Stormwater 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
June 2022	ARC - Urban SW Draft finalised	N/A
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 stormwater (SW) 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 stormwater services. The urban and rural stormwater infrastructure network comprise of:

- Urban and Rural SW pipes,
- Channels – over land flow paths,
- Gross Pollution Traps (GPTs),
- Pits, and
- Urban and Rural Culverts.

The above infrastructure assets have replacement value estimated at $172.8 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 both operations, maintenance and capital expenditure.

Council is not generating enough income to invest in its infrastructure. If it does not 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, reducing maintenance and renewals of stormwater pipes. The main service consequences for Council's infrastructure assets from 2023/24 will be: [1]

- The deterioration of the SW network and future expenditure required for relining pipes to bring the pipe network conditions back to acceptable levels,
- Possible stormwater failure and unplanned emergency capital expenditure,
- Inability to install new infrastructure at identified areas of need,
- Risk to property,
- Additional expenditure requirements to assess the condition of the network, and
- A larger backlog of unresolved SW issues and complaints, more than what is currently registered in our customer register system.

1.4 Future Demand

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

- Community growth aspirations,
- Land subdivisions, urban infill and land use changes,
- Climate Change – increased rainfall events and storms,
- Increasing environmental awareness and possible industry regulation changes,
- Council financial sustainability,
- Regulations and legislation changes, and
- Identify past failures for SW infrastructure delivery (e.g. Guyra).

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, such as:

- Upgrades to SW mains and services to meet increased flows from land subdivisions, urban infill and land use changes,
- Develop SW drainage strategies to determine pipeline upgrade/renewals,
- Installations of new GPTs to capture debris and rubbish before they can enter local streams and tributaries,
- Planning control measures to encourage on-site retention and detention of stormwater in new subdivisions,
- Review of Levels of Service (LoS) and/or capital upgrade/new asset expenditures,
- Increased CCTV condition assessments of stormwater pipe networks to better understand the state of the stormwater network needing inspection,
- Prioritised CCTV assessment of critical infrastructure with higher impacts, at risk of asset failure i.e. larger catchments and pipe diameter, and

[1] From Resourcing Strategy, p 65.

- Seek funding to investigate the risks of flooding and SW capacity against defined LoS such as a 50 year average recurrence interval.

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 stormwater asset class is estimated as $21.5 million or $2.1 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 $19.8 million or $2 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 92% 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 LTFP 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 stormwater assets leaves a shortfall of $170,000 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 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

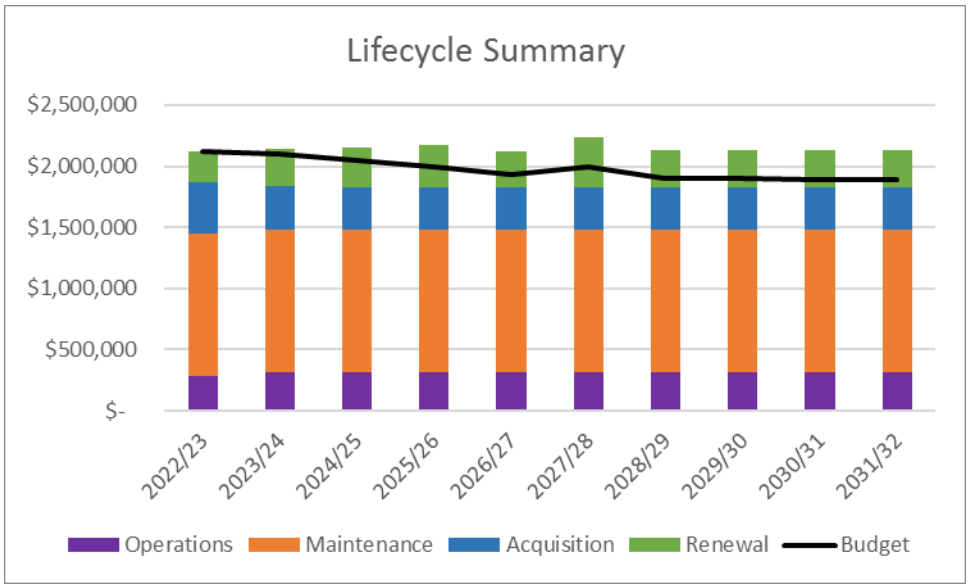


Figure values are in 2022 dollar value.

Council provides stormwater asset services for the following: operations, maintenance, renewal and acquisition of Urban SW pipes, overland flow channels, GPTs and Pits as well as drainage and culverts to meet service levels set by Council in annual budgets.

1.6.2 Summary of major renewal/acquisition within the 10 planning period

- In the LTFP 2022-2032 there is a large backlog of required stormwater pipe renewal works for relining. These are relining works that were identified through a Wincam CCTV SW network survey in 2018 with an estimated value of US$1.3 million.
- Other major program of works is the Stormwater Improvements Program. This program includes works that require renewal, upgrades and new installations. These works aims for 40% renewal and 60% acquisition of new or upgraded infrastructure. The list of prioritised works includes unresolved and ongoing service complaints, internal nominations, uncompleted projects or staged works and works identified in a Local Government Engineering Services (LEGS) 2005 Guyra Drainage Study. The listed and prioritised works have been distributed over seven financial years from 2024 to 2030 to allow them to be sustainably delivered. The estimates may not reflect current market prices and works may have been undervalued.
- A program of identified new GPTs has also been included in this AMP. This will deliver over $1.1 million in new GPTs over the next 10 years capital budget. This provides for adequate design, planning and construction periods. This program aligns with the Community Plan 2022-2032.

1.6.3 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]:

- The backlog of required stormwater pipe relining in the timeframe outlined within the Plan. Re-lining or replacing pipes is needed at the end of their expected useful life to avoid failures,
- Planning to identify and prioritise upgrades to address capacity and local flooding issues across the region (many areas face problems),
- The backlog of required asset renewal and acquisition works under the Stormwater Improvements Program in the timeframe outlined within the plan,
- Resolve the ongoing and arising complaints and issues in reasonable timeframes to improve our relationship and maintain our integrity with the community, and
- Mitigate the flooding and SW flow risks on assets and property from extreme rainfall events.

[2] From Resourcing Strategy, p 65.

1.6.4 Managing the risks

If a permanent SRV of 50% is not achieved over three years commencing in 2023/24 financial year, the asset risks would not be mitigated in the medium term.

The main risk consequences are:

- Property inundation and/or damage from uncontrolled SW flow paths or failed asset infrastructure,
- Major asset failures resulting in unplanned and urgent required expenditure,
- Council reputation from ongoing unresolved issues and complaints,
- Damage to other asset infrastructure, and
- Rising maintenance and operations costs from new acquisitions.

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

- Commit to the investigation and design expenditure required to address the backlog of stormwater complaints and issues,
- Seek external funding where available and applicable to support the resolution of SW complaints and issues,
- Consider and investigate the potential upgrade requirements of stormwater pipe sizes when relining or replacing these assets,
- Establishing an asset management inspection regime including condition and capacity assessment processes,
- Develop the asset register and SW asset data to understand the true state of these assets and the associated risks to Council, and
- Develop SW drainage strategies to determine pipe upgrades renewals.

