



Footpaths

AssetManagementPlan

Document Control	Asset Management Plan
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Document ID :

Rev No	Date	Revision Details	Author	Reviewer	Approver
V1.10	May 2020	Initial draft	SW (AE)		
V2	Aug 2021	Change to maintenance budget	SW (AE)		
V3	February 2022	Valuation figures updated & final document	SW (AE)		

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide over the 10-year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10-year planning period.



1.2 Development of the Plan

City of Prospect has challenged its asset management practice and purpose to ensure it is being driven from a pure asset perspective that in the first instance and is supported by industry best practice in relation to service standards and levels. This has necessitated returning to first principles to ensure that Council is not being contained by our Long Term Financial Plan as an asset planning tool.

This process has included reviewing historical data held by Council in:

- Conquest software
- Separate data capture that is being held externally in Assetic
- Data that was manually collected in 2020

In reviewing assets and defining a way forward, a conservative approach has been taken to ensure that Council is setting a realistic financial target to keep assets in a functional and workable condition that is financially supportable by the community.

The Draft Renewal Program for footpaths have been compiled from data within Council's Asset Management System 'Conquest' through the following:

- Revision to useful/ remaining lives to reflect industry standards with a view to minimising lifecycle costs.
- Partial amendment to unit rates to reflect Council's actual construction costs.
- An annual allowance has been made for footpath renewal beyond the first year of the plan using rates and lives developed during the preparation of the plan.

1.3 Asset Description

The footpath network comprises:

- 249 km of paved, asphalt and concrete paths

The above infrastructure assets have valuation replacement value estimated at \$48m.

1.4 Levels of Service

The planned budget (draft long term financial plan) has been developed from interrogation of available data to deliver improved service levels for the footpath assets distinctly in the area of pedestrian safety.

As such the proposed service levels have informed the development of the draft long term financial plan (LTFP) rather than the LTFP dictating the levels of service that Council provides.

1.5 Future Demand

The factors influencing future demand and the impacts they have on service delivery are principally those by the community requesting an increase in service levels that the Council provides. These 'demands' are delivered in this plan through an increase in capital expenditure on infrastructure renewal.

It should be noted that the service level increase will be gradual and will be met over a period of approximately 20 years as footpaths are due for renewal.

1.6 Lifecycle Management Plan

1.6.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. A summary output from the AM Plan is the forecast of 10 year total outlays, which is estimated as \$5,660,820 or \$566,082 on average per year.

1.6.2 What we will do

Estimated available funding for the 10 year period is \$5,666,000 or \$566,000 on average per year as per the Long-Term Financial plan or Planned Budget. This is 99.99% of the cost to sustain the current level of service at the lowest lifecycle cost.

The figure below shows the planned budget against the forecast lifecycle costs.

Forecast Lifecycle Costs and Planned Budgets

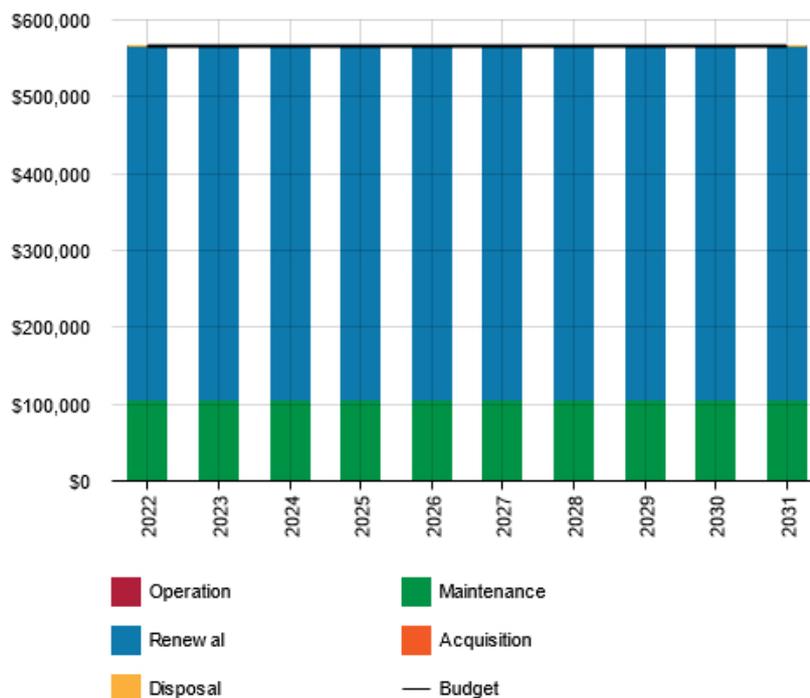


Figure Values are in current dollars.

1.6.3 Managing the Risks

Our draft budget levels are sufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Renewal projects are not optimised based on footpath hierarchy and condition.

We will endeavour to manage these risks within available funding by:

- Undertaking a field-based inspection of the footpath network with the aim of developing an optimised rolling works program over the period of at least 5 years.

1.7 Monitoring and Improvement Program

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

- Develop optimised 5 year rolling works program.
- Develop hierarchy of footpaths
- Develop pro-active maintenance program.
- Review maintenance budget

2.0 Introduction

2.1 Background

This AM Plan communicates the requirements for the sustainable delivery of services through management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period.

