ASSET MANAGEMENT PLAN
TRANSPORT
2022 -2032

SNOWY MONARO
REGIONAL COUNCIL

Acknowledgement of Country

Snowy Monaro Regional Council acknowledges the Traditional custodians of the region's land and water, the Ngarigo, Walgalu, Southern Ngunnawal and Bidawal Peoples.

We pay our respects to Elders past, present and emerging. The Snowy Monaro is, and always will be, Aboriginal Country.

Record of Versions

Uncontrolled document when printed. Please refer to intranet for controlled document.

Version	Date Published	Reason for Amendments	Resolution	Author/Document Owner
1.0	23/6/2022	Final Draft for Council Meeting	170/22	Coordinator Strategy Development
1.1				
1.2				
1.4				
1.5				
1.6				
1.7				

Photography:
MJD Photography Cover, 2

Contents

1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This Asset Management Plan (AMP) 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 AMP 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 $652,942,000, excluding non-depreciating assets such as earthworks.

1.3 Levels of Service

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

The main service consequences of the Planned Budget are:

- Asset renewals not always occurring at the optimal time
- Gradual decline in asset condition
- Negative impact of service levels

At time of writing this plan, Council is in the process of community consultation on a number of proposed funding scenarios which will have impact on future budgets. The outcome of these consultations will be incorporated into future revisions of this plan

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

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AMP includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AMP 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 AMP is the forecast of 10 year total outlays, which for Transport infrastructure is estimated as $187514912 or $18751492 on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is $50,770,000 or $5,077,000 on average per year as per the Long-Term Financial plan or Planned Budget. This is 27.08% 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 AMP emphasising the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for Transport leaves a shortfall of $-13674492 on average per year of the forecast lifecycle costs required to provide services in the AMP compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Forecast Lifecycle Costs and Planned Budgets

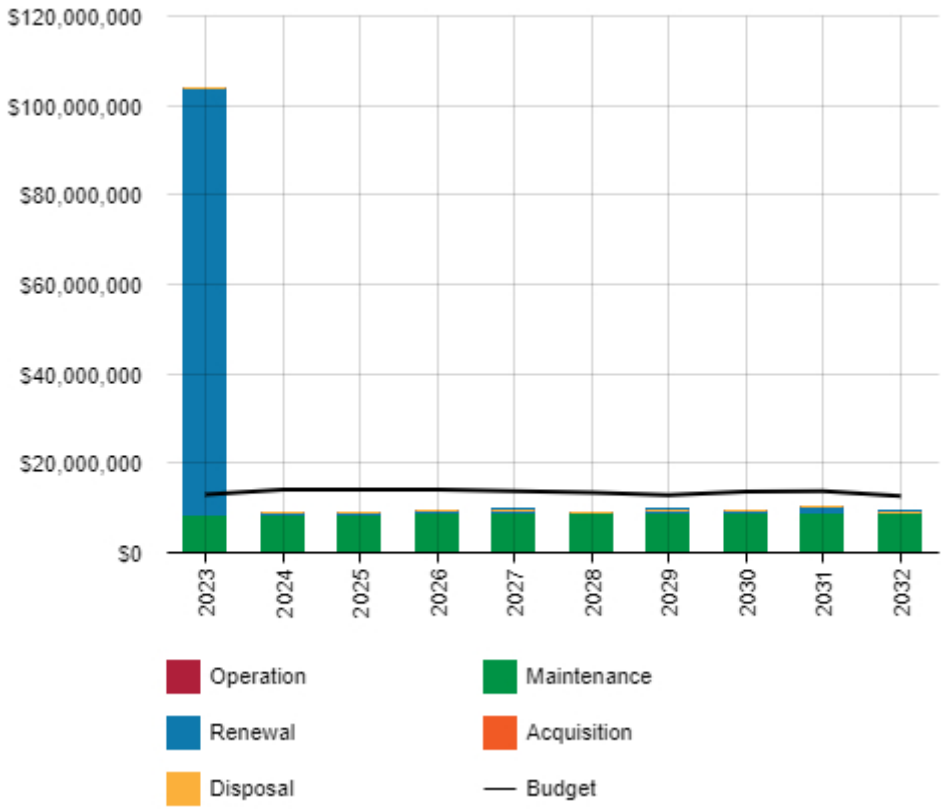


Figure Values are in current dollars.

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.
- The large spike in renewal expenditure in the first year of the planning period in the chart above represents the renewal backlog based on current useful lives. In practice, theses renewals will be spread out over the 10 year planning period, dependent on available funding
- Council is expected to acquire $22.5M of donated road assets as part of the Jindabyne Special Activation Precinct (SAP) within the 10 year planning period.

