

FOOTPATH ASSET MANAGEMENT PLAN 2021



DOCUMENT INFORMATION

DOCUMENT TYPE: Strategic document

DOCUMENT STATUS: Approved

POLICY OWNER POSITION: Manager Assets and Infrastructure

INTERNAL COMMITTEE

ENDORSEMENT:

Not applicable

APPROVED BY:

Council

DATE ADOPTED:

23/11/2021

VERSION NUMBER:

2

REVIEW DATE:

23/11/2025

DATE RESCINDED:

RELATED STRATEGIC

Council Plan

DOCUMENTS, POLICIES OR

Asset Management Policy Asset Management Strategy

PROCEDURES:

Road Management Plan

Financial Plan Community Plan Annual Budget

Disability Access and Inclusion Plan 2018-2021Council

Plan

RELATED LEGISLATION:

Local Government Act 2020 Road Management Act 2004

Transport Act 1983 Road Safety Act 1986

Occupational Health and Safety Act 2004

Loddon Shire Council - Local Law No 2 - Roads and

Streets Local LawLocal Government Act 2020

Disability Discrimination Act 1992 Commonwealth Disability Standards

Austroads Guide to Road Design Part 6A Pedestrian

and Cyclist Paths

Infrastructure Design Manual

Australian Standards As 1428 suite of standards

EVIDENCE OF APPROVAL:

Signed by Chief Executive Officer

FILE LOCATION: K:\EXECUTIVE\Strategies policies and

procedures\Strategies - adopted PDF and Word\STR

Footpaths Asset Management Plan V2.docx

Strategic documents are amended from time to time, therefore you should not rely on a printed copy being the current version. Please consult the Loddon Shire website to ensure that the version you are using is up to date.

This document is available in alternative formats (e.g. larger font) if requested.

ACKNOWLEDGEMENT OF COUNTRY

Loddon Shire Council acknowledges the Traditional Custodians of the land comprising the Loddon Shire Council area. Council would like to pay respect to their Elders both past and present.

CONTENTS

1	EXE	CUTIVE SUMMARY	.1
	1.1	Purpose of the plan	.1
	1.2	Asset description	.1
	1.3	Levels of service	.1
	1.4	Future demand	.1
	1.5	Lifecycle management plan	.2
	1.6	Financial summary	.2
	1.7	Risk management	
	1.8	Asset management practices	
	1.9	Monitoring and improvement program	
2	PUR	POSE	
3	BUD	DET IMPLICATIONS	.4
4		(ANALYSIS	
5		RODUCTION	
	5.1	Background	
	5.2	Plan framework	
	5.3	Key stakeholders	
	5.4	Goals and objectives of asset ownership	
6	-	ELS OF SERVICE	
•	6.1	Strategic and corporate goals	
	6.2	Functional hierarchy	
	6.3	Alignment to services	
	6.4	Levels of service	
	6.5	Customer research and expectations	
	6.6	Legislative requirements	
7		URE DEMANDS	
	7.1	Demand forecasts and impact on assets	
	7.2	Demand management strategy	
	7.3	Strategic direction	
8		CYCLE MANAGEMENT PLAN	.14
	8.1	Background data	
	8.2	Routine operations and maintenance plan	
	8.3	Renewal/replacement plan	
	8.4	Creation/acquisition/upgrade plan	
	8.5	Disposal plan	
9	RIS	K MANAGEMENT PLAN	
	9.1	Risk management process	.28
	9.2	Critical assets	
10	FINA	ANCIAL SUMMARY	
		Financial statements and projections	
		Funding strategy	
		Funding sources	
		Key assumptions made in financial forecasts	
		Forecast reliability and confidence	
11		NNED IMPROVEMENT AND MONITORING	
-		Status of asset management practices	
		Improvement plan	
		Monitoring and review procedures	
		Performance measures	.39

LIST OF TABLES

Table 1 - Assets covered by this plan	5
Table 2 - Link to Council objectives	
Table 3 - Asset functional hierarchy: footpaths	8
Table 4 - Services delivered by assets	8
Table 5 - Customer levels of service	9
Table 6 - Technical levels of service	
Table 7 - Customer satisfaction survey results	11
Table 8 - Legislative requirements	
Table 9 - Demand drivers, projections, and impact on services	12
Table 10 - Demand management strategies	
Table 11 - Condition rating system	15
Table 12 - Maintenance strategy summary	17
Table 13 - Maintenance and operations management approach	18
Table 14 - Asset inspection type summary	
Table 15 - Renewal and replacement priority ranking criteria	
Table 16 - Renewal modelling variables and input values	
Table 17 - Asset improvement priority ranking criteria	
Table 18 - Infrastructure risk register	28
Table 19 - Projected allocations: Full funding of renewal	
Table 20 - Projected allocations: Optimised funding solution	
Table 21 - Projected allocations: Current Financial Plan	
Table 22 - Funding sources	
Table 23 - Data confidence grading system	
Table 24 - Overview of corporate systems	
Table 25 - Improvement plan	39
LIST OF FIGURES	
Figure 1 - Asset management document relationship	5
Figure 2 - Examples of footpath network layout Error! Bool	kmark not defined.
Figure 3 - Condition profile: sealed footpaths	
Figure 4 - Condition profile: unsealed footpaths	
Figure 5 - Projected operations and maintenance expenditure	
Figure 6 - Projected capital renewal and replacement expenditure	
Figure 7 - Projected operating and capital expenditure	
Figure 8 - Renewal forecast: Full funding of renewal	
Figure 9 - Operating and Capital Expenditure: Full Funding of Renewal	
Figure 10 – Renewal forecast: Optimised funding solution	
Figure 11 - Operating and Capital Expenditure: Optimised Funding Solution .	
Figure 12 – Renewal forecast: Current Financial Plan	
Figure 13 - Operating and Capital Expenditure: Current Financial Plan	35

1 EXECUTIVE SUMMARY

1.1 Purpose of the plan

This Asset Management Plan has been developed in accordance with Council's Asset Management Policy and principles of the Asset Management Strategy (Objectives).

This Asset Management Plan details information about Council's footpath assets. The plan outlines the management approach to:

- describing and aligning the assets to services (as informed by corporate and service planning)
- managing the future demand for assets to achieve and maintain financial sustainability
- optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost)
- identifying and managing risks associated with the relevant asset (including criticality and condition)
- what funds (operating and capital) are required to operate the asset portfolio in alignment with the Asset Management Plan over a 10-year planning period
- continual improvement in the management of the assets and performance monitoring.

1.2 Asset description

Council's footpaths contribute to the community through:

- access and safe movement of people
- community linkages to shops, schools, neighbours, and friends
- recreation and health and fitness opportunities
- improvement to local amenity.

The footpath network which Council is responsible measures approximately 37km in total length.

The network comprises both sealed (i.e. asphalt, concrete, brick pavers) and unsealed pathways (e.g. gravel). Council's footpath network has been developed over time to provide pedestrian access around the major townships within the shire area.

Asset description	Asset quantity	Units
Sealed Paths	29,044	metres
Unsealed Paths	8,240	metres

These infrastructure assets have significant replacement value of **\$7,562,619**.

1.3 Levels of service

Council is in the process of developing comprehensive levels of service for our footpaths. In time, this will include deliberative consultation with the community.

At present, management of assets, including intervention points and chosen treatment methods, is based upon:

- available budget and resource allocations
- feedback from the community
- active monitoring of the performance of the footpath network.

Our present funding levels are insufficient to continue to provide existing services at the current levels in the short- to medium-term.

This plan, and future revisions, will inform the long-term financial planning to fund the future renewal and upgrades necessary to meet the capacity demand and levels of service.

1.4 Future demand

The main demands for new services are created by:

- population and demographic change
- ageing infrastructure
- increased awareness of the benefits of walking as an active transport option.

These will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management.

We will implement demand management practices to control future increased costs of our assets, including the consideration of non-asset solutions and mitigating the increased threat (risk exposure) of asset and system failure by:

- planning network improvements to coincide with major land use changes
- incorporating the principles of universal design in all footpath projects to promote access for all
- ensuring all footpaths are constructed to meet Council's standards.

1.5 Lifecycle management plan

Lifecycle planning describes the approach to maintaining an asset from construction to disposal. It involves the prediction of future performance of an asset, or a group of assets, based on investment scenarios and maintenance strategies.

Our current approach to managing and operating our transport assets is predominantly reactive with only limited planning. We are striving to improve our approach to lifecycle management to make sure that we deliver on our service commitments in the most cost effective and efficient manner.

1.6 Financial summary

The projected outlays necessary to provide the services covered by this plan includes operations, maintenance, renewal, upgrade and new assets over the 10-year planning period is **\$2,058,701** or **\$205,870** on average per year.

1.6.1 What funding sources are available

Estimated available funding for the next 10 financial years is \$1,946,590 or \$194,659 on average per year as per the Financial Plan or budget forecast. This is 95% of the cost to sustain the current level of service at the lowest lifecycle cost.

Allocated funding contained in Council's Financial Plan leaves a shortfall of *\$11,211* on average per year of the projected expenditure required to provide the services in this Asset Management Plan.

This funding shortfall is not considered significant and will have only a minor effect on service levels.

1.6.2 What we will do with constrained funding

We plan to provide the following related services:

- continue to inspect and maintain our footpaths to meet the standards of our Road Management Plan
- gradually improve the connectivity of our network
- renew our footpaths according to priorities and annual budget allocations

1.6.3 What we cannot do with constrained funding

Works and services that cannot be provided under present funding levels are:

- an increased overall level of service delivered by road and footpath assets
- upgrade of all identified functional deficiencies across the footpath network
- upgrade gravel footpaths to sealed paths on request.