The AM Plan is to be read with the City of Prospects following planning documents.

- Our Community Plan – Towards 2040
- Annual Business Plan & Budget 2021/22

The infrastructure assets covered by this AM Plan include road seals, road pavements and kerbing. For a detailed summary of the assets covered in this AM Plan refer to Table in Section 5.

The infrastructure assets included in this plan have a total replacement value of insert \$33m.

2.2 Goals and Objectives of Asset Ownership

Our goal for managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. 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 for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Linking to a Long-Term Financial Plan which identifies required, affordable forecast costs and how it will be allocated.

Key elements of the planning framework are

- Levels of service – specifies the services and levels of service to be provided,
- Risk Management,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Lifecycle management – how to manage its existing and future assets to provide defined levels of service,
- Financial summary – what funds are required to provide the defined services,
- Asset management practices – how we manage provision of the services,
- Monitoring – how the plan will be monitored to ensure objectives are met,
- Asset management improvement plan – how we increase asset management maturity.

Other references to the benefits, fundamentals principles and objectives of asset management are:

- International Infrastructure Management Manual 2015 ¹
- ISO 55000²

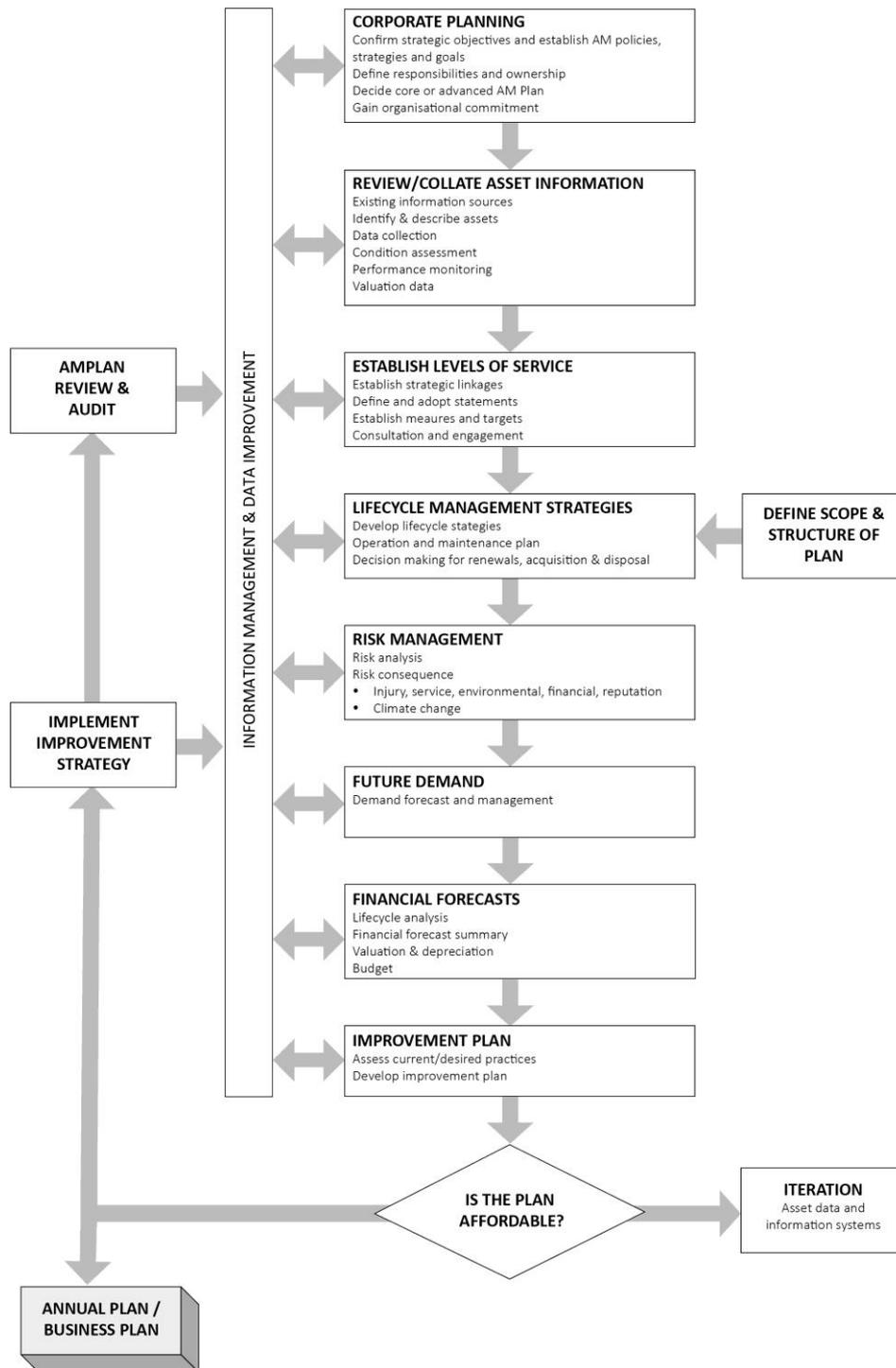
¹ Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2 | 13

² ISO 55000 Overview, principles and terminology

A road map for preparing an AM Plan is shown below.

