

Transport Asset Management Plan 2020 - 2030



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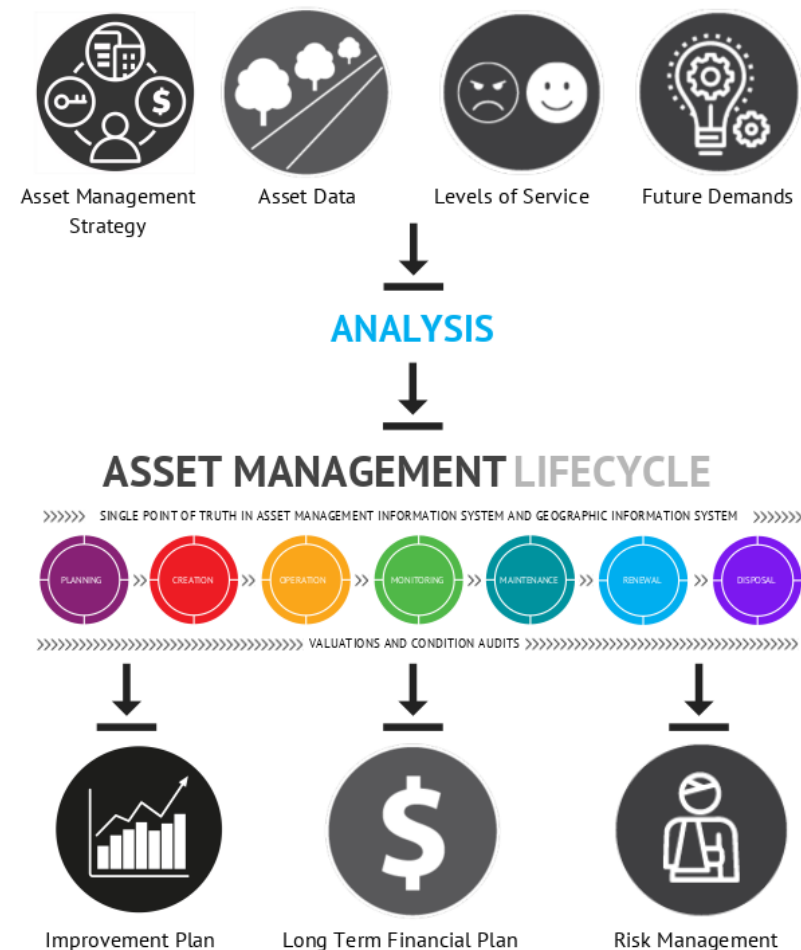
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REFERENCES

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.

IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.

IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM



1 - INTRODUCTION

What is this plan about?

The City of Marion provides a transport network to support the safe and efficient movement of people whether by foot, bicycle or vehicle and the transportation of goods. It provides access to schools, shopping centres, work, home and recreational areas. It provides connections for our community and promotes a healthy lifestyle.

Council seeks to maximise value to ratepayers and ensure sustainable services by optimising the use of our assets.

This plan defines the transport assets that help deliver the services we provide, how they are provided, and the funding required over 10 years.

What is asset management?

Asset management is about how assets are 'looked after', both on a day-to-day basis (maintenance, monitoring and operation) and in the medium-to-long term (planning, creation/purchase, renewal and disposal).

What will we do?

A significant part of our annual spend is devoted to the repair, maintenance and upgrade of the public assets which deliver our safe and sustainable services. We will continue to optimise our spending through better asset management to deliver current service levels in the most affordable and efficient way.

We will maximise community benefits against costs. We will review and develop options, costs and priorities for future services. We will engage with our community to plan future services to match their service needs with the ability to pay for services.

This plan has been aligned with Council's Asset Management Policy (2018) and Asset Management Strategy (2019) which focus on asset maintenance and like-for-like-renewals. Any upgrades or new asset expenditure will require Council prioritisation.

Council recognises that climate change is likely to affect asset life and functionality. We are exploring what we can do to build asset resilience in response to climate impacts. In addition, Council recognises the rapid change in technology and innovation. This will continue to be assessed through ongoing reviews of this plan.

What can you do?

Better understanding of community needs can help us improve user experience, attract more users and provide services more efficiently.

Council will be pleased to consider your thoughts on the issues raised in this plan and suggestions on how we may change or reduce the mix of services to ensure that the appropriate level of service can be provided to the community within available funding

2 - EXECUTIVE SUMMARY

TRANSPORT ASSET MANAGEMENT PLAN

EXECUTIVE SUMMARY

Assets covered by this plan



Roads	Bridges
Kerb and Water Table	Street Furniture
Footpaths	Bus Stops
Traffic Control Devices	Street Lighting
Kerb Ramps	Retaining Walls

Gross replacement cost \$627.23M
Reliable to uncertain asset data.

What it will cost over the 10-year planning period



Planning	\$0.00M
Creation	\$17.38M
Operation	\$9.20M
Monitoring	\$0.83M
Maintenance	\$21.40M
Renewal	\$82.36M
Disposal	\$0.00M
Total	\$131.16M

Levels of Service



- Safe and quality transport assets.
- Sufficient transport assets that meet functionality and capacity demands.
- Sustainable infrastructure that meets high quality standards and is environmentally friendly.

Funding levels are sufficient to continue to provide identified Community Levels of Service.

Risk Management



- Budget Reduction
- Climate Change
- Asset Failure / Collapse

Funding levels are sufficient to manage risks by monitoring the asset condition and defects through cyclic inspection programs.

Future Demands managed through ongoing monitoring



- Streetscapes
- Population growth
- Demand for alternative transport modes
- SA 20 year Infrastructure Strategy
- Climate change
- Infrastructure resilience

Improvement Plan



- Condition Audit program for all transport asset classes.
- Review and update Asset Management Plan annually when new data is available.
- Integrate asset and financial management systems.
- Calculate Asset Renewal Funding Ratio at Asset Management Plan level to better understand service delivery sustainability.
- Develop targets for Community Levels of Service.
- Undertake the action plans for each asset class.

3 - WHY WE NEED A PLAN

"Good asset management is critical for a high-performing Council. Investing in People, Data, Process and Systems enables effective and informed decision-making and optimises community outcomes" Brendon Lyons, Unit Manager Asset Solutions



The Asset Management Framework aligns Council's asset portfolio to meet the service delivery needs of our community.

Council's purpose is:

To improve our residents' quality of life; continuously, smartly and efficiently

The City of Marion Asset Management vision is:

To maintain our assets to agreed Levels of Service which maximise community value throughout an asset's life

Supported by four Strategic Objectives:

1. **MAXIMISE COMMUNITY VALUE**
2. **DELIVER AGREED LEVELS OF SERVICE**
3. **INFORMED DECISION MAKING**
4. **OPTIMALLY MANAGED**

This Asset Management Plan is based on the format recommended in Section 4.2.6 of the *International Infrastructure Management Manual* (IPWEA 2015).

This plan is driven by the priorities of Council's Strategic Plan, the Asset Management Policy and Asset Management Strategy. It is funded by the Long Term Financial Plan and Annual Business Plan.

The effectiveness of this Asset Management Plan is measured annually through the following key performance indicators:

KEY PERFORMANCE INDICATOR
Asset Renewal Funding Ratio Calculated by measuring capital expenditure on renewal and replacement of assets relative to the Asset Management Plan required expenditure. This indicates whether Council is renewing or replacing existing non-financial assets in accordance with its future Asset Management renewal requirements
Asset Management Maturity Assessment Assessed against the Institute of Public Works Engineering Australasia (IPWEA) National Asset Management Strategy (NAMS) targets. The maturity scale builds from 1 - Aware to 3 - Core Maturity to 5 - Advanced Maturity.

4 - WHAT ASSETS WE HAVE

Assets exist to meet community needs through enabling the delivery of services to the service levels adopted by Council. Transport assets include roads for vehicles and cyclists, footpaths for pedestrians and cyclists, car parks and streetscapes for aesthetics.

The lifecycle management plan details how Council plans to manage and operate the assets at the agreed levels of service while optimising whole-of-life costs. Utilisation is a key consideration impacting on council's replacement decision making processes. All transport assets are maintained, renewed and upgraded based on condition, safety and risk. At this stage no asset service hierarchy applies.

Asset Category	Asset Sub-Category	Useful Life
Roads	Seal	25 years
	Pavement	60 years
Bridges		80 years
Footpaths	Footpaths	50 years
	Shared Paths	20 years
	Stairs	80 years
Kerb and Water Table		70 years
Kerb Ramps		70 years
Street Lighting		50 years
Bus Stops		20 years
Street Furniture		15 years
Traffic Control Devices	Roundabouts	70 years
	Crash Barriers	80 years
Retaining Walls		80 years



Figure 1: Welcome to City of Marion Sign in Hallett Cove

Data Quality

Currency and accuracy of asset data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale:

Confidence Grade	Data Confidence	Description
A	Highly reliable data	<ul style="list-style-type: none"> Based on sound records, procedures, investigations and analysis Documented accurately Agreed as the best method of assessment Dataset is complete and estimated to be accurate $\pm 2\%$
B	Reliable data	<ul style="list-style-type: none"> Based on sound records, procedures, investigations and analysis Documented properly but has minor shortcomings For example, some 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 $\pm 10\%$
C	Uncertain data	<ul style="list-style-type: none"> Either 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 $\pm 25\%$
D	Very uncertain data	<ul style="list-style-type: none"> 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 $\pm 40\%$
E	Unknown	<ul style="list-style-type: none"> Unknown, as none or very little data held

Following an extensive data cleanse data confidence is assessed as reliable to uncertain (confidence grades B to C) for the best available data used in the preparation of this Asset Management Plan. Improving data quality has been added to the Improvement Plan.

All figures in Council's Asset Management Plans are in present value (today's dollars) as a number of factors influence the indexation rates. When incorporating the figures into Council's Long Term Financial Plan, relevant indexations linked to the type of expenditure will be applied.

ROADS

Roads are important for our communities; they support safe and efficient movement of people whether by bicycle or vehicle and the transportation of goods.

Roads provide connections and access to schools, shopping centres, work, home and recreational areas which help economic development within the City of Marion.



493 km of Road



Road Network value
\$235 million

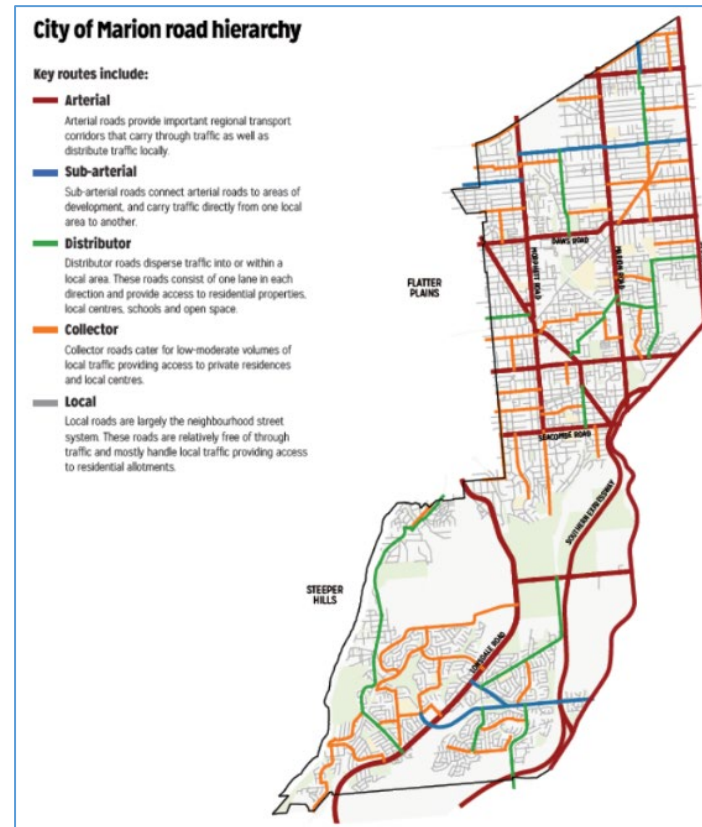
Note: The City of Marion cares for and maintains many local roads; however, there are some main roads (Arterial Roads) that are under the care and control of the Department for Infrastructure and Transport (DIT).

WHAT THE COMMUNITY TOLD US

Our 2019 City of Marion Community Satisfaction Survey showed our residents believed that providing and maintaining roads were of a high importance.

"It's a pleasure driving in my area Sheidow Park. The Marion area in general has nice landscaping and good roads." – City of Marion Resident

"Would like to see potholes filled and made smooth. Smooth road travel is important for safety" –City of Marion Resident



71% Satisfied



97% Important

HOW WE HAVE LISTENED

Understanding what is important to our community, we have developed the Community Levels of Service:

Safety/Quality	Provide a safe and quality road network for vehicles and cyclists
Functionality / Capacity	Provide a road network that provides effective access and/or movement as identified within the Road Hierarchy
Sustainability	Plan and construct roads that are environmentally sustainable and minimise waste. Roads to be preserved to extend the assets remaining life at the optimal total cost

WHAT WE PLAN TO DO

Our 2018 condition data shows that the condition of our road pavements and seals are fair. The City of Marion will continue to adopt a reseal program and a proactive maintenance program to extend useful life of road seal and pavement assets. The current funding is enough to ensure that road maintenance and renewals continue to remain within the desired service levels for Road assets.

The City of Marion has also undertaken a trial into a new road surface product called Reconophalt which consists of recycled plastic bags, toner from printer cartridges and Reclaimed Asphalt Product. 3650 tonnes were laid in 2018/19 which is equivalent to 1,990,000 plastic bag equivalents and 66,000 used printer cartridges. The City of Marion will continue to closely monitor the trial sites with Council's principal road contractor to track performance. Also, City of Marion uses reclaimed asphalt product (RAP) at 30% in all new asphalt road reseals.

