Airport Asset Management Plan
January 2023

RESTORE & THRIVE

ARMID▲LE
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
14/12/2022	Council - Public Exhibition	247/22
30/01/2023	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 airport infrastructure 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 airport services. This comprises of:

- Terminal Building   3,304 square metres
- Old Terminal Building   445 square metres
- Airport Boundary   1,206,642 square metres
- Main Runway 05/30   1,738 x 30 metres
- Grass Runway 09/27   1,116 x 30 metres
- Other facilities and improvements within the airport boundary

The above infrastructure assets have replacement value estimated at $15.1 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 will require significant reductions and/or removal of services,
- Core maintenance service levels may remain underfunded,
- The condition of infrastructure will deteriorate with reduced maintenance activities,
- Capital works will be reduced as funding will be limited, and
- The infrastructure backlog will increase and it will cost more in the long run 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:

- Airport safety and security levels,
- Council financial sustainability,
- Infrastructure resourcing,
- Essential regulatory airport trained staff,
- Regulations and legislative changes,
- Climate change/environmental sustainability,
- Market,
- Technology,
- Passenger numbers and aircraft movements,
- Aircraft type changes,
- Tenants/airport users, and
- New airport infrastructure (e.g. new runway).

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. Therefore, a summary output from the AMP is the forecast of 10 year total outlays, which for the airport asset class is estimated as $30.2 million or $3 million on average per year.

---

[1] From Resourcing Strategy, p 65.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period, including Operations, Maintenance and Capital Works, is $28.4 million or $2.8 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 94% 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 risk of not maintaining or replacing/updating assets is that the airport becomes unsafe or not in compliance to be able to operate.

The anticipated Planned Budget for the airport asset class leaves a shortfall of $180,000 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. The forecast lifecycle costs and planned budgets is shown in figure 1.6.1.

Figure 1.6.1: Forecast Lifecycle Costs and Planned Budget
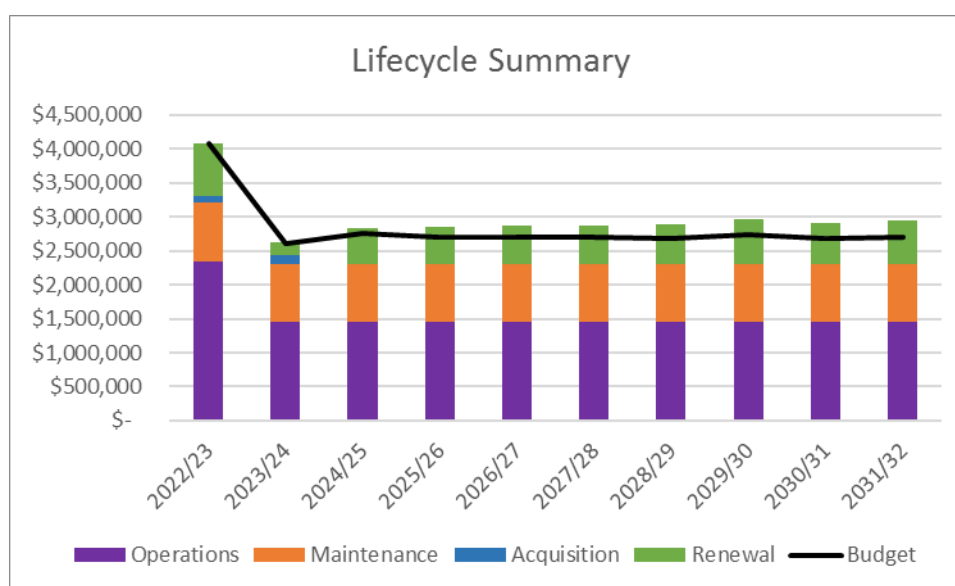
Figure values are in 2022 dollar value.

We plan to provide airport asset services for the following:

- Operation, maintenance and renewal of airport facilities to meet levels of service set by Council in annual budgets,
- Capital upgrades and major renewal work within the 10-year planning period, and
- Airport condition maintenance, services and upgrades that are determined by the Armidale Aerodrome Manual and Transport Security Program and aerodrome regulation administered

by International Civil Aviation Organisation (ICAO), Civil Aviation Safety Authority (CASA) and Home Affairs.

1.6.2 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 unless the SRV is adopted. These include:

- 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, and
- Increase the levels of operations, maintenance and renewal activities to achieve industry benchmark ratios.

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:

- Non-compliance with Manual of Standards 139 (MOS 139), CASA and/or Home Affairs,
- Major surface damage of runway and taxiway,
- Security screening breakdown,
- Lack of resources, and
- Aerodrome lighting and navigation PAPI failure.

Existing known issues (Refer Aerodrome Technical Inspection):

- Runway 05/23 reseal and reline marking,
- Taxiway A requires widening, and
- Grass runway surface needs upgrading.

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

- Ensuring sufficient resources including Airport Reporting Officers (ARO) are trained and skilled,
- Major works repairs, and
- Replacement of faulty equipment and lighting.

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.

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 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 AM 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,

- 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, and

- Regulated airport inspections, including non-conforming and unsafe assets and necessary corrective actions. In addition to the CASA surveillance update in future updates of this AMP.

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 airport assets, which are used to provide airport services. The infrastructure assets included in this plan have a total replacement value of $15.1 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 Corporate Strategy	Overall responsibility for Asset Management,

