Strategic Asset Management Plan

Bogan Shire Council

April 2022

Document status

Job #	Version	Approving Director	Date
7572	1	Mark Wood	April 2022

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1 Executive summary

This Strategic Asset Management Plan (SAMP) states the approach to implementing the objectives set out in the Asset Management Policy. It includes specific requirements to outline the processes, resources, structures, roles and responsibilities necessary to establish and maintain the asset management (AM) system. The asset groups covered by this SAMP are Buildings and Other Structures (including Open Space Assets), Roads and Stormwater Infrastructure, Water and Sewer assets.

The SAMP highlights major issues which need to be addressed for each of the asset classes over the next ten years. The strategy also highlights the necessary actions for Bogan Shire Council ('Council') to help close the gap between current asset management practice and move towards a 'best appropriate practice' position in the future.

Both the SAMP and the Asset Management Plans (AMPs) have been prepared in accordance with the *International Infrastructure Management Manual* (IIMM) and the Institute of Public Works Engineering Australasia (IPWEA) *National Asset Management Strategy* (NAMS) guidelines. Development of asset management plans for council infrastructure assets is a mandatory requirement for NSW local governments. The key findings for each asset class are included in the asset management plans section of this strategy and are covered in a concise but detailed manner.

This strategy includes Council's Asset Management Policy which has been updated in conjunction with this strategy. The policy provides a framework for managing infrastructure assets to support the delivery needs of the community.

1.1 Asset values

In preparing this SAMP, it has been identified that Bogan Shire Council has an infrastructure and asset portfolio with a current replacement cost of approximately $295 million. The three asset classes included in this plan and their values are detailed in the table below.

Table 1 Asset classes and values

Asset class	Gross replacement cost (CRC $,000)	Written down value (WDV $,000)	Annual depreciation expense ($,000)
Buildings and Other Structures	$38,472	$20,444	$744
Roads and Stormwater	$194,356	$164,557	$1,848
Water and Sewer	$61,984	$40,940	$712
Combined	**$294,812**	**$225,941**	**$3,304**

1.2 Asset backlog

As per the 2020/21 Special Schedule 7 analysis, Council has a combined asset backlog of $4.3 million to bring assets to satisfactory standard which is currently taken as condition 3. The breakdown of backlog per asset class is shown in the following table.

Table 2 Asset backlog summary

Estimated cost to satisfactory	Backlog ($,000)	Backlog ratio % (backlog / WDV)
Buildings and Other Structures	$1,162	5.7%
Roads and Stormwater	$2,115	1.3%
Water and Sewer	$990	2.4%
Combined	**$4,267**	**1.9%**

1.3 Asset condition

Reviewing asset condition data shows that most of Council's assets are in good condition, except for 11.4% of Council's water supply assets which are currently in condition 4 (poor). The reliability of Council's condition data is considered overall to be reliable. Details of Council's current asset condition are shown in the table below. The condition is represented as a percentage of the replacement cost of Council's three asset classes as well as shown as combined.

Table 3 Asset condition summary

Asset class	Asset condition (% of CRC)				
	1	2	3	4	5
Buildings and Other Structures	60.1%	21.1%	16.9%	1.9%	0.0%
Roads and Stormwater	38.6%	14.5%	42.0%	3.4%	1.6%
Water and Sewer	21.6%	45.4%	24.8%	8.2%	0.1%
Combined	37.8%	21.9%	35.1%	4.2%	1.0%

1.4 Expenditure and reporting

The average capital and maintenance expenditure on Council assets over the ten-year forecast period is approximately $9.9million per year. This compares to the expenditure which is required to maintain, operate, and renew the asset network as required, being $10.2 million per year. While this result shows a funding shortfall over a ten-year forecasting period, this mainly as a result of a new water treatment plant planned to be constructed in 2023/24 estimated to create assets to the value of $16.5 million. The impact of this expenditure is an additional $500,000 per year in annual depreciation and ongoing maintenance costs. All other asset classes appear to be allocating at or near the required expenditure required to maintain own and operate the asset base over the period of the plan and strategy.

Table 4 Combined asset expenditure projections

Expenditure projections ($,000) – combined assets		2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Actual	Renewal	3,784	3,172	2,555	2,619	2,684	2,751	2,820	2,891	2,963	3,037
	New and expanded assets	2,321	711	566	6,710	10,215	221	226	232	238	244
	Maintenance and operational	4,505	4,618	4,733	4,852	4,973	5,097	5,225	5,356	5,489	5,627
	Total expenditure	10,610	8,501	7,854	14,181	17,873	8,070	8,271	8,478	8,690	8,907
Required	Required renewal (depreciation)	3,387	3,497	3,593	3,689	3,856	4,065	4,169	4,275	4,385	4,497
	New and expanded assets	2,321	711	566	6,710	10,215	221	226	232	238	244
	Required operations and maintenance	4,407	4,528	4,649	4,862	5,132	5,263	5,398	5,537	5,678	5,824
	Total	10,115	8,736	8,808	15,261	19,203	9,549	9,793	10,044	10,301	10,565
	Maintenance gap	98	90	-4	-152	-159	-166	-174	-182	-190	-198
	Renewals gap	397	-325	-1,038	-1,139	-1,279	-1,313	-1,349	-1,385	-1,422	-1,460
	Overall (GAP)	496	-235	-1,042	-1,291	-1,438	-1,480	-1,523	-1,567	-1,612	-1,658

1.5 Levels of service

The objective of asset management is to enable assets to be managed in the most cost-effective way, based on an understanding of customer needs, expectations, preferences and their willingness to pay for any increase in the level of service. A level of service is a measurable description of what Council delivers (or intends to deliver) in an activity which relates to something that can be controlled. Council has prepared specific community and technical levels of service which cover the accessibility, quality, responsiveness, affordability, customer satisfaction, sustainability, health and safety and financial performance in relation to the delivery of their infrastructure assets.

These have been developed for all asset classes and are detailed in the respective AMPs and address the adopted lifecycle management of assets. The overarching SAMP establishes a basic framework to measure service level outcomes. It is important to note that while service levels have been developed and are informed by Council's Community Strategic Plan, Council is yet to undertake community and stakeholder consultation to 'accept' the service levels.

1.6 High-level strategic actions

Table 5 High-level strategic actions

No.	Strategy	Desired outcome
1	Continue the move from annual budgeting to long term financial planning. Particularly for asset classes currently limited by a four-year projections' horizon.	The long-term implications of Council services are considered in annual budget deliberations.
2	Further develop and review the Long-Term Financial Plan covering ten years incorporating asset management plan expenditure projections with a sustainable funding position outcome.	Sustainable funding model to provide council services.
3	Review and update asset management plan financial projections and long-term financial plans after adoption of annual budgets. Communicate any consequence of funding decisions on service levels and service risks.	Council and the community are aware of changes to service levels and costs arising from budget decisions.
4	Continue to report Council's financial position at fair value in accordance with Australian accounting standards, financial sustainability and performance against strategic objectives in annual reports, ensuring that asset remaining lives are assessed on an annual basis.	Financial sustainability information is available for Council and the community.
5	Ensure Council's decisions are made from accurate and current information in asset registers, on service level performance and costs and 'whole of life' costs.	Improved decision making and greater value for money.
6	Report on Council's resources and operational capability to deliver the services needed by the community in the Annual Report.	Services delivery is matched to available resources and operational capabilities.
7	Ensure responsibilities for asset management are identified and incorporated into staff position descriptions.	Responsibility for asset management is defined.
8	Implement an improvement plan to initially realise 'core' maturity for the financial and asset management competencies, then progress to 'advanced' maturity.	Improved financial and asset management capacity within Council.

No.	Strategy	Desired outcome
9	Report annually to Council on development and implementation of asset management strategy and plan and long-term financial plans.	Oversight of resource allocation and performance.

1.7 Performance overview

Figure 1 Water and Sewer Fund asset portfolio value

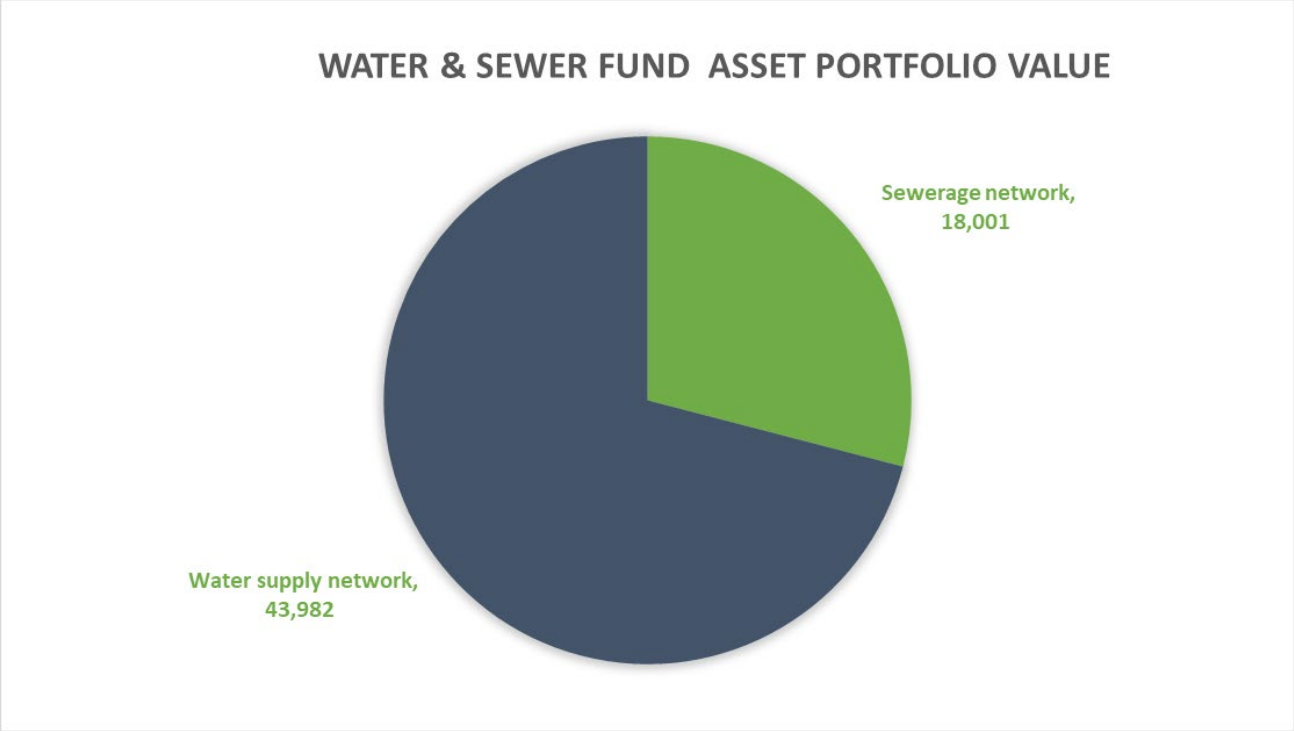


Table 6 Water and Sewer Fund infrastructure ratios

Infrastructure ratios	Actual 2020/21	Estimated 2030/31	Funding gap ($,000)	
Infrastructure renewals ratio	254.59%	64.30%	Yr. 1	$1,128
			5 yr. average	$102
			10 yr. average	(-$140)
Infrastructure backlog ratio	1.88%	1.79%	Yr. 1	$0
			5 yr. average	$0
			10 yr. average	$0
Infrastructure maintenance ratio	115.82%	92.83%	Yr. 1	$161
			5 yr. average	$36
			10 yr. average	(-$36)
Total infrastructure funding gap			Yr. 1	$1,290
			5 yr. average	$138
			10 yr. average	(-$177)

Figure 2 General Fund asset portfolio value

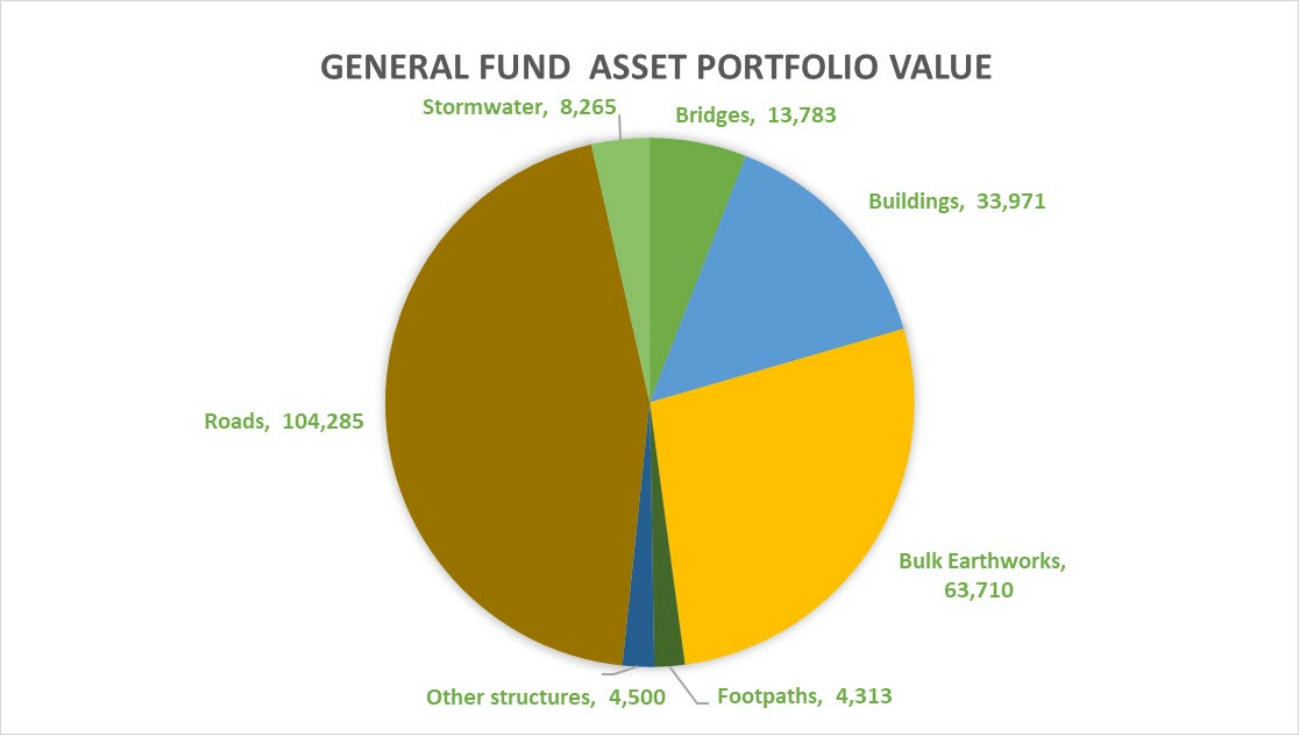


Table 7 General Fund infrastructure ratios

Infrastructure ratios	Actual 2020/21	Estimated 2030/31	Funding gap ($,000)	
Infrastructure renewals ratio	72.49%	68.69%	Yr. 1	(-$731)
			5 Yr. average	(-$778)
			10 Yr. average	(-$889)
Infrastructure backlog ratio	1.79%	2.15%	Yr. 1	$0
			5 Yr. average	$0
			10 Yr. average	$0
Infrastructure maintenance ratio	98.14%	97.37%	Yr. 1	(-$63)
			5 Yr. average	(-$74)
			10 Yr. average	(-$87)
Total infrastructure funding gap			Yr. 1	(-$794)
			5 Yr. average	(-$852)
			10 Yr. average	(-$976)

Figure 3 Consolidated Fund asset portfolio value

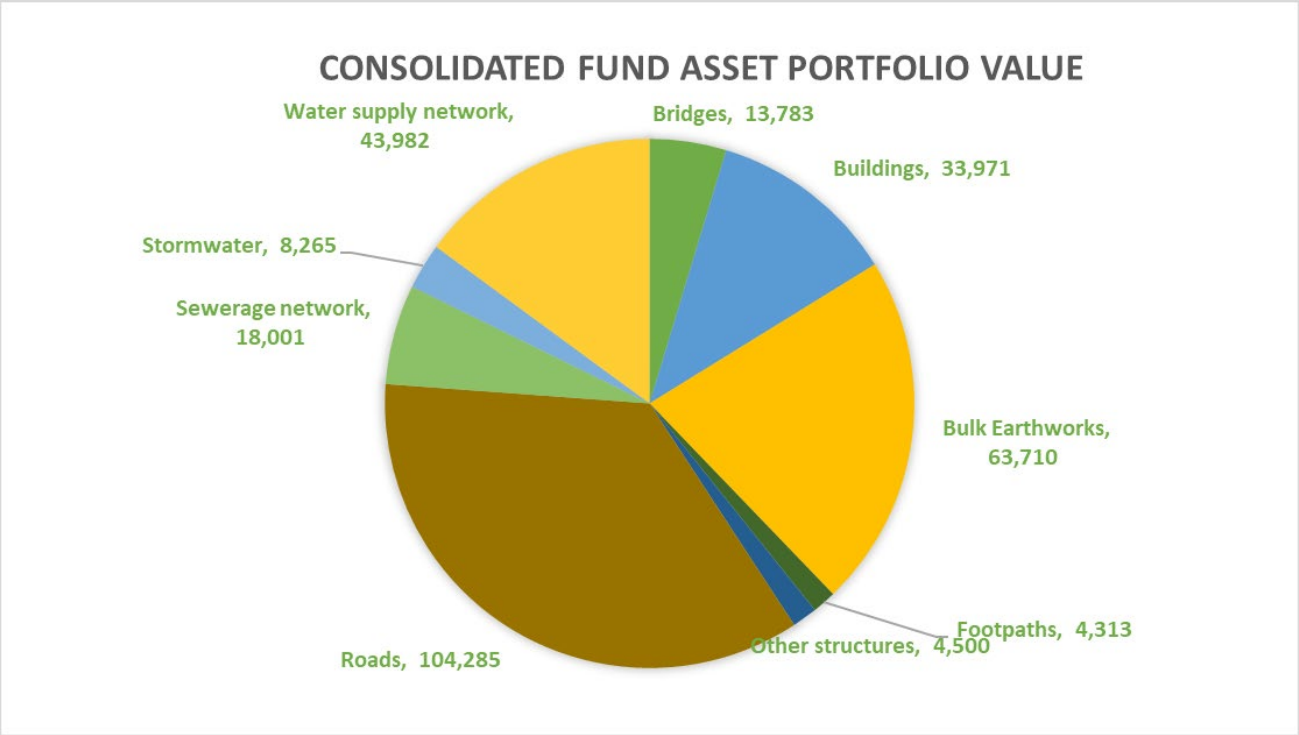


Table 8 Consolidated Fund infrastructure ratios

Infrastructure ratios	Actual 2020/21	Estimated 2030/31	Funding gap ($,000)	
Infrastructure renewals ratio	107.27%	64.83%	Yr. 1	$257
			5 Yr. Average	(-$828)
			10 Yr. Average	(-$1,196)
Infrastructure backlog ratio	1.89%	2.18%	Yr. 1	$0
			5 Yr. Average	$0
			10 Yr. Average	$0
Infrastructure maintenance ratio	137.2%	129.65%	Yr. 1	$1,222
			5 Yr. Average	$1,188
			10 Yr. Average	$1,209
Total infrastructure funding gap			Yr. 1	$1,478
			5 Yr. Average	$360
			10 Yr. Average	$14

2 Introduction

2.1 Asset planning – background

Development of asset management plans for Council's infrastructure is a mandatory requirement for NSW councils as per the NSW local Government Act 1993 and its subsequent amendments. As such, Bogan Shire Council has developed the following Strategic Asset Management Plan (SAMP) to cover the period 2021-2032. The key findings for each asset class are included in the Asset Management Plans section of this strategy and are covered in a concise but detailed manner.

The provision of infrastructure is one of the most important roles of Council, as assets support the delivery of services that deliver on Council's long-term objectives. A formal approach to asset management is essential to ensure that services are provided in the most cost-effective and value-driven manner. To ensure this, it is essential that asset management is fully aligned and integrated with Council's Community Strategy and Long-Term Financial Plan. This ensures that community needs and expectations are well understood, and that funding requirements and consequences are understood and available.

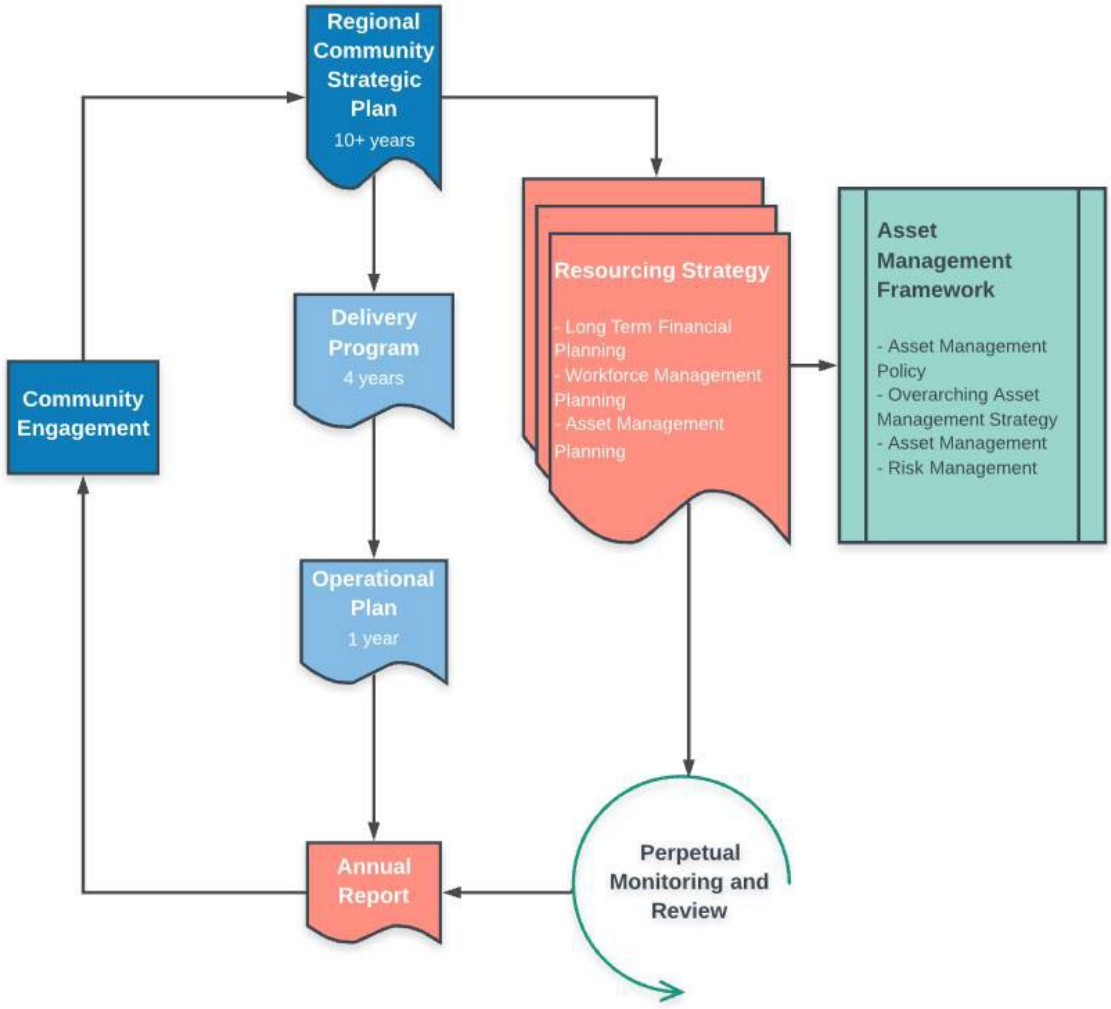
Council's current planning framework is based on the IPWEA NAMS model for asset management. Council has adopted a 'whole of council' approach beyond just a 'lifecycle' approach and is committed to delivering value for money to the current and future generations of the community. The Strategic Asset Management Plan is underpinned by Council's vision which is to:

> *"Provide comfortable country lifestyle by progressively improving the level of appropriate facilities and services and encouraging growth and economic development that is responsive to the needs of the community"*

Figure 4 Bogan Shire Asset Management Planning Framework

Council's framework has been developed in line with the legislated planning framework from the Integrated Planning and Reporting (IP&R) Guidelines for Local Government in NSW.

Figure 5 Relationship between Council's plans and resourcing strategies



- **Community Strategic Plan** - outlines what the community wants; the objectives of the community and strategies to achieve those objectives.
- **Resourcing Strategy** - details the resources available to Council to deliver the Community Strategic Plan.
- **Delivery Program/Operational Plan** - details how Council will use the resources that it has, to meet the objectives in the Community Strategic Plan, specifically where Council has been identified as responsible or as a supporting partner in the identified strategies.
- **Annual Report** - is the reporting mechanism used by Council to report on those activities and actions that Council proposed in its Delivery Program and Operational Plan.

This SAMP establishes a framework to enable the prioritisation of asset groups through planning, construction, maintenance, and operation of infrastructure necessary to achieve the goals and objectives as set out in:

- Bogan Shire Community Strategic Plan 2027

- Bogan Shire Resourcing Strategy 2027.

2.2 Scope of this Asset Management Strategy

This SAMP has been developed to provide the framework to ensure that Council's infrastructure assets are operated, maintained, renewed and upgraded to ensure that the levels of service are achieved in the most cost effective and sustainable way. It meets Council's commitments under the IP&R framework in that all Council's infrastructure assets are fully accounted for. Details on each asset class, including the inventory, condition, predicted and required expenditure are included in the appendices.

The audience for this SAMP is Council staff, the Council executive management team, elected representatives (councillors), interest groups, stakeholders and other interested members of the general community.

The specific objectives of this strategy are:

- to ensure a sustainable service offering to the community by evolving and embedding a culture of asset management
- to ensure decision-making reflects community value for this generation and the next
- to develop clearly defined and agreed service levels, to inform asset investment, to support the community's quality of life
- to drive quality service outcomes by taking a risk-based approach to the way assets are managed
- to ensure availability of resources to maintain assets over the long term.

The strategy identifies the future funding requirements and service delivery in the context of:

- current asset condition and performance
- levels of service
- forecasted demand for infrastructure and services
- funding constraints.

This strategy supports Council's aim to have 'best value' asset management strategies and practices. This is achieved by continually developing and improving the whole of Council's knowledge, systems, processes and strategies. This will ensure that Council is providing the level of asset management necessary to competently, responsibly and sustainably manage the community assets for current and future generations.

This SAMP has been prepared using a 'top down' approach whereby analysis is applied at the 'system' or 'network' level. The focus is on current levels of service and current practices. It includes expenditure forecasts for asset maintenance, renewal and replacement based on local knowledge of assets and options for meeting current levels of service.

Future revisions of this SAMP will use a 'bottom up' approach for gathering information for individual assets to support the optimisation of activities and programs to meet the levels of service. The focus of future plans developed in this manner will include risk and performance optimisation, risk-based strategies, use of predictive methods and optimised decision-making techniques.

The format of this SAMP is outlined in the table below.

Table 9 Asset Management Plan structure

Sections	Guidelines
1. Executive summary	Provides a high-level summary of the combined asset management plans and highlights the main issues for consideration.
2. Introduction	Outline of the purpose and scope of the plan and how the plan relates to other key policies and strategies.
3. Asset Management Policy	Excerpt from Council's adopted asset management policy outlining the principles guiding Council's asset management practices.
4. Asset management practices	Provision of a comprehensive strategic asset management gap analysis process for asset management.
5. Levels of service	Outline of levels of service and asset performance standards and customer/community expectations and feedback regarding levels of service.
6. Future demand	Identification of demand trends, factors which may influence demand, forecast changes in demand, impacts and implications of future demand and effects on future planning.
7. Risk management plan	Provision of an asset-based risk management plan.
8. Overarching Asset Management Strategy	Provision of a summary of Council's overall asset strategy including asset management policy and identification of critical assets.
Appendices - individual asset data, Asset Management Improvement Plan and renewals plan	Outline of asset information, operations and maintenance and capital planning information and processes and future directions for the physical management of the assets.