Road Map for preparing an Asset Management Plan

Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11



3.0 LEVELS OF SERVICE

3.1 Customer Research and Expectations

Council has recently undertaken a customer satisfaction survey (November 2020). Respondents to the survey were asked to rank ‘projects’ that Council should concentrate on. The highest ranking was given to:

Asset Management and Renewal

To deliver on key priorities for the renewal of city infrastructure focusing on local roads and laneways, footpaths and streetscapes, as well as improvement’s to stormwater infrastructure and street lighting.

As part of the survey respondents were also asked to rank the importance and satisfaction with a number of the services that are provided by Council. The analysis of this survey has indicated that Council should concentrate on improvements in the area of;

Street / road maintenance and kerbing / footpaths

Footpaths has a low satisfaction level which has been seen to decrease over previous years surveys.

In response to this survey Council has undertaken a shift in its priorities with a view to increasing the level of service delivered by infrastructure and in particular roads, kerbing and footpaths which has resulted in a significant increase in infrastructure capital renewal as reflected in Councils current draft long term financial plan which has been driven by the development of this AMP.

3.2 Customer Values

Service levels are defined in three ways, customer values, customer levels of service and technical levels of service.

Customer Values indicate:

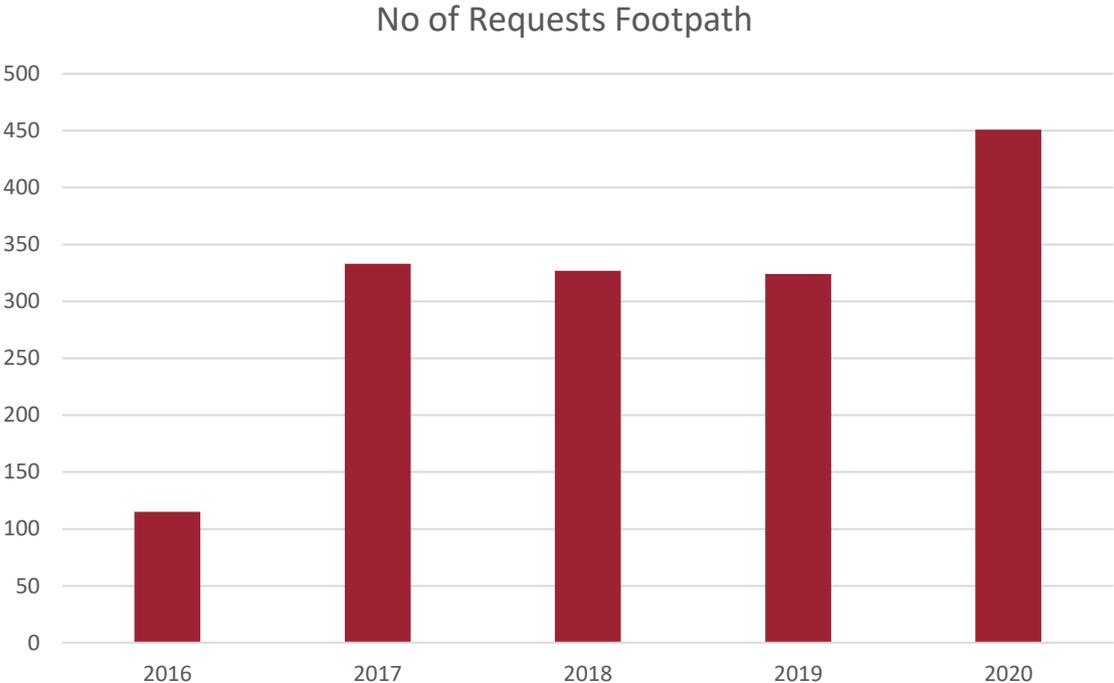
- what aspects of the service is important to the customer,
- whether they see value in what is currently provided and
- the likely trend over time based on the current budget provision

Table 3.4: Customer Values

Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
No obstructions on footpaths Vehicles do not scrape on footpath / road when accessing property	Customer Service Requests relating to obstructions	33 requests average per annum	Reduction in requests over the term of the long-term financial plan following increase in capital expenditure
Paths are safe, no tripping hazards	Customer Service Requests relating to footpath maintenance & tripping hazards	276 requests average per annum	Reduction in requests over the term of the long-term financial plan following increase in capital expenditure

Council has been tracking customer service requests since 2016 over which time it has been noted that the requests have generally been increasing on an annual basis. In response to this, the funding directed to infrastructure renewal has been increased substantially in the current draft LTFP to reflect an increase in the levels of service provided to the community and accordingly an anticipated reduction in customer service requests over time.

The graph below tracks customer service requests that have been received by Council since 2016 relating to footpaths:



3.3 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

Condition 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?

In Table 3.5 under each of the service measures types (Condition, Function, Capacity/Use) there is a summary of the performance measure being used, the current performance, and the expected performance based on the current budget allocation.

These are measures of fact related to the service delivery outcome (e.g. number of occasions when service is not available or proportion of replacement value by condition %'s) to provide a balance in comparison to the customer perception that may be more subjective.