ROAD LIFECYCLE ACTIVITIES

Throughout the lifecycle of an asset, activities are needed at different intervals (Intervention Levels) to ensure we optimise the asset and meet the Levels of Service in the most effective way.

Asset Lifecycle	Activity	Community Levels of Service
Monitoring	<ul style="list-style-type: none">Defect and Condition Auditing (5 year frequency)	Quality
Maintenance	<ul style="list-style-type: none">Reactive Maintenance (Potholes)Proactive Maintenance (Crack Sealing and Road Rejuvenation)	Safety / Quality
Renewal	<ul style="list-style-type: none">Resealing Program	Quality / Sustainability

Note: The Road Reseal program includes the resealing of all Streetscape roads, one year after the streetscape has finished.

Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$0	\$0	\$0	\$160,000	\$4,750,000	\$0	\$4,910,000
2021/22	\$0	\$0	\$90,000	\$160,000	\$4,750,000	\$0	\$5,000,000
2022/23	\$0	\$0	\$0	\$160,000	\$4,750,000	\$0	\$4,910,000
2023/24	\$0	\$0	\$0	\$160,000	\$4,750,000	\$0	\$4,910,000
2024/25	\$0	\$0	\$0	\$160,000	\$4,750,000	\$0	\$4,910,000
2025/26	\$0	\$0	\$0	\$160,000	\$4,750,000	\$0	\$4,910,000
2026/27	\$0	\$0	\$90,000	\$160,000	\$4,750,000	\$0	\$5,000,000
2027/28	\$0	\$0	\$0	\$160,000	\$4,750,000	\$0	\$4,910,000
2028/29	\$0	\$0	\$0	\$160,000	\$4,750,000	\$0	\$4,910,000
2029/30	\$0	\$0	\$0	\$160,000	\$4,750,000	\$0	\$4,910,000
TOTAL	\$0	\$0	\$180,000	\$1,600,000	\$47,500,000	\$0	\$49,280,000

FUTURE DEMANDS



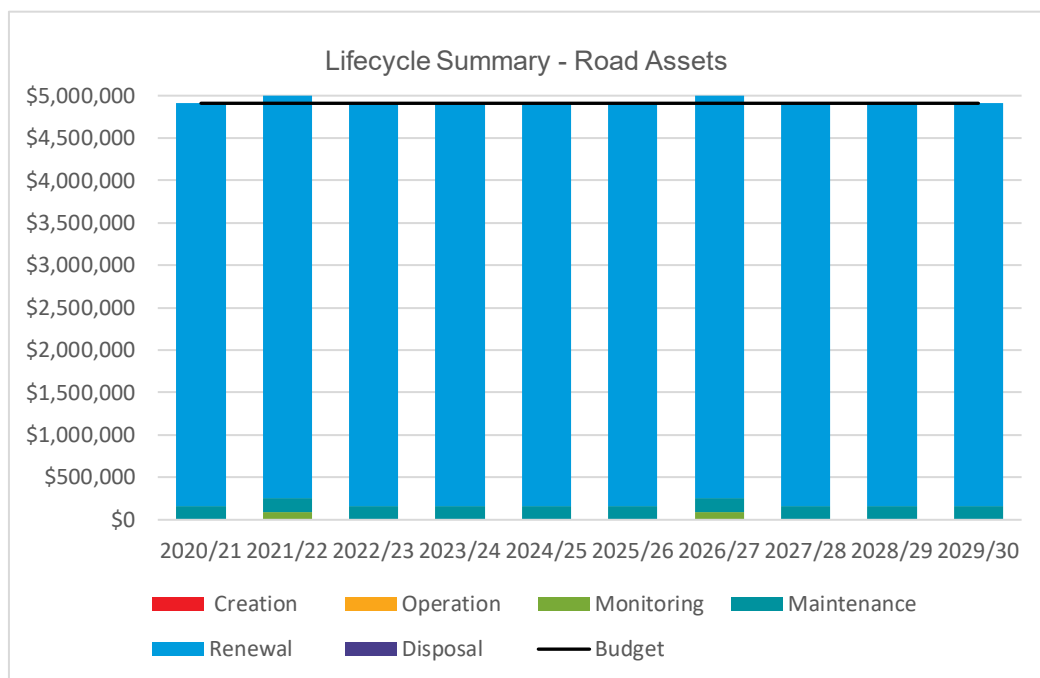
Climate
Change



Budget
Reduction



Asset Collapse /
Failure



UP AND COMING MAJOR STREETSCAPE UPGRADE PROJECTS

- Birch Crescent, Mitchell Park – Streetscape Project
- Alawoona Avenue, Mitchell Park – Streetscape Project
- Quick Road, Mitchell Park – Streetscape Project
- The Cove Road, Hallett Cove – Streetscape Project

NEXT STEPS

- Undertake condition audit in 2021/22 then every five years (in conjunction with Kerb and Watertable condition audit)
- Review Reconophalt trials and RAP content and performance annually – continue to explore other innovative sustainable road products and technologies
- Update this asset class analysis annually as new data becomes available

KERB AND WATERTABLE

The Kerb and Watertable provides stormwater protection to properties by keeping stormwater within the road corridor and allows stormwater to freely drain along the street toward a stormwater catchment system.

Kerb and Watertable also provides a vehicle edge control and provides an edge restraint for pavements. Kerb and Watertable on arterial roads are the responsibility of Council.



**908 km of Kerb and
Water Table**



**Kerb Network value
\$157 million**

Note: Stormwater Pits and Pipes are not included in this Asset Management Plan. Please refer to the Stormwater Asset Management Plan.



Figure 2: Kerb and Watertable located at Finnis Street, Marion

WHAT THE COMMUNITY TOLD US

Our 2019 City of Marion Community Satisfaction Survey showed our residents believed that providing and maintaining footpaths and kerb ramps were of a high importance.

“The state of footpaths and kerbs here just remain broken and never seem to get fixed.” – City of Marion Resident



71% Satisfied



98% Important

HOW WE HAVE LISTENED

Understanding what is important to our community, we have developed the Communities Levels of Service:

Safety / Quality	Provide Kerb and Watertable that allows safe and efficient passage of stormwater
Capacity / Functionality	Provide Kerb and Watertable that meets Australian Standards and Best Practise and caters for stormwater demand
Sustainability	Construct Kerb and Watertable with recycled base aggregate to minimise waste

WHAT WE PLAN TO DO

Typically the failure of Kerb and Watertable is difficult to predict (as asset failure occurs from tree roots, private works damage and/or service connections) and mainly relies on a reactive response.

We currently undertake a proactive renewal program the year prior for roads that are identified in the road reseal program to ensure Kerb and Watertable are in good condition before the road is renewed.

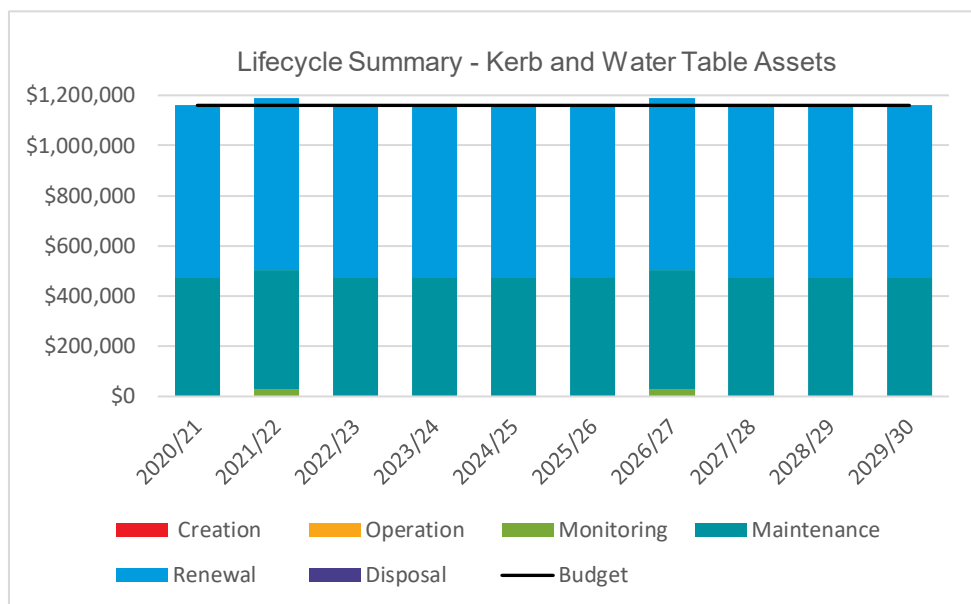
Full renewals of Kerb and Watertable are currently identified for Streetscape projects.

KERB AND WATERTABLE LIFECYCLE ACTIVITIES

Throughout the lifecycle of an asset, activities are needed at different intervals (Intervention Levels) to ensure we optimise the asset and meet the Levels of Service in the most effective way:

Asset Lifecycle	Activity	Community Levels of Service
Monitoring	<ul style="list-style-type: none">Condition Auditing (5 year frequency)	Quality / Functionality
Maintenance	<ul style="list-style-type: none">Reactive Maintenance (Small section Kerb Replacement)	Safety / Quality
Renewal	<ul style="list-style-type: none">Large section Kerb and Watertable Renewal Program (with the Road Reseal Program)Full Kerb and Watertable Renewal (Streetscapes Program)	Quality / Sustainability

Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$0	\$0	\$0	\$475,000	\$685,000	\$0	\$1,160,000
2021/22	\$0	\$0	\$30,000	\$475,000	\$685,000	\$0	\$1,190,000
2022/23	\$0	\$0	\$0	\$475,000	\$685,000	\$0	\$1,160,000
2023/24	\$0	\$0	\$0	\$475,000	\$685,000	\$0	\$1,160,000
2024/25	\$0	\$0	\$0	\$475,000	\$685,000	\$0	\$1,160,000
2025/26	\$0	\$0	\$0	\$475,000	\$685,000	\$0	\$1,160,000
2026/27	\$0	\$0	\$30,000	\$475,000	\$685,000	\$0	\$1,190,000
2027/28	\$0	\$0	\$0	\$475,000	\$685,000	\$0	\$1,160,000
2028/29	\$0	\$0	\$0	\$475,000	\$685,000	\$0	\$1,160,000
2029/30	\$0	\$0	\$0	\$475,000	\$685,000	\$0	\$1,160,000
TOTAL	\$0	\$0	\$60,000	\$4,750,000	\$6,850,000	\$0	\$11,660,000



FUTURE DEMANDS



Climate
Change



Budget
Reduction



Asset Collapse
/ Failure

UP AND COMING KERB AND WATERTABLE PROJECTS

- Sturt Road, Sturt – Streetscape Project
- Birch Crescent, Mitchell Park – Streetscape Project
- Diagonal Road, Oaklands Park – Streetscape Project
- Morphett Road, Warradale – Streetscape Project
- Alawoona Avenue, Mitchell Park – Streetscape Project
- Quick Road, Mitchell Park – Streetscape Project
- The Cove Road, Hallett Cove – Streetscape Project

NEXT STEPS

- Undertake condition audit in 2021/22 then every five years (In conjunction with Roads)
- Develop forward works programs for Maintenance, Renewal, Upgrade and New Kerb and Watertable
- Explore environmentally sustainable materials, products and technologies with Kerb and Watertable annually
- Update this asset class analysis annually as new data becomes available

FOOTPATHS

Footpaths, Shared Paths and Stairs are all assets that provide connections for our community and promote a healthy lifestyle.



832 km of Footpaths



32 km of Shared Paths



12 sets of Stairs



Footpath Network
value
\$131 million



Figure 3: Shared Path on the Sturt River Linear Trail

WHAT THE COMMUNITY TOLD US

Our 2019 City of Marion Community Satisfaction Survey showed our residents believed that providing and maintaining footpaths and kerb ramps were of a high importance.

"I would like to see more attendance to the upkeep of footpaths so as residents can't trip on the uneven joins in the concrete paths." – City of Marion Resident

"Extremely impressed with speed in which my concern regarding unsafe pavement was reconciled. I rang in the morning, I received phone call response late afternoon same day!" – City of Marion Resident



71% Satisfied



98% Important

HOW WE HAVE LISTENED

Understanding what is important to our community, we have developed the Community Levels of Service:

Safety/Quality	Provide a safe and quality footpath network for pedestrians and cyclists
Capacity	Provide a footpath network that meets the requirements for pedestrians and cyclists (including meeting Disability Discrimination Act (DDA) and Australian Standards requirements)
Functionality	Provide at least 1 footpath per street (subject to local community consultation)
Sustainability	Construct footpaths with recycled base aggregate to minimise waste

WHAT WE PLAN TO DO

Our data shows that the condition of our footpaths is fair. The City of Marion currently undertakes a number of programs that focus on maintenance and renewal such as the large area/ slab renewal program, shared path program, New/Upgrade program and a Streetscape upgrade program.

In response to the 2019 Community Satisfaction Survey, the City of Marion commenced a campaign 'Footpath Blitz' which called on the community to identify any defects and broken footpaths across the city. The locations help us develop a maintenance program to repair and make safe any risks within the footpath network.

A detailed condition and defect audit will be undertaken in 20/21 to review future forward works programs.