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,
- That the Capital Stormwater Improvements Program expenditure aims for 60% acquisition and 40% renewal. This figure was based on the estimates provided by the Design Coordinator for the SW Improvements Program,
- That the LTFP estimates are accurate and based on current market prices. Rising inflation will substantially impact scoped costs,
- That Council can manage the delivery of the programs with internal and external resources,
- That the current maintenance and operations budgets are appropriate to maintain current service levels, and

- There may be financial risks associated with scoped costs estimated from low confidence level asset data records.

Assets requiring renewal were identified using the Alternate Method. An estimate of renewal lifecycle costs was projected from external condition modelling systems and supplemented with, or based on, expert knowledge. The Alternate Method was used to forecast the renewal lifecycle costs for this AMP.

Council's asset registers are incomplete and do not have record of acquisition or construction dates so asset age cannot be determined. Life expectancy cannot be used to estimate renewals across the network.

This AMP is based on a low level of confidence and SW assets condition data. There are no current pipe network capacity engineering reports.

1.8 Monitoring and Improvement Program

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

- A Levels of Service 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. Once this asset register is developed it can be used to inform the next LTFP cycle and 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 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,
- Develop new stormwater assets register through our GIS data and previous registers and establish one single source of information going forward,
- Develop and implement a schedule and allocate a budget to assess the SW network for condition and capacity,
- Develop a formal process for SW acceptance from the Development/Planning team on new SW assets and values. Establish processes for accurate collection and registry of asset data from urban and rural development stormwater acquisition,
- Change work order creation to split operation and maintenance expenditure so the actuals of SW network maintenance can be determined,
- Recommend finance department to split urban and rural drainage budgets so rural drainage can be charged to the road formation and claimed via Roads to Recovery funding. Benefits include better opportunities for funding and easier OSE reconciliation,
- Re-establish a program for bi-annual CCTV review of critical stormwater infrastructure which were not previously CCTV assessed and condition rated,
- Establish and adopt internal processes for the handover of created assets with the required asset register data and financial information, and
- Develop SW drainage strategies to determine pipeline upgrades/renewals.

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,
- ARC Creeklands Master Plan 2018,
- LEGS – Drainage Study Guyra 2005,
- Armidale Drainage Capacity Study 1996,
- 10 Year LTFP Roads Summary,
- 10 year forward works Program for Roads Infrastructure, and
- The Strategic Asset Management Plan (SAMP).

Council has not invested in and prioritised asset management performance over the last six years since the amalgamation in 2016. This is attributed to:

- Management priorities did not include the establishment of best practice asset management,
- High staff turnover across the asset sector and the organisation,
- Inadequate investment in staff professional development or systems training, management and upkeep of the asset register and financial system, and
- Lack of adopted and enforced asset management practise across the organisation.

Council is currently in the process of developing its asset management strategies and policies in line with ISO 55000 International Standards, IPWEA best practice guidelines and the International Infrastructure Management Manual 2020.

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 stormwater assets, which are used to provide stormwater services. The infrastructure assets included in this plan have a total replacement value of $172 million.

Current main issues with the stormwater asset class are that:

- Large amount of listed and required renewal and acquisition works due to condition, complaints, design issues and strategic assessment,
- Multiple sources of information that are not aligned and accurate across the organisation with low confidence in current condition data,
- Lack of consistent AM processes within the organisation,
- Lack of current SW strategy studies, and
- SW customer service area has 51 enquiries relating to SW issues, 38 of which remain unresolved.

This AMP communicates the requirements for the sustainable delivery of services through management of assets, compliance with regulatory requirements, and funding to provide the appropriate levels of service over the 10 year planning period.

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, • 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 (stormwater included) in annual delivery of M&R as well as capitol 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,

KEY STAKEHOLDERS	ROLE IN AMP
	• Deals with customer complaints.
Outdoor crews (including team leaders	• Operation and Maintenance management to meet agreed levels of service, • Highlight issues requiring attention of senior management, • Provide updates back to assets team on status of works.
Asset Officers	• Develop AMPs, • Provide input and support implementation of this AMP, • Support and implement Council's strategic directions.
GIS and IT teams	• 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, • Display of geographic information, • Maintenance of corporate software, • Financial accounting for assets.
Community	• Beneficiaries of the service, • Be aware of service levels and costs, • Participate in consultation processes, • Provide feedback on services.
State and Federal Government	• Promote Best Practice Asset management, • Recognising the importance of LGA Assets to the community and provide funding and other assistance to sustain.

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 the 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, and
- Asset management improvement plan – how we increase asset management maturity.

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

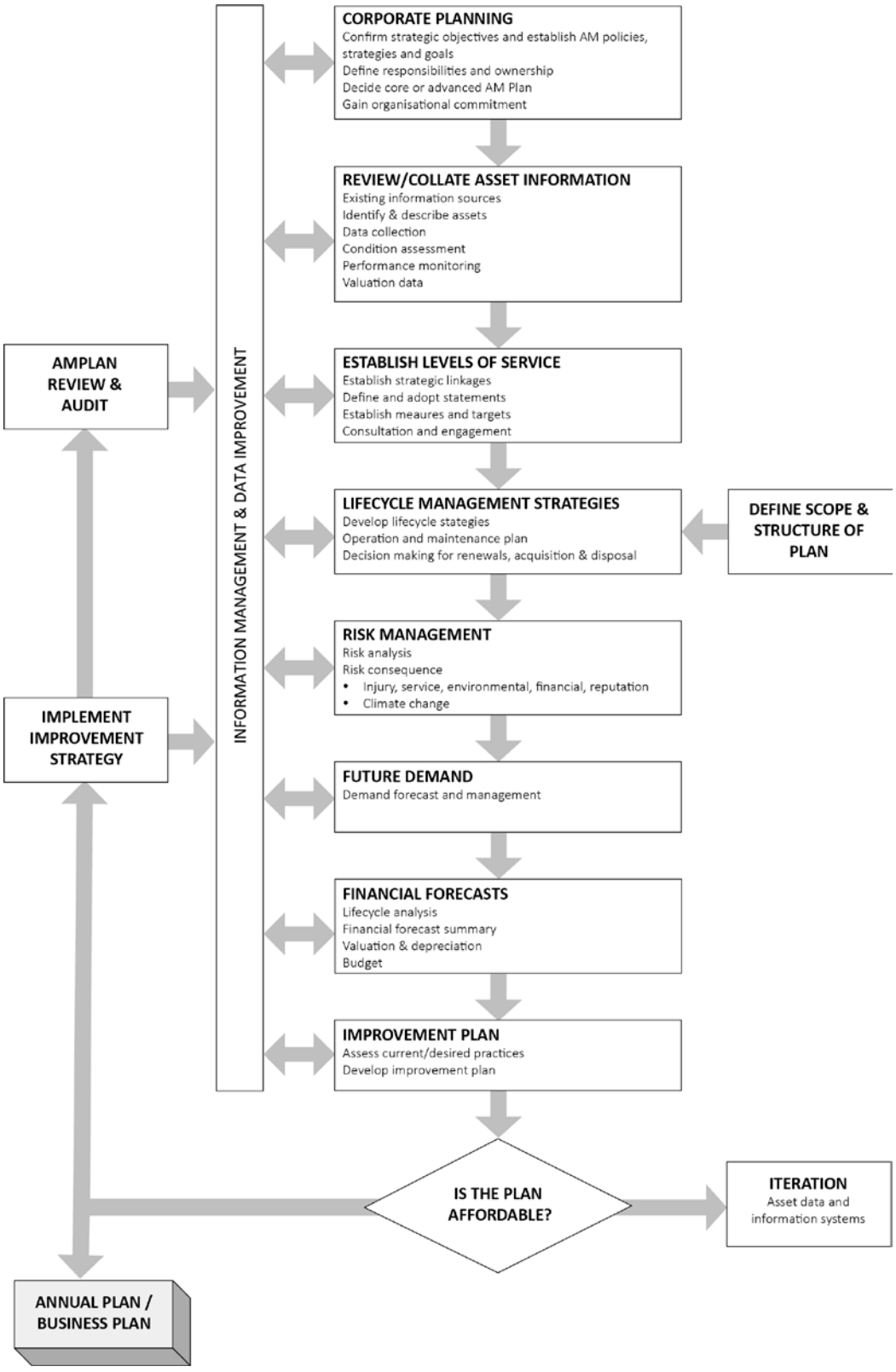
- International Infrastructure Management Manual 2015[3]
- ISO 55000[4]

