

# 2025 Asset Management Plan

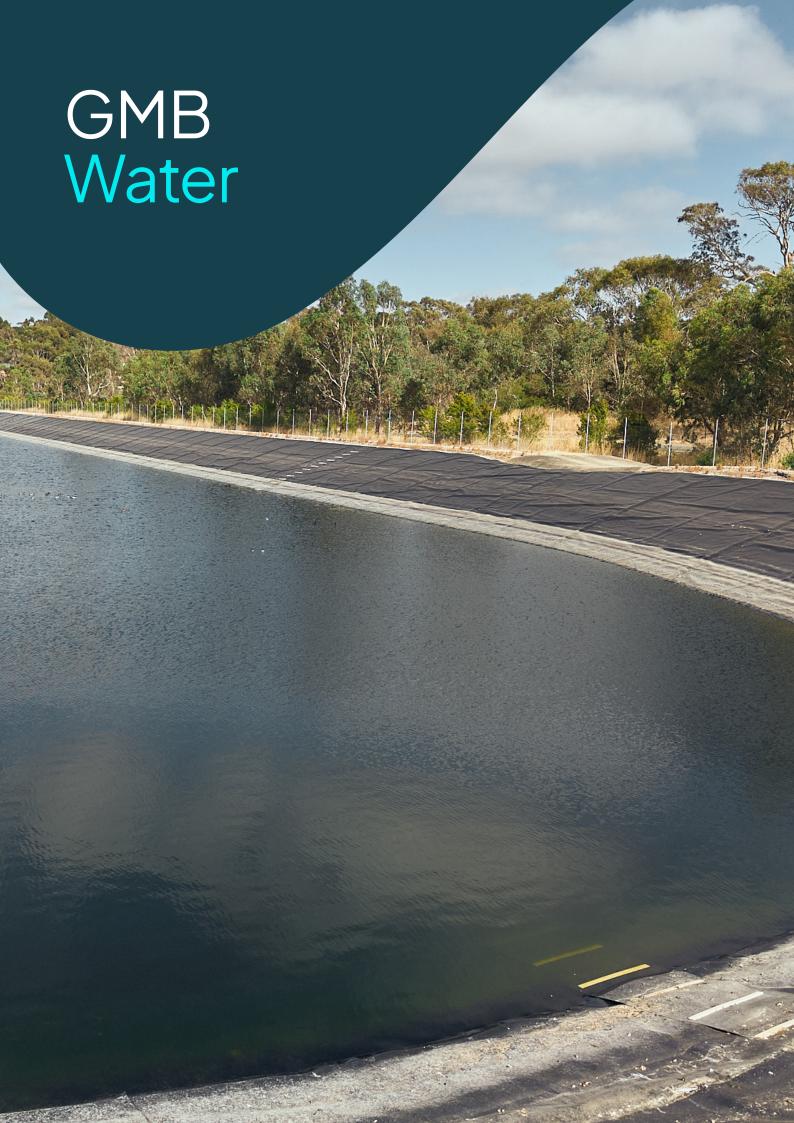


## **Acknowledgement of Country**



## **Table of Contents**

GMB WATER		RENEWAL DECISION MAKING PROCESS	
Introduction	5	Renewal Decision Making Process	50
		Investment Prioritisation	50
ASSET MANAGEMENT STRATEGY			
Asset Management at GMB Water	7	DEMAND AND GROWTH	
GMB Water Service Corporate and Strategic Objectives	11	Growth Forecasting Growth Service strategy	53 54
Community Plan 2044	12	Growth Service strategy	54
GMB Water Strategic Objectives	13	LIFECYCLE MANAGEMENT	
Asset Management Objectives	15	Infrastructure Resilience	57
Asset Management Maturity	18		58
Asset Management Improvement Plan	20	Operations and Maintenance Plan Renewal Plan	60
Performance Measures	22		62
Decision Making	23	Growth/Upgrade Plan Disposal Plan	63
Monitoring and Review Procedures	26	Asset Standards	64
		Financial Planning	65
LEVELS OF SERVICE		Key Assumptions Made in	66
Customer Feedback/Engagement	28	Financial Forecasts	00
Customer Levels of Service	30	Forecast Reliability and Confidence	67
Technical Levels of Service	32		
		REFERENCES	69
STATE OF ASSETS			
Asset Portfolio Overview	36	APPENDICES	71
Asset Performance	39		
Asset Condition	40		
ASSETRISK			
Asset Risk Management	43		
Asset Failure Modes	44		
Failure Drivers/Patterns	44		
Failure Detection	45		
Risk Assessment Models	46		
Risk Assessment	47		
Criticality	48		
Redundancy	48		



## Introduction

GMB Water is a section 42 subsidiary owned and operated by Mount Barker District Council in accordance with the Local Government Act. GMB Water is the largest council-run wastewater and recycled water services provider in South Australia.

Services are provided to 14,532 household and business customers through four schemes across the townships of Mount Barker, Littlehampton, Nairne, Brukunga, Echunga, Meadows and Macclesfield.

Assets used to provide these services include 415 kilometres of wastewater network pipes, 19 wastewater pump stations, a 52 kilometre recycled water network, a four kilometre non-potable (ground water) network, five recycled water pump stations, three ground water pump stations, the Laratinga Wetlands, four main wastewater treatment facilities in Mount Barker, Meadows, Echunga and Macclesfield townships, a recycled water treatment facility on Little Dublin Road and a sludge storage facility at Nairne.

Effective governance of GMB Water is highly importance given the scale and complexity of the services provided, and the highly regulated, technical and competitive environment in which it operates. For these reasons, GMB Water is governed by a skills based Board appointed by the Council.

The GMB Water Strategic Asset Management Plan (SAMP) aims to provide a clear and concise description of how GMB Water's Asset Management Objectives (AMOs) have been translated and applied to the asset portfolio. It includes an overview and description of the asset portfolio and delivery against the AMOs, criticality and risk, and performance monitoring. The SAMP focuses on strategic issues relevant to the management of the wastewater collection and treatment and recycled water production and distribution assets, and describes the organisation's approach to achieving organisational objectives and AMOs.

The GMB Water Asset Management Plan aligns with the ISO55001 standard because the asset base, and its management, are so important for the achievement of the organisational strategic objectives.





## Asset Management at GMB Water

GMB Water operates under a dedicated asset management system. This Asset Management Plan (AMP) will sit under the GMB Water's Asset Management Framework. This document is the SAMP for GMB Water and, due to the size of the organisation, also the AMP since at present separate documents are not justified.

## LEADERSHIP, COMMITMENT AND GOVERNANCE

GMB Water's charter defines leadership and governance requirements, including in relation to asset management. Council remains responsible for providing high level oversight of the delivery of services by GMB Water. The Council is also responsible for ensuring that GMB Water is appropriately funded to ensure sustainable service delivery.

GMB Water's Managing Director is responsible for resourcing the development of an asset management strategy, plans and procedures and reporting on the status and effectiveness of asset management within GMB Water.

## **ROLES AND RESPONSIBILITIES**

GMB Water's organisational structure is designed to support the asset lifecycle and delivery of services to customers. A Responsibility / Accountability / Consult / Inform (RACI) matrix has been created to manage the responsibilities and governance of the key GMB Water stakeholders (Appendix E). In addition to the roles shown in the organisation chart below, there is a Service Level Agreement in place with Council for corporate services.

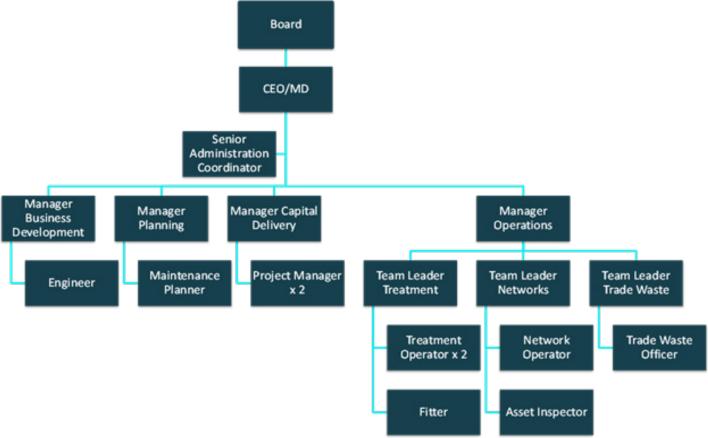


Figure 1: Current Wastewater Service Asset Management roles

### ASSET MANAGEMENT POLICY OBJECTIVES

GMB Water's Asset Management Policy objectives are:

- Provide the necessary resources and training to successfully implement and meet the requirements of the Asset Management Policy
- 2. Establish and maintain an Asset Management System aligned with ISO55001
- 3. Engage with customers, regulators and other stakeholders to develop short and long term performance targets
- 4. Monitor and review performance against Asset Management Objectives and level of service targets
- 5. Manage asset information in accordance with the Asset Information Strategy to manage risk and support decision making
- 6. Proactively identify, assess, manage and monitor asset related risks
- 7. Proactively seek new technologies to increase efficiency
- 8. Actively manage the security and resilience of assets against risks such as climate change and cyber attack
- 9. Consider asset whole of life cost, performance and risk in investment decisions
- 10. Integrate sustainability and environmental considerations into asset management practices to support environmental goals

## **ASSET MANAGEMENT POLICY PRINCIPLES**

In accordance with Section 122 of the Local Government Act (SA) 1999 GMB Water, is required to have in place a consistent Asset Management Strategy enacted through the existence of regularly reviewed Asset Management Plan(s). The following points describe the key policy principles:

- The asset management plan will outline the risk assessment processes used in decision-making processes in regard to the management of assets.
- Expenditure projections from the Asset Management Plan will be incorporated into the Long Term Financial Plan.
- Asset renewals required to meet agreed service levels as identified in the Asset Management Plan and Long-Term Financial Plan will be funded as a matter of priority in the annual budget estimates.
- Regular and systematic reviews will be applied to the Asset Management System to ensure that assets are managed, valued, and depreciated in accordance with Accounting Australian Accounting Standards.
- Targeted inspections on critical assets, or those assets identified as having a key focus (i.e. through customer queries or risk assessment), will be undertaken to ensure levels of service are maintained and/or corrective actions identified.
- Whole of life costs will be considered in all decisions relating to new services and upgrading of existing services and assets.
- Changes in and/or new service levels with associated delivery costs will be determined in consultation with the community as part of the Community Engagement process.
- Ensure the corporate culture is such that all employees play a part in overall management of GMB Water's assets by providing necessary awareness, training and professional development.
- Provide our customers and stakeholders with assets which meet their expectation of a reasonable level of service and affordability.

#### ASSET MANAGEMENT FRAMEWORK & ENABLING SYSTEMS

GMB Water's Asset Management Framework (AMF) provides an overview of its asset management, documents, systems, and processes that translate customer, stakeholder and organisational objectives and obligations into service delivery outcomes. It provides the strategic 'line-of-sight' between Asset Management Strategy to the Asset Management Plan and to corporate outcomes, as shown in Figure 2.

Asset Management Systems are used by an organisation to direct, coordinate and control Asset Management activities. GMB Water considers its Asset Management System (AMS) as the set of Asset Management related activities or interrelated processes and elements that we undertake to achieve our objectives.

The AMS is, by design, in a state of continuous improvement. Identified actions to improve and update the AMS are outlined in Section 2.5 and aims to align with the requirements of ISO 55001. The AMS includes a combination of policy, strategy and plans which link back to organisational plans and objectives.