Table 3.5: Customer Level of Service Measures

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Poor condition	Percentage of footpath network in very poor condition	5.7%	2%
	<i>Confidence levels</i>		Medium	Medium
Function	Footpath Type	Percentage of footpaths that do not have brick paving as a surface type.	18%	10%
	<i>Confidence levels</i>		High	Medium
Capacity	Footpath coverage	Extent of footpaths	Footpath provided in all locations that require a footpath	Footpath provided in all locations that require a footpath
	<i>Confidence levels</i>		High	High

3.4 Technical Levels of Service

Technical Levels of Service – To deliver the customer values, and impact the achieved Customer Levels of Service, are operational or technical measures of performance. These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

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

- **Acquisition** – 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).
- **Operation** – 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 provided (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.³

Table 3.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan.

³ IPWEA, 2015, IIMM, p 2|28.

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEVELS OF SERVICE				
Acquisition	No acquisitions are planned over the course of the plan			
		Budget	\$0	\$0
Operation	Operations are not separately recorded for footpaths			
		Budget	\$0	\$0
Maintenance	Maintain footpaths	Footpath maintenance works being undertaken	Proactive and reactive maintenance undertaken against footpaths	Retain existing expenditure and service levels pending review
		Budget	\$106,000	\$106,000
Renewal	Renewal of footpaths	Footpath renewals undertaken as per program	Prior to current draft LTFP very little footpath renewal has taken place	Renewals being considered based on program developed from field audit (yet to be undertaken)
		Budget	\$460,000 (draft LTFP)	\$460,082
Disposal	No disposals are planned over the course of the plan			
		Budget	\$0	\$0

Note: * Current activities related to Planned Budget.

** Expected performance related to forecast lifecycle costs.

It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time.

4.0 FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented.

4.3 Demand Impact and Demand Management Plan

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 4.3.

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

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this AM Plan.

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Increase in planting of street trees with large canopy coverage	Renewal of footpaths required where affected by tree root lifting.	Increase in renewals expected as more street trees are planted	More advanced trees planted in street will create conflict with footpaths leading to increased maintenance requirements and reduction in the useful life of footpaths.	Select trees based on limiting damage to adjacent infrastructure. Potential for some trees to be removed where they are close to adjacent footpaths. Review potential to use permeable footpaths to limit tree damage. Install trees with suitable root barriers
Service levels on 'critical' footpaths	Service levels not differentiated between footpath hierarchy	Higher order paths require higher service levels	Higher maintenance required on 'critical' paths	Develop footpath hierarchy and associated service levels applicable to hierarchy order. Review maintenance requirements and associated budget
Match service levels to those expected by the community	Not all footpaths have paving, and some are still asphalt or concrete (82% paved footpaths)	All footpaths paved	Higher costs associated with maintaining paving	Develop and endorse program of works and additional maintenance costs through review.
Resident expectation of footpath costs	Costs outside of footpath construction alone (i.e. crossing place) covered by Council in lieu of resident	Expected to continue	Higher than expected costs associated with renewal	Continue to review unit rates and valuations to reflect actual construction costs including crossing place construction, stormwater adjustments and verge reinstatement.

4.4 Asset Programs to meet Demand

The Council is full established with no new infrastructure expected to be vested with Council. The demand from the community relates to an increase in service levels above that which Council currently provides. Accordingly, this demand can be satisfied through an increase in renewal expenditure.

5.0 LIFECYCLE MANAGEMENT PLAN

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

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this AM Plan are shown in Table 5.1.1.

Table 5.1.1: Assets covered by this Plan

Asset Category	Dimension (approx.)
Paved paths	197km
Asphalt paths	10km
Concrete paths	42km
TOTAL	249 km

All figure values are shown in current day dollars.

The development of this plan has predominantly focussed on developing a sustainable capital renewal profile for footpath assets; accordingly, rates have been used that replicate Councils actual renewal costs following a recent review to Council's valuation methodology.

