Transport Asset Management Plan
January 2023

RESTORE & THRIVE

ARMIDALE
Regional Council

QUALITY CONTROL		
OUR PURPOSE	Together, proud to deliver to the highest possible standards for ARC in all we do	
KEY DIRECTION	Strong Region (Engagement and Responsibility)	
GOAL	S2 - Strong governance and leadership that supports our region to grow and prosper	
STRATEGY	S2.2 - Ensure that strategic directions are informed by, and with, the community and stakeholders and are delivered effectively, and in consideration of available resources	
RESPONSIBLE OFFICER	Coordinator Strategic Infrastructure Planning	
REVIEW DATE	2024	
DATE	ACTION	RESOLUTION No
September 2022	PWA – First Draft finalised	N/A
October 2022	PWA – Second Draft finalised	N/A
12/10/2022	ARC – Draft reviewed and complete	N/A
21/10/2022	ARC – Documents endorsed by COAS	N/A
TBC	Council - Public Exhibition	TBC
TBC	Council - Adoption	TBC
NOTES	Nil	

Contents

1. EXECUTIVE SUMMARY

1.1 Purpose of the Plan

This Asset Management Plan (AMP) details information about Armidale Regional Council's transport assets with actions required to provide an agreed level of service to ensure safety, security and compliance with legislation 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 over the 2022-2032 year planning period. The AMP will link to Council's Long-Term Financial Plan (LTFP) which typically considers a 10 year planning period.

The AMP aligns with the Strategic Asset Management Plan (SAMP), which:

- Contains the longer term high level strategic initiatives that the organisation must take, in order to execute its asset management strategy, and
- Provides direction for development of asset management plans.

1.2 Asset Description

This plan covers the infrastructure assets that provide transport services. The transport network comprises:

- 650 kilometres of sealed roads,
- 1,060 kilometres of unsealed roads,
- 112 major road bridges,
- 130 kilometres of footpaths & Cycleway,
- 2,027 bulk earthworks/formation,
- 271 kilometres of kerb & gutter,
- 307 traffic furniture,
- 119 kilometres of roadside/ table drains,
- 184 parcels operational land, and
- 93 parcels community land.

The above infrastructure assets have replacement value estimated at $456 million.

1.3 Levels of Service

The allocation of the planned budget in this Plan, is based on the assumption that a permanent Special Rate Variation (SRV) of 50% for the General Fund is not achieved over three years commencing in 2023-2024 financial year.

No SRV funding beyond 2022/23 will result in a reduction in both operational and capital expenditure from 2023/24. Without the SRV Council will have to start managing decline, which means levels of service may be reduced, impacting operations, maintenance and capital expenditure.

Council is not generating enough income to invest in its infrastructure. If it doesn't secure additional income from an SRV, it will have no choice but to free up existing funds by cuts to operational services as part of a 'managed decline' strategy. This is not Council's preferred option as service cuts will have significant impact on the community.

The main service consequences for Council's infrastructure assets from 2023-2024 will be: [1]

- Operational service levels are estimated to decrease which will mean significant reductions and/or removal of services,
- Core maintenance service levels may remain underfunded,
- Capital service levels cannot be funded and this is reflected against the funding requirement for asset renewal,
- The condition of infrastructure will deteriorate with reduced maintenance activities,
- Infrastructure maintenance backlog will increase, and
- It will cost more in the long term to return assets to the agreed service level.

1.4 Future Demand

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

- Community growth aspirations,
- Primary agricultural,
- Renewable energy zone,
- Resource extraction and haulage,
- Climate change/Environment sustainability, and
- Market.

These demands will be addressed using a combination of managing and/or upgrading existing assets and providing new assets when needed. 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.

[1] From Resourcing Strategy, p 65.

Therefore, a summary output from the AMP is the forecast of 10 year total outlays, which for the transport asset class is estimated as $191 million or $19.1 million on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is $163 million or $16.3 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 85% of the cost to sustain the current level of service at the lowest lifecycle cost.

The 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 assets leaves a shortfall of $2.8 million 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 LTFP. The forecast lifecycle costs and planned budgets is shown in figure 1.6.1.

Figure 1.6.1: Forecast Lifecycle Costs and Planned Budget

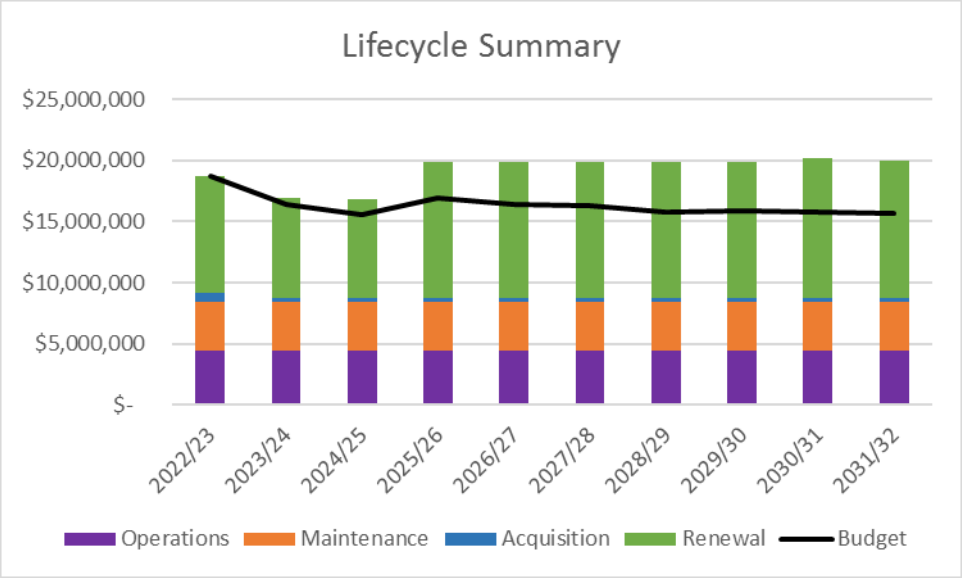


Figure values are in 2022 dollar value.

We plan to provide transport asset services for the following:

- Operation, maintenance, renewal and capital upgrade of transport assets to meet service levels set by Council in annual budgets, and
- Capital upgrades and major renewal work within the 10-year planning period.

1.6.2 What we cannot do

We have not allocated enough budget to sustain these services at the proposed standard. The Planned budget is based on a no SRV forecast. What we cannot do: [2]

- Fully fund capital upgrades and replacements,
- Mitigate all risks,
- Meet maintenance requirements of any new assets that are acquired by donation or as a result of a transfer of responsibility,
- Increase the level of operations, maintenance and renewal activities to achieve industry benchmark ratios,
- Resealing is critical to avoid costly premature pavement failure. Council has been averaging 11 kilometres per year but need to be aiming for 55 kilometres,
- Rehabilitation of failed pavements - there is 37 kilometres ($19 million) to fix now, but without an SRV this will take 10 years or more and with continued under-investment in reseals, the rate of failures will be increasing,
- Resheeted unsealed roads ensures they are passable in the wet and have better ride quality. Council has been averaging 30 kilometres per year but need to aim for 70 kilometres,
- Grading and other maintenance (e.g. vegetation) needs to increase,
- Replacing 5 timber bridges within 10 years, repairing a number of causeways in poor condition, unblocking and repairing pipe culverts,
- Renewing 6 kilometres of footpaths now (without an SRV this will take 10 years), plus additional maintenance to address trip hazards,
- Construct missing links (18 kilometre cycleway + 11 kilometres paths are prioritised), and
- Renewal of 11 kilometre of failed kerb now, plus priority upgrades where kerb is not provided, and additional maintenance to repair smaller failed sections of kerb.

1.6.3 Managing the risks

Our present budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Road sealing and patching program budgets falling short of required,
- Drainage repair and renewal budgets underfunded to deal with defect backlog,
- The application of bridge Load limits and future possible closures of bridges across the LGA, and
- Reductions in road safety levels due to declining road and bridge conditions.

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

- Major repair/renewal works,
- Applying for grant funding opportunities, and

[2] From Resourcing Strategy, p 65.

- Assessing asset condition and prioritising works.

1.7 Asset Management Planning Practices

Key assumptions made in this AMP are:

- That a permanent SRV of 50% for the General Fund has not been achieved over three years to provide a budget that will maintain the optimum and compliant service levels required,
- Budgets have been allocated based on the best available data on assets,
- Defects and repairs, renewal and upgrade will not change over time,
- Cost escalation assumed to cover increases in cost over time,
- Consistency in funding amounts guaranteed per year,
- No additional work on assets beyond what has been programmed for funding in the 10 year period,
- Demand projections are reliable and consistent with assumptions,
- Increase in assets e.g. crown land hand-over,
- Natural disaster events do not impact funding for maintenance and renewals,
- 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, and
- 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 Alternate method was used to forecast the renewal lifecycle costs for this AMP.

This AMP is based on a low level of data confidence.