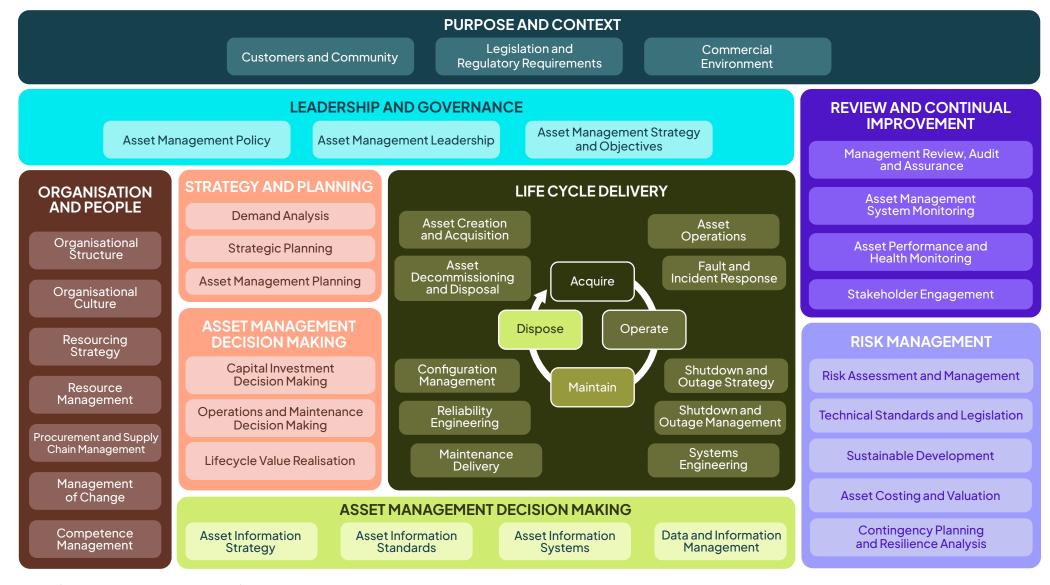


Figure 2: Asset Management Framework (AMF)



# GMB Water Corporate and Strategic Objectives

GMB Water operates in a complex planning and operating environment and integrated planning is essential for the organisation to effectively achieve community outcomes. GMB Water must plan projects, programs and services and prioritise how it allocates budgets across multiple service areas.

The integrated planning framework is designed to ensure that the vision, goals and objectives of the Community Plan are able to be implemented through budgets and work programs and with the involvement of implementation partners. Refer to Figure 3 below

## **20 YEARS**

Council Community Plan

- Community themes
- Long-term goals and objectives
- Priority directions

## **10 YEARS**

GMB Water Long Term Financial Plan Anticipates and plans for fiscal challenges and opportunities and aligns with other documents to ensure Mount Barker Water can achieve its objectives and maintain is financial sustainability in the medium to long term.

#### 10 YEARS

GMB Water Strategy Sets our course for ten years while having a view toward 2050 and beyond, understanding that the decisions we make have a long-term impact.

#### 4 YEARS

GMB Water Corporate Plan Sets priorities and budgets for projects, programs and services stemming from strategies, plans and other priorities.

#### 1YEAR

GMB Water Annual Business Plan The Annual Business Plan sets the annual work program and budget, and provides a view of the forecast for the following two years, and is informed by the corporate plan.

Figure 3: Alignment of strategic, tactical and operational business plans

## Community Plan 2044

The Mount Barker Community Plan 2044, sets the vision for the district to be "the most liveable region in South Australia."

The Community Plan is developed around five pillars of Environment, People, Place, Economy and Leadership. For details refer to Community Plan 2044.

The Goals and Objectives within this Plan have a planning horizon of 20 years, reviewed every four years. GMB Water specific goals from the Community Plan have been detailed below.

#### **ENVIRONMENT**

**Objective 1 - Climate Change:** Adapt and build resilience to the impacts of climate change and work towards reducing emissions in line with state and federal targets.

**Objective 2- Waste and Resource Management:** Use resources carefully and efficiently, minimise waste and support the growth of the circular economy.

**Objective 5 - Water:** Conserve water and use it wisely. Implement water sensitive urban design practices to support the ecology, greening and liveability of urban areas.

#### **PEOPLE**

**Objective 12 - Safety and Resilience:** Create an environment where people feel safe throughout the district and community resilience is supported and encouraged.

#### **ECONOMY**

**Objective 20 - Growth and Productivity:** Ensure sustainable and balanced growth while preserving the unique character and natural assets of the district.

**Objective 24 - Infrastructure Development:** The timely and effective delivery of critical infrastructure that supports the long-term growth and sustainability of the local economy.

#### **LEADERSHIP**

**Objective 26 - Transparent and Inclusive Decision Making:** Promote transparent and inclusive decision-making that ensures active engagement of diverse stakeholders and fosters trust and confidence in governance outcomes.

**Objective 27 - Efficient Public Services:** Enhance the efficiency and effectiveness of public services provided by Council ensuring timely delivery of services that meet the evolving needs of the community and provide value for money.

# 13

## GMB Water Strategic Objectives

The strategic objectives for GMB Water are summarised in Table 2 below.

	Strate	ogio A	liann	ont	
Objective	Environment n	People	Economy	Leadership	Desired Outcome
We provide a safe and reliable service to protect public health and support	✓				Public Health Proactively manage events that could lead to serious impact to public health and ensure regulatory compliance
our community's businesses, agriculture, and	✓	✓	✓		Customer experience Prioritise the delivery of outcomes our customers and community value
economic growth.	✓		✓		Asset reliability and capability Sustain critical operations and manage reasonably foreseeable business interruptions; plan and deliver critical infrastructure and achieve product and service objectives efficiently
We safely and sustainably preserve the environment in and around	✓	✓			<b>Environmental quality</b> Protect, restore, and enhance the quality of our environment to the satisfaction of our regulators, customers, community and stakeholders
the environment in and around our community by conducting operations in compliance with the principles	✓				Climate change Provide wastewater and recycled water services to that consider, adapt and respond to climate change
of ecologically sustainable	✓				Recycled water supply
development					Maximise the volume of wastewater harvesting and reuse for economic, environmental and community benefit
We are socially responsible and manage revenue collected responsibly			✓	✓	<b>Finance</b> Manage our financial performance (including credit, debt, liquidity and third-party exposures)
and fairly and with integrity to provide a defined service to our community				✓	Enterprise Security Manage and protect the exploitation of vulnerability in our digital, physical, personnel and supply chain spaces
			✓	✓	Supply chain Manage access to supplies and equipment for our producers and services to reduce costs, provide value for money, increase customer service and ensure supply chain resilience
				✓	Corporate social responsibility Maintain our social license to operate

	Strat	egic <i>F</i>	Alignn	nent					
Objective	Environment People Economy Leadership			Leadership	Desired Outcome				
We deliver results, focusing on safe and healthy workplaces, employee	✓		✓	✓	Organisational capability Build capabilities (people, systems and processes) required to deliver core business and strategic initiatives				
engagement, inclusion, innovation, and accountability				✓	Safety and Wellbeing Prevent or effectively manage serious, multiple or repeated injuries to, or deaths of, workers and members of the public				
				✓	Culture and ethics Establish a culture that promotes ethical practices and an engaged, diverse, and inclusive workforce				

Table 1: Strategic Objectives

## **Asset Management Objectives**

This section aims to convert organisational strategic objectives into asset management objectives and to provide guidance for what strategies GMB Water must pursue to manage its portfolio of assets, and to improve its asset management system. GMB Water AM Objectives are:

- 1. **Deliver Safe Recycled Water and Sewerage Services:** To supply safe and fit for purpose recycled water, bore water and sewerage services.
- 2. Provide a Reliable and Timely Service: To provide continuous sewerage, bore water supply and recycled water services and minimise repeat issues experienced by customers. To respond in a timely manner when interruptions do occur and restore the services as promptly as possible. To provide new customers with services at the time they need it.
- **3. Protect and Enhance the Environment:** To protect the environment by reducing greenhouse gas emissions, and improving the quality of discharges to creeks and other receiving water bodies.
- **4. Maintain Affordable Customer Bills:** To retain the current service levels while maintaining average customer bills at an affordable level. Prudent investment decisions and efficient delivery are key to minimising customer bill impacts.
- 5. Ensure that Obligations are met: To meet all legislative and regulatory obligations.
- **6. Provide a Safe Work Environment:** To create a safe workplace, to ensure that assets are safe to operate and maintain, and do not cause harm to customers or anyone in the community.
- 7. Invest in a Sustainable / Resilient Future: To be efficient, relevant and effective in delivering core services, for now and into the future by seeking ways to be sustainable and resilient to factors such as climate change, population growth, and social value add.

Table 2 presents the AM objectives mapped to GMB Water Strategic Outcomes.

No.	Outcomes	Measure or Level of Service	Target		As	sset Mana	gement	Objective	s	
				<ol> <li>Deliver Safe Recycled Water Services</li> </ol>	<ol><li>Provide Reliable and Timely Service</li></ol>	<ol> <li>Protect and Enhance the Environment</li> </ol>	4. Ensure Obligations Are Met	5. Maintain Affordable Customer Bills	6. Provide Safe Work Environment	7. Investin a Sustainable / Resilient Future:
1.1	Public Health	Meeting regulated public health responsibilities	100% compliance	✓			✓			
2.1	Environmental quality	Meeting regulated environmental responsibilities	100% compliance	✓		✓	✓			
2.2	Climate change	Reduction of carbon and other greenhouse gas emissions in capital projects and operational practices	5% reduction per annum			✓				
2.3	Recycled water supply	Volume of recycled water produced and delivered to customers, including the Council, for beneficial reuse	New recycled water customer, including GMB Water, contracts equating to 300ML per annum each year				✓			
3.1	Customer experience	Responsiveness to events in target time frames	95% of calls responded to and resolved within target time frames		✓		✓			
3.2	Safety and Wellbeing	Keeping ourselves and the community safe	0 injuries and near misses per annum				✓		✓	
3.4	Asset reliability and capability	Providing responsive and reliable services  Number of chokes and breaks  Pump station overflows  Water main breaks  Interruptions to supply of recycled water  Odour and Noise complaints	<15 events/100kms of mains <2 overflows/ annum <10 / 100kms of mains > 98% availability <2 complaints/1000 connections		<b>√</b>	<b>√</b>	<b>√</b>			
3.5	Enterprise Security	Number of cyber security breaches	<li><levent annum<="" li=""></levent></li>		✓					

No.	Outcomes	Measure or Level of Service	Target		As	sset Mana	gement	Objective	s	
				<ol> <li>Deliver Safe Recycled Water Services</li> </ol>	<ol> <li>Provide Reliable and Timely Service</li> </ol>	<ol> <li>Protect and Enhance the Environment</li> </ol>	4. Ensure Obligations Are Met	5. Maintain Affordable Customer Bills	6. Provide Safe Work Environment	7. Investin a Sustainable / Resilient Future:
3.6	Finance	Being financially viable by adapting to our competitive environment ensuring our sustainability for the long term	O customers lost to competitors				✓	<b>√</b>		
3.7	Organisational capability	Continually seeking to improve what we do	90% of identified/planned improvement initiative completed on time						✓	✓
3.8	Supply chain	Continually seeking efficiencies and optimizing how we operate and sustain assets - OPEX and CAPEX Support promotion of the use of local suppliers in the procurement of goods and services					✓	✓		
3.9	Corporate social responsibility	Working together with our regulators and stakeholders to be the water utility our community expects  Making the right decisions that keep prices as low as possible and as stable as possible	< 5 customer complaints per 1000 connections Annual price increases no more than 1% greater than CPI				<b>√</b>	<b>√</b>		

Table 2: Asset Management Objectives Summary



## **Asset Management Maturity**

Asset management is defined in ISO 55000 as "the coordinated activity of an organisation to realise value from assets". ISO 55000 Series is published in three parts:

- ISO 55000 Asset Management Overview, Principles and Terminology
- ISO 55001 Asset Management Management Systems Requirements
- ISO 55002 Asset Management Management Systems Guidelines for the application of ISO 55001

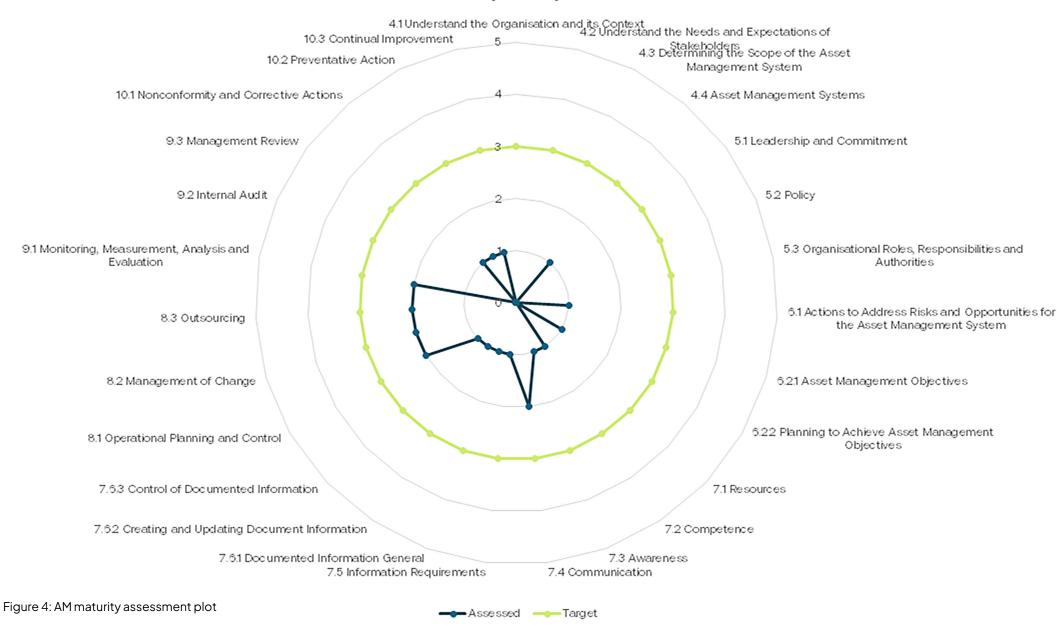
The GMB Water Asset Management System was assessed in October 2022, to measure capabilities and maturity against the requirements of ISO 55000, ISO 55001 and ISO 55002. Using the Institute of Asset Management's maturity rating scale presented in Table 3, the survey assessed GMB Water's current AM maturity as Level 1: Aware based on discussions with staff and review of existing documentation.