1.7 Asset Management Planning Practices

Key assumptions made in this AMP 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 Method was used to forecast the renewal lifecycle costs for this AMP.

This AMP is based on reliable level of confidence information.

1.8 Monitoring and Improvement Program

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

- Continue to review accuracy and currency of asset registers
- Document maintenance response levels
- Separate recording of operating and maintenance costs
- Improve linking of customer requests to asset records

2.0 INTRODUCTION

2.1 Background

This AMP 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 AMP 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 AMP include sealed and unsealed roads, bridges, footpaths kerb & gutter and associated street furniture. For a detailed summary of the assets covered in this AMP 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 $652,941,652 excluding non-depreciating assets such as earthworks.

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.

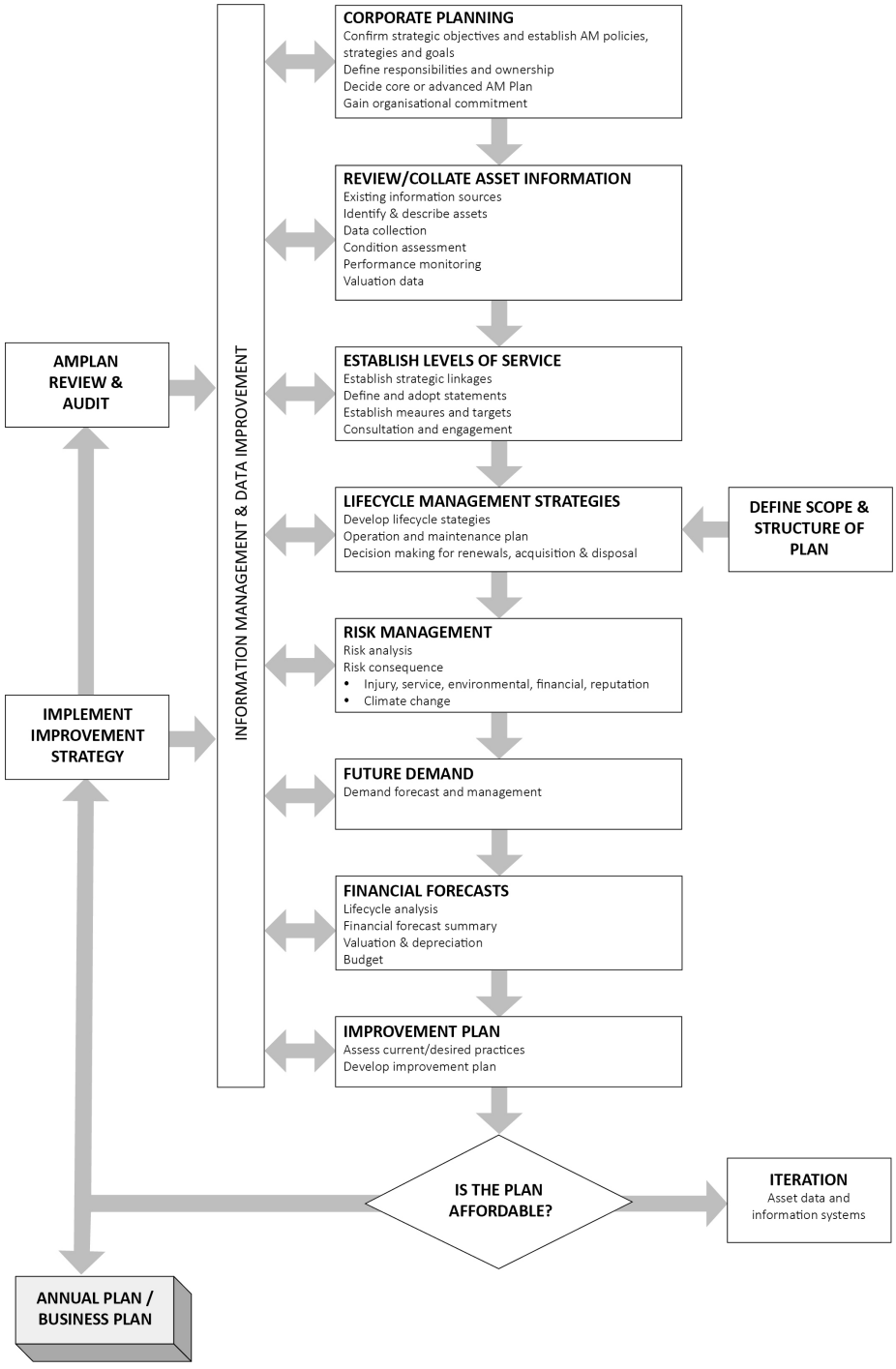
Other references to the benefits, fundamentals principles and objectives of asset management are:

