City of Marion
Asset Management Plan
2024-2034

Transport

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MARION

Contents

# Executive summary

Purpose of the plan

The purpose of the Transport Asset Management Plan is to improve council's long-term strategic management of the Transport Assets to ensure the current and future levels of service are sustained.
The plan defines the state of the Transport Assets and considers future requirements and risks together to inform the optimum lifecycle management and costs for the next 10 years. The Transport Asset Management Plan is aligned with the Council's Strategic Plan and Long-Term Financial Plan. Data used in this Asset Management Plan is current as of September 2024 with the Plan monitored annually with changes in costs informing the annual cycle of the Long Term Financial Plan (LTFP). This plan is formally reviewed and republished every four years.

State of council's Transport Assets

The City of Marion has a vast network of Transport Assets which can be seen in the table on the right, which shows the quantity and financial replacement value for the different types of asset classes.

Asset parameters

Asset class	Asset sub class	Quantity	Replacement value
Roads	Sealed	493 km	$322,944,316
Car parks	On-street	77,514 m2	$5,577,952
	Off-street	144,428 m2	$5,467,017
	Sensors	500	$36,918
Pathways	Shared use paths	32 km	$7,106,475
	Footpaths	811 km	$161,111,145,
	Steps	TBC	TBC
Bridges and structures	Road bridge	3	$5,553,632
	Shared use path bridge	9	$1,567,053
	Pedestrian bridge	10	$1,342,989
	Boardwalk/deck	12	$794,746
Traffic control devices	Roundabouts	80	$3,171,864
	Traffic barriers	3,881 m	$1,594,674
	Traffic lights	1	$444,814
	Driveway links	14	$546,980
	Speed humps	84	$424,583
	Threshold treatments	3	$60,192
	Slow points	23	$257,279
	Pedestrian crossing	32	$1,463,978
	Concrete island	40,236 m2	$8,943,276
Kerb ramps	Invert	3871	$15,606,865
	Ramp	3589	
Signage	Guide	6,137	$32,761
	Regulatory	5,738	
	Warning	1,788	
	Hazard	TBC	
Public transport infrastructure	Bus shelter	272	$3,320,500
	Bus stop/pads	492	$4,209,700
Public lighting	Street lighting	9468	N/A
	Shared path lighting	457	$2,709,000
	Car park lighting	63	$1,235,800
Retaining walls	Retaining wall	6,222 m	$9,009,612
	Fencing	399	$47,040
	Gates	8 m	TBC
Street furniture	Benches	28	TBC
	Bins	22	TBC
	Bike racks	41	TBC
Total			**$399,223,398**

Transport Asset condition profile
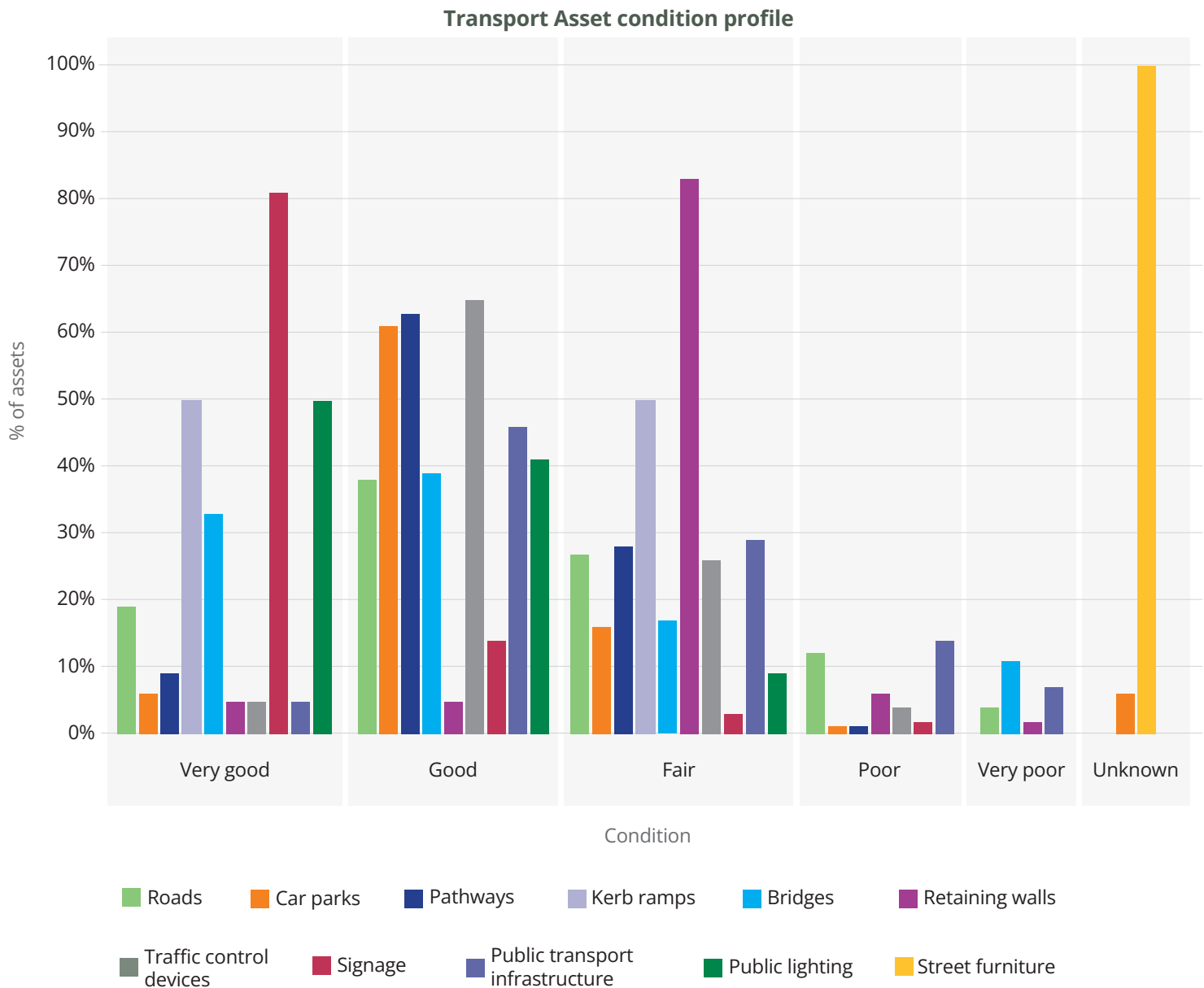
Assets with a very poor condition rating will be risk assessed and prioritised for renewal, upgrade or disposal.

Service levels

The customer levels of service are considered in terms of the quality of the asset (condition); whether it is providing the intended service (function); and whether it is over/under utilised (capacity). The table below shows the customer service requirements and how we plan to deliver on that requirement.

Customer requirements and service activities

Levels of service measure	Customer service requirement	Activities funded to sustatin the service requirement
Condition	The City of Marion's transport network operates safely and at a high quality.	Assets are managed and maintained to best practice industry standards and legislation requirements. All Transport Assets will be regularly condition assessed, including defect identification, to drive maintenance and renewal programs. All service requests responded to within suitable timeframes.
Function	The City of Marion's transport network is planned, designed, constructed and maintained to best industry practice.	Undertake network and asset analysis to determine where or if a service is required or disposal of ineffective infrastructure.
Capacity	The City of Marion's transport network operates effectively and efficiently.	Assess the asset utilisation and determine if asset requires upgrade.
Resilience	The City of Marion's transport network is planned, designed and constructed considering current and future demands.	Environmental performance is assessed when selecting asset materials and products, using recycled materials and permeable materials where possible.

The table below shows performance of the asset category in relation to its condition, function and capacity. Transport Assets are currently meeting most of the targets. Based on this asset management plan, performance will be improved over the duration of this plan. It is noted that there are a number of asset classes that require more data and assessment to determine their status against the Function and Capacity measures.

Measure	Current performance											Expected trend based on the budget
	Roads	Car parks	Pathways	Kerb ramps	Bridges	Retaining walls	Traffic control devices	Signage	Public transport infrastructure	Public lighting	Street furniture	
Condition	🟠 Monitor	🟢	🟢	🟢	🟠 Monitor	🟢	🟢	🟢	🟠 Monitor	🟢	🟢	90% of assessed assets in very good to fair condition.
Function	🟢	No data	🟢	🟢	🟢	🟢	🟢	🟢	🟢	No data	No data	90% of assessed assets in very good to fair function.
Capacity	🟢	No data	🟢	🔴 Off track	🟢	No data	No data	No data	🟢	No data	No data	90% of assessed assets in very good to fair capacity.

🟢 On track | 🟠 Monitor | 🔴 Off track

Future demand

Some of the key factors expected to influence future demand and the impact this will have on the transport network and assets are shown on the right and have been accounted for in this Asset Management Plan.

Demand factors and impact management

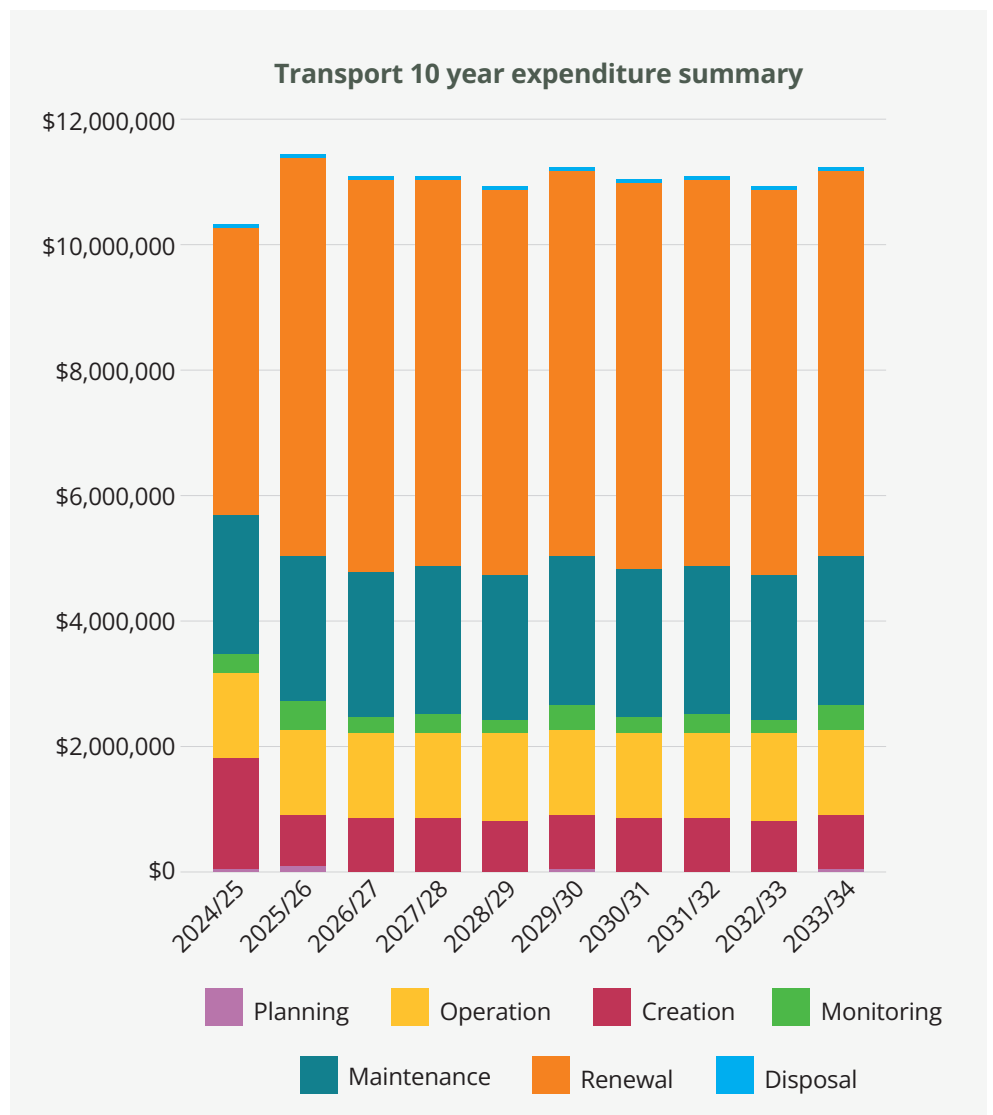| Demand impact	Demand impact management
Urban infill resulting in more housing and increase transport network demand.	Ensure new developments conform to City of Marion's Developer Guidelines, Technical Specifications and Standards.
Planning and design code changes resulting in reduced open space, reduced verge widths and an increase to impermeable 'hard' surfaces.	Work with developers in major sub-divisions to achieve outcomes that can improve the transport network and supporting assets.
Community and Council Member requests.	Development of Transport Plan, Parking Management, Public Lighting, Streetscape, Walking and Cycling Guidelines and Plans. Service Level Agreement based on risk for operational and maintenance activities.