GMB Water's aspirational goal is to reach Level 3: Competent within a time frame of 2–5 years. The current assessment is plotted in black in Figure 4 below and the aspiration level is shown in the green plot. An Asset Management Maturity Improvement Initiative has been established to support achievement of this goal, set out in detail in Sections 2.7 and 10.4.

Maturity Assessment Rating Levels	Description
Level 0: Innocent	The organisation is not aware of this requirement;
Level 1: Aware	The organisation has identified a need for this requirement;
Level 2: Developing	The organisation identified the means of systematically and consistently achieving the requirements;
Level 3: Competent	The organisation has clear established systems and processes to achieve the requirements;
Beyond ISO	The organisation's process(es) surpasses the standard required to comply with ISO55000 requirements

Table 3: Asset Management Maturity Assessment Rating Levels

## Detailed Maturity Survey Assessment



greater water recovery for the future



## Asset Management Improvement Plan

The table below shows the asset management maturity improvement plan initiatives and their status.

Not Yet Started

Completed

**In Progress** 

**Short Term Focus** 

A	lmpı	rovement activity/focus area and ti	ming		
Objective	2023/24	2024/25	2025/26		
Deliver safe recycled and sewerage services	Develop/implement asset criticality methodology and establish asset criticalities	Develop/implement asset creation, project management, asset handover and master data procedures	Document OEM operations instructions in operations manuals and implement		
		Develop/review/update detailed maintenance tasks including statutory inspections and condition assessments			
	Define/update asset renewal tactics based upon risk	Monitor asset condition and model asset deterioration in accordance with applicable asset tactic			
		Develop/undertake annual maintenance plan			
		Develop a work management and resourcing process			
	Prepare/annually update 5-year form capital renewal and disposal estimates	Prepare/update indicative 40- year capital renewal and disposal plan (update annually)			
		Develop/update asset maintenance tactics			
Provide a timely service	Develop/update fault response process including 24-hour reporting and customer feedback	Perform ad-hoc reviews of tactics for non-critical assets based upon failures and expert judgement	Conduct root cause analyses for critical asset failures		
	Perform 5-year and ad- hoc reviews of renewal and maintenance tactics for critical assets based upon asset performance				
	Develop business continuity plans				
Protect and enhance the environment	Develop/implement a strategy to reduce greenhouse gas emissions	No improvement actions identified	Implement programme to ensure delivery partners recycle all recyclable waste generated on Wastewater sites		
			Implement a programme to recycle all recyclable waste generated		
			Increase use of recycled materials in construction and maintenance		

<b>.</b>	Impi	rovement activity/focus area and ti	ming			
Objective	2023/24	2024/25	2025/26			
Maintain affordable customer bills	No improvement actions identified					
Ensure that obligations	Develop asset management capability matrix	Deploy asset management KPIs at all levels in the organisation	Implement corporate risk based tool for all risk assessments			
are met	Identify required training/gaps	that can be used to measure AMF performance				
	Deploy internal asset management training programme including AMF					
	Manage professional development					
	Undertake assessment/surveys on the satisfaction of staff					
	Conduct customer satisfaction surveys that include asset management outcomes					
	Develop/implement a stakeholder engagement and communications policy for asset related matters	Develop/implement a procedure to every 5 years have community interactions to engage on levels of service to be provided				
	Implement corporate risk- based tool for asset investment decisions					
	Formalise and regularly review AMF as per ISO55001					
	Update the documents in the AMF on a regular interval					
	Participate in regular WSAA benchmarking and implement recommendations					
Provide a safe work environment	Develop a configuration management procedure to record asset changes and	Ensure that all asset design processes consider WHS impacts to the public	No improvement actions identified			
	potential changes to operational and maintenance procedures including Safe Work and Lockout procedures	Ensure that all asset design processes consider WHS impacts on staff				
Invest in a sustainable and resilient	Asset risk assessment to include risk from climate change	Identify key opportunities to increase community resilience and pilot opportunities	No improvement actions identified			
future	Conduct customer satisfaction surveys and consider diversity of inputs	Map the asset information required for decision making				
	Develop/implement an asset information strategy					
	Develop/implement a specification for structure and formal for collecting and storing asset information	Undertake community engagements to identify value-add opportunities				

Table 4: Asset Management Improvement Plan

greater water recovery for the future

## Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this asset management plan are incorporated into the long term financial plan,
- The degree to which 1–5 year detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the asset management plan,
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Strategic Plan and associated plans.

A new set of short, medium and long term key financial indicators (KFIs) for GMB Water have been developed in consultation with the former Informal Advisory Wastewater Board (IAWB) and Council Audit and Risk Committee (ARC). These KFIs should be tracked and smoothed over time, and have been created to measure organisational performance. Potential additional indicators include:

- % variation budget to expenditure (CAPEX, OPEX)
- % overhead or on-costs
- \$/ML wastewater treated
- \$/BOD load kg treated
- \$/ML Water supplied
- \$/ML recycled water supplied
- \$/connection
- \$/kmpipe

## **Decision Making**

GMB Water is developing its people, processes and systems to manage assets across the whole asset lifecycle to understand asset-related risks, performance and costs and optimise operations and our interventions such as maintenance and renewals. Understanding critical assets and when assets might fail, planning condition assessments, preventative maintenance and renewals accordingly improves asset reliability, reduces service interruptions and lowers reactive maintenance, with the aim of achieving lowest lifecycle cost overall.

### **ASSET LIFECYCLE**

The elements of the asset lifecycle that have been determined to be appropriate for GMB Water are shown in Figure 2 (AMF). These assist with the allocation of accountabilities and measurement of implementation performance.

### Plan Phase:

- Define Requirements: The process of determining our service requirements or needs in relation to the organisation's strategic goals, legislative and regulatory requirements, and customer expectations of service levels, now and in the future. eg. Corporate strategy and SAMP.
- Develop strategies and plans and work with our customers and stakeholders to determine what
  assets are needed now and in the future and where, and to establish the right levels of investment,
  e.g. Master Plans, AMPs.

## **Acquire Phase:**

• We design and construct new assets with our partners in a timely manner to deliver the level of service required across our service area.

## Operate & Maintain Phase:

- We manage our assets 24 hours a day, seven days a week. We operate our assets within our
  network and facilities to deliver services and ensuring our assets can be operated to meet service
  standards. We undertake preventative maintenance and responsive maintenance activities as
  needed, for example, sewer cleaning to prevent blockages and overflows or pump maintenance to
  prevent overflows.
- Asset performance is monitored continually using operational technology and field based staff.
   We also undertake a range of programs to monitor asset condition, to maintain them in acceptable condition, and to respond to issues in a timely manner to meet our customer service obligations.
   Many critical assets require routine inspections.

## Renew/Dispose Phase:

- When assets are nearing end of life and/or are at risk of no longer being able to provide the level of service expected, we invest in asset replacements and refurbishments. We invest in sewer pipeline renewals and have renewals programs which target high risk assets and improved levels of service.
- The process of removal or decommissioning of our assets when they can no longer meet performance outcomes. This is often undertaken as part of the renewal process.

### **CORPORATE RISK ALIGNMENT**

The GMB Water Risk Management Framework and Risk Management Policy are used to guide risk-based decision making. The framework enables reporting and allocating resources to manage risk exposures through the identification of opportunities and risks that are under and/or over controlled relative to the risk appetite in order to meet acceptable levels of risk. The framework provides specific guidance on the maximum and minimum limits of risk to be accepted/tolerated.

The risk framework is translated into the specific decision and risk management frameworks developed for individual asset classes and reflected in the associated documentation. Asset risk assessments are informed by and are used to inform GMB Water's Strategic Risk Register and Operational Risk Register.

		CONSEQUENCE								
De	etermine a Risk Rating	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)				
	Almost Certain (E)	Medium	Medium	High	Very High	Very High				
ОO	Likely (D)	Low	Medium	High	Very High	Very High				
LIKELIHOOD	Possible (C)	Low	Low	Medium	High	Very High				
LK	Unlikely (B)	Low	Low	Low	Medium	High				
	Rare (A)	Low	Low	Low	Medium	Medium				

Table 5: Corporate Risk Management Framework

#### **ASSET RISK FRAMEWORK**

GMB Water has developed a risk assessment and decision-making approach for assets. The approach introduces consistency and aligns to the Corporate Risk framework on Consequence (C) and Likelihood (L). There are seven Consequence (C) categories utilised in the asset risk assessment and use a 1–5 rating scale:

- Financial
- People
- Legal
- Environment
- Reputation
- Service Delivery
- Social / Cultural.

The Asset Risk Framework (Table 6) incorporates a number of differences to the Corporate Risk Framework as follows:

- Risk (or opportunity) Score is calculated as the product of LxC, ranging from 1 (Low) to 25 (Very High)
- The use of a numerical Risk Score to allow ranking and sorting of asset risk assessments
- Enables more complex risk assessments, using multi-criteria aligned to the seven corporate Consequence categories
- Enables then ranking and prioritisation of investments in a range of asset lifecycle management tactics to manage risks aligned to any of the seven corporate consequence categories.

	Determine a		CONSEQUENCE							
_	Risk Rating	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)				
	Almost Certain (E)	Medium	Medium	High	Very High	Very High				
8	Likely (D)	Low	Medium	High	Very High	Very High				
LIKELIHOOD	Possible (C)	Low	Low	Medium	High	Very High				
불	Unlikely (B)	Low	Low	Low	Medium	High				
	Rare (A)	Low	Low	Low	Medium	Medium				

Table 6: Asset Risk Management Framework

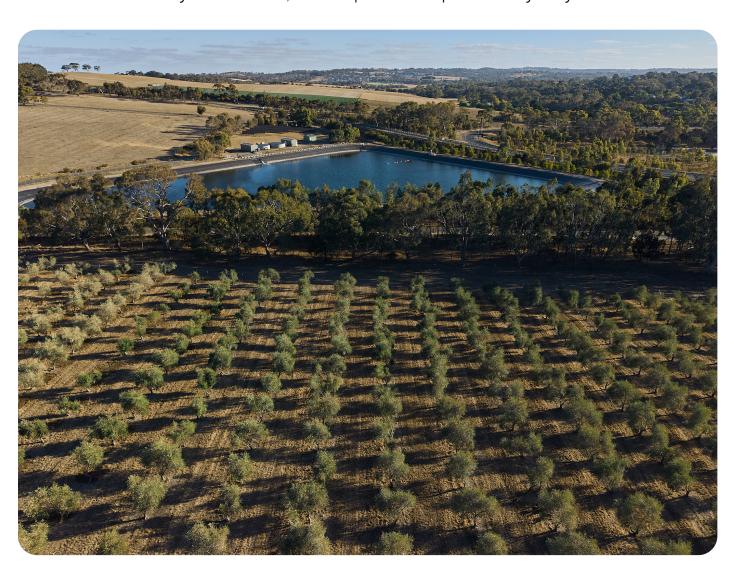
# Monitoring and Review Procedures

This AM plan will be reviewed during annual budget planning processes and amended to show any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AM Plan will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the long term financial plan.

The AM Plan will also be an important document referred to by the Essential Services Commission of South Australia (ESCOSA) and when conducting a prudential review for the Local Government Finance Authority (LGFA)

The AM Plan covers a 10 year time frame, and is required to be updated every two years.





## Customer Feedback/Engagement

As per the Essential Services Commission of South Australia (ESCOSA) regulatory reporting requirements, the following information has been collected regarding customer feedback over the last six years. Incorporating customer data into the asset management plan will help to determine level of service required, service risks and consequences with the community's ability and willingness to pay for the service.