- International Infrastructure Management Manual 2015 [1]
- ISO 55000[2]

[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 AMP 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

This AMP is prepared to facilitate consultation prior to adoption of levels of service by Snowy Monaro Regional Council. Future revisions of the AMP will incorporate customer consultation on service levels and costs of providing the service. This will assist Snowy Monaro Regional 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 AMP is prepared under the direction of the Snowy Monaro Regional Council vision, mission, goals and objectives.

Our vision:

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 AMP are summarised in Table 3.2.

Table 3.2: Objectives and how these are addressed in this Plan

Objectives	How Goal and Objectives are addressed in the AMP
4.1 Our health is supported by fit for purpose infrastructure 4.2 Transport infrastructure allows us to effectively move around the region and beyond as needed 4.4 We have in place infrastructure that supports our lifestyles	• By developing long term works programs and projecting expenditure required to implement these programs. • By minimising the required physical and monetary resources through focussing on "whole-of-lifecycle" costs • By optimising maintenance works so that the desired outcomes are delivered at the least possible cost • 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: Levels of Service – Transport Network

Level of Service	Measure	Current Performance
Development of Service Level Agreements for the Transport Network	Agreement of 70% of engaged local residents	To be determined
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	A minimum of 3% of Council's road network to be heavy patched during each year	To be determined
Undertake Gravel Re-sheeting	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

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 AMP.

Table 4.3: Demand Management Plan

Demand Driver	Current position	Projection	Impact on services	Demand Management Plan
Population	21,207	1% growth per annum	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

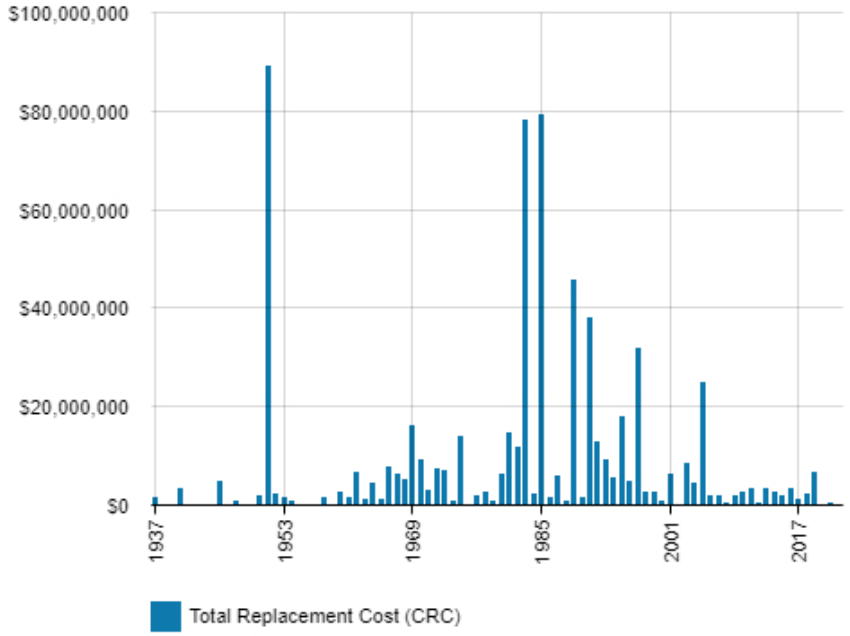
The assets covered by this AMP are shown in Table 5.1.1.

The age profile of the assets included in this AMP 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	$223,602,889

Unsealed Roads	~ 1750 km	$223,230,191
Bridges	129	$ 124,503,587
Footpaths	62 km (~ 110,000 sqm)	$14,487,719
Kerb & Gutter	169.5 km	$30,508,199
Culverts	7184	$21,251,762
Causeways	127	$12,453,383
Islands & Roundabouts	87	$2,129,856
TOTAL		**$652,167,585**



All figure values are shown in current day dollars.

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.