[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

Levels of service are inherently set when the urban and rural drainage operational, maintenance and capital budgets are approved each financial year.

According to our customer service records since 2021 we have had 27 customer enquiries relating to drainage blockages, 6 of which are enquiries that currently remained open. There are also 51 enquiries relating to stormwater issues, 38 of which remain under investigation.

From the number of unresolved issues under customer service logs and other unresolved issues listed under the stormwater improvements plan, it could be inferred that Council has adopted a medium to low level of service in the stormwater asset area. However, some of these are compliance related issues where Council is not at fault but needs to facilitate resolution of responsibility under statutory regulations i.e. Local Government Act and Environmental Protection Act. These community complaints are referred to Council's development engineer who does not have time nor the resources to resolve or delegate responsibility to attend to these complaints appropriately. The situation has been discussed with the executive leadership team and recommended for consideration in the organisational restructure.

The Guyra area, in particular, has a number of ongoing stormwater issues needing resolution by Council. Some of these issues were identified in the LEGS Guyra drainage study in 2005 and others have come from new complaints and reported issues.

Community perceived service levels for stormwater relate to rainfall events and Council has invariably received more complaints and reports during the heavy rainfall events in the last two financial years.

Management plays an important role in ensuring Council delivers the agreed levels of service to the community by allocating budget that is 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. The design team is also investigating issues and risks, designing solutions, costings, prioritising the listed projects and ensuring we have appropriate levels of technical skill in critical roles both in the office and field to deliver to levels of service expectations.

In order to assess and understand the condition of our urban and rural stormwater assets Council needs to conduct regular CCTV asset surveillance inspections of SW pipes, rural culvert inspections and importantly, on those critical assets considered high risk due to their location under buildings or infrastructure. Renewal of those assets previously assessed as in condition level 5 (very poor) and understanding the condition of the rest of the network will be critical to sustain required levels of service and future planning.

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.

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		
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		

GOALS	AM OBJECTIVES	HOW GOALS AND OBJECTIVES ARE ADDRESSED IN THE AMP
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 stormwater services are outlined in Table 3.3.

Table 3.3: Legislative Requirements

LEGISLATION	REQUIREMENT
NATIONAL	
Local Government Act 1993	• Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
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.
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.

LEGISLATION	REQUIREMENT
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.
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.
Water Management Act 2000	• Provides for the sustainable and integrated management of water sources for the State for the benefit of both present and future generation, • Apply the principles of ecologically sustainable development to protect, enhance and restore water sources, their associated ecosystems, ecological processes, biological diversity and water quality, • Recognises and foster the significant social and economic benefits to the State that result from a sustainable and efficient use of water, including benefits to the environment, urban communities, agriculture, fisheries, industry, recreation, culture and heritage, and

LEGISLATION	REQUIREMENT
	benefits to the Aboriginal people in relation to their spiritual, customary and economic use of land and water, • Recognises the role of the community, as a partner with government, in resolving issues relating to the management of water sources, to provide for the orderly, efficient and equitable sharing of water from water sources, • Integrates the management of water sources with the management of other aspects of the environment , including the land its soil, it's native vegetation and its native fauna, • Encourages the sharing of responsibility and efficient use of water between the Government and water users, to encourage best practise in the management and use of water.
Plumbing and Drainage Act 2011 No 59	• Regulates certain plumbing and drainage work and to establish a single regulator for that work, and for related purposes.
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
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.

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?

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

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

The Customer Levels of Service Measures presented in Table 3.5 are currently in draft form and will be updated once a new framework has been adopted. Levels of Service Framework is currently an improvement action for Council.

Table 3.5: Customer Level of Service Measures[5]

TYPE OF MEASURE	LEVEL OF SERVICE	PERFORMANCE MEASURE	CURRENT PERFORMANCE	EXPECTED TREND BASED ON PLANNED BUDGET
Condition	Our stormwater pipe assets are CCTV assessed. Based on an industry standard method for a 1-5 applied condition rating.	Look to maintain condition scores of 4 (poor) and below. Assess % of condition ratings.	ARC need to improve the asset data and increase the range of CCTV valuation for an accurate understanding of current performance. It is estimated that we only have current condition data on a quarter of the asset network.	The expected trend would be that once we CCTV survey further SW asset we will discover more pipes as condition 5 (very poor) in need of renewal.
	Confidence levels		Low *Professional judgement supported by data sampling*	Medium *Professional judgement supported by data sampling*
Function	SW assets have sufficient type, structure and capacity to meet intended use.	Assets that are fit for purpose.	Current assets are functional in terms of their intended use. However, this is based on professional judgement rather than accurate data.	Current assets will continue to provide their function, but if we do not meet the predicted increases from the Australian Rainwater Regulation (ARR) 2019, a portion of our assets will likely fail.
	Confidence levels		Low *Professional Judgement with no data evidence*	Medium to Low *Professional judgement supported by data sampling*
Capacity	Stormwater design and network capacity provides protection to property and infrastructure.	Current numbers of unresolved SW issues and complaints where SW capacity is not sufficient, design is inadequate or safety issues are present.	Our performance is low in resolving and constructing solutions to these issues.	With current shortfalls in required budgets, limited design budget and external staff resources, it is not expected that ARC will be able to resolve these issues. These will continue to be an ongoing source of conflict and complaints in the community at an accelerated rate.
	Confidence levels		Low *Professional Judgement supported by extensive data sampling*	Low *Professional Judgement supported by extensive data sampling*

[5] Yet to be adopted by Council. Presented here for the purposes of the 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. replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. installation of new pipes)
- **Operation** – the regular activities to provide services (e.g. mowing grass, 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. pipeline repairs)
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally provided (e.g. pipeline replacement).