PROFORMA OP1.1 – Customer complaints	2016-17	2017–18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Number of sewerage service complaints (including CWMS)	47	7	19	16	27	19	10	1
Number of other complaints	10	11	17	15	7	7	8	2
Total water and sewerage service complaints (including CWMS)	57	18	36	31	34	26	18	3

Table 7: ESCOSA Customer Complaints

The standard process for collecting customer feedback or engagement is capturing information from the call centre in the CRM (Customer Relationship Management) software to be distributed to the relevant personnel. However, due to informal distribution of information, such as through calls or emails rather than through the CRM or calls directly to maintenance personnel, information may not be fully captured. Without a formal process, there is a risk that only a fraction of customer feedback is recorded. Table 7 details customer complaint data.

The total number of customers are presented in Table 8:

Customer Numbers (as of 30 June)	2016-17	2017–18	2018-19	2019–20	2020-21	2021–22	2022-23	2023-24
Non-drinking water								
Residential customers	155	182	182	204	204	244	265	294
Non-residential customers	21	15	15	15	15	24	25	25
Sewer (Excluding CWMS)								
Residential customers	837	1,106	1,562	1,917	2,476	2,994	3,458	3,711
Non-residential customers	-	5	7	7	12	12	29	29
сwмs								
Residential customers	9,241	9,642	9,714	9,750	9,783	9,792	9,804	9,842
Non-residential customers	1.249	890	897	905	928	920	925	924

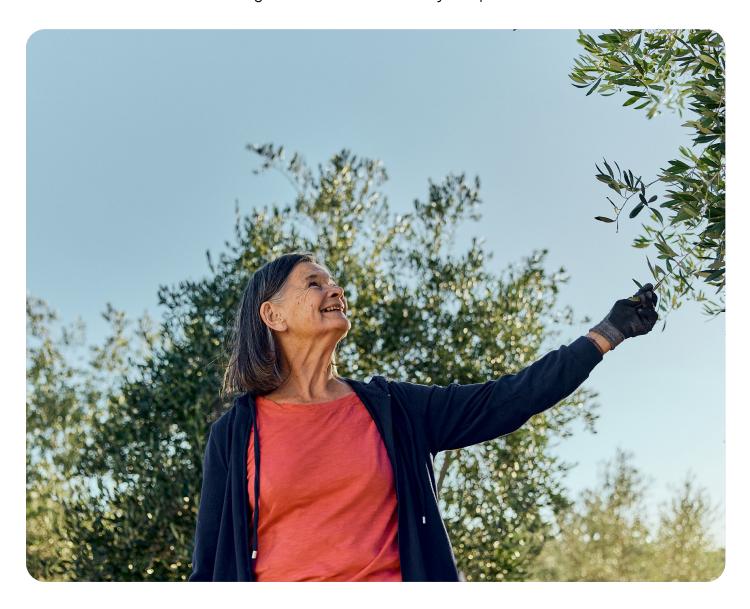
Table 8: ESCOSA Customer Numbers

## **Customer Levels of Service**

Service levels are defined service levels in two terms, customer levels of service and technical levels of service. These are supplemented by organisational measures. Customer Levels of Service measure how the customer receives the service and whether value to the customer is provided. Customer levels of service measures used in the asset management plan are:

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

The customer levels of service targets and their last financial year's performance are detailed in Table 9.



Asset Management Plan 2025 - 2026 31

Customer Level of Service		Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24
Meeting Regulated Public	Number of reportable incidents	3	1	2	1	5	0	2	1	1	2	1	2
Health Responsibilities	Target	0	0	0	0	0	0	0	0	0	0	0	0
Number of customers lost	Number of new connections lost to Alano	Not currently measured by month											
to competitors	Target	0	0	0	0	0	0	0	0	0	0	0	0
Interruptions to supply of	Number of interruptions	0	0	0	0	0	0	0	0	0	0	1	0
recycled water	Total Duration of interruptions (Hrs)	0	0	0	0	0	0	0	0	0	0	10	0
	Availability (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99%
	Target	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%
Volume of recycled	Total Volume in ML	0	0	0	3.6	0	0	0	0	0.01	0	2	0
water overflow to the environment	Target	0	0	0	0	0	0	0	0	0	0	0	0
Number of noise and odour	Number of complaints	0	0	0	0	0	0	0	1	1	0	0	0
complaints	Events per 1000 connections	0	0	0	0	0	0	0	0.07	0.07	0	0	0
	Target	2	2	2	2	2	2	2	2	2	2	2	2
Meeting Regulated	Number of reportable incidents	1	1	1	5	0	4	1	1	2	1	1	0
Environmental Responsibilities	Target	0	0	0	0	0	0	0	0	0	0	0	0
New recycled water customers	Number of new connections	1	0	0	0	0	0	0	0	0	0	0	0
Number of customer	Number of complaints	0	0	0	0	0	0	0	0	0	1	0	0
complaints	Complaints per 1000 connections	0	0	0	0	0	0	0	0	0	0	2 0 0 0 2 1 0 0	0
	Target	5	5	5	5	5	5	5	5	5	5	5	5

Table 9: Customers Level of Service

## Technical Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service. These are supplemented by organisational measures.

Technical Levels of Service - Supporting the customer service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance. Technical service measures are linked to the activities and annual budgets covering:

- Operations the regular activities to provide services (e.g. operational set points, data collection, monitoring, sampling, inspections, energy, trending, alarm response, basic instrument calibration etc.)
- Maintenance the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. pump overhauls, preventative maintenance, painting, breakdown maintenance, building and structure repairs),
- Renewal the activities that return the service capability of an asset up to that which it
  had originally (e.g. pipeline replacement, pump replacement and building component
  replacement etc),
- Upgrade/New the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size), lower risk or a new service that did not exist previously (e.g. a new treatment plant).

The current performance is influenced by regulatory compliance, work efficiencies and technology, and customer priorities will change over time. Review and establishment of the agreed position that achieves the best balance between service, risk and cost is essential.

Table 10 presents the technical levels of service targets and last year's performance where available.

Technical Level of	Service	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24
Responsive-	Number of calls	1	1	1	5	3	6	8	4	4	6	9	7
ness to events in target	Time to respond	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2	1	2	2
timeframes	Target time to respond (hours)	2	2	2	2	2	2	2	2	2	2	2	2
	% of calls responded to and resolved within target timeframes	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of chokes and	Number of chokes and breaks	1	1	1	5	0	0	1	0	0	1	0	0
breaks	Events per 100kms of mains	2.835	2.835	2.577	3.866	3.350	3.350	3.608	3.350	2.835	3.093	2.835	2.577
	Target	15	15	15	15	15	15	15	15	15	15	15	15
Pump Station	Number of overflows - probable	0	0	0	0	0	0	0	0	0	0	0	0
Overflows	Number of overflows - verified	0	0	0	0	0	4	0	0	0	0	0	0
	12month total	30	27	22	21	8	12	12	12	12	12	12	4
	Target	2	2	2	2	2	2	2	2	2	2	2	2
Volume of effluent overflow to the	Total Volume in ML	0.01	0.01	0.00 004	0.00 015	0	0.075	0.00 015	0	0	0.01	0	0
environment	Target	0	0	0	0	0	0	0	0	0	0	0	0
Water Main Breaks –	Number of breaks	0	0	0	3	0	0	0	0	1	0	1	0
Recycled Water	Events per 100kms of mains	8.04	8.04	8.04	14.08	14.08	12.07	12.07	6.03	8.04	8.04	10.06	10.06
and Bore Water Supply	Target	10	10	10	10	10	10	10	10	10	10	10	10
Cyber Security	Number of breaches	0	0	0	0	0	0	0	0	0	0	0	0
	Target	0	0	0	0	0	0	0	0	0	0	0	0
WHS	Number of Incidents	0	2	0	1	1	1	1	2	2	0	0	0
	Target	3	3	3	3	3	3	3	3	3	3	3	3

Technical Level of Service		Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24
WWTP Inflow	Inflow (ML)	157	164	127	154	128	166	126	122	114	146	130	130
(Wastewater Service)	Treated Volume (ML)	162	166	125	150	120	168	129	128	117	133	133	132
,	Discharge to the Wetland and Creek (ML)	191	177	130	128	82	145	104	82	65	91	88	111
	Reuse	1	0	3	12	54	16	17	43	38	32	19	7
Cost of Electricity and Chemical	Electricity	\$ 46,597	\$ 41,246	\$ 42,088	\$ 43,441	\$ 43,442	\$ 43,283	\$ 45,634	\$ 43,944	\$ 42,697	\$ 44,307	\$ 45,973	\$ 42,852
Wastewater Service	Chemical	\$ 51,955	\$ 28,184	\$ 53,661	\$ 22,583	\$ 24,852	\$ 52,955	\$ 30,891	\$ 26,786	\$ 26,378	\$ 51,179	\$ 45,500	\$ 25,637
	Treated Volume in ML	162	166	125	150	120	168	129	128	117	133	133	132
Assets	Number of defects captured (M&E)	Not currently measured											
	Number of defects captured (Structural and Hydraulic)	Not curr	ently mea	sured									
	Number of asset conditions captured	Not currently measured											
	% of PM tasks completed	Not curr	ently mea	sured									
Renewal	% of stormwater ingress into sewerage/ effluent collection systems	Not currently measured											
	Number of renewal activities	Not currently measured											
Upgrades	% of upgrades completed within given timeframe	Not currently measured											
	% of upgrades that comply with growth plans	Not curr	ently mea	sured									

Table 10: Technical Levels of Service



## Asset Portfolio Overview

GMB Water owns and operates the largest council-run wastewater and the second largest recycled water council run networks in South Australia comprising wastewater collection, wastewater treatment, bore water supply, and recycled water treatment and distribution.

The wastewater scheme currently services over 14,500 customers, a community of just under 40,000 in Mount Barker, Littlehampton, Nairne and some other townships in the district, and includes both a sewer service (in the Mount Barker growth area and to residents of Brukunga) and a broader community wastewater management system (CWMS). There are also wastewater schemes servicing Macclesfield, Echunga and Meadows.

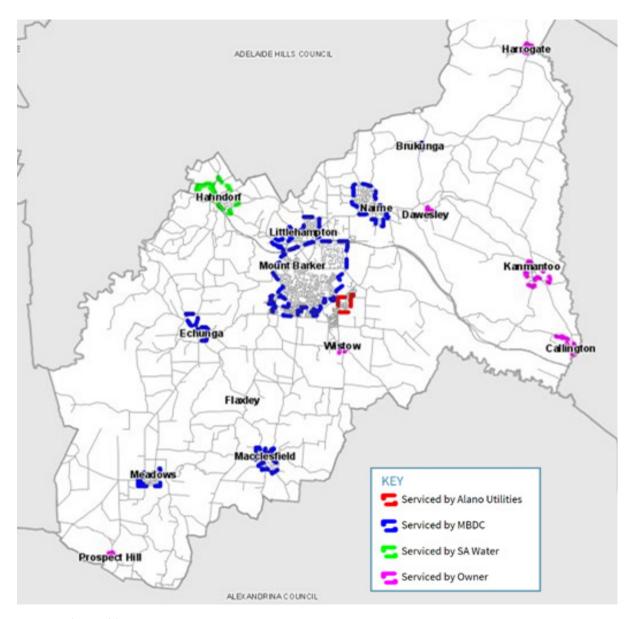


Figure 5: Council Service Areas

GMB Water operates four (4) schemes providing a combination of recycled water, wastewater and bore water services to seven townships. The assets within the schemes are owned, operated and maintained by GMB Water and are summarised in Figure 6 and in the following section.