1.8 Monitoring and Improvement Program

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

- A Levels of Service (LoS) Framework will be adopted which includes defined Customer and Technical LoS and performance measures so levels of service can be assessed and used to inform asset management planning and expenditure investment. Customer LoS and Technical LoS information will be included in future iterations of this AMP,
- A region-wide inventory of assets will be carried out to capture all data on assets. This, as well as all data recorded in the Assets database will be consolidated to link with financial information. Council is investigating various models of Enterprise Asset Management Software that have the ability to consolidate or link financial and non-financial data on all asset classes so a complete inventory of assets is maintained. This will enable assets and finance departments to access one single repository of asset information, track and monitor asset condition, ensure transparency in planning processes and plan evidence based investments. Asset registers will be used to inform the next LTFP cycle to inform future iterations of this AMP,

- Council is currently undertaking an organisational re-structure to address resource planning. Resources will be allocated and staff will be appropriately trained to lift capability in asset management,
- The Asset Management Policy will be updated and AM Framework will be established. This will be used to inform future iterations of the AMP,
- Formal asset lifecycle management processes and systems will be implemented to improve asset management planning. This will be used to inform future iterations of the AMP,
- Formal asset management planning processes will be established across each asset group to ensure consistency in information included in the AMP,
- Customer satisfaction surveys will be undertaken to inform development of the LoS performance measured in the AMP,
- Consistent processes for asset condition assessments will be established and asset performance monitoring will be implemented to monitor, report and inform investments in future LTFP cycles and iterations of this AMP.
- Formal processes for prioritisation of investments in acquisition, operations, maintenance, renewals and capital upgrades will be established to inform development of long term forward works program for the LTFP and the future iterations of this AMP, and
- AMPs will be used in the future to drive expenditure in assets so the information used to develop programs of work must be evidence based with a high degree of accuracy to justify the need for the investment. Council will specify their standard requirements for future AMPs.

2. 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 Armidale Regional Council's planning documents. This should include the Asset Management Policy and Asset Management Strategy, where developed, along with other key planning documents:

- Integrated Planning Framework which includes Advancing Our Region Your Community Plan 2022-2032,
- Resourcing Strategy which includes the Workforce Management Plan and Asset Management Strategy 2022, and
- The Strategic Asset Management Plan (SAMP).

Council undertook an Asset Management Maturity Assessment in July 2022. Based on a 55 (Core) target maturity level score, Council's overall AM maturity score is 32 (Basic) – i.e. minimum level processes and practices in place with a Maturity Gap of 23 points. The variance between the current and target score is 41%.

Council aims to lift its capability in asset management by addressing the gaps in AM practices identified in the Assessment. The Improvement Plan in the SAMP, contains 30 recommended improvement actions for Council achievable within 1-2 year period.

The infrastructure assets covered by this AMP include all transport assets, which are used to provide transport services. The infrastructure assets included in this plan have a total replacement value of $456 million.

Key stakeholders in the preparation and implementation of this AMP are shown in Table 2.1.

Table 2.1: Key Stakeholders in the AMP

KEY STAKEHOLDERS	ROLE IN AMP
Councillors	• Represent needs of community, • Allocate resources to meet the organisation's objectives in providing services while managing risks, • Ensure organisation is financial sustainable.
General Manager	• Ensures ARC is aligned with the organisation's infrastructure services requirements and community expectations, • Allocate resources to meet the organisation's objectives in providing services while managing risks.
Chief Officer Assets and Services	• Overall responsibility for Asset Management, • Oversees Transport and other critical departments. Guides them in current and ongoing strategic direction and outlines milestones,

KEY STAKEHOLDERS	ROLE IN AMP
	• Reports to Council on status of programs and projects, • Harmonise departments and develop consistence/ efficiency within the organisation, • Ensure funds are invested appropriately to ensure best value for money is delivered to the community, • Provide leadership in influencing decision making processes related to Asset Management.
Manager of Roads and Parks	• Oversees the Transport department in annual delivery of M&R as well as capital works, • Ensures alignment with DP, • Ensures projects and works are done to standards and budgets for each financial year, • Sets new policies and management plans for this space to meet best practice and on-going improvement.
Construction/ Works Engineer	• Delivery of M&R works in the field, • Contributes to development of 10yr works program, • Enforces the policies and procedures developed by management, • Coordinates and schedules works with overseers and work crews.
RMCC Project Manager	• Delivery of RMCC works with TfNSW, • Includes Maintenance of the state road network.
Inspectors/ Engineering technical officer	• Identification of defects and asset data, • Operational responsibility with regards to road safety devices and line marking.
Overseers	• Day to day coordination of works teams, • Use of defect information to prioritise and schedule works for M&R teams, • Delivery works issues by Works Engineer or RMCC Project Manager.
Work teams (Supervisors, team leaders, operators etc.)	• Delivery of works to standards and quality outlined on plans, • Provide updates back to assets team on status of works.
Quarry Manager	• Management of all ARC quarry resources for civil construction projects, • Budgets and resources need to be in line with Councils delivery needs and quality expectations.
Community groups and major industry	• Groups with common interest in areas of our community relating to accessibility, cycling, agriculture etc. Will guide details around key priorities, ongoing essential criteria, e.g. shared path preferences, minimum carriageway widths, safety concerns etc., • Be aware of levels of service and costs, • Participate in consultation processes, • Provide feedback on services.
TfNSW	• Network alignments, Oversight of RMCC works on the State roads.
State and Federal Government	• Promotes Best Practice Asset management, • Recognises the importance of LGA Assets to the community and provide funding and other assistance to sustain.
Assets Officer and Finance Team	• Preparation of AMP in consultation with asset owners, • Responsible for reviewing and keeping AMP up to date, • Coordinate with Asset officers and owner on the areas of need of process improvement, • Responsible for keeping asset data up to date, • Maintenance of corporate software,

KEY STAKEHOLDERS	ROLE IN AMP
	• Financial accounting for assets.
Emergency Services	• Ongoing operational and emergency planning requirements.
Community	• Be aware of levels of service and costs, • Participate in consultation processes, • Provide feedback on services.

Our organisational structure for service delivery from infrastructure assets is detailed below:

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 current and future population. 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 develop compliant and 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:

- Stakeholder engagement,
- 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:

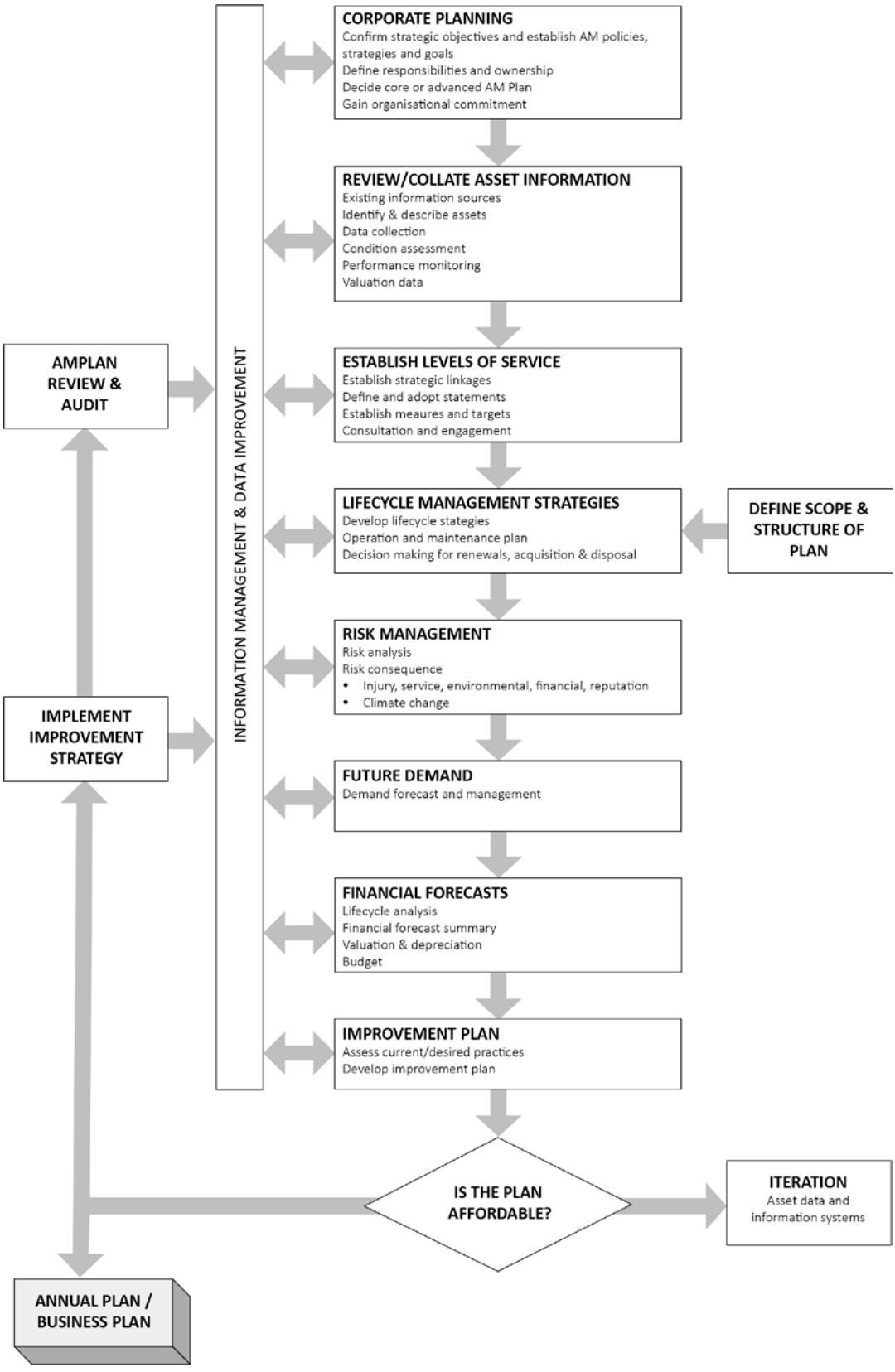
- International Infrastructure Management Manual 2015[3]
- ISO 55000[4]

[3] Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13
[4] 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. LEVELS OF SERVICE

3.1 Customer Research and Expectations

This AMP is prepared to facilitate consultation prior to adoption of levels of service by the Armidale Regional Council. Future revisions of the AMP will incorporate customer consultation on service levels and costs of providing the service. This will assist 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.