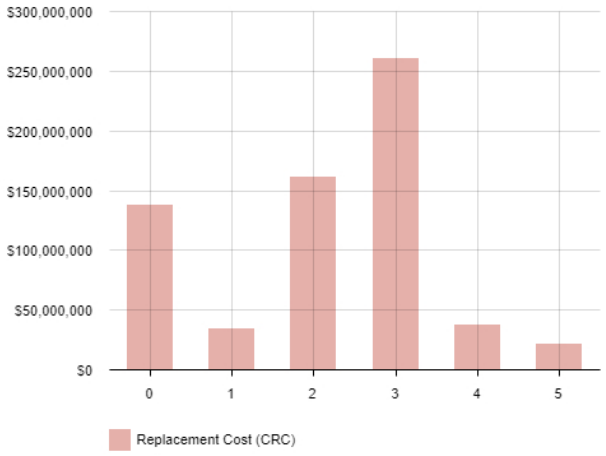
Condition is measured using a 1 – 5 grading system[3] as detailed in Table 5.1.3.

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



The majority of assets are in Condition 3 (Fair). There are also a significant number of assets whose condition is not known (shown as Condition 0 in the above chart). Resource constraints currently prevent Council from having a complete picture of asset condition.

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 Expenditure Trends

[3] IPWEA, 2015, IIMM, Sec 2.5.4, p 2|80.

Year	Maintenance Expenditure
2018	$4,431,000
2019	$5,515,000
2020	$5,286,000

Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

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.

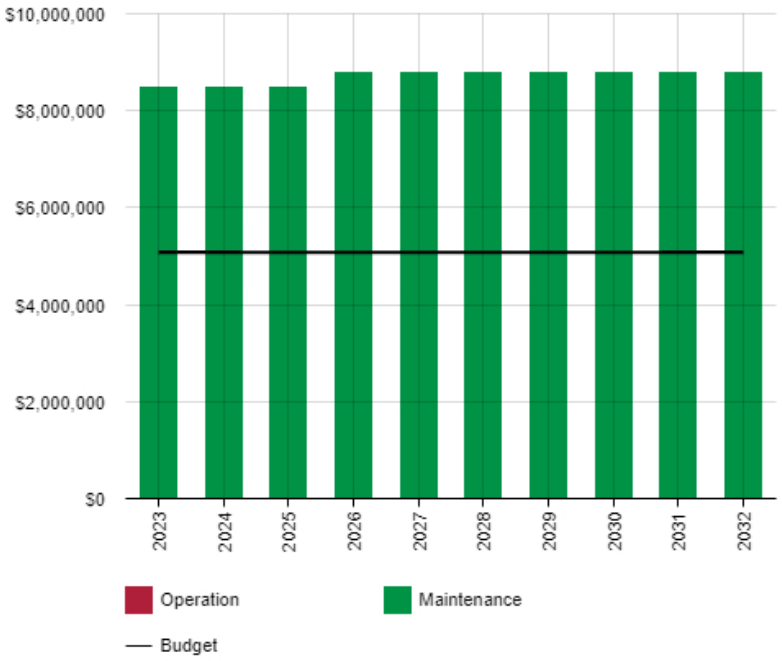
Table 5.2.2: Asset Service Hierarchy

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 on 26 July 2021.

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Wearing course	15 years
Pavement	80 years (sealed); 65 years (unsealed)
Sub-base	120 years
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 AMP 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

