ASSET MANAGEMENT PLAN TRANSPORT 2022–2026

2023 Revision







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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 ten year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10 year planning period.

1.2 Asset Description

This plan covers the infrastructure assets that provide Transport services.

The Transport network comprises:

- · Approximately 933 km of sealed roads
- Approximately 1,750 km of unsealed roads
- 84 concrete or steel bridges
- 45 Timber bridges
- 62 km of Footpaths
- 170km of Kerb & Gutter

The above infrastructure assets have replacement value estimated at \$1,173,924,109.

1.3 Levels of Service

The allocation in the planned budget is sufficient to continue providing existing services at current levels for the planning period.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Increases in population
- Demographic changes such as ageing population
- · Changed tourist visitation patterns

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

1.5 Lifecycle Management Plan

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. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10 year total outlays, which for the transport service area is estimated as \$289,255,232 or \$28,925,522 on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is \$313,742,528 or \$31,374,252 on average per year as per the Long-Term Financial plan or Planned Budget. This is 108.47% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. The Informed decision making depends on the AM Plan emphasising the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for Transport leaves an excess of \$2,448,731 on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure overpage.

Figure 1.1: Forecast Lifecycle Costs and Planned Budgets

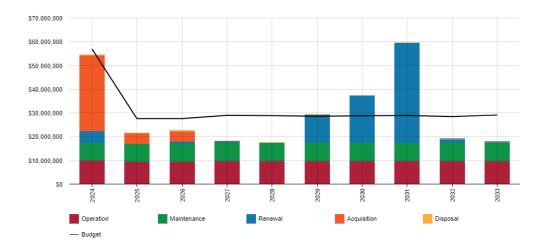


Figure Values are in current dollars.

We plan to provide Transport services for the following:

• Operation, maintenance, renewal and acquisition of roads, bridges, footpaths and other transport assets to meet service levels set by Snowy Monaro Regional Council in annual budgets.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- · The assets will remain in the organisations ownership and control throughout the planning period
- Planned and reactive maintenance will take place in accordance with relevant guidelines/standards
- · All expenditure is stated in 2021/22 dollar values
- Regulations and standards relating to operations will remain unchanged over the planning period

Assets requiring renewal are identified from either the asset register or an alternative method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal,
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge.

The Asset Register was used to forecast the renewal lifecycle costs for this AM Plan.

This AM Plan is based on a reliable level of confidence information.

1.8 Monitoring and Improvement Program

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

- · Continue to review accuracy and currency of asset registers
- Document maintenance response levels
- · Improve linking of customer requests to asset records

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 Snowy Monaro Regional Council planning documents. This should include the Asset Management Policy and Asset Management Strategy, where developed, along with other key planning documents:

- Asset Management Policy
- Asset Management Strategy

The infrastructure assets covered by this AM Plan include sealed and unsealed roads, bridges, footpaths, kerb & gutter and other associated transport assets. For a detailed summary of the assets covered in this AM Plan refer to Table in Section 5.

These assets are used to provide transport services.

The infrastructure assets included in this plan have a total replacement value of \$1,173,924,109.

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.

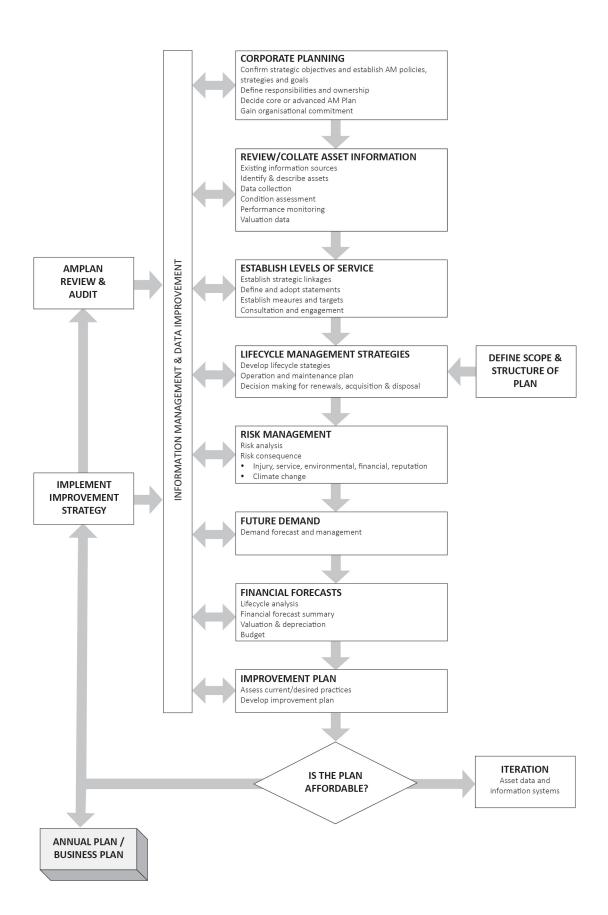
Other references to the benefits, fundamentals principles and objectives of asset management are:

