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Cootamundra-Gundagai Regional Council

Asset Management Plan – Stormwater

May 2025

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DOCUMENT CONTROL

Document ID: Cootamunda-Gundagai Regional Council – Stormwater Asset Management Plan

Version No	Date	Revision Details	Typist	Author	Verifier	Approver
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Version Control Protocol:

1. Primary number changes to Versions (e.g. V1.00 to V2.00) apply when the document undergoes its regular review and/or when significant changes are made.
2. Secondary number changes to Versions (e.g. V1.00 to V1.01) apply to minor amendments that do not materially impact the documents and are intended only to clarify or update issues.

Abbreviations

ABS	Australian Bureau of Statistics
AMP	Asset Management Plan
AMS	Asset Management System
AO	Audit Office of New South Wales
CAPEX	Capital Investment Expenditure
CRC	Current replacement cost
CSS	Customer Service Standard
DA	Depreciable amount
EP	Equivalent Persons
FWP	Forward Works Plan
CGRC	Cootamundra-Gundagai Regional Council
GIS	Geographic Information System
IRI	International Roughness Index
IRMP	Infrastructure risk management plan
KPI	Key Performance Indicator
LCE	Life Cycle Expenditure
LCC	Life Cycle Cost
LGIP	Local Government Infrastructure Plan
LoF	Likelihood of failure
LOS	Levels of Service
MMS	Maintenance management system
TCorp	New South Wales Treasury Corporation
RACAS	Road Asset Condition Assessment System
RUL	Remaining Useful Life
RV	Residual value
SL	Service Level

Executive Summary

1.1 The Purpose of the Plan

This Stormwater Asset Management Plan (AMP) details information about stormwater infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks.

The plan defines the services to be provided, how the services are provided and what funds are required to provide over the 10 year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10 year planning period.

Stormwater assets provide a critical service to the community by facilitating safe access to properties and businesses throughout the region.

1.2 Asset Description

This plan covers the assets that provide Stormwater Infrastructure including:-

Table 1 – Asset Description

Stormwater Asset Classes		
Piping	Outlets	Stormwater Pits
Culverts	Gross pollutant traps	Headwalls

The above infrastructure assets have replacement value estimated at $27M at the time of last comprehensive valuation.

1.3 Levels of Service

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

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery. These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10 year total outlays, which for Stormwater Assets is estimated as $333K on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is $260K on average per year the Planned Budget.

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

The anticipated Planned Budget for Stormwater leaves a surplus of $73k on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget. Council's knowledge of this asset class is very limited therefore project budgets may differ when further knowledge of the network is avialable. This is shown in the figure below.

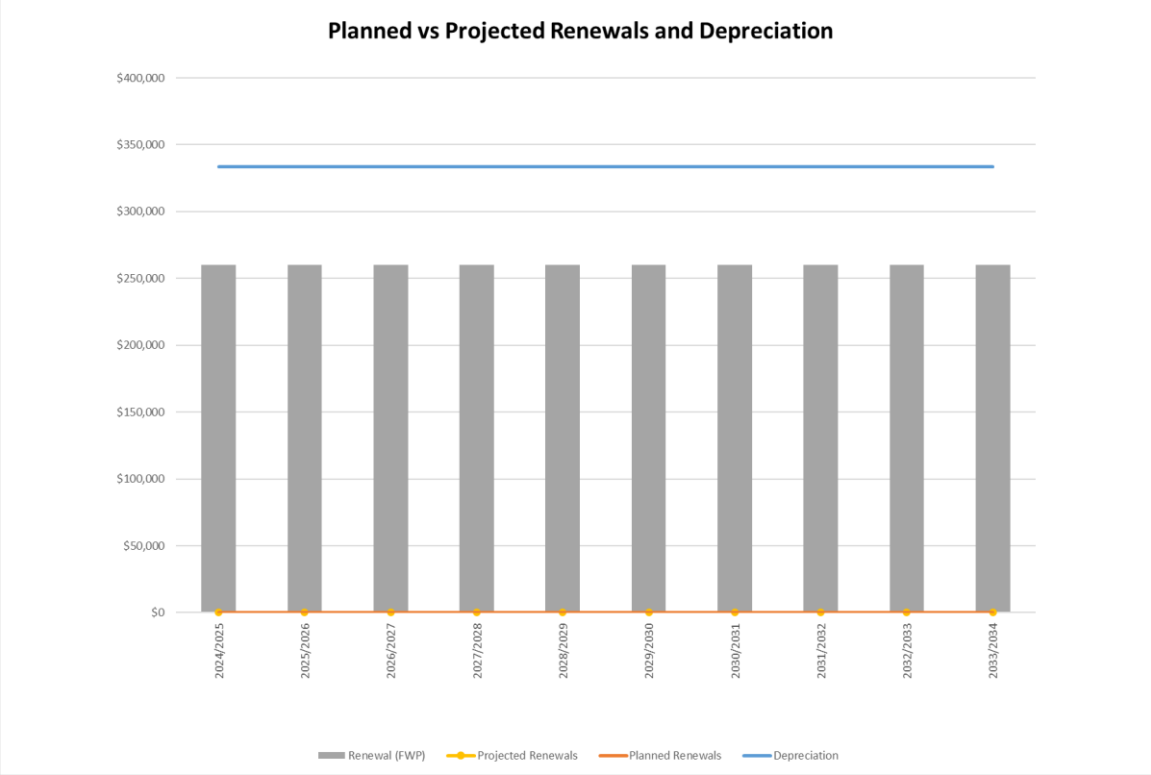

Figure 1 – Planned Vs Projected Renewals (Current Dollars)

We plan to provide Stormwater Assets services for the following:

- Operation, maintenance, renewal and acquisition of Stormwater Assets to meet service levels set by CGRC in annual budgets.
- No major renewals have been identified, however, when knowledge of this asset class increases this will become more apparent.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- Current historic expenditure will cover the technical levels of service
- Remaining useful life in the financial exports depicts the forecast renewals

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

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

The remaining useful life was used to forecast the renewal lifecycle costs for this AM Plan.

BACKGROUND

2.1 Purpose of the Plan

The purpose of this Stormwater AMP is to assist Council in two principal ways. The first purpose is to document asset management information in regards to Councils' Stormwater assets. The second purpose, which is unique to Cootamundra Gundagai Regional Council, is that this AMP will be utilised to support Council navigation through any potential 'de-amalgamation' process, should it be approved.

The purpose of this AMP is to assist Council in:

- Documenting its current management approach of Stormwater assets;
- Demonstrating responsible management;
- Understanding and managing significant risks;
- Identifying opportunities to improve the management of Stormwater assets; and
- Identifying opportunities to support the separation of Stormwater assets in the event of initiation of potential de-amalgamation activities.

This 'core' plan documents asset management planning information for the Stormwater assets for the Council. This includes a review of strategic trends facing the Council and potential impacts on the asset stock, asset condition and performance against key indicators, long term financial forecasts for the 10-years 2024/25 to 2033/34 and an improvement plan for managing the assets. Financial implications for providing the required levels of service into the future are also provided based on the associated separate spreadsheet model for the AMP.