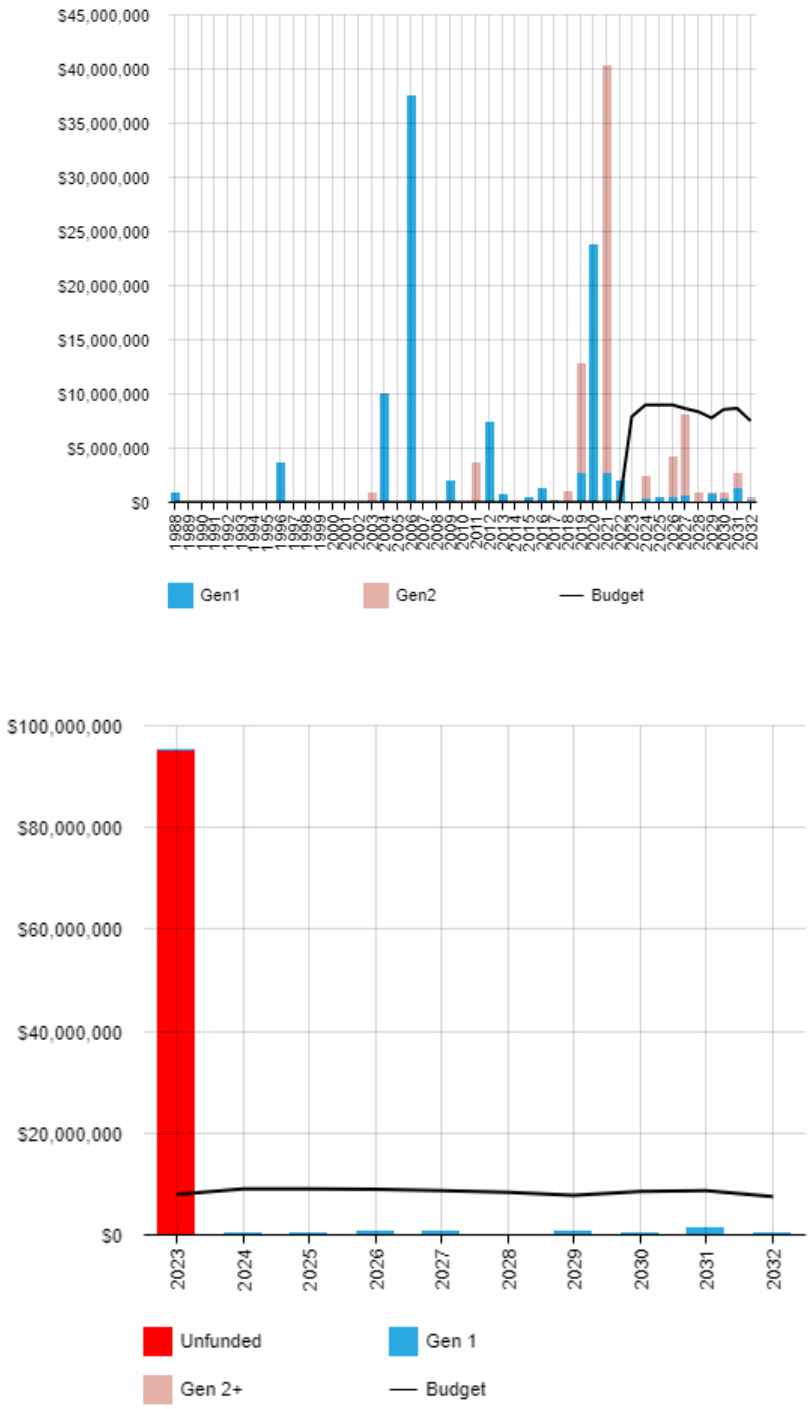
Criteria	Weighting
Annual Average Daily Traffic (AADT)	100%
Total	**100%**

[4] IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.
[5] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

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. The priority ranking criteria is detailed in Table 5.5.1.

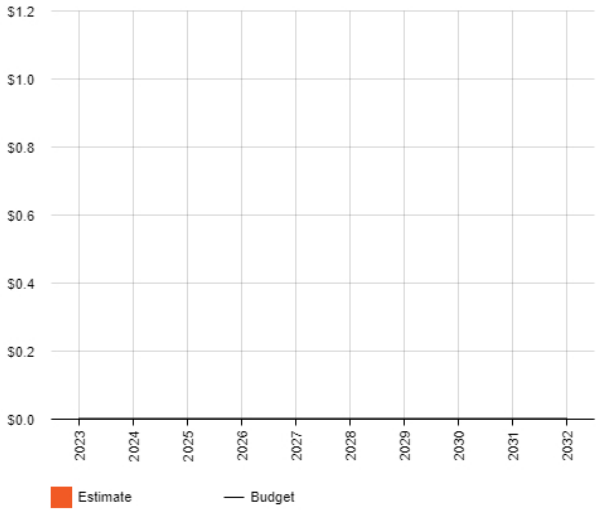
Table 5.5.1: Acquired Assets Priority Ranking Criteria

Criteria	Weighting
To be determined	To be determined
Total	**100%**

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.