Lifecycle management
What it will cost

The forecast lifecycle costs necessary to provide the services covered by this Asset Management Plan include the activities of planning, creation, monitoring, operation, maintenance, renewal, and disposal of assets.

The forecast expenditure of this plan is used to inform the Long-Term Financial Plan. See chart on the right for details.

Transport 10 year expenditure summary

Transport Assets forecast 10-year expenditure for each asset lifecycle phase from 2024/25 to 2034/35

| Year	Planning	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	Forecast Total
2024/25	$50,000	$1,753,000	$1,372,500	$277,500	$2,236,562	$4,606,694	$40,000	$10,336,256
2025/26	$70,000	$825,000	$1,372,500	$430,500	$2,342,562	$6,353,000	$10,000	$11,403,562
2026/27	$15,000	$825,000	$1,372,500	$245,000	$2,342,562	$6,250,000	$10,000	$11,060,062
2027/28	$15,000	$825,000	$1,372,500	$325,500	$2,342,562	$6,153,000	$10,000	$11,043,562
2028/29	$-	$825,000	$1,372,500	$195,500	$2,342,562	$6,154,000	$10,000	$10,899,562
2029/30	$60,000	$825,000	$1,372,500	$430,500	$2,342,562	$6,154,000	$10,000	$11,194,562
2030/31	$15,000	$825,000	$1,372,500	$266,000	$2,342,562	$6,154,000	$10,000	$10,985,062
2031/32	$15,000	$825,000	$1,372,500	$325,500	$2,342,562	$6,154,000	$10,000	$11,044,562
2032/33	$-	$825,000	$1,372,500	$195,500	$2,342,562	$6,154,000	$10,000	$10,899,562
2033/34	$60,000	$825,000	$1,372,500	$430,500	$2,342,562	$6,154,000	$10,000	$11,194,562
Total	**$300,000**	**$9,178,000**	**$13,725,000**	**$3,122,000**	**$23,319,620**	**$60,286,694**	**$130,000**	**$110,061,314**

Operational expenditure (OpEx) are activities that are of an operational/maintenance nature, such as sweeping, cleaning, inspections, and planning. Capital expenditure (CapEx) are activities that affect the asset, such as renewing, creating and disposing of the piece of infrastructure. The financial funding for the life of this plan is summarised on the right.

Summary funding allocation

Funding allocation	10 year	Average annual cost
Operational Cost (OpEx)	$40,466,620	$4,046,662
Capital Cost (CapEx)	$ 69,594,694	$6,959,469
Total cost of the plan	**$110,061,314**	**$11,006,131**

Forecast funding required: **$110,061,314**

Average annual forecast funding required: **$11,006,131**
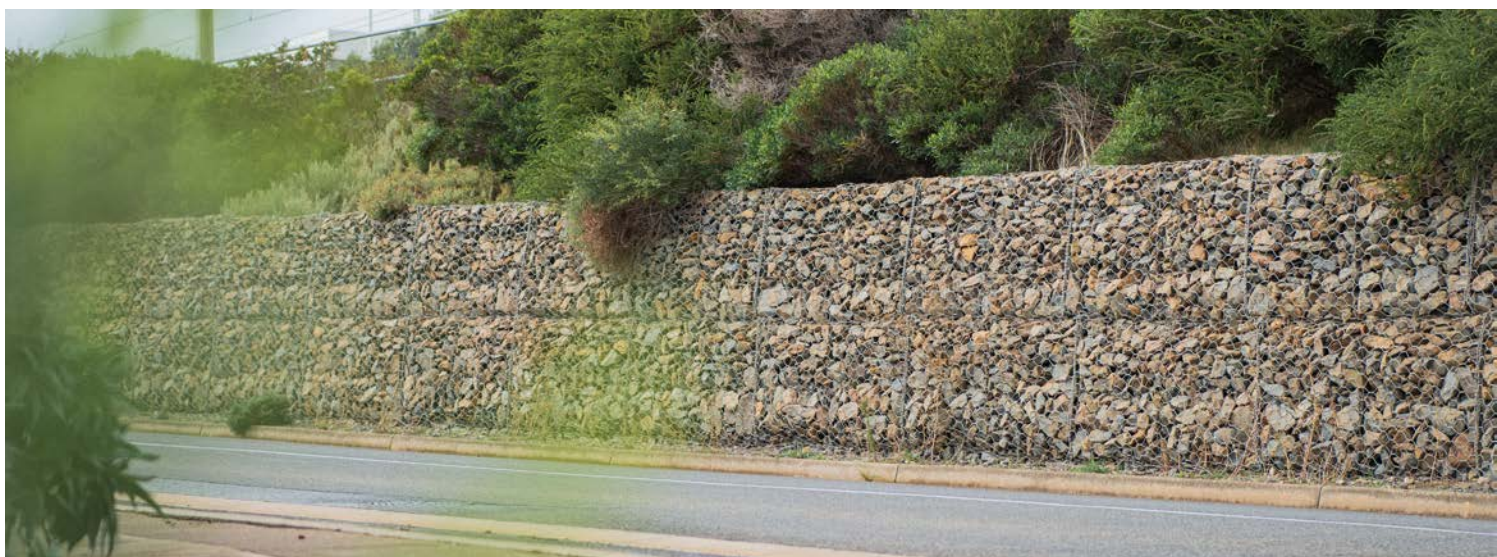
Managing the risk

Risks are managed in accordance with Council's Risk Management Policy and Framework. There are no high-level risks that have been identified for Transport Assets.

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. For transport, critical assets include:

- the road, shared use path, pedestrian bridges
- retaining walls greater than 2m
- Cove Road, Hallett Cove embankment (between Westcliff Court and Pindee Street)
- traffic signals.

The forecasted budget in this asset management plan allows us to achieve all our service delivery objectives and to monitor and manage the risks accordingly.

Improvement

The Improvement Plan sets forward future activities that are required to ensure the asset management of Transport Assets are maturing. These initiatives have been included in the forecast budget and include:

- Collecting condition, function and capacity cata for Transport Assets and 4 year renewal programs
- Developing a business process manual for Transport Assets
- Updating standard drawings and technical specifications.

Introduction

Background

The Transport Asset Management Plan provides information on the state of the Transport Assets and their capability to meet the levels of service and demand requirements in a safe, cost effective and sustainable manner for the following 10 years. In delivering the service, risks are identified and managed so that a balance is achieved between the desired performance of the asset, against the cost of providing the service.

This Asset Management Plan complies with the requirements of Section 122 of the Local Government Act 1999; and is an input for the City of Marion's Long-Term Financial Plan. Information contained in this plan is current as of September 2024.

Transport Assets are constructed to support the safe movement and access for the community.

The Transport Assets included in this plan have a total replacement value of $399,223,398.

Assets under the management of the Transport Asset Management Plan:

Roads
Car parks
Pathways
Kerb ramps
Bridges
Retaining walls
Traffic control devices
Signage
Public transport infrastructure
Public lighting
Street furniture

Planning documents

Documents from the City of Marion's Strategic Management Framework together with other asset specific strategic documents were used in the development of this Asset Management Plan and are shown on the right and the following page.

Community Vision 2024-2034 — A liveable, sustainable community

Strategic Plan and Long Term Financial Plan — A suite of plans that focus council's contributions to the Community Vision

Asset Management Policy — A consistent and integrated approach to strategic and sustainable asset management decision making

Asset Management Strategy — Sets a clear direction to meet the evolving service delivery needs of our community - now and into the future

Asset Management Plans — Outline the financial and technical elements for managing assets to support the delivery of services to our community.

Business Process Manuals — Deliver defined levels of service in the most cost effective way throughout the asset management lifecycle.

Asset Management Operational Roadmap — Improvement Projects which build organisational capacity and refine processes.

City of Marion policies
- Environment Policy
- Climate Change Policy
- Open Space Policy
- Tree Management Policy
- Streetscape Policy
- Equality, Access and Social Inclusion Policy

City of Marion plans, guidelines and frameworks
- Transport Plan 2021 - 2026
- Streetscape Guidelines
- Parking Management Guidelines
- Walking and Cycling Guidelines
- Public Lighting Guidelines
- Verge Development Guidelines
- Road Hierarchy Plan
- Carbon Neutral Plan
- Smart CoM Strategic Plan
- Energy efficiency and Renewal Energy Plan
- Disability Access and Inclusion Plan
- Open Space Framework/Plan
- Water Sensitive Urban Design (WSUD)

State Government documents
- Road Safety Strategy
- Walking and Cycling Strategy
- The 30-Year Plan for Greater Adelaide (Plan SA)
- DIT Operational Instruction 20.1
- Tree Management Policy
- Streetscape Policy
- Equality, Access and Social Inclusion Policy

Other documents
- Local Government Association Mutual Liability Scheme
- IPWEA NAMS+ and AMP template
- Institute Public Works Engineering Australasia (IPWEA)
- International Infrastructure Management Manual 2015 (ISO 55000)
- DIT Line Marking Manual
- Australian Standards
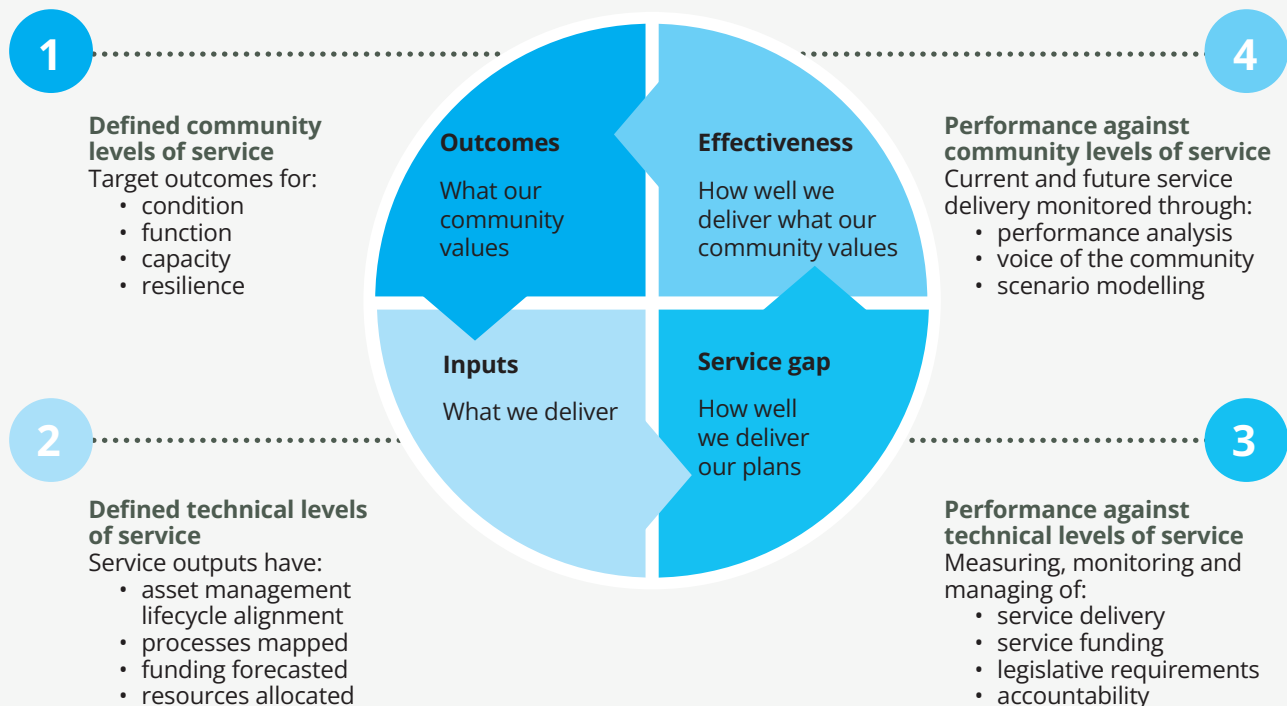- Austroads Design Guidelines

Key stakeholders

Key stakeholder	Role in asset management planning
City of Marion Council Members	• Represent community needs and endorse levels of service and Asset Management Plans.
City of Marion Executive Leadership Team (ELT)	• Allocate resources to ensure the service is sustainable. • Ensure risks are managed while meeting objectives of the plan.
City of Marion Engineering, Assets, Environment Division	Asset Owner: • Provide subject matter expertise advice and guidance regarding best practice. • Ensures the delivery of services to the agreed level. • Ensures the improvement plan is followed and actioned. • Manages and reviews risks and future demands. • Manages the asset data and asset management system.
City of Marion Operations Division	• Provides maintenance activities and resources required to complete the works to achieve the desired performance.
City of Marion Finance Division	• Provides advice on budget and cost allocations. • Allocate budgets according to forecasts and ensure alignment with the Long-Term Financial Plan (LTFP).
City of Marion Risk and Strategy Division	• Provides strategic advice and guidance. • Risk management and future demand advice.
Community	• Provide feedback on level of service and offer a source of funding through rates.
State Government	• Provide strategic direction through State endorsed plans and strategies. • Can be a source of funding to projects and plans within endorsed Plans.