The potential benefits are:

- Enables Council to satisfy more community needs at less cost allowing the resources saved to be deployed to provide more services;
- Enables Council to know where to spend funds to get the most bang for their buck;
- Protects Council from industry regulators, Audit Office (AO) etc.;
- Protects Council against potential litigation;
- Documented asset management processes make it easier for existing and new staff;
- Enables Council to avoid waste and the associated unfavorable publicity; and
- Financial Sustainability.

2.2 Council's Vision, Aims, Outcomes and Strategies

The CGRC Community Strategic Plan (2022-23) includes a number of strategic objectives, which link to Councils AMP documents. These include are:

A Protected and Enhanced Environment

- Ensuring new developments minimise impacts on water catchments, including downstream and groundwater sources.
- Investigate and implement sustainable water and waste strategies as outlined in CGRC Local Strategic Planning Statement.

The key vision for Council to work towards meeting these strategies are:

- Providing a defined level of service and monitoring performance (as amended from time to time),
- Linking to a Long-Term Financial Plan (including renewal, maintenance and operational funding) which identifies required, affordable forecast costs and how it will be allocated.
- Taking a life cycle approach;
- Developing cost-effective management strategies for the long term;
- Identifying, assessing and appropriately controlling risks,
- Review our services to ensure they meet our customer needs within the financial constraints of Council;
- Sustainable use of physical resources; and
- Continuous improvement in asset management practices.

Key elements of the planning framework are:

- Levels of service – specifies the services and levels of service to be provided,
- 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,
- Monitoring – how the plan will be monitored to ensure objectives are met,
- Risk Management – how to manage these risks, and
- Asset management improvement plan – how we increase asset management maturity across the organisation.

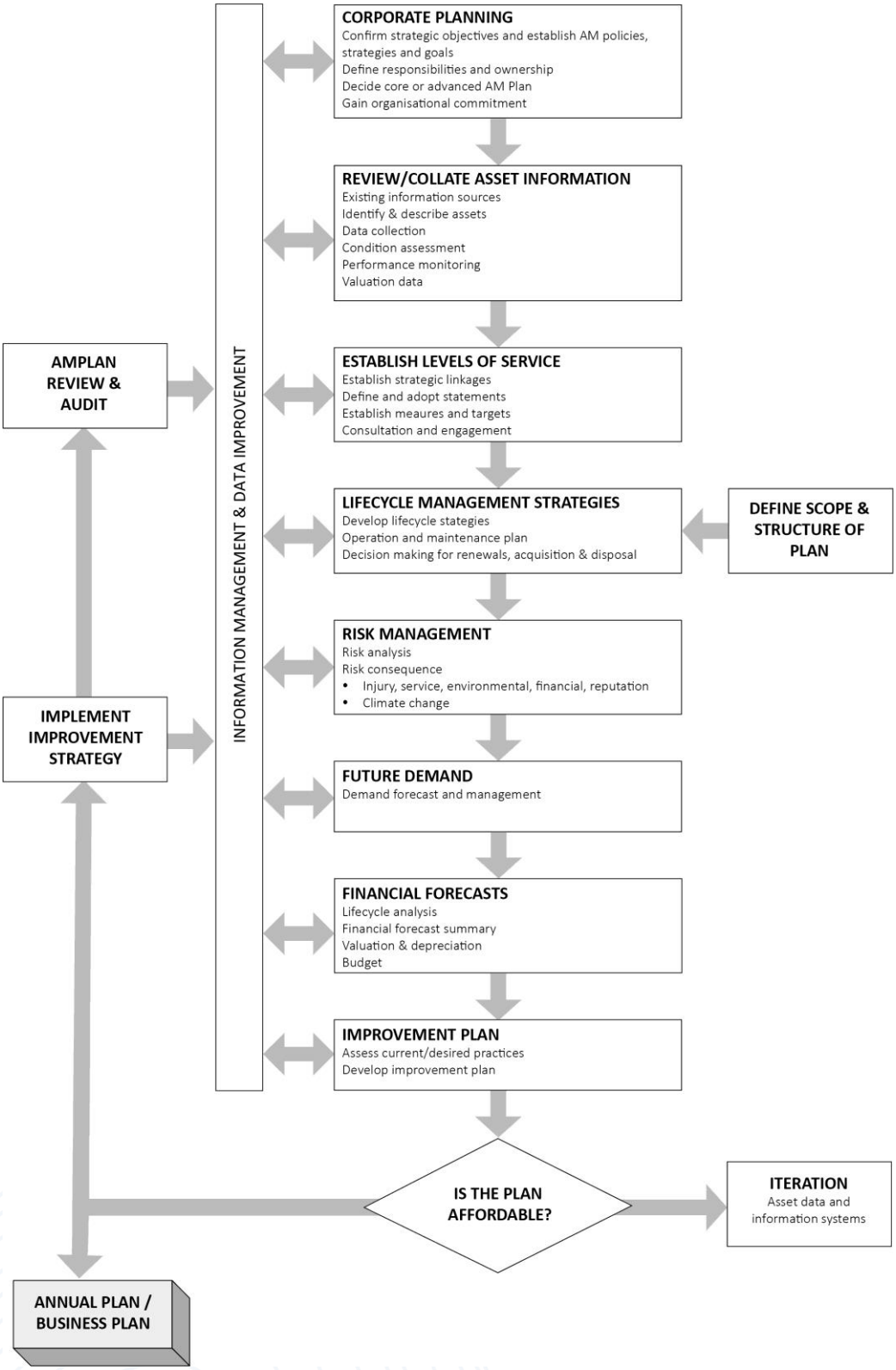

Figure 2 - Road Map for preparing an Asset Management Plan

(IPWEA, 2006)

2.3 Key Stakeholders

Good asset management requires the alignment of resources with all people understanding the objectives and then playing their respective roles in the management of assets and the delivery of services to the community. The table below outlines the roles and responsibilities for asset management within CGRC.

Table 2 - Key Stakeholders and Roles

Role	Who	Responsibilities
Strategic Direction	Councillors	• Represent needs of community and service level expectations; • Endorsement of the asset management policy; • Ensure Council is financially sustainable.
Operational Decision Making	Executive Management Team	• Overall responsibility for developing an asset management policy, plans and procedures and reporting on the status and effectiveness of asset management within Council; • Allocate resources to meet the organisation's objectives in providing services while managing risks; • Ensuring Council is financially sustainable. • Provision of sound organisation structure • Lead the organisations culture • Managing risks in accordance with adopted appetite • Manage Statutory Requirements • Develop and Administer Policies • Provide Service Strategy • Asset management objectives
Strategic Alignment/ Organisational Alignment	Asset Management Working Group	• Custodian of the corporate asset register and ensuring the asset valuations are accurate;

Role	Who	Responsibilities
		• Preparation of asset sustainability and financial reports incorporating asset depreciation in compliance with current Australian accounting standards; • Asset Management System development and administration; • Develop 10-Year Capital Works Plans and budgeting; • Ensure funds are invested appropriately to ensure best value for money is delivered to the community; and • Develop the maintenance standards deployed and Council's ability to meet technical and community levels of service. • Championing promotion of adequate resourcing for asset management • Whole of Council asset performance monitoring • Demonstrate whole of organisation support for sustainable asset management • Wider accountability for achieving and reviewing sustainable asset management practices • Encourage buy-in and responsibility; • Coordinate strategic planning, information technology and asset management activities • Promote uniform and fit for purpose asset management practices across the organisation • Information sharing across IT hardware and software • Pooling of corporate expertise