Management plays an important role in ensuring Council delivers the agreed levels of service to the community by allocating budgets that are informed by levels of service requirements to enable delivery of those projects that have been investigated and assessed to be of high risk to people or property.

3.2 Strategic and Corporate Goals

This AMP is prepared under the direction of the Community vision, mission, goals and objectives.

Our vision is:

'We want a harmonious region which celebrates diversity and uniqueness of our communities, provides opportunities for all people to reach their potential, encourages engagement without environment, cultures and lifestyles while supporting growth, opportunity and innovation.'

This AMP is prepared to meet Council's purpose, visionary goal and values.

Council's purpose is:

'Together, we are proud to deliver to the highest possible standards for ARC in all that we do. '

Council's visionary goal is:

'As a result of having a high performing team, by January 2023 we will be connected across the organisation with aligned priorities.'

Council's values are:

- Inclusion
- Wellbeing
- Transparency
- Commitment

Strategic goals have been set by Council in Advancing or Region Your Community Plan 2022-2032 and the State of The Environment Report. The Community Plan has six key pillars and within each Pillar are two goals (G1 & G2) – which are the key community aspirations that Council seeks to achieve. The AM objectives are aligned with the goals of each Pillar. The Pillars are as follows:

- P1: Thriving Region – Economy and Vision
- P2: Connected Region – Transport and Technology
- P3: Future Region – Sustainability and Resilience
- P4: Liveable Region – Places and Spaces
- P5: Enriched Region – Community and Culture
- P6: Strong Region – Engagement and Responsibility

Strategic goals have been set in Advancing Our Region Your Community Plan 2022-2032. A summary of how they are addressed in this AMP is shown in table 3.2.

Table 3.2: Goals and how these are addressed in the Asset Management Plans

GOALS	AM OBJECTIVES	HOW GOALS AND OBJECTIVES ARE ADDRESSED IN THE AMP
P1, G1. A strong economy, sustainable growth and opportunity	**AMO 2.** Increase the level of maintenance and renewal activities to achieve the industry benchmark renewal ratio of ≥ 100%.	A program of works that reflects an increase in the level of maintenance and renewal activities. This is a Plan that will address the renewals backlog over time to extend the life of the assets, and increase maintenance activities to ensure the assets continued operation.
P1, G2. A destination of choice, renowned for its beauty, heritage and unique attractions		
P2, G1. Quality infrastructure that makes it safe and easy to travel around our region		
P2, G2. Transport and technology that enable connectivity both locally and outside the region	**AMO 3.** Apply lifecycle principles to asset management decisions	A Plan that applies lifecycle principles in the development of the program of works for asset maintenance, renewals and capital upgrades. While this Plan requires an increase in investment in asset maintenance and renewals, the lifecycle approach will ensure Council is making informed decisions on its investment and achieve the value for money from its investment in the long term. A lifecycle approach to asset management will also help Council achieve the financial sustainability over time.
P3, G1. A flourishing natural environment that is protected and enhanced		
P3, G2. A clean, green, and responsible region		
P4, G1. Public spaces and infrastructure that facilitate health, community connections and opportunities		

GOALS	AM OBJECTIVES	HOW GOALS AND OBJECTIVES ARE ADDRESSED IN THE AMP
P4, G2. Proactive, responsible, and innovative regional planning that grows us sustainably	**AMO 4.** Ensure the levels of service and infrastructure agreed with the community are consistently maintained.	A Plan that meets the community levels of service expectations. While the Levels of Service measures have yet to formally adopted and agreed with the community, this Plan, has been developed with the aim of achieving a consistently high levels of service.
P5, G1. Access to the services and support that facilitate quality of life		
P5, G2. A proud, inclusive and cohesive community that celebrates our region in all its diversity and culture		
P6, G1. An informed and activity engaged community that builds partnerships and shapes its future.	**AMO 1.** Lift capability in asset management by 41% within 1-2 years.	This Plan has been developed in parallel with the establishment of an AM Framework and planned improvements in AM practice areas to lift capability in delivering asset management services.
P6, G2. Strong governance and leadership that supports our region to grow and prosper.	**AMO 5.** Lift capability and capacity of the workforce to meet the long term service commitments to the community.	This is a Plan that is responsive to the needs of the community. This Plan is informed by the Council's Workforce Management Plan, which addresses the need to improve workforce capacity and capability to enable Council to efficiently and effectively manage its assets and meet its long term service commitments to the community.

3.3 Legislative Requirements

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

Table 3.3: Legislative Requirements

LEGISLATION	REQUIREMENT
NATIONAL	
Local Government Act	• 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.
Crown Land Management Act 2016 No 58	• Provides for the ownership, use and management of the Crown land of New South Wales, and the clarity concerning the law applicable to Crown land and the requirement of environmental, social, cultural heritage and economic considerations to be taken into account in decision-making about Crown land and to provide for the consistent, efficient, fair and transparent management of Crown land for the benefit of the people of New South Wales.
Roads Act 1993	• Provision for open and closing of roads. The powers of local governments to maintain road and road-related assets. Rights of public to use public roads. Distribution of function amounts TfNSW and other authorities.
Australian Accounting Standards	• Establishes the financial reporting standards for the valuation, revaluation and depreciation of assets.
Work Health and Safety Act 2011	• Promote improvements in work health and safety practices whilst assisting in the preservation of public health and safety in all undertakings of the organisation.
Environmental Planning and Assessment Act 1979	• Promote social and economic welfare for the community and a better environment by proper management, development and conservation of the State's natural and other resources, • Facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment, • Promote the orderly and economic use and development of land, • Protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats, • Promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage), • Promote good design and amenity of the built environment, • Promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants, • Promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State and to provide increased opportunity for community participation in environmental planning and assessment.

LEGISLATION	REQUIREMENT
Protection of the Environment Operations Act 1997	• Protect, restore and enhance the quality of the environment in New South Wales, having regard to the need to maintain ecologically sustainable development, • Provide increased opportunities for public involvement and participation in environment protection, • Ensure that the community has access to relevant and meaningful information about pollution, • Reduce risks to human health and prevent the degradation of the environment by the use of mechanisms that promote pollution prevention and cleaner production, reduction to harmless levels of the discharge of substances likely to cause harm to the environment, elimination of harmful wastes, reduction in the use of materials and the re-use, recovery or recycling of materials, making of progressive environmental improvements, including the reduction of pollution at source and monitoring and reporting of environmental quality on a regular basis, • Rationalise, simplify and strengthen the regulatory framework for environment protection, • Improve the efficiency of administration of the environment protection legislation, • Assist in the achievement of the objectives of the Waste Avoidance and Resource Recovery Act 2001.
AS/NZS 4360 – 2004 Risk Management	• Provide guidance to enable public, private or community enterprises, groups and individuals to achieve (I) a more confident and rigorous basis for decision-making and planning, (II) better identification of opportunities and threats, and (III) gaining value from uncertainty and variability.
LOCAL	
Community Strategic Plan	• It is a 10-year plan that aims to clearly identify the community's main priorities and future aspirations, and the strategies required to achieve them.
Delivery Program 2022-2026	• A program of Council-led initiatives, across four years, that achieve the strategies of the Community Plan that are in Council's remit
Resourcing Strategy	• A set of plans and strategies that ensure Council has the necessary resources and assets, and that Council plans for the future accordingly
Operation Plan	• An annual plan of actions that support the Delivery Program and includes the annual budget allocations to support the activities to be undertaken
Walking and Cycling Strategy	• Identifies a walking and cycling strategy for the region to identify the areas for upgrade and extension.
Procurement Strategy	• The way in Which ARC procure and engage with the market for resources and services.
Engineering Code	• Engineering standards for construction and replacement. Set out of material specifications, sequences of works, key dimensions etc. which must be followed.
Roads Management Strategic Plan	• A document outlining the ways in which council can provide its LoS for roads. Ways in which road improvements are to take place. Detailing of Levels of service.

3.4 Customer Values

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

Customer Values indicate:

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

Community consultation has been undertaken for the preparation of the new long term community strategic plan and outcomes of the consultation and the values have been defined as follows:

What customer love and value about our region:

1. Our Natural Environment – our climate, seasons, natural beauty, Wildlife and National Parks.
2. Our Location – Halfway between Sydney and Brisbane, and a short drive to the Coast.
3. Our Community – The people diversity and volunteers that make up our community.
4. Parks and Playgrounds – Our many beautiful outdoor spaces including parks, gardens and local playgrounds.
5. Arts and Culture and Heritage – Beautiful architecture, local history and the many arts organisations, events and performances in the region.
6. Education and Training – Long established university, TAFE digital hub, and variety of local schools.

