where renewal may be required.



Drainage Asset Class

Drainage Asset Spending Forecast



Key projects and programs

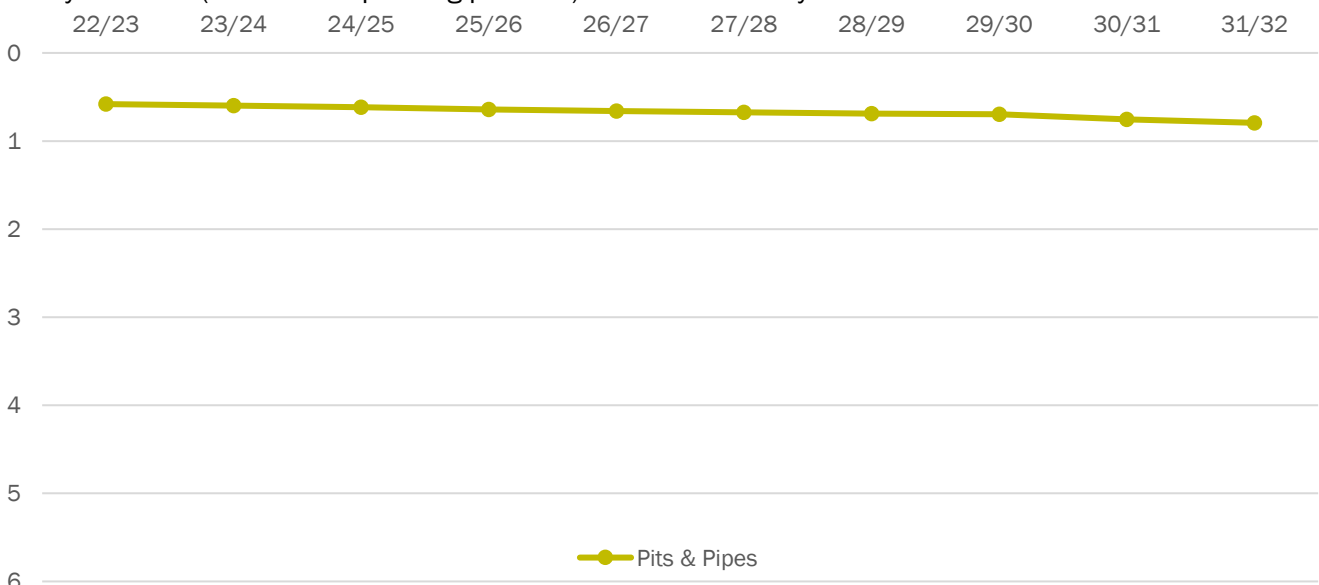
Drainage renewal and upgrade – The drainage renewal and upgrade program is utilised to address drainage issues across the shire. At present this program is upgrade focussed primarily on Council’s existing areas where increased runoff has impacted the capacity of drains.

Given the long life of drainage assets and relatively young age of Council’s pits and pipes there is currently limited proactive renewal of drainage assets. As Council’s portfolio ages it will be important to understand the consequence of assets failing to prioritise condition inspection and upgrade programs.

Water Sensitive Urban Design Asset Renewal Program – Council has instituted a program to proactively manage Water Sensitive Urban Design (WSUD) assets. WSUD assets often collect sediment (by design) to protect downstream waterways and regular clearing of this is required for continued use. Other proactive maintenance will also help extend the life of these assets which would otherwise fail prematurely. For example, Bioretention Basins are specially designed planted areas which removes urban pollutants from stormwater, when well maintained these assets can last up to 4 times as long as without maintenance.

Drainage Condition Trend

Increased spending on WSUD asset maintenance and renewal will result in the condition of these assets staying relatively constant (even with expanding portfolio) over the next 10 years.



Asset Plan Risks

Our Community Vision 2040 says: "We speak with the optimism and insight of our young people, the energy of our community members, and the wisdom and memory of our older citizens including those who came before us." Any long term planning inherently contains an element of uncertainty; we must be optimistic but balance that with the wisdom to understand our risks.



There are many other uncertainties which come into Asset Planning some of which are highlighted below.

The impact of the Covid-19 Pandemic is ongoing. Council has observed impacts on our community, our organisation and our industry. The level of stimulus funding has created a lot of competition for limited delivery resources in the construction industry tied with other supply chain challenges. The long term impacts on how our community values different assets such as open spaces are still evolving as are impacts on how we use assets such as buildings.

Council's ability to deliver the identified works to meet the community's needs depends on several factors. A key consideration is Council's ability to attract and retain talent based on its reputation as an organisation and ability to deliver works safely and effectively. There can also be competing demands on delivery resources, with externally funded expansion and upgrade projects often having strict timelines diverting resources from renewal programs.

The Asset Plan's deliverability relies on us being able to afford it. Limits on Council's income include the affordability by the community, income from new developments, rate caps, and available grants. Cost of assets depends on ability to borrow money, delivery costs, labour costs, and material costs. If the plan is not affordable it may require changes to levels of service, in consultation with the community.