Role	Who	Responsibilities
		• Championing of asset management improvement initiatives
Tactical / Operational	Asset Custodians Maintenance Managers Service Managers	• Service delivery • Asset data capture • Operational risk management • Alignment of service levels to budgets • Asset Management Plan Development • Development of renewal and upgrade plans • Asset specific condition monitoring • Asset and resource optimisation • Asset Maintenance and Operations • Identification of asset disposal opportunities • Identification of service efficiency opportunities
Tactical / Operational	Staff	• Verify the size, location, and condition of assets; • Provide local knowledge detail on all infrastructure assets; • Capital Works, Operation and Maintenance management to meet agreed levels of service; and • Liaison internally with the Senior Management Team regarding asset prioritisation and planning.
	Community (residents, businesses, property owners)	• End users of services provided by assets; • Aware of service levels and costs; • Participate in consultation processes; and

Role	Who	Responsibilities
		• Provide feedback on services.
	Consultants	• Engineering expertise input.
	Utility Service Providers	• Interaction in service delivery.
	State and Federal Government	• Provision of various grants and subsidies; • Provide Leadership in promoting Best Practice Asset Management; • Facilitate Training and Education; • Recognising the importance of LG Assets to community and provide funding; and • Other assistance to sustain.

2.4 Legislative Requirements

The management of assets is often driven by complex legislative arrangements. The table below provides a list of Legislation that is relevant to the Stormwater asset class.

Table 3 - Legislation and Requirements

Legislation	Requirement
Local Government Act	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery, the acquisition and disposal of assets and requirements for corporate and operational plans. The Local Government (Finance, Plans and Reporting) Regulation is subordinate legislation.
Work Health and Safety Act & Regulation 2011	This Act is directed at eliminating the human cost to individuals, families and the community of death, injury and damage/ destruction of property that can be caused by electricity. It sets out roles and responsibilities to secure the health, safety, and welfare of persons at work.

The Australian Accounting Standards	The Australian Accounting Standards consisting of AASB13, AASB 16, AASB116 define the financial accounting requirements related to assets. The Australian Accounting Standards Section 27 (AAS27) requires that assets be valued, and reported in the annual accounts, which also includes depreciation value (i.e. how fast are these assets wearing out).
Civil Liability Act 2002	To manage negligence, elements of a claim, duty of care, standard of care and causation and to address the requirements of sections 42 and 45.

Overarching Organisation Structure (as of 30 June 2024) is shown below:

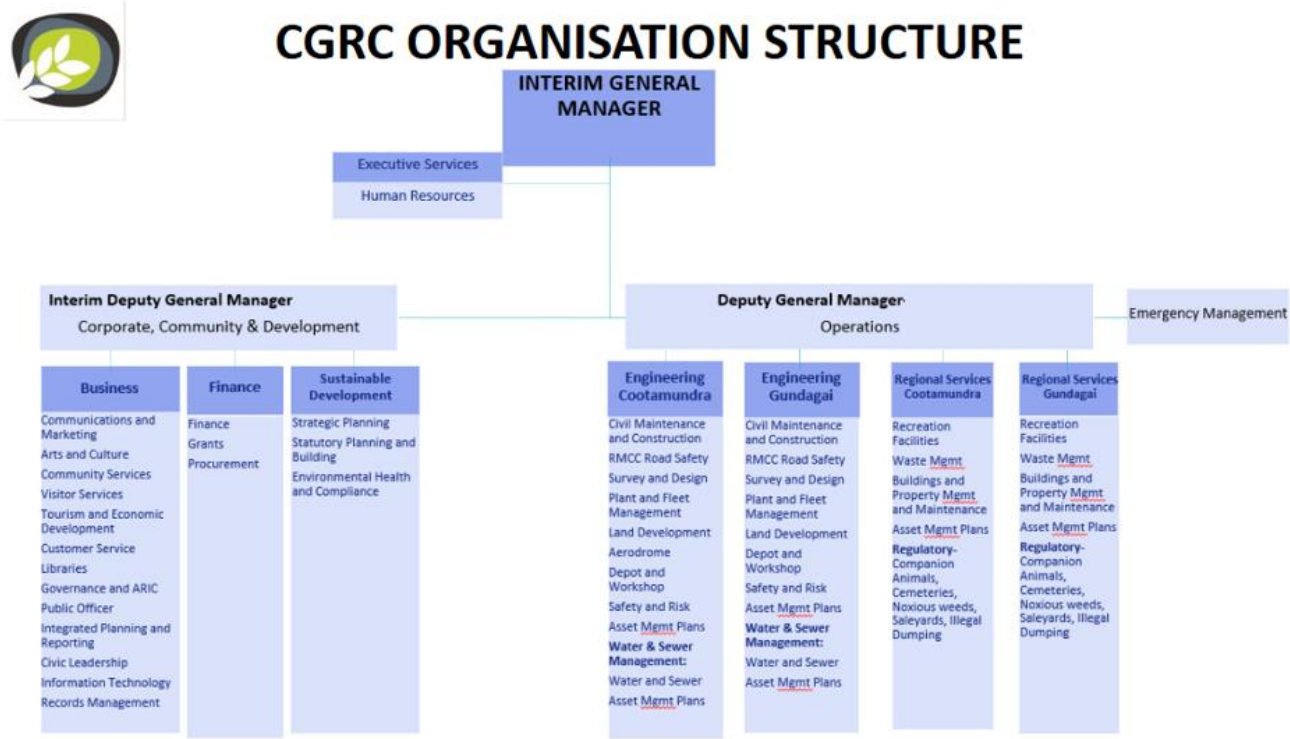

Figure 3 - Overarching Organisation Structure (as of 30 June 2024)

ASSET DESCRIPTION

The Council owns and maintains the local and regional road network within the Cootamundra-Gundagai Regional Council area. This AMP is for the Council owned Stormwater assets, which includes stormwater drainage assets associated with the Stormwater network assets.

3.1 Physical Parameters

The assets included in this Asset Management Plan are shown in the table below, based on data from Council's website and GIS data.

Table 4 – Asset Classes within Stormwater

Stormwater Asset Classes		
Piping	Outlets	Stormwater Pits
Culverts	Gross pollutant traps	Headwalls

3.2 Asset Valuations

Asset valuations for the Stormwater class were completed in 2022 with data loaded into Authority. The table below details the value of assets in the Stormwater class based on the asset revaluation for all assets.

Table 5 - Asset Valuations by Asset Type

Asset Type	Replacement Cost	Written Down Value
Culverts	$1,558,790	$1,447,273
GPTs	$324,590	$324,590
Headwall	$29,990	$14,245
Open Drains	$181,000	$181,000
Pipes	$23,185,245	$13,776,626
Pits	$1,735,180	$1,284,115
Grand Total	**$27,014,795**	**$17,027,849**

3.3 Asset Registers

Council's asset register is maintained in *'Authority'* which is Council's primary ERP (Enterprise Resource Planning) system. This system offers advanced capabilities when it is well configured and data is regularly maintained. There are considerable benefits when data in *'Authority'* and Council's GIS (geographic information system) are linked, and the linkages are well maintained. In addition, having a single point of truth and linking operational information from field teams to assets also offers benefits if the data is maintained.