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[6]

LIFECYCLE ACTIVITY	PURPOSE OF ACTIVITY	ACTIVITY MEASURE	CURRENT PERFORMANCE*	RECOMMENDED PERFORMANCE **
Acquisition/ Upgrades	To meet development and community requirements, to protect the environment and property	Stormwater master plan, SW issues resolution and development of driving upgrades	Current performance would be low considering the backlogs of SW issues needing resolution	Acquisitions planned as per this AMP would aim to resolve this backlog of SW issues within 10 FY's.
		Future Upgrades assessed as a part of ARR 2019	There is currently no budget for any immediate pipe size upgrades. These will be considered on a case by case basis in consultation with design department	Use next financial year operational budget to engage a water consultant engineer to make a plan to align ARC's SW assets with the ARR 2019 and its recommendations
		Budget	*As per Planned Budget for Acquisition*	*As per Forecast Cost for Acquisition*

[6] Yet to be adopted by Council. Presented here for the purposes of the AMP.

LIFECYCLE ACTIVITY	PURPOSE OF ACTIVITY	ACTIVITY MEASURE	CURRENT PERFORMANCE*	RECOMMENDED PERFORMANCE **
Operation	To support service levels, keep the town and waterways clean and unpolluted, ensure open drains and pipes can function effectively, assess defects and maintenance requirements	Scheduled cleaning and inspections of GPT's, mowing and cleaning of open drains, scheduled stormwater inspections of mains, scheduled inspections and reporting of infrastructure assets	We can achieve the current activity measures under the operations funding	There are no plans to increase funding for the operation budget. Only that the O&M budgets should be split clearly within work orders to monitor the true costs moving forward
		Budget	*As per Planned Budget for Operation*	*As per Forecast Cost for Operation*
Maintenance	To maintain and repair the SW network ensuring that assets reach their expected useful lives	Scheduled inspections, reporting and issuing of orders to carry out repairs and maintenance	We can achieve the current activity measures under the maintenance funding. It is unknown whether these costs will rise with low renewal rates in previous years.	There are no recommendations to increase funding for the maintenance budget. Only that the O&M budgets should be split clearly within work orders to monitor the true costs moving forward
		Budget	*As per Planned Budget for Maintenance*	*As per Forecast Cost for Maintenance*
Renewal	To plan, prioritise and action renewals on our assets to restore their installed function and capacity	10YRFP, CCTV SW pipe inspections, investigation and designs to solve SW issues, asset infrastructure inspections and reporting	What can currently be achieved under the budget will not reduce the backlog of required renewals and SW issues. Current funding will not be able to support these works over the 10YRFP period.	The recommended budget plans to deliver the estimated $1.3m for the backlog of condition 5 pipe relining renewals over the next ten years. It also plans to deliver the renewal component of the backlog of SW issues.
		Budget	*As per Planned Budget for Renewal*	*As per Forecast Cost for Renewal*

Note: * Current activities and costs (currently funded).

** Desired activities and costs to sustain current service levels and achieve minimum life cycle costs (not currently funded).

4. FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include things such as demographic change, regulations, seasonal factors, vehicle ownership rates, consumer preferences, 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[7]

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population	Estimated to be 29,484 as of June 2021	Increase jobs in the Armidale LGA by 4,000 by 2040.	As housing development increases Council will need to provide new or upgraded infrastructure to meet demand	Council input into SW development planning process.
Land Subdivision	Low rate	Housing growth is expected to be high in line with the job growth plan.	Higher O&M costs and more resources required. New or upgraded infrastructure to support capacity increases	Council will consider this growth in Future Resource and Operation strategies

[7] Yet to be adopted by Council. Presented here for the purposes of this AMP.

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Increased environmental awareness	Armidale Creeklands is in a poor environmental state	Armidale Creeklands Master Plan	Higher expectation for Council to ensure the state of the waterways. Increased O&M activities post creek lands development project. Increased resources in future years with installation of GPT infrastructure and Creeklands master plan SW assets	Manage and plan for increased O&M costs in the Public Open spaces. Continue working with and support local river care groups. Process new Creeklands project assets into public open space 10YRFP planning and AMPs. Drive and develop the community strategic plan environmental and infrastructure objectives
Industry study for SW	Strategy aligned with 1986 ARR	Current ARR 2019	Change in rainfall, intensity prediction, impact on size of infrastructure, climate change allowance.	Update strategy studies.

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. [8]

As a minimum we consider how to manage our existing assets given potential climate change impacts for our region. [9]

Risk and opportunities identified to date are shown in Table 4.5.1.

[8] IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure
[9] Council has yet to develop asset resilience strategies for its assets.

Table 4.5.1: 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	Predicted for more extreme weather events occur more frequently due to climate change variability	SW flows could exceed capacity and cause property inundation or damage and even risk of injury or death	Manage through acquisition of new SW pipes and capacity upgrades under acquisition and renewal budgets. Need to revisit outdated drainage study recommendations and revitalise pipework capacity by catchment based on today's climate and predictions. Investigate new construction techniques and options.
Temperature variation	Warmer summer and colder winters	Larger rainfall expected in Summer months as temperatures rise with climate change and less rainfall expected in winter	Review the outdated drainage studies for the Armidale LGA and align with ARR 2019. Include recommendations for future acquisition budget for capacity upgrades.

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.

Table 4.5.2 summarises some asset climate change resilience opportunities.

Table 4.5.2: Building Asset Resilience to Climate Change

NEW ASSET DESCRIPTION	CLIMATE CHANGE IMPACT ON THE ASSETS	BUILD RESILIENCE IN NEW WORKS
SW pipe capacity upgrades	High SW flows exceeding pipe capacity, potential pipe damage or movement.	Revisit and renew outdated drainage studies for today's climate predictions (ARR 2019). Consider these recommendations for an inclusion in future programs. Plan for a similar study of Guyra SW.
Infrastructure methods/techniques	Higher flows and impacts on all infrastructure.	Investigate new techniques and options such as channels, swales in place of subsurface pipe networks.

The impact of climate change on assets is a new and complex discussion. Resilience strategies are being developed and will be incorporated in future revisions of this AMP.

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 stormwater assets, such as channels, pits/GPTs, urban and rural pipes and culverts. It has a current replacement cost of $173 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 stormwater assets, are not available. Asset age profile cannot be provided for this AMP. Construction dates will need to be captured in a region-wide 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. 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
Guyra	There is a large number of outstanding SW issues in Guyra identified in the 2005 LEGS Drainage study and ongoing reports/complaints. Identified issues require investigation and design, construction of new SW assets and/or the renewal of current infrastructure. In addition, a new drainage study is required.
Armidale	Under the 1996 ADC drainage study there were several locations recommended for new pipes and pit upgrades. Need to revisit this study and align with ARR 2019 to consider these new SW pipes or upgrades in future budgets based on their criticality.
Armidale	Currently there are $1.3 million in listed SW pipes at condition rating 5 (very poor) required to be relined. Service deficiencies will become evident when these assets fail due to condition.

The above service deficiencies were identified from the stormwater 10 year financial plan work program.

These include the Pipe relining, Stormwater Improvements Programs and the SW pipe upgrade prioritised listings.

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 SW 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[10] 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.