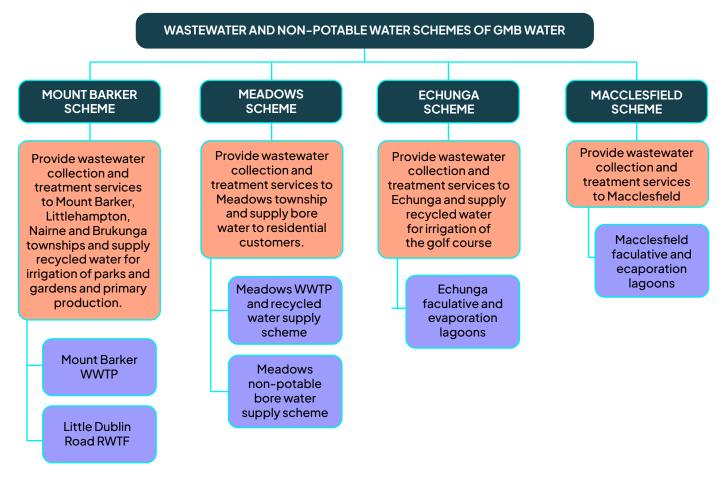


Figure 6: Wastewater and non-potable water supply schemes overview

Facility	Asset Category	Dimension	
Mount Barker	Mount Barker Treatment Plant	1 treatment plant	
WWTP and Network	Laratinga Wetlands	16.7 ha Wetland System	
	Wastewater Network	12 pump stations 346 km gravity mains 19.6 km of rising mains 1,664 ML Annual Inflow (in 2023/24, increasing annually)	
	Nairne Lagoons	66 day retention lagoon system with design capacity for 1500EP – Currently use as emergency relief lagoon for the Hogan Road PS	
	Nairne Sludge processing facility	42.5 ha of land	
	Ground water (bore)	1 bore	

Table 11 details GMB Water's Asset Portfolio as of 2025.

Facility	Asset Category	Dimension	
Little Dublin Road Recycled Water	Little Dublin Road Recycled Water Treatment Facility	1 treatment facility (including 120 ML dam)	
Treatment Facility (LDRRWTF) and Distribution	Storage and pumping	Gravity Network storage Tanks 4 pump stations 500 kL storage tank	
	Recycled water pipes	43 km of pipe network	
Meadows WWTP and Recycled Water	Meadows WWTP	1 treatment plant 50 ML storage lagoon	
Network	Wastewater Network	2 pump stations 17 km gravity mains 1. km rising mains	
	Recycled water network	8.6 km of recycled network & customer meters	
	Bore Water assets and Network	2 bores with pumps and storage tanks Approx. 4 km of pipe network	
Echunga Lagoons and Network	Echunga Lagoons	1 lagoon treatment system 26 ML treated water storage lagoon	
	Wastewater Network	1 pump station 8.2 km gravity mains 1.7 km rising mains	
	Recycled Water Network	1 recycled water pump station <0.5 km of pipe network	
Macclesfield Lagoons and	Macclesfield Lagoons	llagoon treatment system designed for total evaporation	
Network	Network	2 pump stations 16.2 km gravity mains 4.3 km rising mains	

Table 11: Asset Portfolio

Some inconsistencies have been identified in the useful life assigned within the asset register. There are plans to review and update this data to assist future renewal planning.

#### **Asset Performance**

The assessment of asset performance is a measure of how well and asset is delivering the required levels of service as measured through asset information derived from:

- Service level compliance trends
- Operational indicators such as cost of service
- Maintenance costs and resources required to deliver the required service outcome

The current Wastewater Service asset information maturity levels indicate that there are significant gaps in data required to measure asset performance as outlined above. GMB Water has developed an Asset Information Strategy, Data Hierarchy and Data Standards, implementation of which will address the current data gaps and practices.

Performance Outcomes	Contributed to by Portfolio			
renormance Outcomes	Wastewater	Recycled Water		
Service Level Compliance trend data	✓	✓		
Reactive Maintenance/Preventative Maintenance cost trend data	✓	✓		
Timely response and restoration trend data	✓	✓		
Cost of service trend data	✓	✓		

Table 12: Asset Performance Measures

#### **Asset Condition**

GMB Water equipment is monitored annually through visual inspection on a selected sample of assets since 2013. The latest condition assessment was undertaken in November 2019 with 470 wastewater assets (excluding submersible and underground assets and inaccessible chambers) visually inspected. Manhole condition is assessed as scheduled on an annual basis. GMB Water has recently acquired the appropriate equipment to conduct CCTV of the pipe network, and will be planning CCTV inspection programs to ascertain the condition of network assets.

A condition rating scale has been used to reflect the range of conditions observed on-site. Condition assessments have been undertaken in accordance with the IPWEA's Guidelines for Condition and Performance Assessment for Water and Sewerage (Practice Note 7). The scale ranges from 1 (very good – typically new assets) through to 5 (very poor – typically assets that have reached the end of their operating life or assets that are no longer delivering the desired level of service). Where an asset has been decommissioned or abandoned or cannot be condition assessed it is given a condition grade of 0. The condition grading system is summarised in Table 13.

Condition	Grade	Percentage of Remaining Useful Life	Description of Condition
0	Not Rated	-	Properly decommissioned, or no longer exists or has been abandoned. Not yet been rated or is unable to be rated due to serviceability issues.
1	Very Good	100% to 80%	Excellent physical condition; operates as new; no evidence of damage or deterioration
2	Good	80% to 50%	Meets all service requirements; some deterioration or minor defects; no impact on operational efficiency.
3	Fair or Moderate	50% to 20%	Moderate deterioration, minor components needing maintenance/repair, but without impact on structural integrity of the asset. Minor loss of function.
4	Poor	20% to 5%	Serious degradation and defects; starting to impact structural integrity. Urgent repair is required; significant loss of function
5	Very Poor	Less than 5%	Failed or failure is imminent. Immediate need for major work or replacement. Total or near total loss of function.

Table 13: Condition Grading Model

All assets (including access points, pipelines, etc.) have a condition rating within the Council's asset management information system (AMIS) Assetic. These ratings are based on the age of the assets. Over the last a few years, GMB Water has collected asset condition data through field investigations for maintenance holes and valves. This condition assessment data will be entered into Assetic after the implementation of the Asset Information Standard. The current condition profile of our assets in Assetic is shown in Figure 7.

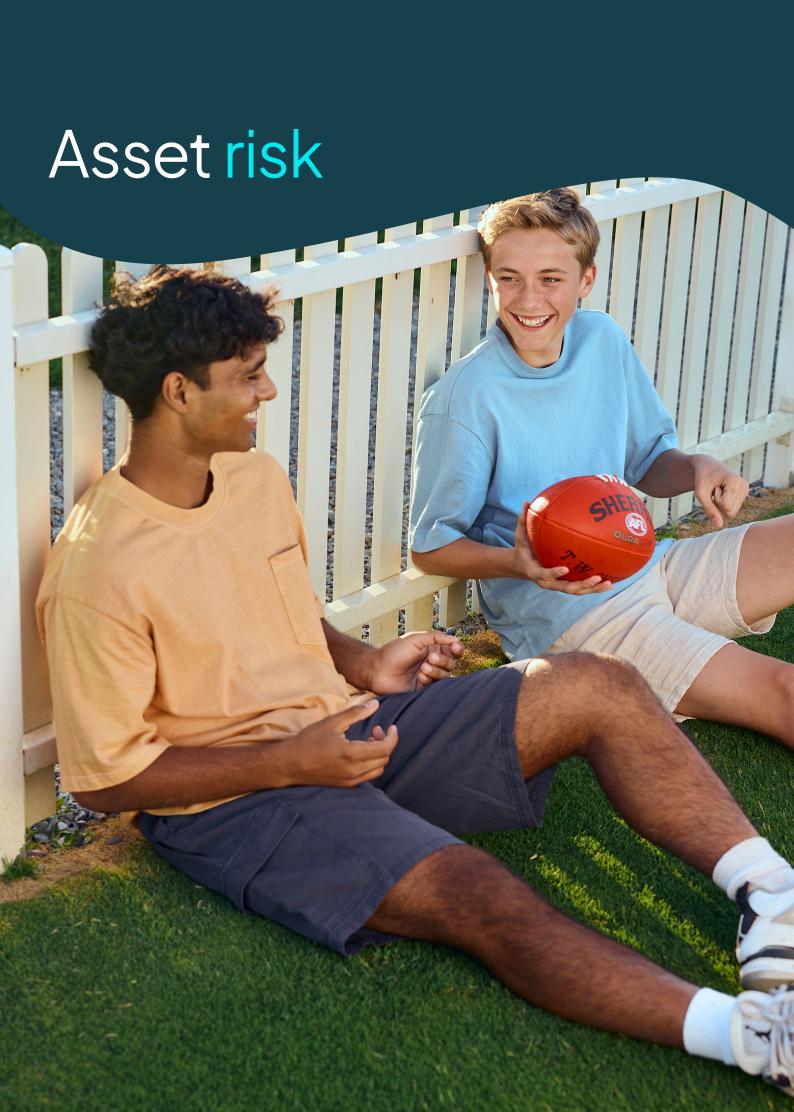


Figure 7: Asset Condition

GMB Water employs two primary condition assessment methodologies: visual inspections and CCTV inspections. Other forms of condition inspections, such as sampling, will be used when and if required.

- Visual Inspections: All above-ground assets, including the Mount Barker WWTP, Meadows and Little Dublin Treatment Facilities, pump stations, Meadows bores, recycled water tanks, and lagoons, undergo regular visual inspections. These inspections can be planned or adhoc and help identify any immediate operational or structural concerns and guide ongoing maintenance efforts. Planned inspections are developed considering the asset's criticality as per Wastewater Services Asset Criticality Procedure and the asset's age and remaining life.
- CCTV Inspections: GMB Water has recently acquired equipment to conduct CCTV inspections of the pipe network. A structured inspection program will be developed, prioritising critical pipe assets as identified under GMB Water's Asset Criticality Procedure. Additionally, pipe assets with a history of repeated failures will be targeted for CCTV assessments to proactively identify deterioration and potential risks.

As the majority of GMB Water's infrastructure is still in the early stages of its lifecycle, most assets are currently in very good to fair condition. Assets classified as fair or poorer are inspected more frequently to ensure that deterioration does not compromise service levels for customers and the community. Assets in poor or very poor condition are prioritised for replacement or rehabilitation within capital asset renewal programs (detailed in Section 7).



#### Asset Risk Management

The purpose of asset risk management is to document the results and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2009 Risk management – Principles and guidelines. Risk Management is defined in ISO 31000:2009 as coordinated activities to direct and control with regard to risk'.

An assessment of risks associated with service delivery from assets has identified critical risks that will result in loss or reduction in service from GMB Water assets or a 'financial shock'. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks. Table 14 presents GMB Water asset risk management framework detailed in Section 2.9.2.

	Determine a	CONSEQUENCE							
Risk Rating		Insignificant (1) Minor (2) Moderate (3)		Moderate (3)	Major (4)	Catastrophic (5)			
	Almost Certain (E,5)	Medium (5)	Medium (10)	High (15)	Very High (20)	Very High (25)			
OOD	Likely (D)	Low (4)	Medium (8)	High (12)	Very High (16)	Very High (20)			
LIKELIHOOD	Possible (C) Low (3)		Low (6)	Medium (9)	High (12)	Very High (15)			
LK	Unlikely (B)	Low (2)	Low (4)	Low (6)	Medium (8)	High (10)			
	Rare (A)	Low (1)	Low (2)	Low (3)	Medium (4)	Medium (5)			

Table 14: Wastewater Service Asset Risk Management Framework

The risk assessment process calculates a risk score for a project or program based upon the risk management framework as shown in Table 14.

The underlying process logic for a project risk rating is as follows:

Project risk is equal to the likelihood of failure multiplied by the consequence of failure, after consideration of redundancies.

- The likelihood of failure is based upon asset condition information as defined in Section 3.3
- The consequence of failure is calculated in both asset failure or facility failure based on the Asset Risk Framework.
- The consequence might be reduced based upon existing redundancies at a facility
- The final risk score is the product of the Likelihood & Consequence and is categorised as Low, Medium, High or Very High as defined in the Table 14.

Material Risks, as defined in the table below, are high and very high risks that require active management to reduce risk levels.

Risk Level (current)	Materiality	Action			
Low	Non motorial Diele	No additional action above and beyond any risk management activities embedded in BAU			
Medium	Non-material Risk	Appropriate monitoring and reporting			
High	Maka sial Diala	Active management to reduce or control risk.			
Very High	Material Risk	Prioritised risk reduction, monitoring and reporting			

Table 15: Risk Level and Material Risks

#### **Asset Failure Modes**

The functional failure modes for the asset class will depend on the specific asset class, for example for a pipe, the following would be failure modes:

- Joint broken or leaking/blockages
- Pipe wall perforated or ruptured
- Mechanical failure of pumps, aerators

Table 16 details high level failure modes. To better inform maintenance strategies, more detailed failure mode analysis should be developed using tools such as FMECA.

#### Failure Drivers/Patterns

An understanding of the underlying basis for failure will allow the likelihood of failure to be determined according to the 5-point scale described in GMB Water Asset Risk Management framework (Table 14).