Improving organisational understanding of data management, maintenance and reporting principles will help progressively improve the data quality in the asset register. Improving other operational registers in a way that aligns with the GIS and *'Authority'* would also assist in improved reporting capabilities and management of assets.

3.4 Asset Useful Life & Condition

Asset lives for Stormwater assets in Council's asset register vary from 1-70 years. Council's 2022 asset revaluation had useful life ranges from 80 to 100 years. Use of the Useful Life, Remaining Useful Life and Expiry Date fields within Authority requires review to improve consistency and reporting. A single point of truth needs to be adopted and all other data that could be misinterpreted should be archived and removed from the GIS and Authority. Table 6 provides details of useful lives from the 2022 asset revaluation.

Table 6 - Useful Life by Asset Type Based on 2022 Asset Revaluation

Asset Type	Average Useful Life
Culverts	100
GPTs	80
Headwall	80
Open Drains	100
Pipes	80
Pits	80

3.5 Condition Profile

Condition data for Stormwater assets are shown in figure 4 where condition:-

1 = Brand New,

2 = Excellent Good,

3 =Very Good,

4= Good Overall,

5 = Fair Overall,

6 = Fair to poor,

7 = Poor Overall,

8 = Very Poor Overall,

9 = Extremely poor condition,

10 = Failed Assets.

Data comes from Council's asset revaluation for all assets. Assets that shown as NA are assets which do not deteriorate, primarily formation assets. Assets that are shown as TBD are mostly stormwater assets that have no record of previous condition assessment.

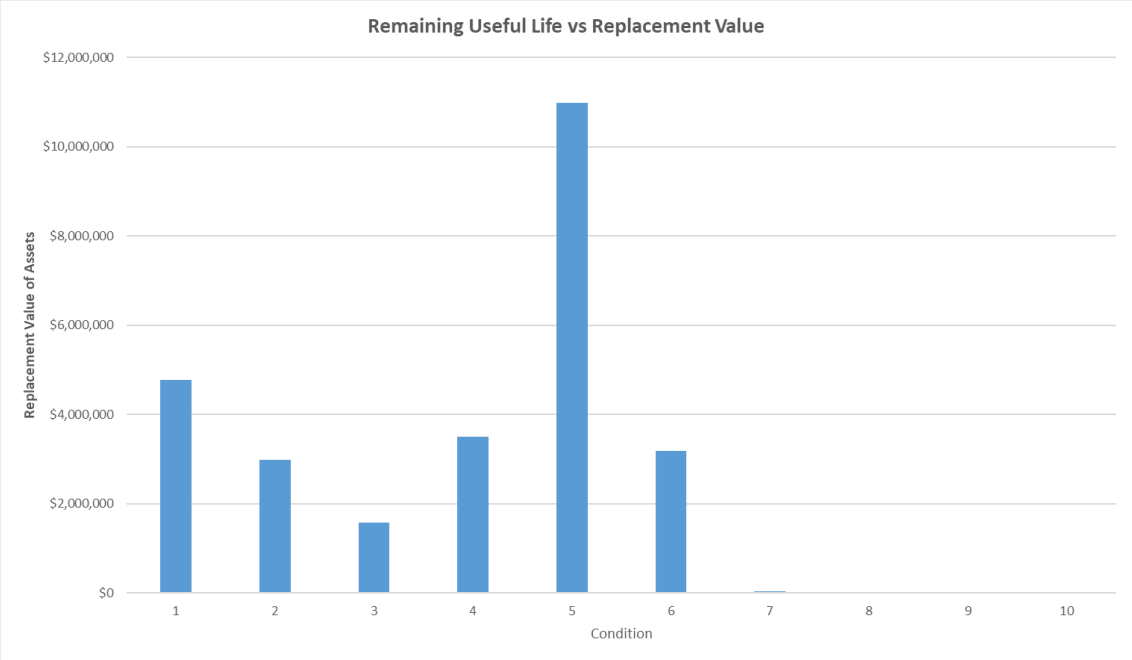

Figure 4 - Asset Condition Profile

LEVELS OF SERVICE

4.1 Background

One of the basic tenets of good asset management practice is to provide the level of service the current and future community want and are prepared to pay for, in the most cost effective way (NZ NAMS 2007).

4.2 Community Levels of Service

Community Levels of Service relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance.

Community levels of service measures commonly used in the asset management planning are:

- **Quality** How good is the service?
- **Function** Does it meet users' needs?
- **Safety** Is the service safe?

4.3 Technical Levels of Service

Technical Levels of Service support the community service levels and are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the Council undertakes to best achieve the desired community outcomes.

Technical service measures are linked to annual budgets covering:

- **Operations** – the regular activities to provide services;
- **Maintenance** – the activities necessary to retain an assets as near as practicable to its original condition;
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally;
- **Upgrade** – the activities to provide a higher level of service (e.g. sealing and unsealed road or widening a sealed road) or a new service that did not exist previously (e.g. adding a road onto Council's maintained road network)

Table 7 -Technical Service Levels

Operation	Stormwater assets meet user's needs	Annual condition & defects inspection	Satisfactory	High level of performance
Maintenance	Stormwater assets are suitable for purpose	Reactive service requests completed within adopted time frames	Defects made safe within 3 working days Repairs completed within 30 working days	90% of defects and repairs complete in time
		Planned maintenance activities completed to schedule	All planned maintenance activities completed to schedule	90% complete
Renewal	Stormwater assets meet user's needs	Condition of pipe network	<5% with condition 7,8, 9 and 10	<2%
Upgrade	Stormwater assets to meet user's need	Customer survey	The upgrade activities that can be done within the current Planned Budget restraints	The upgrade activities within current planned budget

Currently accepted LOS within Councils previously approved Stormwater AMP are:-

Table 8 - Previous Stormwater AMP Technical LoS.

Category	Technical LOS	Performance Measure Process
Condition	Council maintains the stormwater drainage network in a suitable condition with blockages minimised	Number of reported incidents of ponding or flooding, during or immediately following a rainfall event, which can be attributed to a pipe or pit blockage are minimised. Customer service requests and maintenance logs.
Capacity	All new developments must contain an underground stormwater system which caters for minor storm events with the provision of safe overland flow paths for the major storm event and have a neutral or beneficial impact on downstream systems.	All stormwater from the property is disposed of without causing nuisance to other properties by way of connection to Council's existing stormwater drainage system or other suitable arrangements such as easements. For 3 or more dwellings, all roof and surface water drainage shall

	All new developments minimise hardstand areas to limit nuisance water impacts.	be designed to provide for conveyance of these flows per AS3500 after considering the Australian Rainfall and Runoff Guidelines, to the appropriate road, public stormwater drainage system or watercourse where approved to do so. Permeable areas are at least 20% of the site.
	Stormwater is controlled clear of private property improvements without causing environmental harm	Number of reported incidents of nuisance stormwater on private property following a rainfall event minimised.
	The stormwater drainage network meets hydraulic design standards.	Inspection and analysis of stormwater systems where level of service is not met.
Potential flooding impacts Potential flooding impacts	Council is responsible for the investigation, design, construction and maintenance of flood mitigation works, using financial assistance from the Commonwealth and State Governments.	Council to apply for available grant funding to prepare floodplain risk management plans.
	Flood protection measures are implemented during the planning and design phase of new development to ensure risk to the community is minimised	Flood prone land is shown on the LEP maps and development of these areas must meet be in accordance with the requirements of Council's Development Control Plan.