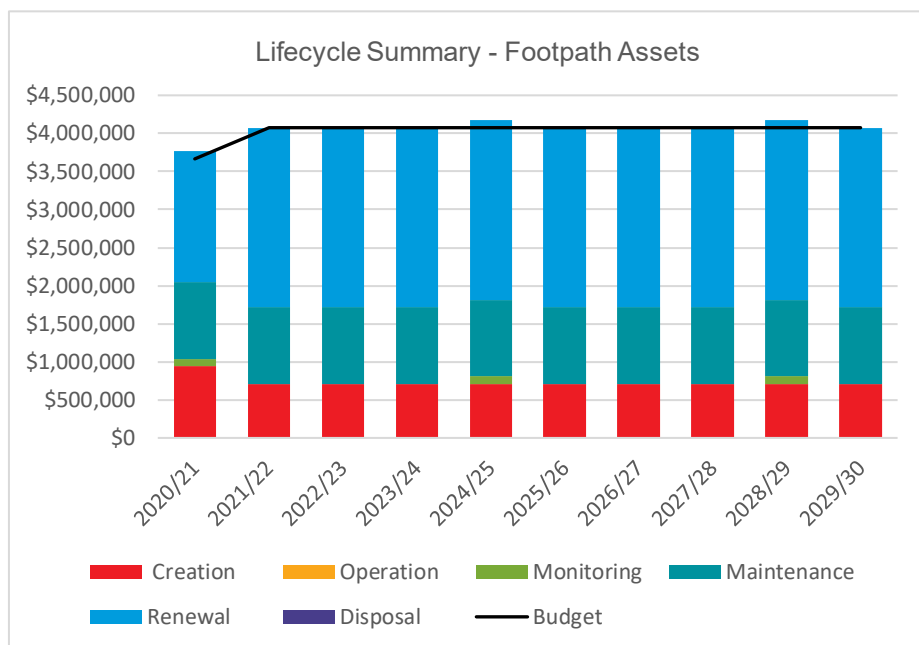
FOOTPATH LIFECYCLE ACTIVITIES

Throughout the lifecycle of an asset, activities are needed at different intervals (Intervention Levels) to ensure we optimise the asset and meet the Levels of Service in the most effective way:

Asset Lifecycle	Activity	Community Levels of Service
Creation	<ul style="list-style-type: none">New Footpath ProgramFootpath Upgrade ProgramNew Shared Path ProgramStreetscape Program	Functionality / Capacity / Sustainability
Monitoring	<ul style="list-style-type: none">Defect and Condition Auditing (4 year frequency)	Quality / Functionality
Maintenance	<ul style="list-style-type: none">Reactive Maintenance (Concrete Footpath repair and grinding, lift and relay pavers, Pothole repairs etc.)	Safety / Quality
Renewal	<ul style="list-style-type: none">Large Area/Slab Renewal Program	Quality / Sustainability

Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$940,000	\$0	\$100,000	\$1,005,000	\$1,720,000	\$0	\$3,765,000
2021/22	\$710,000	\$0	\$0	\$1,005,000	\$2,360,000	\$0	\$4,075,000
2022/23	\$710,000	\$0	\$0	\$1,005,000	\$2,360,000	\$0	\$4,075,000
2023/24	\$710,000	\$0	\$0	\$1,005,000	\$2,360,000	\$0	\$4,075,000
2024/25	\$710,000	\$0	\$100,000	\$1,005,000	\$2,360,000	\$0	\$4,175,000
2025/26	\$710,000	\$0	\$0	\$1,005,000	\$2,360,000	\$0	\$4,075,000
2026/27	\$710,000	\$0	\$0	\$1,005,000	\$2,360,000	\$0	\$4,075,000
2027/28	\$710,000	\$0	\$0	\$1,005,000	\$2,360,000	\$0	\$4,075,000
2028/29	\$710,000	\$0	\$100,000	\$1,005,000	\$2,360,000	\$0	\$4,175,000
2029/30	\$710,000	\$0	\$0	\$1,005,000	\$2,360,000	\$0	\$4,075,000
TOTAL	\$7,330,000	\$0	\$300,000	\$10,050,000	\$22,960,000	\$0	\$40,640,000

Note: 40% of the Streetscape budget is allocated to Footpaths.



FUTURE DEMANDS



Climate
Change



Budget
Reduction



Asset
Collapse /
Failure

UP AND COMING FOOTPATH PROJECTS

- Birch Crescent, Mitchell Park – Streetscape Project
- Diagonal Road, Oaklands Park – Streetscape Project
- Morphett Road, Warradale – Streetscape Project
- Quick Road, Mitchell Park – Streetscape Project
- The Cove Road, Hallett Cove – Streetscape Project
- Alawoona Avenue, Mitchell Park – Streetscape Project

NEXT STEPS

- Undertake condition and defect audit on the footpath network in 2020/21 then every four years
- Develop forward works programs for Maintenance, Renewal, Upgrade and New footpaths
- Develop a footpath hierarchy model to help priorities forward works programs
- Undertake a footpath network gap analysis for missing links within the footpath network
- Update this asset class analysis annually as new data becomes available

TRAFFIC CONTROL DEVICES

Traffic Control Devices exist to assist with functionality of the road network, control traffic movements and keep road users safe.

Typical Traffic Control Devices include Roundabouts, Driveway Links, Median Islands, Crash Barriers, Pedestrian Crossings, Road Humps, Signs, Safety Bar Layouts and Line Marking.



1797 Traffic Control Devices



Traffic Control Device value \$15 million



Figure 4: Speed cushion on Trott Grove, Oaklands Park

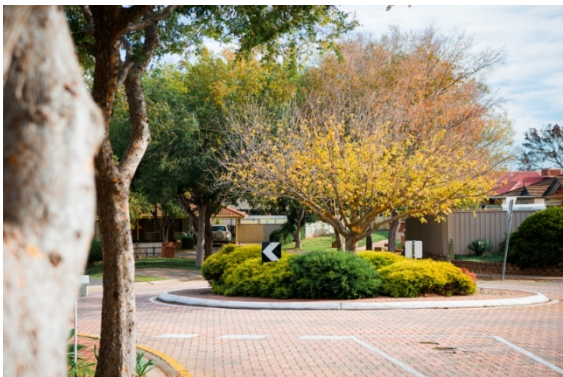


Figure 5: Roundabout and Crash Barrier within the City of Marion

WHAT THE COMMUNITY TOLD US

Our 2019 City of Marion Community Satisfaction Survey didn't include any questions related to the importance or satisfaction of Traffic Control Devices or how we service them within the City of Marion. The Improvement Plan includes an action to investigate the feasibility of adding additional questions to Council's future Community Satisfaction Surveys.

WHAT WE HAVE ASSUMED

Understanding what is important to our community, we have developed the Community Levels of Service:

Safety / Quality	Provide safe and quality traffic control devices that meet Australian Standards
Capacity / Functionality	Provide effective traffic control treatments where required in line with the road hierarchy
Sustainability	Use environmentally sustainable materials and products that are effective for the application

WHAT WE PLAN TO DO

Councils install a number of traffic control devices each year to meet the growing number of community requests and traffic investigations recommendations. The demand for traffic control devices are assessed on a range of criteria and priorities and balanced against available funds and substantiated risks.

Line marking maintenance operates on a 2 year cyclic program to ensure lines and safety bar layouts are visible and provides a safe road environment.

The City of Marion undertake a traffic data survey program which is an ongoing program that monitors the road network in relation to traffic volumes, speeds and commercial activity to ensure the road network is functioning as designed.

TRAFFIC CONTROL DEVICE LIFECYCLE ACTIVITIES

Throughout the lifecycle of an asset, activities are needed at different intervals (Intervention Levels) to ensure we optimise the asset and meet the Levels of Service in the most effective way:

Asset Lifecycle	Activity	Community Levels of Service
Creation	<ul style="list-style-type: none">Traffic Control Device Upgrade ProgramNew Traffic Control Device Program	Functionality / Capacity / Safety / Quality / Sustainability
Monitoring	<ul style="list-style-type: none">Traffic Data SurveysDefect and Condition Auditing (5 year frequency)	Quality / Functionality
Maintenance	<ul style="list-style-type: none">Reactive MaintenancePlanned Line Marking MaintenanceProactive sign replacement program	Safety / Quality
Renewal	<ul style="list-style-type: none">Traffic Control Device Renewal Program	Safety / Quality / Sustainability

Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$335,000	\$0	\$0	\$230,000	\$310,000	\$0	\$875,000
2021/22	\$335,000	\$0	\$0	\$230,000	\$310,000	\$0	\$875,000
2022/23	\$335,000	\$0	\$30,000	\$230,000	\$310,000	\$0	\$905,000
2023/24	\$335,000	\$0	\$0	\$230,000	\$310,000	\$0	\$875,000
2024/25	\$335,000	\$0	\$0	\$230,000	\$310,000	\$0	\$875,000
2025/26	\$335,000	\$0	\$0	\$230,000	\$310,000	\$0	\$875,000
2026/27	\$335,000	\$0	\$0	\$230,000	\$310,000	\$0	\$875,000
2027/28	\$335,000	\$0	\$30,000	\$230,000	\$310,000	\$0	\$905,000
2028/29	\$335,000	\$0	\$0	\$230,000	\$310,000	\$0	\$875,000
2029/30	\$335,000	\$0	\$0	\$230,000	\$310,000	\$0	\$875,000
TOTAL	\$3,350,000	\$0	\$60,000	\$2,300,000	\$3,100,000	\$0	\$8,810,000

FUTURE DEMANDS



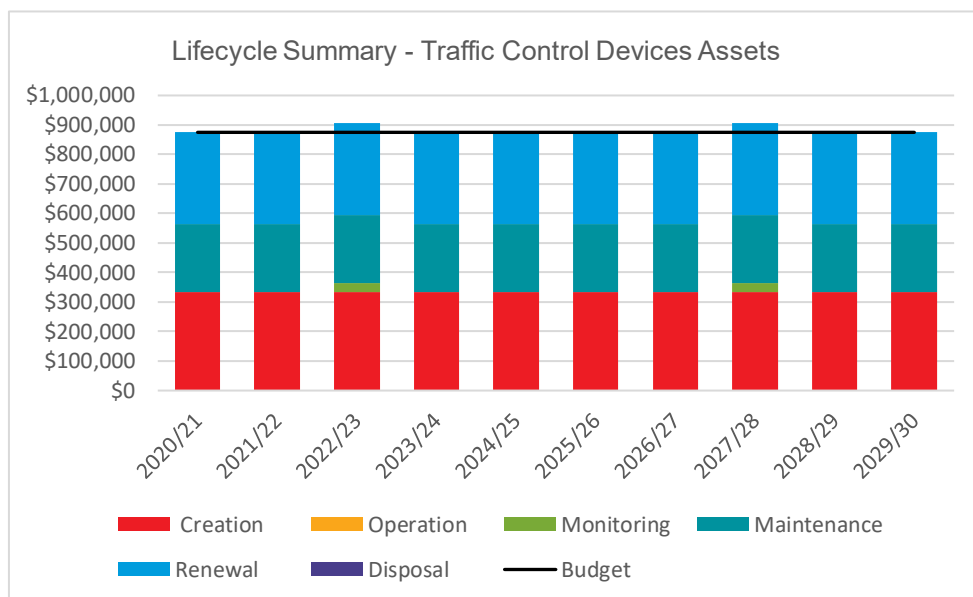
Climate
Change



Budget
Reduction



Asset
Collapse /
Failure



NEXT STEPS

- Develop priorities matrix and a plan for Maintenance, Renewal, Upgrade and New
- Undertake a condition audit in 2023/24 then every five years
- Explore innovative data collection using machine learning
- Update this asset class analysis annually as new data becomes available

KERB RAMPS

Kerb ramps are solid ramp graded down from the top surface of a footpath to the surface of an adjoining street.

Kerb Ramps are positioned for safe road crossings points within the footpath network with smooth grades and safe sight lines.



6858 Kerb Ramps



**Kerb Network value
approximately \$10M**



Figure 6: Kerb Ramp in Hallett Cove

WHAT THE COMMUNITY TOLD US

Our 2019 City of Marion Community Satisfaction Survey showed our residents believed that providing and maintaining footpaths and kerb ramps were of a high importance.



71% Satisfied



98% Important

HOW WE HAVE LISTENED

Understanding what is important to our community, we have developed the Community Levels of Service:

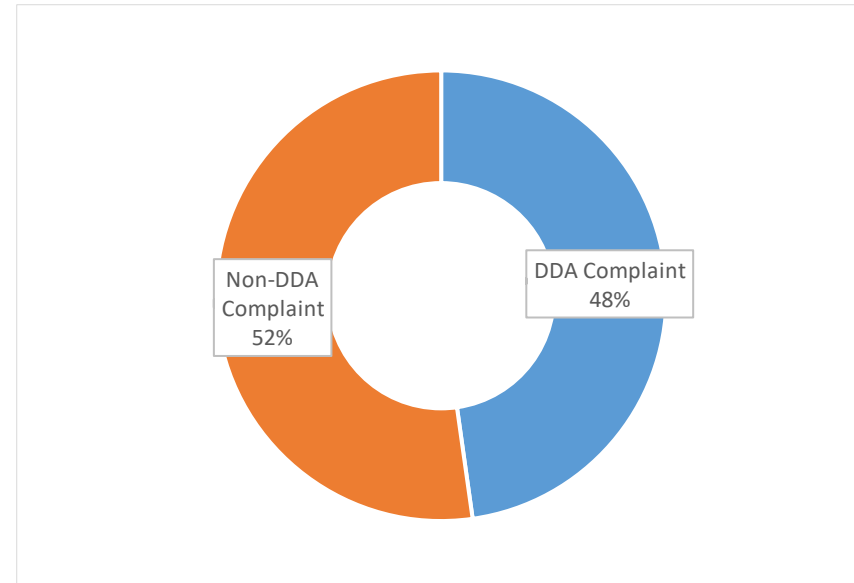
Safety / Quality	Provide kerb ramps that allows safe passage for pedestrians, cyclists, mobility scooters and Wheelchairs. Provide DDA compliant kerb ramps
Capacity / Functionality	Provide Kerb Ramps where required within the footpath and cycling network
Sustainability	Construct kerb ramps with recycled base aggregate to minimise waste

WHAT WE PLAN TO DO

Our data shows that our kerb ramps aren't all complying with DDA requirements with approx. 48% of kerb ramps meeting the current standard.

The City of Marion will aim for DDA compliance by 2030.