Our community's 2032 vision for our Region (ranked in priority order):

1. Economically robust
2. Environmentally sustainable
3. Led through good governance
4. Strong tourism sector
5. A cohesive community

What the community wants improved in our Region (ranked in priority order):

1. Transport and Infrastructure
2. Environmental Sustainability
3. Economic Development
4. Shopping
5. Tourism

3.5 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

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

Customer Level of Service for transport including performance measures have not yet been agreed and adopted by Council. A Levels of Service review will be included as an improvement action within this AMP.

3.6 Technical Levels of Service

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

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

- **Acquisition** – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new road)
- **Operation** – the regular activities to provide services (e.g. contractors, salaries, inspections, etc.)
- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading)
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally provided (e.g. road resurfacing and pavement reconstruction and pipeline replacement).

Council's Roads Management Strategic Plan outlines the Levels of Service for each area under transport. Three different LoS options for each activity were developed and costed. Option 1 gives the highest level of service and Option 3 gives the lowest level of service. For example, for routine bitumen patching of rural roads, Option 1 provides for 60 weeks per year for a patching unit, Option 2 provides for 52 weeks per year and Option 3 for 42 weeks per year based on three different performance outcomes. Hence the cost of each option reflects the resources and work effort of each.

In 2017 the levels of service were as follows:

- Resealing interval of 15 years,
- Maintenance grading to take place twice a year on class B roads and Bus routes and once on all other roads,
- Re-sheeting to take place once every 20 years for class B roads, 22 years for class C roads and 25 years for class D roads,
- Stock-grid ownership and maintenance – to be resolved by engagement and development of a new policy, and
- Unsealed roads maintenance.

Table 3.6 shows the activities expected to be provided under the current 10 year planned budget allocation, and the forecast activity requirements being recommended in this AMP.

Table 3.6: Technical Levels of Service

ACTIVITY	PERFORMANCE MEASURE	1			2			3		
		OUTCOME	RESOURCES REQUIRED	COST	OUTCOME	RESOURCES REQUIRED	COST	OUTCOME	RESOURCES REQUIRED	COST
Asset inspections	Defects and risks to vehicles identified promptly	Daylight inspections all roads once per year, night inspections once every two years	80 Overseer days per year	$42,304	Daylight inspections on Class B and C streets once per year, night inspections once every three years	75 Overseer days per year	$39,660	Daylight inspections on Class B and C streets once per year, no night inspections	52 Overseer days per year	$27,498
Routine bitumen patching	Seal integrity is maintained due to patching frequency	Size of potholes does not exceed 100mm in diameter	38 patching unit weeks per year	$218,766	Potholes do not exceed 200mm in diameter	33 patching unit weeks per year	$189,981	Patching is carried out on an area rotational basis	26 patching unit weeks per year	$149,682
Signs and roadside furniture maintenance	Percentage of signage meeting current standards	Less than 5% signs with defects. Regulatory signs are assigned priority and reinstated asap.	40 weeks for a dedicated signs M&R crew per year	$82,560	Less than 7% signs with defects. Regulatory signs reinstated within 2 work days	36 weeks for a dedicated signs M&R crew per year	$74,304	Less than 10% signs with defects. Regulatory signs reinstated within 3 work days	30 weeks for a dedicated signs M&R crew per year	$61,920
Corridor drainage maintenance	Efficiency of drains and K&G to divert stormwater away from properties	All drains are effective in diverting stormwater	10 weeks per year for a dedicated drainage crew	$59,310	Most drains are effective in diverting stormwater	8 weeks per year for a dedicated drainage crew	$47,448	Larger drains are effective in diverting stormwater	6 weeks per year for a dedicated drainage crew	$35,586

4. FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include things such as demographic change, regulations, 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 in Table 4.3.

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

DEMAND DRIVERS	PRESENT POSITION	PROJECTION	IMPACT ON SERVICES
Community growth aspirations	Current population of 29,700.	Aspirational growth of 4,000 additional jobs by 2040. Regional growth of 25% over the next 10 years.	Potential capacity constraints. Increased quantity of traffic over all roads. Major intersection changes and new assets from developments. Increase in defect management costs and severity.
Primary agricultural	Incremental growth in next five years .	Expected to continue.	Continued transport vehicle movement of produce from farms to distribution centres or between farm holdings.

DEMAND DRIVERS	PRESENT POSITION	PROJECTION	IMPACT ON SERVICES
Renewable energy zone	Increase in construction and small vehicle movements to development sites.	Expected increase over the next 5 years.	Potential capacity constraints. Increased loading over rural sealed and unsealed roads. Major intersection changes from developments. Increase in defect management costs and severity.
Resource extraction and haulage	Increase in haulage of crushed gravels and materials. Increase in number of extraction operations.	Minor increase over next 5 years.	Deterioration of access roads and local roads for quarry truck/associated services travel. Increased deterioration of road asset as traffic loading characteristics change.
Climate change/Environment sustainability	Environmental and waste obligations are up to date and with current legislation.	Increase the number of sustainable practices and strategies expected. Increase in frequency of damaging weather events and severity.	Increased costs. Increased expectation from community around resilient assets. Additional costs for renewals.
Market	Increasing cost of materials and services.	Continued increased for coming years.	Increased costs of operations and maintenance. Reduced capacity to deliver renewals. Increasing deterioration of assets.

4.4 Asset Programs to meet Demand

New assets required to meet demand may be acquired, donated or constructed. Additional assets are presented in appendix B.

Acquiring new assets will commit the 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.

4.5 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets we manage and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk.

How climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which we respond and manage those impacts. [5]

[5] IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

As a minimum we consider how to manage our existing assets given potential climate change impacts for our region[6].

Risk and opportunities identified to date are shown in Table 4.5.

Table 4.5 Managing the Impact of Climate Change on Assets and Services

CLIMATE CHANGE DESCRIPTION	PROJECTED CHANGE	POTENTIAL IMPACT ON ASSETS AND SERVICES	MANAGEMENT
Higher / recurrent rainfall events	High rainfall and increasing rainfall days annually. Rainfall more frequent causing recurrent flood events.	Drainage systems may not have sufficient capacity to manage flood events. These can potentially result in damage to transport assets and potential disruption of services.	Improve strategies to manage flood events.
Temperature variation	Warmer summer and colder winters	Large temperature variations causing extreme temperature conditions which could impact on road pavements potentially causing accidents, injury and disruption of services.	Maintain road pavements that adapt to extreme temperature conditions.

Additionally, the way in which we construct new assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience can have the following benefits:

- Assets will withstand the impacts of climate change,
- Services can be sustained, and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint.

The impact of climate change on assets is a new and complex discussion and further opportunities will be developed in future revisions of this AMP.

[6] Council has yet to develop asset resilience strategies for its assets.

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how 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

This AMP included all transport assets, excluding stormwater assets. It has a current replacement cost of $456 million. Currently, there is no single asset register that includes all assets in this asset group. This is an improvement action for this AMP.

5.1.2 Asset age profile

Construction dates of transport assets, are not available. Asset age profile cannot be provided for this AMP. Construction dates will need to be captured in a region-wide exhaustive inventory of assets, which is an improvement action for Council. Once construction dates are available, an Age Profile Graph can be provided in future revisions of this AMP.

5.1.3 Asset capacity and performance

Assets are generally required to meet design standards where available. However, there is insufficient resources to address all known deficiencies. Information on service deficiencies is not available. This is an improvement action for this AMP.

5.1.4 Asset condition

Condition is currently monitored informally and since cyclic condition inspections of all asset classes are not a regular practice, there exists a low data confidence in current condition of assets. Overall transport assets are not regularly inspected, monitored or assessed. This is an improvement action for Council and will be addressed when Council implements its asset lifecycle approach to management of assets.

Condition is measured using a 1 – 5 grading system[7] as detailed in Table 5.1.4. 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 AMP results are translated to a 1 – 5 grading scale for ease of communication.

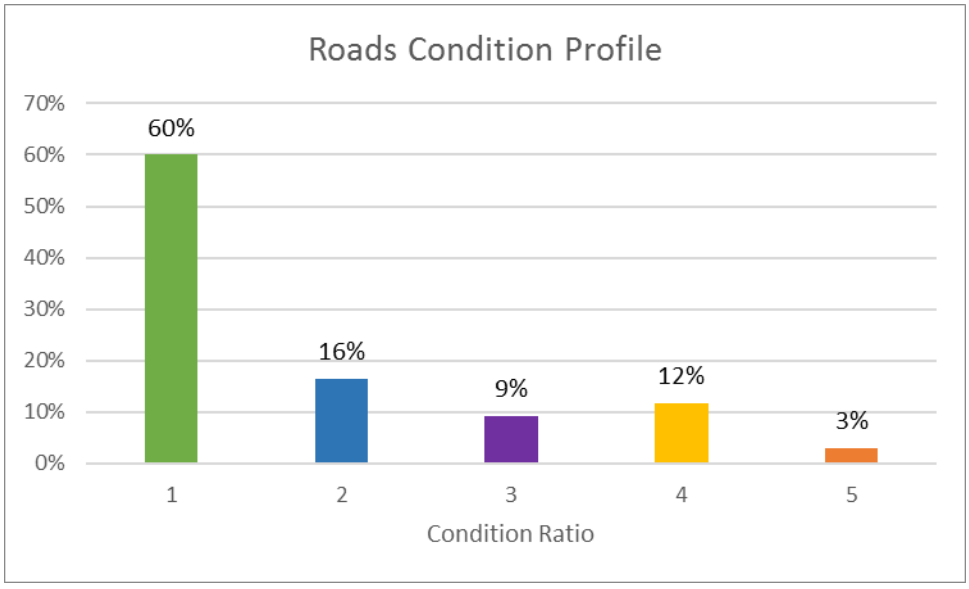
[7] IPWEA, 2015, IIMM, Sec 2.5.4, p 2|80.