2.3 Assets covered by this plan

The following asset groups are covered by this Asset Management Strategy and Plan:

- Buildings and Other Structures (including swimming pools and recreational assets)
- Roads and Stormwater Infrastructure
- Water and Sewerage Infrastructure

Full details of Council's assets are covered in the individual Asset Management Plans found in the Appendix.

2.4 About Bogan Shire Council

Bogan Shire, situated in Western New South Wales, has an area of 14,610 square kilometres, equivalent to about 1.8% of the State's land surface. The geographical centre of the state lies within the Shire boundaries. The Shire has an estimated population of 3,012. Nyngan, the Shire's administrative centre, is located on the Bogan River at the junction of the Mitchell and Barrier Highways - an ideal rest point for the weary traveller.

There is an abundance of productive agricultural land for sheep and cattle production and large-scale cropping enterprises. Nyngan's farmers are highly competitive on local and international markets and the large quantity of agricultural produce is conducive to the development of value adding industries and marketing ventures.

Nyngan offers warm hospitality and all the facilities of a modern rural township. Three motels, two caravan parks and hotels provide a choice of accommodation options. Three licensed clubs cater for entertainment and relaxation. The town also boasts a selection of cafes, restaurants and takeaway food outlets for dining.

The Bogan Shire has one high school, four primary schools, one early learning centre (long day care), one pre-school, a mobile pre-school, and a TAFE campus. Nyngan's medical needs are catered for by the new Bogan Shire Medical Centre and the Nyngan Health Service (multi-purpose health centre which incorporates a nursing home/aged care complex) and a network of health professionals including three doctors, allied health services and pathology.

The recreational and sporting facilities in Nyngan are excellent and include facilities for bowls, golf, tennis, dancing, swimming, rugby union, rugby league, touch football, cricket, netball, fishing, boating, canoeing, water-skiing, soccer, little athletics and pony club. Whether you are looking for an outback experience or a place to escape the hectic pace of the city life, we hope that a visit to the Bogan Shire will show you what real "comfortable country living" is all about.

2.5 Links to Council plans and strategies

The Strategic Asset Management Plan and Asset Management Plans have been prepared in line with the vision and strategies outlined in 'Bogan Shire – Community Strategic Plan 2027' (CSP).

Infrastructure assets will play both a direct and indirect role in achieving the strategic objectives of the CSP. The following table indicates how Council's assets play a role in the delivery of the key strategies outlined in the CSP.

Table 10 Linkages to the Corporate Strategic Plan

Reference	Strategy	Buildings	Roads Infrastructure	Stormwater	Water	Wastewater	Parks Infrastructure
Goal - Our Environment							
EN1	Protect and enhance the existing natural environment, including flora and fauna native to the region			x	x	x	x
EN2	Adopt environmental sustainability practices	x	x	x	x	x	x
EN3	Protect and rehabilitate waterways and catchments			x	x	x	x
EN4	Maintain a balance between growth, development and environmental protection through sensible planning	x	x	x	x	x	x
EN5	To investigate and implement approaches to reduce our carbon footprint	x	x	x	x	x	x
Goal - Our Community							
CO1	Facilitate and encourage equitable access to community infrastructure and services, such as health care, education and roads	x	x	x	x	x	x
CO2	Encourage and facilitate active and creative participation in community life						x
CO4	Recognise and celebrate our diverse cultural identities, and protect and maintain our community's natural and built cultural heritage	x					
Goal - Our Infrastructure							
IN1	Develop high speed rail links between the region, Canberra, Sydney, and Melbourne		x				
IN2	Improve public roads links to connect towns within the region and increase access to major centres		x				

Reference	Strategy	Buildings	Roads Infrastructure	Stormwater	Water	Wastewater	Parks Infrastructure
IN3	Maintain and improve road infrastructure and connectivity		x				
IN4	Maintain and update existing community facilities, and support the development of new community infrastructure as needed	x					x
IN5	Ensure high quality water supply options for the towns in the region				x		
IN6	Implement safe, accessible, and efficient management and recycling options for general waste, green waste, and sewerage			x		x	
IN7	Secure improvements for, and future proof, telecommunications infrastructure	x					
IN8	Improve accessibility to, and support the development of, health and medical facilities in the region	x					
IN9	Improve accessibility to, and support the development of, education and training facilities in the region	x					

3 Asset Management Policy

3.1 Purpose

The objective of this policy is to ensure that Bogan Shire Council develops and maintains appropriate, systems, processes, organisational structure, resources (both financial and human) and organisational commitment (culture), to deliver a consistent and sustainable level of service delivery in line with community expectation.

3.2 Objectives

To ensure adequate provision is made for the long-term replacement of major assets by:

- ensuring that Bogan Shire Council develops and maintains appropriate, systems, processes, organisational structure, resources (both financial and human) and organisational commitment (culture), to deliver a consistent and sustainable level of service delivery in line with community expectation
- meeting legislative requirements for asset management
- ensuring resources and operational capabilities are identified and responsibility for asset management is allocated
- demonstrating transparent and responsible asset management processes that align with best practice.

3.3 Scope

Bogan Shire Council has care, control and responsibility for infrastructure assets with a fair value of in excess of $247 million. These assets are used to underpin the delivery of services to the community. If assets fail, service delivery is threatened.

This policy sets the framework for ensuring that service delivery is not threatened, and that replacement, upgrade and provision of assets is carried out in a planned manner. The policy also ensures that non-asset ownership options are considered when considering changes in service levels.

3.4 Policy

Council is committed to implementing a systematic total asset management methodology in order to ensure appropriate asset management best practices occur across all areas of Council. This includes ensuring that assets are planned, created, operated, maintained, renewed, and disposed of in accordance with Council's priorities of service delivery.

3.5 Vision and mission

Bogan Shire Council's vision is to provide "*comfortable country living*".

Bogan Shire Council's mission is to "*provide a comfortable country lifestyle by progressively improving the level of appropriate facilities and services and encouraging growth and economic development that is responsive to the needs of the community*".

3.6 Key commitments

The following is a set of key commitments that Bogan Shire Council will adhere to in relation to total asset management:

- Bogan Shire Council will develop, maintain and adopt Asset Management Plans covering all major asset classes:
  - Transport and Stormwater (roads, bridges ,footpaths, kerbs and gutters)
  - Water Supply and Sewerage
  - Buildings
  - Other Assets.
- The format of Asset Management Plans will align with the Institute of Public Works Engineering's IIMM, which ensures that best practices are incorporated, including community consultation for levels of service.
- Bogan Shire Council will develop and maintain an Asset Management Improvement Strategy (AMIS) with a planning horizon of four-years, and which sets out continual improvement for asset management systems and processes in line with the NSW State Government's Integrated Planning and Reporting Framework.
- Prior to considering changes to services levels and/or new capital works, Council will consider the following:
  - alignment with the strategic objectives of the community (Community Strategic Plan – Bogan Shire Council)
  - options for service delivery without Council owning an asset (third party asset ownership)
  - options to renew assets before acquiring new assets
  - the full lifecycle cost of owning the assets (whole of life cost)
  - whether the whole of life cost of asset ownership can be accommodated within the Long Term Financial Plan.
- Bogan Shire Council will regularly review (in line with the AMIS) the need for asset ownership and will implement a process to dispose of redundant or poor performing assets.
- Bogan Shire Council will develop, maintain and adhere to the Asset Management Policy.
- Bogan Shire Council will establish and maintain an informal multi-disciplinary, cross functional Asset Management Working Group (AMWG) to guide the development of asset management practices, systems and processes.

3.7 Linkages to other Council documents

This policy should be read with reference to the following documents:

- Bogan Shire Community Strategic Plan
- Asset Management Strategy
- Asset Management Plans
- Long Term Financial Plan.

3.8 Roles and responsibilities

Council will:

- set asset management policy and vision
- act as stewards for all Council owned assets on behalf of the community
- adopt the Asset Management Policy and support the Asset Management Strategy and monitor their outcomes
- allocate necessary resources to support appropriate asset management processes
- ensure that four-year Delivery Program (Management Plan) and related Capital Works Programs align with the Bogan Shire Community Strategic Plan, and are sustainable and responsive to community need
- undertake open and transparent decision making
- approve levels of service, risk and cost standards in consultation with the community
- support continuous improvement programs.

Executive staff will:

- ensure that the strategic direction meets both community and Council aims
- implement asset management policies, strategies, plans, across the organisation as part of the overall Resourcing Strategy
- monitor implementation progress of the Asset Management Strategy and identify corrective actions if required
- provide relevant and timely professional advice to Council on asset management issues for decision-making, and present information in terms of lifecycle risks and costs.
- identify relevant benchmarks and opportunities to achieve best practice
- ensure availability of appropriate resources for asset management activities
- ensure that assets are managed in compliance with industry guidelines and standards
- ensure that staff responsible for managing assets are trained appropriately.

The Asset Management Group represents the asset management and planning expertise within Council and will:

- oversee the development, monitoring and review of asset policies, strategies and plans using best practice asset management principles
- develop operational procedures to ensure the capture and management of asset information
- implement tactical plans (such as maintenance programs, capital works programs) in accordance with Asset Management Plans
- report implementation progress and effectiveness to the Executive Staff Committee.

Council staff (to the extent that they have asset management related responsibilities) will:

- employ up to date technologies, methodologies and continuous improvement processes in asset management

- have asset management responsibilities reflected in input/output documentation and position descriptions as appropriate
- undertake actions and programs consistent with the adopted Asset Management Policy, Strategy and Plans.

3.9 Review date

This policy will be reviewed in accordance with any timetable established by the General Manager, after application of the policy reveals any deficiencies, or if changes in law or regulations impact on the accuracy or legality of the provisions.

3.10 Adoption of policy

Council's Asset Management Policy is to be adopted by Council on 22 May 2022.

4 Asset management practices

4.1 Asset management information systems

Bogan Shire Council's asset knowledge, information and data are corporate assets and are managed as part of the asset management framework. The current applications used by Council include:

- Confirm - asset management system.
- Civica - corporate finance system
- Mapinfo - geographic information system
- Microsoft Excel.

4.2 Data collection and validation

In the preparation of this Asset Management Strategy and Plans, Council has used the most current and up to date information available from Council's corporate finance system.

As part of Council's Asset Management Improvement Plan, Council aims to foster a culture of continuous improvement in service delivery to ensure best value in service provision for the community. This will be supported by the Asset Management Plans, including ongoing monitoring, audit and improvement practices which are to be used to optimise Council's operational and renewal expenditure.

Council should undertake a regular inspection of its infrastructure assets. Updating of the register to reflect accuracy of the asset inventory should happen on an ongoing and continuous basis. Council is also required to undertake regular assessment of its asset condition. Given the size of Bogan Shire this is likely to be carried out internally by Council staff. Whilst currently there is no fixed schedule for asset condition inspection, it is suggested that regular comprehensive visual asset condition inspections be undertaken the year prior to the asset revaluation for each asset class. Selected inspections of assets are carried out as required throughout the year due to current works, customer queries and ad hoc inspections.

4.3 Monitoring and review procedures

Council tracks its achievement of the CSP, Delivery Program, Operational Plan and Asset Management Improvement Plan outcomes. These are reported to Council on a quarterly basis The outcomes will be reviewed and reported on regularly by the executive team.

4.4 Confidence in data

The confidence in the asset data used as a basis for the financial forecasts has been assessed using the following grading system. See the table below.

Table 11 Asset data confidence scale

Confidence grade	General meaning
Highly reliable	Data based on sound records, procedure, investigations and analysis that is properly documented and recognised as the best method of assessment.
Reliable	Data based on sound records, procedures, investigations and analysis which is properly documented but has minor shortcomings; for example, the data is old, some documentation is missing, and reliance is placed on unconfirmed reports or some extrapolation.
Acceptable	Data based on sound records, procedures, investigations and analysis with some shortcomings and inconsistencies.
Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported or extrapolation from a limited sample.
Very uncertain	Data based on unconfirmed verbal reports and/or cursory inspection and analysis.

Summary of confidence in asset data for all asset classes is detailed in the table below.

Table 12 Asset data confidence rating

Asset class	Confidence grade
Buildings	Highly reliable
Other Structures	Acceptable
Open Space	Acceptable
Roads Infrastructure	Reliable
Stormwater	Acceptable
Water	Reliable
Sewerage	Reliable

4.5 Funding strategy

Council's funding strategy aims to align Council's Long-Term Financial Plan, Asset Management Plans and annual budget to accommodate the lifecycle requirements of its assets. By having a unified process, all decision-making numbers can be traced back to the AMPs, thereby informing the annual budgets and forward programs providing a degree of certainty for delivery timeframes and resourcing requirements.

It is acknowledged that a significant part of Council's capital program is reliant on grant funding. Council will ensure that grant funding that creates new assets will be considered, taking into account the lifecycle cost of the asset and whether the proposed assets helps meet Council's strategic objectives. Council should actively seek funding which helps renew and or restore service potential for its existing asset base.

In order to ensure value, Council will plan capital upgrade and new projects to meet level of service objectives by:

- planning and scheduling capital upgrade and new projects to deliver the defined level of service in the most efficient manner
- undertaking project scoping for all capital upgrade/new projects to identify
  - the service delivery 'deficiency', present risk and required timeline for delivery of the upgrade/new asset
  - the project objectives to rectify the deficiency including value management for major projects
  - the range of options, estimated capital and life cycle costs for each option that could address the service deficiency
  - management of risks associated with alternative options
  - evaluate the options against evaluation criteria adopted by Council
  - select the best option to be included in capital upgrade/new programs.
- reviewing current and required skills base and implement training and development to meet required construction and project management needs
- reviewing management of capital project management activities to ensure Council is obtaining best value for resources used.

5 Levels of service

5.1 Defining level of services

There are a variety of ways to describe levels of service (also known as service level). The concept adopted in this plan is that "*levels of service are output descriptions supported by quantifiable performance measures.*" A level of service is a measurable description of what Council delivers (or intends to deliver) in an activity which relates to something that can be controlled. Service levels may relate to:

- the reliability of an asset
- the quality of an asset
- having the right quantity of assets
- the safety/risk security of the assets.

The objective of asset management is to enable assets to be managed in the most cost-effective way based on an understanding of customer needs, expectations, preferences and their willingness to pay for any increase in the levels of service.

5.2 Performance measures

The level of service statement is supported by performance measure(s), also referred to as performance indicator(s), that indicate how the organisation is performing in relation to that level of service. The performance measure includes targets that are made up of community and technical measures. The customer measure relates to how the community receives the service, whereas technical measures support customer measures to ensure all aspects of organisational performance are being monitored, even those that may not be understood by customers.

In this plan, the level of services is prepared so that they are clearly and directly linked with the performance measures. For some performance measures in this plan, Council will have full control over the outcome, for example 'respond to service requests within seven days'. However, it is important to recognise that some performance measures may be influenced by external factors. For example, the number of fatalities can be influenced by road management, but driver behaviours, police enforcement and a number of other factors also strongly contribute to the overall outcome.

5.3 Service level outcomes

The levels of service in this plan have been developed with a customer focus and grouped into core customer value areas that are referred to as 'service level outcomes'. These service level outcomes (sometimes referred to as service criteria) encompass:

- accessibility and/or availability
- affordability
- health and safety
- quality/condition
- reliability/responsiveness
- customer satisfaction
- sustainability.

Accessibility

To ensure the asset base performs as required it is essential that the asset, no matter which type of asset, is generally available to the community. As a service outcome, the Council's customers will need assets that are accessible and can be relied upon to deliver the services that are not only expected, but the services that are required.

Quality/condition

Asset quality is also very important. In this regard, Council should determine the quality of the assets required. Quality will have more to do with manner and type of the asset rather than its condition. An asset may be poor in quality yet have a condition which is described as good.

Condition is a measure of an asset's physical condition relative to its condition when first constructed. When rating asset condition, Council uses a scale of 0 - 5, where 0 = new and 5 = totally failed. A copy of a typical condition rating matrix is detailed below.

Table 13 Asset condition rating matrix

Condition rating	Condition	Descriptor	Guide	Residual life as a % of total life	Mean percentage residual life
1	Excellent	An asset in excellent overall condition, however, is not new and providing its intended level of service.	Normal maintenance required	>86	95
2	Good	An asset in good overall condition with some possible early stages of slight deterioration evident, minor in nature and causing no serviceability issues. No indicators of any future obsolescence and providing a good level of service.	Normal maintenance plus minor repairs required (to 5% or less of the asset)	65 to 85	80
3	Satisfactory	An asset in fair overall condition with some deterioration evident, which may be slight or minor in nature and causing some serviceability issues. Providing an adequate level of service with no signs of immediate or short-term obsolescence.	Significant maintenance and/or repairs required (to 10 - 20% of the asset)	41 to 64	55
4	Poor	An asset in poor overall condition, moderate to high deterioration evident. Substantial maintenance required to keep the asset serviceable. Will need to be renewed, upgraded or disposed of in near future. Is reflected via inclusion in the ten-year Capital Works Plan.	Significant renewal required (to 20 - 40% of the asset)	10 to 40	35
5	Very poor	An asset in extremely poor condition or obsolete. The asset no longer provides an adequate level of service and/or immediate remedial action required to keep the asset in service in the near future.	Over 50% of the asset requires renewal	<10	5

Responsiveness

Council will maintain assets in a diligent manner and be responsive to the needs of the community now and into the future. Whilst this may be difficult in some instances, Council places a high emphasis on customer service and its responsiveness to customer enquiries. Strategies will be implemented to ensure that Council maintains a high level of customer support.

Affordability

Council will maintain its infrastructure assets in a cost-effective, affordable manner in accordance with responsible economic and financial management. In order for Council's assets to assist in meeting the strategic goals and in attaining optimum asset expenditure, Council will need to continually review its current operational strategies and adopt new and proven techniques to ensure that assets are maintained in their current condition.

Customer satisfaction

Council will continue to provide services to the community in a manner that is efficient and effective. Council will continue to monitor community satisfaction with its current services and strive to improve community satisfaction where possible.

Sustainability

Council will ensure that its assets are maintained in a manner that will establish the long-term financial sustainability for current and future generations. This will be achieved by carrying out efficient and effective service delivery and ensuring appropriate funds are allocated to maintain and renew infrastructure assets.

Health and safety

Council will endeavour to identify and mitigate all key health and safety risks created by the provision of services. Examples of level of service based on safety might include the following:

- services do not cause a hazard to people
- water is safe for swimming.

Each of the service level outcomes is related directly to the Council's Community Strategic Plan by the way each asset class helps deliver the services required by the community. These service level outcomes are essential to ensure the asset portfolio is not only maintained to a satisfactory level but also caters for the future demands of the community whilst balancing the potential risks to the community and the Council.

5.4 Financial based service levels

The premise of asset management is that asset requirements and asset management strategies should be driven by defined and acceptable service levels and performance standards. This section defines the various factors that are considered relevant in determining the levels of service for Council's assets that have been used to provide the basis for the lifecycle management strategies and works programme identified within this asset management strategy.

Asset backlog ratio

This ratio shows what proportion the infrastructure backlog is against the total value of a council's infrastructure. The benchmark is less than 2%. The ratio is determined by dividing the estimated cost to bring

assets to a satisfactory condition by the carrying value of infrastructure, building, other structures and depreciable land improvement assets.

Asset consumption ratio

The average proportion of 'as new' condition remaining for assets. This ratio shows the written down current value of the local government's depreciable assets relative to their 'as new' value. It highlights the aged condition of a local government's stock of physical assets and the potential magnitude of capital outlays required in the future to preserve their service potential. It is also a measure of a council's past commitment to renewal of the asset class. A consumption ratio of less than 50% would suggest that past renewal funding has been inadequate or that the asset could expect to decay more rapidly.

Asset sustainability ratio

Are assets being replaced at the rate they are wearing out? This ratio indicates whether a local government is renewing or replacing existing non-financial assets at the same rate that its overall stock of assets is wearing out. It is calculated by measuring capital expenditure on renewal or replacement of assets relative to the rate of depreciation of assets for the same period. A local government would need to understand and be measuring its renewal expenditure to be able to determine this ratio.

Asset renewal and renewals funding ratio

Is there sufficient future funding for renewal and replacement of assets? This ratio indicates whether a council is allocating sufficient funds in its long-term financial plan to adequately fund asset renewals.

Asset maintenance ratio

This ratio compares actual versus required annual asset maintenance for each asset class. A ratio of above 100% indicates that the council is investing enough funds that year to halt the infrastructure backlog from growing. The benchmark is greater than 100%.

6 Future demand

6.1 Demand forecast

The future infrastructure demand for community infrastructure and facilities is driven by changes and trends in:

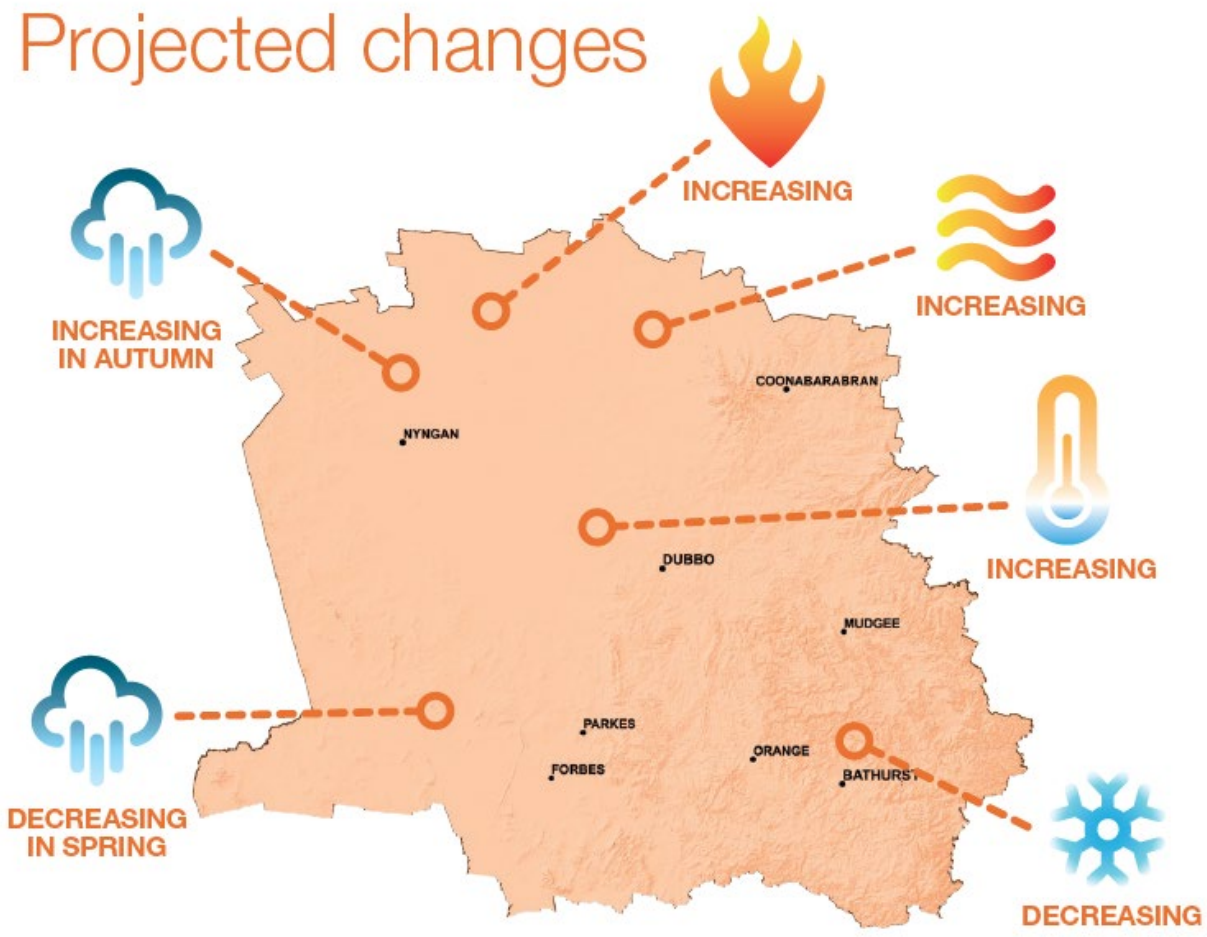
- population growth/reduction
- changes in the demography of the community
- lifestyle changes
- residential occupancy levels
- commercial/industrial demand
- technological changes which impact the asset
- the economic situation
- government policy
- the environment.

Table 14 Future demand impacts

Demand drivers	Present position	Projection	Impact on services
Population growth and residential development	Current estimated population is 2,700 which reside in approximately 1,500 households.	It is expected that the Bogan Shire will experience a 7.5% increase in population over the next twenty years. This is a net increase in population of approximately 200 persons and 200 additional households.	Population growth will have limited impact on demand for assets. Council could expect a natural demand for increased services as community expectations and demands change over time.
Demographics	Around 23% of the population was over the age of 60 in the 2016 Census.	The population is expected to continue to age. With the expected increase in average age of the population. By 2041 it is expected that 31% of the population will be over the age of 60.	An increasing and older population will place an increased demand on some assets and increased accessibility requirements for footpaths, aged care facilities, community centres and recreation assets.
Lifestyle	Predominantly rural lifestyle.	Community engagement identified that the community wishes to maintain its rural lifestyle.	N/A

Demand drivers	Present position	Projection	Impact on services
Environment	The NSW and ACT Regional Climate Modelling (NARCliM) Project has undertaken climate modelling of the region for 2020-2039 and 2060-2079.	Expected climatic changes can be found in figure six. This includes: • overall increased temperatures and rainfall in both the near and far future • increased risk and intensity of natural disaster (fire) events.	Assets may be impacted by changes such as more severe weather events.

Figure 6 Impacts of climate change - NARCliM modelling



6.2 Demand management strategies

Demand management strategies have been developed to effectively manage the growth of Bogan Shire. These can be found in the corresponding asset management plans found in the appendix. These strategies will need to be monitored to ensure that they capture and are responsive to changing community expectations and demographic profile as the region develops.

6.3 Demand management plan

The following general implications and impacts predicted on the Council assets, based upon changes and trends, are shown in the table below.

Table 15 Future demand factors

Demand factor	Impact on services
Population	Population growth will place a limited increased demand on assets, especially roads, water and sewer assets.
Demographics	An increasing and older population will place an increased demand on some assets and increased accessibility requirements for footpaths, aged care facilities, community centres and recreation assets.
Road utilisation changes	Smart, multi-modal road solutions will be required to keep up with the growth and provide cheap, efficient and sustainable means of road transport.
Increasing costs	Requirement to continue to maximise service delivery within the funding limitations.
Environment and climate	Assets may be impacted by changes such as increased severity of natural disasters and weather events.
Technology	May require improved environmental/economical management of assets.

7 Risk management

Risk management is defined in 'AS/NZS 4360:2004' as: "the culture, processes and structures that are directed towards realising potential opportunities whilst managing adverse effects".