1.7 Risk management

There are risks associated with providing the service and not being able to complete all identified activities and projects.

The main risks are:

- pedestrians tripping and falling with potential for serious injury.
- decline in condition and reduced effective life of footpaths.
- risk of conflict between pedestrians and vehicular traffic.

We will endeavour to manage these risks within available funding by continuing to implement our inspection, maintenance and renewal programs to keep our roads and footpaths in a safe and serviceable condition.

1.8 Asset management practices

Council's Asset Management Framework provides a structured approach for the development, coordination, and control of our activities on assets over their life cycle,

and for aligning these activities with our vision and strategic objectives.

Council's asset management planning is supported by three key documents:

- Asset Management Policy
- Asset Management Strategy
- Asset Management Plans.

Our systems to manage assets include:

Finance and accounting – *Attache*Asset management system – Moloney Asset
Management System

Assets requiring renewal/replacement are identified using a combination of an analysis of the long-term financial needs at a network level and Council's asset

information to identify specific assets requiring renewal at a project.

1.9 Monitoring and improvement program

The next steps resulting from this Asset Management Plan to improve asset management practices are:

- conducting regular condition assessments at regular intervals.
- confirming community levels of service related to footpaths and establishing mechanisms to measure community satisfaction
- developing a Footpath and Pedestrian Access Strategy to create safe, accessible, and connected pedestrian network.

2 PURPOSE

This Asset Management Plan has been developed in accordance with Council's Asset Management Policy and principles of the Asset Management Strategy (Objectives).

This Asset Management Plan details information about Council's footpath assets. The plan outlines the management approach to:

- describing and aligning the assets to services (as informed by corporate and service planning)
- managing the future demand for assets to achieve and maintain financial sustainability
- optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost)
- identifying and managing risks associated with the relevant asset (including criticality and condition)
- what funds (operating and capital) are required to operate the asset portfolio in alignment with the Asset Management Plan over a 10-year planning period
- continual improvement in the management of the assets and performance monitoring.

3 BUDGET IMPLICATIONS

The projected outlays necessary to provide the services covered by this plan includes operations, maintenance, renewal, upgrade and new assets over the 10-year planning period is \$2,058,701 or \$205,870 on average per year. Estimated available funding for the next 10 financial years is \$1,946,590 or \$194,659 on average per year as per the Financial Plan or budget forecast. This is 95% of the cost to sustain the current level of service at the lowest lifecycle cost. Allocated funding contained in Council's Financial Plan leaves a shortfall of \$11,211 on average per year of the projected expenditure required to provide the services in this Asset Management Plan.

4 RISK ANALYSIS

There are risks associated with providing the service and not being able to complete all identified activities and projects.

The main risks are:

- pedestrians tripping and falling with potential for serious injury
- decline in condition and reduced effective life of footpaths
- risk of conflict between pedestrians and vehicular traffic.

We will endeavour to manage these risks within available funding by continuing to implement our inspection, maintenance and renewal programs to keep our roads and footpaths in a safe and serviceable condition.

5 INTRODUCTION

5.1 Background

This Asset Management Plan outlines the required management approach to:

- describing and aligning the assets to services (as informed by corporate and service planning)
- managing the future demand for assets to achieve and maintain financial sustainability
- optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost)
- identifying and managing risks associated with the relevant asset (including criticality and condition)
- what funds (operating and capital) are required to operate the asset portfolio in alignment with the asset management plan over a 10-year planning period
- continual improvement in the management of the assets and performance monitoring.

This asset management plan is to be read with Council's Asset Management Policy and Asset Management Strategy along with Council's Community Plan and Council Plan.

Figure 1 shows the different documents that influence and inform this Asset Management Plan.

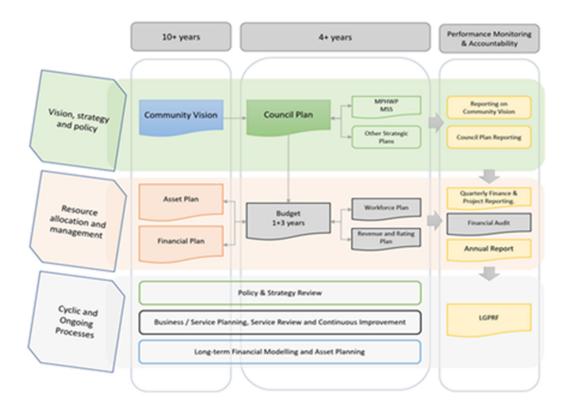


Figure 1 - Asset management document relationship

The infrastructure assets covered by this asset management plan are shown in Table 1.

Council's footpath assets are infrastructure provided to the community to facilitate to the community a safe, convenient, and defined means for pedestrian access to promote connectivity and health and well-being.

Useful Accumulated **Depreciated** Current Asset Asset life Quantity Unit replacement depreciation replacement category group (years) value (\$) (\$) cost (\$) \$7,117,813 \$5,295,646 Footpaths Sealed 29,044 \$1,825,826 metres 50 Paths Unsealed 8,240 \$441,147 \$220,518 \$220,629 15 metres **Paths** Total 37,284 \$7,562,619 \$2,046,344 \$5,516,275 metres

Table 1 - Assets covered by this plan

5.2 Plan framework

This Asset Management Plan has been prepared using good practice guidance from the *ISO55000 -* Asset Management standard, International Infrastructure Management Manual and has been developed based on existing processes, practices, data, and standards.

Council is committed to striving towards best appropriate asset management practices and it is recognised that this Asset Management Plan will need to be updated periodically to reflect changes to management of Council's assets.

It is intended that Council's asset management plans should always reflect as closely as practicable actual practices used in managing its assets. Only in this way will Council be best able to ascertain its long-term financial needs for delivering sustainable assets and services.

5.3 Key stakeholders

Our assets are utilised by a broad cross-section of the community.

The stakeholders in the management of Council's footpath assets are many and often their needs are wide-ranging. The relevant key stakeholders are:

- Councillors
- local residents including cyclists, pedestrians, etc
- visitors to the Shire
- tourism operators
- utility agencies
- developers
- neighbouring councils
- Regional Roads Victoria and other government departments
- Council's insurers

The community's needs and expectations are subject to change frequently and are becoming more demanding manifested by demands for services that provide better quality, value for money, environmental awareness and relevant value adding.

This plan will demonstrate to the various stakeholders that Council is managing its footpath assets in a responsible manner.

5.4 Goals and objectives of asset ownership

Our goal in managing infrastructure assets is to meet the defined range and levels of service in the most cost-effective manner for present and future consumers.

By achieving the most cost-effective approach, we will contribute to affordability and liveability contributing to a vibrant, growing, and connected community.

The key elements of infrastructure asset management are:

- providing a defined level of service and monitoring performance
- managing the impact of growth through demand management and infrastructure investment
- taking a lifecycle approach to developing cost-effective management strategies that meet the defined levels of service
- identifying, assessing and appropriately controlling risks
- linking to a long-term financial plan which identifies required, affordable expenditure and how it will be allocated.

6 LEVELS OF SERVICE

This section defines the level of service or performance criteria that are required and the basis of the decision behind their adoption. The levels of service support Council's strategic goals and are based on customer expectation and statutory requirements.

6.1 Strategic and corporate goals

This Asset Management Plan is prepared under the direction of Council's vision, mission, goals and objectives.

Our vision is:

To be a prosperous, vibrant, and engaged community.

Relevant Council goals and objectives and how these are addressed are:

Table 2 - Link to Council objectives

Strategy	Action	Strategic indicator			
Theme: Economic prosperity					
Economic infrastructure Support the delivery of key public infrastructure that facilitates improved economic returns	 Advocate for, and where appropriate, deliver quality roads and strategic freight route and improved reliability and capacity of essential services 	 Review Road Asset Management Plan Pursue advocacy opportunities for essential infrastructure and services 			
Theme: Liveability					
Township appearance Ensure our townships are presented to a high standard	 Improve character and appearance of townships 	 Implement streetscape improvements in key townships 			
Lifestyle infrastructure Provide quality infrastructure which supports the desired lifestyles of our residents	 Identify appropriate levels of service across all infrastructure categories within relevant Asset Management Plans 	 Develop a plan for rationalisation of unnecessary assets with a direction towards future use of multi-purpose facilities 			
Theme: Sustainability					
Economic sustainability Ensure the ongoing economic viability of Loddon Shire Council operations	 Undertake comprehensive service delivery reviews across Council 	 Complete a minimum of three service delivery reviews per year 			

Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this Asset Management Plan.

6.2 Functional hierarchy

Council footpath assets are classified according to a hierarchy in terms of their specific function, demand, capacity, use patterns, and potential risk. The hierarchy classification is used to assist in prioritising works programs and intervention responses to remedy defects.

Council's hierarchy or classification system for its footpaths is detailed below.

Table 3 - Asset functional hierarchy: footpaths

Hierarchy code	Classification	Functional definition
BF	Business Area Footpath	Moderate use fully constructed footpaths in shopping areas and near schools and other pedestrian traffic generators
SF	Strategic Footpath	Moderate use footpath which may be gravel or fully constructed. Includes footpaths to specific locations
RF	Residential Area Footpath	Low use fully constructed footpaths or part constructed gravel footpaths in residential areas.
IF	Informal Footway	Un-constructed footways with little use.

