Mid Murray Council

Footpaths

Asset Management Plan 2023

Adopted 23 January 2024

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Introduction

Mid Murray Council (MMC) has care, control and management of a widespread Footpath network across many towns in the Council area. These Public use assets are an important asset class enabling pedestrian access to numerous urban and public use services, facilities and businesses across the council area. The footpath network ranges from structured surface treatments (town precincts and linkages) to informal and in many areas, undeveloped road verges and shared path/roads. This Footpaths Asset Management Plan (AMP) covers the capital and operational management of all Footpaths within the Council's area.

Asset Summary

Council's Footpath portfolio consists of the following assets. It should be noted that only a limited amount of gravel/granitic sand footpaths are listed as assets – the extent of gravel footpaths is significant but not currently measured as is undeveloped road verges and shared path/roads.

Table 1: Footpath Asset Summary

Type	Qty (meters)	Current Replacement Cost
CONCRETE	8,751.2	$1,203,290
PAVING	4,400.8	$640,868
ASPHALT	8,176.8	$803,320
SPRAY SEAL	2,452.3	$222,793
GRANITIC SAND	346.5	$41,400
RUBBLE	88.8	$42,480
Total	**24,216**	**$2,954,151**

Considerations

The key considerations of this AMP are:

- Current Service Levels and usage of the Footpaths including demographic, community/recreational needs
- Disability needs and requirements (Councils Disability and Inclusion Plan (DAIP)
- Anticipated future usage
- Current condition of the Footpaths
- The extent of gravel footpaths is significant but not currently measured
- Available budget, resourcing and funding opportunities
- Construction techniques and materials
- Risks and Safety (including trip hazards)
- Dual use paths
- Maintenance, renewal and upgrade/enhancement requirements
- Kerb access structures such as ramps required

Objectives

The key objectives of this AMP are:

- to enable the assets to be available for use without increase in risk exposure
- to describe how the Council plans to maintain, manage and operate the Footpaths assets while be considerate of budget, funding and other resources
- to meet the needs of users including various demographic, community and recreational needs
- to target and prioritise infrastructure investment for renewal and enhancement
- to take a whole of life approach to asset investment for financial sustainability

IMPORTANT NOTE: All figures quoted are 1 July 2022 dollar values. Any future Maintenance, Renewal and Enhancement forecasts will need to be indexed appropriately.

Service Levels

This AMP uses the Council's Footpath Policy (adopted 21 January 2020 and due for review in January 2024) in order to guide Service Levels. This policy documents Council's role in developing and maintaining areas of appropriate accessibility and mobility throughout Council's townships and service centres. It also outlines priority setting, implementation, rationalisation and consider whole of life costs when programming all works. This policy does not cover undeveloped road verge (both township or rural), walking trails, bicycle lanes and pathways located with the townships, rural and open space

Hierarchy, priorities and materials

It is envisaged that;

- For all townships, the preference is to ensure all commercial precincts have footpaths installed.
- For precincts, both sides of the road will be serviced, with the exception where the commercial properties are located on one side exclusively.
- Suitable construction material will be hardstand, meaning paving, concrete or asphalt/bitumen. Current deficiencies will follow the townships current hardstand type and retain consistency.
- Second priorities will be given to ensuring the township footpath infrastructure provides an access to schools and key community facilities. Construction material could include all previously mentioned hardstand materials and also include rubble pathways, as per relevant Australian Standards and financial allocations.
- The remaining priority will link the remaining township population to the existing network. The footpath location will be on one side of the road, the appropriate location determined on a case by case basis. As this aims is to meet footpath services for all townships in the short to medium term, footpath construction material will favour the most cost effective option, being asphalt/bitumen and/or rubble footpaths.
- Future footpath programs will be developed as part of Council's overall township infrastructure plans.
- Disability access is attributed to a Sect 41 Committee of Council and reported in Council's Access and Inclusion Action Plan. This plan will link closely with Council's Transport Asset Management Plan and this policy.
- Where a footpath meets and crosses a road intersection, where the footpath material constructed is concrete or paved, Council will install a tactile ground surface to assist visual impairment and aid mobility assistance. All kerb ramps will be installed in accordance with Australian Standard AS 1421.1 2009. Council will endeavour to review all current ramps installed to ensure they meet the Australian Standard and a program will be established to upgrades sections of deficiency whilst considering the topographical gradient challenges of the region. Priorities for the location of kerb access ramps will follow the footpath and road hierarchy accordingly.