Bogan Shire Council is committed to a structured and systematic approach to the management of risk and has committed resources to the implementation of an enterprise risk management program. This program aims to embed the principles of risk management in all aspects of Council's operations, which will ultimately:

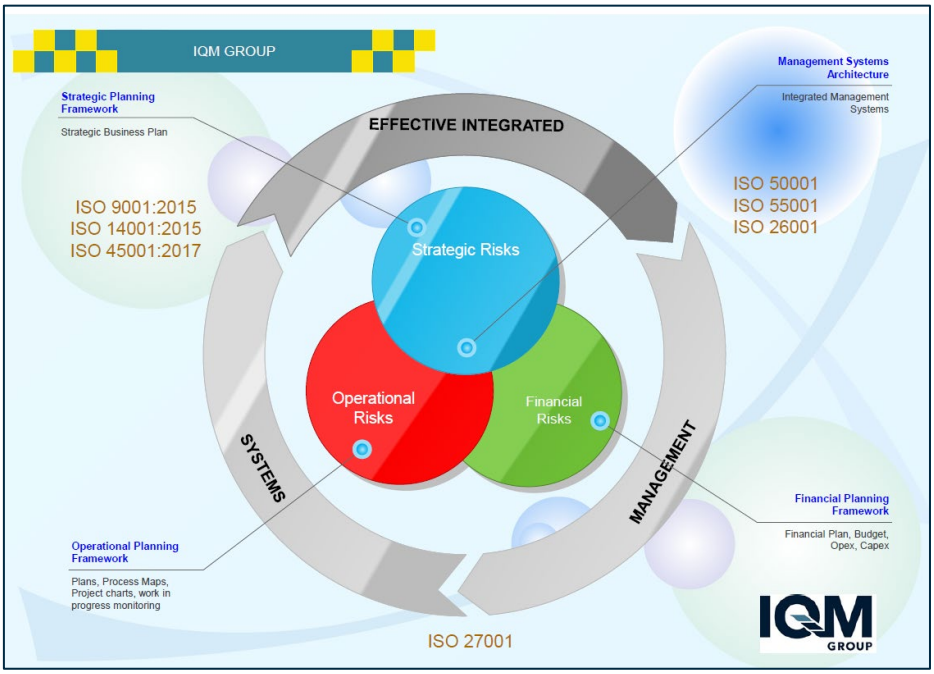
- increase the likelihood of Council achieving its objectives
- create an environment where all employees have a key role in managing risk
- encourage proactive management
- improve the identification of opportunities and threats
- improve stakeholder confidence and trust
- improve financial stability and minimise losses
- improve organisational performance.

Council utilises a whole of council integrated risk management framework and has undertaken a risk assessment and created a mitigation plan to address risks for each asset class.

7.1 Risk management framework

Council's risk management framework covers a wide range of projects, programs and activities. The plan incorporates Council's strategic planning framework, Council's management systems architecture, financial planning framework and operational planning framework. The plan feeds into the Delivery Program and Operational Plan and is also to be used in management of assets or infrastructure related risk.

Figure 7 Risk management framework



Council operates a wide range of diverse projects, programs and activities and has a large number of diverse stakeholders with varying needs and expectations. Therefore, the scope of Council's organisation-wide risk management must encapsulate all activities. Specifically, the context of risk management will include the following:

Table 16 Risk management context

Governance	Sound processes for decision-making i.e. the processes by which decisions are implemented or not implemented.
Compliance	Meeting the expectations and requirements of those stakeholders who regulate the organisation.
WH&S	Achieve fewer and less severe injuries, better trained and informed employers and workers, improved morale among workers.
Financial	Includes strategic and business planning, financing and accounting.
Operational	Includes programmes, activities and processes to deliver internal and external services.
Environmental	Given exposure or series of exposures that may damage human health or the physical environment.

7.2 Continuous improvement pathway

Council is part of the "Statewide Mutal" group for the purpose of public liability and professional indemnity insurance cover. The aim of the group is to apply innovative practices to the management of local government insurance to ensure the protection of members through stable premiums, cost containment and spread of risk.

To assist in meeting aims on the initiatives undertaken by Statewide Mutual Group, is the continuous improvement pathway (CIP) program. The CIP exists to help councils advance the continuous improvement of risk management systems through participation in the program. Council has been involved in the CIP for asset management, in particular the management of it building, footpaths and stormwater assets.

The CIP assessment is broken down into the following elements:

- strategy
- policy/management plan
- resourcing
- system
- documentation.

Where appropriate some of the elements of the individual CIP will be addressed in the asset management strategy and plans.

7.3 Critical assets

Critical assets are those assets that are likely to result in a more significant financial, environmental and social cost in terms of impact on organisational objectives. By identifying critical assets and critical failure modes, organisations can target and refine investigative activities, maintenance plans and capital expenditure plans at critical areas.

ISO 55001 Cl 6.2.1.2b requires organisations to "review the importance of assets related to their intended outcomes, objectives and product or service requirements." ISO 55002 Cl 6.2.2.1 suggests that "a key aspect of planning is the identification of events in which the functionality of assets is compromised, including potentially catastrophic events in which function is completely lost". Council determines the criticality of assets based upon the following criteria:

- complexity
- impact of loss of service
- environmental impact
- health and safety impact
- cost of failure.

Critical assets for each asset class have been identified in their respective Asset Management Plans.

8 Expenditure projections

8.1 Asset values

In preparing this SAMP, it has been identified that Bogan Shire Council has combined infrastructure assets with a current replacement cost of just under $300 million. The major asset classes included in this strategy and their values are detailed in the table below.

Table 17 Summary of combined infrastructure assets values

Asset class	Gross replacement cost $,000 (CRC)	Written down value $,000 (WDV)	Annual depreciation $,000 expense
Bridges	13,783	11,737	109
Buildings	33,971	17,414	670
Bulk Earthworks	63,710	63,710	0
Footpaths	4,313	1,790	91
Other structures	4,500	3,030	74
Roads	104,285	79,210	1,635
Sewerage network	18,001	9,488	210
Stormwater	8,265	8,110	13
Water supply network	43,982	31,452	502
Total	**294,810**	**225,941**	**3,304**

8.2 Asset backlog

As per the 2020/21 Special Schedule 7 analysis, Council has a combined asset backlog of $4.2 million (1.9 % backlog ratio) to bring assets to satisfactory standard which is currently taken as condition 3. The breakdown of backlog per asset class is shown in table below.

Table 18 Asset backlog

Estimated cost to satisfactory	Backlog ($,000)	Backlog ratio % (backlog / WDV)
Bridges	80	0.7%
Buildings	850	4.9%
Bulk earthworks		0.0%
Footpaths	100	5.6%
Other structures	312	10.3%
Roads	1,925	2.4%
Sewerage network	160	1.7%
Stormwater	10	0.1%
Water supply network	830	2.6%
Combined	**4,267**	**1.9%**

8.3 Asset condition

Reviewing asset condition data shows that the most of Council's assets are in good condition except for 37% of Council's footpath assets which are currently in condition 4 (poor). The reliability of Council's condition data varies between asset classes with buildings being highly reliable; roads, water and sewer assets being reliable and other structures and open space assets being acceptable. The condition is represented as a percentage of the replacement cost of Council's asset classes as well as shown as combined.

Table 19 Asset condition

Asset class	Asset condition (% of CRC)				
	1	2	3	4	5
Bridges	0.0%	0.0%	97.0%	3.0%	0.0%
Buildings	60.0%	21.7%	17.8%	0.5%	0.0%
Bulk earthworks	100.0%	0.0%	0.0%	0.0%	0.0%
Footpaths	3.0%	10.0%	50.0%	37.0%	0.0%
Other structures	60.4%	16.6%	10.6%	12.4%	0.0%
Roads	3.4%	26.7%	62.7%	4.3%	2.9%
Sewerage network	1.0%	81.2%	17.6%	0.3%	0.0%
Stormwater	92.5%	0.0%	7.5%	0.1%	0.0%
Water supply network	30.0%	30.7%	27.8%	11.4%	0.1%
Combined	**37.8%**	**21.9%**	**35.1%**	**4.2%**	**1.0%**

8.4 Expenditure and reporting

Consolidated Fund asset reporting

The average capital and maintenance expenditure on Council assets over the ten-year forecast period is approximately $10.1 million per year. This compares to the expenditure which is required to maintain, operate and renew the asset network as required being $11.2 million per year. This represents an annual shortfall $1.1 million of which $0.1 million is attributable to a shortfall in operations and maintenance funding and $1.0 million on average in renewal funding.

Further analysis shows that these funding gaps can be primarily credited to the following:

- $0.7 million average annual shortfall in buildings
- $0.2 million average annual shortfall in transport
- $0.2 million average annual shortfall in water and sewer supply.

While this result shows a reasonable funding shortfall over a ten-year forecasting period, all asset classes had expenditure projections and requirements prepared for the four-year period only. As such future expenditure was inferred from available data. As a result, the projected funding shortfall in years three and four has significant implications over the remainder of the ten-year period.

It is not clear how council determines its required expenditure as this has a significant impact on the required expenditure to maintain own and operate Council's asset portfolio. Morrison Low adopts a benchmarking approach to determining required maintenance. If Council adopted the Morrison Low methodology for determining required maintenance, there would be no net deficit in asset funding over the ten-year modelling period.

A summary of the projected expenditure requirements can be found in the table on the following page.

Table 20 Combined asset expenditure projections

Expenditure projections ($,000) – combined assets		2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Actual	Renewal	3,784	3,172	2,555	2,619	2,684	2,751	2,820	2,891	2,963	3,037
	New and expanded assets	2,321	711	566	6,710	10,215	221	226	232	238	244
	Maintenance and operational	4,505	4,618	4,733	4,852	4,973	5,097	5,225	5,356	5,489	5,627
	Total expenditure	10,610	8,501	7,854	14,181	17,873	8,070	8,271	8,478	8,690	8,907
Required	Required renewal (depreciation)	3,387	3,497	3,593	3,689	3,856	4,065	4,169	4,275	4,385	4,497
	New and expanded assets	2,321	711	566	6,710	10,215	221	226	232	238	244
	Required operations and maintenance	4,407	4,528	4,649	4,862	5,132	5,263	5,398	5,537	5,678	5,824
	Total	10,115	8,736	8,808	15,261	19,203	9,549	9,793	10,044	10,301	10,565
Maintenance gap		98	90	84	-11	-159	-166	-173	-181	-189	-197
Renewals gap		397	-325	-1,038	-1,070	-1,172	-1,313	-1,348	-1,385	-1,422	-1,460
Overall (GAP)		496	-235	-953	-1,081	-1,330	-1,479	-1,522	-1,566	-1,611	-1,657

General Fund assets reporting

The average capital and maintenance expenditure on Council assets over the ten-year forecast period is approximately $6.25 million per year. This compares to the expenditure which is required to maintain, operate and renew the asset network as required being $7.23 million per year. This represents an annual shortfall $0.98 million of which $0.1 million is attributable to a shortfall in operations and maintenance funding and $.88 million on average in renewal funding.

Further analysis shows that these funding gaps can be primarily credited to the following:

- $0.7 million average annual shortfall in buildings
- $0.2 million average annual shortfall in transport.

While this result shows a reasonable funding shortfall over a ten-year forecasting period, all asset classes had expenditure projections and requirements prepared for the four-year period only. As such future expenditure was inferred from available data. As a result, the projected funding shortfall in years three and four has significant implications over the remainder of the ten-year period.

It is not clear how Council determines its required expenditure as this has a significant impact on the required expenditure to maintain own and operate Council's asset portfolio. Morrison Low adopts a benchmarking approach to determining required maintenance. If Council adopted the Morrison Low methodology for determining required maintenance, there would be no net deficit in asset funding over the ten-year modelling period.

A summary of the projected expenditure requirements can be found in the following table.

Table 21 Combine asset expenditure projections

Expenditure projections ($,000) – combined assets		2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Actual	Renewal	1,926	2,272	1,946	1,995	2,045	2,096	2,148	2,202	2,257	2,313
	New and expanded assets	1,968	350	205	210	215	221	226	232	238	244
	Maintenance and operational	3,324	3,407	3,492	3,579	3,669	3,760	3,854	3,951	4,049	4,151
	Total expenditure	7,218	6,029	5,643	5,784	5,929	6,077	6,229	6,384	6,544	6,708
Required	Required renewal (depreciation)	2,657	2,745	2,818	2,890	2,965	3,041	3,120	3,200	3,283	3,368
	New and expanded assets	1,968	350	205	210	215	221	226	232	238	244
	Required operations and maintenance	3,387	3,476	3,566	3,658	3,753	3,850	3,949	4,051	4,156	4,263
	Total	8,011	6,571	6,589	6,759	6,933	7,112	7,295	7,483	7,676	7,874
Maintenance gap		-63	-70	-74	-79	-84	-89	-95	-100	-106	-112
Renewals gap		-731	-473	-872	-896	-920	-946	-972	-999	-1,026	-1,055
Overall (GAP)		-794	-543	-946	-975	-1,004	-1,035	-1,067	-1,099	-1,132	-1,167

Water and Sewer Fund asset reporting

The average capital and maintenance expenditure on Council assets over the ten-year forecast period is approximately $3.85 million per year. This compares to the expenditure which is required to maintain, operate and renew the asset network as required being $4.03 million per year. This represents an annual shortfall $0.18 million of which $0.04 million is attributable to a shortfall in operations and maintenance funding and $.14 million on average in renewal funding. It should be noted that plan modelling for water and sewer includes new capital expenditure of $16.5 million for upgraded treatment facilities.

While this result shows a reasonable funding shortfall over a ten-year forecasting period, all asset classes had expenditure projections and requirements prepared for the four-year period only. As such future expenditure was inferred from available data. As a result, the projected funding shortfall in years three and four has significant implications over the remainder of the ten-year period.

It is not clear how Council determines its required expenditure as this has a significant impact on the required expenditure to maintain own and operate Council's asset portfolio. Morrison Low adopts a benchmarking approach to determining required maintenance. If Council adopted the Morrison Low methodology for determining required maintenance, there would be no net deficit in asset funding over the ten-year modelling period.

A summary of the projected expenditure requirements can be found in the following table.

Table 22 Combine asset expenditure projections

Expenditure projections ($,000) – combined assets		2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Actual	Renewal	1,858	900	609	624	640	656	672	689	706	724
	New and expanded assets	353	361	361	6,500	10,000	0	0	0	0	0
	Maintenance and operational	1,182	1,211	1,242	1,273	1,304	1,337	1,371	1,405	1,440	1,476
	Total expenditure	3,393	2,472	2,212	8,397	11,944	1,993	2,043	2,094	2,146	2,200
Required	Required renewal (depreciation)	730	752	775	799	893	1,020	1,046	1,072	1,098	1,126
	New and expanded assets	353	361	361	6,500	10,000	0	0	0	0	0
	Required operations and maintenance	1,020	1,052	1,084	1,215	1,405	1,440	1,476	1,513	1,551	1,589
	Total	2,103	2,165	2,220	8,513	12,297	2,460	2,521	2,584	2,649	2,715
Maintenance gap		161	160	158	58	-100	-103	-105	-108	-111	-113
Renewals gap		1,128	148	-166	-174	-253	-364	-373	-383	-392	-402
Overall (GAP)		1,290	308	-8	-116	-353	-467	-479	-491	-503	-515

8.5 Financial ratios

Consolidated Fund asset reporting

Figure 9 Consolidated Fund renewals expenditure

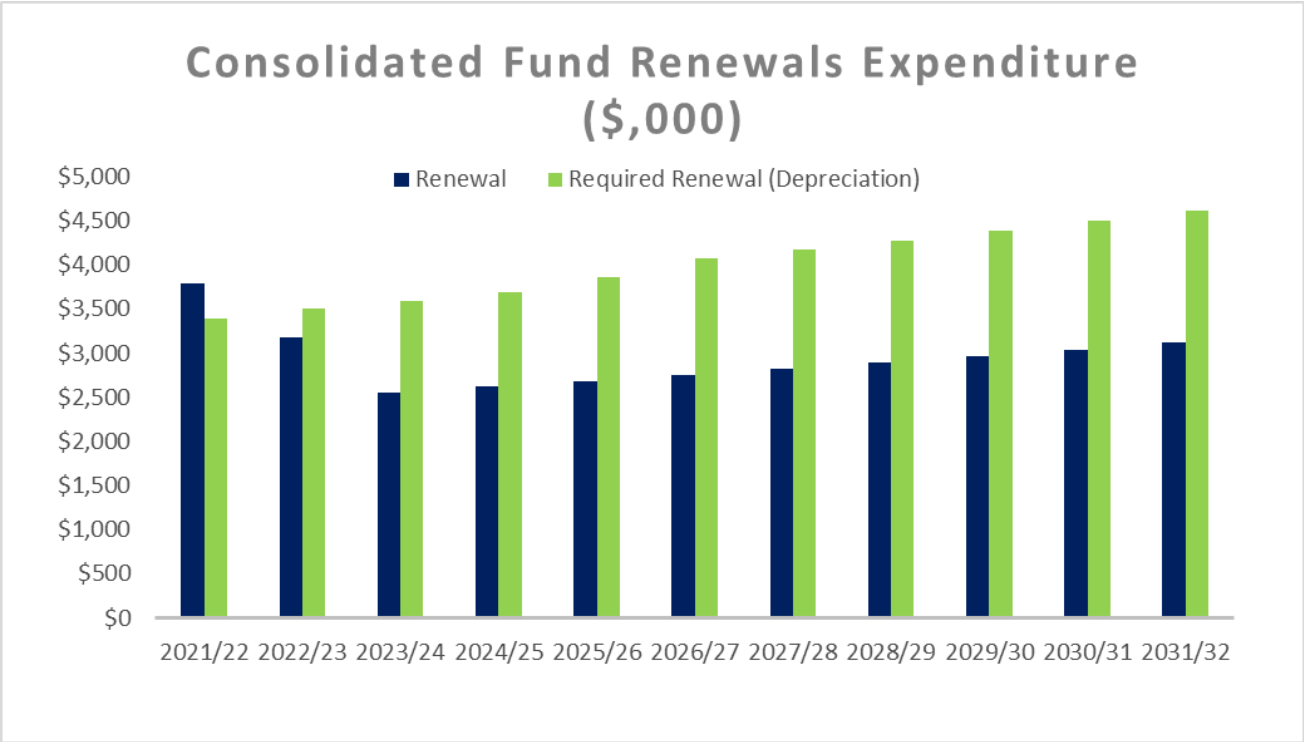
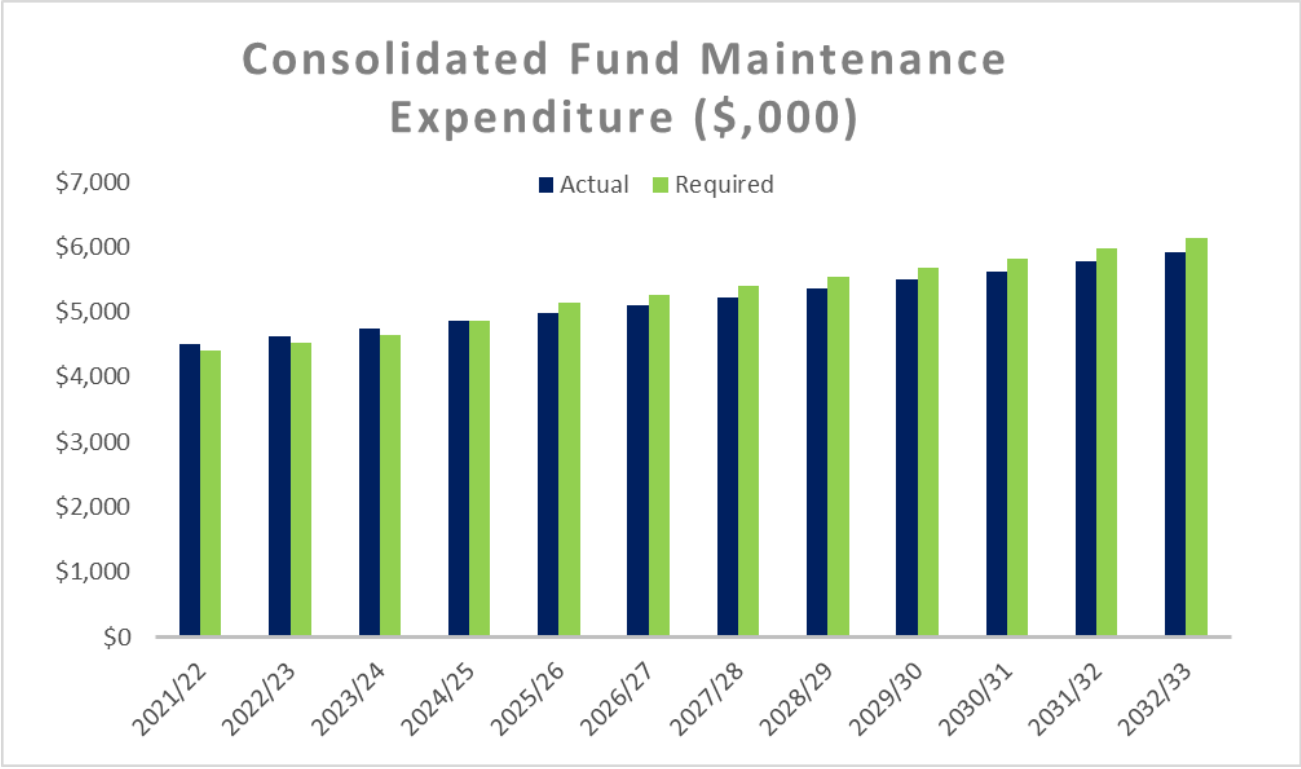


Figure 8 Consolidated Fund maintenance expenditure



The Office of Local Government has established financial benchmarks for councils to strive towards and adhere to. The charts below showcase Council's current financial service levels and the impacts of Council's projected expenditure upon these service levels.

Figure 10 Consolidated Fund sustainability ratios

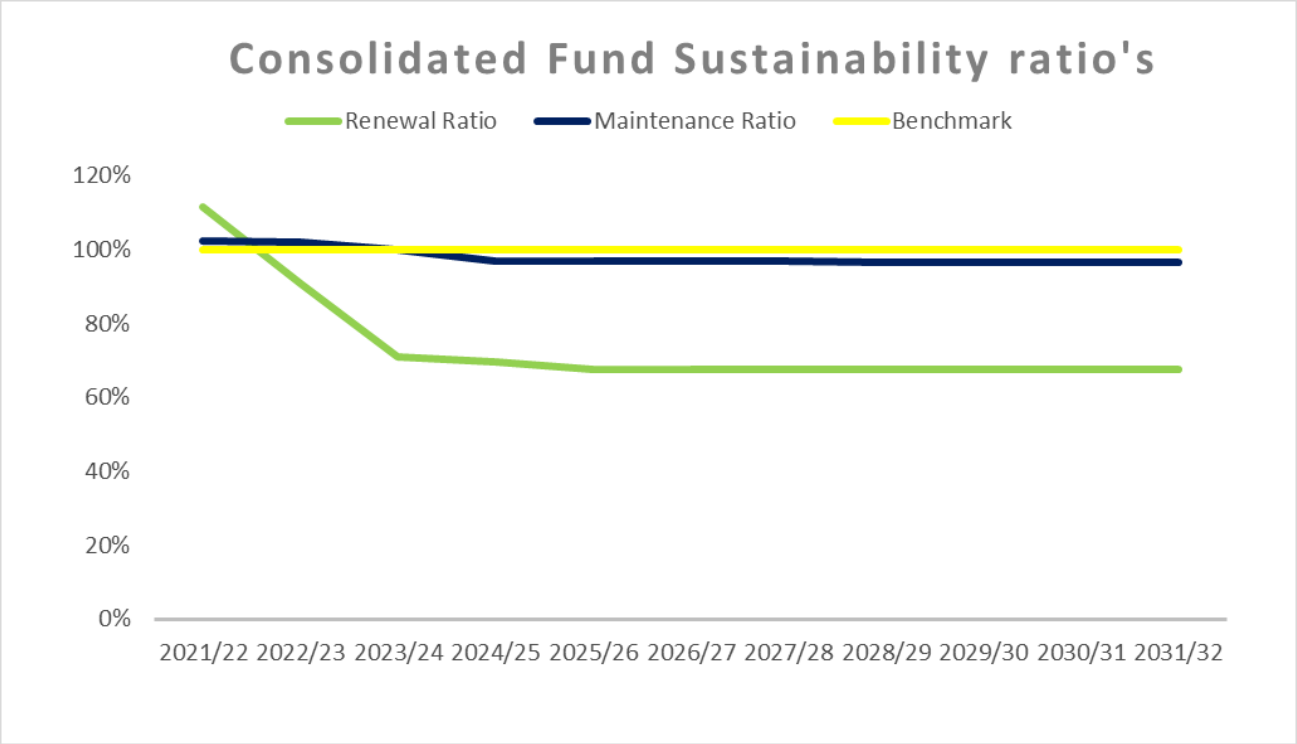
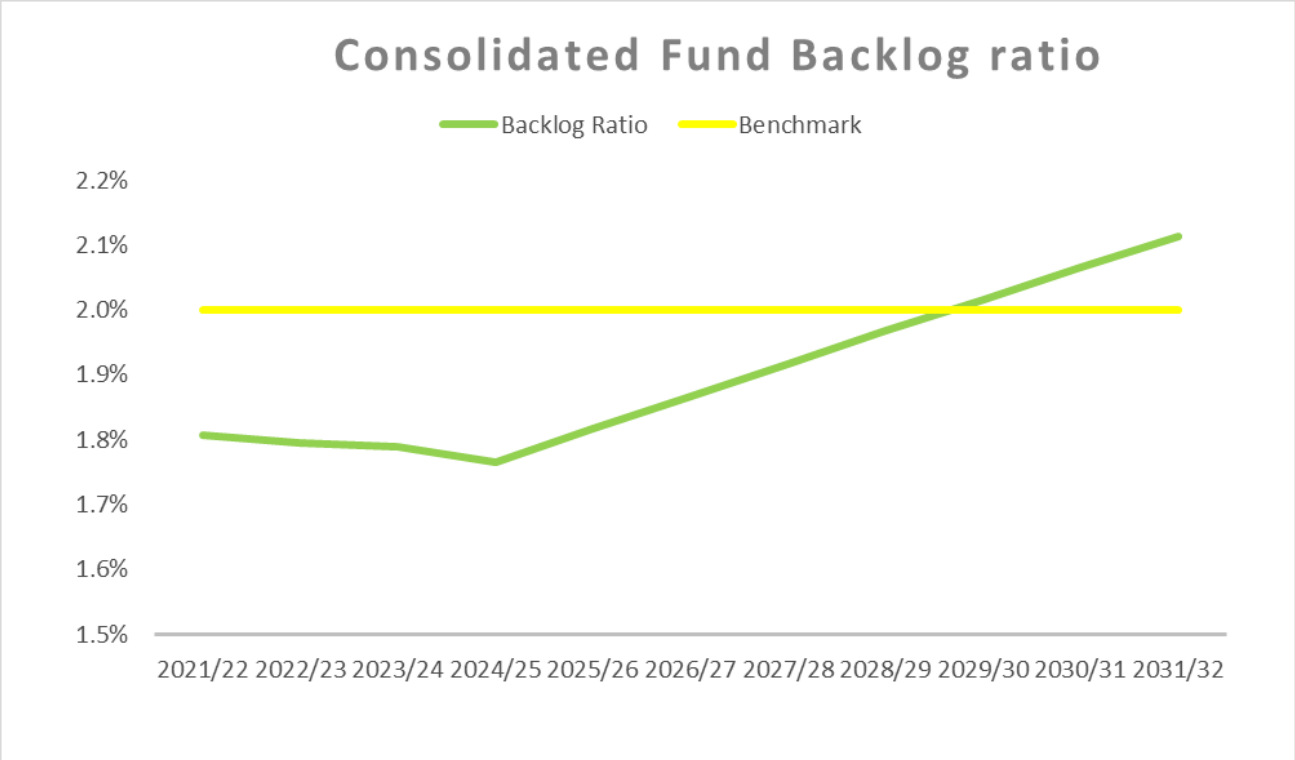