- International Infrastructure Management Manual 2015¹
- · ISO 550002

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

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

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the Snowy Monaro Regional Council. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist the Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

3.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Snowy Monaro Regional Council vision, mission, goals and objectives.

Our vision is:

The Snowy Monaro Region is a welcoming diverse and inclusive community where everyone can belong, participate, and work together. Our natural environment and heritage is preserved and enhanced for future generations. The region offers a fulfilling quality lifestyle and is a place of opportunity, with education, training and economic opportunities for people of all ages and backgrounds.

Strategic goals have been set by the Snowy Monaro Regional Council. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 3.2.

Table 3.2: Goals ar	nd how these are	addressed in	this Plan
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Objective	How Goal and Objectives are addressed in the AM Plan
4.1 Our health is supported by fit for purpose infrastructure	By developing long term works programs and projecting expenditure required to implement these programs.
4.2 Transport infrastructure allows us to effectively move around the region and	By minimising the required physical and monetary resources through focussing on "whole-of-lifecycle" costs
beyond as needed 4.4 We have in place infrastructure that	By optimising maintenance works so that the desired outcomes are delivered at the least possible cost
supports our lifestyles	By coordinating with other departments when planning and scheduling maintenance and capital works programmes, to ensure minimum impact on visual amenity

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the Transport service are outlined in Table 3.3.

Table 3.3: Legislative Requirements

Legislation	Requirement
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Roads Act 1993	Sets out rights of members of the public to pass along public roads, establishes procedures for opening and closing a public road, and provides for the classification of roads. It also provides for declaration of the RTA and other public authorities as roads authorities for both classified and unclassified roads, and confers certain functions (in particular, the function of carrying out roadwork) on the RTA and other roads authorities. Finally it provides for distribution of functions conferred by this Act between the RTA and other roads authorities, and regulates the carrying out of various activities on public roads.
Occupational Health and Safety Act 2000	Sets out roles and responsibilities to secure the health, safety and welfare of persons at work. All Councils operational activities are affected by the requirements of this Act.
Road Transport (General)Act 2005	Provides for the administration and enforcement of road transport legislation.
Road Transport (Safety and Traffic Management) Act 1999	Facilitates the adoption of nationally consistent road rules in NSW, the Australian Road Rules. It also makes provision for safety and traffic management on roads and road related areas including alcohol and other drug use, speeding and other dangerous driving, traffic control devices and vehicle safety accidents.

3.4 Levels of Service

Council's current service levels are detailed in Tables 3.4

Table 3.4: Current Levels of Service

Level of Service	Measure	Current Performance
Undertake Councils Resealing Program	1/15 of road network or 67km of the 15-year program is undertaken each year	To be determined
Undertake Council's Heavy Patching Program	Extend the expected life of 10% of the road network	To be determined
Undertake Gravel Resheeting	1/15 of road network or 115km's of the 15-year program is undertaken each year	To be determined
Undertake Reactive Maintenance	Respond to immediate works within 3 weeks of being notified	To be determined
Undertake Gravel Regrading	80% of unsealed network graded each year	To be determined
Undertake Bridge Maintenance	<5 road closures or detours per year 20% of bridges maintained each year	To be determined
Undertake scheduled Transport Infrastructure Maintenance	Agreement of 70% of engaged local residents Roads maintained to a mean satisfaction score of >2.77 within the Annual Community Satisfaction Survey	To be determined
Undertake Kerb and Gutter Renewals	Annual program completed	To be determined
Undertake Footpath Renewals	Annual program completed	To be determined
Undertake Rural Culverts Renewals	Annual program completed	To be determined
Delivery of funded transport infrastructure projects	80% of projects delivered on time and budget	To be determined

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
Population	21,207	5	Negligible impact on demand for services	NA

4.4 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit the Snowy Monaro Regional Council to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the long-term financial plan (Refer to Section 5).