Levels of service

Levels of service ensure we meet customer expectations by describing what we deliver. The primary reason assets exist is to deliver services to the community.

Levels of service underpin asset management decisions. Defining and measuring levels of service is a key activity in developing Asset Management Plans. When levels of service are considered collectively, they provide clarity and assist with meeting council's strategic objectives.

Using levels of service to measure service delivery performance

1

Defined community levels of service
Target outcomes for:
- condition
- function
- capacity
- resilience

Outcomes
What our community values

Effectiveness
How well we deliver what our community values

4

Performance against community levels of service
Current and future service delivery monitored through:
- performance analysis
- voice of the community
- scenario modelling

2

Defined technical levels of service
Service outputs have:
- asset management lifecycle alignment
- processes mapped
- funding forecasted
- resources allocated

Inputs
What we deliver

Service gap
How well we deliver our plans

3

Performance against technical levels of service
Measuring, monitoring and managing of:
- service delivery
- service funding
- legislative requirements
- accountability

When defining levels of service, council takes into consideration:
- The external context, including legislative requirements which may impose minimum standards.
- The internal context including strategic objectives, the availability of resources and financial constraints.
- Customer expectations of the quality of service, balanced against the price they are willing and able to pay for that service.

These drivers influence council's decisions about the range, quality and quantity of services provided.

Strategic and corporate goals

This Asset Management Plan is prepared under the direction of the community vision, goals and objectives.

**Our Community Vision:** A liveable, sustainable community.

Transport Assets Aim: To create a safe and efficient transport network by improving conditions for all road users. Striving to achieve the right balance for accommodating priority users, while also addressing the need for accessibility and movability.

Legislation

The legislation and standards which are most relevant to the development of this AMP are shown below.

Legislation/standard	Relevance to Transport Assets
Australian Accounting Standards	Sets out the financial reporting standards relating to the (re)valuation and depreciation of infrastructure assets.
Coastal Protection Act 1972	Establishes Council's responsibility for the day-to-day maintenance of beach and coastal facilities.
Environment Protection Act 1993 (Marine and Water Quality)	Provides guidelines for protection of the environment, related areas and legal obligations relating to stormwater pollution protection.
Highways Act 1926	Sets out the legislative framework for road authorities in SA.
Local Government Act (1999)	Provision of Long-Term Financial Plans and Asset Management Plans for sustainable service delivery.
Natural Resources Management Act 2004	Establishes the Stormwater Management Authority which facilitates and coordinates stormwater management planning in councils.
Planning and Design Code	Informs on suburban infill development and subsequent transport and stormwater impact.
Planning, Development, and Infrastructure Act (2016)	Provides a framework for development approval requirements.
Relevant Australian Standards	Defines the requirements to manage Transport Assets and designs.
Work Health and Safety Act 2012 (SA)	Informs of obligations on parties to provide and maintain safe workplaces.
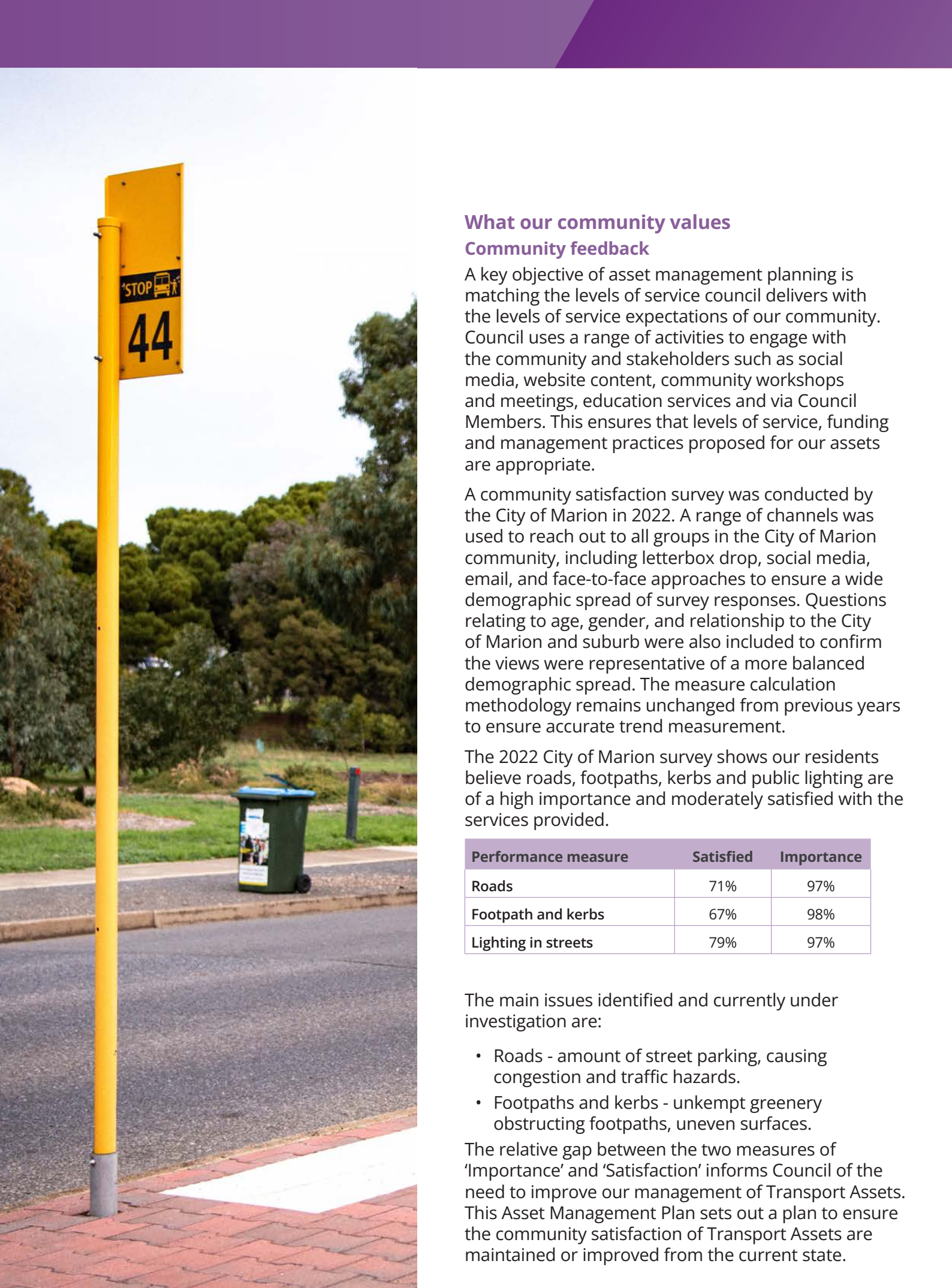
What our community values
Community feedback

A key objective of asset management planning is matching the levels of service council delivers with the levels of service expectations of our community. Council uses a range of activities to engage with the community and stakeholders such as social media, website content, community workshops and meetings, education services and via Council Members. This ensures that levels of service, funding and management practices proposed for our assets are appropriate.

A community satisfaction survey was conducted by the City of Marion in 2022. A range of channels was used to reach out to all groups in the City of Marion community, including letterbox drop, social media, email, and face-to-face approaches to ensure a wide demographic spread of survey responses. Questions relating to age, gender, and relationship to the City of Marion and suburb were also included to confirm the views were representative of a more balanced demographic spread. The measure calculation methodology remains unchanged from previous years to ensure accurate trend measurement.

The 2022 City of Marion survey shows our residents believe roads, footpaths, kerbs and public lighting are of a high importance and moderately satisfied with the services provided.

Performance measure	Satisfied	Importance
Roads	71%	97%
Footpath and kerbs	67%	98%
Lighting in streets	79%	97%

The main issues identified and currently under investigation are:

- Roads - amount of street parking, causing congestion and traffic hazards.
- Footpaths and kerbs - unkempt greenery obstructing footpaths, uneven surfaces.

The relative gap between the two measures of 'Importance' and 'Satisfaction' informs Council of the need to improve our management of Transport Assets. This Asset Management Plan sets out a plan to ensure the community satisfaction of Transport Assets are maintained or improved from the current state.

Community levels of service

Community levels of service detail what is important to our community and how they receive and experience our services.

Building on the National State of the Assets reporting and emerging industry good practice, council considers the following service parameters:

Condition: Does the asset provide a safe and quality service?

Function: Is the asset fit for purpose?

Capacity: Is the service over or under used?

Resilience: Is the asset's design resilient against projected stressors?

By listening and understanding what is important to our community, we have developed community levels of service. These factual measures provide a balance in comparison to the customer perception (importance and satisfaction) that may be more subjective. Performance is monitored against targets, using 1-5 rating scales.

Using industry standard measures enables Council to compare our performance. This includes submitting data to the National State of the Assets benchmarking project commissioned by the Australian Local Government Association. A summary of these parameters is shown in below.

Summary of performance parameters and service level trends

Parameter	Community level of service	Achieved by	Predicted trend
Condition	The City of Marion's transport network operates safely and at a high quality.	Assets are managed and maintained to best practice industry standards and legislation requirements. All transport assets will be regularly condition assessed, including defect identification, to drive maintenance and renewal programs. All service requests responded to within suitable timeframes.	Maintain
Function	The City of Marion's transport network is planned, designed, constructed and maintained to best industry practice.	Undertake network and asset analysis to determine where or if a service is required.	Maintain
Capacity	The City of Marion's transport network operates effectively and efficiently.	Assess the asset utilisation and determine if asset requires upgrade or disposal.	Maintain
Resilience	The City of Marion's transport network is planned, designed and constructed considering current and future demands.	Environmental performance is assessed when selecting asset materials and products, using recycled materials where possible.	Maintain

Council and the community is a key focus of the City of Marion's asset management transformation. Measures and targets are determined by the Assets Steering Committee. The performance of the Transport Assets against these community parameters is shown in the Asset Performance section.

Technical levels of service
Lifecycle phase

Planning → Creation → Operation → Monitoring → Maintenance → Renewal → Disposal

Technical levels of services detail what we do to deliver our services. Council manages and operates assets at the agreed levels of service while managing whole-of-life costs to ensure best value. It is important to monitor the levels of service regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time. Technical service measures are linked to the activities and annual budgets.

Planning

The management and planning for Transport Assets has multiple elements, these include:

- Transport Plan/Strategy
- Walking and Cycling Guidelines and Plan
- Streetscape Guidelines and Plan
- Public Lighting Guidelines and Plan
- Parking Management Guidelines
- Traffic Management Guidelines (to be developed)
- Local Area Traffic Management Plans

The planning of Transport Assets ensures that decisions for investments into the transport network is done on a prioritised basis.

The development and the review of City of Marion standards, technical specifications and guidelines are undertaken to ensure a consistent approach to Transport Assets by developers and the City of Marion.

Creation

The creation of Transport Assets are identified through endorsed council plans (Walking and Cycling, Streetscape, Transport and Public Lighting Plan) or on agreed service levels or strategies within the Transport Asset Management Plan.

Other projects that are identified outside of these plans are placed in the Transport Prioritisation Matrix which assesses projects on a number of criteria and ranked. These projects are typically identified through:

- Areas within the transport network that show an increase in crash statistics, change in function/utilisation or a need for a proactive treatment to ensure the network operates safely and efficiently.
- Requests made by the public, Council Members or staff on an issue will be placed on the Transport Prioritisation Matrix and assessed against other projects.