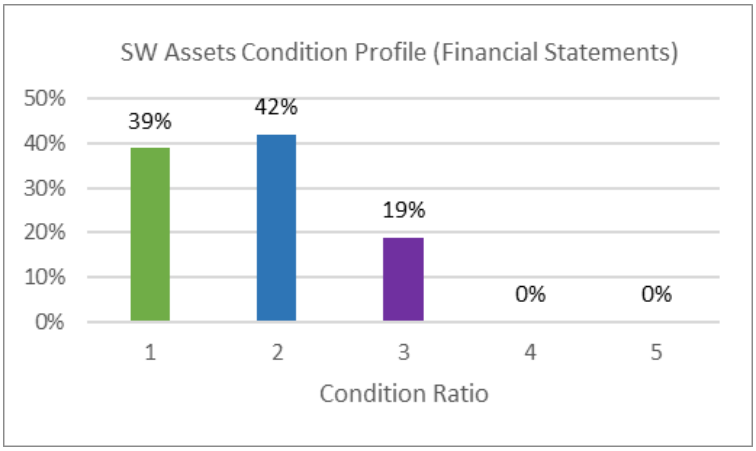
Table 5.1.4: Condition Grading System

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

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

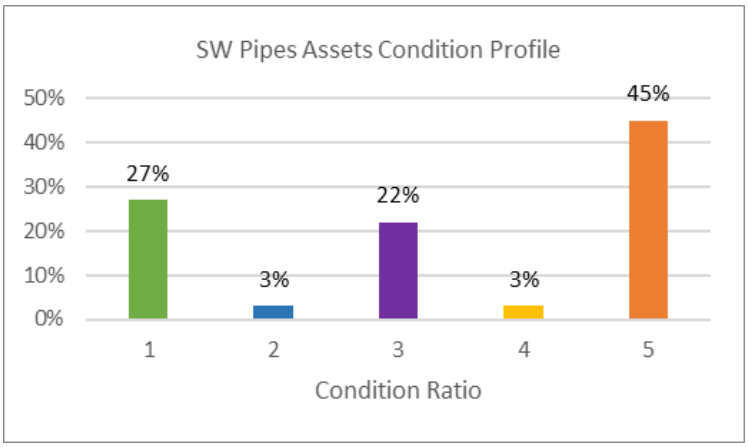
The condition of assets comprising all SW assets as reported in ARC's annual financial statements 2021 is shown in figure 5.1.4.1.

Figure 5.1.4.1: Stormwater network Condition Profile



Further CCTV condition assessment has been carried out for underground SW pipes assessing 30% of ARC's portfolio and the pipes condition profile is shown in figure 5.1.4.2. Note that results of this assessments will be incorporated in the financial statements year ending 2023.

Figure 5.1.4.2: SW Pipes Condition Profile



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.

The CCTV assessment reported 68 SW pipes in condition 5 requiring relining (45% of the pipes assessed). The CCTV assessment work has been put on hold since 2020/21 financial year due to financial constraints. If future CCTV assessments have a similar percentage in asset condition, the Council's SW relining backlog will increase significantly.

Once condition assessments are carried out, the condition profile on the financial statements will be updated.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include removal of waste and debris from inlets and ponding areas, mowing, weeding or pruning plants and minor sediment removal.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include pipe repairs, sub drain replacement and soil replacement.

The trend in maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Maintenance Budget Trends

YEAR	MAINTENANCE BUDGET
FY 2020-2021	$744,000
FY 2021-2022	$1,013,000
FY 2022-2023	$1,168,715

Maintenance budget levels are considered to be adequate 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.

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. However, SW have a service hierarchy, which is shown in Table 5.2.1.

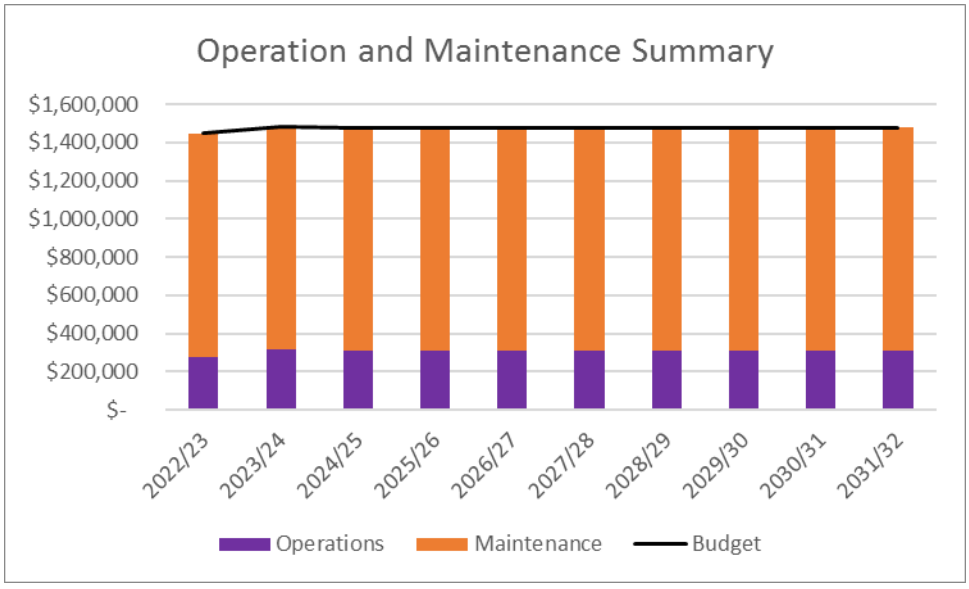
Table 5.2.1: Asset Service Hierarchy

SERVICE HIERARCHY	SERVICE LEVEL OBJECTIVE
1. SW Operations Activities	Ensure the SW assets are functioning effectively
2. SW Maintenance & Operations	Ensure that assets are maintained so extend their useful lives
3. SW Pipe Relining	Renew SW pipe assets to return them to their original condition and extend its useful life
4. SW Improvements	Develop design solutions. Acquire and renew SW assets to address identified SW issues, complaints and align with strategic directives
5. SW Pipe Upgrades	Document needs revision. Objective is to install and/or upgrade SW assets where opportunities arise to ensure they are fit for the purpose and gaps in infrastructure are addressed.

5.2.2 Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to change 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.

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
Drains	80 - 100 years
Channels	80 – 100 years
Pits	80 – 100 years
SW Urban pipes	100 - 120 years
Culverts	50 - 80 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. replacing a culvert that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a pipeline).

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. [11]

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

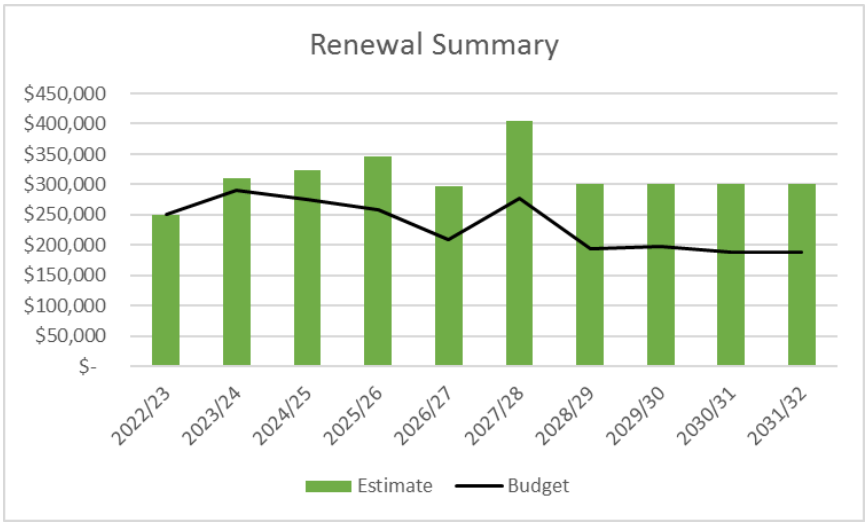
Table 5.3.1: Current Renewal Priority Ranking Criteria

CRITERIA	WEIGHTING
SW Pipe relining Program	
Condition	Priority listing 100%
Asset location criticality	Drives selection under budget restrictions 100%
SW Improvements Program	
Previously Adopted FWP Priorities	Priority Listing 100%
Capacity	Nil - Needs further work to formally adopt priorities and budget estimates

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.