Future Demand

Current urban planning trends show an increasing emphasis on pedestrian and cyclist access to urban areas. Both greenfield and brownfield development requirements frequently specify footpath access. This emphasises the responsibility of Council to provide missing links and strategic links to high priority locations as well as seeking opportunities with State Government to provide regionally significant networks.

In general the result is an increase in users and service capacity required to provide safe access to all users. In addition to more linear meters of footpath, there is a trend (often a requirement) for an increase in constructed widths, better surfaces and designs.

Periodic monitoring of use and community liaison is needed to ensure the AMP meets future needs and requirements.

Asset valuation, condition and components

Valuation and Condition Assessment

MMC has recently undertaken independent asset revaluations of its Footpath assets, including condition assessments, to accurately measure the value of the portfolio under AASB13 Fair Value accounting standard as at the 1 July 2022.

During this process updated replacement costs, revised useful lives and remaining useful lives were assessed and have been utilised as the primary financial data for this plan.

Condition

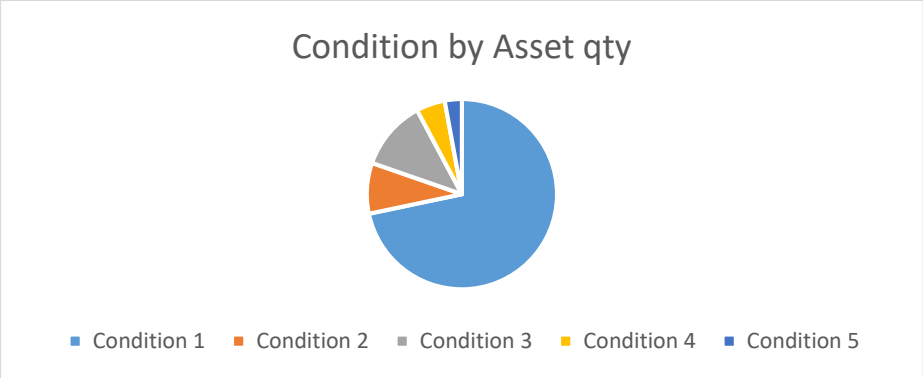
Table 2: Condition gradings

Condition Grading	Descriptor
1	Very Good: free of defects, only planned and/or routine maintenance required
2	Good: minor defects, increasing maintenance required plus planned maintenance
3	Fair: defects requiring regular and/or significant maintenance to reinstate service
4	Poor: significant defects, higher order cost intervention likely
5	Very Poor: physically unsound and/or beyond rehabilitation, immediate action required

Table 3: Footpath Asset Types – Condition. Meters of footpath

MATERIAL	Condition 1	Condition 2	Condition 3	Condition 4	Condition 5
CONCRETE	5919.6	1121.8	1584.8	125	0
PAVING	4049.5	276.5	74.8	0	0
ASPHALT	5817	469.2	1129.8	760.8	0
SPRAY SEAL	1228.3	222	0	297	705
GRANITIC SAND	346.5	0	0	0	0
RUBBLE	0	0	88.8	0	0

Figure 1: Footpath Asset Condition by quantity



Modern Equivalent Asset (MEA)

For the purposes of this Footpaths AMP assets have been assessed utilising the Modern Equivalent Asset (MEA) approach, with regard to the most suitable future replacement asset when compared against usage and type. In particular the following factors are utilised when determining MEA.

- Does the asset meet the utilisation needs?
- Does the asset meet safety or modern design requirements?
- Vehicular speed area environment/zones?
- Trip hazard thresholds met?
- Safe passage widths for dual use paths,
- Kerb access structures such as ramps required?
- Future design criteria – including safety, economic and service level
- Reduce lifecycle costs through value design

Findings

- Generally Replacements and Upgrades are constructed of concrete or pavers in urban built up commercial precincts and Asphalt or Spray Seal in more residential areas. MMC's Footpath policy, however, dictates that additions to towns will follow the townships current hardstand type . This is often driven by budget (including project or grant budgets) - therefore some smaller towns will only be expanding their gravel footpath network.