This will increase the current funding from \$50k to \$630k per year from 2021/22 (the 2020/21 budget will increase to \$315k to allow time to create an upgrade program and undertake a network analysis).

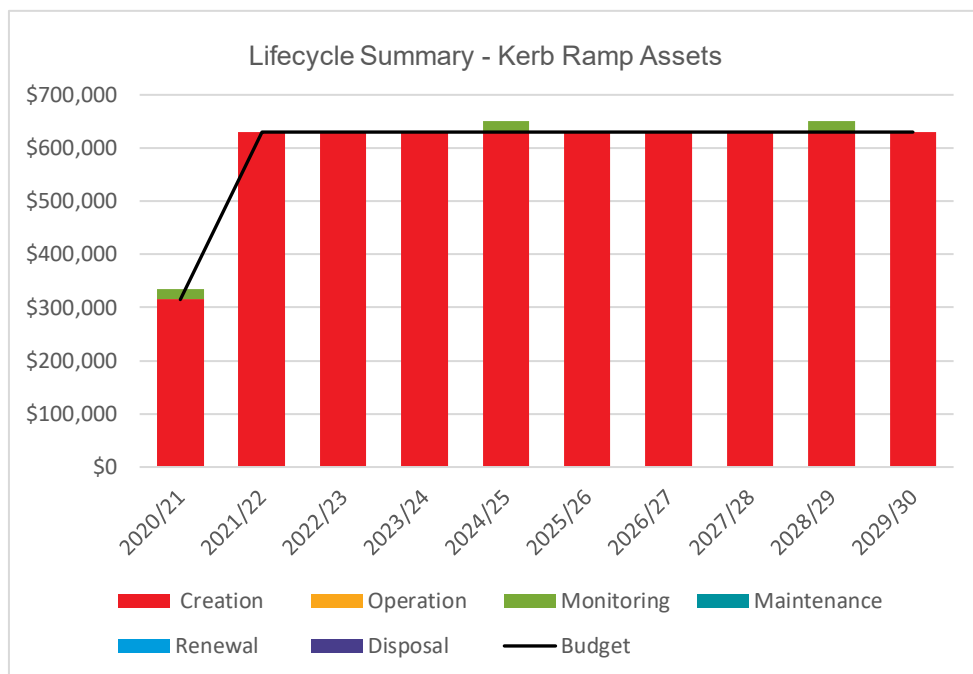


KERB RAMP ACTIVITIES

Throughout the lifecycle of an asset, activities are needed at different intervals (Intervention Levels) to ensure we optimise the asset and meet the Levels of Service in the most effective way:

Asset Lifecycle	Activity	Community Levels of Service
Creation	<ul style="list-style-type: none">New Kerb Ramp ProgramKerb Ramp Upgrade Program	Functionality / Capacity / Sustainability
Monitoring	<ul style="list-style-type: none">Condition Auditing / Network Assessment (4 year frequency)	Quality / Functionality

Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$315,000	\$0	\$20,000	\$0	\$0	\$0	\$335,000
2021/22	\$630,000	\$0	\$0	\$0	\$0	\$0	\$630,000
2022/23	\$630,000	\$0	\$0	\$0	\$0	\$0	\$630,000
2023/24	\$630,000	\$0	\$0	\$0	\$0	\$0	\$630,000
2024/25	\$630,000	\$0	\$20,000	\$0	\$0	\$0	\$650,000
2025/26	\$630,000	\$0	\$0	\$0	\$0	\$0	\$630,000
2026/27	\$630,000	\$0	\$0	\$0	\$0	\$0	\$630,000
2027/28	\$630,000	\$0	\$0	\$0	\$0	\$0	\$630,000
2028/29	\$630,000	\$0	\$20,000	\$0	\$0	\$0	\$650,000
2029/30	\$630,000	\$0	\$0	\$0	\$0	\$0	\$630,000
TOTAL	\$5,985,000	\$0	\$60,000	\$0	\$0	\$0	\$6,045,000



FUTURE DEMANDS



Climate Change



Budget Reduction



Asset Collapse / Failure

NEXT STEPS

- Undertake condition audit in 2020/21 then every four years
- Develop an Upgrade and new kerb ramp program
- Update this asset class analysis annually as new data becomes available

BRIDGES

Bridges play a critical role in connecting communities and important places separated by creeks, rivers, wetlands, roads, train lines and/or other difficult terrain.

The different types of bridges within the City of Marion are road bridges, shared path bridges and minor pedestrian bridges.



42 Bridges / Culverts



**Bridge Network value
\$5.6 million**

Note: The Hallett Cove Boardwalk structures are addressed in the Coastal Walkway Asset Management Plan and are not included in this plan.



Figure 7: Bridge near Hunt Avenue, Morphettville



CRITICAL ASSETS

High consequence of failure causing significant loss or reduction of service

- Cormorant Drive Road Bridge, Hallett Cove
- Finnis Street Road Bridge, Marion
- Maxwell Terrace Road Bridge, Glengowrie

WHAT THE COMMUNITY TOLD US

Our 2019 City of Marion Community Satisfaction Survey didn't include any questions related to the importance or satisfaction of bridges or how we service them within the City of Marion. The Improvement Plan includes an action to investigate the feasibility of adding additional questions to Council's future Community Satisfaction Surveys

WHAT WE HAVE ASSUMED

Understanding what is important to our community, we have developed the Community Levels of Service:

Safety / Quality	Provide safe and quality bridges for vehicles, pedestrians and cyclists
Functionality / Capacity	Provide fit for purpose bridges where the network requires with adequate widths and load capacity
Sustainability	Plan and construct bridges with environmentally sustainable products where appropriate

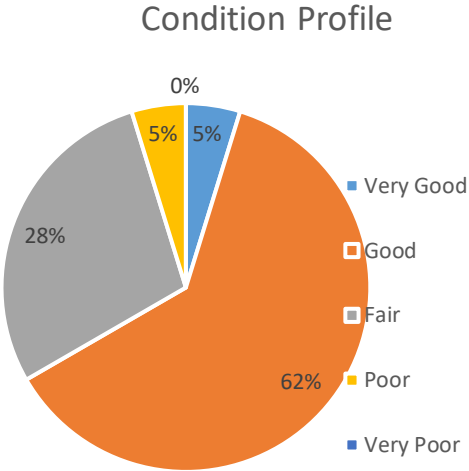
WHAT WE PLAN TO DO

Our data shows that our bridges are in a good condition, however two pedestrian bridges require renewing in 2029/30.

An annual proactive bridge maintenance program will be a new addition to this plan which will focus on treatments to bridges to extended useful life and maintain levels of service.

BRIDGE LIFECYCLE ACTIVITIES

Throughout the lifecycle of an asset, activities are needed at different intervals (Intervention Levels) to ensure we optimise the asset and meet the Levels of Service in the most effective way:



Asset Lifecycle	Activity	Community Levels of Service
Monitoring	<ul style="list-style-type: none">Defect and Condition Auditing (5 year frequency)	Quality
Maintenance	<ul style="list-style-type: none">Reactive Maintenance (Deck Repairing, etc.)Proactive Maintenance (Deck Oiling, Repainting, etc.)	Safety / Quality
Renewal	<ul style="list-style-type: none">Bridge Renewal Program	Quality / Sustainability

Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$0	\$0	\$0	\$15,000	\$0	\$0	\$15,000
2021/22	\$0	\$0	\$40,000	\$15,000	\$20,000	\$0	\$75,000
2022/23	\$0	\$0	\$0	\$15,000	\$0	\$0	\$15,000
2023/24	\$0	\$0	\$0	\$15,000	\$0	\$0	\$15,000
2024/25	\$0	\$0	\$0	\$15,000	\$20,000	\$0	\$35,000
2025/26	\$0	\$0	\$0	\$15,000	\$30,000	\$0	\$45,000
2026/27	\$0	\$0	\$40,000	\$15,000	\$0	\$0	\$55,000
2027/28	\$0	\$0	\$0	\$15,000	\$0	\$0	\$15,000
2028/29	\$0	\$0	\$0	\$15,000	\$0	\$0	\$15,000
2029/30	\$0	\$0	\$0	\$15,000	\$500,000	\$0	\$515,000
TOTAL	\$0	\$0	\$80,000	\$150,000	\$570,000	\$0	\$800,000

FUTURE DEMANDS



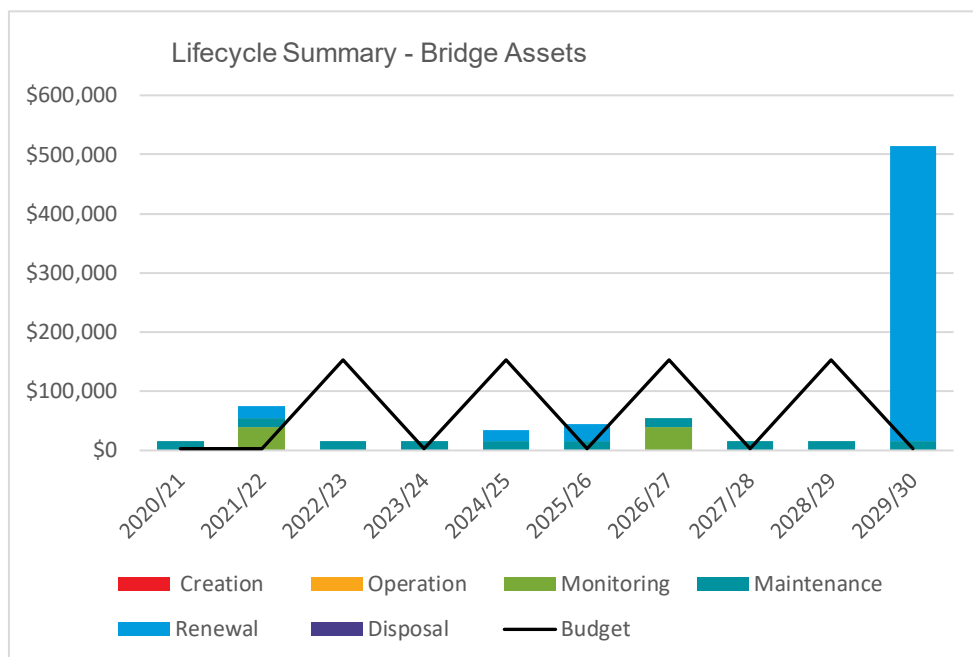
Climate Change



Budget Reduction



Asset Collapse / Failure



UP AND COMING BRIDGE PROJECTS

- Mostyn Road Reserve Bridges (Deck Renewal)
- Finnis Street Road Bridge (Handrail Renewal)
- Warriparinga North and South Bridges (Full Renewal)

NEXT STEPS

- Develop a proactive Maintenance Schedule
- Develop a bridge hierarchy
- Undertake bridge utilisation surveys
- Undertake Bridge Condition Audit in 2021/22 then every five years
- Review asset useful life and compare performance of materials
- Update this asset class analysis annually as new data becomes available

STREET FURNITURE

Street Furniture are assets along the road network that aren't captured within the other asset classes. These are Street Signs, Benches, Pedestrian/Cyclist Fencing and other assets.

Note: Reserves, Coastal Walkway and Council Owned Property signs, benches and other assets are addressed in the Open Space, Coastal Walkway and Property Asset Management Plan respectively and are not included in this plan



14,114 Signs



Street Furniture value
\$3.4 million



Figure 8: Street Furniture in Finnis Street, Marion



WHAT THE COMMUNITY TOLD US

Our 2019 City of Marion Community Satisfaction Survey didn't include any questions related to the importance or satisfaction of Street Furniture or how we service them within the City of Marion. The Improvement Plan includes an action to investigate the feasibility of adding additional questions to Council's future Community Satisfaction Surveys

WHAT WE HAVE ASSUMED

Understanding what is important to our community, we have developed the Community Levels of Service:

Safety / Quality	Provide quality and safe street furniture
Capacity / Functionality	Provide street furniture that is fit for purpose and where required
Sustainability	Use environmentally sustainable products or materials where appropriate. Remove unnecessary signs to reduce sign pollution.



Figure 9: Benches and Sign within the City of Marion

WHAT WE PLAN TO DO

Our sign data shows that the condition of our Road Signs are in good condition. Currently we response to customer request for any reactive maintenance and sign renewals.

We are delivering a road sign upgrade program in which old road signs are replaced with new compliant signs with the City of Marion Logo. Other street furniture assets are only maintained via customer requests.

Other street furniture assets (fencing, benches, bike racks, etc.) aren't registered within the asset register and aren't condition inspected. These are reactively maintained when a customer request is lodged to a specific location.