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

Over the next 5 years, the budget is aimed at removing the backlog of SW pipe relining and SW Improvement projects. The renewal budget is aligned with the current 10 year LTFP budgets. Council needs to invest in the renewal of urban and rural SW to ensure the network functions effectively protect property and infrastructure and avoid the risk of asset failure. Council also needs to invest in further SW CCTV assessment to gain a better understanding of the SW pipe network condition.

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.

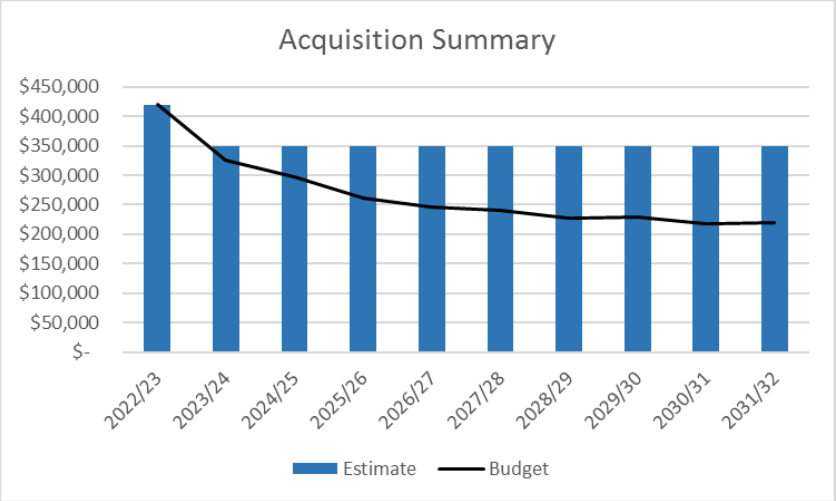
5.4.1 Selection criteria

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 community needs. Proposed upgrade and new work analysis should also include the development of a preliminary renewal estimates to ensure that the services are sustainable over the longer term. Council currently has a prioritised and estimated forward works program that includes acquisition of urban SW assets under the new GPTs and SW Improvement Programs. Council is looking into improving processes for prioritising SW acquisition projects.

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

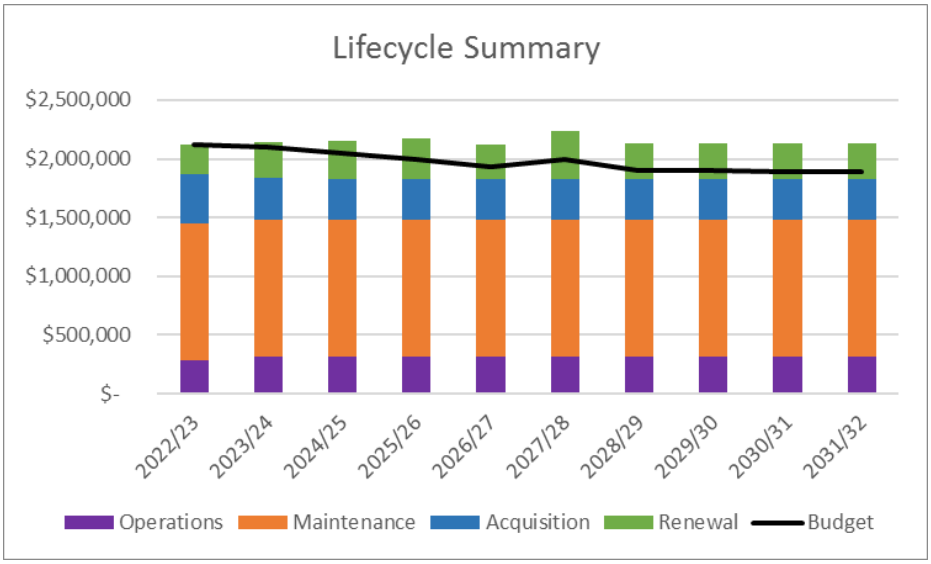
Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. There are no forecast disposals in LTFP 2022-2032 to be reported in this AMP.

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 5.6: 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 stormwater 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'.[12]

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 AND MAINTENANCE ACTIVITIES
SW pipe under Urban buildings or infrastructure	SW pipe breakages	Property or infrastructure damage, risk of major unplanned expenditure to council due to asset failure or damage
SW Inlets, pits	Become blocked with vegetation growth or debris	SW system not functioning properly. SW flows taking different paths creating dangerous road conditions or risk to property
SW pipe under road infrastructure	Flush joint pipe openings	Can create a venturi effect removing materials that support the road formation
Unresolved issues and complaints from insufficient capacity or function	SW function or capacity failure resulting in flooding	Dangerous road conditions, Property or infrastructure damage, council reputation

[12] ISO 31000:2009, p 2

CRITICAL ASSETS	CRITICAL FAILURE MODE	OPERATIONS AND MAINTENANCE ACTIVITIES
Rural Culverts and pipes	Culvert headwall collapse or failure of pipes under road joining culverts	Flood damage to road infrastructure and or private property

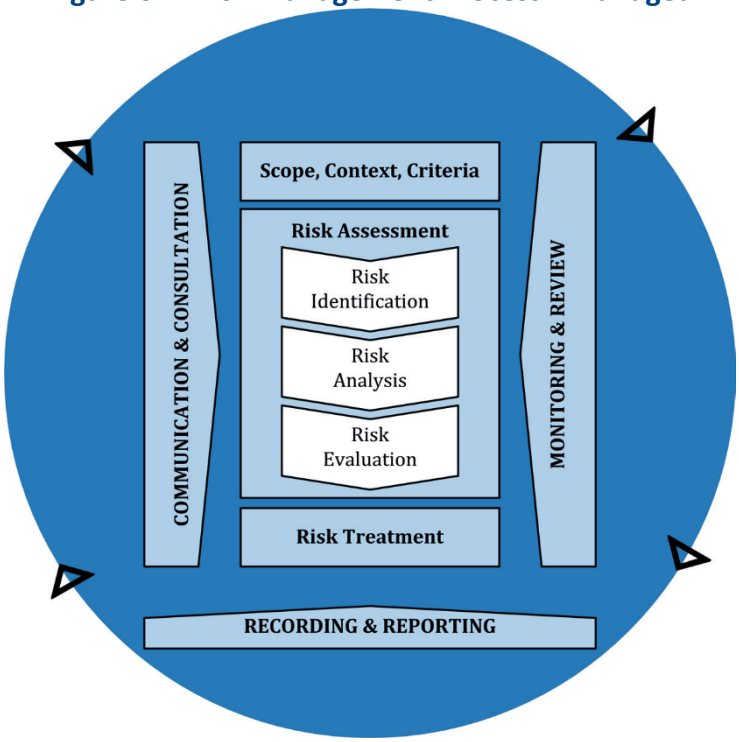
6.2 Risk Assessment

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. [13] 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.