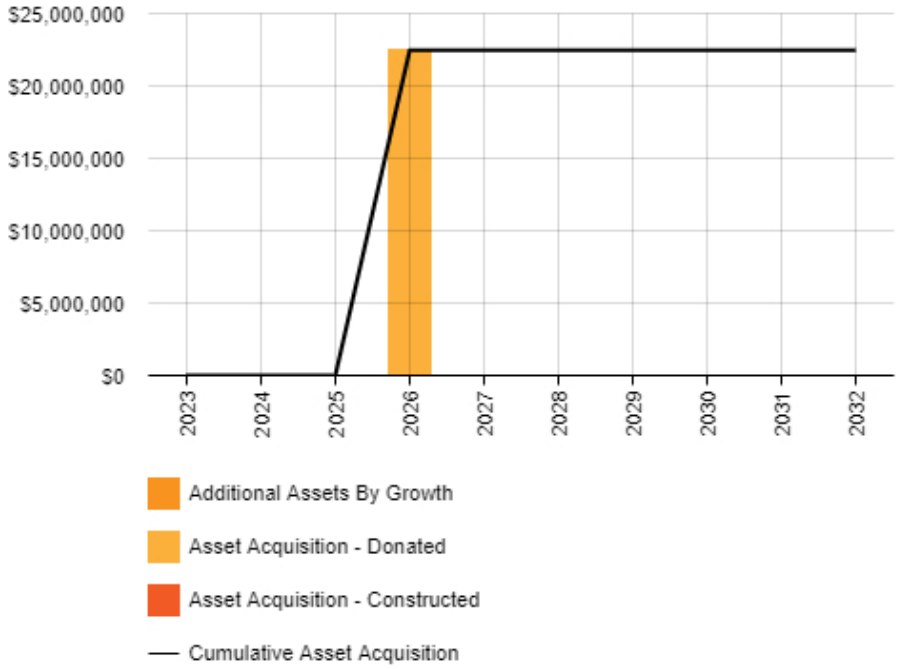
Figure 5.5.1: Acquisition (Constructed) Summary



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.

Figure 5.5.2: Acquisition Summary



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.

The donated assets shown as being acquired in 2026 in the above graph relate to assets that will be handed over to Council ownership as part of the Special Activation Precinct (SAP) in Jindabyne. Acquiring these new assets will commit the funding of ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required.

5.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.6. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposing of the assets are also outlined in Table 5.6. Any costs or revenue gained from asset disposals is included in the long-term financial plan.

Table 5.6: Assets Identified for Disposal

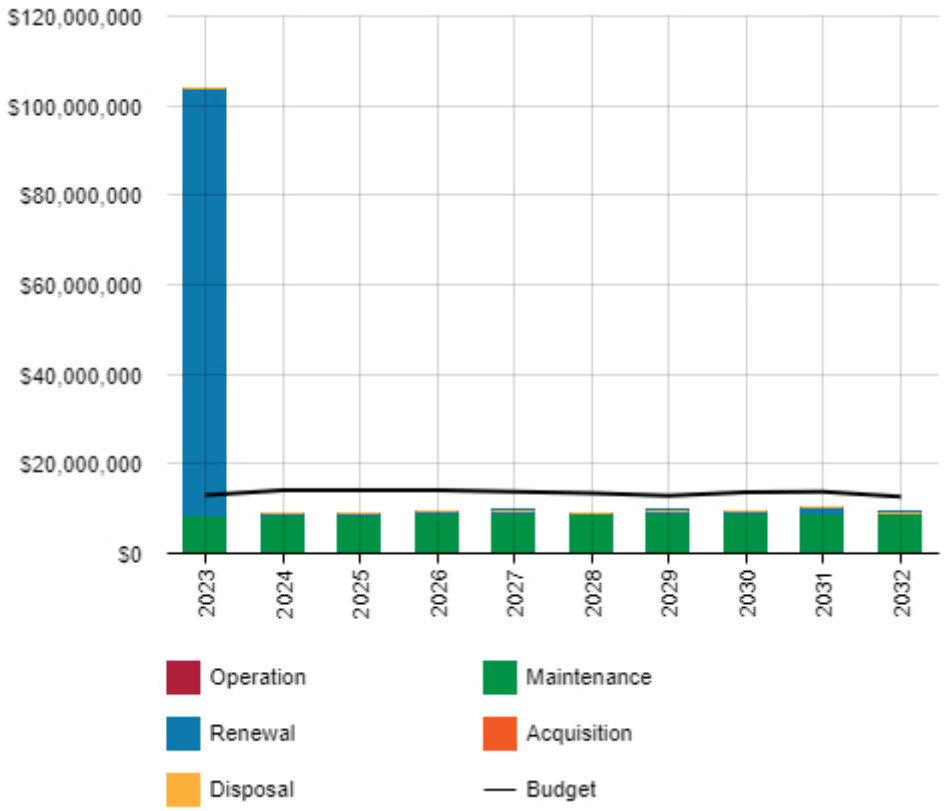
Asset	Reason for Disposal	Timing	Disposal Costs	Operations & Maintenance Annual Savings
No assets currently identified for disposal	NA	NA	NA	NA

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[7] 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
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

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.