Table 5.1.4: 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

In the transport department, Council currently only has data on the condition profile of sealed and unsealed roads, bridges, footpaths and bulk earthworks assets. The condition profile of these assets are determined as a percentage of gross replacement cost, according to the annual financial statement from June 2021. Transport assets condition profile is shown in Figure 5.1.4.

Figure 5.1.4: Asset Condition Profile[8]



As identified in the Asset Management Maturity Assessment Report, Council does not have a centralised asset register. Data is held in separate locations and there is no clear and regulated audit trail between data sets. As a consequence, condition ratings used for operational purposes do not match condition ratings for financial reporting purposes, distorting the condition ratings. The condition ratings provided are aligned with Council's financial reporting requirements however

[8] Report on infrastructure assets, Audited Financial Statement, June 2021 p. 10.

Council inspections and operational feedback is indicating that the condition of most of Council's asset classes are lower than indicated. The condition ratings for this asset class are an example of that trend.

The target intervention level for transport assets is Condition 3, however this is subject to the proposed treatment and priority/hierarchy of the asset within its class.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include traffic management services and planning and reporting services.

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 asphalt patching, re-surfacing and pothole repairs.

The trend in maintenance budgets are shown in Table 5.2.

Table 5.2: Maintenance Budget Trends

YEAR	MAINTENANCE BUDGET
FY 2020-2021	$4,202,000
FY 2021-2022	$5,581,000
FY 2022-2023	$4,018,447

Maintenance budget levels are considered to be inadequate to meet projected service levels. Where maintenance budget allocations are such that they will result in a lesser LoS, the service consequences and service risks have been identified and are highlighted in this AMP.

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

5.2.1 Asset hierarchy

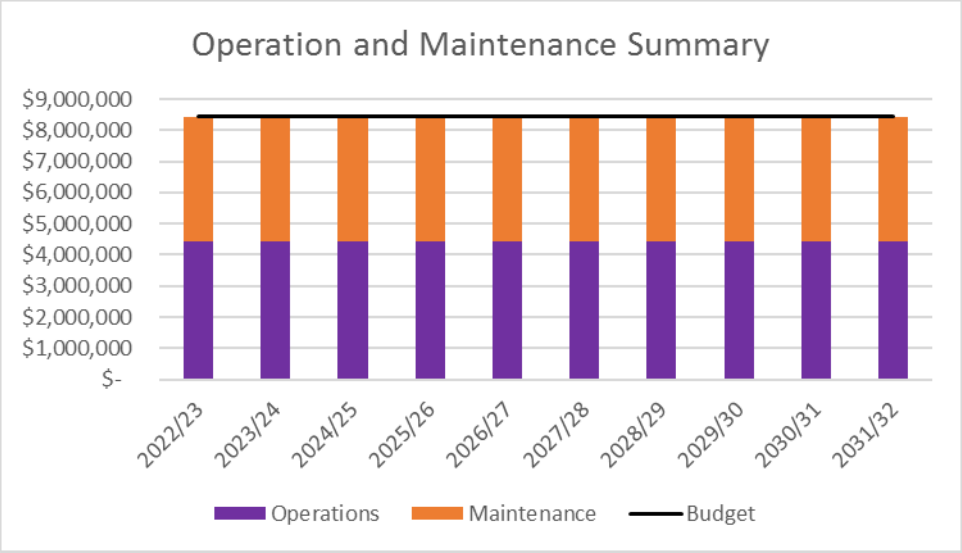
An asset hierarchy is a logical index of all equipment, machines, and components, and how they work together. It is critical for understanding how action on one asset affects other assets, establishing a parent-child relationship amongst multiple assets. Building and understanding the asset hierarchy is critical to efficiently track, schedule, and identify the root causes of problems.

The asset hierarchy is unavailable and is an improvement action for this AMP.

5.2.2 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 may increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 5.2.2 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.

Figure 5.2.2: Operations and Maintenance Summary



All forecast values are shown in 2022 dollar value

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.

Table 5.3: Useful Lives of Assets

ASSET (SUB) CATEGORY	USEFUL LIFE
Fleet	5 years
Sealed roads: surface	20 years
Sealed roads: structure	20-40 years
Unsealed roads	20 years
Bridge: Concrete	100 years
Bridge: other	50 years
Road pavements	60 years
Kerb, gutter and footpath	40 years

The estimates for renewals in this AMP were based on the alternate 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. resheeting a sealed road), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a bridge).

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. [9]

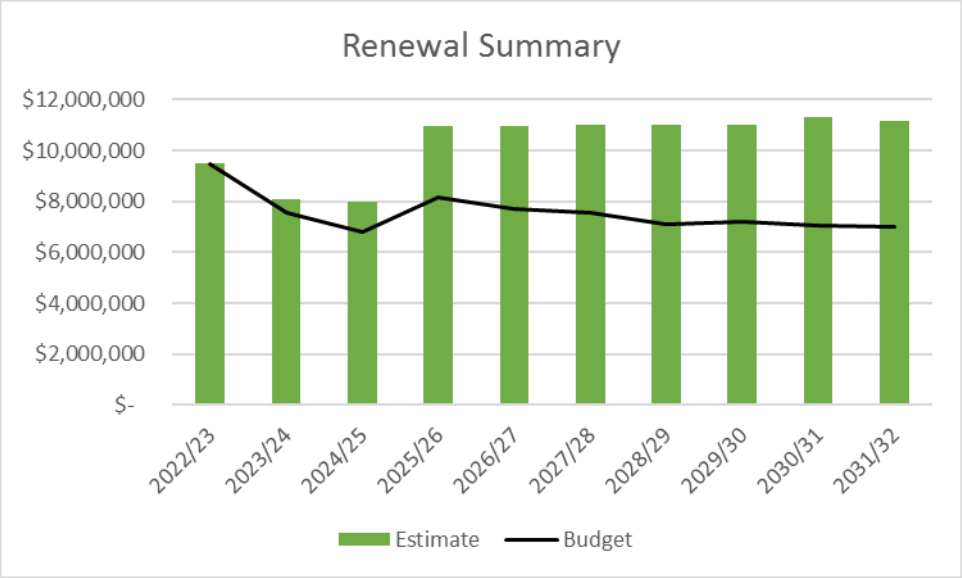
Currently there is no ranking criteria established for transport assets. This an improvement action for this AMP.

[9] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

5.3.2 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 5.3.2. A detailed summary of the forecast renewal costs is shown in Appendix C.

Figure 5.3.2: Forecast Renewal Costs



All forecast values are shown in 2022 dollar value.

5.4 Acquisition Plan

Acquisition reflects new assets that did not previously exist or works that will upgrade or improve an existing asset beyond its current capacity. It may be a result of growth, demand, social or environmental needs. Assets may also be donated to ARC.

5.4.1 Selection criteria

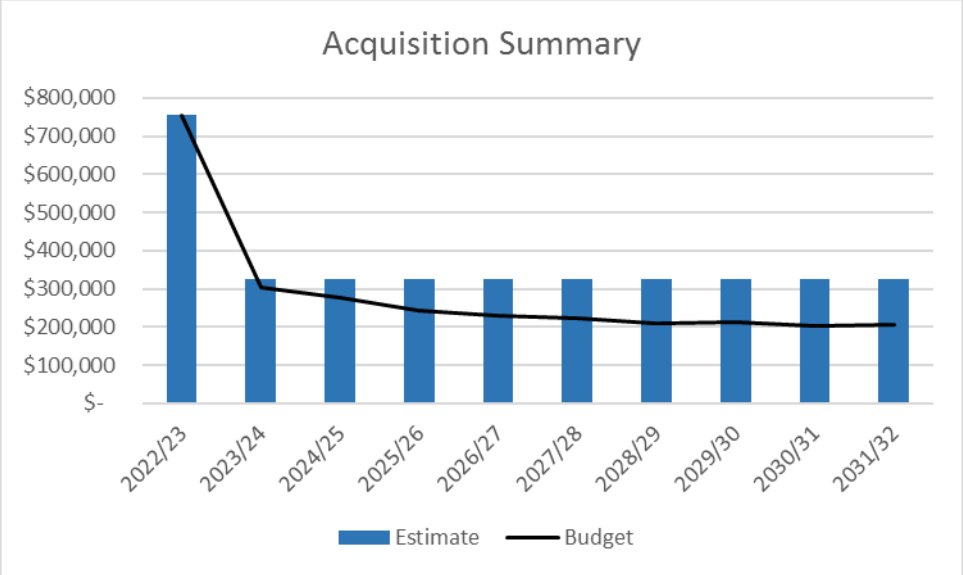
Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrade and new works should be reviewed to verify that they are essential to the Council 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.

Priority ranking criteria for acquired assets is currently only available for Road Upgrades from Unsealed to Sealed roads. Other asset class acquisition is an improvement action for Council.

5.4.2 Summary of future asset acquisition costs

Forecast acquisition asset costs are summarised in Figure 5.4.2 and shown relative to the proposed acquisition budget. The forecast acquisition capital works program is shown in Appendix B.