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
SW network	Private property inundation or damage	H	SW Improvements program projects	L	$3,000,000
SW network	Private property inundation or damage	H	Review the 1996 ADC drainage study	M	$30,000
SW network	Private property inundation or damage	H	Complete new drainage capacity study of the Guyra area	M	$30,000
SW network	SW effecting the safety of road infrastructure	H	Redesign of SW issues effecting road assets	L	$500,000
SW network	SW effecting the safety of road infrastructure	H	Immediate road closure or water removal	L	$1,000
SW network	SW effecting the safety of road infrastructure	H	Warning signage	L	$200
SW network	Public Safety - injury or death	H	Ensure barriers are around dangerous entry points to SW channels or flow paths, release community warnings, install extra warning signage during high flows	L	$4,000
SW network	Public Safety - injury or death	H	Provide education to the community on SW flow dangers and precautions	L	$5,000

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

SERVICE OR ASSET AT RISK	WHAT CAN HAPPEN	RISK RATING (VH, H)	RISK TREATMENT PLAN	RESIDUAL RISK *	TREATMENT COSTS
SW network	Toxic chemical pollutants entering waterways	H	Carry out periodic sampling for chemical pollutants	M	$15,000
SW network	Toxic chemical pollutants entering waterways	H	Reactive sampling in response to pollution reports, fish kills or spills	M	$15,000
SW network	Toxic chemical pollutants entering waterways	H	Warning signage or media releases on pollution levels	L	$10,000
SW network	Damage to council infrastructure	H	SW Improvements program	L	$3,000,000
SW network	Damage to council infrastructure	H	SW pipe relining	L	$1,300,000
SW network	Damage to council infrastructure	H	CCTV assessment of critical SW Assets	L	$200,000
SW mainlines under roads	Catastrophic asset failure - underlying roads materials sucked away via a venturi effect	H	CCTV assessment of SW mains with flush joints	M	$50,000
SW mainlines under roads	Catastrophic asset failure - underlying roads materials sucked away via a venturi effect	H	Roads asset inspections	M	$1,000 per location
Capital Program budgets	Current Capex estimates are low due to cost inflation in the current market	H	Biannual reviews of capex budgets, estimate reviews before projects meet the NFY programs	L	$3,000
SW network	Insufficient capacity	M	Capacity assessments across our LGA	L	$60,000

SERVICE OR ASSET AT RISK	WHAT CAN HAPPEN	RISK RATING (VH, H)	RISK TREATMENT PLAN	RESIDUAL RISK *	TREATMENT COSTS
SW network	Lack of condition assessment	H	Assess the condition of pipes without current condition data. We cannot rely on age method as not recorded	M	$75,000

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.

Our current measure of resilience is shown in Table 6.3 which includes the type of threats and hazards and the current measures that the organisation takes to ensure service delivery resilience.

Table 6.3: Resilience Assessment

THREAT / HAZARD	ASSESSMENT METHOD	CURRENT RESILIENCE APPROACH
Climate Change	Drainage Capacity studies	Low – needs revision for today's climate and future predictions (ARR 2019). Also needs a new study carried out for Guyra and villages across the Armidale LGA
SW programs - Delivery Resources	Council's Resourcing Strategy	Medium – needs further development of Council's capacity to meet requirements of future programs

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:

- The backlog of required stormwater pipe relining in the timeframe outlined within the Plan. Re-lining or replacing pipes is needed at the end of their expected useful life to avoid failures,
- Planning to identify and prioritise upgrades to address capacity and local flooding issues across the region,
- The backlog of required asset renewal and acquisition works under the Stormwater Improvements Program in the timeframe outlined within the plan,
- Resolve the ongoing and arising complaints and issues in reasonable timeframes to improve our relationship and maintain our integrity with the community, and
- Mitigate the flooding risks on assets from extreme rainfall events.

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. These service consequences include:

- Longer delays and timeframes in the resolution of SW issues and complaints,
- With low resources – i.e. Only 1 current drainage truck we cannot always unblock and ensure SW function within efficient timeframes and to an agreed LoS,
- We are having issues with vegetation growing in channels, pits and side entry pits. Without adequate resources, vegetation cannot be removed and maintained effectively to ensure current SW levels of service,
- ARC design resources are currently under resourced to investigate, design and cost the ongoing resolution of SW issues and complaints in time for program delivery due to competition with other organisation design priorities, and
- Further deterioration of asset conditions levels and increased risk of asset failure.

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:

- Insufficient SW capacity and function causing private property inundation/damage, council infrastructure damage or road safety issues,
- Capacity or function failure of current SW network systems due to blocked or overgrown vegetation. Risk of property inundation or damage, council infrastructure damage or road safety issues,
- Risk of council exposure to litigation due to SW property inundation or damage or a road accident involving SW possibly due to insufficient overland flow paths and building elevation,

- Council reputational damage due to delays and lack of action in resolving SW issues and complaints, and
- Local waterways pollution damaging the local ecology or the community's health.

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 $21.5 million, while the budget for the same period is $19.8 million. This creates a shortfall of $1.7 million over the 10 year planning period. This indicates that 92% 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	$420,000	$279,000	$1,168,715	$250,000	$ 2,117,715
2023	$350,000	$314,000	$1,168,715	$311,000	$ 2,143,715
2024	$350,000	$310,000	$1,168,715	$323,000	$ 2,151,715
2025	$350,000	$310,000	$1,168,715	$347,000	$ 2,175,715
2026	$350,000	$310,000	$1,168,715	$297,000	$ 2,125,715
2027	$350,000	$310,000	$1,168,715	$404,000	$ 2,232,715
2028	$350,000	$310,000	$1,168,715	$300,000	$ 2,128,715
2029	$350,000	$310,000	$1,168,715	$300,000	$ 2,128,715
2030	$350,000	$310,000	$1,168,715	$300,000	$ 2,128,715
2031	$350,000	$310,000	$1,168,715	$300,000	$ 2,128,715
TOTALS	**$3,570,000**	**$3,073,000**	**$11,687,150**	**$3,132,000**	**$21,462,150**

Forecast costs are shown in current day dollar value.

7.2 Funding Strategy

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

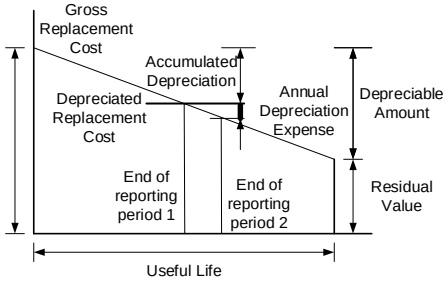
The financial strategy of the entity determines how funding will be provided, whereas the AMP communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

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)	$172,756,000
Depreciable Amount	$118,658,000
Depreciated Replacement Cost [14]	$54,098,000
Depreciation	$646,000



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 and compliant service levels required,
- Budgets have been allocated based on the best available data on assets,
- That the Capital Stormwater Improvements Program expenditure aims for 60% acquisition and 40% renewal. This figure was based on the estimates provided by the Design Coordinator for the SW Improvements Program,
- That the LTFP estimates are accurate and based on current market prices. Rising inflation will substantially impact scoped costs,
- That Council can manage the delivery of the programs with internal and external resources,
- That the current maintenance and operations budgets are appropriate to maintain current service levels, and

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

- There may be financial risks associated with scoped costs estimated from low confidence level asset data records.