Risk Management

An assessment of the risks, associated with the service delivery and management of the Footpath infrastructure, has been undertaken by Council. The risk assessment process is in line with Council's Risk Management Policy and Framework. It identifies credible risks, the likelihood of the risk even occurring, the impact should the event occur, develops a risk rating and evaluates the risk and develops an appropriate treatment plan for non-acceptable risks.

Figure 2. Risk Management Framework – Risk Matrix

Consequence / Likelihood	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	Extreme	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Low	Medium	High	Extreme
Rare	Low	Low	Low	Medium	High

Table 4: Risks and Treatments

Risk	Consequence	Likelihood	Risk Rating	Treatment/s	Responsibility	Due Date
Extreme weather event results in significant replacement or upgrade of capital works	Moderate	Likely	High	Emergency management policy and procedures, road capacity and demand reports and preventative works, asset maintenance program and asset insurance	WHS & Risk Management Coordinator and Asset Management Coordinator	Ongoing
Poor quality data in asset management systems	Moderate	Unlikely	Low	Independent asset valuation sampling, asset management and financial management dataset integration (Synergy), regular condition assessment, regular review of AMP	Asset Management Coordinator	Completed 2023
Insufficient resources available to deliver asset management plan requirements	Major	Almost Certain	Extreme	Review of LTFP and other asset management plan requirements, adjust service level provisions. to meet LTFP requirements, explore cost effective solutions for identified deficiencies. Seek external	Director Infrastructure and Director Corporate & Financial Services	Ongoing
Failure to deliver and maintain infrastructure that meets service level demands	Moderate	Possible	Moderate	Reactive and proactive routine maintenance program, staff training, asset management planning, community engagement, referencing Australian Standards.	Director Infrastructure	Ongoing
Service level standards and strategic targets not aligning with community expectations	Minor	Likely	Moderate	Community engagement (public consultation), community surveys, linking service levels directly to budget, constant review of asset and strategic plans.	Assets, Infrastructure & Elected Members	Ongoing

Asset Lifecycle Management

Lifecycle Management

Lifecycle Management provides a description of the key elements for managing the assets over a 15-year planning horizon – being:

- Maintenance;
- Renewal;
- Enhancement; and
- Monitoring, Evaluating and Improving – including planning.

Each of the above is described in more detail in its own section.

Maintenance Plan

Planned/Preventative maintenance

The following preventative maintenance activities should be undertaken:

- Inspections
- Cleaning/debris clearing
- short life component repairs

The following strategies should be utilised to reduce maintenance activities for newly constructed assets and simplify management of these assets:

- Capital works constructed utilising long life "fit for purpose" materials
- Rigid footpaths not constructed in areas likely to have significant subgrade deformation impacts, ie near tree plantings, blacksoil areas and other flood prone crossings. Flexible permeable or natural paving materials to be utilised in these difficult areas.
- Particular attention paid to jointing and crack stress relieving design.

Maintenance budgets should be reviewed to ensure the increasing Footpath asset base is being managed to maximise useful lives delivered.

Reactive maintenance

This is unplanned repair work carried out in response and assessed from service requests and management/supervisory directions. The aim is to minimise reactive maintenance through the maintenance actions outlined above. Reactive maintenance still arises and is often work carried out in response to service requests or supervisory direction. An example being a Footpath's deformation due to vegetation impact or flood displacement.

Targeted Maintenance and Monitoring

Some Footpaths have increased maintenance requirements due to type, age, use and defects. These also require elevated surveillance and are more likely to need unplanned maintenance.
These type of repairs may involve;

- highlighting defects (with paint),
- grinding surfaces,
- signage,
- replacement or rehabilitation of existing.

Renewal Plan

Renewal expenditure is major work which does not increase the asset's design capacity, length or network but restores, rehabilitates, replaces or renews an existing asset to its approximate original service potential. However, when Renewals are completed they are required to consider the latest requirements and standards including disability requirements – in some cases this may be considered an enhancement.