5.2 Operations and Maintenance Plan

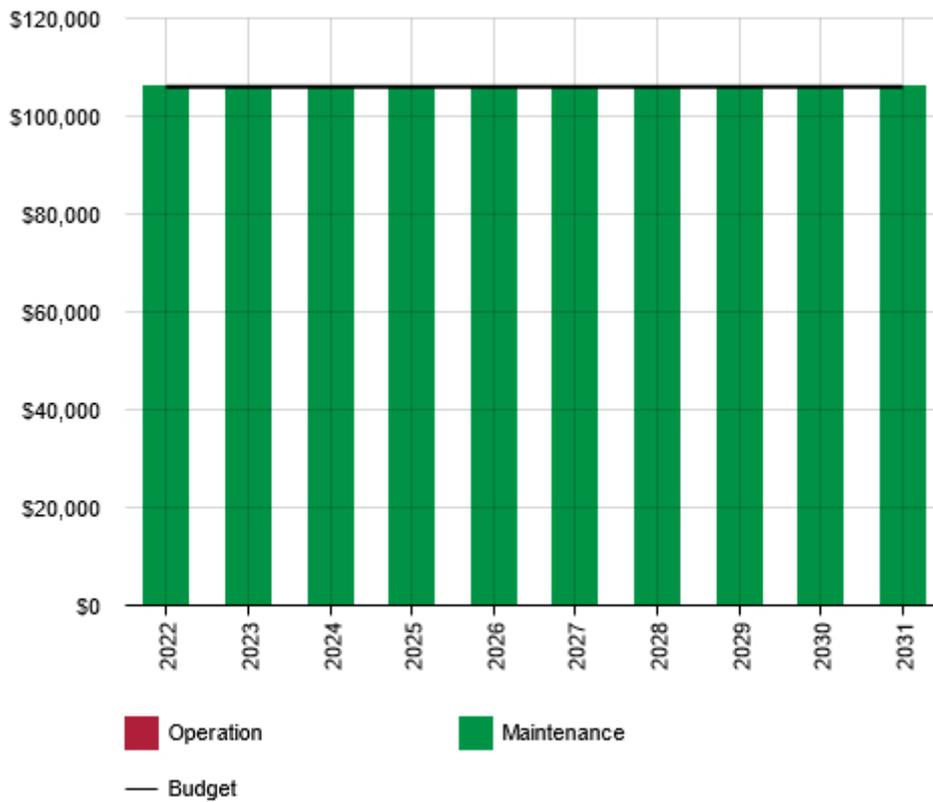
Operations include regular activities to provide services. Examples of typical operational activities include footpath sweeping and asset inspection costs.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include trip step repairs, isolated lift and relay and works associated with isolated defects.

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 5.2 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.

Figure 5.2: Operations and Maintenance Summary



All figure values are shown in current day dollars.

The operations and maintenance budget only represents approximately 0.32% of the renewal costs of the assets. It is generally accepted that a sustainable expenditure for maintenance and operations is 2% of the renewal cost pa. This represents a shortfall of approximately \$554k pa. There are however many factors that will affect the split between what is recognised as capital and maintenance expenditure. It is proposed to conduct a review of maintenance and capital expenditure.

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

The typical useful lives of assets used to develop asset valuations are shown in Table 5.3.

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Valuation Useful life (Yrs)
Asphalt paths	38
Concrete paths	60-80
Paved paths	50-80

In association with a review of unit rates used for valuations it is proposed to review the useful lives of footpaths to reflect actual lives experienced by Council.

The estimates for renewals in this AM Plan were estimated as follows:

A recent review of Council footpath condition established the following:

\$1.98m of footpaths in very poor condition

\$298k of footpaths requiring significant defect repair.

Total footpaths below 'reasonable' service level = 1.98 + 0.298 = \$2.286m

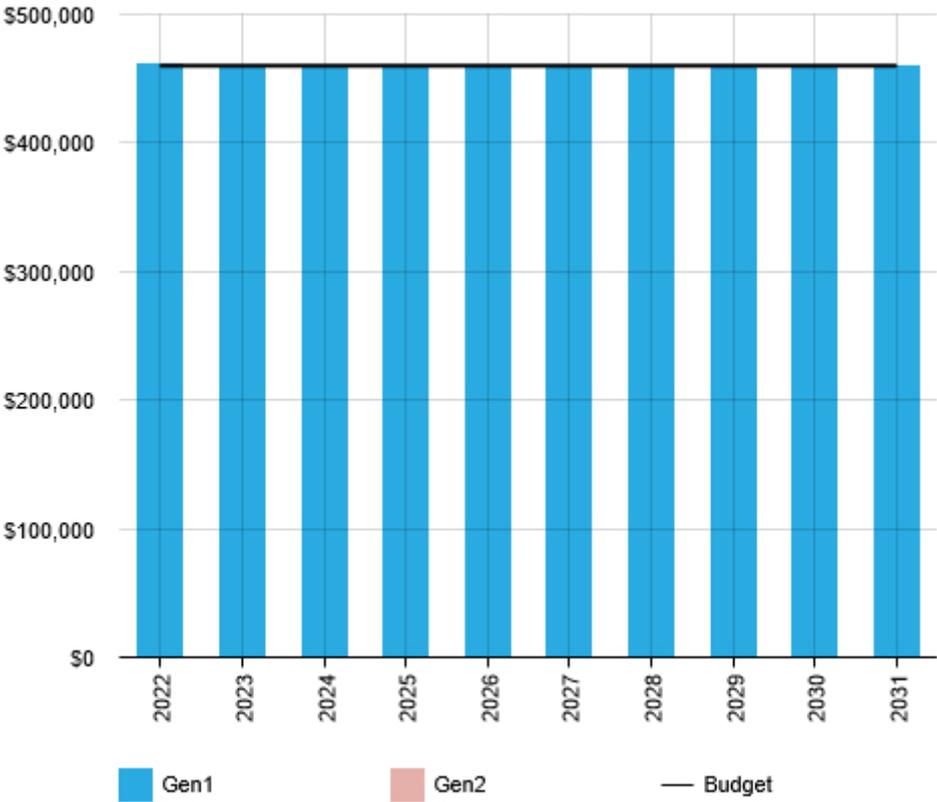
Annual average renewal required to provide 'acceptable' service level = 2.286 / 5 = \$457k pa.