Figure 5.4.2: Acquisition Summary



All forecast values are shown in 2022 dollar value.

Committing to new assets implies committing to future operating, maintenance and renewal costs. Future depreciation must also be taken into account when analysing long-term sustainability. Regarding the long-term impacts of acquiring assets. 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.

5.5 Disposal Plan

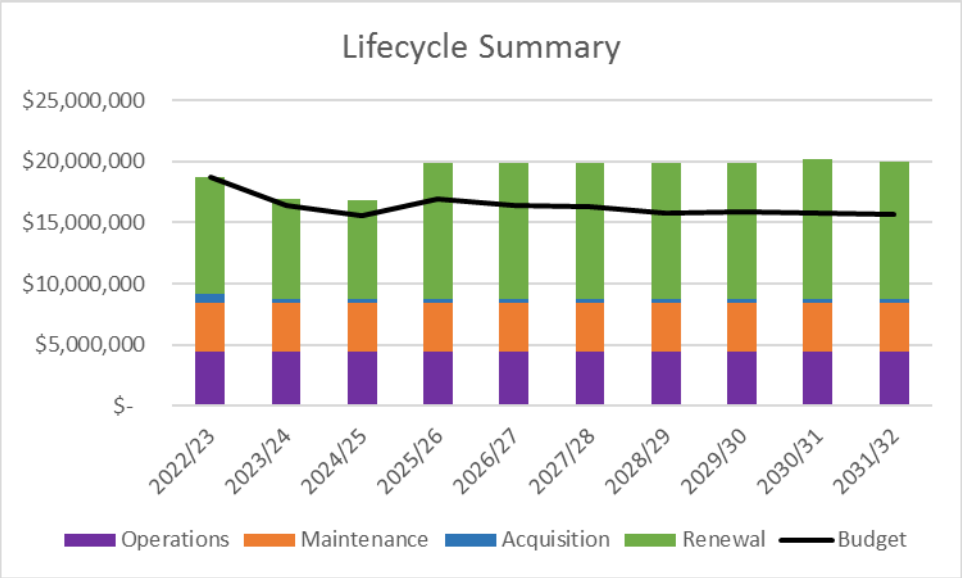
Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. There are no forecast disposals in the LTFP to be reported in this AMP.

5.6 Summary of asset forecast costs

The financial projections of this AMP are shown in Figure 5.6 and detailed in Appendix A. These projections include forecast costs of acquisition, operation, maintenance, renewal, and disposal. The forecast costs are displayed in relation to the proposed budget.

The forecast costs are represented by the bars, while the proposed budget line indicates the estimated available funding (no SRV) for the next 10 years. The gap between the forecast and the proposed budget is the basis of the SRV proposal to meet the financial need to cover all projects planned for the next 10 years.

Figure 5.7: Lifecycle Summary



All forecast values are shown in 2022 dollar value.

The proposed budget for the projects included in the 10-year planning corresponds to the expected costs, since all projects presented are essential to keep transport assets sector operating, as well as its level of service. If there are new acquisitions, renewals, or changes to the 10-year plan, these will be added to future updates of this AMP.

6. 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'.[10]

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.

Table 6.1: Critical Assets

CRITICAL ASSETS	CRITICAL FAILURE MODE	OPERATIONS & MAINTENANCE ACTIVITIES
Bridges	Failure to cater for loading requirements	Property or infrastructure damage, risk of major unplanned expenditure to council due to asset failure or damage. Safety risk. Disruption to services.
Roads	Unsuitable for travel. Unsafe.	Property or infrastructure damage, risk of major unplanned expenditure to council due to asset failure or damage. Safety risk. Disruption to services.
Roadside drainage	Blockages, damage from trees/vegetation. Sedimentation or storm damage	Property or infrastructure damage, risk of major unplanned expenditure to council due to asset failure or damage. Safety risk. Disruption to services.

[10] ISO 31000:2009, p 2

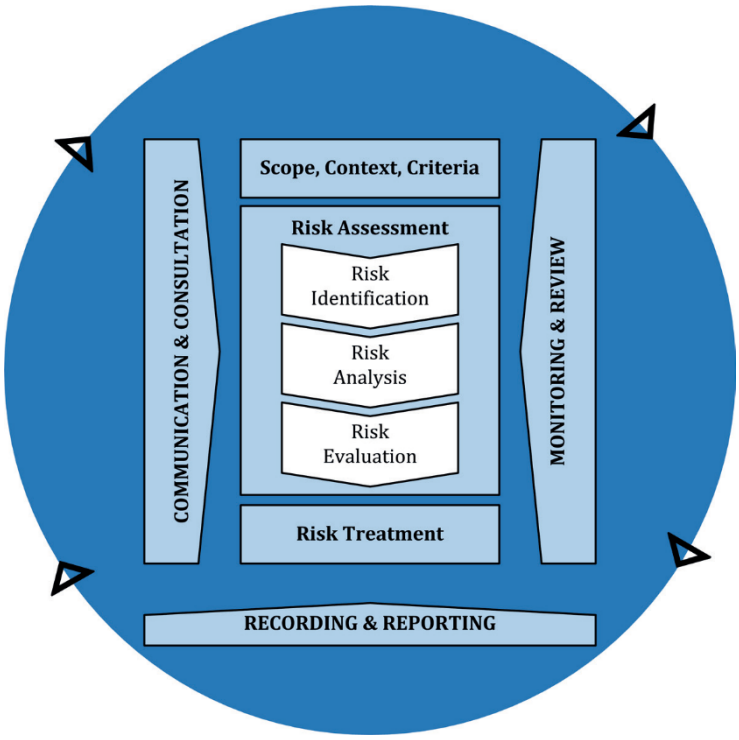
6.2 Risk Assessment

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.

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. [11] The

[11] An Infrastructure Risk Management Plan has yet to be developed in accordance with Council's Risk Policy. This is an improvement action for Council.

residual risk 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 Council.

Table 6.2: Risks and Treatment Plan

SERVICE OR ASSET AT RISK	WHAT CAN HAPPEN	RISK RATING (VH, H)	RISK TREATMENT PLAN	RESIDUAL RISK*
All transport assets	Market conditions untenable for contractor engagement	H	Establish pool of prequalified contractors	H
All transport assets	Lack of internal labour/resource availability to deliver works and maintenance	H	Staff recruitment	H
All transport assets	Community expectation not met due to lack of funding	H	Contingency planning and resource management	M
All transport assets	Assumptions on our renewals not meeting needs/expectations around renewal rates change	H	Engage Consultants to assess renewal needs	M

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

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service. Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership have yet to be undertaken and developed by Council.

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

6.4 Service and Risk Trade-Offs

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

6.4.1 What we cannot do

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

- Fully fund capital upgrades and replacements,
- Mitigate all risks,
- Meet maintenance requirements of any new assets that are acquired by donation or contribution,
- Increase the level of operations, maintenance and renewal activities to achieve industry benchmark ratios,
- Resealing is critical to avoid costly premature pavement failure. Council has been averaging 11 kilometres per year but need to be aiming for 55 kilometres,
- Rehabilitation of failed pavements - there is 37 kilometres ($19 million) to fix now, but without an SRV this will take 10 years or more and with continued under-investment in reseals, the rate of failures will be increasing,
- Resheeting unsealed roads to ensure they are passable in the wet and have better ride quality. Council has been averaging 30 kilometres per year but need to aim for 70 kilometres,
- Grading and other maintenance (e.g. vegetation) needs to increase,
- Replacing 5 timber bridges within 10 years, repairing a number of causeways in poor condition, unblocking and repairing pipe culverts,
- Renewing 6 kilometres of footpaths now (without an SRV this will take 10 years), plus additional maintenance to address trip hazards,
- Construct missing links (18 kilometre cycleway + 11 kilometres paths are prioritised), and
- Renewal of 11 kilometre of failed kerb now, plus priority upgrades where kerb is not provided, and additional maintenance to repair smaller failed sections of kerb.

6.4.2 Service trade-off

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

6.4.3 Risk trade-off

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

- Road sealing and patching program budgets falling short of required,
- Drainage repair and renewal budgets underfunded to deal with defect backlog,
- The application of bridge load limits and future possible closures of bridges across the LGA, and
- Reductions in road safety levels due to declining road and bridge conditions.

Council will need to prioritise maintenance and renewal works to components that have a very high safety risks and defer work components with low to medium safety risks. This will mean that any community complaints on these components or additional service requests will not be attended to due to the lack of funds.

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

7. 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).

7.1.2 Asset Renewal Funding Ratio

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have ≥ 100% of the funds required for the optimal renewal of assets.

The forecast renewal work along with the proposed renewal budget is illustrated in Appendix C.

7.1.3 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 $191 million, while the budget for the same period is $163 million. This creates a shortfall of $28 million over the 10 year planning period. This indicates that 85% of the forecast costs needed to provide the reduced services documented in this AMP are accommodated in the proposed budget.

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.

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

Table 7.1.4 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.