5.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the Snowy Monaro Regional 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

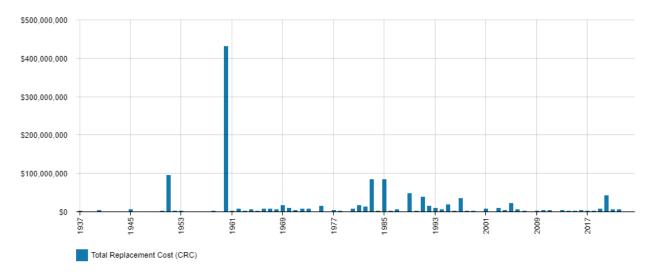
The assets covered by this AM Plan are shown in Table 5.1.1.

The age profile of the assets included in this AM Plan are shown in Figure 5.1.1.

Table 5.1.1: Assets covered by this Plan

Asset Category	Dimension	Replacement Value
Sealed Roads	~ 933 km	254,728,335
Unsealed Roads	~ 1750 km	225,743,756
Earthworks		473,641,038
Bridges	~139	132,827,471
Footpaths	62 km (~ 110,000 sqm	15,624,121
Kerb & Gutter	169.5 km	32,859,143
Culverts	7184	22,795,503
Causeways	127	13,411,047
Islands & Roundabouts	87	2,293,641
TOTAL		1,173,924,109

Figure 5.1.1: Asset Age Profile



All figure values are shown in current day dollars.

Add discussion about the age asset profile. Outline how past peaks of investment that may require peaks in renewals in the future. Comment on the overall age versus useful lives of the assets.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there is insufficient resources to address all known deficiencies. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Bridges	Several older timber bridges have been identified as needing repair, rehabilitation or upgrading. These are being addressed as funding becomes available

5.1.3 Asset condition

Condition is currently monitored by inspection of the road network every 5 years.

Condition is measured using a 1 – 5 grading system³ as detailed in Table 5.1.3. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AM plan results are translated to a 1 – 5 grading scale for ease of communication.

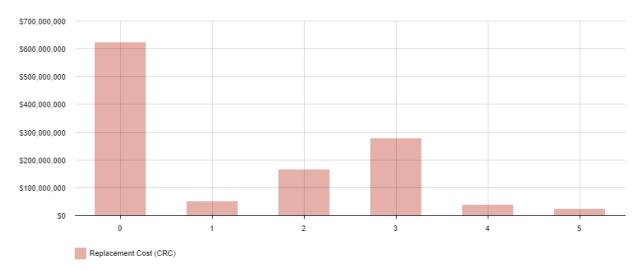
Table 5.1.3: Condition Grading System

Condition Grading	Description of Condition
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

The condition profile of our assets is shown in Figure 5.1.3.

Figure 5.1.3: Asset Condition Profile

All figure values are shown in current day dollars.



5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include cleaning, street sweeping, asset inspection, and utility 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 pipe repairs, asphalt patching, and equipment repairs.

The trend in maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Maintenance	Budget Trends
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Year	Maintenance Budget \$
2022	7,919,000
2023	7,595,079
2024	7,385,079

Maintenance budget levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan and service risks considered in the Infrastructure Risk Management Plan.

Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 5.2.2.

Table 5.2.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Regional roads	Typically provide for travel between towns
Collector roads	Provide movement from local areas to regional or arterial roads
Local roads	Provide movement within local areas
Minor access roads	Provide access to individual properties

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.

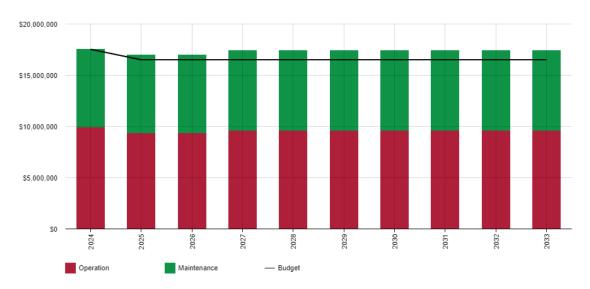


Figure 5.2: Operations and Maintenance Summary

All figure values are shown in current day dollars.

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.

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.3. Asset useful lives were last reviewed in 2022

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Wearing course	25 years
Pavement	80 years (sealed); 65 years (unsealed)
Bridge	120 years (steel/concrete); 100 years (timber)
Footpath	60 years (concrete); 25 years (spray seal)
Kerb & Gutter	70 years
Islands & Roundabouts	50 years

The estimates for renewals in this AM Plan were based on the asset register method.

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a playground).⁴

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.⁵

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 5.3.1.