6.3 Alignment to services

The assets covered by this Asset Management Plan contribute and support the delivery of the following Council services:

Table 4 - Services delivered by assets

Asset type	Council service category	Service delivered
Footpaths	Local roads	The service is provided to maintain access users of Council's road infrastructure.

These services align with Council's service planning and delivery framework.

6.4 Levels of service

Service levels are defined in two types, customer levels of service and technical levels of service. At present, indications of current and target levels of service are obtained from various sources including:

- community satisfaction surveys
- residents' feedback to Council and staff
- operations staff feedback to management
- feedback from other stakeholders
- service requests and related correspondence entered in Council's customer request system
- physical measurements of quality standards
- legislative standards (minimum requirements).

In future, it is also expected that Council will undertake deliberative community engagement to validate these levels of service.

6.4.1 <u>Customer levels of service</u>

Customer levels of service measure how the customer receives the service and whether value to the customer is provided in terms of:

Quality	How good is the service what is the condition or quality of the service?		
Function Is it suitable for its intended purpose Is it the right service?			
Capacity/Use	Is the service over or under used do we need more or less of these assets?		

The current and target performance associated with the customer service levels are detailed in Table 5:

Table 5 - Customer levels of service

Key performance measure	Level of service objective	Performance measure process	Current performance	Target performance
	Draviding factneths	Annual Community* Satisfaction Survey	52	57^
Quality	Providing footpaths of an appropriate condition and standard	Footpath network condition	97.8% of network below condition intervention score of 7	3% of network above condition intervention score of 7
Function	Providing footpaths that meet user requirements	Proportion of network that meets accessibility requirements	To be assessed	To be assessed
Capacity/ Utilisation	Providing a connected pedestrian network	Percentage of urban roads that have footpaths that meet Council's design standards	To be assessed	To be assessed

Notes

6.4.2 <u>Technical levels of service</u>

Technical levels of service are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

Operations	The regular activities to provide services (e.g. Opening hours, cleansing, mowing grass, energy, inspections, etc.
Maintenance	The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. Road patching, unsealed road grading, building and structure repairs).
Renewal	The activities that return the service capability of an asset up to that which it had originally (e.g. Road resurfacing and pavement reconstruction, pipeline replacement and building component replacement).
Asset improvement	The activities to provide a higher level of service (e.g. Widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. A new library).

^{*} Results taken from the DEWLP's Local Government Community Satisfaction Survey conducted in 2020

[^] Average community satisfaction for small rural councils group

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.

Table 6Error! Reference source not found. shows the technical levels of service expected to be provided under this Asset Management Plan. The 'Desired' position in the table documents the position being recommended in this Asset Management Plan.

Table 6 - Technical levels of service

Key performance measure	Level of service objective	Performance measure process	Current performance	Target performance
	Maintaining the	Planned maintenance	Maintenance undertaken in accordance with RMP	Maintenance undertaken in accordance with RMP
Operations and maintenance	safety, functionality, and serviceability of the footpath	Reactive maintenance	Requests responded to in accordance with RMP	Requests responded to in accordance with RMP
	network	Inspections	Inspections completed in accordance with RMP	Inspections completed in accordance with RMP
Asset renewal	Preserving the condition of footpath infrastructure	Annual renewal program	100% of scheduled program delivered	100% of scheduled program delivered
Asset improvements	Providing a safe network of well- connected pedestrian routes	Annual upgrade program	100% of scheduled program delivered	100% of scheduled program delivered

It is important to monitor the service levels provided regularly as these will change. The current performance is influenced by work efficiencies and technology, and customer priorities will change over time.

Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

6.4.3 Actual levels of service

Council recognises the importance that levels of service play in optimising the lifecycle management of infrastructure assets. For the assets covered by this plan, Council continues to work towards achieving the required service levels in practice.

The development and monitoring of actual service level will be one of the foundations of future improvement through the asset management planning process.

6.5 Customer research and expectations

6.5.1 Community consultation

Council is committed to transparent and informed decision making in relation to the management of its assets and services through engagement with the community. Council undertakes inclusive community consultation to define service levels and performance measures through the development of its Community Plan, the Council Plan, and Annual Budget. These discussions provide input to Council's strategic directions which are supported by the various services, projects, and programmes which its delivers.

Wherever practicable, community input is sought on appropriate aspects of planning our footpath assets by way of consultation. However, Council acknowledges that it needs to do more work with its community in developing levels of service and it will target discussions when making decisions which influence the way that Council delivers its services and manage our assets.

Once service levels and budget funding issues have been properly reconciled, it is appropriate that Council should consult with the community to ensure that these service levels are meeting community expectations.

6.5.2 Community satisfaction

Council participates in the Local Government Community Satisfaction Survey coordinated by the Department of Environment, Land, Water and Planning on behalf of Victorian councils.

This survey measures community views towards, and satisfaction with, the services delivered by Council. The results from the survey conducted in 2020 are summarised in Table 7.

Loddon Shire Small Rural Statewide
Performance measure Council Councils Group Average

2020

57

2020

58

Table 7 - Customer satisfaction survey results

2020

52

What does this mean?

Condition of local streets and footpaths

The result of this community satisfaction survey indicates that our community a moderate acceptance of the condition and quality Council's road and footpath networks.

Future revisions of this Asset Management Plan will aim to incorporate more community consultation on service levels and costs of providing the service. This will assist the Council and stakeholders in matching the level of service required, and service risks and consequences with the community's ability and willingness to pay for the service.

6.6 Legislative requirements

There are many legislative requirements relating to the management of assets. These include:

Table 8 - Legislative requirements

Legislation	Requirement
Local Government Act 2020	Sets out role, purpose, responsibilities and powers of Council including the preparation of a Financial Plan supported by asset management plans for sustainable service delivery.
Road Management Act 2004 and associated Regulations and Codes of Practice	Establishes a coordinated management system for public roads that promotes safe and efficient State and local road networks. This also includes the responsible use of road reserves for other legitimate purposes (e.g. provision of utility services). Defines the responsible authorities for all roads within the state. It makes Council the controlling authority for Public Local Roads, Boundary Roads, and parts of Declared Roads within the municipal area.
Transport Act 1983	Relates to the operation of the road network
Road Safety Act 1986	Safety requirements relating to the use and operation of the road network.
Occupational Health and Safety Act 2004	Applicable to working within the road reserve.
Loddon Shire Council – Local Law No 2 – Roads and Streets Local Law	Controls for vegetation overhanging footpaths and sets out landholder responsibilities in relation to keeping footpaths clear of obstructions including goods, signs, tables, and chairs

7 FUTURE DEMANDS

The objective of asset management is to create, operate, maintain, rehabilitate, and replace assets at the required level of service for present and future customers in a cost effective and environmentally sustainable manner. The Asset Management Plan must therefore forecast the needs and demands of the community in the future and outline strategies to develop the assets to meet these needs.

7.1 Demand forecasts and impact on assets

The present position and projections for demand drivers, and their potential impacts on future service delivery and use of assets is identified and documented in Table 9Error! Reference source not found..

Table 9 - Demand drivers, projections, and impact on services

Demand Factor	Projection	Impact on asset
Population change	Census figures estimate the population of Loddon Shire is stable.	 A stable population reduces the capacity of Council to raise revenue through rates. A stable population reduces need for new footpaths.

Demand Factor	Projection	Impact on asset
Demographics	The population of Loddon Shire is increasing in age. Between 2011 and 2016, there was a 8% increase in the number of residents over the age of 60. This trend is expected to continue.	 With an increase in the proportion of elderly persons within the community there may be corresponding growth in the use of mobility scooters and other walking aids, resulting in a greater need for level and well-constructed paths and crossings. A review of Council's design standards for footpaths will be required to embed the principles of universal design to respond to changing accessibility needs.
Ageing infrastructure	Council has a legacy whereby road and footpath assets, based on their age profile, will require renewal or rehabilitation in the near term to maintain basic service levels.	 Without adequate funding, the declining condition of Council's footpath assets will result in reduced levels of service and increased risk of failure.
Increased health awareness	Residents are increasingly aware of the health benefits of walking or jogging	 Pedestrian facilities will need to be reviewed and enhanced so that a safe and continuous network of footpaths is provided to support active transport and recreation.

7.2 Demand management strategy

Demand management is not intended to reduce the scope or standard of services provided by an asset, but rather, it is concerned with aligning demand or expectation of service provided by an asset with the available resources to ensure that genuine needs are met and community benefit is maximised.

Demand management components may include:

Table 10 - Demand management strategies

Demand Factor	Applicable Strategy(s)
Operation (modification of access to an asset)	 Develop design guidelines that consider future demand factors and good design principles. Principles of universal design incorporated as a requirement to be considered in all footpath projects. Ensure all footpaths (Council or private development) are constructed to meet Council's standards.
Regulation (restriction on the type of use of an asset)	 Enforcement of Works Within Road Reserve and Asset Protection permits to control the activities of third parties which may impact on the condition of our footpaths.
Incentives (Influence the use of an asset)	 Develop a footpath and pedestrian access strategy to create safe, accessible, and connected pedestrian network. Plan network improvements to coincide with major land use changes.

Education (promotion			
of alternatives)			

Introduce programs to inform the public of the benefits of public and active transport and the available options.

7.3 Strategic direction

There are a number of existing strategies and plans which have been developed to provide a strategic response to the demands, challenges and opportunities which the ongoing management of the assets covered by this plan present. These documents include:

- Community Plan
- Council Plan
- Road Management Plan
- Disability Access and Inclusion Plan 2018-2021

8 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while managing life cycle costs.