Table 7.1.4: Forecast Costs (Outlays) for the Long-Term Financial Plan

YEAR	ACQUISITIONS	OPERATIONS	MAINTENANCE	RENEWALS	TOTAL
2022	$754,301	$4,411,000	$4,018,000	$9,480,000	$18,663,301
2023	$325,000	$4,411,000	$4,018,000	$8,097,181	$16,851,181
2024	$325,000	$4,411,000	$4,018,000	$7,992,321	$16,746,321
2025	$325,000	$4,411,000	$4,018,000	$10,975,713	$19,729,713
2026	$325,000	$4,411,000	$4,018,000	$10,976,053	$19,730,053
2027	$325,000	$4,411,000	$4,018,000	$11,017,673	$19,771,673
2028	$325,000	$4,411,000	$4,018,000	$10,995,033	$19,749,033
2029	$325,000	$4,411,000	$4,018,000	$11,004,113	$19,758,113
2030	$325,000	$4,411,000	$4,018,000	$11,318,793	$20,072,793
2031	$325,000	$4,411,000	$4,018,000	$11,161,453	$19,915,453
TOTALS	**$3,679,301**	**$44,110,000**	**$40,180,000**	**$103,018,333**	**$190,987,634**

Forecast costs are shown in 2022 dollar value.

7.2 Funding Strategy

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

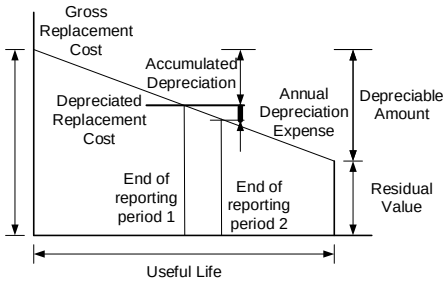
The financial strategy of the entity determines how funding will be provided, whereas the AMP communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

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 at cost to replace service capacity:

Replacement Cost (Current/Gross)	$456,045,000
Depreciable Amount	$243,497,000
Depreciated Replacement Cost [12]	$69,421,000
Depreciation	$5,104,000



7.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added to the 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 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:

- That a permanent SRV of 50% for the General Fund has not been achieved over three years to provide a budget that will maintain the optimum service levels required,
- Budgets have been allocated based on the best available data on assets,
- Defects and repairs, renewal and upgrade will not change over time,
- Cost escalation assumed to cover increases in cost over time,
- Consistency in funding amounts guaranteed per year,
- No additional work on assets beyond what has been programmed for funding in the 10 year period,
- Demand projections are reliable and consistent with assumptions,
- Increase in assets e.g. crown land hand-over,
- Natural disaster events do not impact funding for maintenance and renewals,

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

- 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, and
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge.

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 an A - E level scale[13] 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.

The estimated confidence level for and reliability of data used in this AMP is shown in Table 7.5.2.

Table 7.5.2: Data Confidence Assessment for Data used in AMP

DATA	CONFIDENCE ASSESSMENT	COMMENT
Demand drivers	B	Based on current documents, plans and commitments. Some aspects may change as a result of market or political forces.
Growth projections	D	Although aspiration jobs/population growth targets are committed to by Council these will be subject to successive councils, markets forces and a number of large unknowns.

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

DATA	CONFIDENCE ASSESSMENT	COMMENT
Operations expenditures	D	Historical and industry data
Maintenance expenditures	C/D	Field data is poorly managed and accomplishments are not tracked. Council needs investment in this space to obtain real work condition. Some work from ARRB and similar companies has been undertaken to assess sealed and unsealed road pavement conditions.
Projected Renewal - Asset values	C	Assets are likely missing from the register. Previous work costings are poorly recorded and renewal rates likely undervalued.
- Asset residual values	E	Unknown
- Asset useful lives	E	Unknown
- Condition modelling	E	Unknown
- Network renewals	E	Unknown
- Defect repairs	D	Data is currently on spreadsheets and accomplishments poorly recorded. Total quantity of defect, the actual severity and annual accomplishment rates have poor accuracy. Hence, budgets are likely poorly informed.
Upgrade/New expenditures	E	Unknown
Disposal expenditures	E	Unknown

The estimated confidence level and reliability of data used in this AMP are considered low confidence.

8. PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices[14]

8.1.1 Accounting and financial data sources

This AMP utilises accounting and financial data. The source of the data is Technology One.

8.1.2 Asset management data sources

This AMP also utilises asset management data from Council asset records.

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

#	TASKS	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
1	Investigate service deficiencies of all assets and document it in future iterations of this AMP.	Transport Manager	Transport Manager, contractors	2022-24
2	Carry out resilience assessment of assets and formalise resilience strategies for adoption by Council. Document in future iterations of this AMP.	Transport Manager	Transport Manager, contractors	2022-24
3	Prepare Infrastructure Risk Management Plan in accordance with Council's Risk Policy and risk management procedures. Plan to be informed by the assessment of risks of the transport asset class.	Transport Manager	Transport Manager, contractors	2022-24
4	Assess criticality of assets. By identifying critical assets and failure modes Council can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets. Document in future iterations of this AMP.	Transport Manager	Transport Manager, contractors	2022-24

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

#	TASKS	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
5	Develop and implement a road asset service hierarchy. This will provide a framework to assist in data collection, reporting and decision making. Document in future iterations of this AMP.	Transport Manager	Transport Manager, contractors	2022-24
6	Develop and implement ranking criteria for asset renewal and acquisition. Document in future iterations of this AMP.	Transport Manager	Transport Manager, contractors	2022-24
7	Adopt a Levels of Service Framework which include defined Customer and Technical LoS and performance measures and incorporate in future iterations of this AMP.	Transport Manager	Assets, Transport Manager	2022-24
8	Council to invest in Enterprise Asset Management Software that links assets data with financial information. The assets department needs to take ownership of the system, record and manage asset data and activities, and maintain complete and accurate inventory of assets. Incorporate in next AMP update.	Chief Officer Corporate and Community	Finance and corporate management	2022-24
9	Allocate resources and train staff to lift capability in asset management. Define roles and responsibilities to manage assets, systems and monitor development and implementation of the AMP.	Corporate management	Assets, finance and corporate management	2022-24
10	Communicate asset valuation results to designated asset planners so these can be used to inform planning of renewal activities in forward works program. Monitor AMP implementation.	Assets	Assets and finance	2022-24
11	Update Asset Management Policy and establish AM Framework. Incorporate in next AMP update.	Assets	Assets, finance and corporate management	2022-24
12	Establish asset lifecycle management processes and set up systems to implement life cycle approaches in asset management planning. Incorporate in future iterations of this AMP.	Assets, finance and corporate management	Assets, finance and corporate management	2022-24
13	Establish standard asset management planning processes across the organization to ensure consistency in the information generated within each department.	Assets, finance and corporate management	Assets, finance and corporate management	2022-24
14	Carry out customer satisfaction surveys to inform the development of levels of	Communications	Communications, Assets and	2022-24

#	TASKS	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
	service performance measured by Council.		Transport Manager	
15	Establish formal processes to assess asset condition and asset performance monitoring. These will be used to plan investments in the LTFP and future iterations of this AMP.	Transport Manager, Assets	Assets and finance	2022-24
16	Set up formal processes for prioritisation of investments in acquisition, operations, maintenance, renewals and capital upgrades to inform development of long term forward works program for the LTFP and incorporate in the next iteration of this AMP.	Assets, finance and corporate management	Assets, finance and corporate management	2022-24
17	AMPs in the future will be used to drive expenditure in assets so the information used to develop the works programs must be evidence based with a high degree of accuracy to justify the need for the investment. Council must set their standard requirements for AMPs.	Assets, finance and corporate management	Assets, finance and corporate management	2022-24

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 2 years of each Armidale Regional Council election.

8.4 Performance Measures

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

- The number of complaints and requests for service,
- The number of issues resolved,
- The response time to address issues and complaints, and
- The change in backlog, asset maintenance and renewal ratios.

9. 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
- Armidale Regional Council, Advancing Our Region, Your Community Strategic Plan 2022-2032
- Armidale Regional Council, Engineering Code Design Specification 2016
- Armidale Regional Council, Long Term Financial Plan Budgets 2022-2032
- Armidale Regional Council, Resourcing Strategy 2022

10. APPENDICES

10.1 Appendix A - Expenditure Forecast 2022-2032

TRANSPORT

10 Year forecast 2022-2032

ACTIVITY	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	Total 10 Years
OPERATIONS & MAINTENANCE											
Operations	$ 4,411,000	$ 4,411,000	$ 4,411,000	$ 4,411,000	$ 4,411,000	$ 4,411,000	$ 4,411,000	$ 4,411,000	$ 4,411,000	$ 4,411,000	$ 44,110,000
Maintenance	$ 4,018,000	$ 4,018,000	$ 4,018,000	$ 4,018,000	$ 4,018,000	$ 4,018,000	$ 4,018,000	$ 4,018,000	$ 4,018,000	$ 4,018,000	$ 40,180,000
Sub-total Operations & Maintenance	$ 8,429,000	$ 8,429,000	$ 8,429,000	$ 8,429,000	$ 8,429,000	$ 8,429,000	$ 8,429,000	$ 8,429,000	$ 8,429,000	$ 8,429,000	$ 84,290,000
RENEWALS											
All transport assets	$ 9,480,000	$ 8,097,181	$ 7,992,321	$10,975,713	$10,976,053	$11,017,673	$10,995,033	$11,004,113	$11,318,793	$11,161,453	$ 103,018,333
Sub-total Renewals	$ 9,480,000	$ 8,097,181	$ 7,992,321	$10,975,713	$10,976,053	$11,017,673	$10,995,033	$11,004,113	$11,318,793	$11,161,453	$ 103,018,333
UPGRADE & NEW											
All transport assets	$ 754,301	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 3,679,301
Sub-total Upgrade & New	$ 754,301	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000	$ 3,679,301
Total	$18,663,301	$16,851,181	$16,746,321	$19,729,713	$19,730,053	$19,771,673	$19,749,033	$19,758,113	$20,072,793	$19,915,453	$ 190,987,634