Table 5.3.1: Renewal Priority Ranking Criteria

Criteria	Weighting
Annual Average Daily Traffic (AADT)	100%
Total	100%

⁴ IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

⁵ Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

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5.4 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. 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.

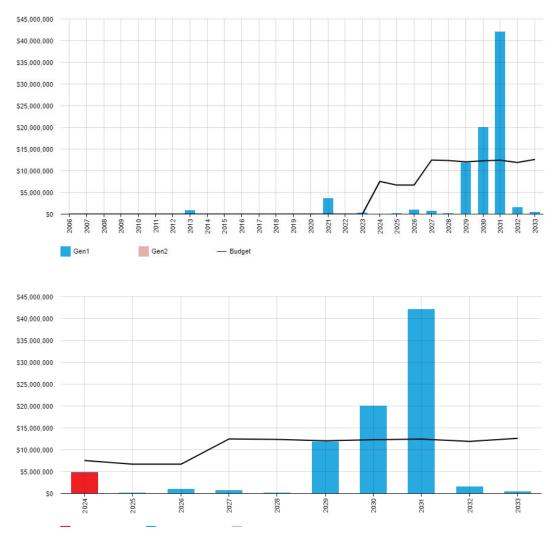


Figure 5.4.1: Forecast Renewal Costs

All figure values are shown in current day dollars.

5.5 Acquisition Plan

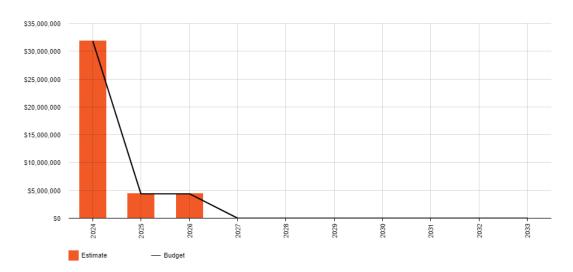
Acquisition reflects are new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs. Assets may also be donated to the Snowy Monaro Regional Council.

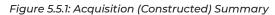
5.5.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrade and new works should be reviewed to verify that they are essential to the Entities needs. Proposed upgrade and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals can then be ranked by priority and available funds and scheduled in future works programmes.

Summary of future asset acquisition costs

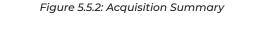
Forecast acquisition asset costs are summarised / summarized in Figure 5.5.1 and shown relative to the proposed acquisition budget. The forecast acquisition capital works program is shown in Appendix A.

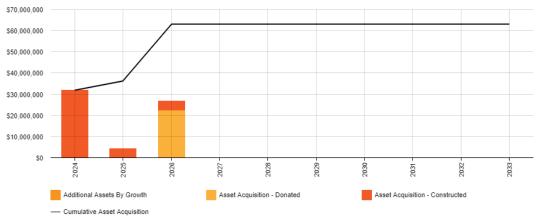




All figure values are shown in current day dollars.

When an Entity commits to new assets, they must be prepared to fund future operations, maintenance and renewal costs. They must also account for future depreciation when reviewing long term sustainability. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the Entity. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 5.5.2.





All figure values are shown in current dollars.

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding.

5.6 Disposal Plan

No assets are currently identified for disposal during the planning period

5.7 Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.7.1. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. 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.

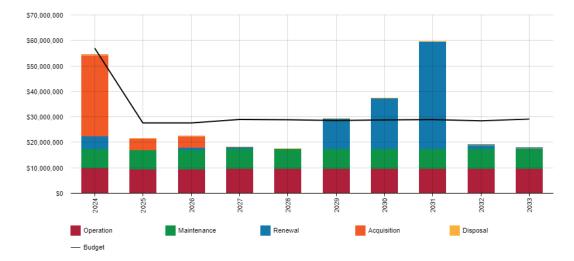


Figure 5.7.1: Lifecycle Summary

All figure values are shown in current day dollars.

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'6.

An assessment of risks 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.

Critical Asset(s)	Failure Mode	Impact
Bridges	Partial or complete loss of service capacity due to structural or other reasons	 Loss of access to served area Increased travel times Impact on emergency services
Unsealed roads	Partial or complete loss of service capacity due to weather event	 Loss of access to served area Increased travel times Impact on emergency services

Table 6.1 Critical Assets

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

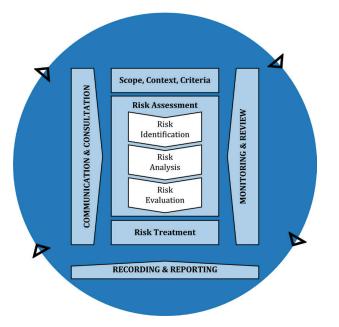
The risk management process is shown in Figure 6.2 below.