Figure 11 Consolidated Fund backlog ratio



General Fund Asset Reporting

Figure 12 General Fund renewals expenditure

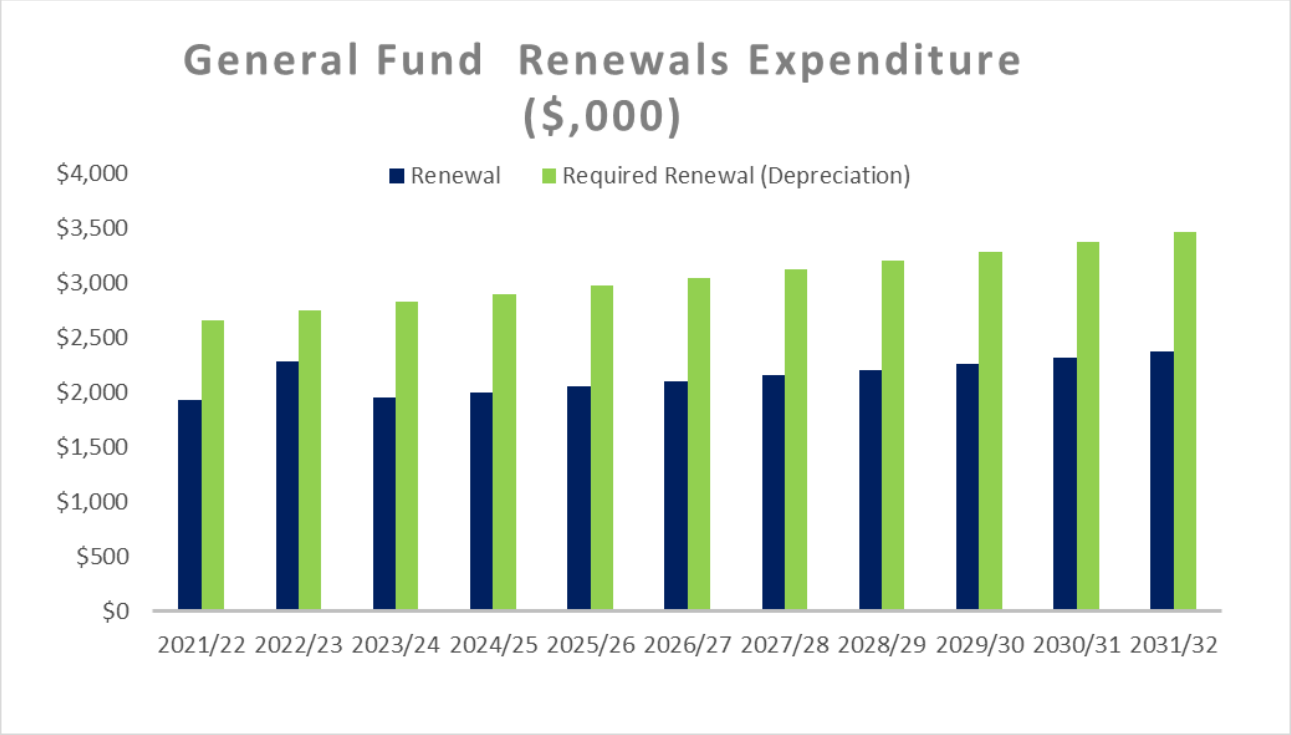
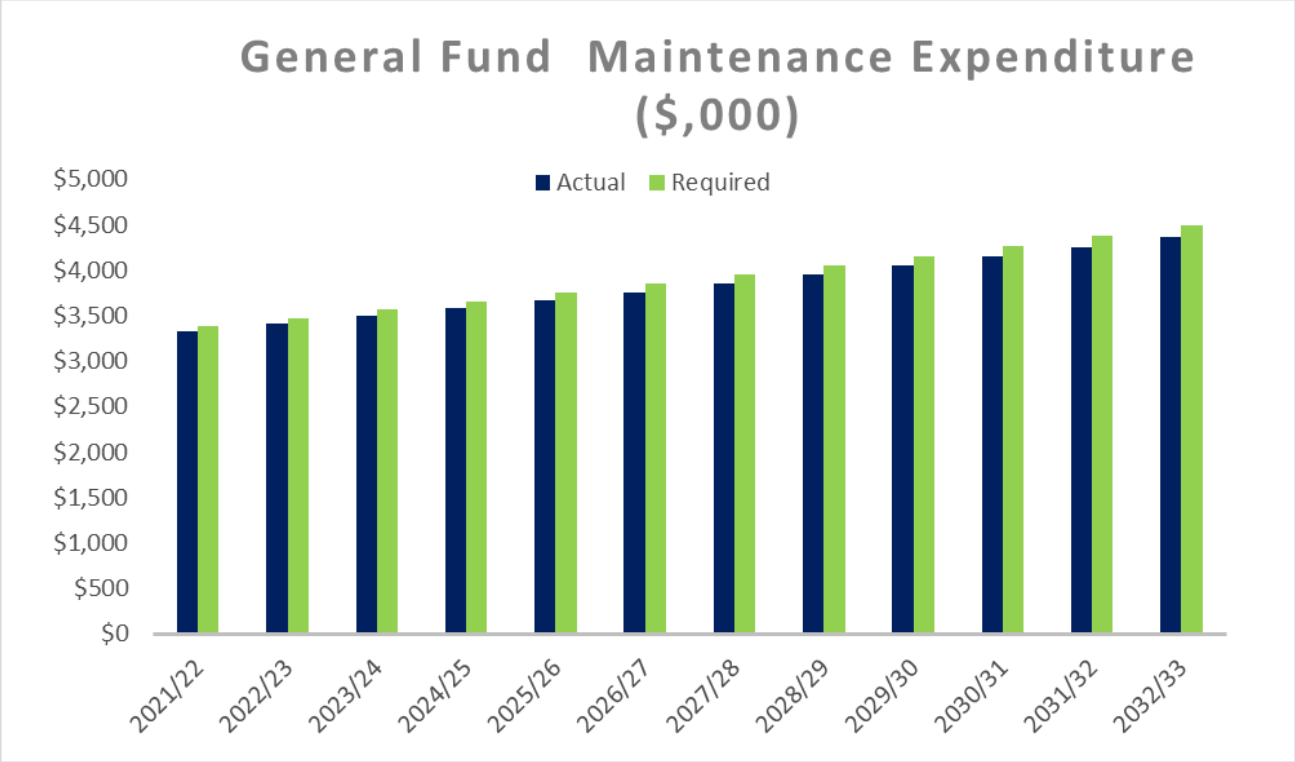


Figure 13 General Fund maintenance expenditure



The Office of Local Government has established financial benchmarks for councils to strive towards and adhere to. The charts below showcase Council's current financial service levels and the impacts of Council's projected expenditure upon these service levels.

Figure 14 General Fund sustainability ratios

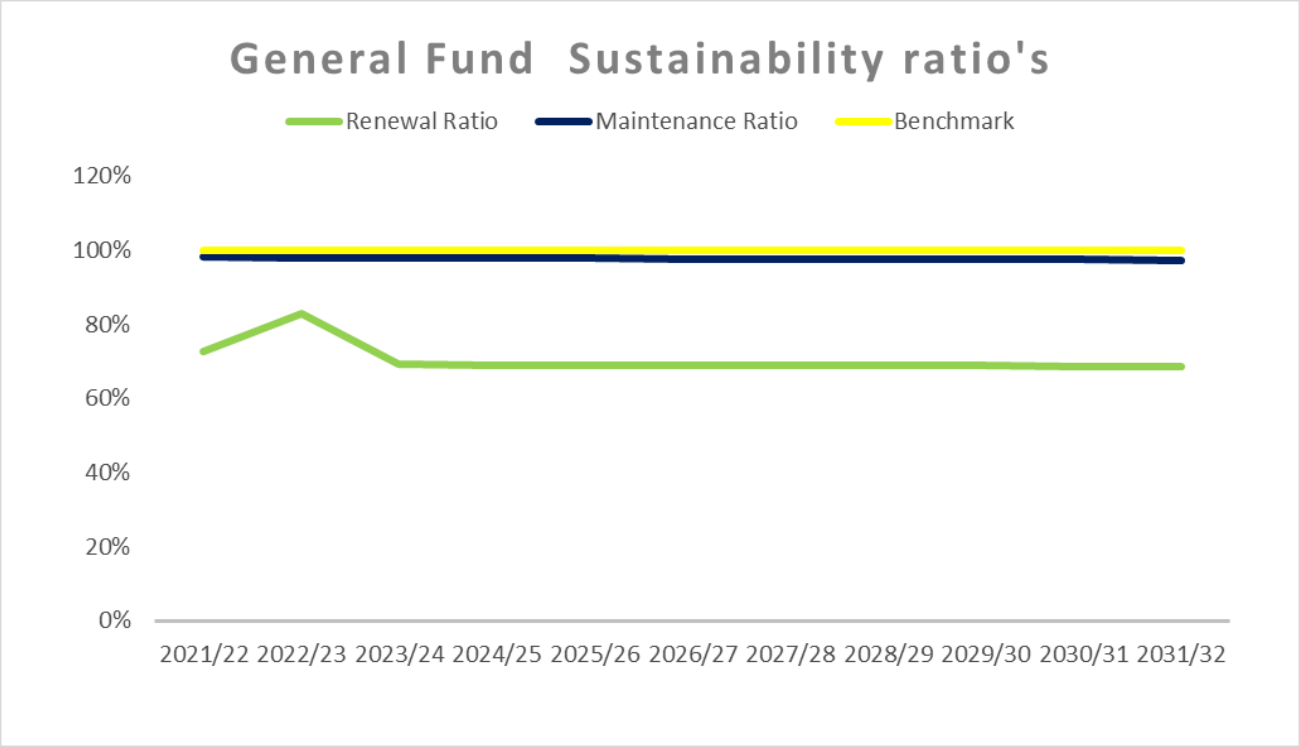
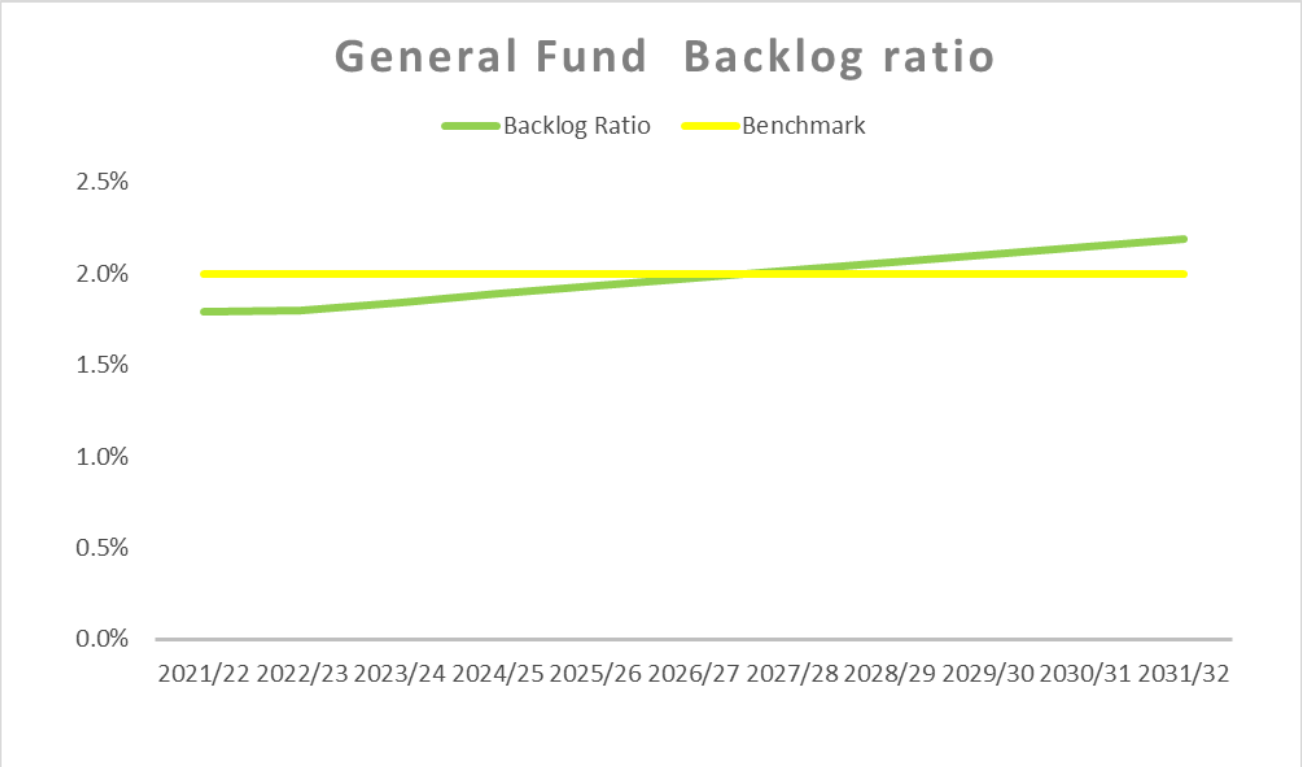


Figure 15 General Fund backlog ratio



Water and Sewer Fund asset reporting

Figure 16 Water and Sewer Fund renewals expenditure

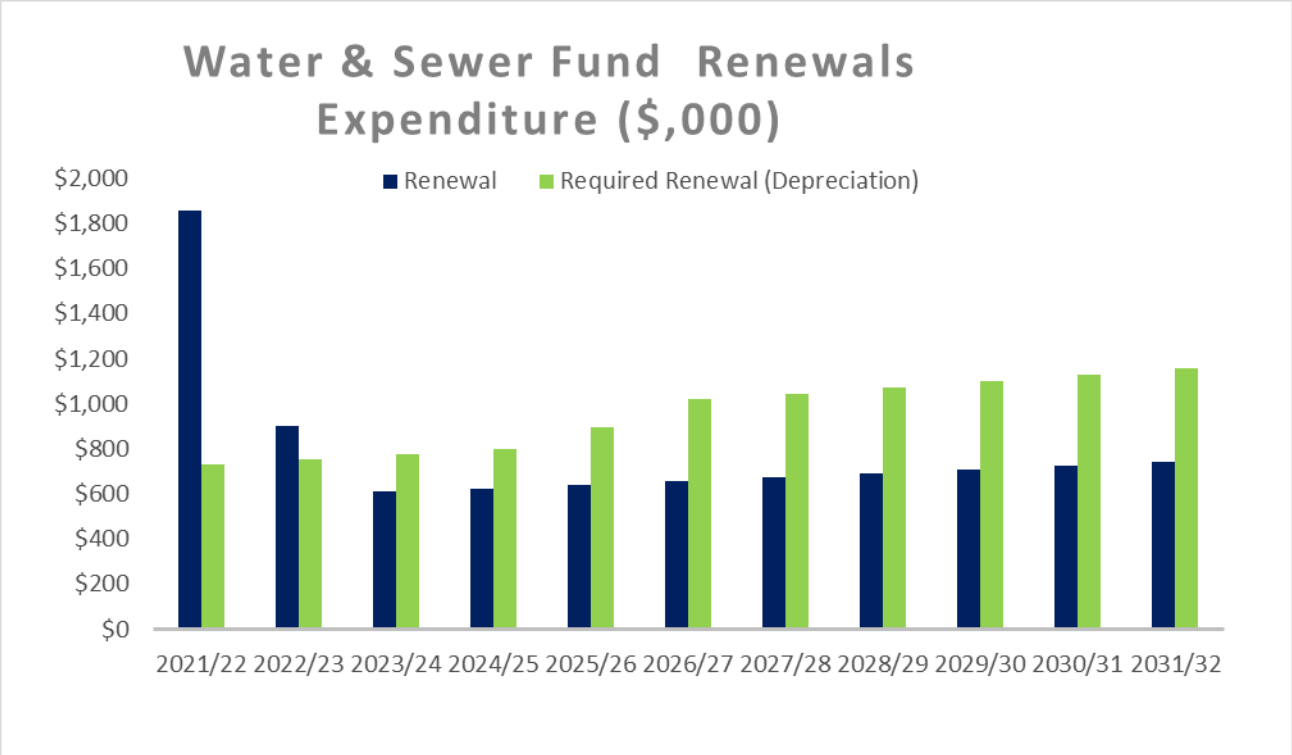
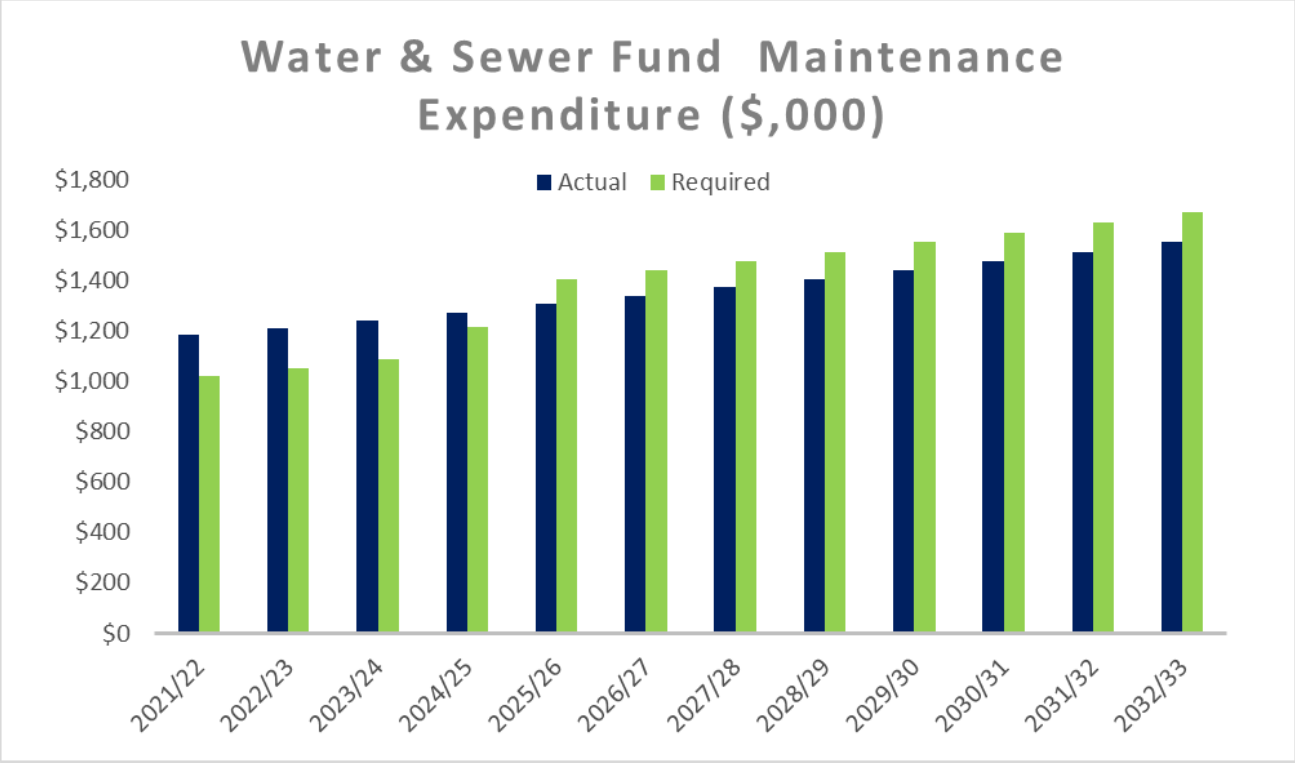


Figure 17 Water and Sewer Fund maintenance expenditure



The Office of Local Government has established financial benchmarks for councils to strive towards and adhere to. The charts below showcase Council's current financial service levels and the impacts of Council's projected expenditure upon these service levels.

Figure 19 Water and Sewer Fund sustainability ratios

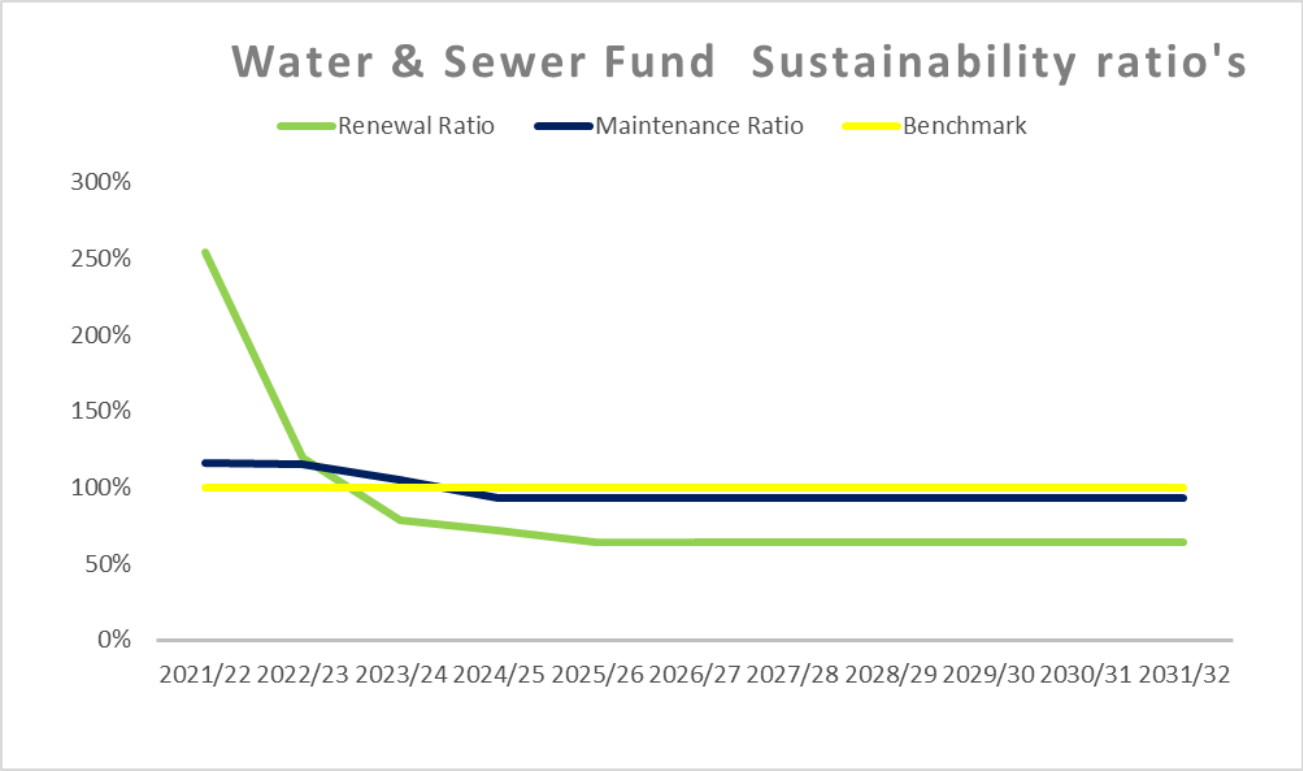
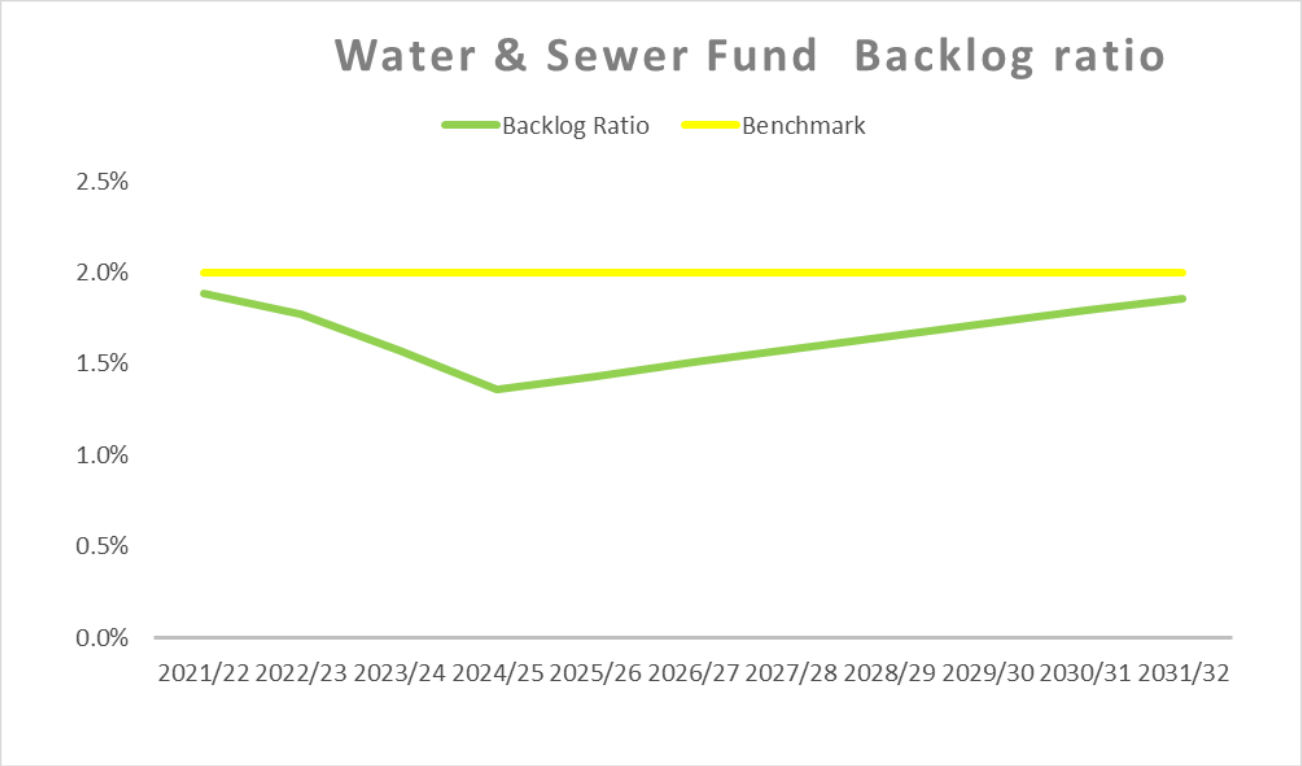


Figure 18 Water and Sewer Fund backlog ratios



9 Asset management strategic actions

The Asset Management Strategy is to enable Council to:

- demonstrate how its asset portfolio will meet the service delivery needs of its community into the future
- manage assets in accordance with its Asset Management Policy
- ensure the integration of Council's asset management with its Community Strategic Plan.

The Asset Management Strategy proposes the following strategies to enable the objectives of the Community Strategic Plan to be achieved.

Table 23 Asset management strategic actions

No	Strategy	Desired outcome
1	Continue the move from annual budgeting to long term financial planning. Particularly for asset classes currently limited by a four-year projection horizon.	The long-term implications of Council services are considered in annual budget deliberations.
2	Further develop and review the Long-Term Financial Plan covering ten years incorporating asset management plan expenditure projections with a sustainable funding position outcome.	Sustainable funding model to provide Council services.
3	Review and update asset management plan financial projections and long-term financial plans after adoption of annual budgets. Communicate any consequence of funding decisions on service levels and service risks.	Council and the community are aware of changes to service levels and costs arising from budget decisions.
4	Continue to report Council's financial position at fair value in accordance with Australian accounting standards, financial sustainability and performance against strategic objectives in annual reports, ensuring that asset remaining lives are assessed on an annual basis.	Financial sustainability information is available for Council and the community.
5	Ensure Council's decisions are made from accurate and current information in asset registers, on service level performance and costs and 'whole of life' costs.	Improved decision making and greater value for money.
6	Report on Council's resources and operational capability to deliver the services needed by the community in the Annual Report.	Services delivery is matched to available resources and operational capabilities.
7	Ensure responsibilities for asset management are identified and incorporated into staff position descriptions.	Responsibility for asset management is defined.
8	Implement an improvement plan to initially realise 'core' maturity for the financial and asset management competencies, then progress to 'advanced' maturity.	Improved financial and asset management capacity within Council.
9	Develop and implement an asset condition inspection strategy which ensures all assets are inspected and condition assessed the year prior to the asset class revaluation.	Asset condition inspection strategy.
10	Report annually to Council on development and implementation of asset management strategy and plan and long-term financial plans.	Oversight of resource allocation and performance.