8.1 Background data

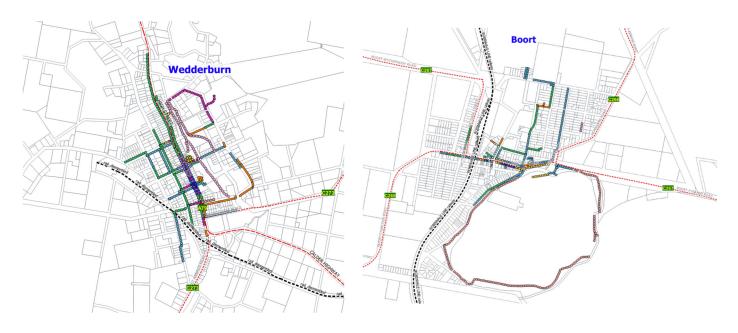
8.1.1 Physical parameters

The assets covered by this Asset Management Plan are shown in Table 1.

The footpath network which Council is responsible measures approximately 37km in total length.

The network comprises both sealed (i.e. asphalt, concrete, brick pavers) and unsealed pathways (i.e. gravel). Council's footpath network has been developed over time to provide pedestrian access around the major townships within the Shire area.

Figure 2 - Examples of footpath network layout



8.1.2 Asset condition

Asset condition is a measure of the health of an asset and is a key consideration in determining remaining useful life, as well as predicting how long it will be before an asset needs to be repaired, renewed or replaced. Asset condition is also an indicator of how well it can perform its function. Condition data is valuable for developing long term funding scenarios for strategic planning of Council's budget.

Council measures the condition of its assets using a standardised 0 to 10 grading system.

A summary of the condition rating scale used for the assets covered by this Asset Management Plan is detailed in Table 11. Council's condition grading system follows good practice guidance as provided by various industry standards including the *International Infrastructure Management Manual*.

Condition data for Council's roads and footpaths is recorded in its asset register and is used for renewal modelling, capital works planning, and financial reporting.

Table 11 - Condition rating system

Score	Condition rating	Description			
0	New	New or an asset recently rehabilitated back to new condition.			
1	Near New	Near new no visible signs of deterioration often based upon the time since construction rather than observed condition decline.			
2	Excellent	Excellent. Very slight condition decline obvious no longer in new condition.			
3	Very Good	Very good early stages of deterioration minor no serviceability problems.			
4	Good	Good some obvious deterioration evident slightly impaired serviceability.			
5	Fair	Fair obvious deterioration some serviceability loss.			
6	Fair to Poor	Fair to poor. Quite obvious deterioration serviceability would be affected and rising maintenance cost.			
7	Poor	Poor severe deterioration serviceability limited high maintenance cost			
8	Very Poor	Very poor serviceability heavily impacted. Very high maintenance cost needed to be rehabilitated.			
9	Extremely Poor	Extremely poor severe serviceability problems needing rehabilitation immediately. Could also be a risk to remain in service			
10	Failed	Failed no longer serviceable and should not remain in service extreme risk			

The following figure(s) provide an overview of the condition of Council's footpath assets:

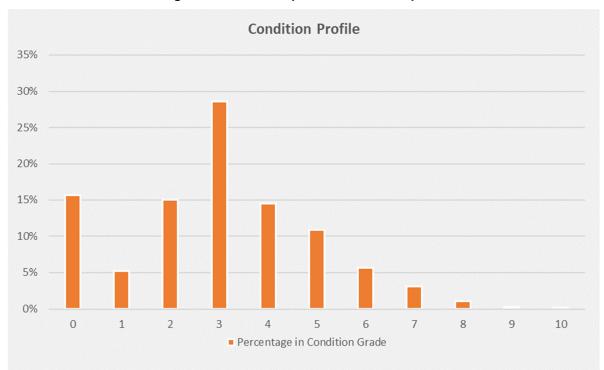


Figure 3 - Condition profile: sealed footpaths





What does this mean?

The overall condition profile for Council's footpaths indicates that they are in a general state that promotes safety and efficiency.

The results of the condition surveys of Council's footpaths indicates that 16% of the total length of the footpath network is in 'as new' condition. This equates to approximately 5.6km of the network essentially

being brand new. This is reflective of the investment that Council has made over recent times towards replacing sections of footpath that were due for renewal and providing new footpaths to further improve the connectivity of the network.

Approximately 2% (around 0.9km) of the network does not meet Council's basic service levels for condition and requires replacement in the short term. This is a key driver of the annual footpath replacement program. While this appears to be a relatively small proportion of the network, Council must continue to allocate responsible levels of funding towards asset renewal to ensure that its footpaths are presented to the community in a safe and functional condition.

8.2 Routine operations and maintenance plan

Effective maintenance strategies are essential to ensure that an asset performs at the desired service level on a day-to-day basis.

Operations	Regular activities to provide public health, safety, and amenity (e.g. street sweeping, grass mowing, street lighting, cleaning pipes, etc).	
Maintenance	Regular ongoing day–to-day work necessary to ensure asset achieves its defined useful life (e.g. pothole patching, replacement of a window, footpath grinding, etc).	

8.2.1 Maintenance strategy

The following general maintenance and operations strategies are applied to Council's footpath assets:

Table 12 - Maintenance strategy summary

Operations	Use and manage the assets in a manner that minimises the long term overall total cost. Undertake scheduled inspections as justified by the consequences of failure on levels of service, costs, public health, or safety.
Reactive maintenance	A suitable level of preparedness for prompt and effective response to service requests or asset failures is maintained.
Planned or preventative maintenance	Undertake planned asset maintenance activities to minimise the risk of critical asset failure and to maintain assets in a manner that minimises ongoing lifecycle costs.

8.2.2 Management approach to maintenance and operations

Council's management response to its maintenance and operations responsibilities for its footpaths assets is detailed in Table 13:

Table 13 - Maintenance and operations management approach

Activity category	Activity examples	Prioritisation factors	Challenges/deficiencies with current practices	Improvement strategy
Operations	 Inspections Vegetation control (overhanging vegetation) Debris/litter removal Response to incidents 	 There are statutory or Council policy obligations/drivers Continued asset functionality is critical to network performance The health and safety of the community or Council staff has the potential to be compromised 	No issues have been identified with current maintenance practices for Council's footpaths	 Nil improvement initiatives required at this time however Council's maintenance practices are subject to ongoing review to value for money is delivered
Reactive maintenance	 Responding to issues raised via customer requests Minor repair works to footpaths such as filling of potholes in gravel paths Interim repairs made to preserve safety until further works are undertaken Footpath sweeping/cleaning 	 Intervention standards or levels of service according to footpath hierarchy not being met Formal risk assessment in accordance with Council's RMP 	No issues have been identified with current maintenance practices for Council's footpaths	 Nil improvement initiatives required at this time however Council's maintenance practices are subject to ongoing review to value for money is delivered
Planned or preventative maintenance	 Replacement of small or isolated sections of footpath Grinding of displacements in concrete footpaths Topping up of natural surface areas adjacent to footpaths to correct edge drops 	 It is likely that the area of distress may expand or the method of repair changes such that the costs will increase. Intervention standards or levels of service according to footpath hierarchy not being met Formal risk assessment in accordance with Council's RMP 	No issues have been identified with current maintenance practices for Council's footpaths	 Nil improvement initiatives required at this time however Council's maintenance practices are subject to ongoing review to value for money is delivered

Regardless of any specific intervention standard or guideline nominated, Council will take reasonable actions necessary to maintain safety and compliance of its footpath assets.

8.2.3 Maintenance arrangements

Footpath maintenance works are undertaken by Council's Works Department. This is supplemented by external contractors in cases where specialist services or further technical skills are required to address specific issues.

8.2.4 Maintenance standards

The standard of work for repair and maintenance of Council's footpaths assets will be that typically provided to ensure that the works carried out are suitable for purpose.

All materials used in the maintenance and repair of Council's footpaths assets will comply with all relevant technical standards.

8.2.5 <u>Inspections</u>

For Council to carry out effective planning and competent management of its footpath assets, both in a strategic and operational sense, it is essential that maintenance and performance related information is collected through disciplined and regular inspections of the whole portfolio.

Council's inspection activities can be grouped into the following categories based on definition and purpose:

Table 14 - Asset inspection type summary

Table 14 - Asset inspection type summary						
Inspection type	Description	Current status	Inspection frequency			
Cyclic inspections	Cyclic inspections involve a visual investigation to assess for hazards or maintenance issues that do not meet Council's levels of service or risk management objectives. These inspections provide a basis for urgent, preventative, and recurrent maintenance needs.	Cyclic inspections are coordinated by the Works department.	Cyclic inspections of footpaths are undertaken in accordance with Council's RMP.			
Reactive inspections	Reactive inspections are initiated generally by requests for maintenance received from asset users. Council's objective in relation to maintenance requests is to inspect and prioritise the work requests within specific timeframes.	Inspections or site assessments are undertaken in response to customer requests by Council's Works Department and officers from the Assets and Infrastructure Unit.	Reactive inspections are undertaken as required in accordance with Council's RMP.			
Condition inspections	A condition audit is a systematic inspection and identification and recording of the physical and functional adequacy of assets. The purpose of these inspections is to provide an input for life-cycle cost analysis, and asset planning purposes. This level of inspection does not identify detailed maintenance requirements but provides a basis for managing the asset portfolio from a strategic perspective.	Condition inspections are coordinated by the Assets and Infrastructure Unit. 20% of the footpath network is inspected annually.	Council's footpath network is inspected formally every year with 20% of the network assessed.			