As a consequence of the Renewal's Forecast this include amounts to replace/renew the Footpath in recognition of standards and community expectation – including additional disability access etc.

Table 5: Useful life by Footpath type (material)

Type	Useful Life (Yrs)
CONCRETE	60
PAVING	40
ASPHALT	40
SPRAY SEAL	20

Enhancement Plan

The current Footpath asset is likely to steadily grow to service the increasing service expectation of residents and to enact the Council's strategic direction for urban centres across the locality. There is an expectation with focus from the State Government that this asset portfolio will grow therefore Renewal and Enhancement plans will need to be frequently reviewed to account for an increasing asset portfolio. However, as newly constructed assets are long life, effects of these projects are unlikely to impact renewal plans for some time.

The below figures are based on historical data. It is expected that most enhancement will come from developers or grants – noting that many projects are using granular or natural materials – which may not be included in this asset list.
The recent regional Murray Coorong Trail project is one such example of a larger regional project, 450km of trails, to connect local infrastructure and provide an enhanced outcome to the public. The Murray Coorong Trail proposes to be linked within townships and through the region along the River Murray corridor and does not form part of this Asset Management Plan external to townships.

Table 6: Footpath acquisition

Year	Acquisition Value
2022	$160,000
2021	$497,000
2020	0
2019	$17,000
2018	0
2017	$55,000
2016	$18,500

Council's Asset & Project Management Team will continue to monitor the network and ensure opportunities to expand or increase service levels for modest capital outlay are undertaken.

Monitoring, Evaluation and Improvement

It is important for the Council to collect and evaluate quantitative and qualitative data and evidence about the condition of the assets and usage. This is to be used to guide management decisions regarding resourcing, investment and improvement.

Monitoring, Evaluation and Planning

1. The Council will collect and evaluate usage data – this may include consumer surveys.
2. The ability to meet and fund the requirements of this AMP will be reviewed annually as part of Council's Long Term Financial Plan (LTFP) review process.
3. The annual budget planning process will consider this AMP to ensure budgeting meets maintenance, renewal and enhancements needs.

4. The AMP is also to be reviewed and amended if there are significant changes needed to the AMP. It is recommended that an Annual Report be made by the Asset Management Coordinator and Director of Infrastructure commenting on activities during the year and future alignment with the AMP. These Reports can be reviewing when the AMP is due for an update.
5. The Council will evaluate its annual maintenance activities and resourcing to ensure it meets the required needs of this AMP.

Budget Forecast – 15 years

This model is developed over 15 years. It is recommended that enhancement is covered by external grants or developers – therefore only averaged renewal budgets and maintenance budgets should be used.

Table 7: Forecast – Maintenance, Renewal and Enhancement (01/07/2022 figures)

Year	*Renewal cost by Condition*	RECOMMENDED Renewal budget	Maintenance budget	*Enhancement Budget**	Enhancement Budget Recommended
2022	*$0*	$155,038	$55,483	*$75,000*	$0
2023	*$52,875*	$177,758	$59,048	*$75,000*	$0
2024	*$0*	$178,000	$60,000	*$75,000*	$0
2025	*$0*	$178,000	$60,000	*$75,000*	$0
2026	*$0*	$178,000	$60,000	*$75,000*	$0
2027	*$22,275*	$178,000	$60,000	*$100,000*	$0
2028	*$0*	$178,000	$60,000	*$100,000*	$0
2029	*$0*	$178,000	$60,000	*$100,000*	$0
2030	*$0*	$178,000	$60,000	*$100,000*	$0
2031	*$0*	$178,000	$60,000	*$100,000*	$0
2032	*$76,080*	$178,000	$60,000	*$100,000*	$0
2033	*$0*	$178,000	$60,000	*$100,000*	$0
2034	*$0*	$178,000	$60,000	*$100,000*	$0
2035	*$16,650*	$178,000	$60,000	*$100,000*	$0
2036	*$0*	$178,000	$60,000	*$100,000*	$0
TOTALS	***$167,880***	**$2,646,796**	**$894,531**	***$1,375,000***	**$0**