In addition, Transport Assets are also donated to council by developers of major sub-division or State Government major projects that include transport infrastructure in the local or state own roads. These donated assets must meet City of Marion Standards and Technical Specifications before it can be accepted into the City of Marion asset register.

Operation

Operation is defined as the day-to-day activities undertaken to provide service delivery to the community. The operations activity in relation to Transport Assets are:

- line marking (roads, car parks, shared use paths and pedestrian crossings)

- service cost for traffic signals
- public lighting tariffs and electrical costs
- public transport shelter cleaning
- graffiti removal on Transport Assets.

Monitoring

Monitoring of Transport Assets include:
- Defect inspections 'find and fix'
- Condition audits
- Structural bridge Audits
- Traffic data collection
- Car park sensors
- Pedestrian and cyclist utilisation survey/collection

Maintenance

Maintenance is split into 2 types:
- reactive
- proactive maintenance.

Reactive maintenance is unscheduled activities in a response to community notifications or following inspections after severe weather events. The types of reactive work activities are:
- Road and car park defects (potholes, cracking)
- Pathway defects (potholes, trip steps, vegetation obstructions)
- Signage repairs (post and signs)
- Bridges and bus shelter repairs
- Public lighting repairs (luminaire and posts)

Proactive maintenance involves the regular scheduled activities including proactive repairs and improvements. The types of proactive work activities are:
- Road, car park and shared use path crack sealing
- Road, car park and shared use path rejuvenation
- Proactive bridge maintenance (deck oiling)

Renewal

Renewal is defined as replacing the existing Transport Assets to the modern-day equivalent. Typically, this occurs when the condition of the asset is at or beyond the intervention level for renewal. The criteria for renewal is:
- When 40 per cent of the asset segment has defects (requires full renewal)

- When the condition of the asset is poor (IPWEA rating of 4 for Transport Assets) or above
- Streetscape projects that may require renewing of Transport Assets before the intervention levels to allow for redesign and network improvements/enhancements (tree planting, WSUD and art work).

Disposal

Disposal is required when an asset is no longer required and has become redundant. These assets are removed from the network. The Footpath Disposal Program currently falls in this category:
- When a footpath reaches end of life (condition 4 or above) consideration of the asset to determine if a renewal or disposal is required.
- If there is already a footpath on the opposite side of the street and has no impacts for connectivity or impacts pedestrian and cyclist safety.
- Requires consultation with the impacted community.

Service standard

Customer events system

The City of Marion City Services Department is committed to providing the highest level of customer service possible and aims to be the benchmark in Engineering, Civil Maintenance and Operations in Local Government.

City of Marion captures requests from the community through its Customer Event System (Salesforce) and has the current structure of requests as listed including service level agreement shown on the right.

Customer event system request and service level agreements

Category	Request reason	Service level agreement*
Bus shelter	Bus shelter damage	30 Days
	Bus stop location	30 Days
	General enquiry	30 Days
	Non-council owned shelter	30 Days
Graffiti	Graffiti	10 Days
Incident	Footpaths	60 Days
	Road management	60 Days
Lighting	Bikeways / bicycle tracks / shared path	30 Days
	Street lighting	30 Days
Pathways	Bikeways / bicycle tracks / shared path	40 Days
	Footpath	30 Days
	Kerb / pram ramps	30 Days
	Stormwater from private property	30 Days
	Street furniture maintenance	30 Days
Roads	Construction	5 Days
	Construction complaints	30 Days
	General repairs	15 Days
	Line marking	20 Days
	Road enquiry	60 Days
	Rumble bars	15 Days
	Safety hazard	10 Days
	Traffic control devices	30 Days
	Traffic island / roundabout	10 Days
	Traffic signal maintenance	45 Days
Signs	Parking	10 Days
	Road traffic	10 Days
	School traffic	20 Days
	Shared path / bicycle track / shared path	20 Days
	Signage	5 Days
	Stop / give way	5 Days
	Street signs	10 Days

Service level agreement is the time to complete all actions associated of the request. In cases that the request identifies a safety risk to the community immediate action is taken to isolate and make safe.

Customer events trends

It is important to capture customer request information to determine how our customers are interacting with the City of Marion and to track information regarding volumes, seasonal variations and the types of requests to understand how to best allocate resources. Data needs to be understood and analysed to identify services that can be more proactive and action items before they are reported to the City of Marion.

Data from our customer event system and the monthly request for services is shown below.

Event category	Common customer events
Pathways	• Absence of path or inadequate width of existing path. • Debris from trees (gum nuts) and request for sweeping. • Uneven paths and section displacements. • Construction works disruption. • Encroachment of vegetation and litter on path.
Roads	• Potholes and localised road surface defects. • Localised pooling of water and kerb damage. • Inadequate Line marking. • Damage to road barriers and roundabouts. • Construction works disruption.
Signs	• Damage to signs, graffiti on signs. • Election signage not removed.
Lighting	• Streetlights not working. • Inadequate lighting on pathways. • Street lighting inadequate. • Too much light spill into houses, pathway light blocked by trees.
Bus stops	• Bus shelter vandalism causing damage. • Dissatisfaction with bus stop location/ relocation. • Graffiti to shelter and seating, overall cleanliness.

Number of customer requests by category
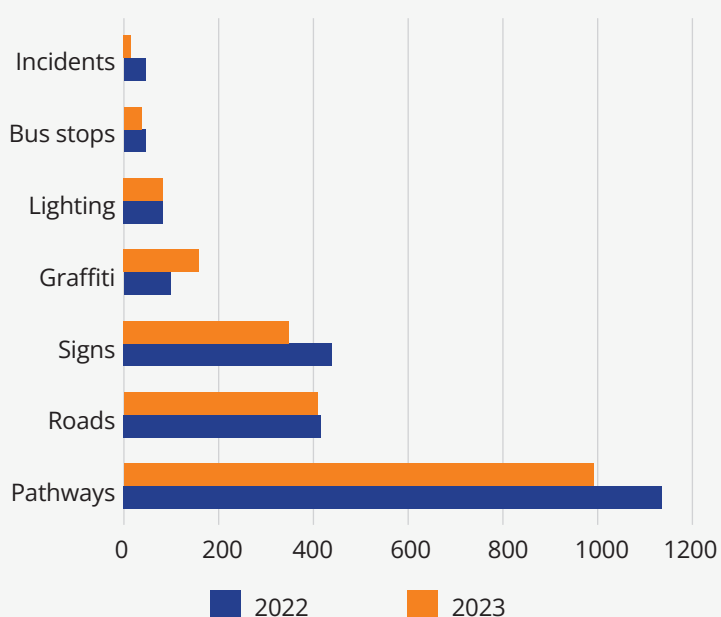
Number customer requests by month (all categories)
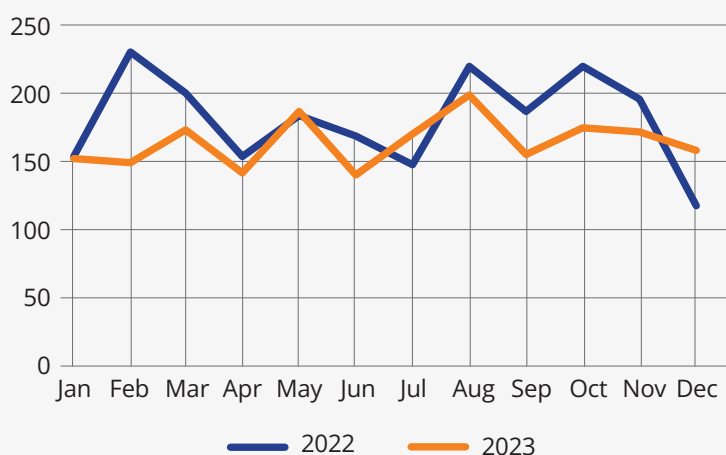
The number and type of customer requests is one source used to provide with information for reviewing our maintenance and renewal activities on Transport Assets.

The trends show a uniform distribution of customer interactions throughout the year with some seasonal effects as trees drop litter on pathways and in the wetter months the presence of potholes on road surfaces predominating. Damage to council's Transport Assets due to vandalism and graffiti and the perception of safety remains a challenge.

Future demand

Demand drivers are those factors which have the potential to impact the transportation function and services into the future.

Demand drivers include population, urban in-fill, planning and design code changes, political and community expectations, economic, and environmental factors.

Demand management plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

The impact of demand drivers that may affect future service delivery and use of assets including the opportunities identified to date for demand management are shown below. Further opportunities will be developed in future revisions of this Asset Management Plan.

Demand drivers, impact, and management plan

Demand driver group	Driver and projection	Impact on services	Demand management plan
Community requests	Community requests.	Expectations to respond to reactive service delivery requests leads to inefficient resource planning additional cost and asset failure.	• Development of Transport Plan, Parking Management, Public Lighting, Streetscape, Walking and Cycling Guidelines and plans. • Service Level Agreement based on risk for operational and maintenance activities. • Gathering defect data to develop planned maintenance programs.
Land use	Planning and design code changes resulting in increases to urban infill.	Increase to vehicles volumes and parking demand from new developments on to City of Marion's road network.	• Ensure new developments conform to City of Marion's Developer Guidelines, Technical Specifications and Standards. • Work with developers in major sub-divisions to achieve outcomes.
Economic	Transport network delays due to inefficient network or asset failures.	Increase in travel time and carbon emissions. Increase in 'rat running' and traffic diversions to roads that aren't designed for increased volumes.	• Monitor network and model transport movement to determine at risk areas. • Advocate for alternative modes of transport (walking and cycling, public transport, car share and e-scooters etc.)
Social	Increased population density.	Increased risk of exposure to Transport Asset hazards within the City of Marion.	• City of Marion to identify and resolve risk locations.
Technological	Sensors, Geographic Information System (GIS), remote sensing, LiDAR mapping.	Data collection and accuracy is improved assisting with decision making and reporting.	• Continue to collect and maintain Transport Asset data, aerial imagery and utilisation data to help inform future decisions.

Climate change adaptation

Climate change is likely to affect Transport Asset life and functionality, and this is already being experienced through increase in more intense heavy rainfall events and heat waves. This has had the effect of deteriorating Transport Assets and increasing defects within the network.

The Department of Environment and Water produced "Guide to Climate Projections for Risk Assessment and Planning in South Australia, 2022". This document outlines the trends, and these along with how City of Marion will manage resilience is shown in below.

Climate parameter	Projected trend	Impact on asset and services	Resilience management
Temperature	• Maximum, minimum, and average temperatures will increase. • Warmer spring temperatures. • Hotter and more frequent hot days.	• Increased water stress to trees. Will cause trees to drop more debris on the road and footpath increasing the risk of a slip, trip or fall. • Higher temperature ranges and more sustained upper temperatures may also increase material degradation.	• Review defect inspection frequency and SLA's. • Use sustainable products that can resist high temperatures. • Consider footpath sweepers to help reduce debris getting into the stormwater network.
Rainfall	• Declining rainfall, lower spring rainfall. • More drought.	• Long periods of dry weather can affect the soil conditions causing Transport Assets to react to shrinking soil.	• Use sustainable and flexible products that can react to environmental condition.
Storms	• More intense heavy rainfall events and which carry intensified winds.	• Increase likelihood or branch failures and whole tree failures that will lead to closures in the Transport network. • Reactive responses increased frequency. • Capacity issues. • Budget impacts.	• Pre/post-storm event operational activities to ensure the transport network is operating efficiently.
Evaporation	• Evapotranspiration increases across all seasons.	• Increased water stress to trees may cause tree roots to rise to the surface and lift road and footpath infrastructure.	• Increase funding for monitoring/ maintenance programs.

Additionally, the way in which we construct new assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience will have the following benefits:

- Assets will withstand the impacts of climate change
- Services can be sustained
- Assets that can endure and may potentially lower the lifecycle cost and reduce their carbon footprint
- Recycled content within the infrastructure asset that will reduce the carbon footprint.