KEY STAKEHOLDERS	ROLE IN AMP
	• 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.
Airport Manager	• Provide Leadership for effective Asset Management, • Ensuring Asset Management services are provided in accordance with Corporate Plan and organisation priorities, • Ensuring the airport is safe, secure and compliant with its certification to remain open for business, • Ensure the customer experience and services are a high priority, • Delivering nominated renewal, upgrade projects, • Manages the regulatory requirements, safety management system, aerodrome operations and transport safety program, • Ensure assets are clean and well maintained, • Comply with Australian standards, Aerodrome Manual, MOS 139, CASR 139, CASR 175 and TSP, • Ensure environment issues are managed, • Reviews, updates and manages regulatory manuals, risk register, and airport operational matters, • Ensures the airport is adequately resourced as the Accountable Manager in the Airport's Safety Management System and stakeholders are engaged in safety and security meetings, • Responsible for reviewing and keeping AMP up to date, • Responsible for preparing budget submissions in accordance with the AMP.
Airport Reporting Officers	• Inspect, report on aerodrome serviceability and lighting, • Manage aerodrome operations, • Repair and maintain aerodrome airside and landside, • Issues Notice to Airmen (NOTAM) when assets are unsafe, • Facilitate as Works Safety Officers during airside works, • Ensure assets are safe, secure, clean and well maintained.
Assets Team and Asset Owners	• Preparation of AMP, • Responsible for reviewing and keeping AMP up to date, • Responsible for keeping asset data up to date, • Maintenance of corporate software.
Finance Team	• Maintenance of corporate software, • Financial accounting for assets.
State and Federal Government	• Promote best practice asset management, • Recognises the importance of LGA Assets to the community and provide funding and other assistance to sustain.
Community	• Be aware of levels of service and costs, • Participate in consultation processes, • Provide feedback on services.
Airlines	• Allocate resources and assets to ensure airlines provide a safe, secure and efficient service for the aerodrome operator, community and region.
Emergency and Aeromedical Services	• Allocate resources and assets to ensure emergency and aeromedical services provide a safe, secure and efficient service for the aerodrome operator, community and region.

KEY STAKEHOLDERS	ROLE IN AMP
General Aviation	• Allocate resources and assets to ensure General Aviation services provide a safe and efficient service for the aerodrome operator, community and region.
Airport Stakeholders (airside business / airpark)	• Allocate resources and assets to ensure stakeholders provide safe and efficient service for the aerodrome operator, community and region.

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 and affordable forecast costs and how they 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[2]
- ISO 55000[3]

---

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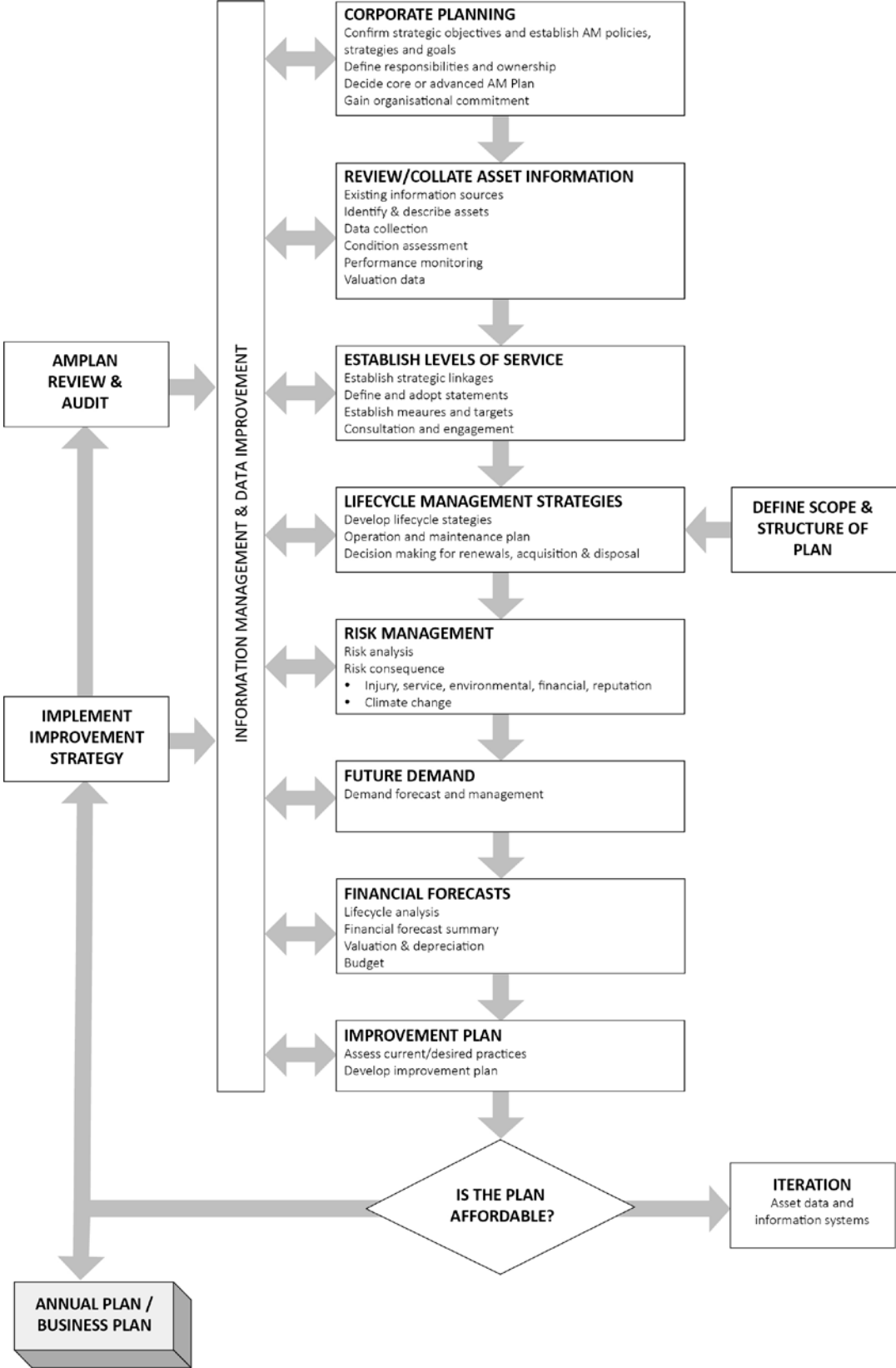
3. LEVELS OF SERVICE

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[4] to the community and provides a high level of customer and passenger experience 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

---

[4] Levels of Service Framework for all asset classes has yet to be developed and adopted by Council.

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.
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		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.
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.
P3, G1. A flourishing natural environment that is protected and enhanced		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.
P3, G2. A clean, green, and responsible region		
P4, G1. Public spaces and infrastructure that facilitate health, community		A lifecycle approach to asset management will also help Council achieve the financial sustainability over time.