Forecast Notes

- **IMPORTANT NOTE:** All figures quoted are 1 July 2022 dollar values. Any future maintenance, renewal and enhancement forecasts will need to be indexed appropriately.
- Maintenance: Council has made assumptions based on other plan examples and looking at recent budgets and expenditure. These rates should be reviewed upon collection of more data.
- Renewal Budget: Although much of the Footpath network is in good condition and most renewals occur outside of the 15 year period (planning horizon), it is recommended that MMC continues with the current LTFP allocations (allowing for Indexation) to cover replacement with a greater emphasis on standards, community expectations and disability needs.
- Enhancement: Enhancement Budget* – these figures have been based on assumptions, other plan examples and an examination of the LTFP. Enhancement Budget Recommended: It is suggested that Enhancement is covered by Developer's or through Grants or through specific capital projects.

Table 8: Forecast – Renewal by Footpath ID (01/07/2022 figures)

New Asset ID	LOCATION	MATERIAL	LENGTH	Gross Replacement Cost ($)	Renewal year
FP0175-SS	MANNUM	SPRAY SEAL	235	$52,875	2023
FP0174-SS	MANNUM	SPRAY SEAL	99	$22,275	2027
FP0114-AS	MANNUM	ASPHALT	62	$18,600	2032
FP0143-AS	PALMER	ASPHALT	479	$57,480	2032
FP0146-SS	BLANCHETOWN	SPRAY SEAL	185	$16,650	2035

Definitions

Asset Condition Assessment – The process of a continuous inspection program, assessment and record of condition (against an industry standard - IPWEA) which determines the timeline for current or future remediation.

Asset Management – The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner.

Assets – Resources owned by Council which have a current and future economic value (AAS27.12).

Capital Expenditure – Expenditure which contributes to the resources required to construct and install a physical asset.

Capital Grants – money received from an external party, which is generally tied to the specific projects for which they are granted.

Component – The individual part of an asset which contributes to the composition of the whole and can be separated from an asset or system.

Current Replacement Cost – The cost to acquire the asset on the reporting date. The cost is based on the equivalent cost based on a modern asset with the same economic and performance benefits.

Consumption Rate – Theoretical rate that the asset is consumed based on the estimated useful life

Depreciated amount – The cost of an asset less its residual value (AASB 116.6).

Depreciated Replacement Cost – The current replacement cost of an asset less the accumulated depreciation calculated on the amount of useful life it has consumed.

Depreciated – The systematic allocation of the depreciable amount of an asset over its useful life.

Infrastructure Assets – Physical assets of Council that contribute to meeting the public's needs for access to economic and social facilities and services. The components of these assets may be separately maintained, replaced or upgraded individually so that the service level of the network of assets is sustained.

Level 1 Inspection - An operational inspection of assets to detail impacts from events or potential issues that need further investigation.

Level of Service – The defined service standard for a particular asset class. Service levels relate to quality, quantity, reliability, responsiveness, acceptability and cost.

Modern Equivalent Asset – The theoretical lowest cost replacement for an asset taking into account modern construction techniques.

Maintenance Expenditure – Recurrent expenditure which is required to deliver a schedule of works which ensure the asset achieves the designed and predicted useful life at the required service level.

Nuisance Inundation - Pooling of stormwater run-off in low-lying areas due to poor drainage. This is a frequent hazard but rarely causes major damage.

Optimisation – The process by which the lowest cost asset replacement is estimated that still meets the service level requirements.

Reactive Maintenance – Unplanned repair work that carried out in response to service requests and management/supervisory directions.

Routine Maintenance – Repair work that is managed through a routine maintenance program. Activities include inspections, assessing condition, actioning repair work, collecting maintenance history and seeking way to continuously improve maintenance efficiency.

Remaining life – The time remaining until an asset ceases to provide the required service level or economic usefulness.

Risk Management – The application of a formal process to assessing the key factors associated with the risk in order to determine the resultant range of outcomes and their probability of occurrence.

Useful Life – The period over which an asset is expected to be available for use.

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