Lifecycle management

Preliminary information

City of Marion's road network is split into 5 road classifications outlined in the City of Marion Road Hierarchy Plan. The typical characteristics are defined below:

Road classification	Typical traffic volumes	Typical speed limits	Characteristics
Arterial (Road owned by Department for Infrastructure and Transport)	< 80,000	60 to 80km/h	Cater for a significant number of vehicles moving between regions and are maintained by the State Road Authority, being the Department for Infrastructure and Transport (DIT). These roads are of a high demand design, often with a number of lanes separated by a wide median. Parking is generally restricted and or limited in these roads, especially during am/pm peak times (clearway) with cycle lanes often provided during these peak times. Bus routes utilise these roads in most instances as they provide access to nearby amenities.
Sub-Arterial	< 10,000	50 to 60km/h	Reasonably high volumes of traffic use these roads to travel between regions. Normally one lane in each direction, although the travel lane can commonly be separated from the parking and or cycling lane (either by road width or a dedicated parking lane/cycle lane). Like arterial roads, the bus network generally utilises these streets due to amenities, for example, community facilities which are often adjacent or nearby.
Distributor	< 6,000	40 to 60km/h	Assist to disperse traffic into or within a local area. Generally consisting of one lane in each direction of travel, free of parking and provides direct access to residential properties.
Collector	< 3,000	40 to 60km/h	Provides a link between either arterial/sub-arterial, distributor and local streets. Catering for the movement of traffic, they have one lane in each direction, allow parking and provide direct access to residential properties.
Local	<1,000	40 to 50km/h	Caters for lower traffic volumes and parking is generally allowed on both sides of the street (road width dependent). Providing access to properties and a safe environment for the community. Essential to note, local streets provide a safe connection for various cycle routes and pedestrian movements within the council area and assist to promote the use of alternative means of transport.

City of Marion road hierarchy

Key routes include:

Arterial

Arterial roads provide important regional transport corridors that carry through traffic as well as distribute traffic locally.

Sub-arterial

Sub-arterial roads connect arterial roads to areas of development, and carry traffic directly from one local area to another.

Distributor

Distributor roads disperse traffic into or within a local area. These roads consist of one lane in each direction and provide access to residential properties, local centres, schools and open space.

Collector

Collector roads cater for low-moderate volumes of local traffic providing access to private residences and local centres.

Local

Local roads are largely the neighbourhood street system. These roads are relatively free of through traffic and mostly handle local traffic providing access to residential allotments.

Road ownership

Road ownership includes:

▬▬▬ State Government
▬▬▬ City of Marion

Physical parameters

The assets covered by this Asset Management Plan are shown on the right including the expected useful life and replacement cost.

Asset class	Asset sub-class	Quantity	Useful life	Replacement value
Roads	Sealed	493 km	25 Years (seal) 85 years (pavement)	$ 322,944,316
Car parks	On-street	77,514 m2	25 years	$5,577,952
	Off-street	144,428 m2	25 years	$5,467,017
	Sensors	500	8 Years	$36,918
Pathways	Shared use paths	32 km	30 years	$7,106,475
	Footpaths	811 km	50 - 70 years	$161,111,145
	Steps	TBC	30 - 70 years	TBC
Bridges and structures	Road bridge	3	150 years	$5,553,632
	Shared use path bridge	9	150 years	$1,567,053
	Pedestrian bridge	10	150 years	$1,342,989
	Boardwalk/deck	12	150 years	$794,746
Traffic control devices	Roundabouts	80	75 years	$3,171,864
	Traffic barriers	3,881 m	50 years	$1,594,674
	Traffic lights	1	56 years	$444,814
	Driveway links	14	75 years	$546,980
	Speed humps	84	30 years	$424,583
	Threshold treatments	3	30 years	$60,192
	Slow points	23	75 years	$257,279
	Pedestrian crossing	32	30 years	$1,463,978
	Concrete island	40,236 m2	75 years	$8,943,276
Kerb ramps	Invert	3871	75 Years	$15,606,865
	Ramp	3589	75 Years	
Signage	Guide	6,137	18 years	$32,761
	Regulatory	5,738	18 years	
	Warning	1,788	18 years	
	Hazard	TBC	18 years	
Public transport infrastructure	Bus shelter	272	30 years	$3,320,500
	Bus stop/pads	492	50 - 70 years	$4,209,700
Public lighting	Street lighting	9468	N/A	N/A
	Shared path lighting	457	30 years	$2,709,000
	Car park lighting	63	30 years	$1,235,800
Retaining walls	Retaining wall	6,222 m	100 years	$9,009,612
Street furniture	Fencing	399 m	30 years	$47,040
	Gates	8 m	30 years	TBC
	Benches	28	30 years	TBC
	Bins	22	30 years	TBC
	Bike racks	41	30 years	TBC
			Total	**$399,223,398**

Note: Replacement value assumes costs using unit rates from 2023

Asset performance

Asset condition

The service level that the community is willing to accept for condition of its Transport Assets is described below.

Community level of service	Achieved by	Target	Tolerance range
The City of Marion's transport network operates safely and at a high quality.	Assets are managed and maintained to best practice industry standards and legislation requirements. All Transport Assets will be condition assessed, including defect identification, to drive maintenance and renewal programs. All service requests responded to within suitable timeframes.	90% of assessed assets in very good to fair condition.	**On track - 90% to 100%** **Monitor - 70% - 89.9%** **Off Track - 0% to 69.9%**

Transport Asset condition

Transport condition is rated using the descriptions outlined IPWEA Practice Notes. A list of condition audits for Transport Asset are below.

The data shows that 90 per cent of car parks, pathways, kerb ramps, retaining walls, traffic control devices, signage and public lighting assets are rated Very Good, Good or Fair which is considered 'On track'. The roads, bridges and public transport infrastructure are listed as 'Monitor' due to 70 per cent to 90 per cent of assets being within the Very Good, Good and Fair condition rating.

| Asset class	Condition assessment date	Next condition assessment	Assessment methodology
Roads	2022	2026	IPWEA Practice Note 9
Car park	2022	2026	IPWEA Practice Note 9
Pathway	2024	2028	IPWEA Practice Note 1
Kerb ramps	2024	2028	IPWEA Practice Note 1
Bridges	2022	2026	DIT Road Structure Inspection Manual
Retaining walls	2019	2025	DIT Road Structure Inspection Manual
Traffic control devices	2023	2026	IPWEA Practice Note 2
Signage	2023	2027	Internal Documentation
Public transport infrastructure	2024	2025	IPWEA Practice Note 1
Public lighting – shared path lighting	2021	2025	AS 1158
Public lighting – street lighting	2024 (Currently being undertaken)	2024	AS 1158
Street gurniture	N/A	TBC	Internal Documentation

Transport condition rating

	Transport Asset condition rating	Roads	Car parks	Pathways	Kerb ramps	Bridges	Retaining walls	Traffic control devices	Signage	Public transport infrastructure	Public lighting	Street furniture
1	Very Good Sound physical condition (Considered a 'New' asset). Insignificant deterioration. Asset likely to perform adequately without major work.	19%	6%	9%	50%	33%	5%	5%	81%	5%	50%	TBD
2	Good Acceptable physical condition. Minor deterioration / minor defects evident. Negligible short-term failure but potential for deterioration in long-term.	38%	61%	63%	-	39%	5%	65%	14%	46%	41%	TBD
3	Fair Moderate to significant deterioration evident. Minor components or isolated sections of the asset need replacement or repair now but not affecting short term structural integrity. Failure unlikely in the medium term within 10 to 20 years.	27%	16%	28%	50%	17%	83%	26%	3%	29%	9%	TBD
4	Poor Serious deterioration and significant defects evident affecting structural integrity. Failure likely in short to medium term. Likely need to replace most of all of asset within the next 4 years.	12%	1%	1%	-	0%	6%	4%	2%	14%	0%	TBD
5	Very Poor Failure imminent. Immediate need to replace most or all of the asset (less than 12 months).	4%	0%	0%	0%	11%	2%	0%	0%	7%	0%	TBD
Unknown	Unknown condition or construction date	0%	6%	0%	0%	0%	0%	0%	0%	0%	0%	TBD

Transport Asset condition profile
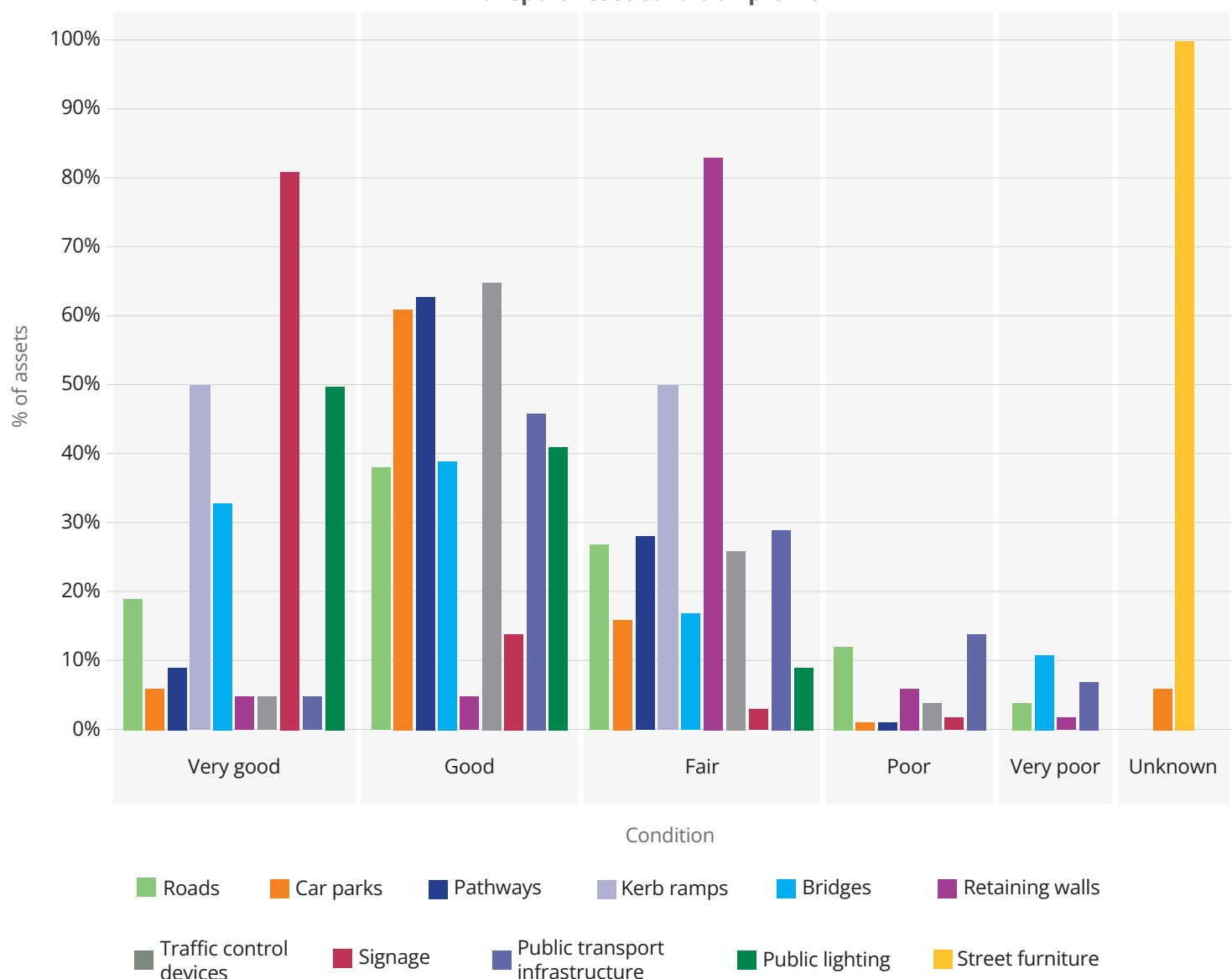
Asset function

The service level that the community is willing to accept for function of its Transport Assets is described below.

Community level of service	Achieved by	Target	Tolerance range
The City of Marion's transport network is planned, designed, constructed and maintained to best industry practice.	• Undertake network and asset analysis to determine where or if a service is required or disposal of ineffective infrastructure. • Updating the Walking and Cycling Plan, Transport and Streetscape Prioritisation Matrix list for future new Transport Projects.	90% of assessed assets are functioning 'very good', 'good' and 'fair'.	On track - 90% to 100% Monitor - 70% - 89.9% Off track - 0% to 69.9%

Asset function performance outcome

The function of the Transport Assets can be measured using a scale of 1 (Very Good) meaning that assets have been constructed and are fit for purpose and 5 (Very Poor) with the need/desire to construct new assets. Assets that fit in the 'Very Poor' rating will be placed within a Transport Prioritization Matrix and primarily funded through the creation activities. See below for details.