10 Overarching Asset Management Improvement Plan

Table 24 Overarching improvement plan

Ref no.	Improvement plan tasks	Priority	Suggested timeframe
1.	**Asset management maturity**		
1.1	Council is to achieve a core level of asset management.	High	2025
2.	**Asset data and knowledge**		
2.1	Clean asset data to ensure that asset condition is measured consistently across the various asset classes and sub classes.	High	
2.2	Develop an asset condition inspection strategy that ensures all assets are inspected on a regular basis.	High	
2.3	Clearly identify maintenance and operational activities as part of a maintenance management system, and clearly identify capital works projects as renewal, expansion or new asset expenditure.	Medium	
2.4	Develop and implement asset lifecycle strategy and processes for operations, maintenance, renewal, development and disposal of assets.	Low	
3.	**Asset knowledge processes**		
3.1	Valuation methodology and assumptions must be fully documented and applied.	High	
3.2	Undertake an annual desktop review of asset valuations ensuring that there is an annual review of useful life of assets.	High	
3.3	Ensure that the asset data in the asset management system is the true record of Council's assets and is up to date.	High	
3.4	Adopt consistent reporting methodology across all asset classes informed by current asset data.	Medium	
4.	**Strategic asset planning processes**		
4.1	Determine the long-term expenditure requirements for Council's assets based on a sustainable asset approach and incorporate findings in the Council's LTFP.	High	
4.2	Review and readopt the Asset Management Policy to ensure that it is up to date and remains relevant.	Medium	
4.3	Ensure that all asset classes have up to date asset management plans.	High	
4.4	Revise Asset Management Plans to include: • refined level of service statements and clearly defined community and technical level of service targets • forward programs identifying forecasts for renewals, new assets, upgrades, maintenance, operations and depreciation expenditure • asset performance and utilisation measures with associated links to levels of service • identify critical assets for each asset class.	Medium	
4.5	Review and update asset management plans and long-term financial plans after adoption of annual budgets. Communicate any consequence of funding decisions on service levels and service risks.	Medium	

Ref no.	Improvement plan tasks	Priority	Suggested timeframe
4.6	Review the Asset Management Strategy to ensure that it incorporates the most up to date and relevant information on each asset class.	Medium	
4.7	Integrate asset lifecycle planning and costing into the LTFP.	Medium	
5.	**Operations and maintenance work practices**		
5.1	Implement a maintenance management system for maintenance planning and ensure that operational and maintenance requirements are specified against asset performance and service level expectations.	Medium	
5.2	Identify critical assets and incorporate critical asset risk mitigation plans into Council's emergency response planning procedures.	Medium	
5.3	Ensure that all works are costed correctly to either operational, maintenance, renewal, or new asset expenditure.	High	
6.	**Information systems**		
6.1	Ensure that all Council's asset data is uploaded into the Confirm asset system. This will require asset staff to: • reconcile existing asset registers with the financial asset register • ensure that current asset data is in a consistent format • ensure that asset custodians clearly understand what information is required out of the asset management system to effectively manage the Council's assets.	High	
6.2	Develop an operational process to ensure that the asset register integrates with the maintenance system, financial system and the spatial system. Ensure that that these are reconciled and aligned on a regular basis.	Medium	2024
7.	**Organisational context**		
7.1	Implement a process for reporting on asset management progress and improvement plan status and create a process for annual reporting to senior management.	Medium	
7.2	Ensure that asset reporting in the financial statements is up to date and consistent across each asset class.	Medium	
7.3	Ensure responsibilities for asset management are identified and incorporated into staff position descriptions.	High	

Appendix 1 Asset Management Plan – Buildings and Other Structures

Council owns a large number of buildings that deliver a wide range of services to the community. These services include healthcare, childcare, recreation, community service venues, as well as public amenities such as showers and toilets. In addition, Council owns its administration building and depot which are both critical to the delivery of services.

As the owner and operator of building assets, Council has a responsibility for a number of functions including:

- maintenance
- renewal and refurbishment
- upgrades and improvements
- rationalisation of assets.

The planning of these functions is outlined in this Asset Management Plan.

A1.1 Purpose of this plan

The purpose of this asset class management plan is to develop a strategic framework for the maintenance and renewal of Buildings and Other Structures and to provide an agreed level of service in the most effective manner.

This plan includes the following scope of management:

- asset inventory, values and condition
- asset based levels of service
- demand and service management
- risk management
- development of the long-term financial plan for the maintenance and renewal of buildings.

A1.2 Introduction

A1.2.1 Stakeholders

Key stakeholders must be considered in the preparation and implementation of this asset management plan to ensure the value of services justifies investment in the assets. It also ensures there is a greater understanding of stakeholders' expectations with regards to the facilities and services provided by Council.

Key stakeholders in preparation of this asset management plan are:

- **Federal and state government authorities and agencies** - regulate practice and requirements through legislation.
- **Councillors** - adopt the plan and ensure enough resources are applied to manage the assets and stewardship responsibility for the control and care of Council's buildings.
- **Executive management** - report on the status and effectiveness of current asset management processes at Council.

- **Asset management team** - coordinate development and implementation of AMPs and asset management related matters.
- **Council staff** - responsible for the timely completion of tasks allocated to them from within the plans.
- **Community and rate payers** - responsible for usage of buildings and reporting issues and incidences back to the appropriate Council staff member.

A1.2.2 Legislative requirements

This Asset Class Management Plan was made in accordance with the following documents and legislative requirements.

Table 25 Buildings legislative requirements

Legislation	Requirement
Civil Liability Act 2002 and Civil Liability Amendment (Personal Responsibility) Act 2002	Protects the Council from civil action by requiring the courts to take into account the financial resources, the general responsibilities of the authority and the compliance with general practices and applicable standards.
Disability Discrimination Act 1992	The Federal Disability Discrimination Act 1992 (D.D.A.) provides protection for everyone in Australia against discrimination based on disability.
Environmental Planning and Assessment Act 1979; Environmental Protection Act 1994; Protection of the Environment Operations Act 1997; National Parks and Wildlife Act 1974; Threatened Species Conservation Act 1995; Native Vegetation Act 2003;	Sets out the role, purpose, responsibilities and powers of Council relating to protection and preservation of the environment.
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.
WH&S Act 2011 & regulations	Sets out Council's responsibility to ensure health, safety and welfare of employees and others at places of work.
Libraries Act 1939	Sets our role of local governments in providing residents with access to information services.
Crown Lands Act 2016	Is an Act to provide for the administration and management of Crown land in the Eastern and Central Division of the State of NSW. Council has a large holding of Crown land under its care, control and management.
Heritage Act 1977	Is an act to conserve the environmental heritage of the State Several properties are listed under the terms of the Act and attract a high level of maintenance cost, approvals and monitoring. The possible acquisition of Hungry Point is affected by this Act.
Building Code of Australia	To meet all BCA requirements to meet the minimum necessary standards of relevant, health, safety (including structural and fire services), amenities and access to AS 1428.2.
Building Fire and Safety Regulation 1991	The Act sets out the regulations for the compliance.

Legislation	Requirement
Native title act 1993	The Act recognises the rights and interests of Aboriginal and Torres Strait Islander people in land and waters according to their traditional laws and customs.
Aboriginal Land rights Act 1983	The Act is a New South Wales statute that was established to return land to Aboriginal peoples through a process of lodging claims for certain Crown lands

A1.2.3 Links to Council policy, plans and strategies

This Asset Management Plan has been informed by the following Council plans and strategies:

- Bogan Shire Community Strategic Plan
- Asset Management Strategy
- Asset Management Plans
- Long Term Financial Plan.

Table 26 Building infrastructure ratios

Infrastructure ratios	Actual 2020/21	Estimated 2030/31	Funding gap	$,000
Renewals ratio	196.77%	64.01%	Yr 1	(-$16)
			5 Yr Average	(-$177)
			10 Yr Average	(-$257)
Backlog ratio	5.68%	6.88%	Yr 1	(-$728)
			5 Yr Average	(-$774)
			10 Yr Average	(-$897)
Maintenance ratio	127.60%	156.30%	Yr 1	$294
			5 Yr Average	$307
			10 Yr Average	$327
Total funding gap			Yr 1	(-$449)
			5 Yr Average	(-$644)
			10 Yr Average	(-$827)

Figure 20 Buildings and other structures asset portfolio expenditure

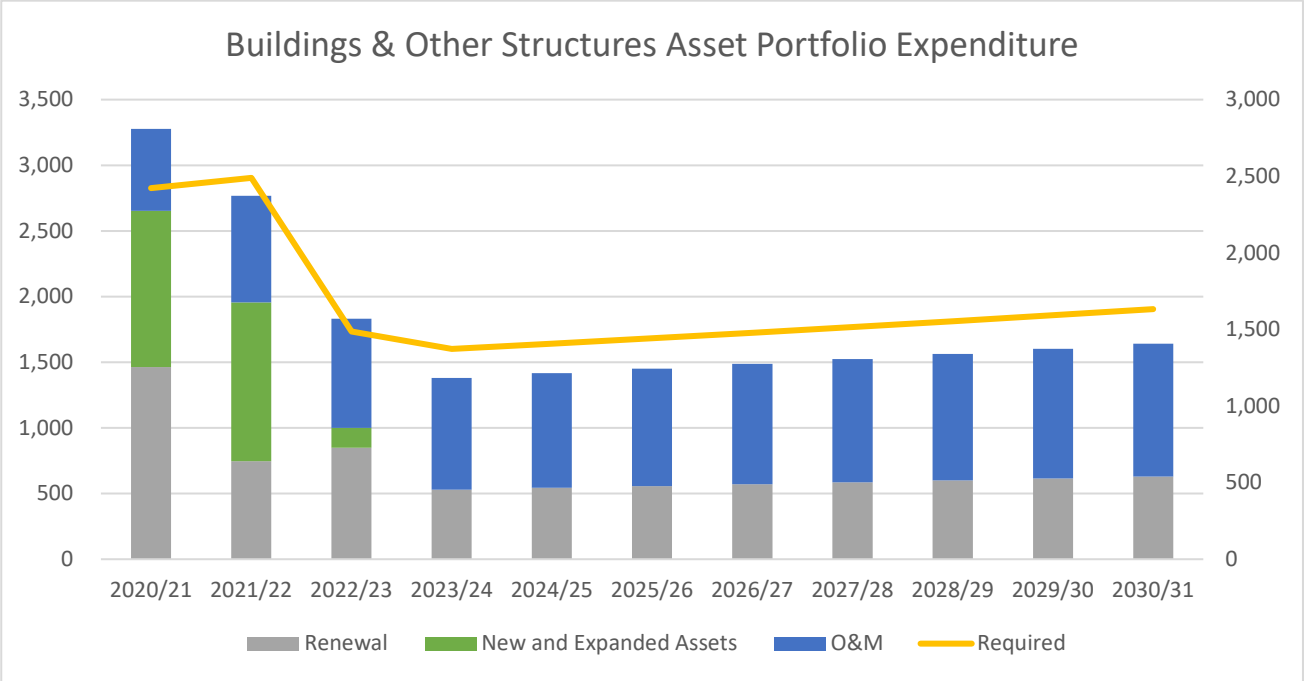
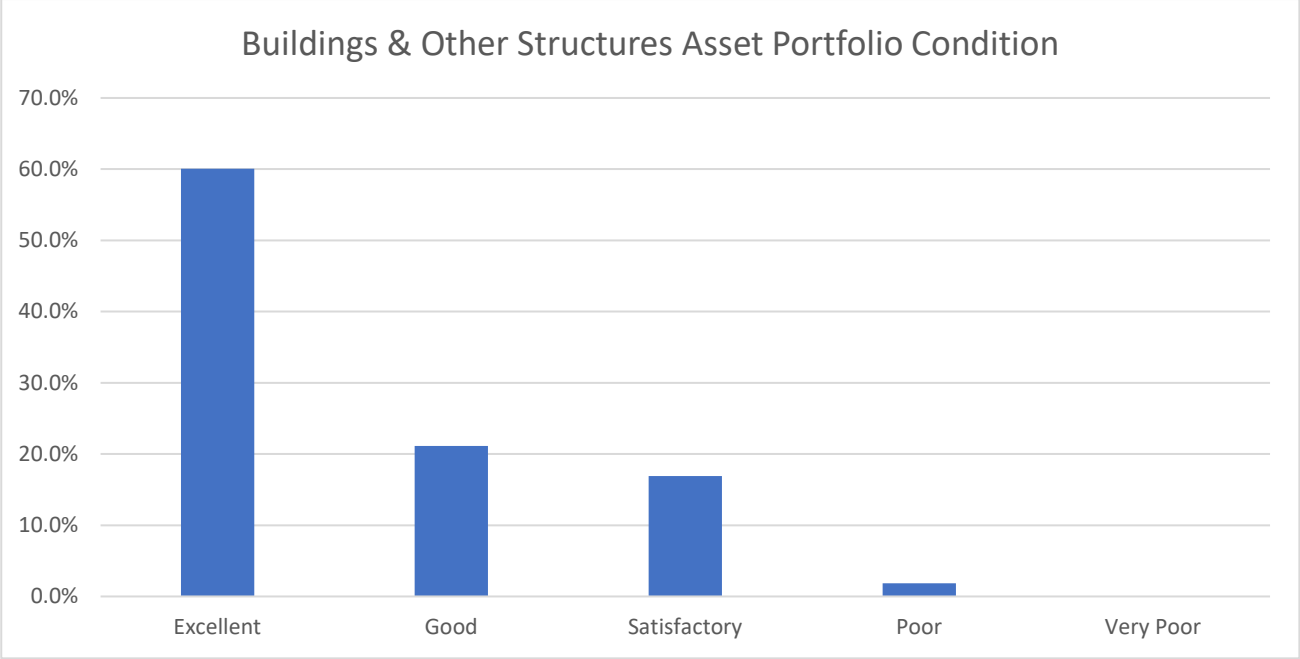


Figure 21 Buildings and other structures asset portfolio condition



A1.3 Asset inventory, values and condition

Council's building asset data is comprehensive and up to date, having been revalued as of 30 June 2018. Council will continue to ensure the integrity of its asset data through continuous monitoring of its assets and planned revaluations in accordance with Council's Revaluation Policy. The table below provides a summary of the value and condition of Council's buildings and other structure assets.

Table 27 Building assets – inventory and condition

Asset group	Asset component	Gross replacement cost (CRC) $,000	Written down value (WDV) $,000	Annual depreciation expense $,000	Condition				
					1	2	3	4	5
Buildings				670					
	Environment	34	27		70%	30%	0%	0%	0%
	Community Services and Education	2,580	2,222		80%	0%	20%	0%	0%
	Housing and Community Amenities	3,220	2,061		60%	25%	10%	5%	0%
	Recreation and Culture	19,720	8,572		65%	25%	10%	0%	0%
	Transport and Communication	3,122	1,386		20%	0%	80%	0%	0%
	Admin Buildings	955	520		0%	85%	15%	0%	0%
	Public Order and Safety	1,185	871		95%	0%	5%	0%	0%
	Health	2,124	1,579		85%	0%	15%	0%	0%
	Governance	1,031	176		0%	80%	20%	0%	0%
Other Structures				74					
	Cemeteries	81	81		100%	0%	0%	0%	0%
	Health	32	32		100%	0%	0%	0%	0%
	Public Order and Safety	16	14		100%	0%	0%	0%	0%
	Environment	226	188		5%	40%	55%	0%	0%

Asset group	Asset component	Gross replacement cost (CRC) $,000	Written down value (WDV) $,000	Annual depreciation expense $,000	Condition				
					1	2	3	4	5
	Recreation and Other Culture	3,144	2,333		70%	20%	10%	0%	0%
	Transport and Communication	71	33		5%	40%	55%	0%	0%
	Other Economic Affairs	930	349		40%	0%	0%	60%	0%
Grand Total		**38,471**	**20,444**	**744**	60.1%	21.1%	16.9%	1.9%	0.0%

A1.4 Asset based level of service

Bogan Shire Council's building portfolio provides facilities so that the local community and visitors can participate in a wide variety of recreational, cultural, educational and social activities. The Council's administration building and depots are the base for Council's employees who deliver essential services to the community.

Table 28 Building assets – service levels

Key performance indicator	Level of service	Performance measurement process	Target performance	Current performance
Accessibility	Provision of sufficient facilities to meet needs	Feedback from customer/users of facilities through Council's customer request management system in Authority (CRM)		
	Residents are aware of the range of facilities available and how to access them	Customer consultations and public awareness on Council's Facebook page of accessible properties and local paper	• 80% of the community are aware of the facilities available to them	
	Provide adequate physical access to facilities	Disability Discrimination Act (DDA) compliance on all new Council buildings and any upgraded facilities	• Less than 5 complaints per year about problems with access for disabled people to Council facilities	

Key performance indicator	Level of service	Performance measurement process	Target performance	Current performance
Quality/condition	Facilities provide a good quality experience for all users and customers	Feedback from customer/users of facilities through customer request management system in Authority (CRM)	• User groups consulted once every term of Council on their current and future facility needs • High level of compliance for maintenance and cleanliness in line with building purpose and use • Community agrees that facilities are maintained and in a clean condition	
	Percent of physical assets in condition 3 or better	Condition assessment	• 80% for all assets (by value)	
Reliability/ responsiveness	Ensure services are reliable	Consultation with tenants and users of facilities Feedback from customer/users of facilities through customer request management system in Authority	• Users and tenants are satisfied with maintenance response times • Tenants and users are advised at least 24 hours prior to any work completed • Urgent maintenance requests resolved within 48 hours	
Community satisfaction and involvement	Opportunity for community involvement in decision making are provided	Asset Management Plan	• The buildings asset management plan is advertised prior to adoption and available on the Council website and for circulation to the public	
	Service provides social benefit to the whole community	Community consultation	• At least 70% of the community agree that they have average or better facilities	
Affordability	The services are affordable and managed using the most cost-effective methods for the required level of service	Review of service agreements where applicable and benchmark with other councils if necessary Council does not charge a fee to any bonafide community organization using its facilities	• Total operating and maintenance are not greater than benchmarking against comparable regional councils • All new and upgrade projects are planned and managed effectively and delivered on time, within scope and approved budget	

Key performance indicator	Level of service	Performance measurement process	Target performance	Current performance
Sustainability	Assets are managed with respect for future generations	Adopt a lifecycle approach to managing new and upgraded assets and maintain existing assets to a minimum condition 3	• Inspect assets annually to ensure a minimum condition 3 for existing assets and budget funds where necessary to bring assets back to the required condition where they are available or apply for grant funding if no funds are available	
	Assets meet financial sustainability ratios	Consumption ratio	• Between 50% and 75%	
		Renewal funding ratio	• Between 90% and 110%	
		Long term funding ratio	• Between 95% and 105%	
Health and Safety	Ensure buildings/facilities are safe and do not cause a hazard to people	Regular Inspections, operational reports and safety audits	• Fewer than five reported incidents which can be attributed to poorly maintained facilities • Annual Fire Safety Statements are certified for each facility requiring it • Regular safety inspections are carried out for each facility • Fewer than five injury accidents as a result of building hazards reported per building per year	
	A safe working environment provided for people involved in providing the service	WH and S reported incidents	• The number of lost time injuries is less than 12 per year • The number of Workers Compensation claims is less than six per year	

A1.5 Future demand/demand management plan

Council evaluates the demand for services and the assets required to deliver them. Bogan Shire's demand for new services will be managed through a combination of:

- managing existing assets
- upgrading of existing assets
- repurpose existing assets.

Demand management practices include non-asset solutions, insuring against risks and managing failures.

Council will continue to engage the community to monitor community priorities, needs and expectations regarding its building assets and services to ensure that increased demand is met with sensible, sustainable and community driven planning.

Table 29 Building assets – future demand impacts

Demand factor	Impact on assets	Demand management plan
Population	Places pressure on existing council facilities particularly around areas of high density.	Ensure that capacity and functionality of Council's assets is monitored and forms part of the decision-making process regarding Councils capital works program.
Demographics	As the population ages, buildings and their surrounds (such as footpaths, car parks) and furniture may need to be upgraded to cater to a slower and less mobile population.	Modify or upgrade the facilities to meet the age ratios within the areas. multi age suitable premises to be included in design briefs for new buildings.
Climate Change	Buildings may be impacted by changes such as increased severity of natural disasters and weather events.	Expand recycling initiative within Council's buildings to minimise disposal to landfill. Council needs to manage the Bogan River foreshore to minimise risk of unexpected damage as a result of flooding of the river.

A1.6 Current practices

A1.6.1 Maintenance strategies

Council's buildings and other structures are continuously monitored and maintained to a safe standard that will maximise their long-term benefit to the community and in accordance with priorities set through asset management planning. Monitoring and maintenance are prioritised based upon the criticality of Council's assets and level of complaints from users and tenants.

As part of Council's maintenance regime a regular inspection of the building portfolio is essential. There are currently three types of inspections carried out:

- detailed condition inspection carried out every five years prior to the revaluation of the building portfolio

- ad hoc inspections by Council staff as required
- inspections as a result of customer queries and requests.

A1.6.2 Renewal strategies

Renewals are forecast based upon the lifecycle stage of the assets in conjunction with condition assessments. The condition of the renewable components of buildings assets are assessed in conjunction with the revaluation cycle and are updated accordingly in the Council asset management register.

Generally, renewals relating to buildings will take place on a component-by-component basis, e.g. kitchen, rather than whole building renewal. In certain circumstances the service offering of the building, even when renewed on a component basis, will not meet community's expectations on service delivery. In these cases, renewal may occur by building replacement. This is usually triggered when the building lacks capacity to meet a changed need or that demand has changed to such a degree that the functionality of the existing building is no longer adequate.

A1.7 Expenditure projections

Asset lifecycle costs are the average costs required to sustain an asset over its useful life. These costs have been projected forward for the next ten years to inform Council's Long-Term Financial Plan. The table below compares Council's planned expenditure against the expenditure required to sustain its current levels of service.

Table 30 Building assets – expenditure projections

Budget gap by asset group ($,000)	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Actual										
Renewal	747	850	530	543	557	571	585	600	615	630
New and Expanded Assets	1,210	150	0	0	0	0	0	0	0	0
Operations and Maintenance	810	831	851	873	895	917	940	963	987	1,012
Total Expenditure	2,767	1,831	1,381	1,416	1,451	1,488	1,525	1,563	1,602	1,642
Required										
Required Renewal (Depreciation)	763	805	828	849	870	892	914	937	960	984
New and Expanded Assets	1,210	150	0	0	0	0	0	0	0	0
Required operations and maintenance	517	531	545	558	572	587	601	616	632	648
Total	2,489	1,487	1,373	1,407	1,442	1,478	1,515	1,553	1,592	1,632
Maintenance Gap	294	299	307	314	322	330	339	347	356	365
Renewals Gap	-16	45	-298	-305	-313	-321	-329	-337	-346	-354
Overall (GAP)	**$1,417**	**278**	**344**	**9**	**9**	**9**	**9**	**10**	**10**	**10**

Figure 24 Buildings and other structures renewal ratio

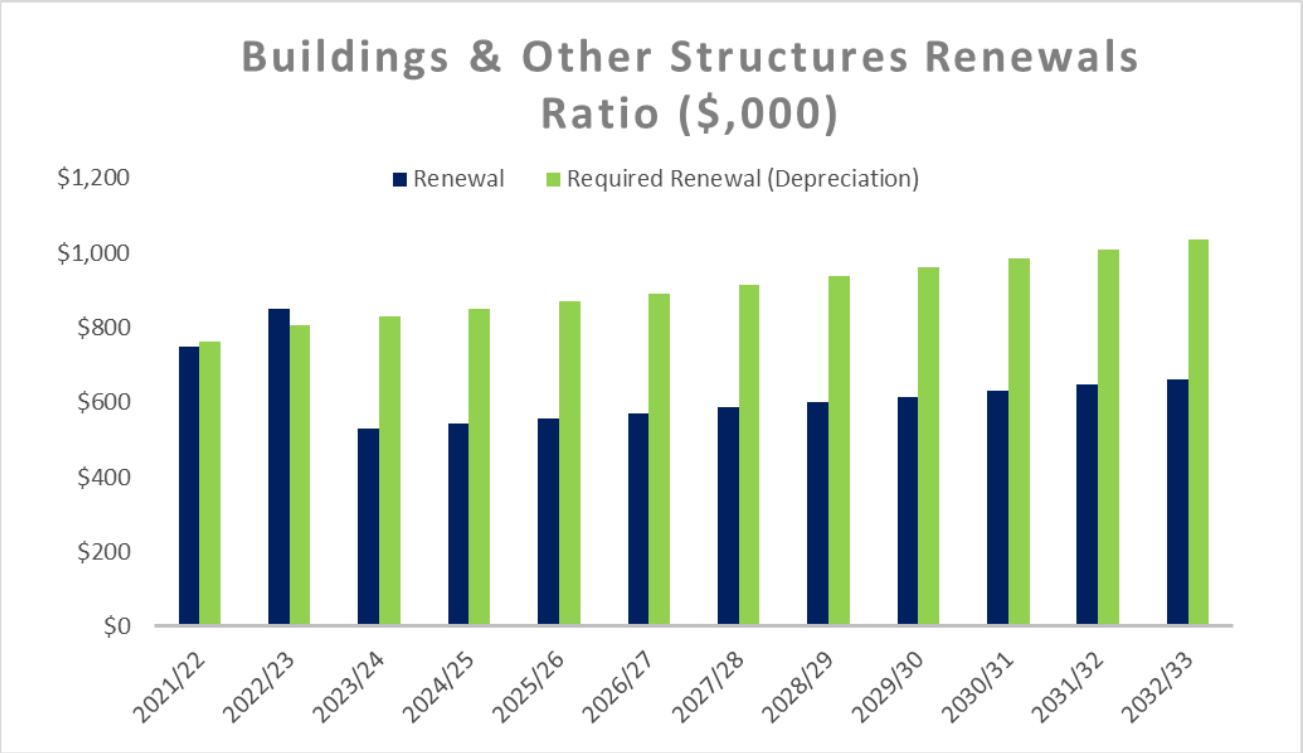
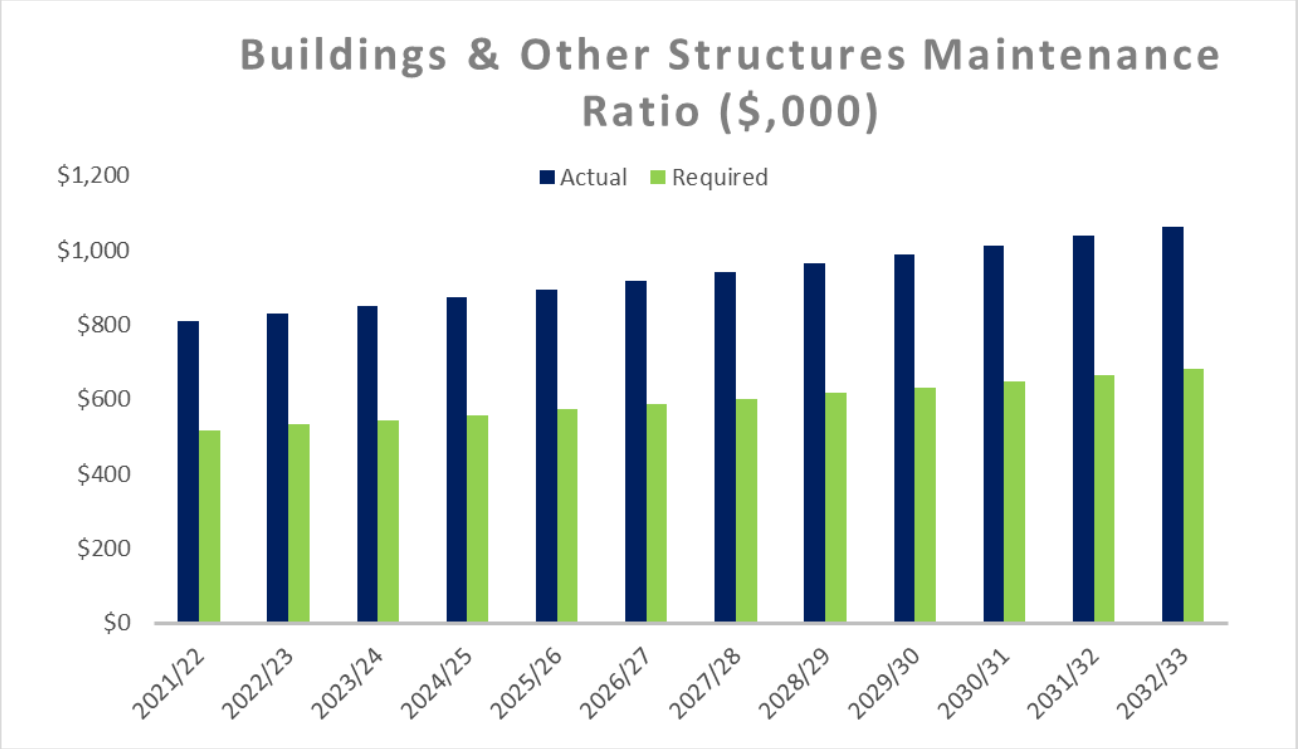


Figure 22 Buildings and other structures maintenance ratio



A1.8 Financial ratios

The Office of Local Government has established financial benchmarks for councils to strive towards and adhere to. The charts below showcase Council's current financial service levels and the impacts of Council's projected expenditure upon these service levels.