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[15] 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	D	Difficult to assess the future impact of demand drivers but this needs to be considered in forecasts.
Growth projections	C	Growth projections considered medium confidence.
Acquisition forecast	C	Based on 10YRFP listed acquisitions and professional judgement.
Operation forecast	C	The operation forecast is based on assumption that current budgets are sufficient to maintain current service levels. Forecast also takes into account increases arising from acquisition of new assets.
Maintenance forecast	C	The maintenance forecast is based on assumption that our current budgets are sufficient to maintain current service levels.
Renewal forecast - Asset values	B	Data is based on 10YRFP listed and required renewal works, however the percentage of the network with current condition info is low.
- Asset useful lives	C	Based on revaluation data for asset useful lives.

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

DATA	CONFIDENCE ASSESSMENT	COMMENT
Condition modelling	C	Medium confidence in the current data. Only a 30% of the SW network has been CCTV assessed and condition rated.
Capacity modelling	D	Armidale area needs need to be reviewed. Guyra area and villages needs investigated to understand flooding and catchments risks.

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[16]

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	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
4	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	Chief Officer Corporate and Community	Finance and corporate management	2022-24

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

#	TASKS	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
	inventory of assets. Incorporate in next AMP update.			
5	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
6	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.	Finance and corporate management	Finance and corporate management	2022-24
7	Update Asset Management Policy and establish AM Framework. Incorporate in next AMP update.	Assets	Assets, finance and corporate management	2022-24
8	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
9	Establish standard asset management planning processes across the organisation to ensure consistency in the information generated within each department.	Assets, finance and corporate management	Assets, finance and corporate management	2022-24
10	Carry out customer satisfaction surveys to inform the development of levels of service performance measured by Council.	Communications	Assets and corporate management	2022-24
11	Establish a single process to assess the condition and monitor the performance of assets. These will be used to plan investments in the LTFP and future iterations of this AMP.	Transport Manager, assets	Assets and finance	2022-24
12	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	Assets, finance and corporate management	Assets, finance and corporate management	2022-24

#	TASKS	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
	and incorporate in the next iteration of this AMP.			
13	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

STORMWATER
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	$ 279,000	$ 314,000	$ 310,000	$ 310,000	$ 310,000	$ 310,000	$ 310,000	$ 310,000	$ 310,000	$ 310,000	$ 3,073,000
Maintenance	$ 1,168,715	$1,168,715	$1,168,715	$1,168,715	$1,168,715	$1,168,715	$1,168,715	$1,168,715	$1,168,715	$1,168,715	$11,687,150
Sub-total Operations & Maintenance	$ 1,447,715	$1,482,715	$1,478,715	$1,478,715	$1,478,715	$1,478,715	$1,478,715	$1,478,715	$1,478,715	$1,478,715	$14,760,150
RENEWALS											
All stormwater assets	$ 250,000	$ 311,000	$ 323,000	$ 347,000	$ 297,000	$ 404,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 3,132,000
Sub-total Renewals	$ 250,000	$ 311,000	$ 323,000	$ 347,000	$ 297,000	$ 404,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 3,132,000
UPGRADE & NEW											
All stormwater assets	$ 420,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 3,570,000
Sub-total Upgrade & New	$ 420,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 3,570,000
TOTAL	$ 4,235,430	$4,287,430	$4,303,430	$4,351,430	$4,251,430	$4,465,430	$4,257,430	$4,257,430	$4,257,430	$4,257,430	$21,462,150

10.2 Appendix B - Acquisition Project Summary

YEAR	ITEM	PROJECT DESCRIPTION	ESTIMATE '000
2022	1	Stormwater Drainage	$ 200
	2	Install GPT west of Dangersleigh Road	$ 220
2022	**Total**		**$ 420**
2023	1	Stormwater Drainage	$ 250
	2	New Gross Pollutant Traps	$ 100
2023	**Total**		**$ 350**
2024	1	Stormwater Drainage	$ 250
	2	New Gross Pollutant Traps	$ 100
2024	**Total**		**$ 350**
2025	1	Stormwater Drainage	$ 250
	2	New Gross Pollutant Traps	$ 100
2025	**Total**		**$ 350**
2026	1	Stormwater Drainage	$ 250
	2	New Gross Pollutant Traps	$ 100
2026	**Total**		**$ 350**
2027	1	Stormwater Drainage	$ 250
	2	New Gross Pollutant Traps	$ 100
2027	**Total**		**$ 350**
2028	1	Stormwater Drainage	$ 250
	2	New Gross Pollutant Traps	$ 100
2028	**Total**		**$ 350**
2029	1	Stormwater Drainage	$ 250
	2	New Gross Pollutant Traps	$ 100
2029	**Total**		**$ 350**
2030	1	Stormwater Drainage	$ 250
	2	New Gross Pollutant Traps	$ 100
2030	**Total**		**$ 350**
2031	1	Stormwater Drainage	$ 250
	2	New Gross Pollutant Traps	$ 100
2031	**Total**		**$ 350**

10.3 Appendix C - Renewal Project Summary

YEAR	ITEM	PROJECT DESCRIPTION	ESTIMATE '000
2022	1	Stormwater Pipe Relining	$150
	2	Rural Culvert Pipes and Headwalls	$100
2022	**Total**		**$250**
2023	1	Stormwater Pipe Relining	$211
	2	Rural Culvert Pipes and Headwalls	$100
2023	**Total**		**$311**
2024	1	Stormwater Pipe Relining	$223
	2	Rural Culvert Pipes and Headwalls	$100
2024	**Total**		**$323**
2025	1	Stormwater Pipe Relining	$247
	2	Rural Culvert Pipes and Headwalls	$100
2025	**Total**		**$347**
2026	1	Stormwater Pipe Relining	$197
	2	Rural Culvert Pipes and Headwalls	$100
2026	**Total**		**$297**
2027	1	Stormwater Pipe Relining	$304
	2	Rural Culvert Pipes and Headwalls	$100
2027	**Total**		**$404**
2028	1	Stormwater Pipe Relining	$200
	2	Rural Culvert Pipes and Headwalls	$100
2028	**Total**		**$300**
2029	1	Stormwater Pipe Relining	$200
	2	Rural Culvert Pipes and Headwalls	$100
2029	**Total**		**$300**
2030	1	Stormwater Pipe Relining	$200
	2	Rural Culvert Pipes and Headwalls	$100
2030	**Total**		**$300**
2031	1	Stormwater Pipe Relining	$200
	2	Rural Culvert Pipes and Headwalls	$100
2031	**Total**		**$300**

ARMIDALE
Regional Council

www.armidaleregional.nsw.gov.au