The analysis shows that Transport Asset is within 90 per cent to 100 per cent 'Very Good' function score. This represents that the network performance is 'On track' and within the target range. It should be noted that the asset class of car parks, public lighting and street furniture requires further review on if assets are needed and serving the correct purpose within the transport network. This review will be undertaken in the next review of the Asset Management Plan and included in the Improvement Plan

Asset class	Level of service	Function scoring	Function rating	Assessed assets
Roads	Provide a road network that provides effective access and movement.	1	**Very Good** Road assets have been constructed to a best practice standard and a well-planned network. Working with developers of sub-divisions to build new roads that are effective.	100%
		5	**Very Poor** Road assets have not been constructed effectively and/or not functioning as intended.	0%
Car parks	Provide car parking infrastructure for key locations in the City of Marion.	1	**Very Good** Car parks have been constructed and maintained to the appropriate standard. New car parks have been built to facilitate a community demand/need.	No data
		5	**Very Poor** Car parks have not been constructed and maintained to the appropriate standard.	No data
Pathways	Provide at least 1 footpath per street (subject to local community consultation).	1	**Very Good** Every street has a minimum of one footpath (subject to community consultation).	100%
		5	**Very Poor** Missing links within the footpath network or local streets without a footpath.	0%
Kerb ramps	Provide kerb ramps where required within the footpath and cycling network.	1	**Very Good** Kerb ramps have been constructed in desired locations for the network to operate effectively.	99%
		5	**Very Poor** Missing kerb ramps with-in the network.	1%

Asset class	Level of service	Function scoring	Function rating	Assessed assets
Bridges	Provide fit for purpose bridges where the network requires.	1	Very Good Bridges have been constructed in desired locations for the network to operate effectively.	100%
		5	Very Poor Missing/desired bridges within the network.	0%
Retaining walls	Provide retaining walls where required.	1	Very Good Retaining walls have been constructed in desired locations for the network to operate effectively and embankment safety.	95%
		5	Very Poor Missing/desired retaining walls assets to be constructed.	5%
Traffic control devices	Provide effective traffic control treatments where required.	1	Very Good Traffic control devices have been constructed to a best practice standard and a well-planned network.	95%
		5	Very Poor Traffic control devices have not been constructed to a best practice standard and a well-planned network. Or the need/desire to construct new assets to ensure network is fit for purpose and functioning as designed.	5%
Signage	Provide effective signage where required.	1	Very Good Signage is in the correct location and the correct purpose.	90%
		5	Very Poor Signage is not in the correct location and/or redundant.	10%
Public Transport Infrastructure	Provide Bus Shelters where a demand is identified.	1	Very Good Bus shelters installed at locations that have 7 patrons per day (weekday average).	100%
		5	Very Poor Bus shelters not installed at locations that have 7 patrons per day (weekday average).	0%
Public lighting	Provide lighting where required within the transport network.	1	Very Good Public lighting is in the correct location and the correct purpose.	No data
		5	Very Poor Public lighting is in the correct location and the correct purpose.	No data
Street furniture	Provide street furniture where demand is high.	1	Very Good Street furniture is in the correct location and the correct purpose.	No data
		5	Very Poor Street furniture is not in the correct location and the correct purpose.	No data

Asset capacity

The service level that the community is willing to accept for capacity of its Transport Assets is shown below.

Community level of service	Achieved by	Target	Tolerance range
The City of Marion's transport network operates effectively and efficiently.	• Assess the asset utilisation and determine if asset requires upgrade. • Updating Transport and Streetscape Prioritisation Matrix list for future upgrading Transport Projects.	90% of assessed assets are 'very good' and 'fair' capacity.	**On track - 90% to 100%** **Monitor - 70% - 89.9%** **Off track - 0% to 69.9%**

The capacity of the Transport Assets can be measured using a scale of 1 (Very Good) and 5 (Very Poor) and answering a statement of 'does the existing asset have the capacity to operate effectively' or is it 'complaint with standards. This will determine if assets may need to be upgraded to meet the service level of capacity. See below for details on the capacity rating.

The data shows that roads, pathways, bridges, public transport infrastructure assets are rated 90 per cent or above as 'Very Good' representing the asset classes 'On track'. Kerb ramp are listed as 60 per cent of the asset class is 'Very Good' representing the asset class as 'Off track', this is due to the implementation of AS1428 and the DDA Act in the early 1990's, which changed the way kerb ramps needed to be constructed. It is noted that approx. 40 per cent of kerb ramps within the network were built before the DDA Act which would deem them non-complaint today. Car parks, retaining walls, traffic control devices, signage, publicl lighting and street furniture require further inspection and analysis to determine their capacity rating. This will be reviewed in the next iteration of the Transport Asset Management Plan.

Asset capacity performance outcome

Asset class	Level of service	Function scoring	Function rating	Assessed assets
Roads	Provide an efficient road network in line with the Road Classification.	1	Very Good Road assets operating within service level thresholds. Road widths and characteristics align with road classifications.	90%
		5	Very Poor Road assets not operating within service level thresholds. Road widths and characteristics do not align with road classifications.	10%
Car parks	Car parking infrastructure is adequate.	1	Very Good Car parks have been constructed to the correct level of parking demand.	No data
		5	Very Poor Car parks have not been constructed to the correct level of parking demand.	No data

Asset class	Level of service	Function scoring	Function rating	Assessed assets
Pathways	Provide a footpath network that meets the requirements for pedestrians and cyclists (DDA Requirements).	1	Very Good Footpaths are a minimum of 1.2m wide.	97.5%
		5	Very Poor Footpaths are not a minimum of 1.2m wide.	2.5%
Kerb ramps	Provide DDA compliant kerb ramps.	1	Very Good Kerb ramps have been constructed to DDA Requirements.	60%
		5	Very Poor Kerb ramps have not been constructed to DDA requirements.	40%
Bridges	Provide bridges that are adequate to their intended use (widths and load capacity) and compliant to Australian Standards.	1	Very Good Bridges are compliant to Australian Standard.	95%
		5	Very Poor Bridges are not compliant to Australian Standard.	5%
Retaining walls	Retaining walls are compliant to Australian Standard.	1	Very Good Retaining walls are compliant to Australian Standard.	No data
		5	Very Poor Retaining walls are not compliant to Australian Standard.	No data
Traffic control devices	Provide traffic control devices that are to current standards and operate efficiently.	1	Very Good Traffic control devices are compliant to Australian Standards.	No data
		5	Very Poor Traffic control devices are not compliant to Australian Standards.	No data
Signage	Provide signage that are to current standards.	1	Very Good Signage is compliant to Australian Standards.	No data
		5	Very Poor Signage is not compliant to Australian Standards.	No data
Public Transport Infrastructure	Provide DDA compliant Bus Pads and Shelters.	1	Very Good Bus shelters and pads are DDA compliant.	100%
		5	Very Poor Bus shelters and pads are not DDA compliant.	0%
Public lighting	Provide lighting to the adequate lighting category.	1	Very Good Public lighting is compliant to the specified lighting category.	No data
		5	Very Poor Public lighting is compliant to the specified lighting category.	No data
Street furniture	Provide street furniture consistent with the City of Marion Design Guidelines and to Australian Standards.	1	Very Good Street furniture is in line with City of Marion guidelines and Australian Standards.	No data
		5	Very Poor Street furniture is not in line with City of Marion guidelines and Australian Standards.	No data

Resilience

The service level that the community is willing to accept for resilience of its Transport Assets is described below.

No targets have been set for the service level of resilience. This will need further consideration and assessment in future Asset Management Plans.

Community level of service	Achieved by	Target	Tolerance range
The City of Marion's transport network is planned, designed and constructed considering current and future demands.	Maintaining City of Marion Standards Drawings, Technical Specifications and Guidelines. Seek partnerships and trials for new methods, products and techniques in design and construction. Install LED's where appropriate. Use recycled/reclaimed materials such as asphalt, concrete and base materials where appropriate.	Not established.	Not established.

Operations expenditure (OpEx)

Planning

The activities, initiatives, plans and strategies required to plan the Transport Assets infrastructure over the 10 years are shown below.

Planning 10 Year Expenditure (all figures are in ,000 format)

Activity	2024/25	2025/26	2026/27	2027/2/8	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Walking and Cycling Guidelines and Plan				$15				$15		
Streetscape Guidelines and Plan		$15				$15				$15
Public Lighting Modelling, Guidelines and Plan	$50	$15				$15				$15
Traffic Management Guidelines		$25				$15				$15
Parking Management Guidelines			$15				$15			
Transport Plan/Strategy		$15				$15				$15
Total	**$50**	**$70**	**$15**	**$15**	**-**	**$60**	**$15**	**$15**	**-**	**$60**

Operations

The activities, initiatives and wages required to operate the Transport Assets infrastructure over the 10 years are shown below.

Operations 10 Year Expenditure (all figures are in ,000 format)

Activity	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Road line marking Service level: 2 year frequency every street	$260	$260	$260	$260	$260	$260	$260	$260	$260	$260
Car park line marking Service level: 4 year frequency	$6	$6	$6	$6	$6	$6	$6	$6	$6	$6
Shared path line marking Service level: 4 year frequency	$15	$15	$15	$15	$15	$15	$15	$15	$15	$15
Car park sensors Annual subscription/ licenses	$11.5	$11.5	$11.5	$11.5	$11.5	$11.5	$11.5	$11.5	$11.5	$11.5
Public lighting tariffs and electricity Street lighting Contribution to DIT	$1080	$1080	$1080	$1080	$1080	$1080	$1080	$1080	$1080	$1080
Total	**$1,372.5**	**$1,372.5**	**$1,372.5**	**$1,372.5**	**$1,372.5**	**$1,372.5**	**$1,372.5**	**$1,372.5**	**$1,372.5**	**$1,372.5**

Maintenance

The activities and wages required to maintain the Transport Assets infrastructure over the 10 years is shown below.

Maintenance 10 Year Expenditure (all figures are in ,000 format)

Activity	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Road maintenance Defects include Pot Holes, rutting, heavy cracking etc. Rejuvenation Program Crack sealing	$1,353	$1,396	$1,396	$1,396	$1,396	$1,396	$1,396	$1,396	$1,396	$1,396
Car park maintenance Defects include Pot Holes, rutting, heavy cracking etc. Rejuvenation Program Crack Sealing program	$25	$45	$45	$45	$45	$45	$45	$45	$45	$45
Footpath maintenance Defect include trip steps (>20mm) Crack Sealing Program (shared use paths)	$659	$659	$659	$659	$659	$659	$659	$659	$659	$659
Traffic control device maintenance Traffic Signal Maintenance and annual fee Traffic control device defects include damaged kerb, median, roundabout etc.	$30	$55	$55	$55	$55	$55	$55	$55	$55	$55
Bridge maintenance Proactive maintenance program include deck oiling, corrosion protection, painting etc. Reactive maintenance deck and balustrade repair etc.	$50	$50	$50	$50	$50	$50	$50	$50	$50	$50
Retaining wall maintenance Repair defects	-	$15	$15	$15	$15	$15	$15	$15	$15	$15
Signage maintenance Repair and reinstate signposts	$50	$50	$50	$50	$50	$50	$50	$50	$50	$50
Public transport Infrastructure maintenance Bus Shelter defect repairs and cleaning	$13	$13	$13	$13	$13	$13	$13	$13	$13	$13
Public lighting maintenance Shared use path lighting repairs Adjustments to fixtures on streetlighting	$55	$55	$55	$55	$55	$55	$55	$55	$55	$55
Street furniture maintenance Defects on benches, fencing, bins and bike racks etc.	$2	$5	$5	$5	$5	$5	$5	$5	$5	$5
Total	**$2,237**	**$2,343**	**$2,343**	**$2,343**	**$2,343**	**$2,343**	**$2,343**	**$2,343**	**$2,343**	**$2,343**