Figure 26 Buildings and other structures sustainability ratios

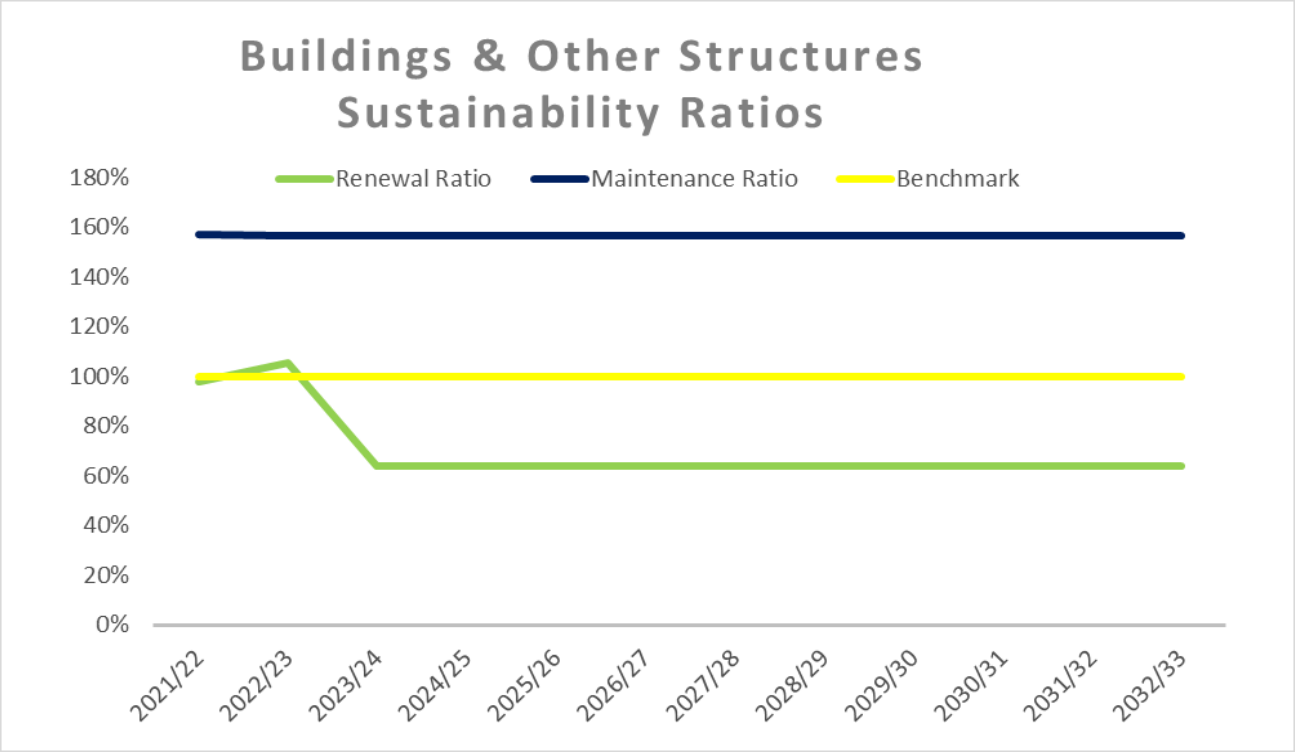
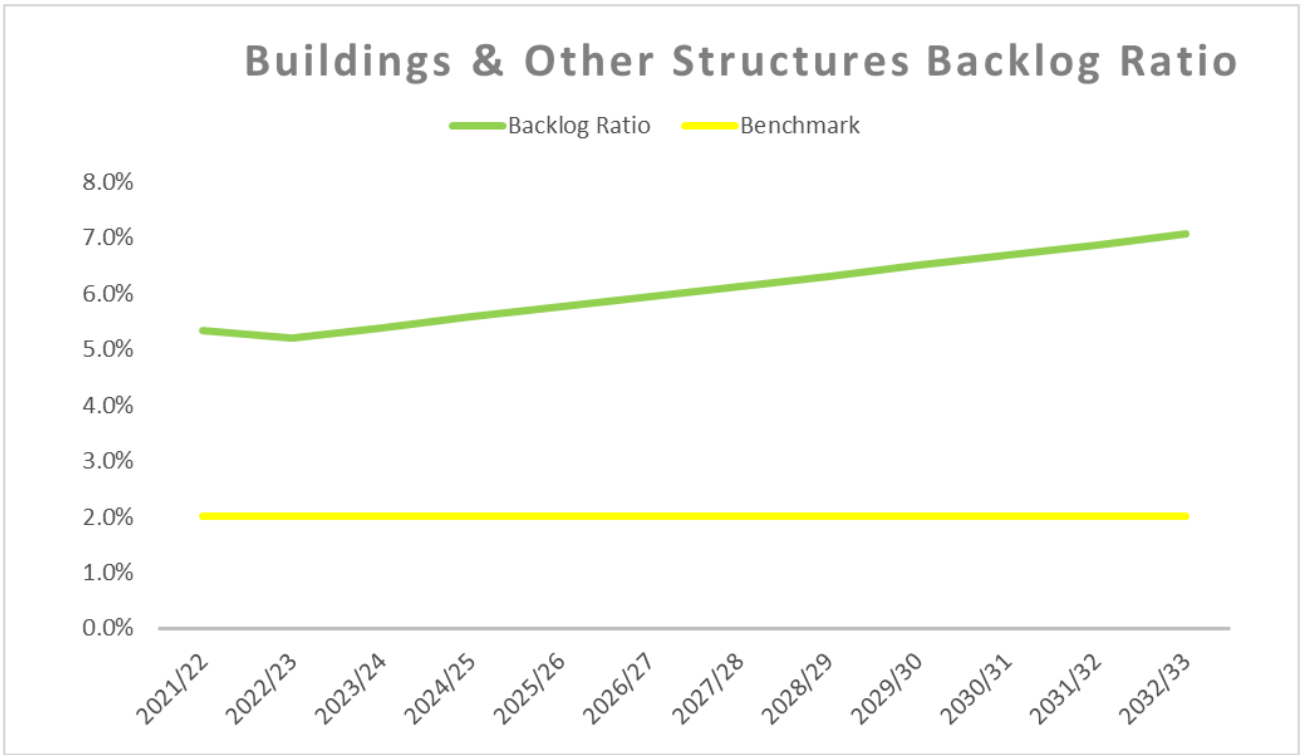


Figure 25 Buildings and other structures backlog ratio



A1.9 Risk

A1.9.1 Critical assets

Critical assets are those assets that are likely to result in a more significant financial, environmental and social cost in terms of impact on organisational objectives. By identifying critical assets and critical failure modes, organisations can target and refine investigative activities, maintenance plans and capital expenditure plans at critical areas.

The following attributes of an asset were considered when looking at critical building assets.

- civic purpose
- size
- multipurpose
- frequency of use
- hazardous martials stored on site
- historical significance
- emergency service/management use.

Based on the above considerations, Council staff have identified the following assets as of high criticality:

- Council's administration centre
- Council's works depot.

A1.9.2 Risk management

As an owner of property that is available for Council and community use. Council must manage its property portfolio in a manner that reduces risk and meets community expectations.

A1.9.3 Continuous improvement pathway

The following elements of the CIP for buildings have been addressed in this AMP and AMS.

Table 31 Buildings - continuous improvement pathway

Asset	Element	Criteria	Comments/evidence
Building assets	Policy/management plan	Identifies relevant legislative, building codes, standards or other requirements.	Addressed in section A1.2.2 of this AMP
Building assets	Policy/management plan	Addresses the future impacts of climate change to council's building assets and provides resources accordingly (e.g.: storm damage, ground movement, material suitability).	Addressed in section 6 of the AMS
Building assets	System	Identifies a formal process for the frequency and type of inspections to be carried out.	Inspection types detailed in section A1.6 detailed condition inspections carried out every five years

A1.10 Confidence levels

The confidence in the asset data used as a basis for the forecasts has been assessed using the following grading system.

Table 32 Building assets – data confidence rating

Confidence grade	General meaning
Highly reliable	Data based on sound records, procedure, investigations and analysis that is properly documented and recognised as the best method of assessment.
Reliable	Data based on sound records, procedures, investigations and analysis which is properly documented but has minor shortcomings; for example, the data is old, some documentation is missing, and reliance is placed on unconfirmed reports or some extrapolation.
Acceptable	Data based on sound records, procedures, investigations and analysis with some shortcomings and inconsistencies.
Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported or extrapolation from a limited sample.
Very uncertain	Data based on unconfirmed verbal reports and/or cursory inspection and analysis.

The overall confidence level of the plan is reliable**.**

A1.11 Main findings

While Council's building assets, with the exception of the medical centre and early learning centre, are old, they are generally well maintained. The data is of reliable quality allowing for effective condition-based lifecycle planning, further work is required with respect Council's levels of service. While levels of service currently do not exist to ensure effective lifecycle planning, capacity and functionality should be a key consideration in conjunction with condition data and this should be captured as part of Council's levels of service.

Furthermore, Council's current expenditure over the ten-year period is sufficient to maintain the asset base in its current condition. Further work is required to determine whether some of the maintenance expenditure should be classified as capital renewal.

A1.12 Improvement plan

Table 33 Building assets – improvement plan

Improvement action	Effect on AMPs	Priority
Develop and monitoring asset-based service levels	Ensure that expenditure is directed in the most effective areas to meet agreed service levels	High
Engage community with respect to levels of service	Lifecycle planning will be aligned with community expectations	Medium
Review functionality and capacity needs of assets	Lifecycle planning will be aligned with community needs	Medium
Identify ten-year planned expenditure budget	Financial sustainability modelling reflective of council capacity and needs	High
Develop risk management plans for critical assets		High

Appendix 2 Asset Management Plan – Roads and Stormwater Infrastructure

The provision of well maintained, safe and integrated road infrastructure is critical to supporting Council's community in their residential, farming, business and leisure activities. It facilitates the provision of multiple services by enabling the transportation of goods, materials and people and therefore can be considered a 'core' service of Council. In the next ten years, and likely beyond, road infrastructure will need to support a mostly ageing community, and a more diversified farming industry .

A2.1 Purpose of this plan

The purpose of this asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding needed to provide the required levels of service over a ten-year planning period.

The asset management plan provides a long-term assessment of the activities and actions required to deliver services related to roads and stormwater infrastructure assets. This asset management plan documents the levels of service currently provided, future demands on assets, as well as planned improvements. They take a 'whole of life' approach to managing roads and stormwater infrastructure assets.

This AMP details the methods Council uses to operate and maintain the road infrastructure asset network to achieve the following objectives:

- ensure the assets are maintained at a safe and functional standard
- ensure that all future asset financial commitments are identified and planned for in future operating budgets
- ensure that all assets are assessed, maintained, and serviced to the highest possible standard
- ensure that service levels are matched as closely as possible to Council's ability to fund the service in a sustainable way
- develop cost-effective asset management strategies for the long term.

A2.2 Introduction

A2.2.1 Stakeholders

Key stakeholders must be considered in the preparation and implementation of this Asset Class Management Plan to ensure the value of services justifies investment in the assets. It also ensures there is a greater understanding of stakeholders' expectations with regards to the facilities and services provided by Council.

Key stakeholders in preparation of this asset management plan are:

- **Councillors** - allocate resources to meet the organisation's objectives in providing services while managing risks. Ensure organisation is financially sustainable.
- **Residents** - residents are the core users of transport infrastructure assets. Their needs, wants and expectations are conveyed to Council, which should be reflected in the desired levels of service.
- **Visitors** - visitors are the second largest users of transport infrastructure assets, due to their likely frequency of use. Visitors' wants, needs and expectations drive the development in areas of the highest traffic and pedestrian usage. Increased tourism and a better local economy.

- **External parties** - neighbouring councils and their communities, road users, emergency services, developers and utility companies, local businesses, community businesses, and transport businesses, federal and state government authorities and agencies such as RMS, local law enforcement and land use/development planning.
- **Insurers** - insurers have an interest to drive the implementation of systems, which allow Council to be in a better position to gain a better knowledge in the condition of our assets. This should be reflected in the number of claims made against each asset group.

A2.2.2 Legislative requirements

This Asset Class Management Plan was made in accordance with the following documents and legislative requirements.

Table 34 Road infrastructure – legislative requirements

Legislation	Requirement
Local Government Act (1993)	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
Road Act 1993	Set out the rights of members of the public to pass along public roads, the rights of persons who own land adjoining a public road to have access to the public road, and to establish the procedures for the opening and closing of a public road, to provide for the classification of roads, to provide for the declaration public authorities as roads authorities for both classified and unclassified roads, to confer certain functions (in particular, the function of carrying out road work), and to regulate the carrying out of various activities on public roads.
Environment Planning and Assessment Act 1979	Set out to encourage the proper management, development and conservation of natural and artificial resources for the purpose of promoting the social and economic welfare of the community and a better environment and the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats.
Workplace Health and Safety Act 2011	Protecting workers and other persons against harm to their health, safety and welfare through the elimination or minimisation of risks arising from work.
Disability Discrimination Act 1992	To eliminate, as far as possible, discrimination against persons on the grounds of disability in the areas of the provision of goods, facilities, services and land.
Australian Accounting Standard AASB116	Reporting on asset condition and consumption to councillors, management and the community.
Civil Liability Act 2002 and Civil Liability Amendment (Personal Responsibility) Act 2002	Protects the Council from civil action by requiring the courts to take into account the financial resources, the general responsibilities of the authority and the compliance with general practices and applicable standards.

A2.2.3 Links to Council Policy, Plans and Strategies

This Asset Management Plan has been informed by the following Council plans and strategies:

- Bogan Shire Community Strategic Plan
- Asset Management Strategy
- Asset Management Plans
- Long Term Financial Plan.

Figure 27 Roads and stormwater asset portfolio value

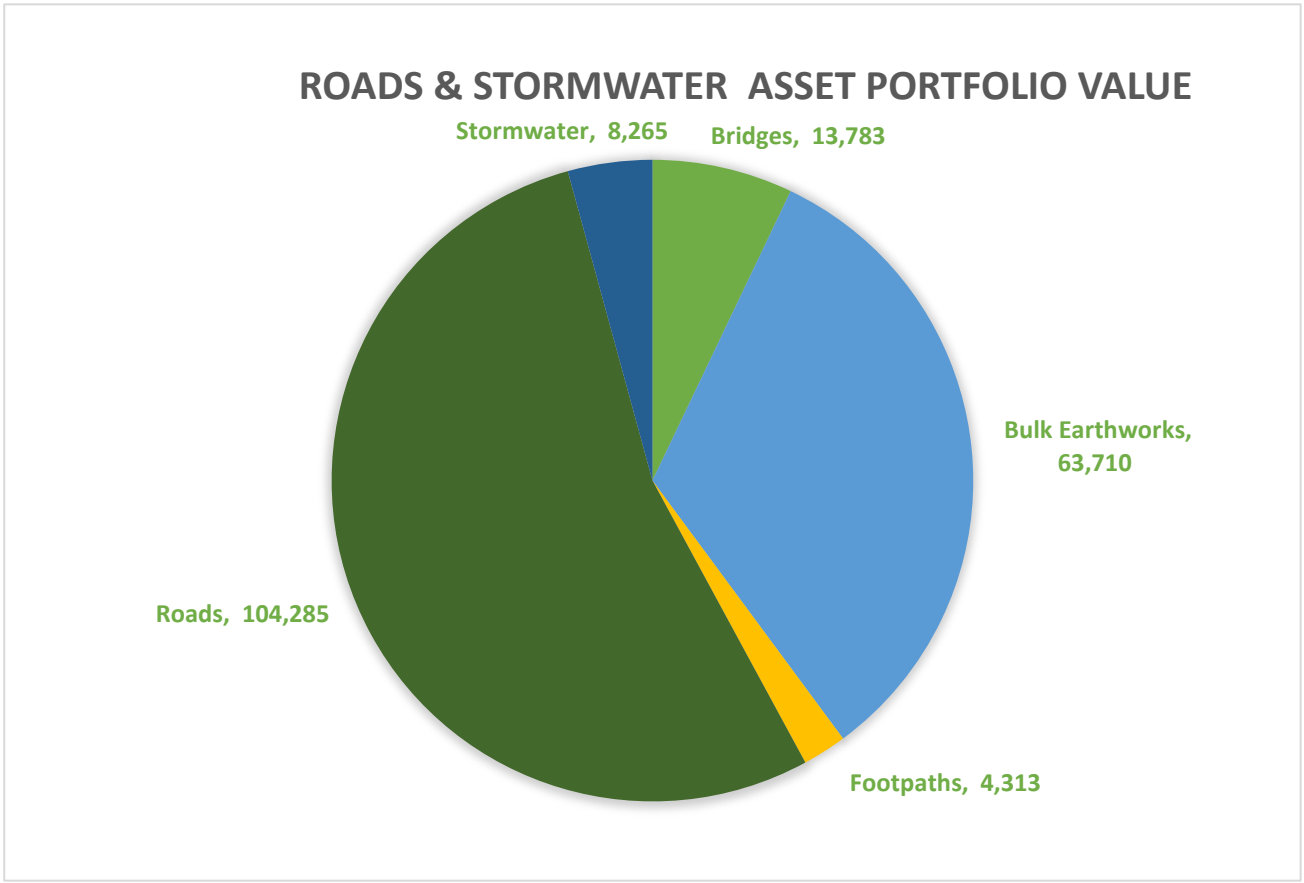


Table 35 Roads and stormwater infrastructure ratios

Infrastructure ratios	Actual 2020/21	Estimated 2030/31	Funding gap	$,000
Renewals ratio	79.65%	70.35%	Yr 1	(-$715)
			5 Yr Average	(-$608)
			10 Yr Average	(-$640)
Backlog ratio	1.29%	1.64%	Yr 1	$0
			5 Yr Average	$0
			10 Yr Average	$0
Maintenance ratio	122.34%	130.21%	Yr 1	$600
			5 Yr Average	$627
			10 Yr Average	$662
Total funding gap			Yr 1	(-$115)
			5 Yr Average	$18
			10 Yr Average	$22

Figure 28 Roads and stormwater asset portfolio expenditure

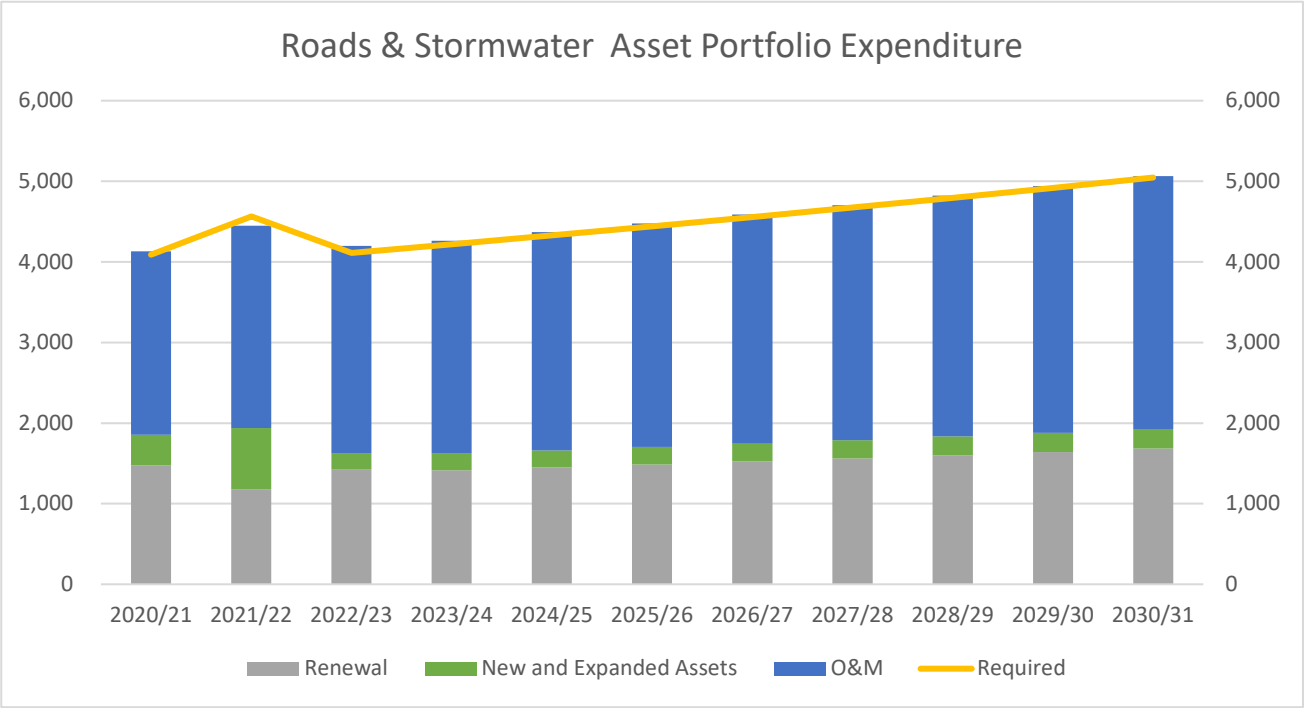
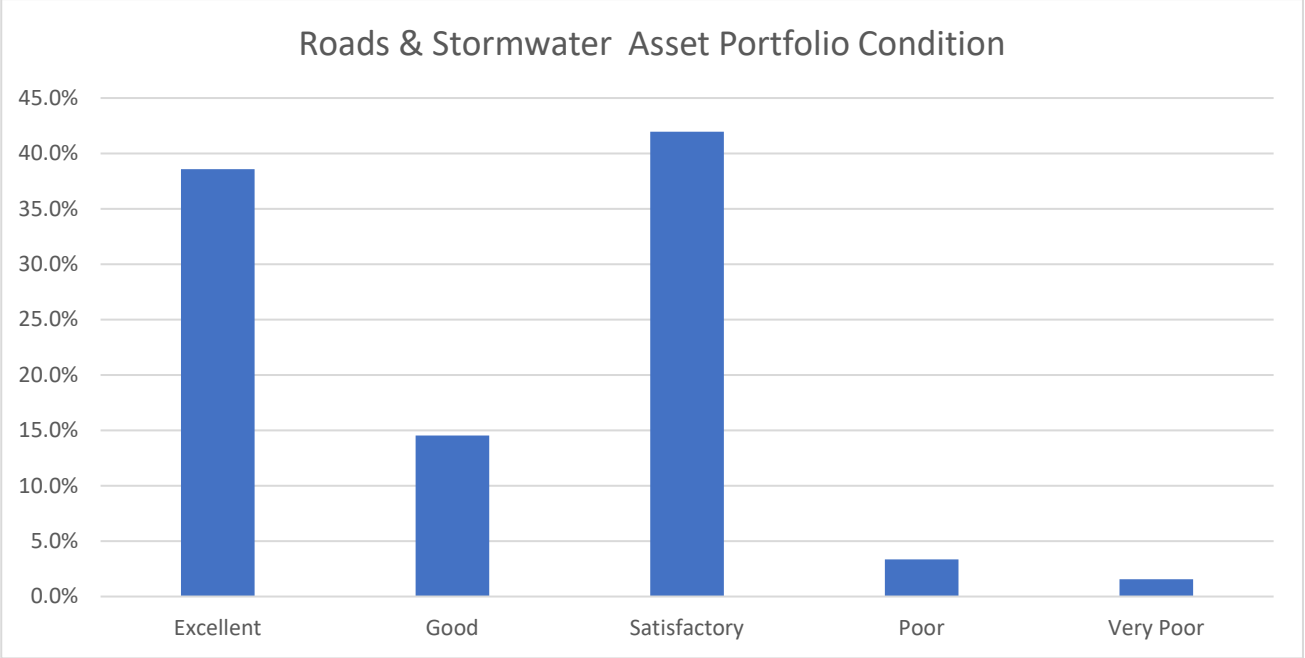


Figure 29 Roads and stormwater asset portfolio condition



A2.3 Asset inventory, values and condition

The table below provides a summary of the value and condition of Council's road infrastructure assets.