8.2.6 Future operation and maintenance costs

Future operation and maintenance costs are forecast to trend in line with the value of the asset stock as shown in **Error! Reference source not found.**. Note that all costs are shown in current 2021/22 dollar values (i.e. real values).

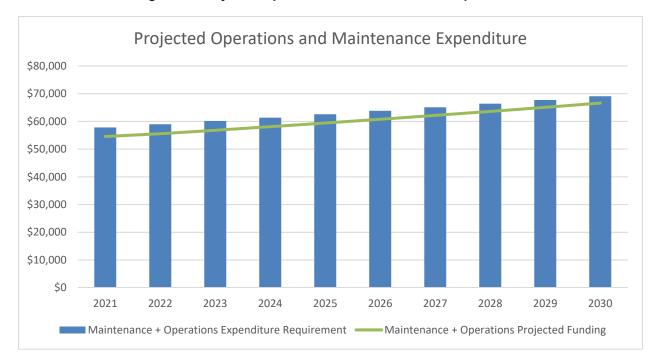


Figure 5 - Projected operations and maintenance expenditure

What does this mean?

Figure 5 shows the predicted maintenance and operations expenditure compared with the forecast funding proposed in Council's current Financial Plan. The current allocation for maintenance and operations in the Financial Plan is \$601,146 over the next ten (10) years which is less than the forecast required amount of \$633,146. This is an under allocation of \$32,000 and will have a minimal effect of maintenance and operation service levels.

The increase in maintenance and operations requirements is indicative of the increasing asset base resulting from Council's current strategy to enhance the connectivity of its footpath network through the construction of new and upgraded pathways. While it is predicted that Council will have a small shortfall in maintenance funding, the investment trend follows the forecast expenditure requirement over the next ten (10 years).

Council should undertake a review a review of its future maintenance and operations allocations to ensure that they are sufficient to meet current service levels which achieve compliance with Council's Road Management Plan. This should form the basis of a more comprehensive service level review to better align levels of service with community expectations while also sustaining affordability.

8.3 Renewal/replacement plan

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.

Increasing the design capacity of an asset is an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified through inspections, condition assessments, and service level assessments to identify specific assets requiring renewal.

8.3.1 Renewal strategy

Renewal strategies are based on assessing a range of factors to ensure the appropriate level of investment is targeted at the optimum time to ensure assets remain fit for purpose and that renewal plans are efficient and effective. The factors considered include the following:

- Criticality;
- Maintenance and/or failure history (i.e. when do ongoing maintenance works become uneconomic);
- Age;
- Expected life;
- Remaining useful life;
- Condition (where known);
- Condition prediction;
- Geographical grouping; and
- Timing in relation to linked asset renewal plans.

As a general principle the number and cost of repairs will determine the optimum timing to invest in the renewal of assets. Every time an asset is repaired it provides information about its performance, rate of deterioration, and a prediction of the optimum time to renew.

As the rate of repairs increase a prediction can be made about the optimum time to renew an asset to keep the cost of ownership at the optimum level.

8.3.2 Renewal standards

Council's construction standards are based on various standards necessary to accommodate the demands and technical requirements placed on our assets.

These standards take into consideration the extensive work previously undertaken by the various professional and industry bodies such as:

- Disability Discrimination Act 1992
- Commonwealth Disability Standards
- Austroads Guide to Road Design Part 6A: Pedestrian and Cyclist Paths.
- Infrastructure Design Manual
- Australian Standards AS 1428 suite of standards

All renewal works shall comply with Council's engineering standards and specifications for design and construction that apply at the time. The design of footpath renewal works is in all cases undertaken by suitably qualified and experienced practitioners where necessary.

8.3.3 Renewal ranking criteria

In general, renewal works are prioritised and planned by assessing the following considerations:

- safety issues
- physical condition
- risk and asset criticality
- community/user feedback
- location and use type and patterns

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- have a high consequence of failure
- have high use and subsequent impact on users would be greatest
- have a total value representing the greatest net value
- have the highest average age relative to their expected lives
- are identified in the AM Plan as key cost factors
- have high operational or maintenance costs
- have replacement with a modern equivalent asset that would provide the equivalent service at a savings.

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in Table 15:.

Table 15 - Renewal and replacement priority ranking criteria

Criteria	Scoring method
Footpath hierarchy	BF = 4 SF = 3 RF = 2 IF = 1
Number accidents reported	1-2 = 1, 3-5 = 2
Number of requests from gopher users	1-2 = 1, 3-5 = 2
Number houses serviced	1-5 = 1, 5-10 = 2
Number of school/community facilities accessed	1-2 = 1, 3-4 = 2
New path alternative available	Yes = 0, No = 1
Condition	<6 = 1, 6-6.5 = 2, 6.5-7 = 3, 7-8 = 4, >8 = 5
Or visual defects inspection	Low = 3, Moderate = 4, High = 5
Level of maintenance required	Above Average =1, High = 2, Very High = 3
Benefit contribution available	Yes = 2, No = 0

The priority score for each candidate footpath renewal project calculated as the sum of the scores for each of the evaluation criteria. The footpath renewal program is prioritised by ranking the calculated scores in ascending order.

Council's Infrastructure renewal demand forecasts are developed using the predictive modelling capabilities of its asset management information system. These forecasts are annually reviewed and updated as new information (e.g. condition assessments) becomes available.

These forecasts and the underlying assumptions are further reviewed to factor in specific projects and any upgrade projects that include a renewal component to provide the best available guide to renewal requirements. These forecasts are then referred for consideration in the development of the Financial Plan which provides a specific allocation for the renewal of assets for each year of the Plan.

8.3.4 Future renewal and replacement expenditure

Renewal demand and expenditure forecasts for the assets covered by this plan are summarised in Figure 6. These forecasts have been extrapolated from existing finance data and are presented as long-term projections to provide input into Council's Financial Plan.

The following graph shows a comparison between the:

- Level of funding required to renew Council's footpath assets to achieve its service level objectives; and
- The amount of funding which Council is projected to commit to renewing these assets.

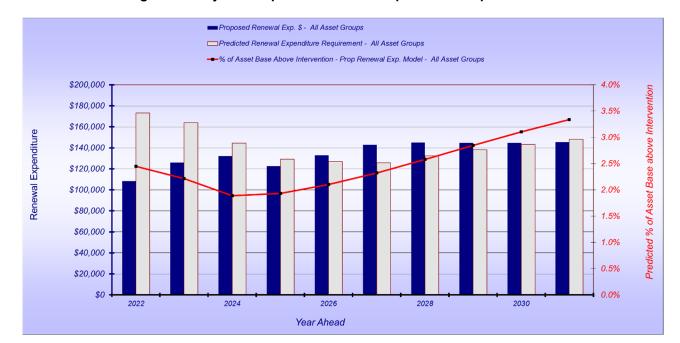


Figure 6 - Projected capital renewal and replacement expenditure

Figure 6 values are in current (real) dollars.

What does this mean?

This forecast indicates that Council is presently slightly under funding the renewal of its footpath assets.

Over the next ten (10) years, the predicted average annual renewal demand associated with Council's footpath network is **\$142,555**. According to Council's current Financial Plan, there is currently **\$134,544** on average per year for the renewal of these assets. This indicates that on average Council is projected to underspend **\$8,011** (average) per annum on the renewal and replacement of footpaths if the full renewal demand is funded.

The red line in the shown in Figure 6 represents the percentage of the asset base that no longer meets minimum performance or service standards. This is also referred to as the intervention condition.

At the commencement of the forecast period **2.45%** Council's footpath network does not meet minimum service standards. At Year 10 (2030/31), based on the current Financial Plan, this rises to **3.34%**. This slight increase in asset deterioration is a direct function of the projected minor underinvestment in asset renewal.

Anecdotally, an authority responsible for managing public assets should aim to not let the percentage of assets above the intervention condition to exceed around 3% to 4%. Beyond this, the community notices a decrease in standards that may result in an increase in the number of service requests for asset maintenance and repairs.

Council can consider increasing the funding amounts which are allocated to the renewal of its footpath assets to ensure asset condition is maintained through the life of this plan.

A renewal funding strategy has been prepared as part of this Asset Management Plan and is detailed in section 10.2.

8.3.5 Renewal modelling assumptions

The analysis to determine Council's future asset renewal requirements is based on the best available information held at this time. The future funding forecasts will be revised and refined to best represent the performance of the asset base as the maturity of Council's asset management practices improves.

These renewal funding projections are based on the following assumptions:

- The renewal costs are based on the asset data register as at 30 June 2021.
- Asset quantities within the asset register are assumed to be correct.
- Modelled outcomes are derived using the Moloney Renewal Model and are therefore subject to the limitations of that model and data is used in it, which includes assumed performance of the asset types and trigger intervention levels.
- Useful Service Lives derived from the asset register are assumed to be a reasonable estimate of the life of the assets.
- Condition data has been derived from Council's asset register.
- Service levels are based on a technical assessment and may not reflect community expectations or the organisations goals and objectives.
- All projections are in present dollar value.
- Annual growth of the network is 2% over the full forecast period.
- Renewal funding is based on current renewal expenditure levels contained in Council's current Financial Plan.
- These projections only represent future asset renewal requirements at an overall network level. This modelling does not provide project level assessments or programs.