Monitoring

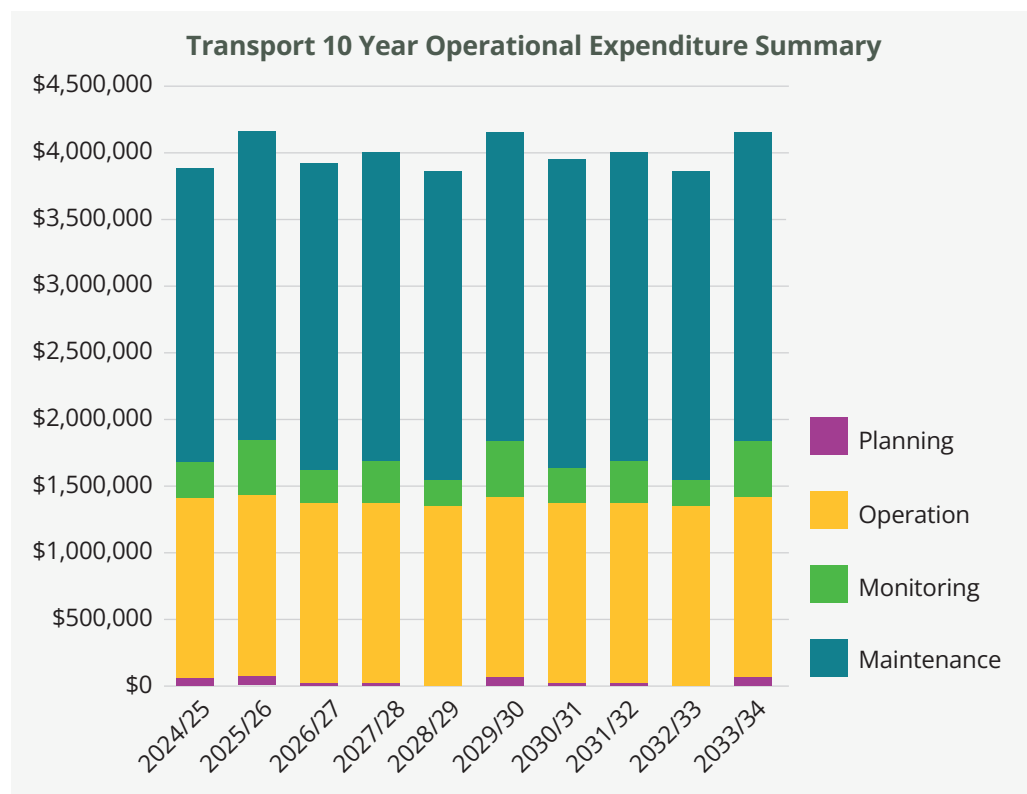The activities and wages required to monitor the Transport Assets infrastructure over the 10 years is shown below.

Monitoring 10 Year Expenditure (all figures are in ,000 format)

Activity	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Road condition assessment		$100				$100				$100
Road traffic data program	$50	$50	$50	$50	$50	$50	$50	$50	$50	$50
Car park condition assessment		$40				$40				$40
Pathway condition assessment				$130				$130		
Pathway pedestrian/cyclist data program	$5	$5	$5	$5	$5	$5	$5	$5	$5	$5
Kerb ramp condition assessment	$50			$50				$50		
Bridge condition assessment	$7		$60				$81			
Public lighting condition assessment		$50				$50				$50
Public transport infrastructure		$25				$25				$25
Retaining wall condition assessment	$50				$50				$50	
Traffic control device assessment	$25		$50				$50			
Signage condition audit			$50				$50			
Street furniture condition audit		$20				$20				$20
Transport Asset defect inspections Transport Asset defect inspections 24 months city wide frequency	$91	$91	$91	$91	$91	$91	$91	$91	$91	$91
Total	**$278**	**$431**	**$245**	**$326**	**$196**	**$431**	**$266**	**$326**	**$196**	**$431**

Operations expenditure summary

Cost Elements: The Planning, Operations, Maintenance and Monitoring costs comprise the direct costs of providing the service including council labour, contractor services, plant and equipment hire and specialist contractors for monitoring and planning activities. The chart on the right shows the cost per year for each category of operational expenditure.

The Operational Expenditure budget levels of this plan are sufficient to meet the current service levels.

Transport 10 Year Operational Expenditure Summary

Capital expenditure (CapEx)

Renewal

The activities, contributions, management and wages required to renewal the Transport Assets infrastructure over the 10 years is shown below.

Renewal is defined as replacing the existing Transport Assets to the modern-day equivalent. Typically this occurs when the condition of the asset is at or beyond the intervention level for renewal.

The criteria for renewal is:

- When 40 per cent of the asset segment has defects (full renewal).
- When the condition of the asset is 4 (using IPWEA practise notes, DIT manuals and City of Marion Business Process manuals) or above.

Streetscape Projects that may require footpath or traffic control device renewal before 'end of life' to meet a compliance or environmental improvements to the street.

Renewal 10 Year Expenditure (all figures are in ,000 format)

Activity	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Road renewal program Road Reseal Program Road Reconstruction Program Road Deep Lift Program Road Investigations and Design	$3,132	$3,640	$3,640	$3,640	$3,640	$3,640	$3,640	$3,640	$3,640	$3,640
Car park renewal program Car Park Reseal Program Car Park Regrading Program Car Park Reconstruction Program Car Park Sensor Renewal Program Car Park Investigations and Design	-	$308	$310	$313	$314	$314	$314	$314	$314	$314
Pathway renewal program Footpath Renewal Shared Path Renewal	$730	$730	$625	$625	$625	$625	$625	$625	$625	$625
Kerb ramp renewal program Kerb ramp renewals will be funded from kerb and channel renewal, pathway renewal and streetscape projects/budget.	-	-	-	-	-	-	-	-	-	-
Traffic Control Device Renewal Program Traffic signal, roundabout, pedestrian crossing, concrete island, speed humps, traffic barrier, driveway links and Slow Point Renewal Program	$400	$290	$290	$290	$290	$290	$290	$290	$290	$290

Renewal 10 Year Expenditure continued (all figures are in ,000 format)

Activity	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Bridge Renewal Program Bridge Renewal Program Deck/Balustrade Renewal Program	$160	$100	$100	-	-	-	-	-	-	-
Retaining Wall Renewal Program Condition data to be reviewed and program developed in 2024/25	-	-	-	-	-	-	-	-	-	-
Signage Renewal Program Transport Signage Renewal Program	$100	$100	$100	$100	$100	$100	$100	$100	$100	$100
Public Transport Infrastructure Renewal Program Bus Shelter Renewal Program Bus Pad Renewal Program	$85	$85	$85	$85	$85	$85	$85	$85	$85	$85
Public Lighting Renewal Program Street lighting data to be reviewed and program developed in 2024/25 Shared use path lighting to be reviewed and program developed in 2025/26	-	-	-	-	-	-	-	-	-	-
Streetscape Program Contribution Assumed 30% of streetscape projects include footpath renewals Assumed 20% of streetscape projects include traffic control device renewals	-	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100
Total	**$4,607**	**$6,353**	**$6,250**	**$6,153**	**$6,154**	**$6,154**	**$6,154**	**$6,154**	**$6,154**	**$6,154**

Creation

The activities, construction, management and wages required to create Transport Assets infrastructure over the 10 years is shown below.

The creation of Transport Assets is determined using the Walking and Cycling Plan and the Transport Prioritisation Matrix which assess projects on a number of criteria and ranked. Projects are identified through traffic, parking and lighting investigations which uses observations, data and modelling to determine what infrastructure is required to met the current service levels.

In addition, Transport Assets are also donated to Council by developers of major sub-division or State Government major projects that include transport infrastructure in the local or state own roads. These donated assets must meet City of Marion Standards and Technical Specifications before City of Marion can accepted into its asset register.

Creation 10 Year Expenditure (all figures are in ,000 format)

Activity	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Car park creation program • Creation or significant service level upgrade of existing car park • Future Year Program to be developed	$248	-	-	-	-	-	-	-	-	-
Footpath creation program • Walking and Cycling Plan implementation • Missing Links program • 24/25 Flinders Greenway Project ($1.1M)	$1,200	$400	$400	$400	$400	$400	$400	$400	$400	$400
Kerb Ramp Creation Program • Request from community, council members	$50	$50	$50	$50	$50	$50	$50	$50	$50	$50
Traffic Control Devices Creation Program • Projects identified through Blackspot, Request from other road authorities or services, Council Members, community	$130	$250	$250	$250	$250	$250	$250	$250	$250	$250
Signage Creation Program • Identified through traffic and parking investigations	$20	$20	$20	$20	$20	$20	$20	$20	$20	$20
Public Lighting Creation Program • Identified through lighting investigations • Lighting design costs	$105	$105	$105	$105	$105	$105	$105	$105	$105	$105
Donated Assets from Developers and State Government*	-	-	-	-	-	-	-	-	-	-
Total	**$1,753**	**$825**	**$825**	**$825**	**$825**	**$825**	**$825**	**$825**	**$825**	**$825**

* Donated assets from developers through major sub-divisions or State Government through major projects are undertaken on an ad-hoc basis and difficult to project value of assets City of Marion will receive. It should be noted that City of Marion doesn't need to pay capital for transport infrastructure associated with developments or major projects.

Disposal

The activities, construction, management and wages required to dispose Transport Assets infrastructure over the 10 years is shown below.

Disposal 10 Year Expenditure (all figures are in ,000 format)

Activity	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Bridge disposal program • Disposal of the Hugh Johnson Reserve Bridges	$40	-	-	-	-	-	-	-	-	-
Signage disposal program • Identifying redundant signage across the City of Marion and disposing	-	$10	$10	$10	$10	$10	$10	$10	$10	$10
Pathway disposal program • Streets with two footpaths and determined to be over servicing may be subjected to community consultation to seek a footpath disposal	-	-	-	-	-	-	-	-	-	-
Total	**$40**	**$10**	**$10**	**$10**	**$10**	**$10**	**$10**	**$10**	**$10**	**$10**

Capital expenditure summary

Cost Elements: The renewal, creation and disposal comprise the direct costs of council labour, plant and equipment hire and contractor services. The chart to the right shows the cost per year for Renewal, Creation and Disposal categories of expenditure.

The Renewal and Creation budgets levels of this plan are sufficient to meet the service levels.

Transport 10 Year Capital Expenditure Summary
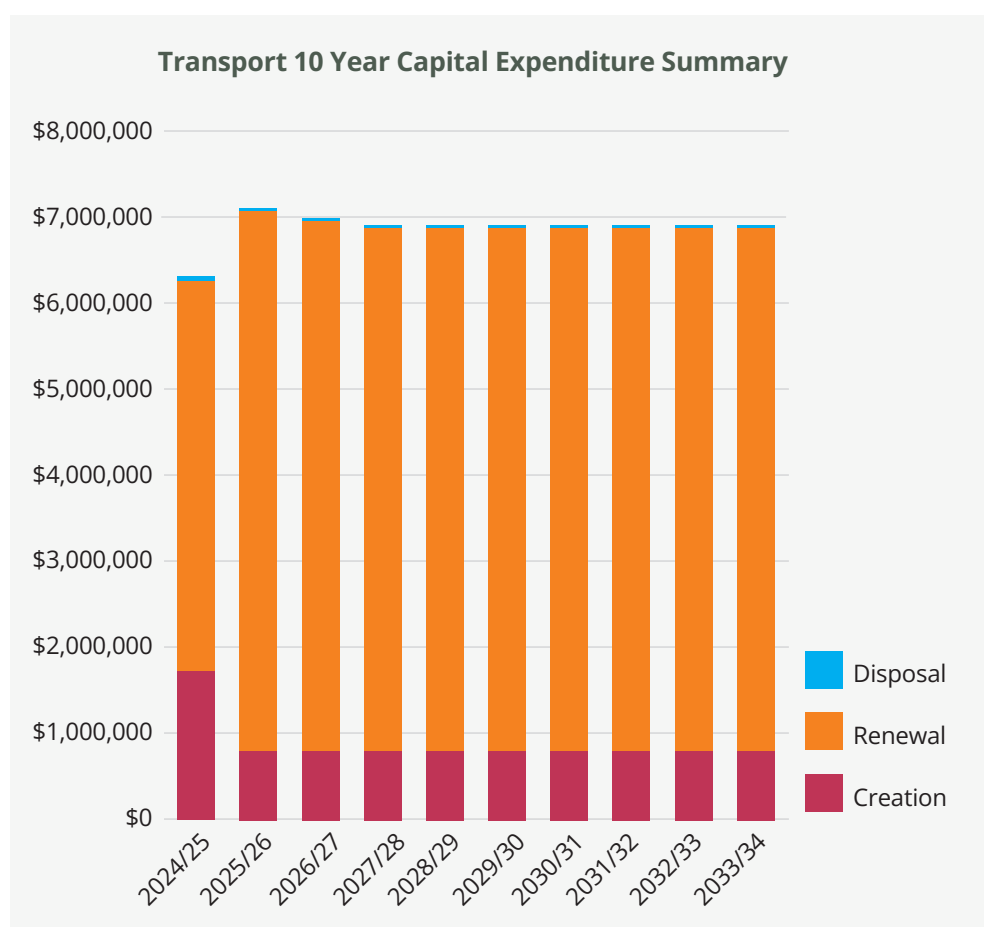
Risk management