Table 36 Road infrastructure – inventory and condition

Asset group	Asset component	Gross replacement cost (CRC) $,000	Written down value (WDV) $,000	Annual depreciation expense $,000	Condition				
					1	2	3	4	5
Road infrastructure	Bridges	13,783	11,737	109	0%	0%	97%	3%	0%
	Footpaths	4,313	1,790	91	3%	10%	50%	37%	0%
	Kerb and Gutter	2,930	1,478	1,635	0%	0%	99%	1%	0%
	Traffic Management Assets and Bus Shelter	1,073	617		1%	5%	60%	31%	3%
	Road Causeways	844	494		0%	53%	22%	22%	3%
	Regional Road Surface	4,279	2,908		25%	35%	30%	2%	8%
	Rural Road Pavement Unsealed	20,972	16,772		3%	37%	49%	4%	7%
	Town and Village Streets	9,841	7,136		1%	31%	67%	1%	0%
	Road Formation/Earthworks	63,710	63,710		100%	0%	0%	0%	0%
	Culverts	20,696	16,015		1%	41%	43%	12%	3%
	Regional Road Pavement Sealed	11,059	8,613		5%	0%	95%	0%	0%
	Regional Road Pavement Unsealed	2,200	1,820		0%	30%	65%	2%	3%
	Rural Road Pavement Sealed	19,913	15,724		2%	2%	94%	1%	1%
	Rural Road Surface	7,207	5,105		7%	32%	54%	3%	4%

Asset group	Asset component	Gross replacement cost (CRC) $,000	Written down value (WDV) $,000	Annual depreciation expense $,000	Condition				
					1	2	3	4	5
	Runway and Carparks	3,271	2,528		1%	96%	3%	0%	0%
	Open Drain	941	941	13	100%	0%	0%	0%	0%
	Levee	6,966	6,966		95%	0%	5%	0%	0%
	Gate	89	69		95%	0%	0%	5%	0%
	Sign	11	4		0%	0%	100%	0	0
	Pump Station	258	130		0%	0%	100%	0	0
Grand Total		**194,356**	**164,557**	**1,848**	**38.6%**	**14.5%**	**42.0%**	**3.4%**	**1.6%**

A2.4 Asset based level of service

Bogan Shire Council provides infrastructure to underpin a service to the community. Consequently, Council has based service level planning around the infrastructure required to provide a desired service, then the operational requirements required to maintain the service.

Table 37 Road infrastructure – service levels

Key performance indicator	Level of service	Performance measurement process	Target performance	Current performance
Accessibility	The road network is convenient, offers choices of travel, and is available to the whole community.	Continuous monitoring as part of operational and capital activities	Properties should have access to maintained sealed and unsealed roads.	
Quality/condition	Footpaths and cycle assets are in good condition and are fit for purpose.	Condition assessment and operational reviews	80% of assets are in condition 3 or better.	
	Road assets are in good condition and are fit for purpose.	Condition assessment and operational reviews	70% of assets are in condition 3 or better.	
Reliability/ responsiveness	Customer requests are responded to in a timely manner.	Customer request system	90% of customer requests completed within designated response time.	
Community satisfaction and involvement	Road facilities are provided that meet community demand.	Community satisfaction survey	Satisfaction rating is “satisfactory” or above.	
Sustainability	Assets are managed with respect for current and future generations.	Consumption ratio	Between 50% and 75%.	Sustainability
	Road assets meet financial sustainability ratios.	Renewal funding ratio	Between 90% and 110%.	
		Long term funding ratio	Between 95% and 105%.	
Health and safety	The network feels safe to use and is regarded safe in comparison to other similar networks.	Annual inspections, operational reports and safety audits	Fewer than five reported safety incidents resulting from road design as factor. Ensure council complies with the delineation standards for local roads where line marking is provided.	

Key performance indicator	Level of service	Performance measurement process	Target performance	Current performance
	Traffic signs and marking are easy to understand.	Routine safety inspections	Less than 20% traffic signs found missing or damaged.	
	Roadwork sites are safely managed.	Routine safety inspections and independent audits	All active roadwork sites are audited at least once per month 100% compliance achieved at all sites.	

A2.5 Future demand/demand management plan

Demand for services provided by roads assets is expected to increase. This will be primarily driven by gradual growth and development in the LGA, increased industrial and agricultural operations, and growing community expectations.

Table 38 Road infrastructure – future demand impact

Demand factor	Impact on assets	Demand management plan
Technology	Road transport vehicles transport heavier loads there will be increased pressure to increase the approved heavy vehicle routes throughout the shire, putting greater strain and usage on transport infrastructure.	Regulatory - heavy vehicle restriction, speed restrictions on local roads. More detailed assessment of future heavy vehicular route applications.
Demographics	Increased need for footpath facilitation to accommodate walking frames and mobile scooters in built up areas.	Supply - modification of access to asset, to allow disabled access where funding is available.
Socio-economic	Higher expectation of services and presentation of roads assets, and the way we deliver them.	Operations - consider new technology for maintaining and managing road infrastructure.

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 include non-asset solutions, insuring against risks and managing failures.

Non-asset solutions focus on providing the required service without the need for the organisation to own the assets and management actions including reducing demand for the service, reducing the level of service (allowing some assets to deteriorate beyond current service levels) or educating customers to accept appropriate asset condition.

Demand for new services will be managed through a number of strategies:

- Supply side - a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand.
- Regulation - restrict time of use and type of use.

A2.6 Current practices

A2.6.1 Maintenance strategies

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 functioning - e.g. footpath repair, pothole patching - but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

Council's roads and drainage assets are continuously monitored and maintained to a safe standard that will maximise their long-term benefit to the community and in accordance with priorities set through asset management planning. Monitoring and maintenance are prioritised based upon the criticality of Council's assets and level of complaints from users and tenants.

Council is increasingly spending more on tree maintenance across the shire. The impact of trees on the condition of footpath and kerb & Gutter assets is increased expenditure on footpath ands kerb & gutter maintenance and is contributing to the poor condition of these assets. On roads assets trees continue to impact on road safety as such is impacting on roadside / verge maintenance activities.

As part of Council's maintenance regime, a regular inspection of the road portfolio is essential. There are currently three types of inspections carried out:

- detailed condition inspection carried out every five years prior to the revaluation of the road portfolio
- ad hoc inspections by Council staff as required
- inspections as a result of customer queries and requests.

A key element of advanced asset management planning is determining the most cost-effective mix of planned and unplanned maintenance, including:

- the inspection frequency for road infrastructure assets
- the response times for attention to defects identified by inspection
- the works to be performed to address defects identified by inspection
- identify road assets in poor condition to include in renewal program.

A2.6.2 Renewal strategies

Council will plan capital renewal and replacement projects to meet service level objectives and minimise infrastructure service risks. The capital program has been primarily driven by asset condition and works are prioritised on the following factors:

- safety risk – accident potential
- heavy vehicle use
- network significance
- cost/benefit
- environmental factors.

Generally, renewals relating to roads will be undertaken on a segment-by-segment basis. In certain

circumstances, Council will rely on conditional and non-conditional grant funding the service to renew or upgrade assets. During major emergencies funding is generally available to repair damaged road assets as a result of the emergency. Council must be in a position to take advantage of this funding when available to protect the community assets. To ensure that the community assets are protected it is essential that a detailed record of the current asset condition is fully documented and kept up to date.

A2.7 Expenditure projections

Asset lifecycle costs are the average costs required to sustain an asset over its useful life. These costs have been projected forward for the next ten years to inform Council's Long-Term Financial Plan. The table below compares Council's planned expenditure against the expenditure required to sustain its current levels of service.

A2.7.1 Transport assets

Table 39 Road infrastructure – expenditure projections

Budget gap by asset group ($,000)		2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Actual											
	Renewal	1,179	1,422	1,416	1,451	1,488	1,525	1,563	1,602	1,642	1,683
	New and expanded assets	758	200	205	210	215	221	226	232	238	244
	Operations and maintenance	2,513	2,576	2,640	2,706	2,774	2,843	2,915	2,987	3,062	3,139
	Total expenditure	**4,450**	**4,198**	**4,261**	**4,368**	**4,477**	**4,589**	**4,704**	**4,821**	**4,942**	**5,066**
Required											
	Required renewal (depreciation)	1,894	1,949	1,999	2,051	2,105	2,159	2,215	2,273	2,332	2,392
	New and expanded assets	758	200	205	210	215	221	226	232	238	244
	Required operations and maintenance	1,913	1,963	2,014	2,066	2,120	2,175	2,232	2,290	2,349	2,410
	Total	**4,565**	**4,112**	**4,218**	**4,328**	**4,440**	**4,555**	**4,673**	**4,795**	**4,919**	**5,047**
	Maintenance gap	600	613	626	640	654	668	683	698	713	728
	Renewals gap	-715	-527	-583	-600	-617	-634	-652	-671	-690	-709
	Overall (GAP)	**-115**	**86**	**43**	**40**	**37**	**34**	**30**	**27**	**23**	**19**

Figure 30 Road and stormwater renewals ratio

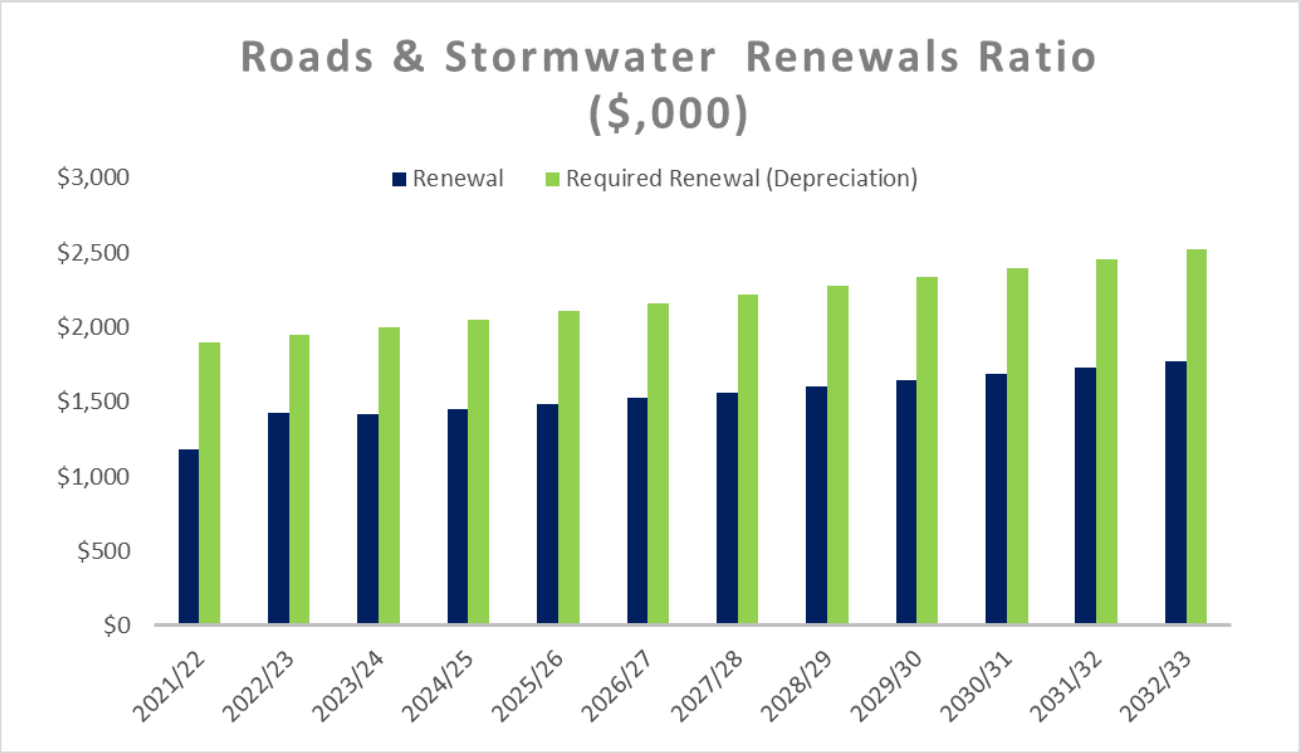
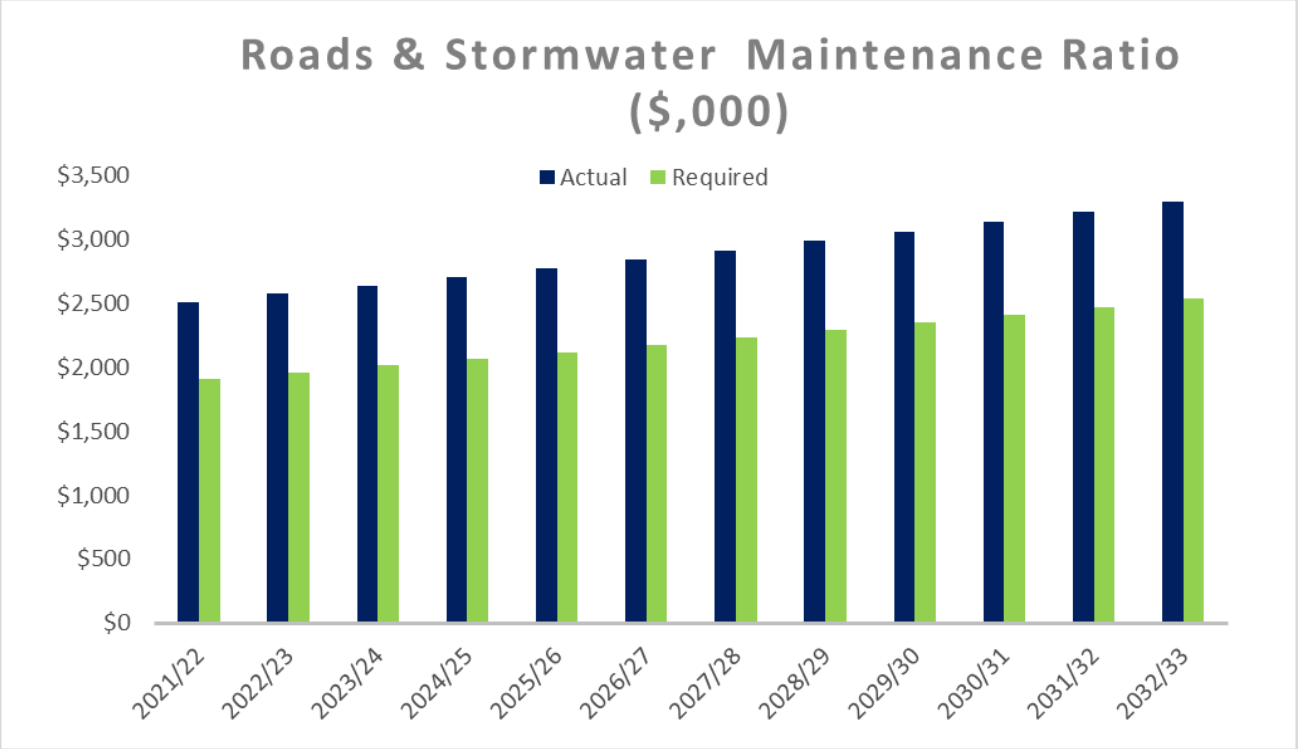


Figure 31 Road and stormwater maintenance ratio



A2.8 Financial ratios

The Office of Local Government has established financial benchmarks for councils to strive towards and adhere to. The charts below showcase Council's current financial service levels and the impacts of Council's projected expenditure upon these service levels.

Figure 32 Road and stormwater sustainability ratios

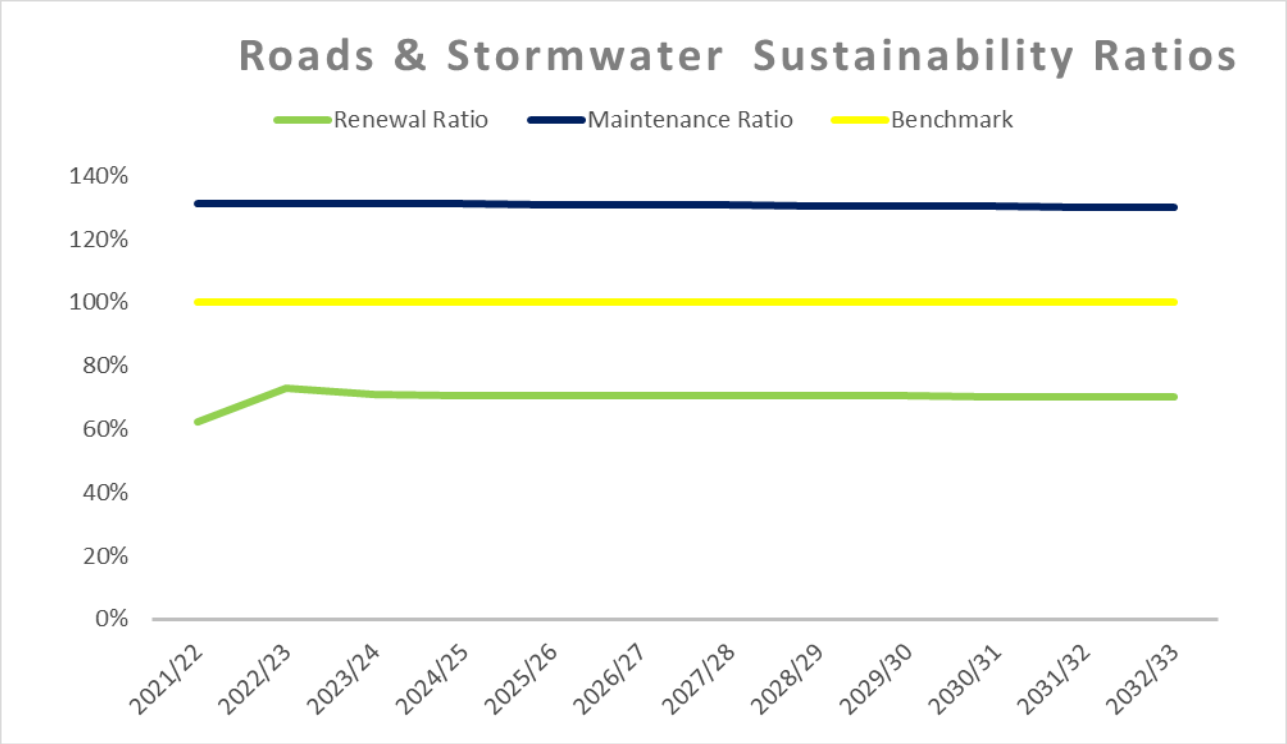
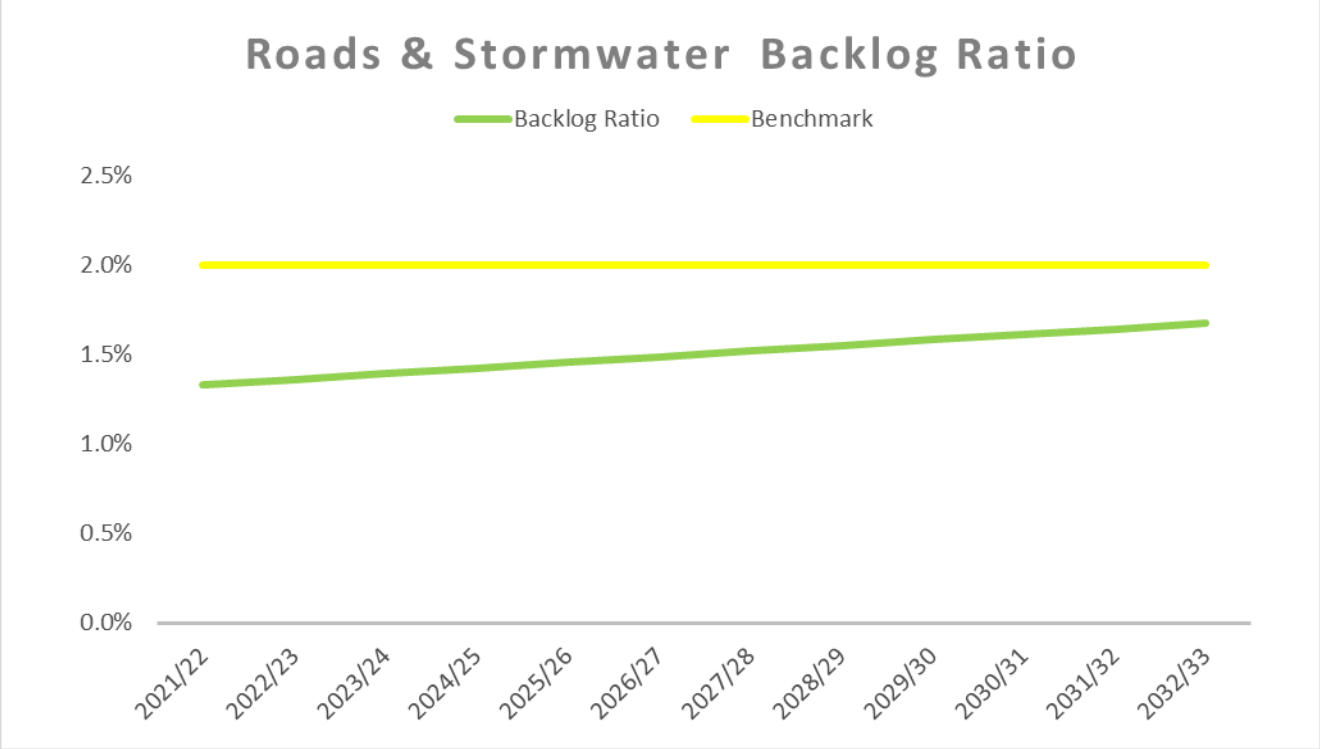


Figure 33 Road and stormwater backlog ratio



A2.9 Risk

A2.9.1 Critical assets

Critical assets are those assets that are likely to result in a more significant financial, environmental and social cost in terms of impact on organisational objectives. By identifying critical assets and critical failure modes, organisations can target and refine investigative activities, maintenance plans and capital expenditure plans at critical areas.

The following attributes of an asset are to be considered when considering critical road assets:

- road classification
- annual average daily traffic
- average daily heavy vehicle traffic
- railway crossing
- locality
- bus route.

Council has determined the criticality of its roads based upon the above matrix.

- Cockies Road
- The Bogan Way
- Henry Parks Way
- Balowra Rd
- Hermidale Nymagee Rd
- Monkey Bridge Road

A2.9.2 Continuous improvement pathway

The following elements of the CIP for roads have been addressed in this AMP and AMS.

Figure 34 Roads - continuous improvement pathway

Asset	Element	Criteria	Comments/evidence
Stormwater management	Strategy	Council has developed adaptation strategies for storm water assets identified of being at risk from climate change.	Addressed in section 6 of the AMS
Footpaths	Policy/Management Plan	Identifies relevant legislative or other requirements.	Addressed in section A2.2.2 of this AMP
Footpaths	Policy/Management Plan	Has been communicated to relevant staff on a regular basis.	Councils technical staff consulted in the development of this AMP/AMS
Footpaths	System	Identifies a formal process for the frequency and type of inspections to be carried out.	Inspection types detailed in section A2.6 detailed condition inspections carried out every five years

A2.10 Confidence levels

The confidence in the asset data used as a basis for the forecasts has been assessed using the following grading system.

Table 40 Road infrastructure – data confidence rating

Confidence grade	General meaning
Highly reliable	Data based on sound records, procedure, investigations and analysis that is properly documented and recognised as the best method of assessment.
Reliable	Data based on sound records, procedures, investigations and analysis which is properly documented but has minor shortcomings; for example, the data is old, some documentation is missing, and reliance is placed on unconfirmed reports or some extrapolation.
Acceptable	Data based on sound records, procedures, investigations and analysis with some shortcomings and inconsistencies.
Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported or extrapolation from a limited sample.
Very uncertain	Data based on unconfirmed verbal reports and/or cursory inspection and analysis.

The overall confidence level of the plan is considered to be 'reliable'.

A2.11 Main findings

Council's road transport data is comprehensive, up to date and allows for effective lifecycle planning and decision making. While the majority of the asset portfolio is in satisfactory condition (only 4.9% of assets in condition 4 or 5); although not a significant portion of the network, Council's footpaths, traffic management facilities and road causeways are generally in poor condition.

Currently, identified expenditure forecasts are limited to a four-year horizon and this has impacted the ten-year projections in this plan. It would appear that Council is spending about the right amount of money on its road assets to maintain them in the current good condition. There is an opportunity for Council to move maintenance expenditure to capital renewal to better balance the current expenditure.

A2.12 Improvement plan

Table 41 Road infrastructure – improvement plan

Improvement action	Effect on AMPs	Priority
Develop and monitoring asset-based service levels	Ensure that expenditure is directed in the most effective areas to meet agreed service levels	High
Engage community with respect to levels of service	Lifecycle planning will be aligned with community expectations	Medium
Review functionality and capacity needs of assets	Lifecycle planning will be aligned with community needs	Medium
Identify ten-year planned expenditure budget	Financial sustainability modelling reflective of Council capacity and needs	High
Develop condition inspection strategy for Council's road and stormwater assets	Condition data will be confirmed and provide a clearer depiction of the network and allow for better lifecycle planning	High

Appendix 3 Asset Management Plan – Water Supply and Sewerage

Bogan Shire Council owns and manages an extensive network of active and passive water supply and sewerage assets across the LGA.

Council, as the owner and operator of its water supply and sewerage assets, has the responsibility for several functions including:

- maintenance and operations
- renewal and refurbishment.

The planning of these functions is outlined in this asset management plan.

A3.1 Purpose of this plan

This asset management plan aims to demonstrate how water supply and sewerage assets can be provided and sustainably managed meeting not only regulatory compliance but also the expectations and aspirations of the local community. The outcomes of the AMP have helped inform the development of Council's overarching Strategic Asset Management Plan and Long-Term Financial Plan.

A3.2 Introduction

A3.2.1 Stakeholders

Key stakeholders must be considered in the preparation and implementation of this Asset Class Management Plan to ensure the value of services justifies investment in the assets. It also ensures there is a greater understanding of stakeholders' expectations with regards to the facilities and services provided by Council.

Key stakeholders to be consulted in preparation and revision of this asset management plan are:

- **Councillors** - allocate resources to meet the organisation's objectives in providing services while managing risks. Ensure organisation is financially sustainable.
- **Executive management** - report on the status and effectiveness of current asset management processes at Council.
- **Asset management team** - coordinate development and implementation of AMPs and asset management related matters.
- **Council staff** - responsible for the timely completion of tasks allocated to them from within the plans.
- **Residents** - residents are the core users of water and sewerage infrastructure assets. Their needs, wants and expectations are conveyed to Council, which should be reflected in the desired levels of service.
- **NSW Health** - monitors the safe supply and quality assurance for drinking water in NSW.
- **DPI Water** - responsible for the enforcement of water laws in NSW through licensing, monitoring compliance and education.

A3.2.2 Legislative requirements

This asset management plan was made in accordance with the following documents and legislative requirements.

Table 42 Water supply assets – legislative requirements

Legislation	Requirement
Civil Liability Act 2002 and Civil Liability Amendment (Personal Responsibility) Act 2002	Protects the Council from civil action by requiring the courts to take into account the financial resources, the general responsibilities of the authority and the compliance with general practices and applicable standards.
Disability Discrimination Act 1992	The Federal Disability Discrimination Act 1992 (D.D.A.) provides protection for everyone in Australia against discrimination based on disability.
Environmental Planning and Assessment Act 1979; Environmental Protection Act 1994; Protection of the Environment Operations Act 1997; National Parks and Wildlife Act 1974; Threatened Species Conservation Act 1995; Native Vegetation Act 2003;	Sets out the role, purpose, responsibilities and powers of Council relating to protection and preservation of the environment.
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.
WH&S Act 2011 and regulations	Sets out Council's responsibility to ensure health, safety and welfare of employees and others at places of work.
Crown Lands Act 2016	Is an Act to provide for the administration and management of Crown land in the Eastern and Central Division of the State of NSW. Council has a large holding of Crown land under it care, control and management.
Dam Safety Act 1978	This act establishes the Dam Safety Committee that ensures the safety of dams in NSW.
Fluoridation Act of Public Water Supplies Act, 1957	Allows a water supply authority to add fluoride to its water supply.

A3.2.3 Links to Council policy, plans and strategies

This asset management plan has been informed by the following Council plans and strategies.

- Bogan Shire Community Strategic Plan
- Asset Management Strategy
- Asset Management Plans
- Long Term Financial Plan.