45

#### **Failure Detection**

The methods used to detect possible or actual asset failure (such as condition assessments) and which activities are appropriate for the asset class. The Asset Improvement Plan (Section 2.7) includes an action to develop a formal asset condition program.

Critical Asset(s)	Failure Mode	Impact
Connections	Broken pipe/blockage	Loss of service to a single property or multiple properties. Wastewater overflow, public health incident
Siphons	Broken pipe/blockage	Wastewater overflow, Environmental incident, public health incident
Gravity pipes	Collapse/Blockage	Wastewater overflow, Environmental incident, public health incident
Rising Mains	Burst main	Wastewater overflow, Environmental incident, public health incident
All pump stations	Mechanical or electrical failure of pumps	Wastewater overflow, Environmental incident, public health incident
Various operational units in Wastewater treatment facilities (e.g. chlorination, UV disinfection)	Mechanical/Electrical failure	Loss of asset and treatment capacity, Environmental incident, public health incident, Non-compliance
Switchboard	Fire	Shutdown of equipment, non-compliance, public health incident, safety incident,
Programmable Logic Controller (PLC) system	Card failure	Loss of control, Environmental incident, public health incident, Non-compliance
Lagoons	Embankment failure	Loss of asset and treatment capacity, Environmental incident, public health incident, non-compliance, safety incident
Treatment tanks and associated valves	Structural failure	Loss of asset and treatment capacity, non-compliance, safety incident

Table 16: Critical Assets high level failure modes and impacts

#### Risk Assessment Models

The risk management process overview is shown in Figure 8 below. It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks. The process is based on the fundamentals of the ISO risk assessment standard ISO 31000:2009.



Figure 8: Risk Management Process

#### Risk Assessment

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the risk assessments undertaken for the different wastewater and recycled water schemes.

#### Current state of GMB Water risk is:

- An initial operational risk assessment was undertaken in December 2022. Risks are managed
  in the Skytrust online platform which includes processes for regular review and update of risk
  assessments and review of the performance of nominated control measures. There are currently
  five (5) plant risks, for the Springs Road WWTP listed in Skytrust, all are managed down to a
  residual risk of low. Refer Table 17.
- Risk is monitored on an iterative basis for capital projects, with a focus on projects that have commenced construction.
- A review of the Strategic Risk Register is undertaken at least every 6 months and updated as appropriate, and all risks have identified treatments that are in progress or planned.

Area	Issue	Consideration to Rectify/ Manage
Operation of the Springs Road WWTP	Plant operating near capacity with algal growth an ongoing issue.	Additional operating costs – chemicals and power – and more frequent microfiltration bypassing
Siphons	No emergency storage causing operational issues during heavy rainfall	Construction of new equalisation storages before winter 2023 – completed
Gravity pipes	Age/condition impacting membranes & blocks performance resulting in E-coli detects.	Monitoring and maintenance; replace membranes and blocks. Replace oldest membranes, CMF #1.
Rising Mains	Increased inflow (growth) into single lagoon: sludge build up & poor treatment performance	Desludging of lagoon to be undertaken and sludge build up monitored post desludging
Laratinga Wetland	Bypassing microfiltration process due to issue above resulting in poor quality water entering the Laratinga Wetland	Monitor and additional signage installed to warn the public of the presence of treated wastewater

Table 17: Operational Risk Assessment

#### Criticality

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Similarly, critical failure modes are those which have the highest consequences.

Critical assets have been identified through the Asset Criticality procedure. The asset criticality ratings have been captured in an Asset Criticality Register and will be transferred to Assetic after the implementation of the Asset Information Standard.

Critical assets failure modes and impact on their service delivery haven't been conducted at the time of writing, however, they are planned to be completed by the end of 2025.

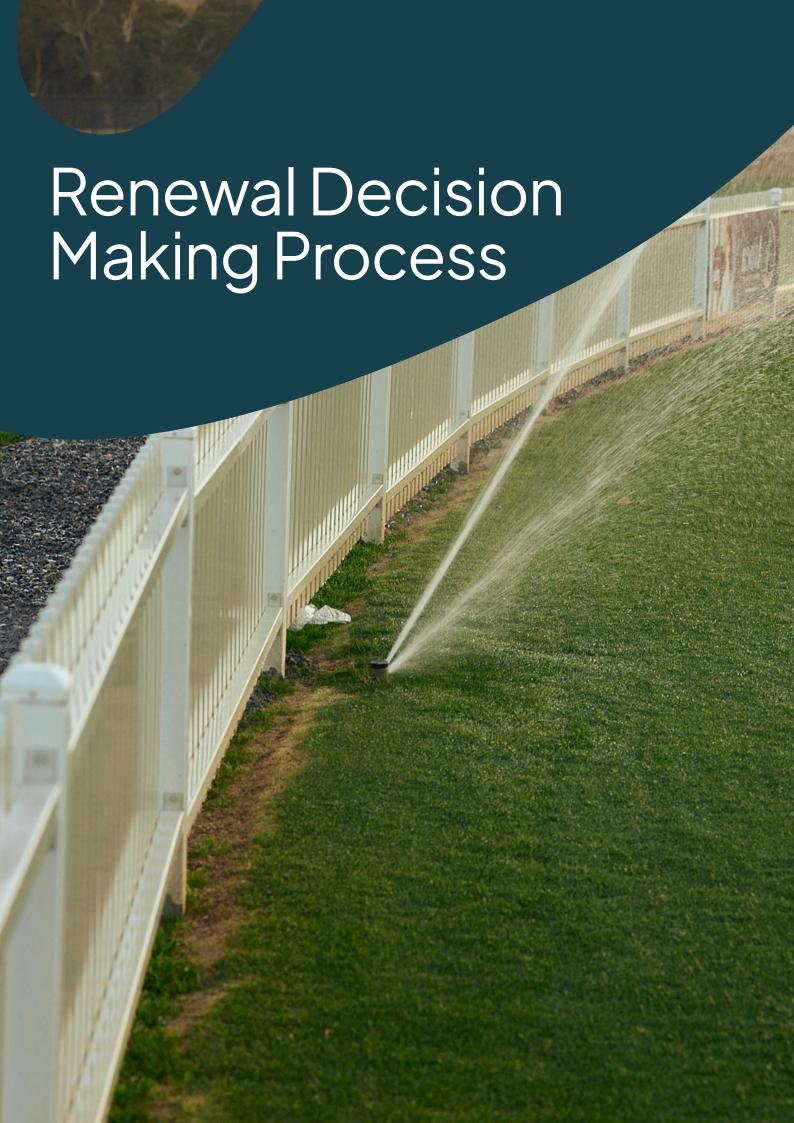
By identifying critical assets and failure modes, investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas for efficient use of resources to achieve required levels of service and reduce risk.

#### Redundancy

Redundancies are typically found at the Facility or Network Zone level, for example, two types of redundancies are typically found:

- Facility redundancy, where a duplicate asset (e.g. a standby generator or pump) or excess capacity (e.g. in a drinking water tank or sewerage sump) allows the failure event to be mitigated until it can be resolved.
- Network redundancy, where a service can be provided from different parts of a recycled water network (e.g. a tank or customer that is supplied by more than one pipeline). At present there is no redundancy in the network.

Redundancy can be provided in the form of an installed operational spare assets with capacity to allow a unit to be removed from service while still meeting required levels of service (eg 'hot' standby). An alternative form of redundancy can be a spare unit that can be installed to restore service in an acceptable timeframe compared to repair or replacement of the asset in service (eg. 'cold' standby), which can be used as standby for multiple standard assets.



#### Renewal Decision Making Process

Information prepared from previous sections is used to enable the asset renewal decision making process detailed in Figure 9. The prioritisation of the projects identified through this process are then subject to prioritisation process detailed in the next section.

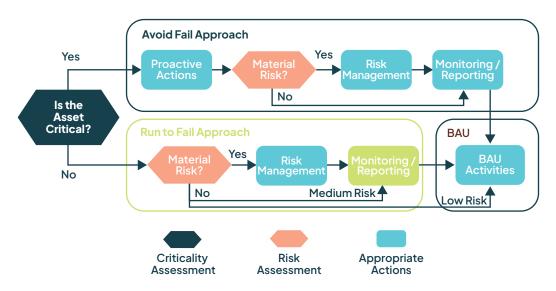


Figure 9: Asset Renewal Decision Making Process

#### Investment Prioritisation

Investment prioritisation is used to find a balance across a capital investment portfolio, between non-discretionary investment such as delivering new Levels of Service to meet new environmental protection regulation, and risk-based assessments such as the asset renewal program.

Investments to meet demand growth and efficiency programs with attractive return on investment (ROI) must also be considered.

The process to prioritise the capital portfolio is as follows:

Rank projects in order of highest priority as follows:

- First priority is given to the projects that will need to be undertaken due to regulatory requirements (Regulatory Directive Projects)
- Second priority is given to the projects that have strong ROI and short payback periods (Efficiency Projects)

- Third priority is given to the projects that will need to be undertaken to meet demand growth (Growth Projects)
- Fourth priority is the prioritisation score that is calculated using Risk or Opportunity Consequence and Likelihood Score.
- Fifth priority is given to the Renewals Program

Renewal Program projects identified using the process outlined in Section 5.6 should be ranked according to their value to GMB Water. To assess the value of a wide range of projects, they are prioritised as per the Asset Risk Framework shown in Table 6, considering likelihood and consequences of failures. Assets with higher risk scores are prioritised for delivery.



Figure 10: Investment Prioritisation Pyramid



#### **Growth Forecasting**

Significant residential opportunities have been identified in the Mount Barker district and continued demand for housing in a semi-rural environment with easy access to Adelaide will facilitate strong growth into the future. The Mount Barker Urban Growth Development Plan Amendment (MDPA) area, located to the south of the existing township and extending to Nairne, will be the primary focus for population and dwelling growth, as it has the potential to provide over 11,000 dwellings. Note that not all of this is assumed to be realised in the forecast period (around 6,300 dwellings), as there is still significant short to medium supply in the established part of Mount Barker, Nairne and Meadows. Demand for housing in the district is also influenced by the amount of residential land supply (and demand for) in southern Adelaide (Onkaparinga in particular), and to a lesser extent, Murray Bridge to the east. Refer Table 18.

Overall, the population of the Mount Barker district is forecast to reach 57,836 at 2036, as shown in Table 19. Growth is predominantly in the Mount Barker and Nairne regions. The Population forecast is as per <u>Forecast id Population data</u>.

The Long Term Financial Plan is based on connections growth projections which are summarised in Table 18. Connections growth is modelled by Council on assumptions prepared by the city development team based on historical trend, lodged applications, developer sentiment and expected activity in the region.

Generally, the total percentage growth is estimated to be between 2–4% per year. A summary of these figures is below:

FY Year	25-26	26-27	27–28	28-29	29-30	30-31	31–32	32-33	33-34	34-35
Total Connections (,000)	15.6	16.2	16.8	17.4	18.0	18.6	19.2	19.8	20.4	21.0
City Planning Growth Estimate	625	615	611	606	606	606	606	612	613	613
Growth (%)	4.2	4.0	3.8	3.6	3.5	3.4	3.3	3.2	3.1	3.0

Table 18: Growth Figures FY2024 - FY2034

Summary	2021	2026	2031	2036	2041	2046
Population	39,620	47,584	53,158	57,836	61,014	64,838
Change in population (5yrs)		7,964	5,574	4,678	3,178	3,824
Average annual change	-	3.7%	2.2%	1.7%	1.1%	1.2%
Households	15,343	18,289	20,499	22,418	23,807	25,512
Average household size	2.6	2.6	2.6	2.5	2.5	2.5
Population in non-private dwellings	438	568	750	902	1,041	1,161
Dwellings	16,041	19,084	21,397	23,416	24,861	26,626
Dwelling occupancy rate	95.67	95.83	95.8	95.74	95.76	95.82

Table 19: 5 Yearly Population Growth 2021-2046

#### **Growth Service Strategy**

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc. These drivers and their impacts can be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures. The drivers influencing demand for GMB Water services and assets include:

Demand drivers	Current State	Projected State	Potential Impact	Mitigation
Population Growth and Township Expansion	46,277 (2025)	57,287 (2036) Population growth by 2036 is estimated at 24.9% with increased development expected.	Population growth will be mostly supported by green-field development meaning a greater number of gifted assets to Council. Existing wastewater networks will need to be augmented to connect new developments such as the construction of new trunk sewers.  This will also increase demand of existing assets and impact life cycle costs of assets.	Ensure increased demand is met by investing in capital programs to increase capacity early and doing preventative maintenance to ensure assets meet their design life.  The new WWTP and ongoing upgrades to the network will work to service additional dwellings.
Community Expectation	There is a community expectation that GMB Water continues to run efficiently and services the community.  Currently there is a mixture of CMWS and sewer services. Recycled water services to a limited number of customers.	With population growth and township expansion, there is an expectation for similar wastewater and recycled water services to be available in all areas.  There will also be an expectation that GMB Water will have an environmental focus.	GMB Water will require additional recycled water treatment and supply from treated effluent as the demand for recycled water increases due to environmental concerns and licence requirements.	GMB Water understands demand will increase and needs to ensure demand can be met. This may be through investing in capital programs to increase capacity, ensuring their asset management system is robust and upgrading assets to become more environmentally friendly.