Council's Risk Management Policy sets the overall framework for addressing risk within the framework of ISO31000.
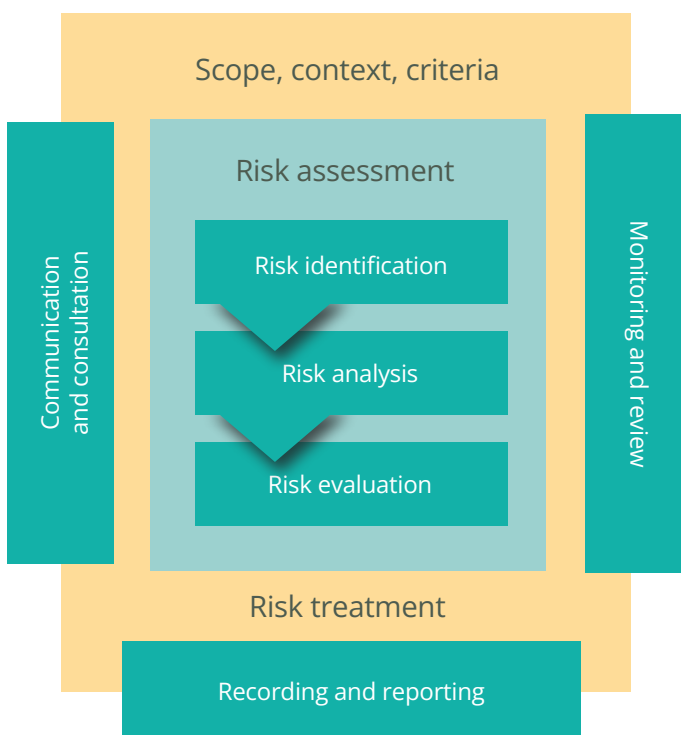
The elements of this framework are:

- Risk Management Context: Establishes the objectives, stakeholders, key issues, and criteria against which risks will be evaluated.
- Identify the Risk: Identifies what risk events are likely to impact on assets and services.
- Analyse the Risk: Reviews the existing controls and then analyses the likelihood of an event occurring and the consequence of the event to determine the level of risk.
- Evaluate the Risk: Assesses and ranks the identified risks in a Risk Register.
- Treat the Risks: Identifies actions to reduce/control the risk.

Council manages its Transport Assets in line with the Local Government Act, specifically Section 244 Liability for injury, damage or loss on community land. There are currently no high risk issues identified within the Transport Assets.

Risk Management Process from ISO 31000:2018

Scope, context, criteria

Risk assessment

Communication and consultation

Risk identification

Risk analysis

Risk evaluation

Monitoring and review

Risk treatment

Recording and reporting

Critical assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service.

For transport, critical assets include:

- Roads, shared use paths, pedestrian bridges
- Retaining walls greater than 2m
- Cove Road, Hallett Cove embankment (between Westcliff Court and Pindee Street)
- Traffic signals.

What we cannot do

The forecast budget is matched to the planned budget which enables the outcomes of this Asset Management Plan to be achieved.

Financial summary

Financial sustainability

Sustainability of service delivery

Two key indicators of sustainable service delivery are considered in the Transport Asset Management Plan:

1. The forecast renewals are funded over the life of this plan to ensure the continuity of function that the asset provides. Assets are scheduled for renewal based on an estimated end of useful economic life.
2. OpEx is funded to ensure the day to day management and integrity of the asset to ensure the required levels of service are met.

This AMP is used to inform the LTFP, through an iterative process balancing cost, performance, and risk. As a part of its Annual Business Planning process, CoM undertakes a review of forecast asset management expenditures. This revised forecast annual funding requirements is incorporated into Council's currently adopted Annual Business Plan and Long-Term Financial Plan.

10-year financial planning period

This Asset Management Plan identifies the forecast OpEx and CapEx costs required to provide an agreed level of service to the community over a 10-year period.

### Forecast outlays for the Long Term Financial Plan

Funding allocation	10 year	Average annual cost
Operational Cost (OpEx)	$40,466,620	$4,046,662
Capital Cost (CapEx)	$69,594,694	$6,959,469
Total cost of the plan	**$110,061,314**	**$11,006,131**

Transport Assets forecast 10-year expenditure for each asset lifecycle phase from 2024/25 to 2034/35

Year	Planning	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	Forecast Total
2024/25	$50,000	$1,753,000	$1,372,500	$277,500	$2,236,562	$4,606,694	$40,000	$10,336,256
2025/26	$70,000	$825,000	$1,372,500	$430,500	$2,342,562	$6,353,000	$10,000	$11,403,562
2026/27	$15,000	$825,000	$1,372,500	$245,000	$2,342,562	$6,250,000	$10,000	$11,060,062
2027/28	$15,000	$825,000	$1,372,500	$325,500	$2,342,562	$6,153,000	$10,000	$11,043,562
2028/29	$-	$825,000	$1,372,500	$195,500	$2,342,562	$6,154,000	$10,000	$10,899,562
2029/30	$60,000	$825,000	$1,372,500	$430,500	$2,342,562	$6,154,000	$10,000	$11,194,562
2030/31	$15,000	$825,000	$1,372,500	$266,000	$2,342,562	$6,154,000	$10,000	$10,985,062
2031/32	$15,000	$825,000	$1,372,500	$325,500	$2,342,562	$6,154,000	$10,000	$11,044,562
2032/33	$-	$825,000	$1,372,500	$195,500	$2,342,562	$6,154,000	$10,000	$10,899,562
2033/34	$60,000	$825,000	$1,372,500	$430,500	$2,342,562	$6,154,000	$10,000	$11,194,562
Total	**$300,000**	**$9,178,000**	**$13,725,000**	**$3,122,000**	**$23,319,620**	**$60,286,694**	**$130,000**	**$110,061,314**

Transport 10 year expenditure summary
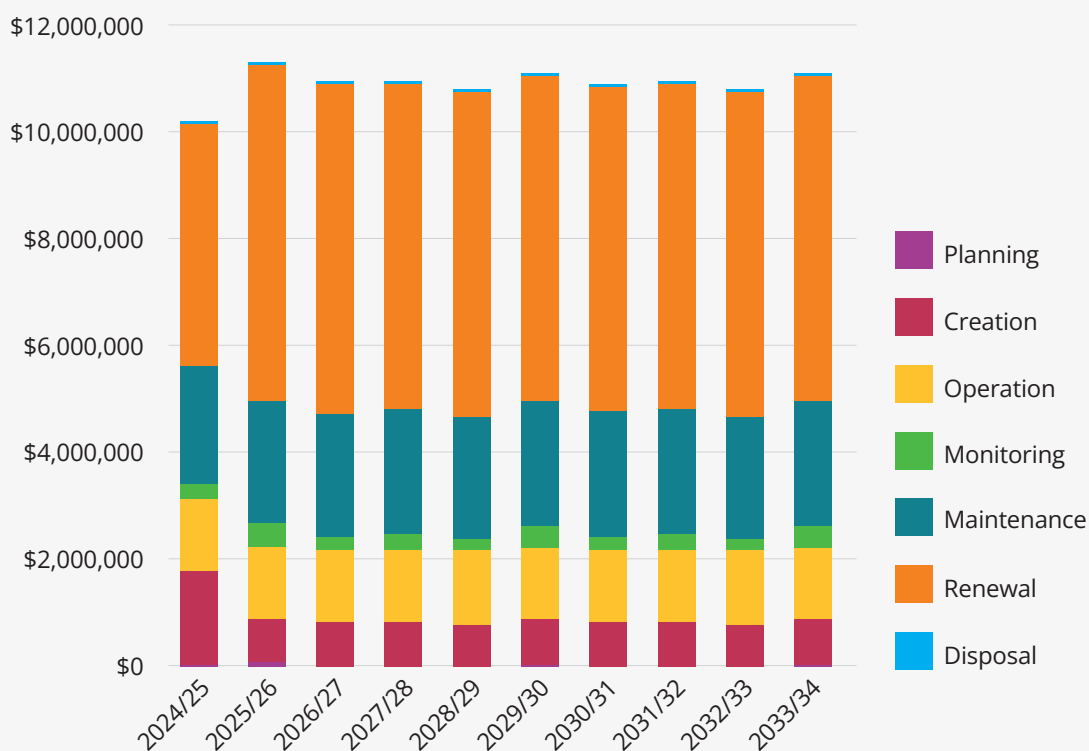
Valuation forecasts

The best available information of the value of assets included in this Asset Management Plan are shown below. The assets are valued at a fair value at cost to replace service capacity and construction costs.

Replacement cost (current/gross): **$399,223,398**

Accumulated depreciation: **$240,635.971**

Depreciated replacement cost: **$323,861,081**

Annual depreciation: **$9,342,756**

Key assumptions in financial forecasts

- All data used in this Asset Management Plan is current as of September 2024.
- The forecast 10-year expenditure profile is provided in 2024 dollars.
- Long-Term Financial Plan will be adjusted annually to account for cost index increases and utility cost anomalies.
- Historical trends in storm events are reliable forecast for future budget planning.
- Climate Risk Assessments are used as a guide to inform budget planning.
- Community and technical levels of service expectations remain consistent.
- Uses currently endorsed Council plans.
- Changes in legislation do not impact the service levels.
- Resources availability is not impacted because of pandemic, or other State Emergencies.

Forecast reliability and data confidence

Data confidence definitions and grades

Confidence grade	Description
A. Very high	Data based on sound records, procedures, investigations, and analysis, documented properly, and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%.
B. High	Data based on sound records, procedures, investigations, and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%.
C. Medium	Data based on sound records, procedures, investigations, and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%.
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%.
E. Very low	None or very little data held.

The forecast costs, proposed budgets, and valuation projections in this Asset Management Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified in accordance with the table above.

Data confidence assessment for different sections of the Asset Management Plan

Data	Confidence Assessment
Asset Condition	B
Asset Function	D
Asset Capacity	D
Asset Age Profile	D
Replacement Value	B
Service Levels	A
Demand drivers	B
Asset Creation and Renewal Forecasts	C
Operating and Maintenance Forecast	D
Operational Expenditure Forecast	B

Monitoring and review

This Asset Management Plan will be reviewed during the annual budget planning process and revised where material changes in service levels or risks are anticipated; the plan will be revised following council approval.

Cost changes will be reviewed annually, and any changes needed to the forecasts outlay for the Long Term Financial Plan will be incorporated into the Annual Business Plan consultation process.

The Asset Management Plan will be reviewed and updated every four years to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, creation and asset disposal costs and planned budgets. These forecast costs and proposed budget are incorporated into the Long-Term Financial Plan or will be incorporated into the Long-Term Financial Plan once completed.

Improvement plan

The following improvement initiatives were identified as part of the development of this Asset Management Plan and show alignment with the overall Council Strategy.

Task	Resource	Completion
Update Standard Drawings and Technical Specifications relating to Transport Assets and construction methodology.	Coordinator Survey and Design	June 2026
Reallocate Coastal Walkway assets relating to pathways, bridges, kerb ramps and signage from the Coastal Walkway Asset Management Plan to the Transport Asset Management Plan.	Unit Manager Asset Solutions	Next Asset Management Plan Cycle (2028/29)
Update Asset Management Information System (Assetic) to align with new Transport Data Structure and terminology.	Unit Manager Asset Solutions	June 2026
Develop and implement a 4-year plan to collect and analyse asset condition data for all Transport Assets.	Infrastructure Engineer	2028
Develop 4-year renewal programs for all Transport Asset classes.	Infrastructure Engineer	On-going
Develop Business Process Manuals for Transport Assets.	Unit Manager Engineering	2025
Review and revise chart of accounts to facilitate consistent and accurate cost allocation for all asset expenditure aligned with the Asset Management Lifecycle.	Unit Manager Engineering	2025
Implement a process to update this Asset Management Plan during annual budget planning processes to show any material changes in service levels and/or resources.	Unit Manager Engineering	2025
Create, review and update strategic, planning and guidelines documentation relating to Transport Assets.	Unit Manager Engineering	June 2025

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