GOALS	AM OBJECTIVES	HOW GOALS AND OBJECTIVES ARE ADDRESSED IN THE AMP
connections and opportunities		
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, customer and passenger levels of service expectations and experience.
P5, G1. Access to the services and support that facilitate quality of life		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, 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 and customers.

3.3 Legislative Requirements

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

Table 3.3: Legislative Requirements

LEGISLATION	REQUIREMENT	AUTHORITY
Local Government Act NSW (2002, amended 2009)	• 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.	Armidale Regional Council

LEGISLATION	REQUIREMENT	AUTHORITY
Civil Aviation Act (CAA) 1988 and Civil Aviation Safety Regulations (CASR)	• Armidale Regional Council is certified by CASA to operate Armidale Regional Airport (YARM) Certificate No CASA.ADCERT.0211 dated 12 May 2017. This certification ensures that the airport is able to operate.	Civil Aviation Safety Authority (CASA)
Civil Aviation Act (CAA) 1988 and Civil Aviation Safety Regulations (CASR)	• CASR Part 139 – Manual of Standards (MOS) Part 139 sets out the requirements and standards for aerodromes with published instrument flight procedures. These requirements include standards for aerodrome facilities, obstacle control, operational procedures, emergency planning and safety management. Advisory Circulars (AC) provide recommendations and guidance to aerodrome operators. The advisories explain certain regulatory requirements by providing interpretive and explanatory material.	CASA
Civil Aviation Act (CAA) 1988 and Civil Aviation Safety Regulations (CASR)	• CASR Part 175 - Sets out the requirements for managing aeronautical information. This is based on the ICAO Annex 15 Aeronautical Information Services (AIS). CASR 175 establishes standards and legislative requirements for the quality and integrity of airport data and information used in air navigation delivered by Air Services.	CASA
Airspace Act 2007	• Air services provides aerodrome information to airport users through its Aeronautical Information Package (AIP) including En Route Supplement Australia (ERSA), Runway Data Supplement (RDS) and Departure and Approach Procedures, and Notice to Airmen (NOTAM) for airport users e.g. when runway is closed.	Air services Australia
Transport Safety Investigation Act 2003	• The Australian Transport Safety Bureau (ATSB) conducts its investigations for accidents and incidents on airports in accordance with the provisions of the Act. The airport must report these to the ATSBs either in the Mandatory or Voluntary capacity.	ATSB
Aviation Transport Security Act 2004 , Aviation Transport Security Regulations 2005 and Aviation Screening Notice 2013	• Armidale Regional Airport is a security controlled airport and must comply with legislation and the Aerodrome Operator must have a Transport Security Program (TSP). This TSP covers all aviation security related activities at the airport and sets out the measures and procedures employed to protect and safeguard assets aircraft, operations and people This includes measures and procedures to: ▪ Manage security at the airport, and ▪ Prevent an act of unlawful interference with aviation occurring at Armidale Regional Airport or in relation to the aviation operations it services.	Home Affairs
Chicago Convention 1944	• Provides international standards and recommended practices for airports many of which are accepted by CASA. Annex 14 - Aerodrome design, Lighting, Signs and Markings, emergency planning process requirements, detail services needed to operate an	International Civil Aviation Organisation (ICAO)

LEGISLATION	REQUIREMENT	AUTHORITY
	aerodrome such as firefighting, Wildlife strike hazard reduction, ground handling, safety management and managing non-compliance through safety assessment.	
Australian Accounting Standards	• Establishes the financial reporting standards for the valuation, revaluation and depreciation of assets.	Standards Australia
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.	New South Wales Government
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	New South Wales Government

LEGISLATION	REQUIREMENT	AUTHORITY
	discharge of substances likely to cause harm to the environment, elimination of harmful waste, 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, and • Assist in the achievement of the objectives of the Waste Avoidance and Resource Recovery Act 2001.	
ISO 31000:2018 Risk Management – Principles and Guidelines, and ISO 9001 Quality Management Systems	• Risk Management is defined in ISO 31000:2018 / ISO Quality Management Systems as: 'coordinated activities to direct and control with regard to risk'.	Armidale Regional Airport Safety Management System
Environmentally Hazardous Chemicals Act 1985	• Provide control of the effect on the environment of chemicals and chemical waste.	Armidale Regional Airport Aerodrome Manual and Safety Management System

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 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. airport apron light modification) or a new service that did not exist previously (e.g. a new hangar)

- **Operation** – the regular activities to provide services (e.g. opening hours, cleansing, mowing grass, utilities, 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. building and structure repairs)
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally provided (e.g. runway and taxiway renewal).

Technical Level of Service 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.

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, 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
Infrastructure resourcing	The Council's current LTFP and Federal funding does not meet the budget required to continue to provide the current level of service.	Investment in airport infrastructure to support growth is required. Will need federal funding to support this.	Without improved infrastructure this will impact on safety and regulatory drivers and has the potential to drive away airline business.
Council financial sustainability	The Council's current LTFP meets the budget required to continue to provide a satisfactory level of service.	This plan anticipates the financial support of Council and Federal Government funding.	Without funding safety and regulatory obligations will be impacted. Community service level expectations will not be met, staff turnover will increase with resources not meeting the growing demand and safety will be impacted.

DEMAND DRIVERS	PRESENT POSITION	PROJECTION	IMPACT ON SERVICES
Have essential aviation trained staff	Council is filling operational positions. Gap in operations and project management roles.	Hire staff with suitable knowledge and invest in their training to increase employee retention rates.	Downtime and limited ability to carry out projects to improve services. Retiring AROs will impact services and compliance.
Regulations and Legislation changes	There is not enough staff capable of ensuring operating processes and procedures meet current legislation and compliance.	To have more employees able to endorse new legislation/statutory requirements.	Failure to apply current legislation may cause significant safety issues, delays in operations, fines and possible legal repercussions and loss of certification.
Climate change/Environment sustainability	Environmental obligations are up to date with current legislation.	Increase the number of sustainable practices and strategies.	Reduction in negative environmental impact.
Market	Passenger numbers and airline service routes are just below pre Covid numbers, and are predicted to be pre Covid by November 2022.	More competition from Airlines, more destinations and increased passenger numbers.	Increased revenue, staff numbers, tourism, and increase maintenance and asset costs.
Technology	Currently stable, but airport navigation technology is improving.	Install improved navigational guidance systems Ground Based Navigational Systems.	Improved operations and safety.