The \$457k pa renewal requirement assumes that the \$2,286m of renewals will be identified on average in a condition audit undertaken once every 5 years as the footpath network gradually ages and is continuously influenced by the effect of street trees. These assumptions will be tested with a proposed detailed project level condition audit planned for 2021/22.

5.4 Summary of future renewal costs

The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4.1. A detailed summary of the forecast renewal costs is shown in Appendix D.

Figure 5.4.1: Forecast Renewal Costs



All figure values are shown in current day dollars.

The ongoing anticipated renewal requirements (forecast costs) and draft LTFP have been approximated using the methodology briefly described in section 5.3.

In 2020/21, \$250k of footpath renewal funding was allocated by Council but prior to this there has been very little footpath renewal works undertaken in the last 5 years. Accordingly, the proposed renewals represent a significant investment by Council in addressing the needs of the community.

5.5 Acquisition Plan

Acquisitions reflects new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs.

The City of Prospect is a fully developed Council and accordingly no acquisitions are expected over the course of this plan.

5.6 Disposal Plan

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

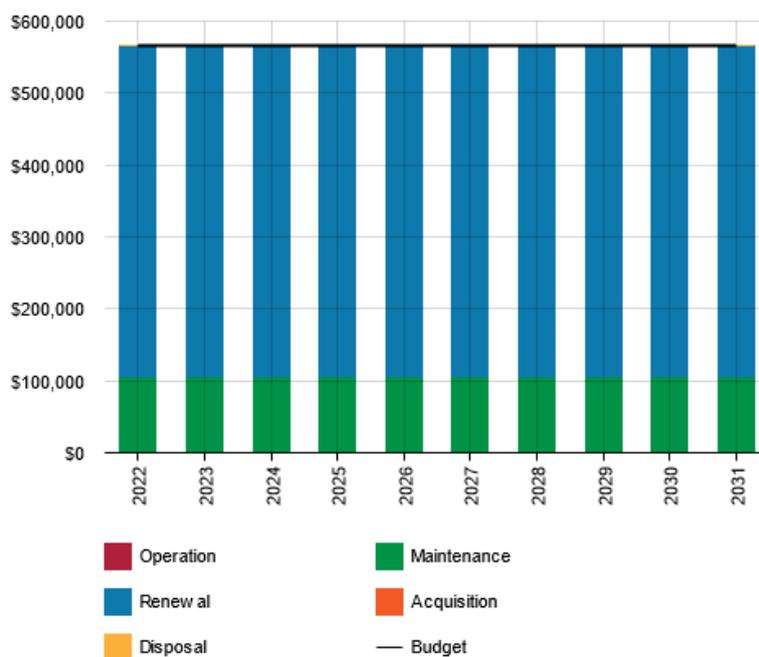
No disposal of footpath assets are proposed over the course of the plan, although this may become an option to be considered in balancing the provision of trees in narrow streets with an existing footpath on both side of the street.

5.7 Summary of Asset Forecast Costs

The financial projections from this asset plan are shown in Figure 5.4.3. These projections include forecast costs for operation, maintenance and renewal. These forecast costs are shown relative to the proposed budget.

The bars in the graphs represent the forecast costs needed to minimise the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 5.5.3: Lifecycle Summary



All figure values are shown in current day dollars.

The budget (draft LTFP) in fig 5.5.3 has been developed from an initial review of the condition data associated with footpath assets and as such matches the required expenditure over the term of the plan. The budget represents a significant improvement on previous renewal allocations.

A defined program of actual footpath renewals has been developed for 2021/22 and an allocation only for years beyond this. It is proposed to develop a project-based renewal audit of the entire footpath network in 2022/23 from which will be developed a longer-term renewal plan and proposed budget. It is anticipated that this review will necessitate an update to this plan in the 2022/23 financial year.

6.0 RISK MANAGEMENT PLANNING

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2018 as: ‘coordinated activities to direct and control with regard to risk’⁴.

An assessment of risks⁵ associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a ‘financial shock’, reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarised in Table 6.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
High use footpaths	Unidentified and unactioned defects	Potential danger to pedestrians through tripping hazards and obstacles
Critical use footpaths (i.e., near aged care homes etc)	Unidentified and unactioned defects	Potential danger to pedestrians through tripping hazards and obstacles

By identifying critical assets and failure modes an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

6.2 Risk Assessment

The risk management process used is shown in Figure 6.2 below.

It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of International Standard ISO 31000:2018.