Figure 35 Water and sewer asset portfolio value

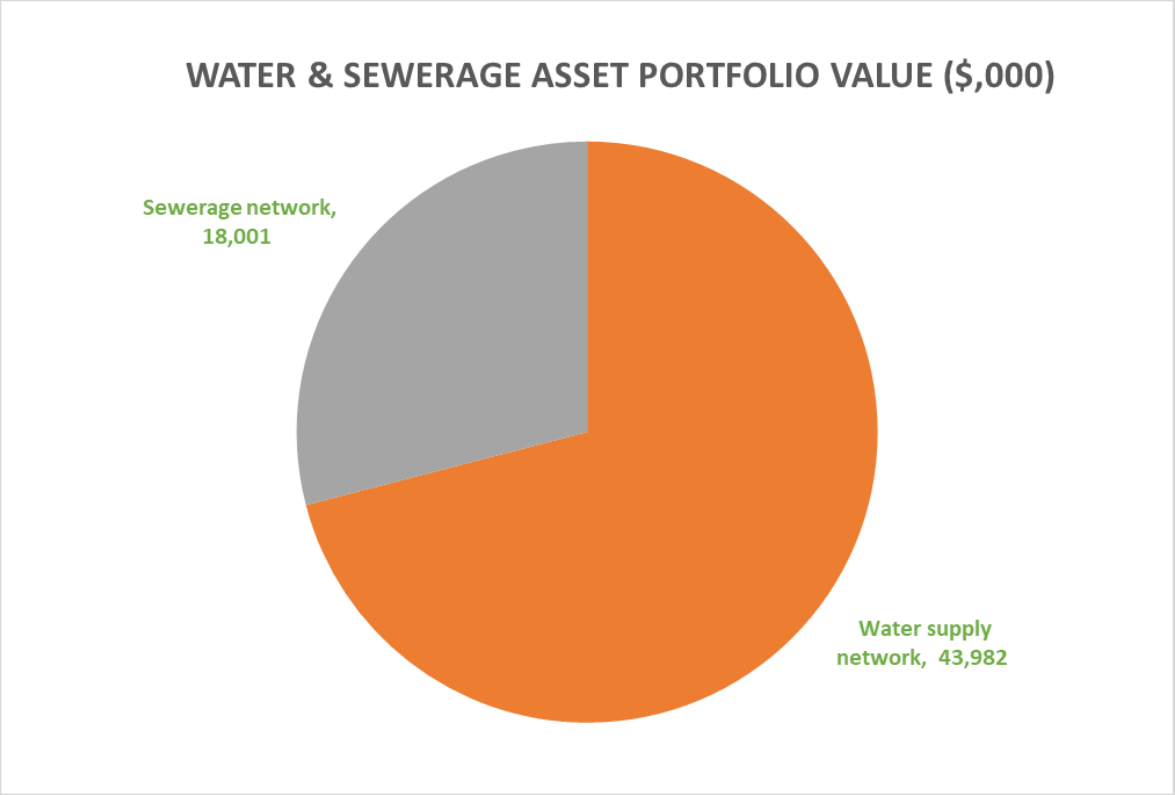
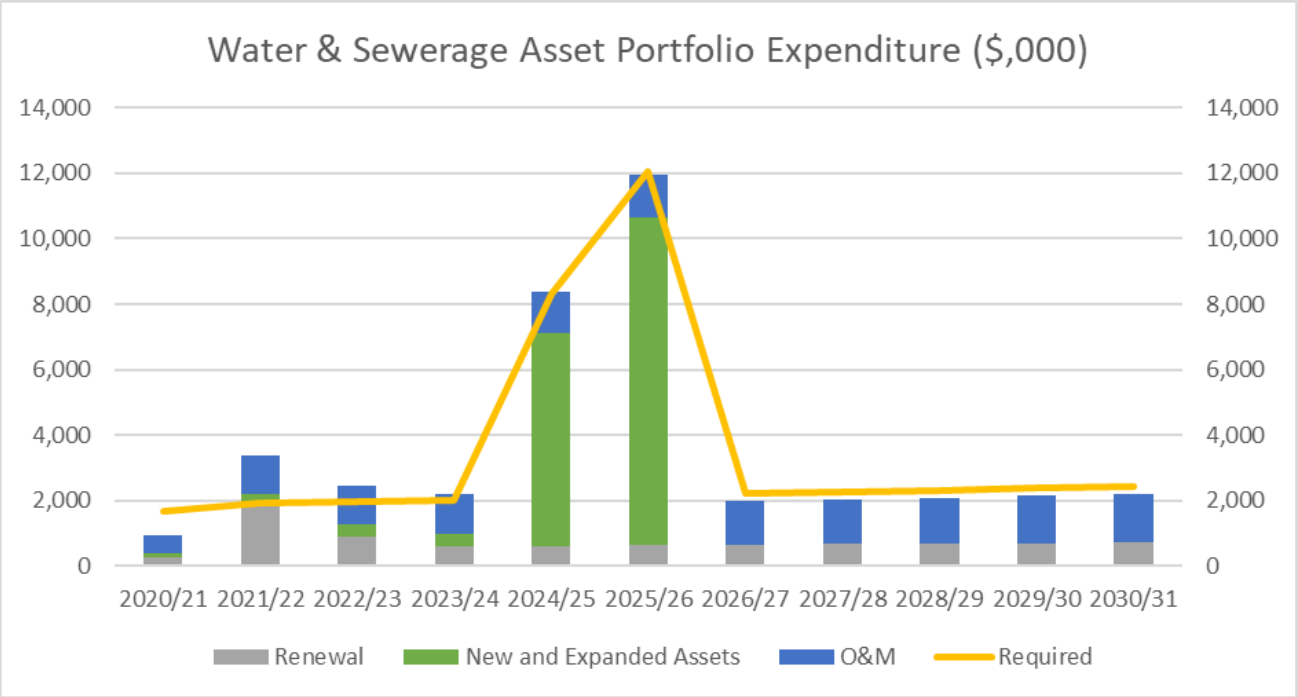


Table 43 Water and sewer infrastructure ratios

Infrastructure ratios	Actual 2020/21	Estimated 2030/31	Funding gap	$,000
Renewals ratio	35.39%	64.29%	Yr 1	$1,128
			5 yr average	$137
			10 yr average	(-$123)
Backlog ratio	2.42%	1.81%	Yr 1	$0
			5 yr average	$0
			10 yr average	$0
Maintenance ratio	70.22%	112.86%	Yr 1	$342
			5 yr average	$292
			10 yr average	$226
Total funding gap			Yr 1	$1,470
			5 yr average	$429
			10 yr average	$103

Figure 36 Water and sewer asset portfolio expenditure



A3.3 Asset inventory, values and condition

The table below provides a summary of the value and condition of Council's water supply and sewerage assets.

Table 44 Water supply and sewerage assets – inventory and condition

Asset group	Asset component	Gross replacement cost (CRC) $,000	Written down value (WDV) $,000	Annual depreciation expense $,000	Condition				
					1	2	3	4	5
Water supply				$502					
	Mains	16,020	9,961		10%	43%	26%	21%	0%
	Reservoirs and Tanks	4,011	2,137		2%	96%	1%	0%	1%
	Pumping Station/s	917	525		16%	58%	3%	22%	1%
	Treatment	5,363	1,893		1%	42%	30%	27%	0%
	Water Canals	6,370	6,370		0%	0%	100%	0%	0%
	Canal Structures	305	303		100%	0%	0%	0%	0%
	Dams/Weirs	10,996	9,766		100%	0%	0%	0%	0%
	Other	-	497		0%	0%	0%	0%	0%
Sewerage network				$210					
	Pumping Station/s	2,171	1,286		1%	93%	5%	1%	0%
	Treatment	2,692	1,525		1%	92%	6%	1%	0%
	Reticulation	13,138	5,894		1%	77%	22%	0%	0%
	Other	-	783		0%	0%	0%	0%	0%
Grand total		$61,983	$40,940	$712	21.6%	45.4%	24.8%	8.2%	0.1%

A3.4 Asset based level of service

Table 45 Water supply assets – service levels

Key performance indicator	Level of service	Performance measurement process	Target performance	Current performance
Accessibility/ availability	Availability of domestic water and sewerage services.	% of all tenements that are connected		
	Percentage of interruptions which are planned.	% of total interruptions	80%	
	Frequency of restrictions (on average).	No. / ten years	1	
Quality/condition	Water supply is provided in accordance with Australian drinking water guidelines.	% compliance	100%	
	Sewerage discharge meets licence conditions.	% compliance	100%	
Reliability/ responsiveness	Council is responsive to planned and unplanned disruptions to service supply.	% compliance with customer charter	90%	
Sustainability	Assets are managed with respect for future generations.	Adopt a life cycle approach to managing and maintain existing assets	Maintenance costs are within industry benchmarks	
	Assets meet financial sustainability ratios.	Consumption ratio	Between 50% and 75%	
		Renewal funding ratio	Between 90% and 110%	
		Long term funding ratio	Between 95% and 105%	

A3.5 Future demand/demand management plan

Demand for services provided by water supply assets is expected to increase. Much of this will be driven by gradual development in the LGA, growing community expectations and awareness, and regulatory change.

Table 46 Water supply assets – future demand impact

Demand factor	Impact on assets
Population	The increase in population will impact on the number of people and properties connected to the water supply system. Council is under continued pressure to minimise household water consumption and as such should be used as a demand management strategy to ensure the longevity of the supply and storage network.
Increasing costs	Will be a requirement to continue to maximise service delivery within the funding limitations.
Environment and climate	Changes in rainfall as a result of climate change may have an effect on the reliable storage capacity for drinking water. There is likely to be tightening of controls on discharges from the water supply system and greater environmental controls. There is likely to be tightening of controls on discharges from the sewerage system and greater environmental controls. Further, it is likely that effluent reuse schemes will increase.
Technology	May require improved environmental management of construction and the management of the water supply network into the future. May require improved environmental management of construction and the management of the sewerage network into the future.

A3.6 Current practices

A3.6.1 Maintenance strategies

Council relies on a combination of proactive and reactive maintenance for the management of its water supply and sewerage assets. This includes annual inspection of its pumping infrastructure and reservoirs. Maintenance works are subsequently scheduled in accordance with the findings. Maintenance works on the passive network are largely reactive from customer requests/complaints.

A3.6.2 Renewal strategies

Council's capital works program is primarily driven by the risk profile of its assets network. The risk profile incorporates; criticality, age, condition, material as well as the amount of maintenance work/service requests undertaken for the asset. Capacity and functionality also play a key role in renewal and upgrade decisions with Council planning an upgrade of water treatment plant in 2024.

A3.7 Expenditure projections

Asset lifecycle costs are the average costs required to sustain an asset over its useful life. These costs have been projected forward for the next ten years to inform Council's Long-Term Financial Plan. The table below compares Council's planned expenditure against the expenditure required to sustain its current levels of service.

Table 47 Water supply assets – expenditure projections

Budget gap by asset group ($,000)		2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Actual											
	Renewal	1,858	900	609	624	640	656	672	689	706	724
	New and expanded assets	353	361	361	6,500	10,000	0	0	0	0	0
	Operations and maintenance	1,182	1,211	1,242	1,273	1,304	1,337	1,371	1,405	1,440	1,476
	Total expenditure	3,393	2,472	2,212	8,397	11,944	1,993	2,043	2,094	2,146	2,200
Required											
	Required renewal (depreciation)	730	752	775	799	893	1,020	1,046	1,072	1,098	1,126
	New and expanded assets	353	361	361	6,500	10,000	0	0	0	0	0
	Required operations and maintenance	840	865	892	999	1,156	1,185	1,214	1,245	1,276	1,308
	Total	1,922	1,978	2,028	8,298	12,049	2,205	2,260	2,316	2,374	2,434
	Maintenance gap	342	346	350	273	149	152	156	160	164	168
	Renewals gap	1,128	148	-166	-174	-253	-364	-373	-383	-392	-402
	Overall (gap)	**1,470**	**494**	**184**	**99**	**-104**	**-212**	**-217**	**-223**	**-228**	**-234**

Council's capital works program includes a number of upgrade works, of note is the planned upgrade/expansion of the Nyngan water treatment plant in 2024 - 2026.

Figure 38 Water and sewer renewals ratio

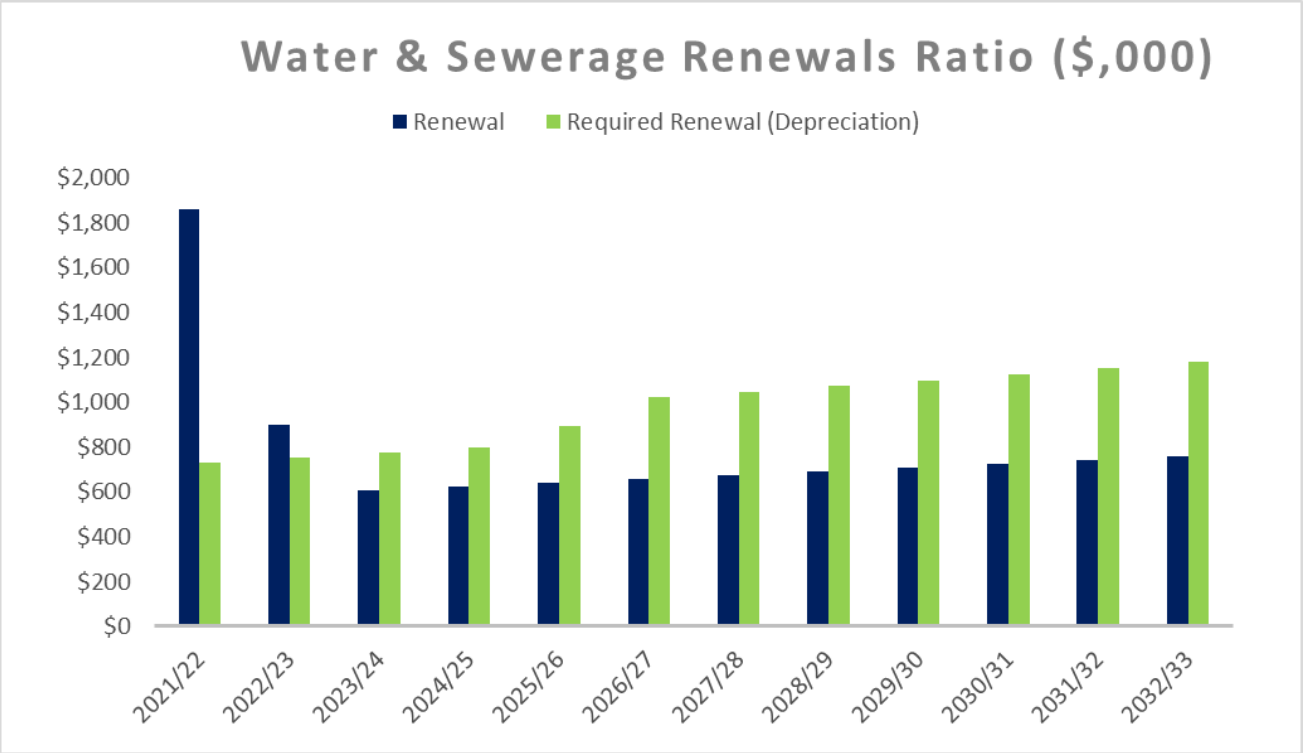
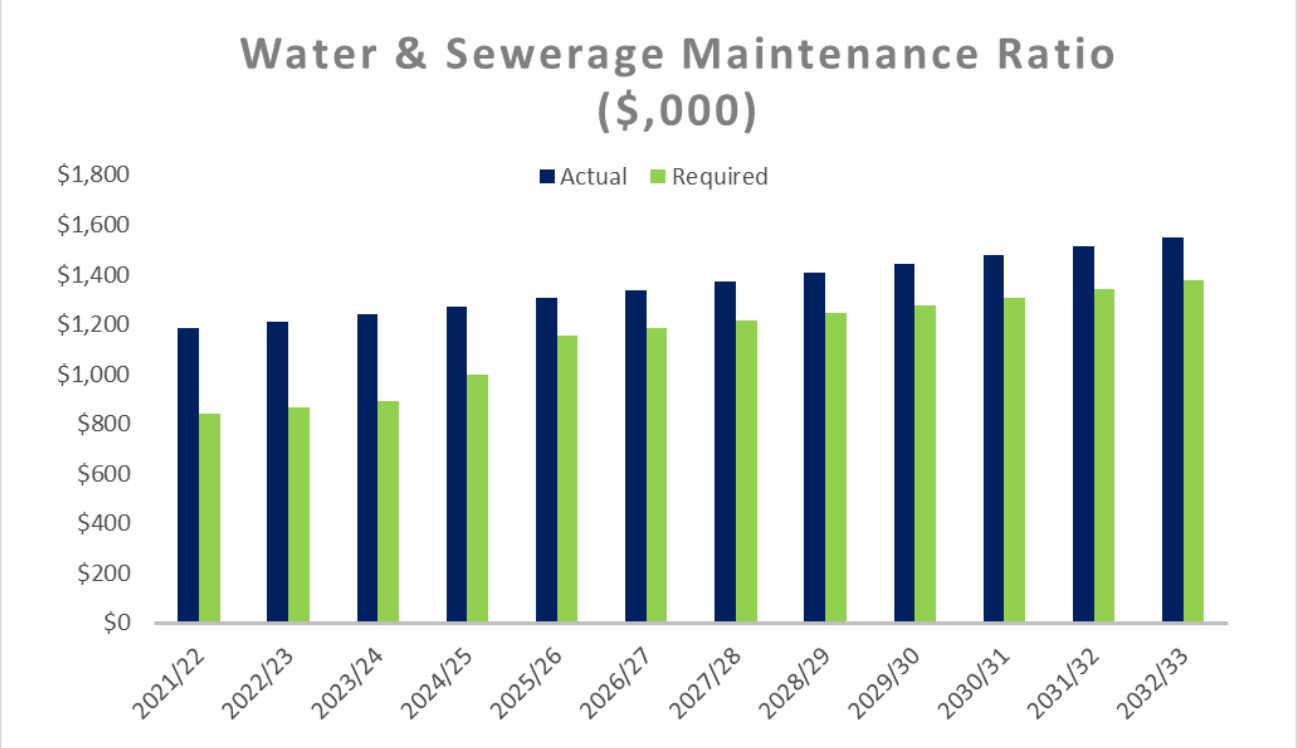


Figure 37 Water and sewer maintenance ratio



A3.8 Financial ratios

The Office of Local Government has established financial benchmarks for councils to strive towards and adhere to. The charts below showcase Council's current financial service levels and the impacts of Council's projected expenditure upon these service levels.

Figure 39 Water and sewer sustainability ratios

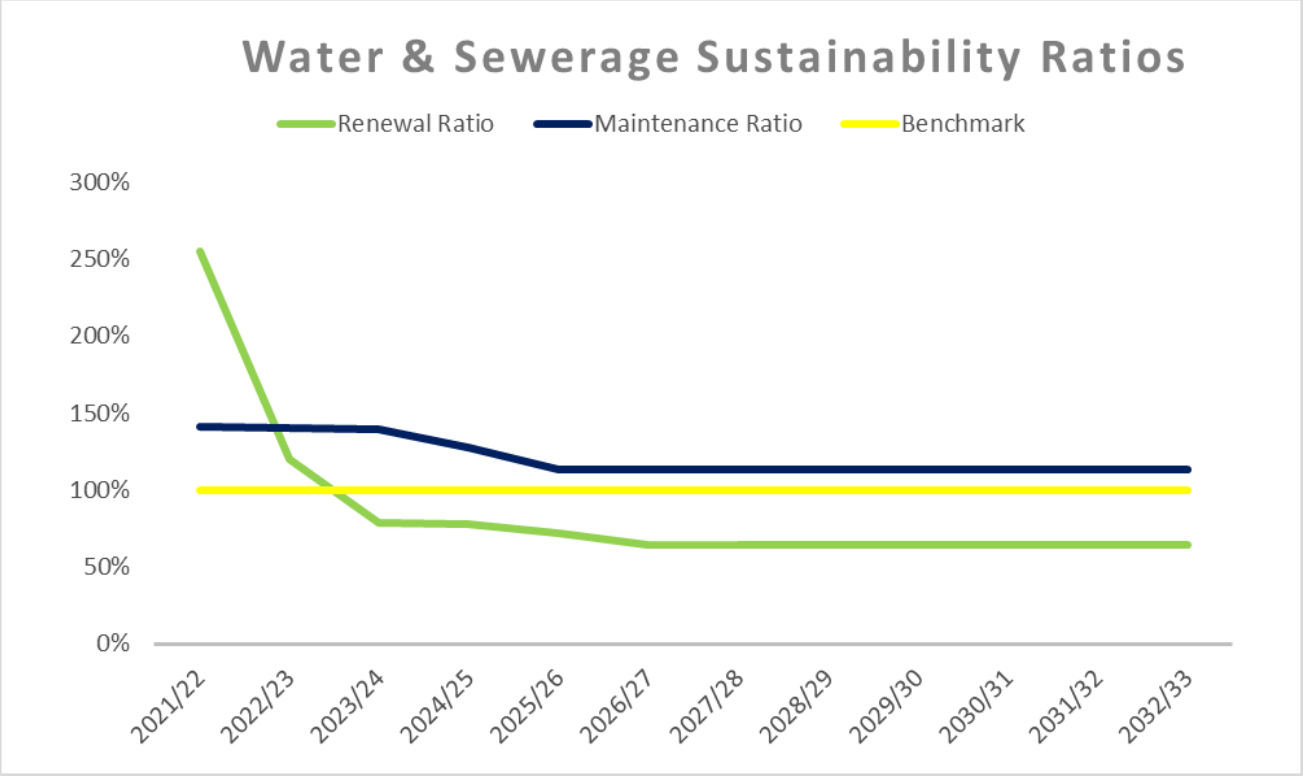
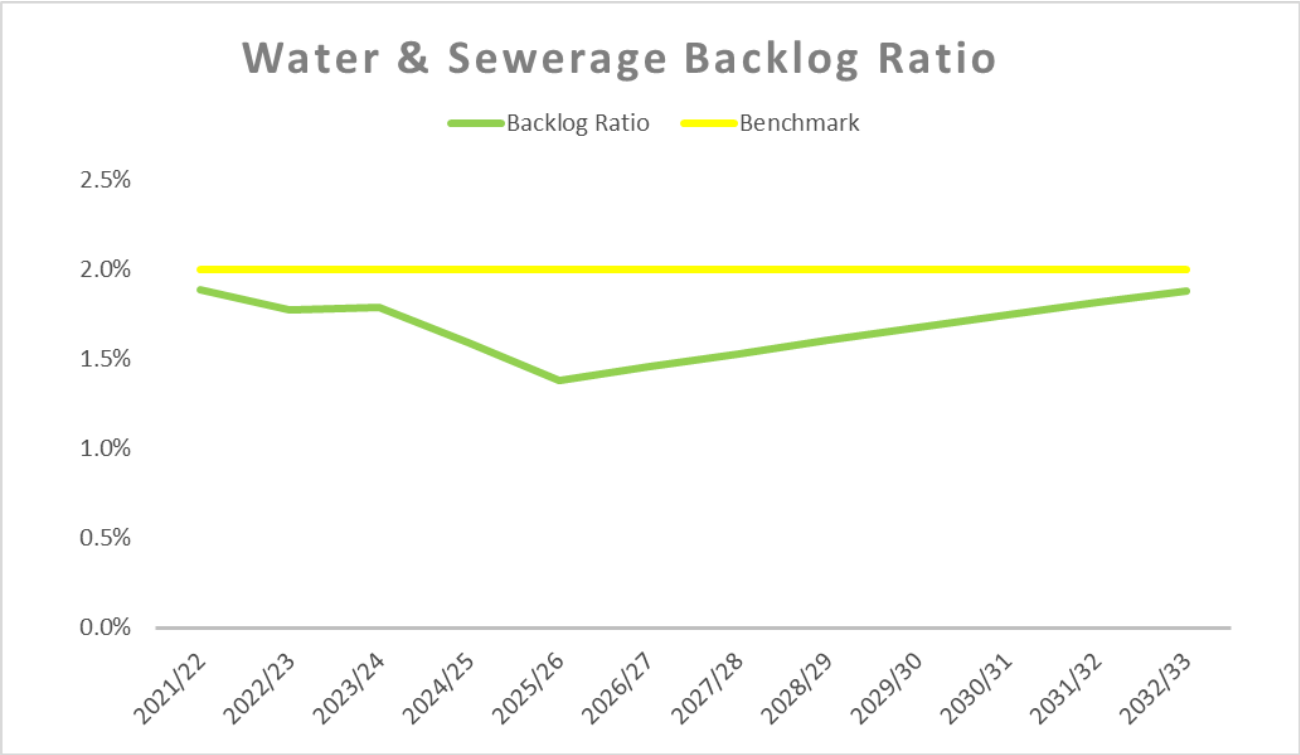


Figure 40 Water and sewer backlog ratio



A3.9 Risk

A3.9.1 Critical assets

Critical assets are those assets that are likely to result in a more significant financial, environmental and social cost in terms of impact on organisational objectives. By identifying critical assets and critical failure modes, organisations can target and refine investigative activities, maintenance plans and capital expenditure plans at critical areas.

The following attributes of an asset are to be considered when considering critical water supply assets.

- treatment plants
- storage facilities
- size and impact of facility.

Council has identified the following water supply assets as critical:

- Bogan Waste Water Treatment Plant
- Nyngan Sewer Pump Stations No 1 & 2
- Nyngan Water Treatment Plant
- Nyngan River Weir
- O'Reilly Park Potable Water Reservoir - Structure
- Bogan Street Potable Water Reservoir - Structure

A3.10 Confidence levels

The confidence in the asset data used as a basis for the forecasts has been assessed using the following grading system.

Table 48 Water supply assets – data confidence rating

Confidence grade	General meaning
Highly reliable	Data based on sound records, procedure, investigations and analysis that is properly documented and recognised as the best method of assessment.
Reliable	Data based on sound records, procedures, investigations and analysis which is properly documented but has minor shortcomings; for example, the data is old, some documentation is missing, and reliance is placed on unconfirmed reports or some extrapolation.
Acceptable	Data based on sound records, procedures, investigations and analysis with some shortcomings and inconsistencies.
Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported or extrapolation from a limited sample.
Very uncertain	Data based on unconfirmed verbal reports and/or cursory inspection and analysis.

The overall confidence level of the plan is considered to be 'reliable'.

A3.11 Main findings

Council's water supply and sewerage asset data is comprehensive, up to date and allows for effective lifecycle planning and decision making. This will allow Council to undertake a more proactive approach in maintaining its assets and promote its capability for better lifecycle management and planning. It should be noted that whilst the asset portfolio is in generally good condition, there are condition-based issues with the water reticulation network, water pumping stations and water treatment plant assets.

Council has a limited long term capital works program which focuses heavily on asset renewals. It is noted that there is a significant upgrade to water treatment planned to commence in 2024 which will provide a significant improvement and expansion of Council's water treatment facilities. The current ten-year forecasts project no shortfall in funding to maintain the network in its current condition; further expenditure may be required to address the issue of assets in unsatisfactory condition.

A3.12 Improvement plan

Table 49 Water supply assets – improvement plan

Improvement action	Effect on AMPs	Priority
Prepare condition inspection strategy for Council's passive assets	Lifecycle planning decisions undertaken on complete data set	High
Undertake condition inspection of Council's passive assets	Lifecycle planning decisions undertaken on complete data set	Medium
Develop and monitoring asset-based service levels	Ensure that expenditure is directed in the most effective areas to meet agreed service levels	High
Engage community with respect to levels of service	Lifecycle planning will be aligned with community expectations	Medium
Review functionality and capacity needs of assets	Lifecycle planning will be aligned with community needs	Medium
Identify ten-year planned expenditure budget	Financial sustainability modelling reflective of Council capacity and needs	High
Develop condition inspection strategy for Council's road and stormwater assets	Condition data will be confirmed and provide a clearer depiction of the network and allow for better lifecycle planning	High