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. Overflows can potentially cause flooding resulting in damage to equipment, accident, injury, and potential disruption of services.	Develop strategies to manage flood events and prevent overflows.
Temperature variation	Warmer summer and colder winters	Large temperature variations are causing extreme temperature conditions, which can impact on thermal comfort of buildings and potentially disrupt services.	Renew or upgrade building environmental systems to ensure these adapt to temperature variations.

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 includes the Airport boundary and its buildings, runways and facilities. It has a current replacement cost of $15.1 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 airport assets, are not all available. The asset age profile could not 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 all 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. Locations where deficiencies in service performance are known are detailed in Table 5.1.3.

Table 5.1.3: Known Service Performance Deficiencies

LOCATION	SERVICE DEFICIENCY
Office	Lack of skilled and trained aviation staff and resources to manage the operations, safety management system, new projects and to apply for and manage capital project grants.
Office	High turnover of airport managers over the last 10 years has resulted in many items not being put into Content Manager and manuals not being updated and compliant.
05/23 Runway distance too short and too narrow for larger aircraft	Limits our ability as an airport to keep up with market demand and growth. It does not have the available land in its current position for the runway strip and cannot lengthen the current runway.
05/23 Runway	Defect in that it has an elevation where two aircrafts cannot see each other at opposite ends of the runway. Also, it does not have Runway End Safety Areas (RESA).
Obstacle Limitation Surface (OLS)	OLS Infringements - When the Qantas Link Dash 8 – 400 parks on the main apron its tail height infringes the OLS, Apron lights too high,

LOCATION	SERVICE DEFICIENCY
	The road to Saumarez House infringes transitional surfaces and is inside the runway strip of 280m.
Main Apron	Slope/grade is steeper in parts.
Grass runway	Is often unusable because of soft wet surfaces and a cross runway is ideal for training and encourage more general aviation. The surface needs remediation to keep it open more often.
Cafe	Leasing the café soon would be beneficial to the customer experience and a source of revenue for the airport. Its lack of operation has led to customer dissatisfaction.
Carpark	There have been some complaints on the ticketing machines and the airport could improve the customer experience by making the instructions more user friendly and staff helping out users. The machine App could also be implemented as the Rangers cannot use the NSW App at the airport making it difficult to review people not paying. A parking strategy needs to be implemented with least cost in the first instance.
Airport roads	Speed limit is same as the New England Highway and should be reduced to 25kph.
Ground transport	No bus service to and from the airport.
Routes and destinations	Armidale regular public transport (RPT) is only available to and from Sydney and Brisbane.
Workshop	Needs to be constructed in south west of airport as existing is just a carport.
Maintenance plant and equipment assets	The current equipment assets are insufficient, unreliable and ageing to maintain the airport e.g. mower is a small ride on mower and grass needs to be kept very low on airports.
Airport Conditions of Use	There is no Conditions of Use according to staff which would govern the use of assets by users.
Airline Flight Changes	When airline flights change unexpectedly it creates poor airport reputation, means the council pays extra for screening staff, security, airport staff and the assets are used longer as people wait around.
Terminal Cleaning	Has been increased recently from 24 hours per week to 38 hours as flights increase and will need to increase to 45 when flights get to pre Covid.
Airport Operations	The airport operations needs one more vehicle as current practices mean one ARO take the other home and returns. The AROs sometimes use their personal vehicles to go to do the runway inspections. The AROs would normally also wait until the last flight has left and this does not occur although they are on 24 hour duty. At RPT airports this would be normal practice.
Airport Airside Boundary Road	The boundary road condition does not allow a full fence inspection as a security controlled airport should. It is a breach of the TSP and fineable.
Departures and Arrivals 'Lounge	With passenger numbers increasing the departures lounge is too small and the arrivals area too big.

The above service deficiencies were identified from ad hoc inspections conducted by staff.

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 very low data confidence in current condition of assets. Overall, airport 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.

Best available data was obtained in June 2021 for financial reporting purposes. Assets were condition rated according to the IIMM condition rating scale as shown in Table 5.1.4.

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.

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

The condition profile of the airport infrastructure assets is reported in ARC's annual financial statement as a percentage of gross replacement cost. According to the latest financial statement from June 2021, the condition of airport infrastructure assets is shown in Figure 5.1.4.

---

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

Figure 5.1.4: Asset Condition Profile[8]
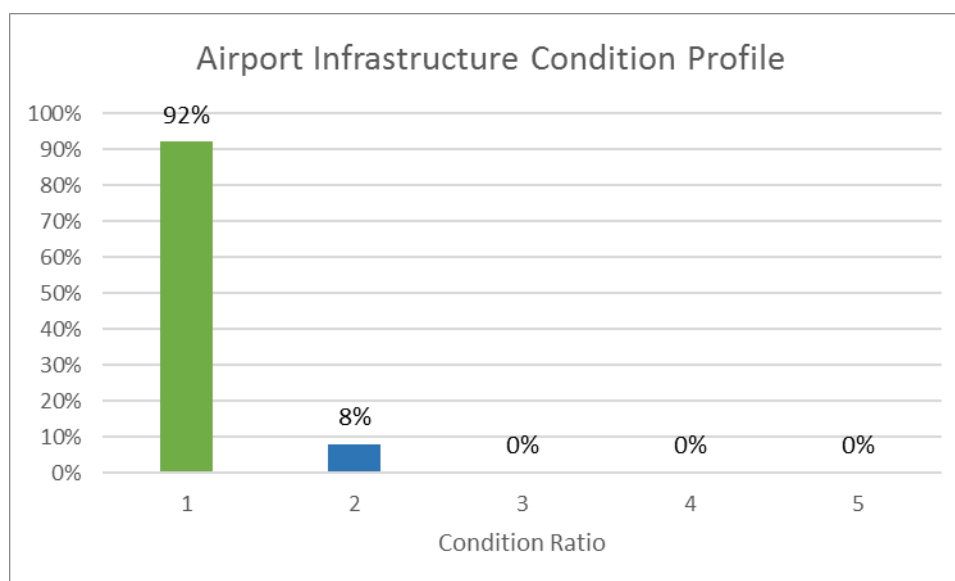
As identified in the Asset Management Maturity Assessment Report, Council does not have a centralised asset register. Data is held in separate locations and there is no clear and regulated audit trail between data sets. As a consequence, condition ratings used for operational purposes do not match condition ratings for financial reporting purposes, distorting the condition ratings. The condition ratings provided are aligned with Council's financial reporting requirements however 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.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include runaway and taxiway inspections, allocation of aircraft parking and aircraft escorts and utility costs. These should be programmed or planned.