STREET FURNITURE LIFECYCLE ACTIVITIES

Throughout the lifecycle of an asset, activities are needed at different intervals (Intervention Levels) to ensure we optimise the asset and meet the Levels of Service in the most effective way:

Asset Lifecycle	Activity	Community Levels of Service
Monitoring	<ul style="list-style-type: none">Condition Auditing and Compliance Checking	Quality / Functionality
Maintenance	<ul style="list-style-type: none">Reactive Maintenance	Safety / Quality
Renewal	<ul style="list-style-type: none">Road Sign Renewal Program	Safety / Quality / Sustainability

Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$0	\$0	\$0	\$230,000	\$90,000	\$0	\$320,000
2021/22	\$0	\$0	\$0	\$230,000	\$90,000	\$0	\$320,000
2022/23	\$0	\$0	\$0	\$230,000	\$90,000	\$0	\$320,000
2023/24	\$0	\$0	\$10,000	\$230,000	\$90,000	\$0	\$330,000
2024/25	\$0	\$0	\$0	\$230,000	\$90,000	\$0	\$320,000
2025/26	\$0	\$0	\$0	\$230,000	\$90,000	\$0	\$320,000
2026/27	\$0	\$0	\$0	\$230,000	\$90,000	\$0	\$320,000
2027/28	\$0	\$0	\$10,000	\$230,000	\$90,000	\$0	\$330,000
2028/29	\$0	\$0	\$0	\$230,000	\$90,000	\$0	\$320,000
2029/30	\$0	\$0	\$0	\$230,000	\$90,000	\$0	\$320,000
TOTAL	\$0	\$0	\$20,000	\$2,300,000	\$900,000	\$0	\$3,220,000

FUTURE DEMANDS



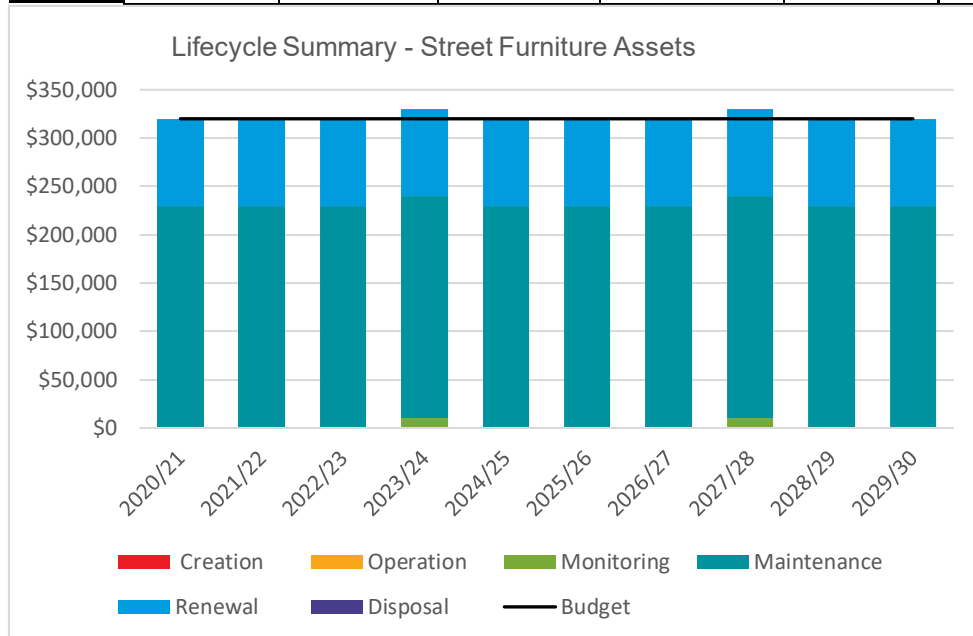
Climate
Change



Budget
Reduction



Asset Collapse /
Failure



NEXT STEPS

- Undertake condition audit in 2023/24 then every five years, including identifying all fencing and bench asset classes
- Develop a Renewal and Disposal Plan for sign assets
- Update this asset class analysis annually as new data becomes available

BUS STOPS

Bus stops ensure patrons can access public transport provided by the Department of Planning, Transport and Infrastructure (DIT).

DIT determine the location of the stop and Council provide the Bus Stop pad and maintain the existing shelters.



**261 City of
Marion Bus
Shelters**



**78 Advertising
Third Parties
Bus Shelters**



**72 DIT Bus
Shelters**



**487 DIT
Bus Stop
locations**



**Bus Shelter
Network value
\$2.5 million**

WHAT THE COMMUNITY TOLD US

Our 2019 City of Marion Community Satisfaction Survey didn't include any questions related to the importance or satisfaction of Bus Shelters or how we service them within the City of Marion. The Improvement Plan includes an action to investigate the feasibility of adding additional questions to Council's future Community Satisfaction Surveys

WHAT WE HAVE ASSUMED

Understanding what is important to our community, we have developed the Community Levels of Service:

Safety / Quality	Provide a safe and quality Bus pad and shelter that can be accessible by all.
Capacity	Provide DDA compliant Bus Pads and Shelters by December 2022.
Functionality	Shelters to be installed where bus stops are utilised by more than 7 people per weekday average. <i>Previously City of Marion has adopted a service level to provide shelters at every bus stop, this has been reviewed and benchmarked across other Local Government authorities and found to be over servicing (most councils have accepted a service level between a 10-20 patrons per weekday average to provide a shelter)</i>
Sustainability	Construct bus pad with recycled base aggregate. Explore recycled products for shelter construction which maintain or improve useful life of the bus shelter asset.



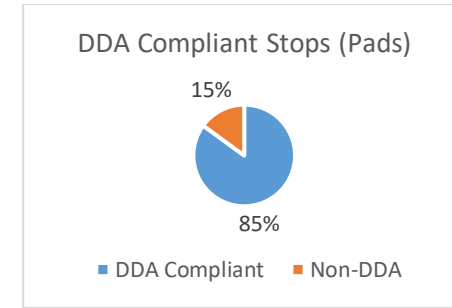
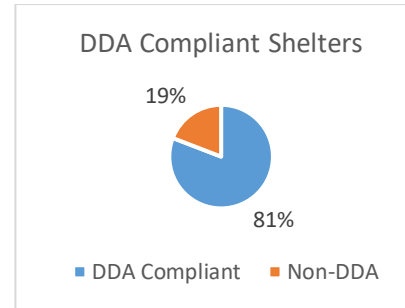
Figure 10: Bus Shelter and Stop in Marino

WHAT WE PLAN TO DO

Our bus shelters and stops/pad data shows 81% of shelters and 85% of bus stops/pads are DDA compliant.

The Disability Standards for Accessible Public Transport (DSAPT) have set down a timeline by December 2022 for all existing bus stops and shelters to comply with the standard.

City of Marion will focus on achieving this deadline with the current LTFP budget with a focus on upgrading non-compliance stops and shelters.



BUS STOP / SHELTER ACTIVITIES

Throughout the lifecycle of an asset, activities are needed at different intervals (Intervention Levels) to ensure we optimise the asset and meet the Levels of Service in the most effective way.

Asset Lifecycle	Activity	Community Levels of Service
Creation	<ul style="list-style-type: none">Bus Stop Pad Upgrade ProgramBus Shelter Upgrade Program	Functionality / Capacity / Safety / Quality / Sustainability
Monitoring	<ul style="list-style-type: none">Condition Auditing (4 year frequency)	Quality / Functionality
Maintenance	<ul style="list-style-type: none">Reactive MaintenanceProactive Maintenance	Safety / Quality
Renewal	<ul style="list-style-type: none">Bus Shelter Renewal Program	Safety / Quality / Sustainability

Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$150,000	\$0	\$15,000	\$10,000	\$20,000	\$0	\$195,000
2021/22	\$150,000	\$0	\$0	\$10,000	\$20,000	\$0	\$180,000
2022/23	\$150,000	\$0	\$0	\$10,000	\$20,000	\$0	\$180,000
2023/24	\$0	\$0	\$0	\$10,000	\$60,000	\$0	\$70,000
2024/25	\$0	\$0	\$15,000	\$10,000	\$60,000	\$0	\$85,000
2025/26	\$0	\$0	\$0	\$10,000	\$60,000	\$0	\$70,000
2026/27	\$0	\$0	\$0	\$10,000	\$60,000	\$0	\$70,000
2027/28	\$0	\$0	\$0	\$10,000	\$60,000	\$0	\$70,000
2028/29	\$0	\$0	\$15,000	\$10,000	\$60,000	\$0	\$85,000
2029/30	\$0	\$0	\$0	\$10,000	\$60,000	\$0	\$70,000
TOTAL	\$450,000	\$0	\$45,000	\$100,000	\$480,000	\$0	\$1,075,000

FUTURE DEMANDS



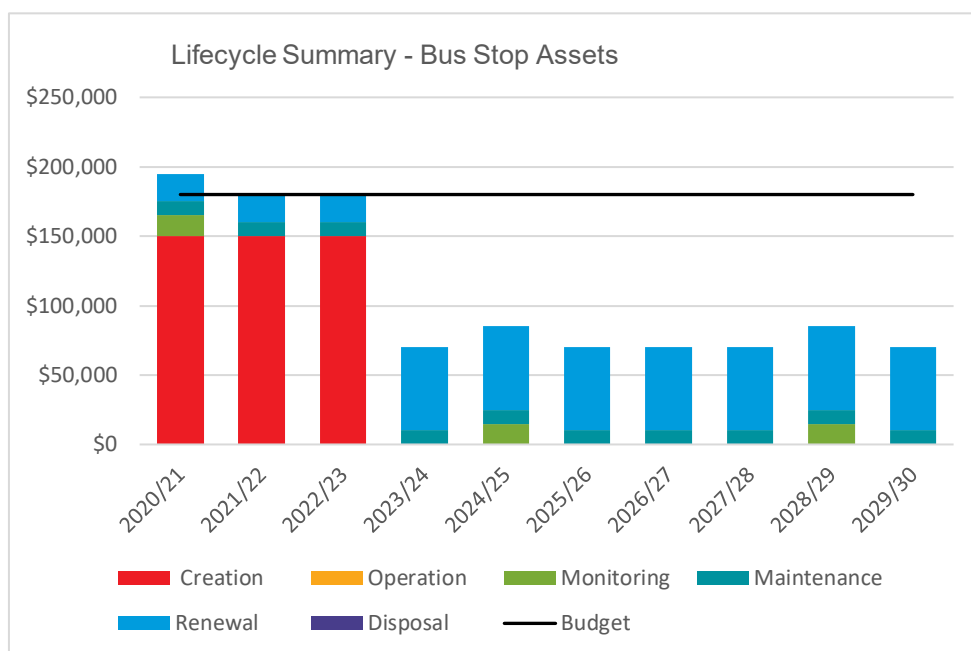
Climate
Change



Budget
Reduction



Asset Collapse /
Failure



NEXT STEPS

- Undertake condition audit in 2020/21 then every four years
- Review progress of DDA Compliance annually
- Review Bus Stop patronage data annually to determine the need for new Bus Shelters
- Update this asset class analysis annually as new data becomes available
- Work with DIT to transition to a new bus network

STREET LIGHTING

Public lighting helps provide safe, active and vibrant neighbourhoods, open spaces and playgrounds making it easier to enjoy and move around our city.

The City of Marion has a number of tariffs that impact the way we manage our street lighting, these include:

- **SAPN LED Tariff** - SAPN will fund the luminaire upgrade, and will operate and maintain, repair and/or replace the luminaire and its supporting infrastructure.
- **TFI LED Tariff** - Council or the developer funds the initial cost of a Luminaire upgrade or new installation but want SAPN to be responsible and liable for the cost of all Luminaire replacements
- **PLC LED Tariff** - Council retains title to the luminaire and SAPN will operate, maintain, and repair the luminaire, and repair and/or replace its supporting infrastructure
- **CLER Tariffs** - Council owns the lighting infrastructure and maintenance for the luminaire component is undertaken by SAPN. Council is responsible for elevation infrastructure and wiring.
- **EO Tariff** – Energy only which applies to public lighting only access to the energy network



**9300
Street Lights**



**Street Lighting
value
\$0.97 million**

Note: Council owned Reserves and Property lighting are addressed in the Open Space and Property Asset Management Plan respectively and are not included in this plan.



Figure 11: Street light in Finniss Street, Marion



**1958 SAPN
Tariff lights**



**42 TFI
Tariff lights**



**6996 PLC
Tariff lights**



**227 CLER
Tariff lights**



**67 EO
Tariff lights**

WHAT THE COMMUNITY TOLD US

Our 2019 City of Marion Community Satisfaction Survey showed our residents believed that providing and maintaining street lighting were of a high importance.

"Lighting in the streets seems to be a bit dull and by a couple of the reserves I don't feel safe to walk through at the moment, it's dark as there's too little light and many areas that are pitch black." – City of Marion Resident



81% Satisfied



97% Important

HOW WE HAVE LISTENED

Understanding what is important to our community, we have developed the Community Levels of Service:

Safety / Quality	Provide safe and complaint lighting standards across The City of Marion
Capacity / Functionality	Provide lighting where required within the lighting network
Sustainability	Use LED lights to be environmentally sustainable

WHAT WE PLAN TO DO

City of Marion has recently undergone a LED street lighting transition which saw the upgrade of old inefficient street lights to new LED energy efficient lights. We also are currently developing an action plan which includes street lighting asset management data and future planning around smart lighting integration to improve overall service delivery.

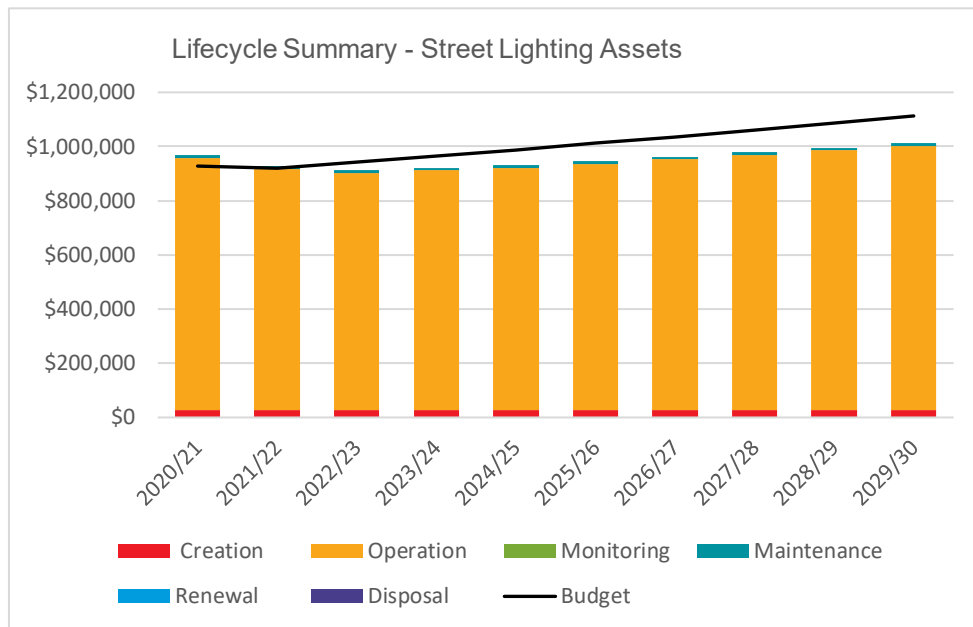
SAPN and City of Marion are undertaking an innovative data sharing and lighting control trial which will enable an integrated lighting experience as people move through the precinct.