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.

Figure 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 risks 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.

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
Will be developed in future revi	sions of this document				

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 178.9%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have 178.9% 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 \$24,864,576 average per year.

The proposed (budget) operations, maintenance and renewal funding is \$31,374,252 on average per year giving a 10 year funding excess of \$6,509,677 per year. This indicates that 126.18% 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) required for consideration in the 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.

Forecast costs are shown in 2023 dollar values.

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

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2024	31,843,302	9,930,205	7,595,079	4,854,689	0
2025	4,383,080	9,375,659	7,585,692	73,270	0
2026	4,383,080	9,409,847	7,613,305	942,652	0
2027	0	9,619,301	7,782,480	701,014	0
2028	0	9,619,301	7,782,480	98,951	0
2029	0	9,619,301	7,782,480	11,830,269	0
2030	0	9,619,301	7,782,480	19,951,832	0
2031	0	9,619,301	7,782,480	42,103,588	0
2032	0	9,619,301	7,782,480	1,558,562	0
2033	0	9,619,301	7,782,480	394,404	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.

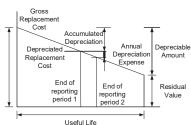
AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.
ASSET MANAGEMENT PLAN-TRANSPORT 2023 – 2033

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. The assets are valued at fair value on a replacement cost basis:

Replacement Cost (Current/Gross)	\$1,173,924,109
Depreciable Amount	\$1,173,924,109
Depreciated Replacement Cost ⁸	\$781,692,032
Depreciation	\$10,585,847



7.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added to service.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

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:

- · The assets will remain in the organisations ownership and control throughout the planning period
- Planned and reactive maintenance will take place in accordance with relevant guidelines/standards
- · All expenditure is stated in 2021/22 dollar values
- Regulations and standards relating to operations will remain unchanged over the planning period

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 A - E 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 ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is considered to be Medium.

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

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

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's Corporate Information System (Civica Authority).

8.1.2 Asset management data sources

This AM Plan also utilises asset management data. The source of the data is the Assets Module of Civica Authority.

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	Continue to review accuracy and currency of asset registers	Asset team	Staff time	Ongoing
2	Document maintenance response levels	Assets & Roads team	Staff time	To be determined
3	Improve linking of customer requests to asset records	Assets & Roads team	Staff time	To be determined

8.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated annually to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets. These forecast costs and proposed budget are incorporated into the Long-Term Financial Plan or will be incorporated into the Long-Term Financial Plan or completed.

The AM Plan has a maximum life of 4 years and is due for complete revision and updating within one year of each Council election.

8.4 Performance Measures

The effectiveness of this AM Plan can be measured in the following ways:

- The degree to which the required forecast costs identified in this AM Plan are incorporated into the long-term financial plan,
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the AM Plan,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organisational target (this target is often 90 100%).

¹⁰ISO 55000 Refers to this as the Asset Management System22 | ASSET MANAGEMENT PLAN-TRANSPORT 2023 - 2033

9.0 REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/ namsplus.
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.
- IPWEA, 2020 'International Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney
- 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

10.0 APPENDICES

Appendix A–Acquisition Forecast

A.1 – Acquisition Forecast Assumptions and Source

The listed acquisitions are as listed in the 2022-26 Delivery Program and associated Operational Plan

A.2 – Acquisition Project Summary

The project titles included in the lifecycle forecast are:

Table A2–Lifecycle Forecast

Project	Year	Value
Black Flat Bridge	2024	335,386
Bridges Council Roads (TBD)	2025-26	2,000,000
Bridges Regional Roads (TBD)	2024-26	2,500,000
Cambalong 1 Bridge	2024	2,962,553
Cambalong 2 Bridg	2024	1,122,139
Darbys Gully Bridge	2024	378,400
Killarney Bridge Replacement Tayfield Road	2024	477,037
Matong Creek Bridge Replacement Matong Road	2024	1,860,002
Redcliffe Bridge – Cambalong Road, Palarang Replacement of existing Timber Structure with a Concrete bridge	2024	315,121
Rossys Creek Bridge Replacement Corrowong Road	2024	1,583,836
Avonside Road Sealing Construction	2024	1,049,501
BLERF Grant 0592 – Adaminaby Streets Improvement	2024	608,239
Bobeyan Road Upgrade Sealing Adaminaby to ACT Border	2024	10,102,612
Dry Plains Rd Reconstruct and Seal Approx 5km	2024	1,494,082
Maffra Road sealing	2024	1,272,764
Mila Road Reconstruct and Seal 7.83km	2024	2,002,577
Regional Roads Block Grants Program (TBD)	2024-26	1,329,240
Regional Roads to Repair Program (TBD)	2024-26	720,000
Roads to Recovery Program (TBD)	2024-26	6,468,060
Ryrie Street Michelago Extension	2024	992,386
Shannons Flat Road Reconstruction and Seal 7.83km	2024	1,035,527