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 maintenance of pavements, maintenance of visual aids and equipment repairs.

The trend in maintenance budgets are shown in Table 5.2.

---

[8] Report on infrastructure assets in Audited Financial Statements June 2021, p7

Table 5.2: Maintenance Budget Trends

YEAR	MAINTENANCE BUDGET
FY 2020-2021	$693,000
FY 2021-2022	$716,000
FY 2022-2023	$858,636

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 level of service, the service consequences and service risks have been identified and are highlighted in this AMP and service risks considered in the Infrastructure Risk Management Plan.

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
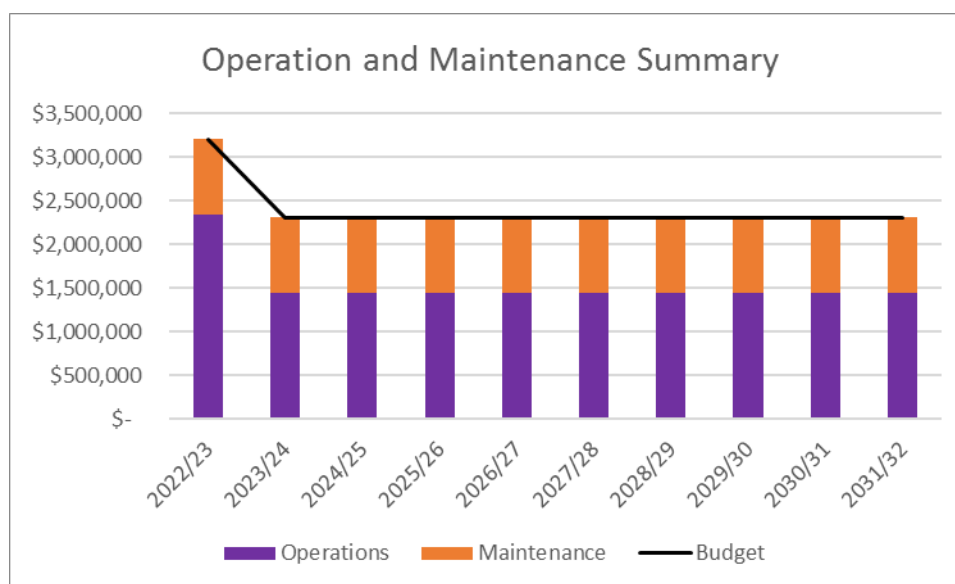
All forecast values are shown in 2022 dollar value.

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
Terminal building	20 years
Runway	10 years
Security Boundary Fence and gates	10 years

Taxiways	10 years
Security screening	5 years
Carpark machines	1 year
Fleet	5 years
Runway navigation systems	5 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. asphalt overlay on the runway), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. runway condition). [9]

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. [10]

Ranking criteria is unavailable for this AMP.

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.

---

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

Figure 5.3.2: Forecast Renewal Costs
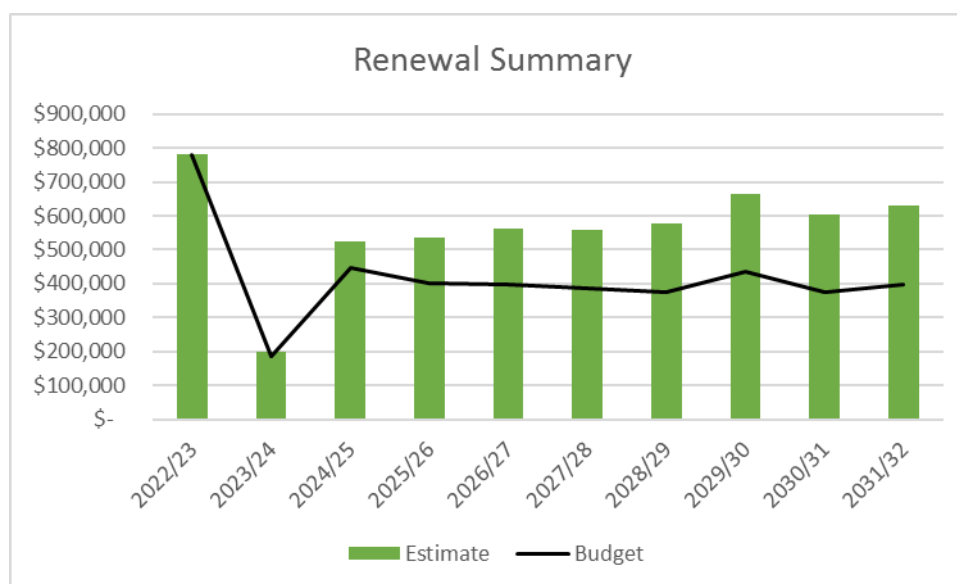
All forecast values are shown in 2022 dollar value.

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.