The following variables and input values have been used to calculate the long-term renewal projections for Council's footpath network:

Table 16 - Renewal modelling variables and input values

	Model variable and input change						
Asset type	Useful life	Unit rate	Condition profile	Confidence level	Asset degradation profile	Renewal condition	Returned asset condition
Footpaths							
Sealed	50	\$131.60 per	Annual condition	High	Standard	Condition	Condition 0
pathways	30	square metre	audits (20% of network)	riigii	Otalidald	7 (Poor)	(As new)
Unsealed		\$32.69 per	Annual condition			Condition	Condition 0
pathways		square metre	audits (20% of network)	High	n Standard	7 (Poor)	(As new)

8.4 Creation/acquisition/upgrade plan

New works are those works that create a new asset that did not previously exist or works that upgrade or improve an asset beyond its existing capacity or performance in response to changes in supply needs or customer expectations.

Within the context of footpath assets, new asset, or upgrade creation includes:

- Those works that create a new asset that did not exist in any shape or form, i.e. new roads typically resulting from land development.
- Works which improve an existing asset beyond its existing capacity or performance.
 - Footpath widening
 - Safety improvement projects
 - Accessibility upgrades

There are occasions when Council is required to upgrade an asset because of changing demand or use requirements. In such instances, the project is scrutinised closely by officers and is considered as part of the annual budget planning process.

In accordance with Council's budget development framework, when Council considers its discretionary capital expenditures for new or upgraded assets it is essential to establish the consequential recurring operational and maintenance costs that will occur once the new or upgraded asset becomes operational.

This consequential additional cost is 'non-discretionary' as it will be incurred if the new asset is provided.

As new projects are brought forward for consideration with the annual budget, they will also have an assessment of these ongoing operational (recurrent) costs presented to Council as part of the overall project cost projections.

8.4.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor/director or community requests, proposals identified by strategic plans or partnerships with other organisations. Verified proposals are ranked by priority and available funds and are scheduled in future works programmes.

The prioritisation of asset improvement works is undertaken in accordance with the following criteria to ensure alignment with Council's strategic direction and to deliver maximum and affordable community benefits.

Table 17 - Asset improvement priority ranking criteria

Criteria	Scoring method
Footpath hierarchy	BF = 4 SF = 3 RF = 2 IF = 1
Number accidents reported	1-2 = 1, 3-5 = 2
Number of requests from gopher users	1-2 = 1, 3-5 = 2
Number houses serviced	1-5 = 1, 5-10 = 2
Number of school/community facilities	1-2 = 1, 3-4 = 2
accessed	
New path alternative available	Yes = 0, No = 1
Condition	<6 = 1, 6-6.5 = 2, 6.5-7 = 3, 7-8 = 4,
	>8 = 5
Or visual defects inspection	Low = 3, Moderate = 4, High = 5
Level of maintenance required	Above Average =1, High = 2, Very
	High = 3
Benefit contribution available	Yes = 2, No = 0

A ranking process is used for assisting in determining the priority of new capital works. This process enables key criteria for each type of asset to be assessed in an objective manner, ranked, and a composite "need" score to be assigned to each project. This enables several projects of the same asset type to be objectively ranked against each other and prioritised.

Council carries out a capital works planning process each year prior to commencing its overall budget process.

Council determines the capital works program for the coming financial year based upon the objective rankings provided from Council's asset management system and Council's own priorities. In the process, a 'rolling' capital works program is developed.

8.4.2 Standards and specifications

As with replacements where new assets are created, they are designed using all relevant design codes and Australian Standards and by using materials to achieve the greatest asset life while trying to minimise maintenance costs.

8.4.3 Summary of future upgrade/new assets

For new footpath assets to be constructed there must be a clear business justification for the investment in capital improvement projects that is aligned with Council's strategic and service objectives.

Evaluation of proposals for new and upgraded assets is underpinned, and informed, by sound business, investment, and risk assessment practices to maximise public value of infrastructure investment.

Funding of capital improvement projects is only included within the Financial Plan where it is deemed a priority according to Council's capital works evaluation framework.

At present, extensions and improvements to Council's footpath network are identified according to community feedback and staff knowledge of problem areas. While there is a robust process for prioritising candidate new and upgrade projects, an alternative approach could be to develop an overall footpath and pedestrian access strategy so that they footpath network can be further developed and enhanced in a systematic manner in line with Council's overall objectives. Having such a strategy would also better inform the Financial Plan and Long Term Capital Works Program.

8.4.4 Summary of asset expenditure requirements

The financial projections from this asset plan are shown in **Error! Reference source not found.** for projected capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in real values.

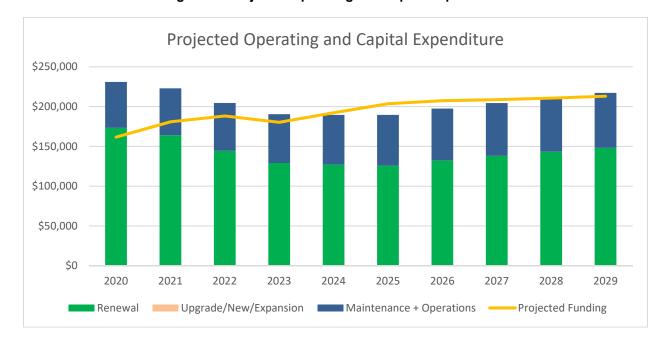


Figure 7 - Projected operating and capital expenditure

What does this mean?

There is an overall minor shortfall in capital and operational funding when compared to the level of funding that is required.

This may mean additional funding is required in the future to address a reduction in asset condition but this is not considered an immediate or large risk.

Alternative funding strategies have been prepared in conjunction with this Asset Management Plan. This is further outlined in section 10.2 of this plan and should be considered as a key input in informing Council's Financial Plan.

8.5 Disposal plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition, or relocation.

Footpath assets are rarely, if ever, disposed. Council currently has no immediate or current strategic direction to retire or dispose of any elements of the local footpath network however does respond to requests for acquisition from other parties as required.

9 RISK MANAGEMENT PLAN

The purpose of this section is to describe the basis of Council's strategic risk and investment policies and the way it will manage risk associated with Council's transport assets.

9.1 Risk management process

Council's risk management framework and processes are in accordance with AS/NZS ISO 31000:2009 – Risk Management – Principles and Guidelines and HB 436:2013 – Risk Management Guidelines.

The framework is designed to provide the architecture for a common platform for all risk management activities undertaken by Council and is used to identify specific risks associated with Council's delivery of services and management of assets.

The objective of the risk management process with regards to Council's assets is to ensure that:

- All significant operational and organisational risks are understood and identified;
- The highest risks that need to be addressed in the short to medium term are identified;
 and
- Strategies and treatments to address risks are identified and applied.

An assessment of risks associated with service delivery from infrastructure assets has identified the most critical risks to Council. The risk assessment process identifies and assesses risks, develops a risk rating and develops a risk treatment plan for non-acceptable risks.

9.1.1 Risk assessment

Network or system risks assessed as 'Very High' - requiring immediate corrective action and 'High' - requiring prioritised corrective action identified by Council's asset risk assessment process are summarised in the

Table 18 - Infrastructure risk register

Risk event	Cause	Risk rating (VH, H)	Risk mitigation plan
Risk of pedestrians tripping and falling with potential for serious injury.	Failure to manage and maintain footpath assets to meet appropriate levels and service and meet future needs.	High	 Regular inspections of footpaths to identify hazards and condition issues. Defects above intervention standards rectified in accordance with RMP, others as per available budget
Footpath inspections and maintenance not in compliance with Council's Road Management Plan.	Standards documented in Road Management Plan not complied with (e.g. inspections and response times).	High	 Implementation of Road Management Plan monitoring and performance reporting
Footpath asset lives not being maximised.	Due to lack of renewal and maintenance funding.	High	 Review funding allocations made to the maintenance and renewal of footpaths Address any funding shortfalls through an appropriate financial strategy

Risk event	Cause	Risk rating (VH, H)	Risk mitigation plan
Decline in condition and reduced effective life of footpaths.	Damage caused by third parties such as utilities or builders.	High	 Works on Roads Permit system and reinstatement standards to ensure that restoration works are completed to an acceptable standard.
Risk of conflict between pedestrians and vehicular traffic.	Pedestrians using road due to lack of footpaths.	Very High	 Construction of footpaths in locations where they are required according to priority and available budgets.

9.2 Critical assets

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

It is important to identify critical assets as well as the critical failure modes. This makes it possible to target and refine maintenance plans, capital expenditure plans, and investigative activities at the critical areas.

Criticality is applied to Council's footpaths based on importance and function and is reflected in the adopted footpath hierarchy. Anecdotally footpaths located in central business areas are the most critical. Other critical footpaths are those near schools, pools, aged care, and other community facilities.

10 FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of this Asset Management Plan. The financial forecasts made will be refined as Council improves its understanding of future asset performance and required levels of service.

10.1 Financial statements and projections

10.1.1 Asset valuations

The value of the assets covered by this Asset Management Plan as recorded in Council's asset register as at 30 June 2021 are shown below.

Current replacement cost	\$7,562,619
Accumulated depreciation	\$2,046,344
Depreciated replacement cost	\$5,516,275
Annual average asset consumption	\$160,331

Assets are valued at fair value based on depreciated replacement cost according to Greenfield rates. Quantities represent those assets whose replacement cost meets Council's adopted capitalisation thresholds.