4.4 Sustainable Asset Base

Based on the financial position of Council, ensuring that Stormwater services are prioritised and provided adequate funding is available, is essential to ensure the ongoing safety of the community and customers across the Council network.

FUTURE DEMANDS

The Cootamunda-Gundagai Regional Council population was 11,403 in the later ABS Census Data from 2021. The current growth rate is flat (0.75%) and predicted to continue as such or decline further in future years.

It is not expected that future demand (growth) will influence this class of assets over the next 20 years. Any planned upgrades or improvements in the Stormwater category will be focused on renewal of existing Stormwater. These works will generally be funded through external grants obtained by Council.

5.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

There are no known or planned large demographical changes across the Council area that would impact on changing Stormwater needs of the community. Some projects are planned (including alternative energy construction and links) but it is expected there to have minimum impacts across the Council network, as their workers would be of a short term nature, spread across the entire region.

5.2 Technological Changes

Technology changes are forecast to affect the delivery of services covered by this plan. Historically changes in technology have the effect of reducing whole-of-life costs. Changes in technology will be embraced where possible by Council, to reduce future whole of life costs.

5.3 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 the table below. Further opportunities will be developed in future revisions of this Asset Management Plan.

Table 9 -Demand Details

Demand Driver	Current Position	Projection	Impact on Services	Demand Management Plan
Population Change	11,403 in 2021	Average growth rate of 0.75%	Small incremental increased in the usage of stormwater disposal	Continue to manage assets inline with this plan. Continue to apply for available grant funding to support rehabilitation projects across the network.
Customer Values	Residents and network users are expecting a greater demonstration of value from the network.	Increasing	Increasing capital budget demand, to support upgrades to the stormwater network. If Council provides these upgrades and new assets this leads to increased whole of life costs.	Continue to apply for available grant funding to support rehabilitation projects across the stormwater network. A prioritisation system to be used to develop Councils works program. This prioritisation system is to be underpinned through current asset condition data and age data and planned allocated funding available for future years.

6.1 Operations and Maintenance Expenditure (Opex)

6.1.1 Historical

Council has limited available data on stormwater assets. Historic Expenditures were unable to be obtained.

Table 10 - Historical Operations and Maintenance Costs (2022-2024)

Expenditure Type	$
Operations	
Maintenance	
Total OPEX (O & M)	

6.1.2 Future

For this asset management plan an industry benchmark percentage has been used.

6.1.3 Forward Works and Future Capital Program

Planned renewals total $ 2.6M for the 10 year period based on the forward works program shown in Table 11 shows the projected renewals total $'s as unknown, as further investigation works are required.

Table 11 - Planned 10 years Renewals

Program/Project	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Passive Assets	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000

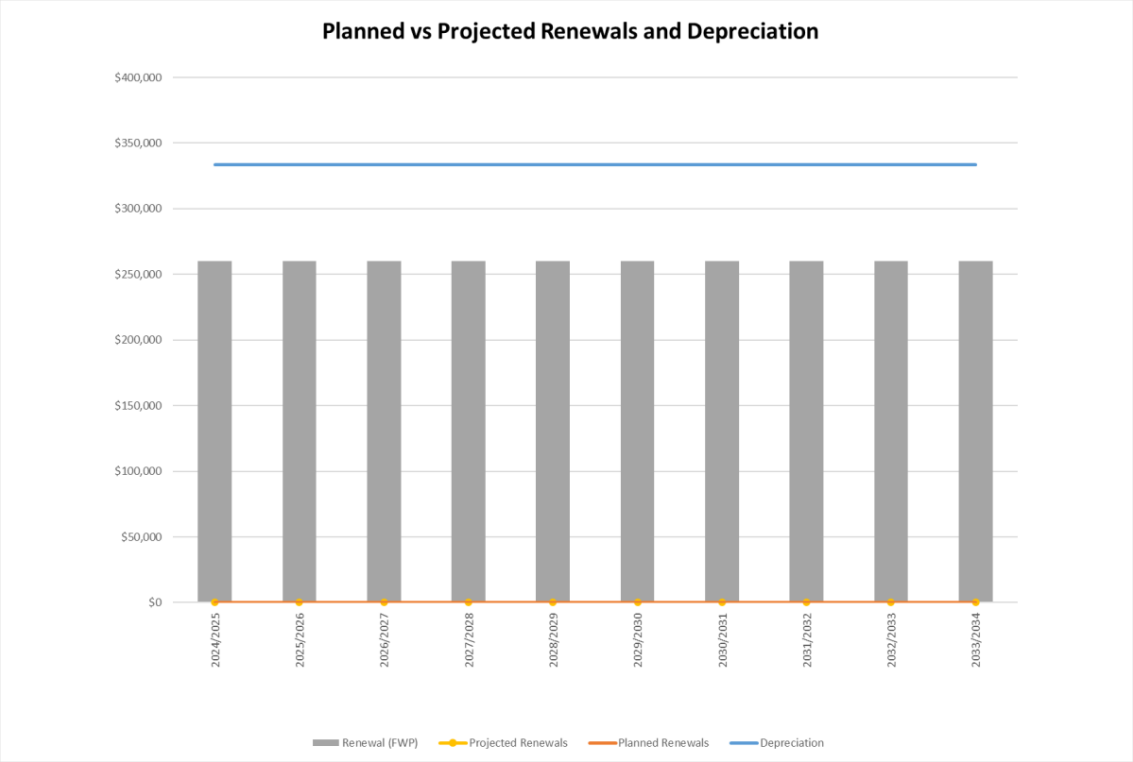

Figure 5 - Planned and Projected Renewals

6.2 Asset Sustainability Ratio

A financial measure of satisfactory levels of expenditure on asset replacements is the Asset Sustainability Ratio - the net capital expenditure on replacements as a percentage of the depreciation. It indicates whether the amount of replacement exceeds or is less than the amount of depreciation, that is, whether assets are being replaced at the rate they are wearing out. Although not a true reflection of the required long-term funding, depreciation does indicate the rate of consumption of assets. The NSW Audit Office sets a target for renewals that is equal to or greater than 90% of depreciation.

The current total annual depreciation is $333K per annum. A 90% target equates to $300 K per annum. Based on available data, there are no projected renewals over the next 10 years. Planned renewals average $260,000 per year which is more so an allowance as network knowledge improves and renewals are identified. Council should consider fast tracking inspections utilising local contractors and CCTV to capture network condition, this would be strategically completed starting with trunk mains.