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
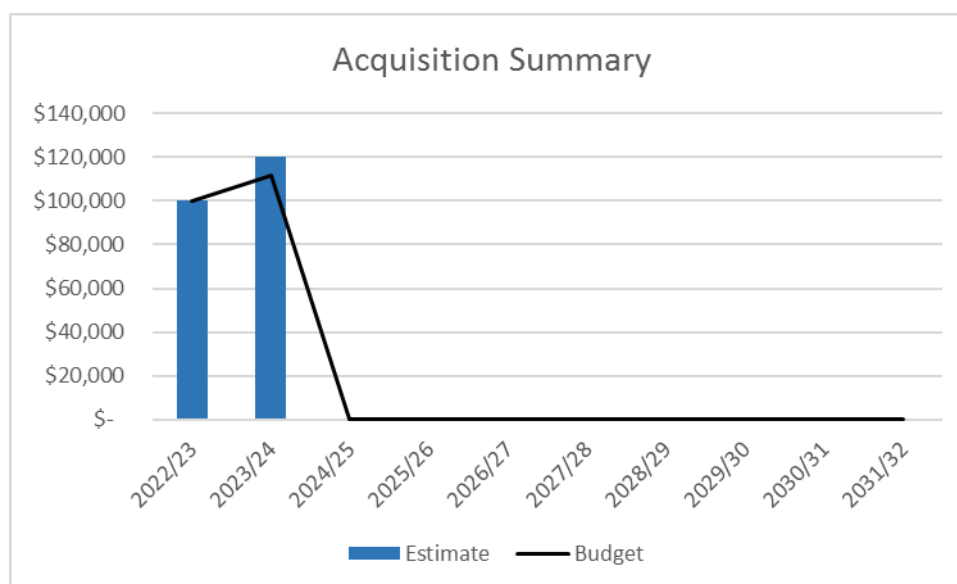
All forecast values are shown in 2022 dollar value.

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. 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. Assets identified for possible decommissioning and disposal are shown in Table 5.5.

Table 5.5: Assets Identified for Disposal

ASSET	REASON FOR DISPOSAL	TIMING	DISPOSAL COSTS	OPERATIONS & MAINTENANCE ANNUAL SAVINGS
Security Screening Equipment	Obsolescence	5 years	$150,000	Data not available
Machinery, vehicle, mowers, tractor and slasher	End of life	5 years	$150,000	Data not available

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
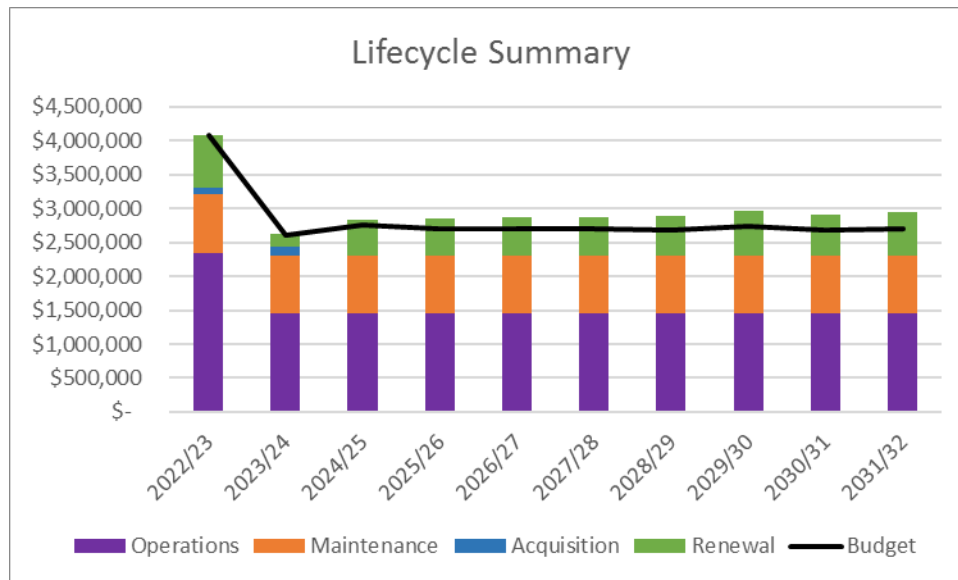
All forecast values are shown in 2022 dollar value.

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 the airport 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'.[11]

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
New boundary road requires repair	Regulatory impact / WHS impact	Road does not comply with transport security program TSP and MOS 139 regulations
Apron lights require repair due to OLS impact.	Regulatory impact	Does not meet MOS 139 regulations
Replacement and upgrade of security screening equipment	Regulatory impact	Will need to comply with Aviation Security Transport Act.

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.

---

[11] ISO 31000:2009, p 2

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

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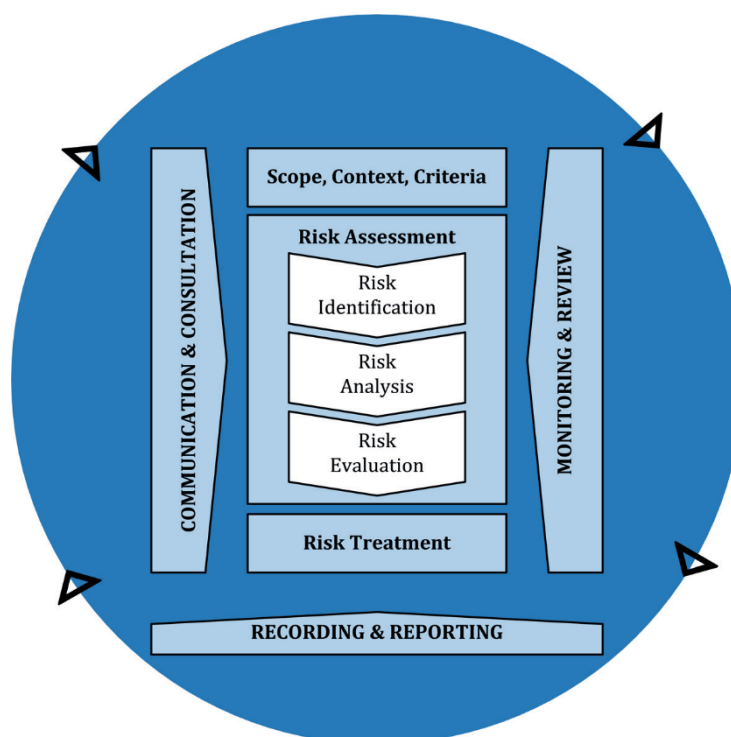
Source: ISO 31000:2018, Figure 1, p9

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. [12] 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 Council.