⁴ ISO 31000:2009, p 2

⁵ REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

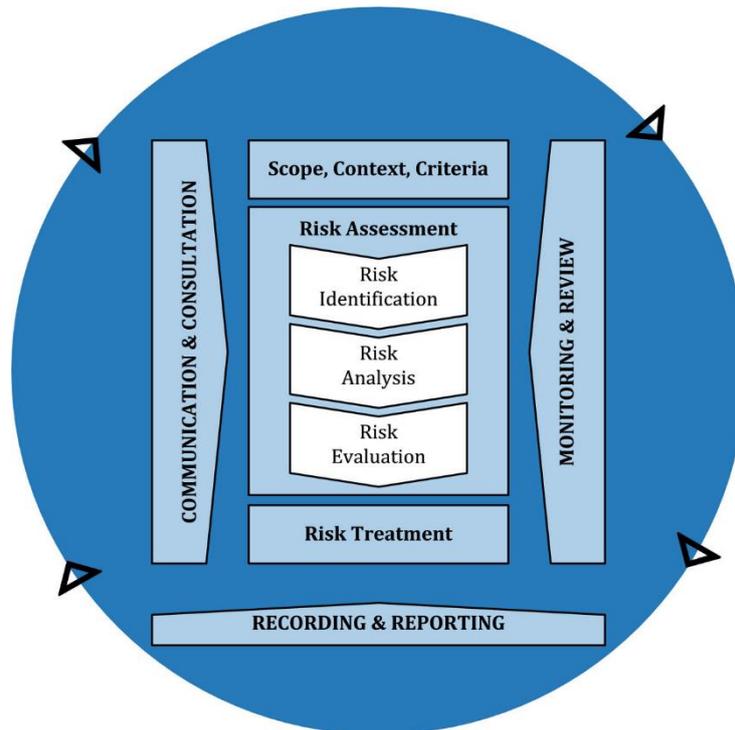


Fig 6.2 Risk Management Process – Abridged
 Source: ISO 31000:2018, Figure 1, p9

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating, evaluation of the risk and development of a risk treatment plan for non-acceptable risks.

An assessment of risks⁶ associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a ‘financial shock’, reputational impacts, or other consequences.

Critical risks are those assessed with ‘Very High’ (requiring immediate corrective action) and ‘High’ (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2.

⁶ REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

Table 6.2: Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs (\$)
Critical footpaths	Paths not optimized for renewal since footpath hierarchy is not developed	H	Develop footpath hierarchy based on land use factors and location of pedestrian generating activities	M	10,000
Footpath renewal	Renewals are not optimized across the network.	H	Undertake development of a 5-year project level works program, derived from a detailed inspection of the footpath network	L	40,000 (at same time as the road audit)
Footpath maintenance	Maintenance program not optimized	H	Develop a proactive maintenance program in association with the field audit	L	

Note * The residual risk is the risk remaining after the selected risk treatment plan is implemented.

6.3 Service and Risk Trade-Offs

The decisions made in adopting this AM Plan are based on the objective to achieve the optimum benefits from the available resources.

6.3.1 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Lift the service level of all footpaths within the 10 years of the AMP & LTFP
- Increase the maintenance budget to 'industry standard' levels

6.3.2 Service trade-off

If there is forecast work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- Maintenance not undertaken in a timely manner.
- Extended life of existing concrete and hot mix footpaths whilst the next treatment is programmed.

6.3.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- Potential for greater exposure to hazards due to 'low' maintenance funding.

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

7.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in the AM Plan for this service area. The two indicators are the:

- asset renewal funding ratio (proposed renewal budget for the next 10 years / forecast renewal costs for next 10 years), and
- medium term forecast costs/proposed budget (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio⁷ 99.98%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have 99.98% of the funds required for the optimal renewal of assets.

The forecast renewal work along with the proposed renewal budget, and the cumulative shortfall, is illustrated in Appendix D.

Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall.

The forecast operations, maintenance and renewal costs over the 10 year planning period is \$566,082 average per year.

The proposed (budget) operations, maintenance and renewal funding is \$566,000 on average per year giving a nominal 10 year funding shortfall of only \$82 per year. This indicates that 99.99% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 1.0 for the first years of the AM Plan and ideally over the 10 year life of the Long-Term Financial Plan.

7.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 7.1.3 shows the forecast costs (outlays) used in the development of the current 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

⁷ AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the long-term financial plan).

There is only a nominal gap that has been identified between the draft LTFP and the estimated renewals & operations / maintenance costs identified in the development of this plan. It is proposed to review this plan and LTFP following the detailed field audit proposed for the 2022/23 financial year.

Forecast costs are shown in 2020/21 dollar values.

Table 7.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2022	0	0	106,000	460,820	0
2023	0	0	106,000	460,000	0
2024	0	0	106,000	460,000	0
2025	0	0	106,000	460,000	0
2026	0	0	106,000	460,000	0
2027	0	0	106,000	460,000	0
2028	0	0	106,000	460,000	0
2029	0	0	106,000	460,000	0
2030	0	0	106,000	460,000	0
2031	0	0	106,000	460,000	0

7.2 Funding Strategy

The proposed funding for assets is outlined in the Entity’s budget and Long-Term financial plan.

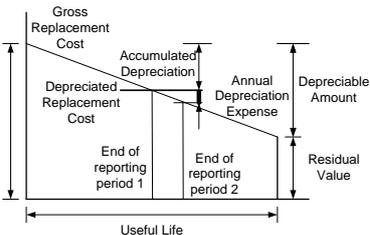
The financial strategy of the entity determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

7.3 Valuation Forecasts

7.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below:

Replacement Cost (Current/Gross)	\$48,105,535
Depreciable Amount	\$48,105,535
Depreciated Replacement Cost ⁸	\$26,209,293
Depreciation	\$512,627



7.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this AM Plan are:

⁸ Also reported as Written Down Value, Carrying or Net Book Value.