STREET LIGHTING LIFECYCLE ACTIVITIES

Throughout the lifecycle of an asset, activities are needed at different intervals (Intervention Levels) to ensure we optimise the asset and meet the Levels of Service in the most effective way:

Asset Lifecycle	Activity	Community Levels of Service
Creation	<ul style="list-style-type: none">Street Light Upgrade Program	Safety / Quality / Functionality / Capacity / Sustainability
Operation	<ul style="list-style-type: none">Electricity CostsSAPN Tariffs	Safety / Quality / Functionality / Capacity / Sustainability
Maintenance	<ul style="list-style-type: none">Reactive Maintenance	Safety / Quality

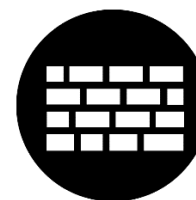
Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$26,000	\$932,966	\$0	\$10,000	\$0	\$0	\$968,966
2021/22	\$26,000	\$890,165	\$0	\$10,000	\$0	\$0	\$926,165
2022/23	\$26,000	\$875,978	\$0	\$10,000	\$0	\$0	\$911,978
2023/24	\$26,000	\$886,059	\$0	\$10,000	\$0	\$0	\$922,059
2024/25	\$26,000	\$895,108	\$0	\$10,000	\$0	\$0	\$931,108
2025/26	\$26,000	\$910,776	\$0	\$10,000	\$0	\$0	\$946,776
2026/27	\$26,000	\$926,718	\$0	\$10,000	\$0	\$0	\$962,718
2027/28	\$26,000	\$942,939	\$0	\$10,000	\$0	\$0	\$978,939
2028/29	\$26,000	\$959,444	\$0	\$10,000	\$0	\$0	\$995,444
2029/30	\$26,000	\$976,238	\$0	\$10,000	\$0	\$0	\$1,012,238
TOTAL	\$260,000	\$9,196,391	\$0	\$100,000	\$0	\$0	\$9,556,391



RETAINING WALLS

Retaining walls are used for supporting soil laterally to protect or create space for other transport assets. There are number of different types of retaining walls, these are; crib, concrete sleeper, gabion baske and concrete block

Note: Retaining walls within Reserves, Council Property Buildings or the Coastal Walkway are included in the Open Space, Property and Coastal Walking Trail Asset Management Plans respectively.



104 Retaining Walls in Transport Corridor



Retaining Walls value \$6.54M



CRITICAL ASSETS

High consequence of failure causing significant loss or reduction of service

- Brooklyn Drive, Hallett Cove
- Perry Barr Road, Hallett Cove

- Latimer Crescent, Trott Park
- Tasman Court, Hallett Cove

WHAT THE COMMUNITY TOLD US

Our 2019 City of Marion Community Satisfaction Survey didn't include any questions related to the importance or satisfaction of Retaining Walls or how we service them. The Improvement Plan includes an action to investigate the feasibility of adding additional questions to Council's future Community Satisfaction Surveys

WHAT WE HAVE ASSUMED

Understanding what is important to our community, we have developed the Community Levels of Service:

Safety / Quality	Provide safe and quality retaining walls
Capacity/Functionality	Provide retaining walls where required
Sustainability	Consider environmentally sustainable product or materials where appropriate

WHAT WE PLAN TO DO

Our data shows that retaining walls are in a good condition. There are no retaining walls identified within the next 10 years for renewal.

Continued monitoring of the retaining wall assets will continue to ensure they are are maintained to a high standard. Our reactive maintenance program is used to repair any defects that may cause any failures to occur prematurely or respond to customer requests.

RETAINING WALL LIFECYCLE ACTIVITIES

Throughout the lifecycle of an asset, activities are needed at different intervals (Intervention Levels) to ensure we optimise the asset and meet the Levels of Service in the most effective way:

Asset Lifecycle	Activity	Community Levels of Service
Monitoring	<ul style="list-style-type: none">Condition Audits (Aligned with Bridge Audits – 5 year frequency)	Quality / Functionality
Maintenance	<ul style="list-style-type: none">Reactive Maintenance	Safety / Quality
Renewal	<ul style="list-style-type: none">Retaining Wall Renewal Program	Safety / Quality / Sustainability

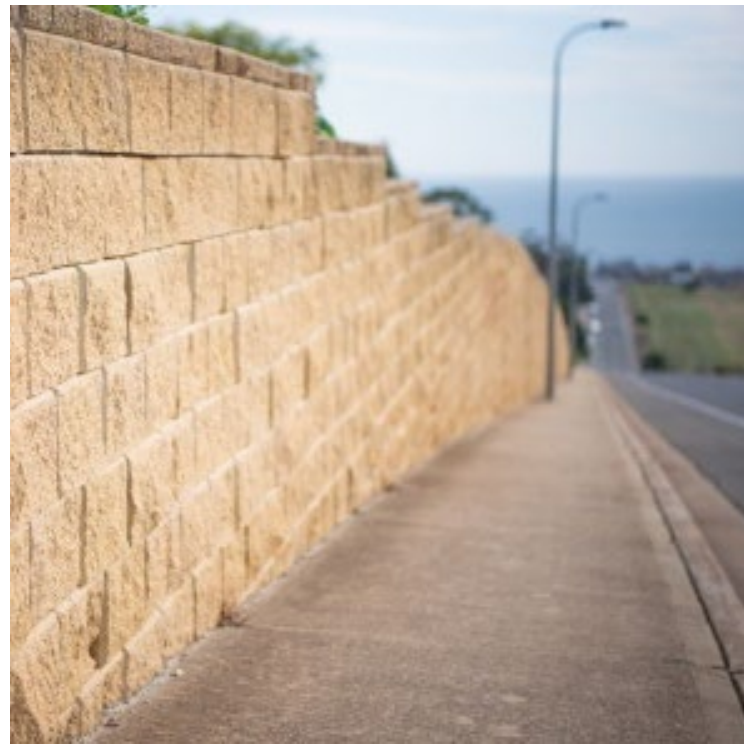


Figure 12: Retaining Walls in Hallett Cove

Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$0	\$0	\$0	\$5,000	\$0	\$0	\$5,000
2021/22	\$0	\$0	\$10,000	\$5,000	\$0	\$0	\$15,000
2022/23	\$0	\$0	\$0	\$5,000	\$0	\$0	\$5,000
2023/24	\$0	\$0	\$0	\$5,000	\$0	\$0	\$5,000
2024/25	\$0	\$0	\$0	\$5,000	\$0	\$0	\$5,000
2025/26	\$0	\$0	\$0	\$5,000	\$0	\$0	\$5,000
2026/27	\$0	\$0	\$10,000	\$5,000	\$0	\$0	\$15,000
2027/28	\$0	\$0	\$0	\$5,000	\$0	\$0	\$5,000
2028/29	\$0	\$0	\$0	\$5,000	\$0	\$0	\$5,000
2029/30	\$0	\$0	\$0	\$5,000	\$0	\$0	\$5,000
TOTAL	\$0	\$0	\$20,000	\$50,000	\$0	\$0	\$70,000

FUTURE DEMANDS



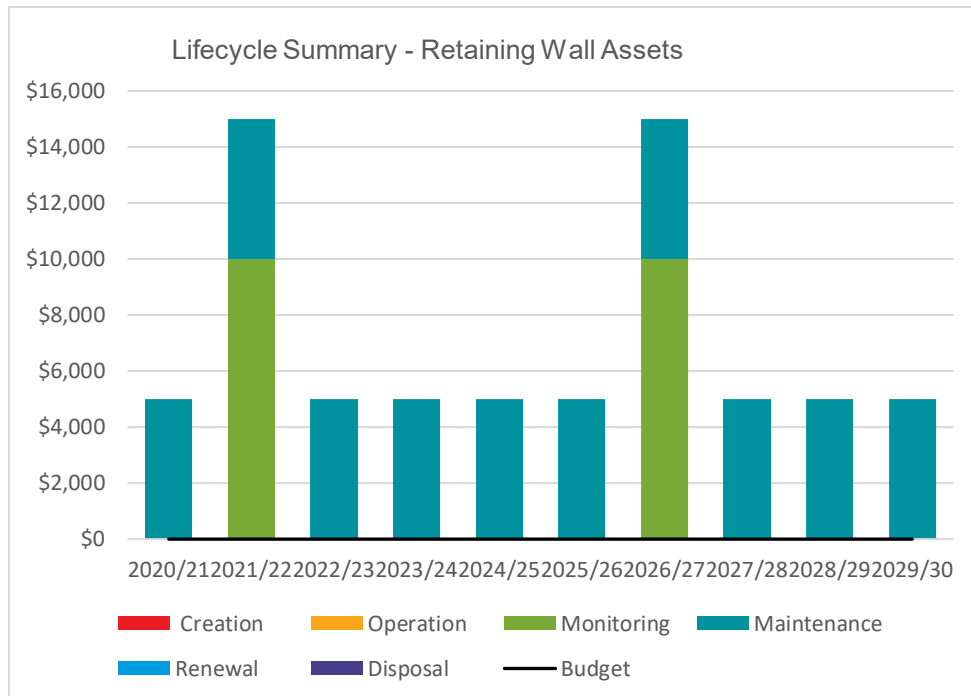
Climate
Change



Budget
Reduction



Asset Collapse
/ Failure



NEXT STEPS

- Undertake condition audit in 2021/22 then every five years
- Update this asset class analysis annually as new data becomes available

5 - LEVELS OF SERVICE

Current levels of service and target areas for improvement have been documented through clear and defined asset management business processes for each asset class assigned to this Asset Management Plan.

Community Levels of Service

Community levels of service are associated with the variety of services provided by Council to our community. The following table demonstrates how the assets covered under this Asset Management Plan assist in achieving community levels of service.

	Community Level of Service	Achieved By
Safety	No preventable injuries	All transport assets will be condition assessed, including defect identification, to drive maintenance and renewal programs. All service requests responded to within suitable timeframes.
Quality	Operational requirements are safely and effectively met	Assets are managed and maintained to best practice industry standards and legislation requirements.
Function	Provide sufficient assets to meet Levels of Service	Undertake network and asset analysis to determine where or if a service is required.
Capacity	Assets are designed to cater for current demand	Assess the asset utilisation and determine if asset requires upgrade or disposal.
Sustainability	Operational requirements are safely and effectively met, whilst minimising impact on the environment	Environmental performance is assessed when selecting asset materials and products, using recycled materials where possible.

Council uses a range of activities to engage with the community and stakeholders on these services.

Technical Levels of Service

Technical levels of service determine the allocation of resources to service activities to best achieve the desired community outcomes and demonstrate effective performance throughout an asset's lifecycle. Council manages and operates assets at the agreed Levels of Service while managing whole-of-life costs to ensure the best value for resources used.

The following table demonstrates the Technical Levels of Service for Transport assets.

Technical Level of Service	Measured By
Planning in line with Asset Management policy principles and an optimal 10 year asset replacement program	Assets renewed through Replacement Programs Assets are provided to meet design standards where these are available Annual Replacement Program Budget developed and Long Term Financial Plan updated
Creation of the asset subject to a business case assessment which sets out capital requirements, whole of life costs and predicted utilisation	Assets created to increase or upgrade a level of service through annual review of the annual and 10 year replacement programs
Operation of an asset in the manner it was designed to be used for	Assets are maintained in a functioning condition Following Safe Work SA's Code of Practice for construction and maintenance activities Responding to customer feedback Monitoring Energy and Tariff agreements
Monitoring utilisation and recording asset downtime	Identifying under-used assets and appropriate remedies, and over-used assets and community demand management options
Maintenance of assets in line with a long-term asset sustainability index averaging 95-100%.	Quick response time to reactive repair and maintenance Regular proactive repair / upgrade to maintain structural integrity
Renewal in accordance with optimum replacement timing principles based on whole of life costs	Assets renewed through annual and 10 year replacement programs Annual Replacement Program Budget developed and Long-Term Financial Plan updated
Disposal where the item fails to meet minimum utilisation benchmarks or is no longer required	Complies with legislative requirements including Disposal of Land and Assets Policy

Legislative Requirements

Council considers the following legislative framework in the management of transport assets.

AS / NZS 1428.2 Pedestrian and Cycling Paths	Defines national standards for Pedestrian and Cycling Paths
Australian Accounting Standards	Set out the financial reporting standards relating to the (re)valuation and depreciation of infrastructure assets
Australian Standards / New Zealand Standards 1428.4 Kerb Crossings	Defines national standards for Kerb Crossings
Code of Technical Requirements for the Legal Use of Traffic Control Devices	Details the design and construction parameters to which traffic management devices installed by Councils must comply
Development Act	Regulates development in the State; to regulate the use and management of land and buildings, and the design and construction of buildings; to make provision for the maintenance and conservation of land and buildings where appropriate; and for other purposes
Disability Discrimination Act 1992 and other relevant disability legislation	Sets the standard for accessibility to eliminate, as far as possible, discrimination against persons on the grounds of disability.
Highways Act 1926	Sets out the legislative framework for roads and road authorities in SA
Local Government Act 1999	Sets out the role, purpose, responsibilities and powers of local governments including the preparation of a Long Term Financial Plan supported by infrastructure and asset management plans for sustainable service delivery
Local Government (Financial Management and Rating) Amendment Act 2005	Provides the requirement for the development of a Strategic Management Plan, comprising an Asset Management Plan and Long-Term Financial Plan
Motor Vehicles Standards Act 1989 (Australian Design Rules)	Defines national standards for vehicle safety, anti-theft and emissions
Native Vegetation Act	Provides incentives and assistance to landowners in relation to the preservation and enhancement of native vegetation; to control the clearance of native vegetation; and for other purposes
Relevant Australian Standards	Sets standards relating to requirements to inspect and certify cranes, elevated work platforms and lifting devices
Relevant Heavy Vehicle National Law and Regulations	Sets out laws and regulations related to heavy vehicles over 4.5 tonnes gross vehicle mass
Road Traffic Act 1961	Provides vehicle standards, mass and loading requirements and other safety measures in relation to light vehicles. Contains powers for Council to install and remove traffic control devices.
Summary Offences Act 1953	Provides provisions for road closure to motor vehicles in accordance with Section 59
Work Health and Safety Act 2012 (SA)	Provides for the health, safety and welfare of persons at work

6 - HOW WE PROVIDE THE SERVICE

In simplest terms, asset management is about how assets are ‘looked after’, both on a day-to-day basis (operation, monitoring and maintenance) and in the medium-to-long term (planning, creation, renewal and disposal).