---

[12] An Infrastructure Risk Management Plan has yet to be developed in accordance with Council's Risk Policy. This is an improvement action for 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*	TREATMENT COSTS
Runway	Minor surface damage	L	Temporary repair	L	$20,000
Runway	Major surface damage	VH	Major repair works	M	$2,000,000
Taxiway	Minor	L	Temporary repair	L	$5,000
Taxiway	Major surface damage	VH	Major repair works	L	$20,000
Security screening	Breakdown	VH	Replace equipment	L	$20,000 per day
Runway lighting and navigation PAPI failure	Generator major failure	VH	Replace equipment and or lights	M	$20,000 per day

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 as a result of a transfer of responsibility cannot be funded under current budgets of this LTFP period, and
- Increase the levels of operations, maintenance and renewal activities to achieve industry benchmark ratios.

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:

- We 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.

These actions and expenditures are considered and included in the forecast costs.

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 $30.2 million, while the budget for the same period is $28.4 million. This creates a shortfall of $1.8 million over the 10 year planning period. This indicates that 94% of the forecast costs needed to provide the 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	DISPOSAL	TOTAL
2022	$100,000	$2,345,000	$858,636	$780,000	$150,000	$4,383,636
2023	$120,000	$1,451,000	$858,636	$197,500	$0	$2,627,136
2024	$0	$1,451,000	$858,636	$525,000	$0	$2,834,636
2025	$0	$1,451,000	$858,636	$537,500	$0	$2,847,136
2026	$0	$1,451,000	$858,636	$563,500	$0	$2,873,136
2027	$0	$1,451,000	$858,636	$560,000	$0	$2,869,636
2028	$0	$1,451,000	$858,636	$578,920	$0	$2,888,556
2029	$0	$1,451,000	$858,636	$662,665	$0	$2,972,301
2030	$0	$1,451,000	$858,636	$602,665	$0	$2,912,301
2031	$0	$1,451,000	$858,636	$632,665	$0	$2,942,301
TOTALS	**$220,000**	**$15,404,000**	**$8,586,360**	**$5,640,415**	**$150,000**	**$30,150,775**

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)	$15,018,000
Depreciable Amount	$12,167,000
Depreciated Replacement Cost [13]	$2,941,000
Depreciation	$373,000
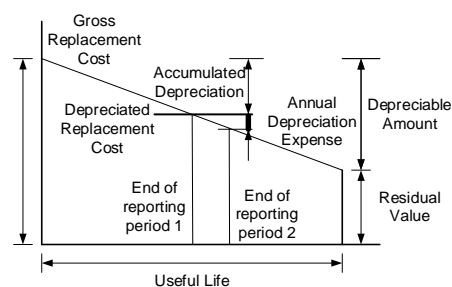
7.3.2 Valuation forecast

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.

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[14] in accordance with Table 7.5.1.

---

[13] Also reported as Written Down Value, Carrying or Net Book Value.
[14] IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

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	Historical and industry data
Growth projections	B	Historical and industry data
Operations expenditures	B	Historical and industry data
Maintenance expenditures	C	Historical and industry data
Projected Renewal		
- Asset values	B	Historical and industry data
- Asset residual values	B	Historical and industry data
- Asset useful lives	C	Historical and industry data
- Condition modelling	C	Historical and industry data
- Network renewals	C	Historical and industry data
- Defect repairs	A	Historical and industry data
Upgrade/New expenditures	A	Historical and industry data
Disposal expenditures	A	Historical and industry data

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[15]

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.	Airport Manager	Airport 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.	Airport Manager	Airport 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 airport asset class.	Airport Manager	Airport 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.	Airport Manager	Airport Manager, contractors	2022-24

---

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

#	TASKS	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
5	Adopt a Levels of Service Framework which include defined Customer and Technical LoS and performance measures and incorporate in future iterations of this AMP.	Airport Manager	Assets, Airport Manager	2022-24
6	Regulated airport inspections, including non-conforming and unsafe assets and necessary corrective actions. In addition to the CASA surveillance update in future updates of this AMP.	Airport Manager	Airport Manager, contractors	2022-24
7	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
8	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
9	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
10	Update Asset Management Policy and establish AM Framework. Incorporate in next AMP update.	Assets	Assets, finance and corporate management	2022-24
11	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
12	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
13	Carry out customer satisfaction surveys to inform the development of levels of service performance measured by Council.	Communications	Communications, Assets and Airport Manager	2022-24
14	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.	Airport Manager, assets	Assets and finance	2022-24

#	TASKS	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
15	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
16	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 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

AIRPORT
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	$2,345,000	$1,451,000	$1,451,000	$1,451,000	$1,451,000	$1,451,000	$1,451,000	$1,451,000	$1,451,000	$1,451,000	$15,404,000
Maintenance	$ 858,636	$ 858,636	$ 858,636	$ 858,636	$ 858,636	$ 858,636	$ 858,636	$ 858,636	$ 858,636	$ 858,636	$ 8,586,360
Sub-total Operations & Maintenance	$3,203,636	$2,309,636	$2,309,636	$2,309,636	$2,309,636	$2,309,636	$2,309,636	$2,309,636	$2,309,636	$2,309,636	$23,990,360
RENEWALS											
All airport assets	$ 780,000	$ 184,006	$ 447,045	$ 400,176	$ 396,801	$ 385,387	$ 375,264	$ 434,669	$ 376,643	$ 398,344	$ 4,178,334
Sub-total Renewals	$ 780,000	$ 197,500	$ 525,000	$ 537,500	$ 563,500	$ 560,000	$ 578,920	$ 662,665	$ 602,665	$ 632,665	$ 5,640,415
UPGRADE & NEW											
All airport assets	$ 100,000	$ 120,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 220,000
Sub-total Upgrade & New	$ 100,000	$ 120,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 220,000
DISPOSAL											
All airport assets	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 150,000
Sub-total Disposal	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 150,000
Total	$4,383,636	$2,627,136	$2,834,636	$2,847,136	$2,873,136	$2,869,636	$2,888,556	$2,972,301	$2,912,301	$2,942,301	$30,150,775