10.1.2 Asset sustainability

Council uses the following indicators to measure asset sustainability:

- Asset renewal funding ratio, and
- Projected funding requirements compared with budget allocations (Financial Plan).

10.1.3 Asset renewal funding ratio

Asset renewal funding ratio 94%	The asset renewal funding ratio is the most important indicator and shows that over the next ten (10) years we expect to have 94 % of the funds required for the required renewal and replacement of assets according to our current Financial Plan.
---------------------------------	---

10.1.4 Financial planning

This Asset Management Plan identifies the projected operations, maintenance and capital renewal expenditures required to provide agreed levels of service over the next ten (10) years.

These projected funding requirements may be compared to the allocations made in the Financial Plan to determine possible funding shortfalls.

The projected operations, maintenance, renewal expenditure required over the next ten (10) years for Council's footpaths is **\$205,870** on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is **\$194,659** on average per year giving a 10-year funding shortfall of **\$11,211** per year. This indicates that Council is projected to slightly underfund the maintenance and renewal of its footpath assets.

If this gap is left unaddressed in the long term, Council will potentially be faced with risks relating to:

- Continued deterioration of its footpaths and pedestrian facilities,
- Poor performing assets,
- Asset failure,
- Public health and safety liability,
- Loss of financial and economic viability, and
- Ultimately declining community satisfaction and public confidence.

These risk are only considered minor as the funding gap is small.

10.2 Funding strategy

10.2.1 Option 1 – Full funding of renewal demand

To demonstrate that it is a responsible asset custodian, Council should be committed to funding its long term asset renewal liabilities. This also aligns with Council's *Asset Management Policy* objective of focussing on asset renewal before allocating funding to new assets and limiting asset expansion unless justified through sound business cases.

Figure 8 shows the impact of fully funding the renewal demand being driven by Council's footpath network. In this scenario, there is no asset renewal gap. In year one of the analysis, 1.59% of the footpath network does not meet Council's service standards. Based on the proposed renewal funding profile at year 10 of the forecast period the entire network would meet Council's service objectives with no assets being in a condition above Council's intervention criteria. Under this scenario, Council would be projected to spend \$1.43 million on footpath renewal over the 10 year forecast period.

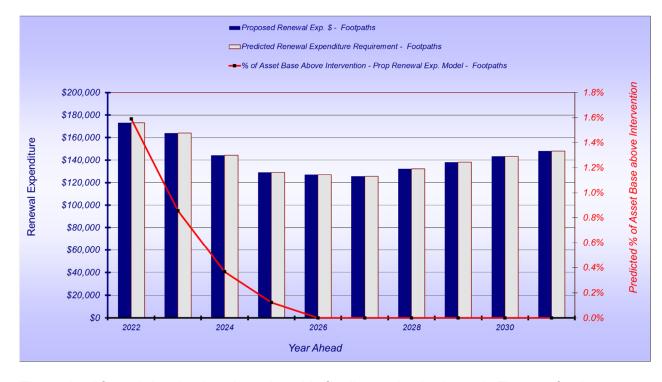


Figure 8 - Renewal forecast: Full funding of renewal

The revised financial projections based on this funding option is shown in Figure 9 for the projected capital expenditure (renewal and upgrade/expansion/new assets). This includes the revised future renewal funding allocations and recommended maintenance and operations budgets for Council's footpaths.

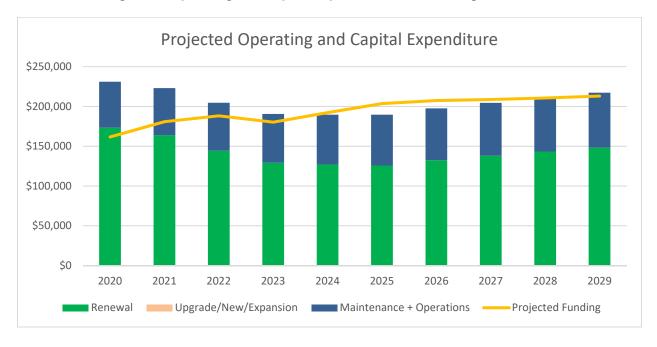


Figure 9 - Operating and Capital Expenditure: Full Funding of Renewal

Error! Reference source not found. Figure 9 shows that there is a funding shortfall when comparing the overall projected expenditure requirements for footpath maintenance, renewal, and capital improvements when compared with the total budget allowances made in the current Financial Plan. If Council is to strive towards fully funding the replacement and renewal of its footpaths, it will need to increase the funding level for footpaths.

Table 19 shows the proposed funding allocations for Option 1 for the next ten (10) years. Expenditure projections are in 2020/21 real values.

Table 19 - Projected allocations: Full funding of renewal

Year	Renewal	Upgrade/new/ expansion	Maintenance and operations
2021/22	\$173,251	\$0	\$57,823
2022/23	\$163,999	\$0	\$58,980
2023/24	\$144,392	\$0	\$60,159
2024/25	\$129,130	\$0	\$61,362
2025/26	\$127,037	\$0	\$62,590
2026/27	\$125,779	\$0	\$63,841
2027/28	\$132,413	\$0	\$65,118
2028/29	\$138,098	\$0	\$66,421
2029/30	\$143,337	\$0	\$67,749
2030/31	\$148,120	\$0	\$69,104
Total	\$1,425,555	\$0	\$633,146

The required maintenance and operations funding is \$633,146 which is greater than the current amount in the Financial Plan which is \$601,146. This difference will have a minor impact of the service levels able to be delivered.

10.2.2 Option 2 – Level funding solution

One of the major challenges for Council in the future will be its ability to manage and fund the renewal liability associated with its footpath assets.

To meet this challenge, a level renewal funding solution has been developed to Council's funding strategy for its footpath assets. The principle of this analysis was to determine a funding regime that would maintain the network at current condition performance levels over the next ten (10) years with the same funding allocation each financial year.

Figure 10Error! Reference source not found. shows the outcomes of this level funding forecasting analysis. While there is an underlying shortfall between the calculated renewal demand and the recommended funding allocation, there is no major shift in the overall condition of the network when measured by the percentage of assets that are above the intervention condition. In year one of the analysis, 2.23% of the footpath network does not meet Council's service standards. Based on the proposed renewal funding profile at year 10 of the forecast period 2.27% does not meet Council's service standards. This indicates that there is no material degradation in the overall condition of the footpath network.

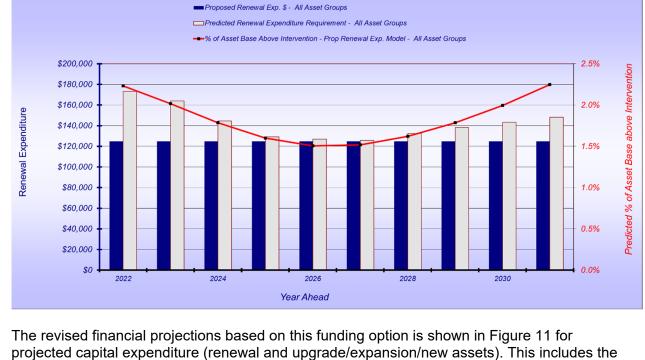


Figure 10 - Renewal forecast: Optimised funding solution

The revised financial projections based on this funding option is shown in Figure 11 for projected capital expenditure (renewal and upgrade/expansion/new assets). This includes the revised future renewal funding allocations and recommended maintenance and operations budgets for Council's footpaths.

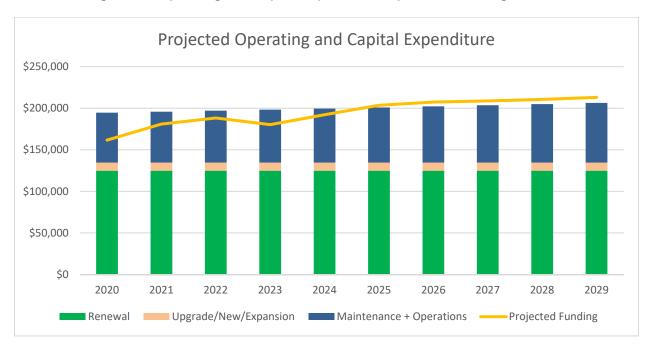


Figure 11 - Operating and Capital Expenditure: Optimised Funding Solution

This approach would require bringing forward some expenditure from later years in the Financial Plan. However, the benefit of this funding scenario is under the total 10 year expenditure amount from the Financial Plan some funding can be directed to construction new footpaths.

Table 20 shows the proposed funding allocations for Option 2 for the next ten (10) years. Expenditure projections are in 2020/21 real values.

Table 20 - Projected allocations: Optimised funding solution

Year	Renewal	Upgrade/new/ expansion	Maintenance and operations
2021/22	\$124,788	\$9,756	\$57,823
2022/23	\$124,788	\$9,756	\$58,980
2023/24	\$124,788	\$9,756	\$60,159
2024/25	\$124,788	\$9,756	\$61,362
2025/26	\$124,788	\$9,756	\$62,590
2026/27	\$124,788	\$9,756	\$63,841
2027/28	\$124,788	\$9,756	\$65,118
2028/29	\$124,788	\$9,756	\$66,421
2029/30	\$124788	\$9,756	\$67,749
2030/31	\$124,788	\$9,756	\$69,104
Total	\$1,247,880	\$97,560	\$633,146

Under this funding scenario, \$1,247,880 is allocated to the renewal of footpaths and \$97,560 is allocated for the construction of footpaths over 10 years, or an average of \$124,788 and \$9,756 per year respectively. This is based on an average of the remaining renewal funding underspend from the current Financial Plan. This allows for the construction of approximately 75m of new footpath per year.