Figure 6 shows the annual sustainability ratio based on planned and projected renewals.

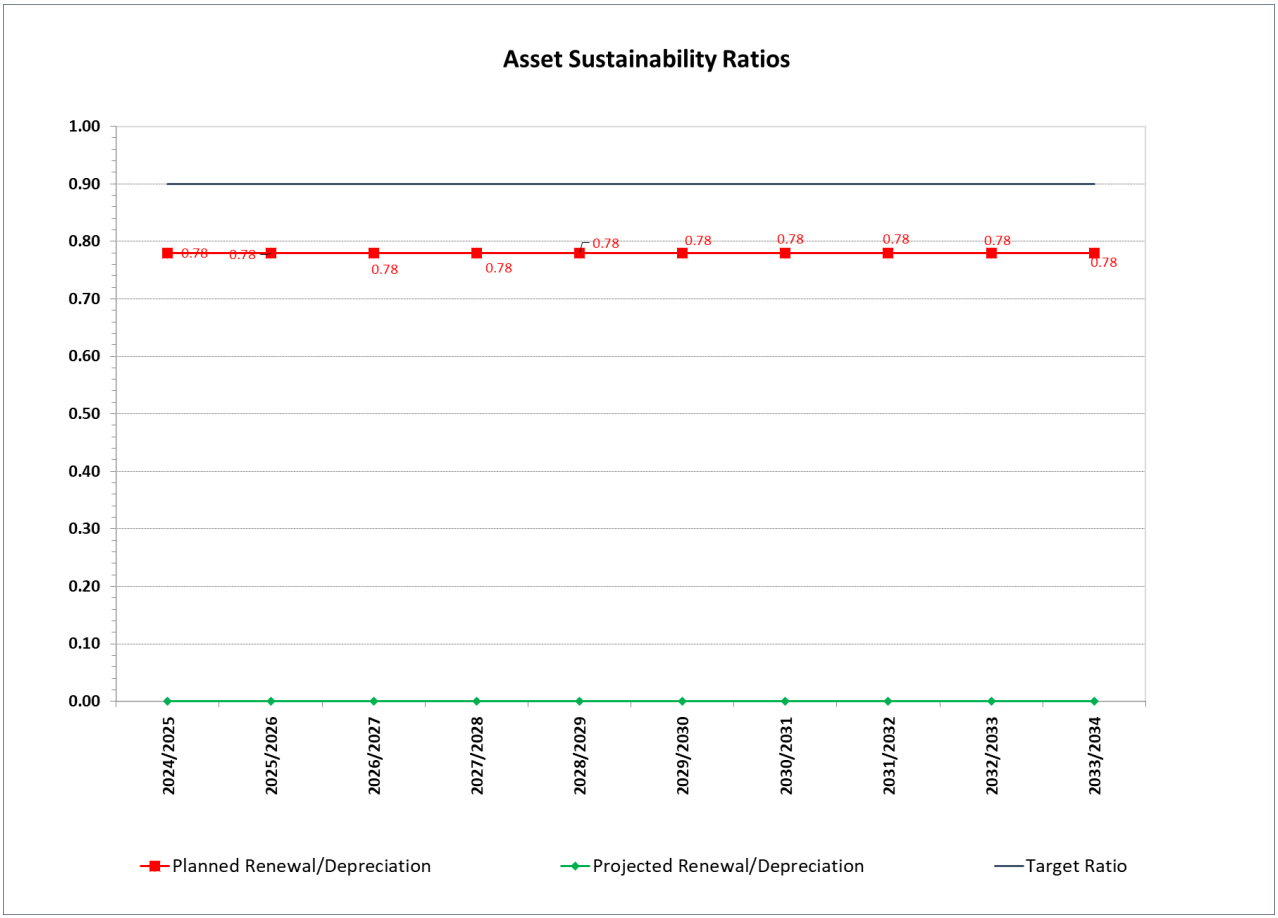

Figure 6 - Asset Sustainability Ratios

FINANCIAL SUMMARY

7.1 Summary Financial Projections

The Life Cycle Cost (LCC) shown in Figure 7 is the average projected cost to provide the service over the longest asset life cycle. It comprises required annual maintenance based on New South Wales benchmarks and asset consumption expense, represented by depreciation expense.

The average LCC over the forward 10 years to provide the Stormwater network is estimated at approximately $400K per annum.