ASSET MANAGEMENT **LIFECYCLE**

»»»»» SINGLE POINT OF TRUTH IN ASSET MANAGEMENT INFORMATION SYSTEM AND GEOGRAPHIC INFORMATION SYSTEM »»»»»

[illegible]

ASSET PLANNING AND CREATION

When specifying asset requirements, Council seeks to balance a range of factors including:

- Safety requirements by applying the hierarchy of hazard controls to designs to ensure hazards are eliminated, or where that is not reasonably practicable, are effectively controlled.
- Operational needs and functional requirements and where possible seek to identify innovation that may provide for greater level of efficiency or effectiveness in undertaking council's services, or reduce risk of downtime.
- Factors that impact on our environment or where the environment may impact on the function or lifecycle of the asset.
- Whole of life costs when making buying decisions.
- Design standards where these are available.



Figure 13: Stairs in Marino

Acquiring new assets will commit ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. Expenditure on new assets and services in the capital works program will be accommodated in the Long Term Financial Plan.

<i>Projected Creation Expenditure</i>										
	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Roads	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Kerb and Watertable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Footpath	\$ 940,000	\$ 710,000	\$ 710,000	\$ 710,000	\$ 710,000	\$ 710,000	\$ 710,000	\$ 710,000	\$ 710,000	\$ 710,000
Traffic Control Devices	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000
Kerb Ramps	\$ 315,000	\$ 630,000	\$ 630,000	\$ 630,000	\$ 630,000	\$ 630,000	\$ 630,000	\$ 630,000	\$ 630,000	\$ 630,000
Bridges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Street Furniture	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bus Stops	\$ 150,000	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Street Lighting	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000
Retaining Walls	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 1,766,000	\$ 1,851,000	\$ 1,851,000	\$ 1,701,000	\$ 1,701,000	\$ 1,701,000	\$ 1,701,000	\$ 1,701,000	\$ 1,701,000	\$ 1,701,000

Future Trends

Political, economic, social, technological, legal, environmental and relationship drivers that may impact future service delivery and use of assets are monitored via Council's environmental scan and corporate risk register.

Council recognises that climate change is likely to affect asset life and functionality. We are exploring what we can do to build asset resilience in response to climate impacts such as less rainfall overall, more frequent and intense rainfall events, increased frequency and intensity of bushfires, increased temperatures, more frequent and intense heatwaves and increased risk of coastal erosion and flooding as a result of sea level rise. The City of Marion Carbon Neutral Plan 2020 – 2030 is currently being developed as a roadmap to reduce carbon emissions from Council operations by 2030.

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

Council has considered the following future demands during development of this Asset Management Plan:

Area	Demand	Impact on services	Demand Management Plan
Political	Political changes and council amalgamations	Change in services or service levels	Approved business case through annual review of the Capital Works Program
Social	Changing community demographics, needs and expectations	Change in services or service levels	Monitoring community expectation. Communicating service levels and financial capacity with the community to balance asset priorities with what the community is prepared to pay for.
Technological	Data Use	Ability to deliver services at a higher operational level achieved through use of in vehicle GPS data	Utilisation based asset maintenance and renewal
Technological	Smart Cities, autonomous / connected vehicles and machine learning	Changes in design to streetscapes and parking zones to enable different modes of transport	Market driven, opportunities to lobby for funding
Technological	Being a smart organisation that uses data to drive decision-making	Implementing Internet of Things within facilities, assets and services to understand current demand and identify opportunities to improve service delivery	Considered within standard replacement cycle. Decisions made on a range of evaluation criteria
Technological	Roads - If different road resealing treatments are used there may not be the necessity to replace sections of kerb.	Increased availability of funds to deliver other services.	Increased works programming opportunities may exist where kerb does not need to be replaced prior to reseal.

Area	Demand	Impact on services	Demand Management Plan
Technological	Roads - Approximately 99% of the road network has a 'hotmix' seal with only a few segments having a spray seal treatment. Options for different treatments including rejuvenation may result in lower lifecycle network cost.	If different treatments are considered then lower lifecycle costs may result.	Seal: Expectation that roads will be sealed with 'hotmix' rather than any other treatment.
Legal	Legal changes	Complex legal and compliance requirements	Established compliance registers. Considered within standard replacement cycle. Decisions made on a range of evaluation criteria
Environmental	Reduced rainfall and increased intensity of rainfall events	Change in services or service levels	Climate Risk Assessments will determine impact on asset useful lives
Environmental	More frequent intense heatwaves and increased temperatures	Change in services or service levels	Climate Risk Assessments will determine impact on asset useful lives
Environmental	More frequent intense heatwaves and increased temperatures	Change in services or service levels	Climate Risk Assessments will determine impact on asset useful lives
Environmental	More frequent intense heatwaves and increased temperatures	Change in services or service levels	Climate Risk Assessments will determine impact on asset useful lives
Environmental	Greening infrastructure	Change in services or service levels	Climate Risk Assessments will determine impact on asset useful lives
Environmental	Carbon Neutrality	Change in services or service levels	The City of Marion Carbon Neutral Plan 2020 – 2030 is currently being developed
Relationships	Collaboration between Cities of Marion, Charles Sturt and Port Adelaide Enfield	Ability to deliver services at a higher operational level	Adopting best practice principles across all three councils to deliver best value
Relationships	Collaboration between neighbouring councils and stakeholders within shared catchments	Improved information and data sharing.	Continue to work with neighbouring councils and share information.
Relationships	Testing of levels of service	Improve understanding of costs and capacity to maintain current service levels	Continue to analyse the cost of providing service and the capacity to fund at the current level of service

ASSET OPERATION, MONITORING AND MAINTENANCE

Council operate, monitor and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. Operation includes cost of electricity and insurance premiums. Maintenance programs are normally focused on industry best practice, legislative requirements and design specifications.



Figure 14: Tripping hazards within the footpath

Council's renewal program minimises the need for heavy reactive maintenance activities as the risk of these is minimised as part of the renewal schedule and proactive maintenance.

- Reactive or unplanned maintenance is repair work which is carried out in response to service requests and management/supervisory directions e.g. Pothole within the road or trip hazard within the footpath. Assessment and priority of reactive maintenance is undertaken by staff using experience and professional judgement
- Proactive or planned maintenance is repair work that is identified and managed through a maintenance management system. Activities include inspection, assessing the condition against failure/breakdown experience, priority of works, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

Summary of future Operations, Monitoring and Maintenance expenditures:

Projected Operations Expenditure										
	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Roads	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Kerb and Watertable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Footpath	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Traffic Control Devices	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Kerb Ramps	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bridges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Street Furniture	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bus Stops	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Street Lighting	\$ 932,966	\$ 890,165	\$ 875,978	\$ 886,059	\$ 895,108	\$ 910,776	\$ 926,718	\$ 942,939	\$ 959,444	\$ 976,238
Retaining Walls	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 932,966	\$ 890,165	\$ 875,978	\$ 886,059	\$ 895,108	\$ 910,776	\$ 926,718	\$ 942,939	\$ 959,444	\$ 976,238

Projected Monitoring Expenditure										
	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Roads	\$ -	\$ 90,000	\$ -	\$ -	\$ -	\$ -	\$ 90,000	\$ -	\$ -	\$ -
Kerb and Watertable	\$ -	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ -	\$ -
Footpath	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000	\$ -
Traffic Control Devices	\$ -	\$ -	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ -
Kerb Ramps	\$ 20,000	\$ -	\$ -	\$ -	\$ 20,000	\$ -	\$ -	\$ -	\$ 20,000	\$ -
Bridges	\$ -	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 40,000	\$ -	\$ -	\$ -
Street Furniture	\$ -	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ 10,000	\$ -	\$ -
Bus Stops	\$ 15,000	\$ -	\$ -	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ 15,000	\$ -
Street Lighting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retaining Walls	\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ -
TOTAL	\$ 135,000	\$ 170,000	\$ 30,000	\$ 10,000	\$ 135,000	\$ -	\$ 170,000	\$ 40,000	\$ 135,000	\$ -

Projected Maintenance Expenditure										
	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Roads	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000
Kerb and Watertable	\$ 475,000	\$ 475,000	\$ 475,000	\$ 475,000	\$ 475,000	\$ 475,000	\$ 475,000	\$ 475,000	\$ 475,000	\$ 475,000
Footpath	\$1,005,000	\$1,005,000	\$1,005,000	\$1,005,000	\$1,005,000	\$1,005,000	\$1,005,000	\$1,005,000	\$1,005,000	\$1,005,000
Traffic Control Devices	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000
Kerb Ramps	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bridges	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
Street Furniture	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000
Bus Stops	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Street Lighting	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Retaining Walls	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
TOTAL	\$2,140,000	\$2,140,000	\$2,140,000	\$2,140,000	\$2,140,000	\$2,140,000	\$2,140,000	\$2,140,000	\$2,140,000	\$2,140,000

ASSET RENEWAL AND DISPOSAL

Renewal expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure resulting in additional future operations and maintenance costs. Council plan capital renewal projects to meet level of service objectives and minimise infrastructure service risks.

The capital renewal program is based on an analysis of the drivers for supply, as well as the outcomes of condition audits and maintenance plans. Where assets are deemed to be under capacity, in the wrong place, not cost effective, lacking functionality, not maintainable or in poor condition, an injection of capital funds may be required.

Asset renewals are generally on a like-for-like basis, with normal capability and capacity being replaced. This traditional approach of like-for-like replacement will be analysed over the term of this Asset Management Plan as it is recognised that this is not always the most effective given maintenance/service standards may change, operational efficiencies identify different requirements from traditional assets utilised, or as new technology emerges. Ranking criteria is used to determine priority of identified renewal proposals across all transport asset classes.

Projected future renewal expenditures are forecast to increase over time when the asset stock ages. The costs will be accommodated in the Long Term Financial Plan and are summarised below:

<i>Projected Renewal Expenditure</i>										
	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Roads	\$4,750,000	\$ 4,750,000	\$ 4,750,000	\$ 4,750,000	\$ 4,750,000	\$ 4,750,000	\$ 4,750,000	\$ 4,750,000	\$ 4,750,000	\$ 4,750,000
Kerb and Watertable	\$ 685,000	\$ 685,000	\$ 685,000	\$ 685,000	\$ 685,000	\$ 685,000	\$ 685,000	\$ 685,000	\$ 685,000	\$ 685,000
Footpath	\$1,720,000	\$ 2,360,000	\$ 2,360,000	\$ 2,360,000	\$ 2,360,000	\$ 2,360,000	\$ 2,360,000	\$ 2,360,000	\$ 2,360,000	\$ 2,360,000
Traffic Control Devices	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000
Kerb Ramps	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bridges	\$ -	\$ 20,000	\$ -	\$ -	\$ 20,000	\$ 30,000	\$ -	\$ -	\$ -	\$ 500,000
Street Furniture	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000
Bus Stops	\$ 20,000	\$ 20,000	\$ 20,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000
Street Lighting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retaining Walls	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 7,575,000	\$ 8,235,000	\$ 8,215,000	\$ 8,255,000	\$ 8,275,000	\$ 8,285,000	\$ 8,255,000	\$ 8,255,000	\$ 8,255,000	\$ 8,755,000

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. No assets have been identified for disposal for this plan. Any assets identified for disposal will be brought forward to Council to determine the disposal of an asset and/or service.

7 - RISK MANAGEMENT

Risk management provides a process for the selection of treatment plans and management actions to protect the community against unacceptable risks. Risk assessment identifies credible hazards, the likelihood of the hazard event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks

An assessment of risks associated with service delivery from transport assets, using Council's risk matrix, has identified the hazards that will result in significant loss, 'financial shock' or a reduction in service:

Hazard	Current Controls	Current Rating	Further Actions	Forecast Rating
Climate change may have any effect on the useful life of an asset. Increased extreme events can impact different assets in different ways.	Monitor condition of assets. Considerations made when designing new or upgraded infrastructure to review material/product selection.	Low	Investigate options to conduct Climate Risk Assessments for City of Marion assets and the forecast impacts on asset useful lives	Low
Asset failures and/or collapse	Monitor assets for defects on a cyclic program. Emergency inspection program for critical assets after extreme events occur.	Low	Recurrent budget	Low
Transport assets have a reduced useful life if not managed optimally (either by loss of key staff knowledge or by budget reduction), resulting in asset failures, increased maintenance or early renewal	1. Asset Management Plan for Infrastructure related assets. 2. Capital Works Plan. 3. Condition audits. 4. Planned maintenance. 5. Asset Management Steering Group.	Low	Recurrent budget for plan creation	Low
Unit rates for infrastructure may exceed forecasted estimates due to unforeseen circumstances (Oil and Gas prices impact road asphalt)	Works programming as proposed under this plan. Scope and cost estimate works on a forward works program Undertake technical inspection of each road prior to programming resealing works	Low	Recurrent budget	Low
Loss of opportunity to address required asset upgrades i.e. footpaths	Consideration given to reallocating surplus renewal funds to asset upgrades, subject to Council approval.	Low	Reallocation of funds from renewal to upgrade.	Low

Critical assets are those which have a high consequence of failure causing significant loss or reduction of service. Investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas. Activities may include increased inspection frequency and higher maintenance intervention levels.