- Footpath renewals allowance based on condition assumptions for footpaths beyond the 21/22 financial year.
- Existing maintenance expenditure considered adequate, although it is very low. It is proposed to review the maintenance budget following the proposed field audit.

7.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a C level scale⁹ in accordance with Table 7.5.1.

Table 7.5.1: Data Confidence Grading System

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

⁹ IPWEA, 2015, IIMM, Table 2.4.6, p 2 | 71.

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices¹⁰

8.1.1 Accounting and financial data sources

This AM Plan utilises accounting and financial data. The source of the data is Council June 2021 valuations.

8.1.2 Asset management data sources

This AM Plan also utilises asset management data. The source of the data is revised condition data in Councils Asset Management System 'Conquest'.

8.2 Improvement Plan

It is important that an entity recognise areas of their AM Plan and planning process that require future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 8.2.

Table 8.2: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Undertake a field audit of all footpath assets to establish a detailed 5-year project based costed rolling works program	Mgr. Infrastructure & Assets	40,000	22/23
2	Review this plan based on defined project-based rolling works program and revised valuations	Mgr. Infrastructure & Assets	15,000	22/23
3	Development of proactive maintenance program from the field audit defined above	Mgr. Infrastructure & Assets	Incl above	22/23
4	Review budget allocations for maintenance and operations	Mgr. Infrastructure & Assets	10,000	22/23
5	Develop a hierarchy of footpaths based on risk and pedestrian use.	Mgr. Infrastructure & Assets	5,000	22/23

¹⁰ ISO 55000 Refers to this as the Asset Management System

9.0 REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
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- IPWEA, 2018, Practice Note 12.1, 'Climate Change Impacts on the Useful Life of Assets', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2012, Practice Note 6 Long-Term Financial Planning, Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn6>
- IPWEA, 2014, Practice Note 8 – Levels of Service & Community Engagement, Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn8>
- ISO, 2014, ISO 55000:2014, Overview, principles and terminology
- ISO, 2018, ISO 31000:2018, Risk management – Guidelines
- Our Community Plan – Towards 2040
- Annual Business Plan & Budget 2021/22

10.0 APPENDICES

Appendix A Acquisition Forecast

No acquisitions (new assets) are planned during the term of this Asset Management Plan.

Appendix B Operation Forecast

There is currently no operations expenditure recorded in Council’s budget relating to footpaths



Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

Maintenance expenditure is taken from Councils existing budget and since there are no new assets planned the forecast remains the same as the budget over the term of the plan. It is proposed to review the operations and maintenance requirements over the course of the next year due to the expenditure being quite low.

C.2 – Maintenance Forecast Summary

Table C2 - Maintenance Forecast Summary

Year	Maintenance Forecast	Additional Maintenance Forecast	Total Maintenance Forecast
2022	106,000	0	106,000
2023	106,000	0	106,000
2024	106,000	0	106,000
2025	106,000	0	106,000
2026	106,000	0	106,000
2027	106,000	0	106,000
2028	106,000	0	106,000
2029	106,000	0	106,000
2030	106,000	0	106,000
2031	106,000	0	106,000

Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

The estimates for renewals in this AM Plan were estimated as follows:

A recent review of Council footpath condition established the following:

\$1.98m of footpaths in very poor condition

\$298k of footpaths requiring significant defect repair.

Total footpaths below ‘reasonable’ service level = 1.98 + 0.298 = \$2.286m

Annual average renewal required to provide ‘acceptable’ service level = 2.286 / 5 = \$457k pa.

The \$457k pa renewal requirement assumes that the \$2,286m of renewals will be identified on average in a condition audit undertaken once every 5 years as the footpath network gradually ages and is continuously influenced by the effect of street trees. These assumptions will be tested with a proposed detailed project level condition audit planned for 2021/22.

D.2 – Renewal Forecast Summary

Recommend using NAMS+ Outputs Summary for Renewal

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2022	460,820	460,000
2023	460,000	460,000
2024	460,000	460,000
2025	460,000	460,000
2026	460,000	460,000
2027	460,000	460,000
2028	460,000	460,000
2029	460,000	460,000
2030	460,000	460,000
2031	460,000	460,000

D.3 –Renewal Plan

Detail output from NAMS+ Report for the Register Method

Appendix 10 Year Report

Appendix E Disposal Summary

No acquisitions (new assets) are planned during the term of this Asset Management Plan.

Appendix F Budget Summary by Lifecycle Activity

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Disposal	Total
2022	0	0	106,000	460,000	0	566,000
2023	0	0	106,000	460,000	0	566,000
2024	0	0	106,000	460,000	0	566,000
2025	0	0	106,000	460,000	0	566,000
2026	0	0	106,000	460,000	0	566,000
2027	0	0	106,000	460,000	0	566,000
2028	0	0	106,000	460,000	0	566,000
2029	0	0	106,000	460,000	0	566,000
2030	0	0	106,000	460,000	0	566,000
2031	0	0	106,000	460,000	0	566,000