10.2.3 Option 3 – Current Financial Plan

The final option is for council to maintain the existing funding in the Financial Plan.

Figure 12**Error! Reference source not found.** shows the outcomes of this optimised forecasting analysis. While there is an underlying funding shortfall slightly greater than Option 2 between the calculated renewal demand and the recommended funding allocation, this is only a minor. The reduction in the overall condition of the network when measured by the percentage of assets that are above the intervention condition is not significant and will not be at a level noticed by the public .

In year one of the analysis, **2.45%** of the footpath network does not meet Council's service standards. Based on the proposed renewal funding profile at year 10 of the forecast period **3.34%** does not meet Council's service standards. This indicates that there is only minor degradation in the overall condition of the footpath network.

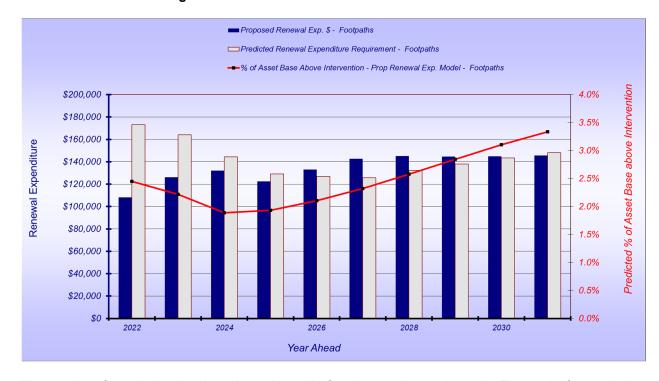


Figure 12 - Renewal forecast: Current Financial Plan

The revised financial projections based on this funding option is shown in Figure 13 for capital expenditure (renewal and upgrade/expansion/new assets) and maintenance and operations budgets for Council's footpaths that are as per the existing Financial Plan.

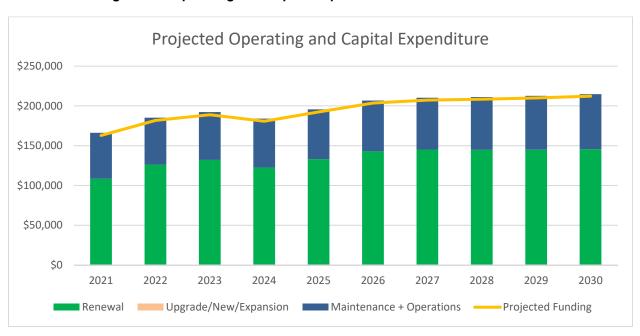


Figure 13 - Operating and Capital Expenditure: Current Financial Plan

Table 21 shows the proposed funding allocations for Option 3 for the next ten (10) years. Expenditure projections are in 2020/21 real values.

Table 21 - Projected allocations: Current Financial Plan

Year	Renewal	Upgrade/new/ expansion	Maintenance and operations
2021/22	\$108,324	\$0	\$53,310
2022/23	\$126,183	\$0	\$54,711
2023/24	\$132,061	\$0	\$56,163
2024/25	\$122,610	\$0	\$57,650
2025/26	\$133,024	\$0	\$59,154
2026/27	\$142,836	\$0	\$60,727
2027/28	\$145,113	\$0	\$62,334
2028/29	\$144,743	\$0	\$63,994
2029/30	\$144,913	\$0	\$65,688
2030/31	\$144,637	\$0	\$67,416
Total	\$1,345,444	\$0	\$601,146

The current allocation for maintenance and operations in the Financial Plan is \$601,146 which is less than the forecast required amount of \$633,146. This is an under allocation of \$32,000 and will have a minimal effect of maintenance and operation service levels.

10.2.4 Assessment of funding strategies

Option 1 and 2 both allow the maintenance or improvement of the footpath network condition with a remaining allowance in the current Financial Plan for the construction of new footpaths is available under Option 2. Option 3 results in a minor degradation in network condition for the current Financial Plan funding allocations. Option 1 and 2 allow for the full funding of maintenance and operations expenditure as determined through the modelling while Option 3 results in a slight underfunding of this expenditure.

Industry experience suggest that if the percentage of footpath assets with condition above the intervention level does not exceed 3% to 4%, the community will not notice a decrease in standards that will result in a number of service requests for asset maintenance and repairs.

Option 2 will meet this criteria while allowing funding to be directed to the construction of new footpaths. Option 1 shows that if this funding for additional footpaths is instead direction to the renewal of existing paths, the overall condition of the network can be improved.

Considering the two options along with the current funding scenario explained in Option 3, the existing level of funding under the Financial Plan is considered satisfactory. It allows the flexibility of undertaking a full renewal program with the occasional construction of new footpaths depending on the priority of projects. While there is a slight underfunding of renewals this will not lead to a significant level of degradation of the condition of the footpath network and can be offset through obtaining additional funds through funding sources such as grants.

10.3 Funding sources

Funding for assets is provided from Council's annual budget and Financial Plan.

Council's Financial Plan determines how funding will be provided, whereas the Asset Management Plan communicates how and when this will be spent, along with the service and risk consequences of differing options.

Council uses several different funding sources to maintain, renew and improve its footpaths. These are:

Table 22 - Funding sources

Activity	Funding source
Maintenance and operations	Council's own source funds
Renewal	Council's own source funds
Capital improvement (i.e. new, upgrade, and expansion	 Council's own source funds External grant opportunities Special charge schemes Developer contributions and donated assets

10.4 Key assumptions made in financial forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Forecasted on present day dollars.
- Staffing needs are resourced adequately.
- No significant changes in legislation.
- Average growth in asset base of 2% per annum over the period of this Asset Management Plan.
- Increases in maintenance and operational budgets are consistent with the Financial Plan.

10.5 Forecast reliability and confidence

The expenditure and valuations projections in this Asset Management Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a five (5) level scale in accordance with

Table 23 - Data confidence grading system

Confidence grade	Description
A – Highly reliable	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 - Reliable	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 - Uncertain	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%

Page 37

D - Very Uncertain	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 - Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this Asset Management Plan is **B** - **Reliable** at this stage. The implementation of the improvement actions identified will result in increased levels of confidence in future revisions of this Asset Management Plan.

11 PLANNED IMPROVEMENT AND MONITORING

11.1 Status of asset management practices

Council currently uses the following corporate information systems for recording relevant asset data and information:

Table 24 - Overview of corporate systems

Module	System
Customer Request Management	■ Merit
Financial/Accounting	AttacheMagiq
Records Management	■ LCM
Mapping (GIS)	QGISPozi
Asset Register	Moloney Asset Management System
Strategic Asset Management	Moloney Asset Management System
Mobile Solutions	■ Reflect
Works Management	■ Reflect

The asset management system underpins asset management capacity and capabilities and is a key source of information for decision making, coordination of operations, and performance reporting.

11.2 Improvement plan

The asset management improvement plan generated from this Asset Management Plan is shown in Table 25**Error! Reference source not found.**. At this stage, targeted customer research has not been undertaken for Council's footpath assets.

Table 25 - Improvement plan

Task	Responsible person	Resource type	Timeline
Conduct formal condition assessments of the footpath network at regular frequencies that are appropriate for this asset class.	Asset Management Coordinator	Internal	June 2023
Confirm community levels of service through engagement with the public. Current technical levels of service should be reviewed accordingly.	Manager Assets & Infrastructure	Internal	June 2024
Council should review and implement processes to measure the community's level of satisfaction with Council's footpaths at least annually.	Director Corporate Services	Internal	June 2023
Develop a Footpath and Pedestrian Access Strategy to inform prioritise improvements and extensions to the footpath network to promote access and connectivity.	Manager Assets & Infrastructure	Internal	December 2023
Review modelling of financial forecasts on a biannual basis (2 yearly). Forecasts to provide input in the Financial Plan, Annual Budget, and Capital Works Program.	Manager Assets & Infrastructure	Internal	June 2024
Develop a project-based three (3) year Capital Works Program for renewals, upgrades and new works and integrate with Council's Financial Plan.	Asset Management Coordinator	Internal	June 2024

Council's Manager Assets & Infrastructure will need to determine the priority of the actions in this improvement plan, allocate a responsible officer and identify resource needs. This is to ensure that the implementation of these improvement actions align with Council's overall asset program. This prioritisation and allocation of resources should be consistent with Council's Asset Management Strategy and overall asset management framework.

11.3 Monitoring and review procedures

The Asset Management Plan will have a life of **four years** and will be completely reviewed and updated in order to inform the development of the Community Plan, Council Plan, and the Financial Plan. This Asset Management Plan will be reviewed and update in accordance with Council's deliberative engagement practices as set out in its *Community Engagement Policy*.

11.4 Performance measures

Performance measures will be developed to ensure that work practices and the Asset Management Plan are reflective of each other.

The performance of the Asset Management Plan shall be monitored against the following criteria in accordance with the process detailed below.

 Maintenance and renewal programs - to confirm that allocated budget projects were delivered on time, within budget and to the specified level of service (see following item on delivery performance).

- Inspection programs to confirm that they were undertaken as specified in the asset management plans and any other service level agreements which may be in operation.
- Scheduled condition surveys to confirm that they were undertaken as required.
- Maintenance of asset information systems to ensure that stored data is current and accurate.
- External factors including legislative requirements, ongoing development of Council
 policies, plans, and other major system implementations, that may affect the contents of
 the Footpath Asset Management Plan.