Critical assets and the impact on service delivery have been identified as follows:

Critical Assets	Location	Risk Description	Current Controls
Bridges	<ul style="list-style-type: none"> • Cormorant Drive Road Bridge, Hallett Cove • Finniss Street Road Bridge, Marion • Maxwell Terrace Road Bridge, Glengowrie • Embankment west of Cove Road at Pindee Street intersection, Hallett Cove 	Collapse of asset	Inspections prioritised. Repair/replace of high risk defects
Road Retaining Walls	<ul style="list-style-type: none"> • Brooklyn Drive, Hallett Cove • Perry Barr Road, Hallett Cove • Latimer Crescent, Trott Park • Tasman Court, Hallett Cove 	Collapse of asset	Inspections prioritised. Repair/replace of high risk defects



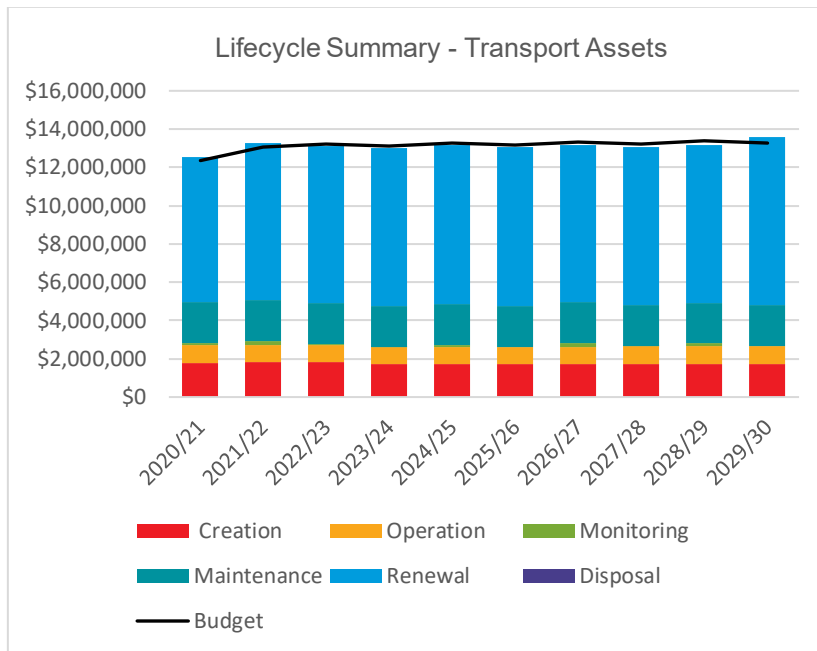
8 – WHAT IT WILL COST AND HOW WE WILL PAY FOR IT

Financial Statements and Projections

The decisions made in adopting this Plan are based on achieving the optimum benefits from the available resources.

This section contains the financial requirements resulting from all the information presented in the previous sections. The financial projections will be refined annually as further information becomes available on desired Levels of Service and current and projected future asset performance.

Funding Strategy



This Asset Management Plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agreed Level of Service to the community over a 10 year period.

This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

All figures in Council's Asset Management Plans are in present value (today's dollars) as a number of factors influence the indexation rates. When incorporating the figures into Council's Long Term Financial Plan, relevant indexations linked to the type of expenditure will be applied.

These figures will be revisited with each iteration of the Long Term Financial Plan.

Lifecycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Lifecycle costs include operations and maintenance expenditure and asset consumption (depreciation expense). The lifecycle cost for the services covered in this Asset Management Plan is **\$131.16M** (average operations and maintenance expenditure plus depreciation expense projected over 10 years).

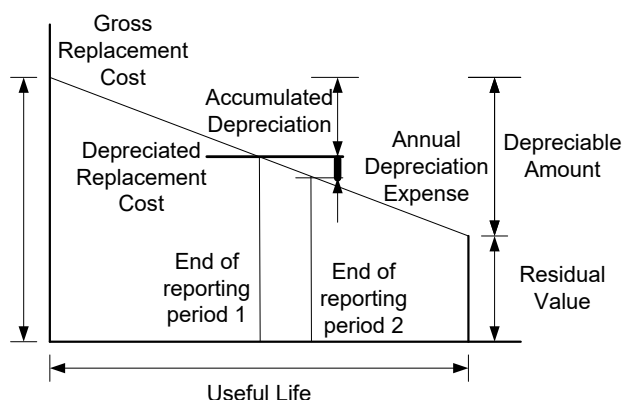
Lifecycle costs can be compared to lifecycle expenditure to give an initial indicator of affordability of projected service levels when considered with age profiles. Lifecycle expenditure includes operations, maintenance and renewal expenditure. Lifecycle expenditure will vary depending on the timing of asset renewals. The lifecycle expenditure over the 10 year planning period is **\$131.16M** (average operations and maintenance plus capital renewal budgeted expenditure in LTFP over 10 years).

The matching of lifecycle cost to lifecycle expenditure gives asset renewal of 100% to maintain the service potential of the assets at year 10 as it was at year 1.

In the future, the Asset Renewal Funding Ratio will be calculated at Asset Management Plan level to better understand service delivery sustainability.

Valuation Forecasts

The value of assets recorded in the asset register at 30 June 2019 covered by this asset management plans is shown below. As assets are replaced regularly in line with Council's 10-year Renewal Program, the purchase price recorded on the asset register is considered to be adequate. If any significant changes are required to the registers these are made accordingly.



Gross Replacement Cost	\$627.23M
Depreciable Amount	\$627.23M
Depreciated Replacement Cost (Written Down Value)	\$509.83M
Annual Average Asset Consumption	\$7.34M

Council's useful life for transport assets are defined earlier in this document.

Rate of Annual Asset Consumption	1.1% (Depreciation/Depreciable Amount)
Rate of Annual Asset Renewal	100% (Capital renewal expenditure/Depreciable amount)

In 2020 Council will renew assets at **100%** of the rate they are being consumed and will be increasing its asset stock by **0.3%** in the year.

The table below details the key assumptions made in presenting the information contained in this asset management plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates.

Key Assumptions	Risk of Change to Assumptions
The Long Term Financial Plan will not change over the planning period	Medium
Community level of service expectations remain consistent	Medium
Carbon Neutral Plan may impact asset planning and renewal evaluation criteria	Medium
The City Transport Plan will inform the future Transport Asset Management Plan with its endorsed recommendations (currently in development)	Medium
Climate Risk Assessments may impact asset useful lives	Low
No significant changes in legislation	Low
Assets are replaced on a 'like-for-like' basis	Low
Assets are replaced based on useful life	Low
The materiality threshold for Infrastructure, Land and Buildings is \$5,000.	Low
Assets should have a useful life of greater than one year in order for the expenditure to be capitalised and have a value above the Materiality Thresholds described above. Any expenditure considered to be Capital must also pass a materiality test. Materiality levels are set so as not to misstate Financial Statements and to provide a guide whether it is practical from an Administrative perspective that expenditure is capitalised.	Low
Networked/Aggregate Assets - Expenditure can still be capitalised on items that fall below materiality thresholds individually but operate together as a cohesive whole to form a substantial/significant total value. Examples include street furniture, signs and fencing.	Low
The new asset management system will be able to capture operations and maintenance costs to better manage the overall expenditure	Low
Operation and Maintenance costs for new assets will be consistent with the operation and maintenance costs of existing assets	Low

9 - WHAT WE WILL DO NEXT - IMPROVEMENT PLAN

Task		Responsibility	Timeline / Frequency
All Transport Assets			
1	Ensure asset handover process is utilised to ensure asset acquisition, upgrade, renewal and disposal is captured and communicated to maintain the Asset Management Information System.	Asset Owner – Engineering, Assets and Environment	Ongoing
2	Review and revise chart of accounts to facilitate consistent and accurate cost allocation for all asset expenditure aligned with the Asset Management Lifecycle.	Manager Finance	Ongoing
3	Revise valuation procedures and valuer briefing to better reflect needs of Asset Management Planning cycle.	Unit Manager Asset Solutions	June 2021
4	Undertake annual review of Asset Renewal Funding Ratio for asset class to ensure assets are being renewed as they are consumed (Ratio of 1.0).	Unit Manager Statutory Finance and Payroll	June 2021 then annually
5	Develop targets for community levels of service	Asset Owner – Engineering, Assets and Environment	June 2021
6	Investigate options to conduct Climate Risk Assessments for City of Marion assets and the forecast impacts on asset useful lives.	Unit Manager Asset Solutions	June 2021
7	Investigate feasibility of adding additional questions of Council's future Community Satisfaction Surveys	Unit Manager Asset Solutions	June 2021
8	Explore alternative asset management systems (as part of council's Digital Transformation initiative) to monitor servicing schedules, record maintenance activities undertaken, and impacts of asset downtime.	Unit Manager Asset Solutions	June 2021 (highly dependent on other factors)
9	Investigate opportunities to integrate with Carbon Neutrality Plan to map out how the City of Marion Transport Assets can reduce carbon emissions for Council operations by 2030.	Asset Owner – Engineering, Assets and Environment	June 2021
10	Annual review of KPIs and benchmarks aligned to Asset Management Strategy.	Unit Manager Asset Solutions	June 2021 then annually
11	Update this Asset Management Plan during annual budget planning processes to show any material changes in service levels and/or resources available to provide those services as a result of budget decisions.	Asset Owner – Manager Engineering, Assets and Environment	November 2021 then annually
12	Undertake a full review of this plan at least every four years, within two years of each Council election or any review to Council's Strategic Plan or data collected for each asset class.	Asset Owner – Engineering, Assets and Environment	November 2024
Road Assets			
13	Review Reconophalt trials and RAP content and performance – continue to explore other innovative sustainable road products and technologies	Asset Owner – Manager Engineering, Assets and Environment	Annually

Kerb & Watertable Assets			
14	Explore environmentally sustainable materials, products and technologies with Kerb and Watertable.	Asset Owner – Manager Engineering, Assets and Environment	June 2021 then annually
15	Develop forward works programs for Maintenance, Renewal, Upgrade and New Kerb and Watertable.	Asset Owner – Manager Engineering, Assets and Environment	December 2022
Footpath Assets			
16	Develop forward works programs for Maintenance, Renewal, Upgrade and New footpaths.	Asset Owner – Manager Engineering, Assets and Environment	December 2020
17	Undertake a footpath network gap analysis for missing links within the footpath network.	Asset Owner – Manager Engineering, Assets and Environment	December 2020
18	Develop a footpath hierarchy model to help priorities forward works programs.	Asset Owner – Manager Engineering, Assets and Environment	June 2021
Traffic Control Device Assets			
19	Explore innovative data collection using machine learning.	Asset Owner – Manager Engineering, Assets and Environment	Ongoing
20	Develop priorities matrix and a plan for Maintenance, Renewal, Upgrade and New.	Asset Owner – Manager Engineering, Assets and Environment	June 2021
Kerb Ramp Assets			
21	Develop an Upgrade and New kerb ramp program.	Asset Owner – Manager Engineering, Assets and Environment	June 2021
Bridge Assets			
22	Develop a proactive Maintenance Schedule.	Asset Owner – Manager Engineering, Assets and Environment	June 2021
23	Develop a bridge hierarchy.	Asset Owner – Manager Engineering, Assets and Environment	June 2022
24	Undertake bridge utilisation surveys.	Asset Owner – Manager Engineering, Assets and Environment	June 2024
25	Review asset useful life and compare performance of materials.	Asset Owner – Manager Engineering, Assets and Environment	June 2024
Street Furniture Assets			
26	Develop a Renewal and Disposal Plan for sign assets.	Asset Owner – Manager Engineering, Assets and Environment	June 2024
Bus Stop Assets			
27	Work with Department for Infrastructure and Transport (DIT) to transition to a new bus network	Asset Owner – Manager Engineering, Assets and Environment	Ongoing

APPENDIX A BUDGETED EXPENDITURES ACCOMMODATED IN LTFP

All figures in Council's Asset Management Plans are in present value (today's dollars) as a number of factors influence the indexation rates. When incorporating the figures into Council's Long Term Financial Plan, relevant indexations linked to the type of expenditure will be applied.

Year	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	TOTAL
2020/21	\$1,766,000	\$932,966	\$135,000	\$2,140,000	\$7,575,000	\$0	\$12,548,966
2021/22	\$1,851,000	\$890,165	\$170,000	\$2,140,000	\$8,235,000	\$0	\$13,286,165
2022/23	\$1,851,000	\$875,978	\$30,000	\$2,140,000	\$8,215,000	\$0	\$13,111,978
2023/24	\$1,701,000	\$886,059	\$10,000	\$2,140,000	\$8,255,000	\$0	\$12,992,059
2024/25	\$1,701,000	\$895,108	\$135,000	\$2,140,000	\$8,275,000	\$0	\$13,146,108
2025/26	\$1,701,000	\$910,776	\$0	\$2,140,000	\$8,285,000	\$0	\$13,036,776
2026/27	\$1,701,000	\$926,718	\$170,000	\$2,140,000	\$8,255,000	\$0	\$13,192,718
2027/28	\$1,701,000	\$942,939	\$40,000	\$2,140,000	\$8,255,000	\$0	\$13,078,939
2028/29	\$1,701,000	\$959,444	\$135,000	\$2,140,000	\$8,255,000	\$0	\$13,190,444
2029/30	\$1,701,000	\$976,238	\$0	\$2,140,000	\$8,755,000	\$0	\$13,572,238
TOTAL	\$17,375,000	\$9,196,391	\$825,000	\$21,400,000	\$82,360,000	\$0	\$131,156,391

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