A.3 – Acquisition Forecast Summary

Table A3 – Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2024	31,843,302	0	0
2025	4,383,080	0	0
2026	4,383,080	22,470,000	0
2027	0	0	0
2028	0	0	0
2029	0	0	0
2030	0	0	0
2031	0	0	0
2032	0	0	0
2033	0	0	0

Appendix B-Operation Forecast

B.1 – Operation Forecast Assumptions and Source

The Operation Forecast is extracted from the 10 year budget as provided by the Finance department.

B.2 – Operation Forecast Summary

Table B2 – Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast	
2024	9,930,205	248,378	9,930,205	
2025	9,127,281	34,188	9,375,659	
2026	9,127,281	209,454	9,409,847	
2027	9,127,281	0	9,619,301	
2028	9,127,281	0	9,619,301	
2029	9,127,281	0	9,619,301	
2030	9,127,281	0	9,619,301	
2031	9,127,281	0	9,619,301	
2032	9,127,281	0	9,619,301	
2033	9,127,281	0	9,619,301	

Appendix C–Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

The Maintenance Forecast is extracted from the 10 year budget as provided by the Finance department

C.2 – Maintenance Forecast Summary

.Table C2 – Maintenance Forecast Summary

Year	Maintenance Forecast	Additional Maintenance Forecast	Total Maintenance Forecast
2024	7,595,079	200,613	7,595,079
2025	7,385,079	27,613	7,585,692
2026	7,385,079	169,174	7,613,305
2027	7,385,079	0	7,782,480
2028	7,385,079	0	7,782,480
2029	7,385,079	0	7,782,480
2030	7,385,079	0	7,782,480
2031	7,385,079	0	7,782,480
2032	7,385,079	0	7,782,480
2033	7,385,079	0	7,782,480

Appendix D-Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

Renewals are assumed to be done at end of life as projected by the asset register.

D.3 – Renewal Forecast Summary

Table D3 – Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2024	4,854,689	7,532,698
2025	73,270	6,686,920
2026	942,652	6,686,920
2027	701,014	12,462,000
2028	98,951	12,367,000
2029	11,830,269	12,037,000
2030	19,951,832	12,297,000
2031	42,103,588	12,417,000
2032	1,558,562	11,905,000
2033	394,404	12,605,000

Appendix E–Disposal Summary

E.1 – Disposal Forecast Assumptions and Source

No asset disposals are currently identified for the planning period.

Appendix F–Budget Summary by Lifecycle Activity

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Disposal	Total
2024	31,843,302	9,930,205	7,595,079	7,532,698	0	56,901,284
2025	4,383,080	9,127,281	7,385,079	6,686,920	0	27,582,360
2026	4,383,080	9,127,281	7,385,079	6,686,920	0	27,582,360
2027	0	9,127,281	7,385,079	12,462,000	0	28,974,360
2028	0	9,127,281	7,385,079	12,367,000	0	28,879,360
2029	0	9,127,281	7,385,079	12,037,000	0	28,549,360
2030	0	9,127,281	7,385,079	12,297,000	0	28,809,360
2031	0	9,127,281	7,385,079	12,417,000	0	28,929,360
2032	0	9,127,281	7,385,079	11,905,000	0	28,417,360
2033	0	9,127,281	7,385,079	12,605,000	0	29,117,360

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Further Information

The Snowy Monaro 2042 Community Strategic Plan, Delivery Program, Operational Plan and Annual Reports can be viewed on Council's website.

For further information visit:



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Your Feedback

A copy of this plan can be obtained from Council's website: www.snowymonaro.nsw.gov.au

We are interested to know your thoughts about this report. Your comments and suggestions are valuable because they highlight opportunities for us to improve the quality of our services, plans and reports. If you would like to comment, or require additional information regarding this report, please contact us.

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