10.2 Appendix B - Acquisition Project Summary

YEAR	ITEM	PROJECT DESCRIPTION	ESTIMATE '000
2022	1	Road Safety Program	$50
	2	Lower Cost Road Upgrades	$50
	3	Footpaths New	$272
	4	Kerb & Gutter New	$60
	5	Guyra Main St	$322
2022	**TOTAL**		**$754**
2023	1	Road Safety Program	$100
	2	Lower Cost Road Upgrades	$50
	3	Footpaths New	$115
	4	Kerb & Gutter New	$60
2023	**TOTAL**		**$325**
2024	1	Road Safety Program	$100
	2	Lower Cost Road Upgrades	$50
	3	Footpaths New	$115
	4	Kerb & Gutter New	$60
2024	**TOTAL**		**$325**
2025	1	Road Safety Program	$100
	2	Lower Cost Road Upgrades	$50
	3	Footpaths New	$115
	4	Kerb & Gutter New	$60
2025	**TOTAL**		**$325**
2026	1	Road Safety Program	$100
	2	Lower Cost Road Upgrades	$50
	3	Footpaths New	$115
	4	Kerb & Gutter New	$60
2026	**TOTAL**		**$325**
2027	1	Road Safety Program	$100
	2	Lower Cost Road Upgrades	$50
	3	Footpaths New	$115
	4	Kerb & Gutter New	$60
2027	**TOTAL**		**$325**
2028	1	Road Safety Program	$100
	2	Lower Cost Road Upgrades	$50
	3	Footpaths New	$115
	4	Kerb & Gutter New	$60
2028	**TOTAL**		**$325**
2029	1	Road Safety Program	$100
	2	Lower Cost Road Upgrades	$50
	3	Footpaths New	$115

	4	Kerb & Gutter New	$60
2029	**TOTAL**		**$325**
2030	1	Road Safety Program	$100
	2	Lower Cost Road Upgrades	$50
	3	Footpaths New	$115
	4	Kerb & Gutter New	$60
2030	**TOTAL**		**$325**
2031	1	Road Safety Program	$100
	2	Lower Cost Road Upgrades	$50
	3	Footpaths New	$115
	4	Kerb & Gutter New	$60
2031	**TOTAL**		**$325**

10.3 Appendix C - Renewal Project Summary

YEAR	ITEM	PROJECT DESCRIPTION	ESTIMATE '000
2022	1	Gravel Resheeting	$ 802
	2	Urban Resealing	$ 900
	3	Rural Resealing	$ 1,040
	4	Rural Road Segment Rehabilitation	$ 1,000
	5	Bridge Renewal or Repair	$ 250
	6	Causeway Renewal Program	$ 200
	7	Kerb & Gutter Renewal Program	$ 530
	8	Footpath Renewal program	$ 205
	9	Cycleway Renewal	$ 60
	10	Regional Roads	$ 368
	11	Road Rehabilitation TBC	$ 800
	12	Bakers/Boorolong/Lambs Bridge Replacement	$ 2,084
	13	Kelly's Plain Road rehabilitation	$ 1,242
2022	**TOTAL**		**$ 9,480**
2023	1	Gravel Resheeting	$ 1,300
	2	Urban Resealing	$ 821
	3	Urban Heavy Patching	$ 257
	4	Rural Resealing	$ 1,544
	5	Rural Heavy Patching	$ 267
	6	Urban Road Rehabilitation	$ 1,400
	7	Rural Road Segment Rehabilitation	$ 1,118
	8	Bridge Renewal or Repair	$ 250
	9	Causeway Renewal Program	$ 117
	10	Kerb & Gutter Renewal Program	$ 344
	11	Footpath Renewal program	$ 232
	12	Cinders Lane line marking and carpark renewal	$ 80
	13	Regional Roads	$ 368
2023	**TOTAL**		**$ 8,097**
2024	1	Gravel Resheeting	$ 1,300
	2	Urban Resealing	$ 676
	3	Urban Heavy Patching	$ 402
	4	Rural Resealing	$ 1,512
	5	Rural Heavy Patching	$ 300
	6	Urban Road Rehabilitation	$ 1,400
	7	Rural Road Segment Rehabilitation	$ 1,118
	8	Bridge Renewal or Repair	$ 250
	9	Causeway Renewal Program	$ 92
	10	Kerb & Gutter Renewal Program	$ 344
	11	Footpath Renewal program	$ 182
	12	Cycleway Renewal	$ 50

	13	Regional Roads	$	368
2024	**TOTAL**		**$**	**7,992**
2025	1	Gravel Resheeting	$	2,874
	2	Urban Resealing	$	1,048
	3	Urban Heavy Patching	$	29
	4	Rural Resealing	$	1,512
	5	Rural Heavy Patching	$	300
	6	Urban Road Rehabilitation	$	2,844
	7	Rural Road Segment Rehabilitation	$	1,118
	8	Bridge Renewal or Repair	$	250
	9	Causeway Renewal Program	$	57
	10	Kerb & Gutter Renewal Program	$	344
	11	Footpath Renewal program	$	232
	12	Regional Roads	$	368
2025	**TOTAL**		**$**	**10,976**
2026	1	Gravel Resheeting	$	2,874
	2	Urban Resealing	$	977
	3	Urban Heavy Patching	$	100
	4	Rural Resealing	$	1,512
	5	Rural Heavy Patching	$	300
	6	Urban Road Rehabilitation	$	2,844
	7	Rural Road Segment Rehabilitation	$	1,118
	8	Bridge Renewal or Repair	$	250
	9	Causeway Renewal Program	$	57
	10	Kerb & Gutter Renewal Program	$	344
	11	Footpath Renewal program	$	182
	12	Cycleway Renewal	$	50
	13	Regional Roads	$	368
2026	**TOTAL**		**$**	**10,976**
2027	1	Gravel Resheeting	$	2,874
	2	Urban Resealing	$	977
	3	Urban Heavy Patching	$	100
	4	Rural Resealing	$	1,512
	5	Rural Heavy Patching	$	300
	6	Urban Road Rehabilitation	$	2,844
	7	Rural Road Segment Rehabilitation	$	1,118
	8	Bridge Renewal or Repair	$	250
	9	Causeway Renewal Program	$	99
	10	Kerb & Gutter Renewal Program	$	344
	11	Footpath Renewal program	$	232
	12	Regional Roads	$	368
2027	**TOTAL**		**$**	**11,018**
2028	1	Gravel Resheeting	$	2,874
	2	Urban Resealing	$	977
	3	Urban Heavy Patching	$	100

	4	Rural Resealing	$	1,512
	5	Rural Heavy Patching	$	300
	6	Urban Road Rehabilitation	$	2,844
	7	Rural Road Segment Rehabilitation	$	1,118
	8	Bridge Renewal or Repair	$	250
	9	Causeway Renewal Program	$	76
	10	Kerb & Gutter Renewal Program	$	344
	11	Footpath Renewal program	$	182
	12	Cycleway Renewal	$	50
	13	Regional Roads	$	368
2028	**TOTAL**		**$**	**10,995**
2029	1	Gravel Resheeting	$	2,874
	2	Urban Resealing	$	977
	3	Urban Heavy Patching	$	100
	4	Rural Resealing	$	1,512
	5	Rural Heavy Patching	$	300
	6	Urban Road Rehabilitation	$	2,844
	7	Rural Road Segment Rehabilitation	$	1,118
	8	Bridge Renewal or Repair	$	250
	9	Causeway Renewal Program	$	85
	10	Kerb & Gutter Renewal Program	$	344
	11	Footpath Renewal program	$	232
	12	Regional Roads	$	368
2029	**TOTAL**		**$**	**11,004**
2030	1	Gravel Resheeting	$	2,874
	2	Urban Resealing	$	977
	3	Urban Heavy Patching	$	100
	4	Rural Resealing	$	1,812
	5	Rural Heavy Patching	$	300
	6	Urban Road Rehabilitation	$	2,844
	7	Rural Road Segment Rehabilitation	$	1,118
	8	Bridge Renewal or Repair	$	250
	9	Causeway Renewal Program	$	100
	10	Kerb & Gutter Renewal Program	$	344
	11	Footpath Renewal program	$	182
	12	Cycleway Renewal	$	50
	13	Regional Roads	$	368
2030	**TOTAL**		**$**	**11,319**
2031	1	Gravel Resheeting	$	2,874
	2	Urban Resealing	$	977
	3	Urban Heavy Patching	$	100
	4	Rural Resealing	$	1,662
	5	Rural Heavy Patching	$	300
	6	Urban Road Rehabilitation	$	2,844
	7	Rural Road Segment Rehabilitation	$	1,118

	8	Bridge Renewal or Repair	$	250
	9	Causeway Renewal Program	$	93
	10	Kerb & Gutter Renewal Program	$	344
	11	Footpath Renewal program	$	207
	12	Cycleway Renewal	$	25
	13	Regional Roads	$	368
2031	TOTAL		$	11,161

ARMIDALE
Regional Council

www.armidaleregional.nsw.gov.au