Demand drivers	Current State	Projected State	Potential Impact	Mitigation
Compliance With Regulatory Requirements	GMB Water strives to meet legislative requirements.	The main anticipated change to legislation that could impact wastewater and recycled water services is the new licence needed for the new treatment plant.	The new licence for a new wastewater treatment plant, which will be named Laratinga Water Recovery Plant (LWRP), replacing the current plant at Spring Road will have much tighter water quality standards for discharges and goals within a specified timeline.	-
Changes In Policy/ Politics/ Economy	GMB Water strives to meet changes in policy.	There is a new council elected. Anticipated changes to policy could impact wastewater and recycled water services.	The council has approved the establishment of Mount Barker Wastewater Utility, a subsidiary of the council. The Subsidiary's charter has also been approved by the Minister of local government and gazetted in January 2025, and its board was appointed in February 2025.	-
Change In Technology	GMB Water uses technology to manage its assets and strategy. However, more technology could be implemented to automate management systems.	Changes in technology that could provide greater efficiencies in asset management and increase the lifecycle and function of the assets. An example may include improved odour control and prevention, a shift from CMWS to sewer collection and treatment (including solids), increased water recycling and re-use initiatives and improved asset management.	Changing from outdated technology to new technology will require capital investment. It may also require training of employees to adapt to new systems and assets.	Ensure new technologies are identified early and upgrades can be accounted for in long-term planning. New technology implemented can include smart meters for bore water and recycled water customers.
Major Customers		There are currently no anticipated changes to GMB Water's customer base.	The loss of major customer could cause a significant production and financial impact.	Establish more robust new customer base.

Table 20: Demand Drivers, Projections, And Impact On Services



#### Infrastructure Resilience

The resilience of our critical infrastructure is vital to our customers and the services we provide. To adapt to changing conditions and grow over time we need to understand our capacity to respond to possible disruptions and be positioned to absorb disturbance and act effectively in a crisis to ensure continuity of service. Resilience is built on aspects such as response and recovery planning, financial capacity and crisis leadership.

Further work is required to establish the level of resilience available in GMB Water assets and to identify any improvements. The outcomes, summarised in Table 21, include the type of threats and hazards, resilience assessment and identified improvements and/or interventions.

Threat/ Hazard	Description	Potential Impact	Mitigation
Climate Change	Due to rising temperatures at an exponential rate, increased frequency and intensity of extreme weather events (rainfall, wind, and lightning) should be expected.	Premature damage to infrastructure and impact on life cycle costs.	Ensure there is enough allocation for unplanned maintenance and repairs.
Power Outages	Due to the increasing number and intensity of storms power outages have increased in frequency.	Power outages leading to loss of operations.	Back-up power generation to mitigate against power outages.
Flooding	Due to the increasing number and intensity of rain events there is a higher potential for damaging floods.	Premature damage to infrastructure and equipment, impact on life cycle costs and loss of operations.	Ensuring new assets are built above the flood plains.
Emergency Workforce	Due to an increasing number of weather emergency events, a skilled workforce needs to be engaged to repair and replace any damaged equipment or infrastructure.	Increased downtime due to unavailable skilled workforce.	Ensuring GMB Water workforce is appropriately skilled to manage emergency events and skilled contractors can be engaged in emergency situations.

Table 21: Levels of Resilience of Wastewater Service Assets to Climate Change

### Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenities. Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again, e.g. sewer and pump blockages, mechanical services, painting, building and structure repairs. Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating.

Maintenance and operation expenditure levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance expenditure levels are such that they will result in a lesser level of service, the service consequences and service risks have been identified and highlighted in this AM Plan and service risks considered in the Infrastructure Risk Management Plan.

Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded are to be included in the risk assessment and analysis in the Risk Management Plan.

The development of the operations and maintenance forecast was generally based on a year-on-year growth rate of 3% assumed for all sub-accounts other than labour. The growth rate for labour is assumed to be 2.5% yearly. It was assumed that current levels of maintenance are adequate to meet the required levels of service and achieve the objectives of the AM Plan.

The following Table 22 shows the projected operations and maintenance costs over the next 10 years including indexation. The following escalation factors have been applied:

- Growth is applied to Contractors/Consultants, Materials, Energy, Chemicals and Other (excluding Full cost of attribution)
- Additional labour costs were added to meet identified growth requirements within the 10 year period.
- Projected Operations and Maintenance costs excludes depreciation, cost of capital and finance costs.
- Other expenditure includes internal charges (FCA), which will be changed to service level agreements post transition, legal, licenses, insurance, subscriptions, telecommunications and plant hire (fleet).

Sub-Account	2025 - 26	2026 - 27	2027 - 28	2028 - 29	2029 - 30	2030 - 31	2031 - 32	2032 - 33	2033 - 34	2034 - 35
Contractors/Consultants	3,087	1,842	1,642	1,642	1,642	1,642	1,667	1,667	1,667	1,667
Labour	2,265	2,358	2,438	2,531	2,599	2,665	2,860	2,926	2,990	3,052
Materials	866	866	866	866	866	866	866	866	866	866
Chemicals	632	632	632	632	632	632	632	632	632	632
Electricity	718	718	718	718	718	718	718	718	718	718
Other	1,066	1,066	1,066	1,066	1,066	1,066	1,066	1,066	1,066	1,066
Total*	8,633	7,481	7,361	7,454	7,523	7,589	7,809	7,874	7,938	8,000

#### Projected Operations and Maintenance Expenditure (\$000)

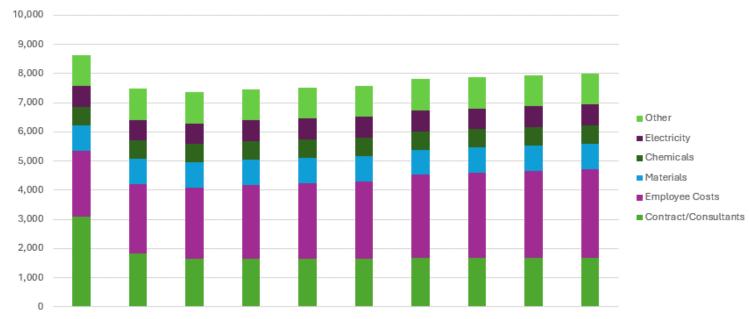


Figure 11: Projected Operations and Maintenance Expenditure

Table 22: Projected Operations and Maintenance Expenditure (\$ 000s)

\*The total amount includes some ad hoc forecasted costs such as additional employees

#### Renewal Plan

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a pump that has a certain transfer capacity), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. diameter of a pipe).

Assets requiring renewal/replacement are identified using three methods, namely:

- Asset Register Age and useful life to determine the estimated remaining life. Assets with no remaining life by the end of the period considered in the AMP have been identified for renewal/ replacement
- Data from the latest asset inspection Assets assessed in poor or very poor condition have been identified for renewal/replacement
- Identification of Renewal Work Program by Wastewater Service Verified renewal projects are ranked by priority and scheduled in future works programs taking into consideration the availability of funds. Prioritisation of work is based on the availability of funds and efficiency.

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be greatest,
- Have a total value representing the greatest net value,
- Have the highest average age relative to their expected lives,
- Are identified in the AM Plan as key cost factors,
- Have high operational or maintenance costs, and
- Have replacement with a modern equivalent asset that would provide the equivalent service at a savings.

Sub-Account	2025 - 26	2026 - 27	2027 - 28	2028 - 29	2029 - 30	2030 - 31	2031 - 32	2032 - 33	2033 - 34	2034 - 35
Capital Renewal Program	43,235	26,676	4,946	455	1,637	1,162	1,123	1,090	1,055	2,267
Condition or Age Renewal	115	115	115	115	115	115	115	115	115	115
Total	43,350	26,791	5,061	570	1,752	1,278	1,238	1,205	1,170	2,382

Table 23: Projected Capital Renewal and Replacement Expenditure (excludes indexation) (\$ 000s)

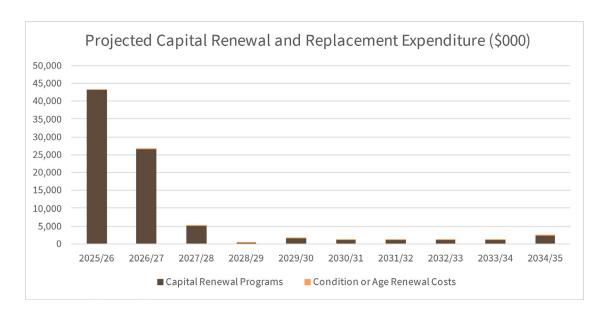


Figure 12: Projected Capital Renewal and Replacement Expenditure

Key inputs to the development of the projected capital renewal and replacement expenditure are:

- LWRP Stage 1 replacement of current WWTP at Springs Road
- Gravity Mains Replacement Program
- The Pump Renewal Program (including all type of pumps: e.g. dosing, wastewater, recycled water) has an annual allocation evenly distributed across the years
- Exclusion of any replacement of assets (based on age or condition) for the existing Mount Barker WWTP due to the upgrades scheduled between 2025 and 2028.

Currently the projection for renewal is the minimum required to maintain the majority of existing wastewater assets at average condition. As the acquisition, construction and upgrade of assets increase due to growth, the number of renewals will increase overtime.

#### Growth/Upgrade Plan

New works are those that create a new asset that did not previously exist, or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost.

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority criteria are detailed below:

- Regulatory requirements and compliance
- Timing of new development and increase capacity of sewer network (gravity and rising main) for increased volumes and loads due to growth
- Developer funding's with capital contribution
- O&M cost efficiency, environmental requirements
- Upgrade recycled water treatment plants to enhance usage

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	- 26	- 27	- 28	- 29	- 30	- 31	- 32	- 33	- 34	- 35
Growth Programs	50,415	27,197	4,227	534	534	1,147	534	5,146	5,371	534

Table 24: Projected Growth Programs (Excludes Indexation)

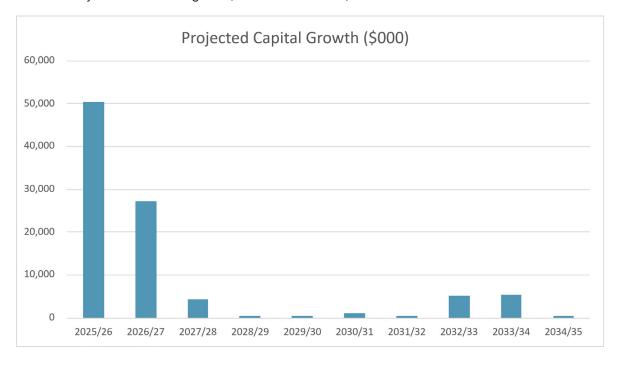


Figure 13: Projected Growth Programs

Key inputs to the development of the projected capital renewal and replacement expenditure are:

- Replacement of the Mount Barker WWTP with LWRP Stage 1 and 2 Upgrades
- Recycled Water Program which includes the Nairne Stage 2, Recycled Water Storage, Mount Barker Scheme and expansion of the distribution network.
- Sewer Trunk Main Program which includes the Nairne Stage 1, CBD, Central and Eastern Sector Stage 2 Sewer Trunk Main Projects

#### Disposal Plan

At present, there is no approach to disposal other than when an asset reaches its end of life or as part of a capital program. A Disposal Plan should be created to identify assets that require decommissioning, demolition, relocation, or sale. A disposal plan will be developed as part of the Asset Management Maturity Improvement Initiative.

An operational review is required to confirm that these assets are no longer required, and the estimated costs and savings associated with disposal of these assets. Any costs or revenue gained from asset disposals will be accommodated in the long-term financial plan.

All asset disposal is undertaken in accordance with the Disposal of Land and Other Assets Policy.