[6] ISO 31000:2009, p 2

[7] REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

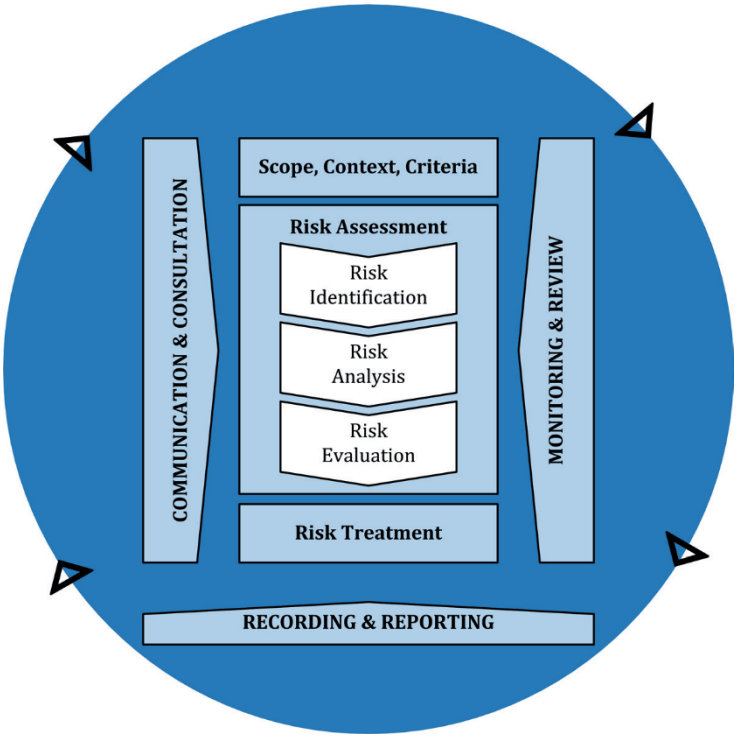


Fig 6.2 Risk Management Process – Abridged
Source: ISO 31000:2018, Figure 1, p9

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 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. It is essential that these critical risks and costs are reported to management and the Snowy Monaro Regional Council.

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 identified in future revisions of this document	NA	NA	NA	NA	NA

6.3 Infrastructure Resilience Approach

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AMP.

7.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AMP. 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 AMP 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 Ratio[8] 84%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have 84% 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 AMP 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 $18751492 average per year.

The proposed (budget) operations, maintenance and renewal funding is $5077000 on average per year giving a 10 year funding shortfall of $-13674492 per year. This indicates that 27.08% of the forecast costs needed to provide the services documented in this AMP 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 AMP and ideally over the 10 year life of the Long-Term Financial Plan.

[8] AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

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.

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 AMP (including possibly revising the long-term financial plan).

We will manage the 'gap' by developing this AMP to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Forecast costs are shown in 2022 dollar values.

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

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2023	0	0	8,488,000	95,343,864	0
2024	0	0	8,488,000	398,067	0
2025	0	0	8,488,000	408,601	0
2026	0	0	8,780,000	536,160	0
2027	0	0	8,780,000	758,285	0
2028	0	0	8,780,000	100,875	0
2029	0	0	8,780,000	790,695	0
2030	0	0	8,780,000	478,735	0
2031	0	0	8,780,000	1,446,464	0
2032	0	0	8,780,000	329,169	0

7.2 Funding Strategy

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

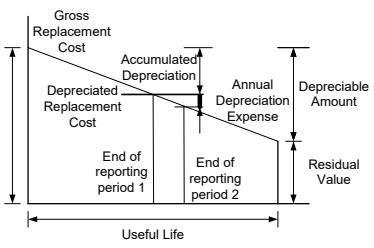
The financial strategy of the entity determines how funding will be provided, whereas the AMP communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

7.3 Valuation Forecasts

7.3.1 Asset valuations

The best available estimate of the value of assets included in this AMP are shown below. The assets are valued at fair value on a replacement cost basis.

Replacement Cost (Current/Gross)	$652,941,652
Depreciable Amount	$652,941,652
Depreciated Replacement Cost[9]	$321,039,808
Depreciation	$12,240,236



[9] Also reported as Written Down Value, Carrying or Net Book Value.

7.3.2 Valuation forecast

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

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

Key assumptions made in this AMP 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 AMP 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 scale[10] 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 ± 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.

[10] IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

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

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices[11]

8.1.1 Accounting and financial data sources

This AMP utilises accounting and financial data. The source of the data is the Civica Authority corporate system.

8.1.2 Asset management data sources

This AMP also utilises asset management data. The source of the data is the Asset Module of the Civica Authority corporate system.