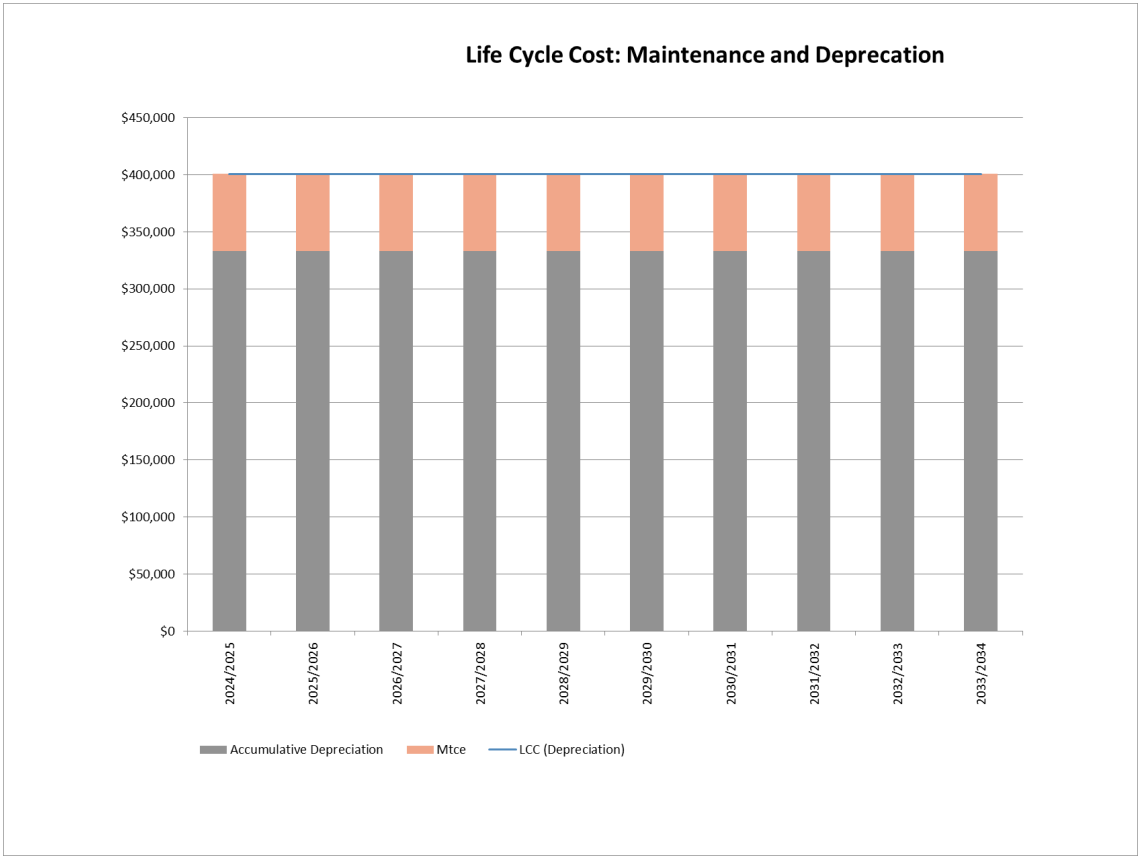

Figure 7 - Life Cycle Cost

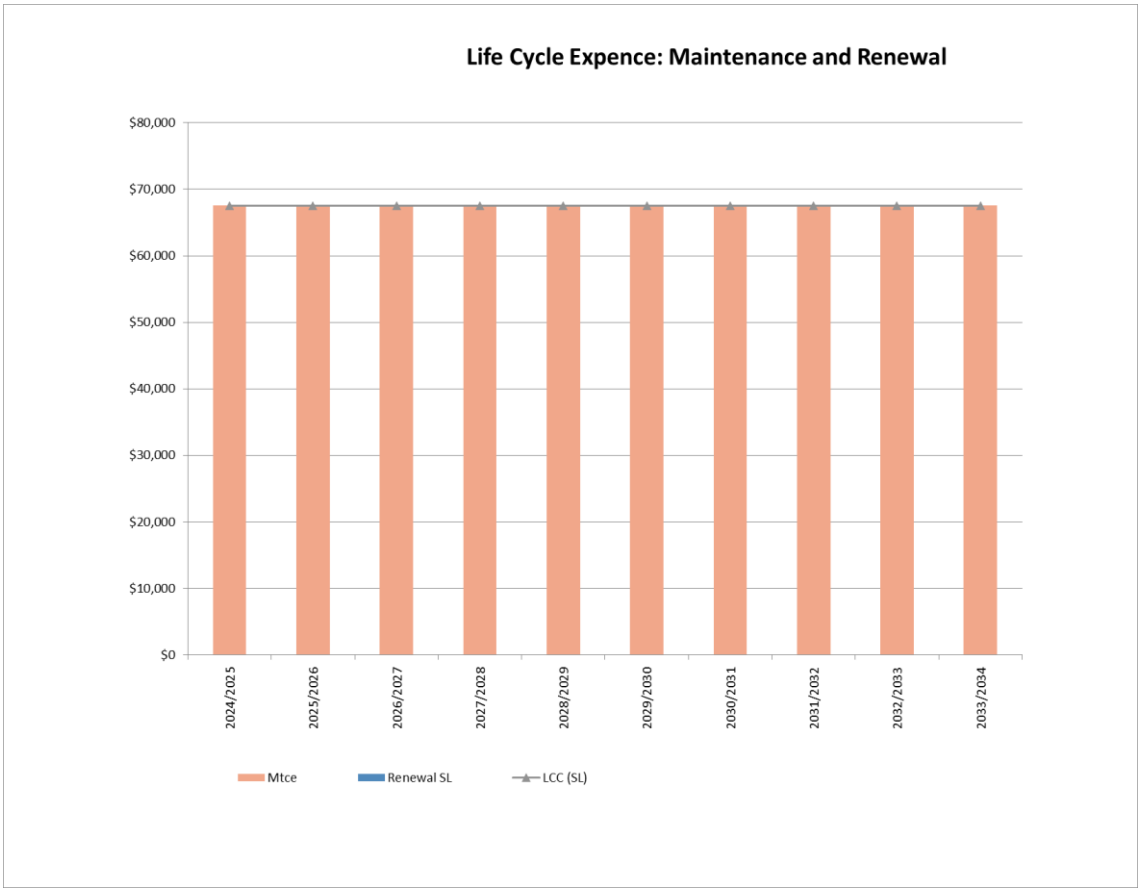

Figure 8 - Life Cycle Expenditure

7.2 Future Valuations

Over the next 10-years escalation in the cost of materials, labour and services will increase the value of Council's asset based and annual depreciation. Current escalation rates in the Stormwater class are relatively high as the class has assets that relate to both civil and building indices.

Due to the size of Council's Stormwater network the costs associated with the asset class will not be too significant, however, Council needs to fully recognise the stormwater class prior to the next comprehensive valuation.

7.3 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this asset management plan are:

- Natural disasters (such as flood), vandalism and other unplanned events are not considered in the asset lifecycles;
- Information within the Stormwater register and values are based on current knowledge only;
- Maintenance and operations allocations are largely based on maintaining

current budget levels; and

- Depreciation has been calculated on a straight-line basis.

Accuracy of future financial forecasts may be improved in future revisions of this asset management plan by the following actions:

- Provision of a detailed 1-3 year forward work plan based on condition data obtained during condition inspections (Council should then consider extending the plan to 5-10 years however shifting from year to year budgeting to 1-3 year budgeting will take significant focus but is achievable);
- Ensure condition assessment data from Asset Inspector is used to progressively update data;
- Improved asset revaluation processes that incorporate operational information, increased focus on assets nearing end of life and industry benchmarks to better inform 10 year renewal plans;
- Full Implementation of a single Asset Register that is linked to the GIS; and
- Maintaining the Asset Register and GIS integrity.

RISK MANAGEMENT

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'.

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.

8.1 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 the table below.

Failure modes may include physical failure, collapse or essential service interruption.

Table 12 - Critical Assets

Critical Asset(s)	Failure Mode	Impact
Network pipework	Equipment failure.	Water ponding or backing up
Network pipework	Subsidence	Pipework network failure

By identifying critical assets and failure modes, an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

8.2 Risk Assessment

The risk management process used is shown on the next page.

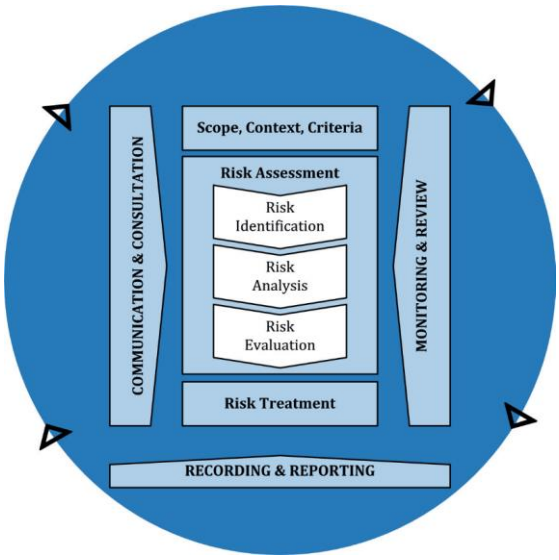

Figure 9 – Risk Management Process (*ISO 31000:2018)*

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.

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating, evaluation of the risk and development of a risk treatment plan for non-acceptable risks.

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2. It is essential that these critical risks and costs are reported to management and the Cootamundra-Gundagai Regional Council.

Table 13 – Critical Risk Management

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Stormwater network	Pipe failure.	Almost certain	High	Prioritised action required.	Reticulation network

The Improvement Plan outlines opportunities for Council to improve its risk management practices to align with its risk appetite.