10.2 Appendix B - Acquisition Project Summary

YEAR	ITEM	PROJECT DESCRIPTION	ESTIMATE '000
2022	1	Apron Lighting Modification	$100
	2	Café upgrade in preparation for new tenant*	$20
	3	Levelling and filling section of the boundary road *	$15
2022	**TOTAL**		**$135**
2023	1	New Hangers Supply erect and lease out hangers for future airport income	$100
	2	Upgrade of Airport Terminal carpark lighting	$20
	3	Establishment of GA Parking Area Lighting and Boom gates*	$450
	4	Airside security fencing extension for runway extension *	$161
	5	Infrastructure extensions to commercial sites*	$89
	6	Aerodrome perimeter road upgrade*	$375
	7	New Saumarez Road & highway intersection *	$1,078
	8	Airport Terminal Carpark upgrade*	$1,125
	9	Airside perimeter road extension*	$282
2023	**TOTAL**		**$3,680**
2024	1	Establishment of bollards across Airport Terminal facade*	$120
	2	Loop apron edge taxiway to expanded apron*	$240
	3	Helipad for visiting helicopters & service road*	$250
	4	Airport Terminal Carpark upgrade *	$1,125
	5	Airside perimeter road extension*	$282
	6	Second stage extension to RPT apron with drainage, apron lighting, markings *	$300
2024	**TOTAL**		**$2,317**
2025	1	New Security Screening equipment - upgraded every five years*	$200
	2	Café expansion area - expanding the sterile area to include the cafe*	$200
	3	Relocate Aero Club*	$537
	4	Establishment of ARC owned hangar 30x30 for GA Rental *	$375
	5	Second stage extension to RPT apron with drainage, apron lighting, markings *	$300
	6	Second stage extension to RPT apron with drainage, apron lighting, markings,*	$300
	7	Expand passenger terminal 2 *	$1,320
2025	**TOTAL**		**$3,232**
2026	1	New Carpark - Scope of Works & location TBC - Required to facilitate New Runway & future increases in passenger numbers *	$1,128
	2	Establishment of ARC owned hangar 30x30 for GA Rental*	$375
	3	Expand passenger terminal 2*	$1,320
2026	**TOTAL**		**$2,823**
2027	1	Airport New Terminal Replace Roller Shutters on Café Area*	$27
	2	Expand passenger terminal 2 *	$1,320
	3	Provide RESA at both runway ends*	$670
	4	New Carpark - Scope of Works & location TBC - Required to facilitate New Runway & future increases in passenger numbers *	$1,128
2027	**TOTAL**		**$3,145**
2028	1	*Code A service taxi lane*	$81
	2	*Expand passenger terminal 2*	$1,320

YEAR	ITEM	PROJECT DESCRIPTION	ESTIMATE '000
	3	*Upgrade engineering services*	$389
	4	*Infrastructure extensions to commercial sites*	$94
	5	*Provide RESA at both runway ends*	$670
	6	New Carpark - Scope of Works & location TBC - Required to facilitate New Runway & future increases in passenger numbers *	$1,128
2028	**TOTAL**		**$3,682**
		Nil	
2029	**TOTAL**		**$0**
2030	1	Upgrade car park and terminal access road system *	$603
2030	**TOTAL**		**$603**
2031	1	Extend Code C parallel taxiway to full length (Stage 1/4) *	$1,085
	2	New runway (90 million) *	$90,000
2031	**TOTAL**		**$91,085**

*Note: Potentially grant funded. Not included in the LTFP.

10.3 Appendix C - Renewal Project Summary

YEAR	ITEM	PROJECT DESCRIPTION	ESTIMATE
2022	1	Asphalt Overlay Main Runway	$750,000
	2	Replace Secondary Windsocks	$30,000
	3	Apron floor lights requires repair due to compliance OLS issues*	$30,000
2022	**TOTAL**		**$810,000**
2023	1	Bay 4 Main Apron works to rectify non-conformance	$138,000
	2	RE coat Fuel resistant coating on A/C Parking Bays	$35,000
	3	Mower/Gardening Equipment Replacement	$25,000
	4	Airside Works Stage 1 PJ 272024 – Co contribution funding*	$726,000
2023	**TOTAL**		**$924,000**
2024	1	Airport Toilet Upgrade	$23,000
	2	Bay 4 Main Apron works to rectify non-conformances	$328,000
	3	Levelling and filling of SE section of aerodrome	$175,000
2024	**TOTAL**		**$526,000**
2025	1	Bay 4 Main Apron Works to rectify non-conformances	$338,000
	2	Levelling and filling of SE section of aerodrome	$200,000
2025	**TOTAL**		**$538,000**
2026	1	Airport Apron Flood Lighting - 61644	$25,000
	2	Bay 4 main Apron works to rectify non-conformances	$513,000
	3	Airport Effluent Disposal - 61636	$26,000
2026	**TOTAL**		**$564,000**
2027	1	Bay 4 Apron works to rectify non-conformances	$560,000
	2	Code A service taxi lane	$81,000
2027	**TOTAL**		**$641,000**
2028	1	Airport New Terminal Replace Roller Shutters in Café area	$27,000
	2	Airport New Terminal Painting	$60,000
	3	Airport Apron - 61635	$441,000
	4	Airport Street Lighting to Carpark - 61638	$51,000
2028	**TOTAL**		**$579,000**
2029	1	Airport New Terminal Painting	$60,000
	2	Airport Runway & taxiways - 61637	$603,000
2029	**TOTAL**		**$663,000**
2030	1	Airport Runway & Taxiways - 616637	$603,000
2030	**TOTAL**		**$603,000**
2031	1	Renewal allocation	$633,000
2031	**TOTAL**		**$633,000**

*Note: Potentially grant funded. Not included in the LTFP.

10.4 Appendix D - Disposal Summary

Equipment forecast for disposal in LTFP 2022-2032 – due to obsolescence and end of life.

Table E3 – Disposal Activity Summary

YEAR	DISPOSAL FORECAST	DISPOSAL BUDGET
2022-2023	$ 150,000	$150,000