8.2 Improvement Plan

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

Table 8.2: Improvement Plan

	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	Separate recording of operating and maintenance costs	To be determined	Staff time	To be determined
4	Improve linking of customer requests to asset records	Assets & Roads team	Staff time	To be determined

8.3 Monitoring and Review Procedures

This AMP 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 AMP 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 once completed.

The AMP 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 AMP can be measured in the following ways:

[11] ISO 55000 Refers to this as the Asset Management System

- The degree to which the required forecast costs identified in this AMP 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 AMP,
- 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%).

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

Acquisition forecasts are based the capital works programs in the Operational Plan and assets projected to be donated to Council as part of the Jindabyne SAP

A.2 – Acquisition Project Summary

The projects included in the lifecycle forecast are:

Upgrade of Kosciuszko Road as part of the Jindabyne SAP

A.3 – Acquisition Forecast Summary

Table A3 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2023	0	0	0
2024	0	0	0
2025	0	0	0
2026	0	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

Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

Operations costs are currently not identified separately.

B.2 – Operation Forecast Summary

Operations costs are currently not identified separately

Table B2 - Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast
2023	0	0	0
2024	0	0	0
2025	0	0	0
2026	0	0	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

Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

Maintenance spending is estimated from the average spend over the past three years as listed in Special Schedule 7

C.2 – Maintenance Forecast Summary

The required maintenance forecast is based on a calculation of 1.3% of gross replacement cost of the assets

Table C2 - Maintenance Forecast Summary

Year	Maintenance Forecast	Additional Maintenance Forecast	Total Maintenance Forecast
2023	5,077,000	0	8,488,000
2024	5,077,000	0	8,488,000
2025	5,077,000	0	8,488,000
2026	5,077,000	0	8,78,0000
2027	5,077,000	0	8,78,0000
2028	5,077,000	0	8,78,0000
2029	5,077,000	0	8,78,0000
2030	5,077,000	0	8,78,0000
2031	5,077,000	0	8,78,0000
2032	5,077,000	0	8,78,0000

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.2 – Renewal Project Summary

Renewals projected in the 10 year planning window include the following asset types:

Wearing Course
Footpath
Culverts

D.3 – Renewal Forecast Summary

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2023	95,343,864	7,930,026
2024	398,067	9,000,000
2025	408,601	899,6731
2026	536,160	8,989,080
2027	758,285	8,673,763
2028	100,875	8,374,082
2029	790,695	7,789,082
2030	478,735	8,572,116
2031	1,446,464	8,678,104
2032	329,169	751,9105

Appendix E Disposal Summary

E.1 – Disposal Forecast Assumptions and Source
No asset disposals are currently identified

E.2 – Disposal Project Summary
No asset disposals are currently identified

E.3 – Disposal Forecast Summary
No asset disposals are currently identified
.

Table E3 – Disposal Activity Summary

Year	Disposal Forecast	Disposal Budget
2023	0	0
2024	0	0
2025	0	0
2026	0	0
2027	0	0
2028	0	0
2029	0	0
2030	0	0
2031	0	0
2032	0	0

Appendix F Budget Summary by Lifecycle Activity

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Disposal	Total
2023	0	0	5,077,000	7,930,026	0	13,007,026
2024	0	0	5,077,000	9,000,000	0	14,077,000
2025	0	0	5,077,000	8,996,731	0	14,073,731
2026	0	0	5,077,000	8,989,080	0	14,066,080
2027	0	0	5,077,000	8,673,763	0	13,750,763
2028	0	0	5,077,000	8,374,082	0	13,451,082
2029	0	0	5,077,000	7,789,082	0	12,866,082
2030	0	0	5,077,000	8,572,116	0	13,649,116
2031	0	0	5,077,000	8,678,104	0	13,755,104
2032	0	0	5,077,000	7,519,105	0	12,596,105

Further Information
The Snowy Monaro 2042 Community Strategic Plan, 2022-26 Delivery Program, Operational Plan and Annual Reports can be viewed on Council's website.

For further information visit:

www.snowymonaro.nsw.gov.au

Snowy Monaro Regional Council

@snowymonaroregionalcouncil

Snowy Monaro Regional Council

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 Plan. 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.

Contact Us
Phone: 1300 345 345
Post: PO Box 714, COOMA NSW 2630
Email: Council@snowymonaro.nsw.gov.au

Council Offices
Head Office | 81 Commissioner Street, Cooma NSW 2630
Berridale | 2 Myack Street, Berridale NSW 2628
Bombala | 71 Caveat Street, Bombala NSW 2632
Jindabyne | 2/1 Gippsland Street, Jindabyne NSW 2627