IMPROVEMENT PROGRAM AND MONITORING

9.1 Improvement Program

Asset Improvement Plan is intended to provide improvements in the knowledge of our assets and their management. This plan will ensure that acceptable progress is made on improving asset management processes and procedures and that progress can be verified and quantified. This improvement plan should ensure asset management progresses at an acceptable pace and moves in the "right" direction - that is "improvement" is embedded in the process.

Focus areas for Stormwater assets are related to better understanding the condition of assets so that renewals can be effectively planned into the future.

The figure belowa provides a list of improvements that Council should pursue in the Stormwater asset class.

Table 14 - Improvement Program

Task	Task	Responsibility	Resources Required	Timeline
1	Organisational decision and communication of 'one place of truth' for asset data storage and management.	Deputy General Manager - Operations	All Council staff	1/5/2025
2	Highest focus needs to be on the collection of condition data on the existing known assets, with condition data obtained while undertaking new asset data collection. This information is to be used to drive future works rehabilitation works. Utilisation of this condition information to verify the renewals required as real project (backbone of the renewal program)	Deputy General Manager - Operations	Both Team Leads – Engineering Cootamundra and Engineering Gundagai	1/7/26 Ongoing Budget timeframes (March each year)
3	Continued targeted focus on the development of a comprehensive GIS system (and documented business processes and training of the system) of Stormwater assets should be a priority, across both operational bases of the Council (Cootamundra and Gundagai Offices).	Deputy General Manager - Operations	Both Team Leads – Engineering Cootamundra and Engineering Gundagai	1/7/2026

Task	Task	Responsibility	Resources Required	Timeline
	Checks on data accuracy to be undertaken in parallel. This is to include asset attributes, such as location, asset attributes and condition score. This data is to be collated through - Undertaking inspections of each Stormwater asset category, including roads, culverts and road delineation/signage. - Complete analysis of map data and audit asset date. - Ensure all infrastructure is captured and added into the GIS, when new assets are found or added into the Stormwater asset class. Note: Each asset is to be aligned to an operational base within the GIS asset attributes, to allow GIS data to be easily split, and broken into separate GIS data sets, should 'deamalgation' processes be activated.			
4	System to manage and collate data which captures completed works (including documented workflows, and As-Con/Asset Team/Finance Team completion process). Clarification of financial and non-financial asset process(based on thresholds).	Deputy General Manager - Operations	Both Team Leads – Engineering Cootamundra and Engineering Gundagai	1/7/2026
5	Defining ownership of various asset types within the stormwater class eg council owned vs state government	Deputy General Manager -	Both Team Leads – Engineering Cootamundra and Engineering	31/12/2026

Task	Task	Responsibility	Resources Required	Timeline
	ownership within Cootamundra and documented clarification of available budget allocations for maintenance and servicing by each of these different asset owners. This includes potential conflict touchpoints of other stormwater asset owners through town, and the maintenance/management regime agreed upon by council for stormwater disposal.	Operations	Gundagai	
6	Clarification (and documentation) of asset heirarchy, each asset type relationship (parent/child relationships) and their inclusion into the Authority Enterprise system and GIS system which is consistent across both Cootamundra and Gundagai..		Both Team Leads – Engineering Cootamundra and Engineering Gundagai	31/12/2026
7	Inspection system (condition) based on 3-year valuation process.	Deputy General Manager - Operations	Both Team Leads – Engineering Cootamundra and Engineering Gundagai	Ongoing
9	Consistent work processes and procedures is key across both offices of the CGRC, especially in the event de-merging does not occur. The support of change management processes throughout the Council operations is warranted to ensure the amalgamated Council operates across the two distinct operational bases to obtain operational benefits through sharing information, knowledge and experience to	Deputy General Manager - Operations	All Council Staff	1/5/2025

Task	Task	Responsibility	Resources Required	Timeline
	further develop asset management culture within the organisation. The use of a Change Management support organisation should be considered, to support this activity across Councils organisational operational base.			
10	Identify and document existing operational strategies and practices Council uses to manage assets and deliver services within the Stormwater team.	Deputy General Manager - Operations	Both Team Leads – Engineering Cootamundra and Engineering Gundagai	1/9/2025

9.2 Monitoring and Review Procedures

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

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

The AM Plan has a maximum life of 4 years and is due for complete revision and updating in line with comprehensive revaluation cycles.

9.3 Performance Measures

No data on asset management performance measures was available at the time of preparation of this Asset Management Plan. Council should develop performance measures which can include:

The degree to which the required forecast costs (and necessary cashflows) are incorporated into the long-term financial plan as identified within this AM Plan.

The degree to which works as recommended by Councils 1-5 year detailed works programs, budgets, business plans and corporate structures are considered within this AM Plan,

The incorporation of service levels, risks mitigation strategies and improvement tasks are incorporated into Councils Financial Planning processes and Strategic Planning documents and associated plans,

The Asset Renewal Funding Ratio achieving the Organisational target (this target is often 90 – 100%).

REFERENCES

- IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMG.
- IPWEA, 2011, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM.
- ISO 55000 Asset Management Standards, Australian Standards Board
- Accounting Standards, Australian Accounting Standards Board

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APPENDICES

APPENDIX A

Definitions

Appendix A: Definitions

Asset Condition Assessment	The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.
Asset Management	The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.
Asset Management Plan	A plan developed for the management of one or more infrastructure assets that combines multi-disciplinary management techniques (including technical and financial) over the lifecycle of the asset in the most cost effective manner to provide specified level of service. A significant component of the plan is a long term cash flow projection for the activities.
Asset Renewal	Replacement or rehabilitation to original size and capacity of a road or drainage asset or the component of the asset. Renewals are "capitalised", so that the cost can be depreciated over the future life of the asset.
Core Asset Management	Asset management which relies primarily on the use of an asset register, maintenance management systems, job/resource management, condition assessment and defined levels of service, in order to establish alternate treatment options and long term cash flow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than risk analysis and optimised renewal decision making).
Infrastructure Assets	Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycle ways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally, the components and hence the assets have long lives. They are fixed in place and are often have no market value.
Level of Service	The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).
Life Cycle Cost	The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure	The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.
Maintenance and Renewal Sustainability Index	Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (e.g. 5, 10 and 15-years).
Performance Measure	A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.
Reactive Maintenance	Unplanned repair work carried out in response to service requests and management/supervisory directions.
Scheduled Maintenance	Maintenance carried out in accordance with a routine maintenance schedule e.g. scheduled maintenance grading.
Planned Maintenance	Repair work that is identified and managed through the customer requests system (Dataworks). These activities include inspections, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
Rate of Annual Asset Renewal	A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/ depreciable amount).
Reactive Maintenance	Unplanned repair work carried out in response to service requests & management / supervisory directions.
Recurrent Expenditure	Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.
Remaining Life	The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life (also useful life).
Renewal Expenditure	Major works which do not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential.
Upgrade/Expansion Expenditure	Work over and above restoring an asset to original service potential.

Useful Life (also economic life)	Either:(a) the period over which an asset is expected to be available for use by an entity, or (b) the number of production or similar units expected to be obtained from the asset by the entity. It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.
New Assets	Activities that create a road or drainage asset that did not exist previously or extend an asset beyond its original size or capacity. New assets are also "capitalised", but they increase the asset base rather than restore its capacity to perform.

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