#### **Asset Standards**

Codes	Requirements
SA Health On-Site Wastewater Systems Code 2013	Prescribed code under the Wastewater Regulations. Assists the relevant authorities with processing applications for approval of on-site wastewater products, on-site wastewater installations and individual connections to a community wastewater management system (CWMS).
Water Services Association of Australia (WSAA) – Sewerage Pumping Station Code of Australia (2005) – WSA 04–2005 V 2.1	Codes have been adopted as technical standards for SA. These technical standards are for people who design, install, inspect, alter, repair, maintain, remove, disconnect or decommission water and sewerage infrastructure.
Water Services Association of Australia (WSAA) Gravity Sewerage Code of Australia (2014) - WSA 02 - 2014	Codes have been adopted as technical standards for SA. These technical standards are for people who design, install, inspect, alter, repair, maintain, remove, disconnect or decommission water and sewerage infrastructure.
Australian Recycled Water Guidelines 2013	Designed to provide an authoritative reference that can be used to support beneficial and sustainable recycling of waters generated from sewage, grey water and stormwater.
Australian Sewage Quality Management Guidelines 2012	Provides best practice guidelines for a utility in the management of inputs to their sewerage system.
Environment Protection (Water Quality) Policy 2015	Provides the structure for regulation and management of water quality in South Australian inland surface waters, marine waters and groundwater.
EPA 2008 Publication 1287 Guidelines for risk assessment of wastewater discharges to waterways.	Provide information on what is expected from practitioners conducting wastewater discharge risk assessments. This includes the risk assessment framework and guidance on its implementation.
SA Water Technical Standards	SA Water Technical Standards define SA Water's requirements for the construction and/or modification of SA Water's assets. As SA government standards, some of these standards can be relevant and referenced for MBDC water and wastewater assets.

Table 25: Asset Standards

#### Financial Planning

This asset management plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and the Long Term Financial Plan aimed at providing the required services in a sustainable manner.

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is a total of \$265 million or \$26.5 million on average per year.

The Long Term Financial Plan allows for 10% of the value of capitalised renewal assets as a provision for disposals.

The operations and maintenance data in the table below has been escalated by growth and EBA rates where applicable, renewal and growth programs along with disposal values are not indexed.

Year	Operations and Maintenance (\$k)	Capital Renewal/ Growth Programs (\$k)	Condition or Age Renewal Costs (\$k)	Disposals (\$k)
2025 - 26	8,633	93,650	\$115	\$934
2026 - 27	7,481	53,873	\$115	\$678
2027 - 28	7,361	9,173	\$115	\$285
2028 - 29	7,454	989	\$115	\$285
2029 - 30	7,523	2,171	\$115	\$876
2030 - 31	7,589	2,309	\$115	\$639
2031 - 32	7,809	1,657	\$115	\$619
2032 - 33	7,874	6,236	\$115	\$780
2033 - 34	7,938	6,426	\$115	\$751
2034 - 35	8,000	2,801	\$115	\$752
Total	77,662	179,285	1,150	\$6,598

Table 26: Projected Expenditures for Long Term Financial Plan (\$000s)

#### Key Assumptions Made in Financial Forecasts

Key Assumptions	Risks of Change to Assumptions
Installation dates in the asset register are accurate.	Incorrect installation dates may lead to assets being replaced sooner or later than required and may skew asset condition data.
Replacement value in the asset register are accurate.	Replacement value may change (Inflation, CPI, and Procurement cost only).
Useful life in the asset register are accurate.	Incorrect useful life dates may lead to assets being replaced sooner or later than required.
Operational Expenditure was taken at the rate of 1.5% of the total replacement cost each year of the life of the asset.	OPEX costs may exceed 1.5% and may not be uniformly distributed each year.
Financial escalation is based forecast annual connections growth of between 2% and 3% assumed by the Council for all subaccounts other than labour. The growth rates for labour is assumed to be 2.5% yearly.	Increased inflation may mean that actually costs grow faster than forecast budgets.
Renewal Plan does not include cost for future acquisition, renewal and replacement of new assets.	New assets may have acquisition, renewal and replacement expenditure before 2064 (as per the 40 year Long Term Fiscal Model). New assets may have operations and maintenance expenditure (energy usage, chemical, etc.) greater than estimated.
Service levels of Council to remain constant over the life of the plan.	This may not be aligned with future community expectations.
Capital Expenditure only includes the programs already in place.	New CAPEX programs may take place before 2064.
Capital Expenditure programs have been priced accurately.	CAPEX program valuations have been developed by the council taking into account a different set of assumptions.

Table 27: Key Assumptions Made in Financial Forecasts



## Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale in accordance with Table 28.

Coi	nfidence Grade	Description
A	Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
В	Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing. and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
С	Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D	Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete and most data is estimated or extrapolated. Accuracy $\pm$ 40%
E	Unknown	None or very little data held.

Table 28: Data Confidence Grading System

The estimated confidence level for and reliability of data used in this AM Plan is considered to be uncertain.

Data	Confidence Assessment	Comment
Growth projections	В	Population estimates are based on external estimates http://forecast.id.com. au/mount-barker
Operations expenditure	С	Historical expenditure data is accurate however the division of expenditure between operations and maintenance is not known.
Maintenance expenditure	С	Historical expenditure data is accurate however the division of expenditure between operations and maintenance is not known.
Projected Renewal expenditures	С	Based on value replacement cost from 2025 asset revaluation
Asset useful lives	С	Requires a detailed review for consistency
Asset age	D	Construction date, used to calculate asset age, is not accurately maintained in the asset register. Age is updated with condition rating when asset is inspected

Table 29: Data Confidence Assessment for Data Used in AM Plan

# References



#### References

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, <a href="https://www.ipwea.org/IIMM">www.ipwea.org/IIMM</a>

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, <a href="https://www.ipwea.org/namsplus">www.ipwea.org/namsplus</a>.

IPWEA, 2015, 2nd ed., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, <a href="https://www.ipwea.org/AIFMM">www.ipwea.org/AIFMM</a>.

IPWEA, 2015, 3rd ed., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, <a href="https://www.ipwea.org/IIMM">www.ipwea.org/IIMM</a>.

IPWEA, 2012 LTFP Practice Note 6 PN Long Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney

IPWEA, 2016, V3, Practice Note 7 V3, 'Condition Assessment & Asset Performance Guidelines – Water Supply & Sewerage', Institute of Public Works Engineering Australasia, Sydney

Mount Barker Community Plan 2044 https://www.mountbarker.sa.gov.au/council/Plans-and-Strategies/community-plan

Mount Barker District Council, 2025, GMB Water Long Term Financial Plan 2025 - 2035 <a href="https://www.mountbarker.sa.gov.au/council/plans/finance">https://www.mountbarker.sa.gov.au/council/plans/finance</a>

Mount Barker District Council 2023/2024, GMB Water Annual Business Plan, <a href="https://www.mountbarker.sa.gov.au/council/plans/finance">https://www.mountbarker.sa.gov.au/council/plans/finance</a>

SA LGA and Dept. H&A, 2017, 'SOUTH AUSTRALIAN COMMUNITY WASTEWATER MANAGEMENT SYSTEM (CWMS) DESIGN CRITERIA', The South Australian Local Government Association and the South Australian Department for Health & Ageing, SA

SALGA, 2023, 'Local Government Act 1999', Government of South Australia, SA

Population data https://forecast.id.com.au/mount-barker

Tourism data https://economy.id.com.au/mount-barker/tourism-visitor-summary

Age Profile data <a href="https://quickstats.censusdata.abs.gov.au/census\_services/getproduct/census/2016/quickstat/SSC40923">https://quickstats.censusdata.abs.gov.au/census\_services/getproduct/census/2016/quickstat/SSC40923</a>



#### Appendix A Projected 10-year Capital Renewal and Growth Programs

Program	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Age based renewals	115,000	115,000	115,000	115,000	115,000	115,000	115,000	115,000	115,000	115,000
Other renewal programs										
- Treatment	38,571	24,945	2,541	0	617	0	0	35	0	1,617
- Collection	4,367	1,732	455	455	455	455	1,123	1,055	1,055	523
- Recycled Water	297	-	1,950	-	565	707	-	-	-	128
Totals	43,350	26,791	5,061	570	1,752	1,278	1,238	1,205	1,170	2,382

Table 30: Projected 10-year Capital Renewal Programs (\$000s)

Program	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Treatment	34,204	22,090	2,254	-	-	613	-	4,613	4,838	-
Collection	15,655.2	4,877.2	121.6	-	-	-	-	-	-	-
Recycled Water	556	230	1,851	534	534	534	534	534	534	534
Totals	50,415,361	27,197,074	4,226,652	533,700	533,700	1,146,761	533,700	5,146,200	5,371,200	533,700

Table 31: Projected 10-year Capital Growth Programs (\$ 000s)



#### Appendix B Budgeted Expenditures Accommodated in Long Term Financial Plan

Long Term Financial Plan	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Projected Operations and Maintenance	8,633	7,481	7,361	7,454	7,523	7,589	7,809	7,874	7,938	8,000
Projected Renewals	43,350	26,791	5,061	570	1,752	1,278	1,238	1,205	1,170	2,382
Projected Growth	50,415	27,197	4,227	534	534	1,147	534	5,146	5,371	534

Table 33: Budgeted Expenditures Accommodated in LTFP (\$ 000s)

## 7:

## Appendix C Detailed Asset Management Objectives and Improvement Plan

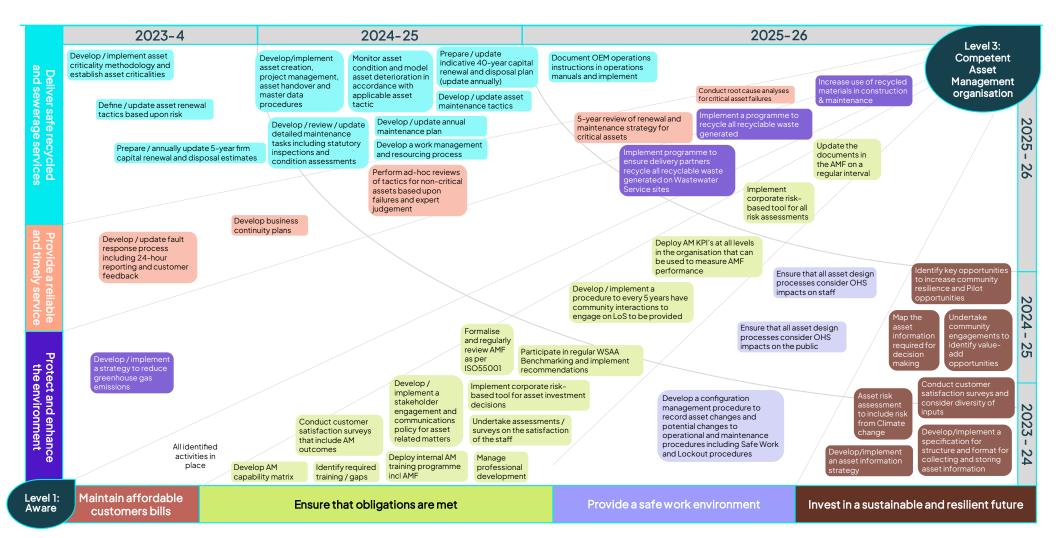


Figure 14: Detailed Asset Management Objectives

greater water recovery for the future

# 74

#### Appendix D Risk Framework

	Insignificant	Minor	Moderate	Major	Catastrophic	
People	No injuries No LTI No impact on morale Minor local workforce disruption	First aid treatment or one-off counselling 1-7 days LTI Minor temporary impact on wellbeing Temporary loss of some workers	Minor injuries with no long-term impact. Medical Treatment, short-term disability, psychological intervention LTI 1-13 weeks Wellbeing impact on a MBDC team, possible morale problems; temporary loss some critical workers or increased worker turnover (>5% turnover)	Significant injury requiring medical attention LTI 4-12 months Wellbeing impact on multiple MBDC worksites Entrenched morale problems, inability to recruit necessary skills or high worker turnover (>10% turnover)	Death/Severe irreversible disability/Extensive injuries, long-term psychological injury LTI > 1 year Long term wellbeing impact on whole of MBDC Entrenched severe morale problems, inability to recruit with necessary skills or high worker turnover (>15% turnover)	
Financial	Financial impact (expenditure or revenue) <\$100,000.	Financial impact (expenditure or revenue) between \$100,000 - \$500,000	Financial impact (expenditure or revenue) between \$500,000 - \$1M.	Financial impact (expenditure or revenue) between \$1M - \$5M	Financial impact (expenditure or revenue) > \$5M	
Legal	Dispute that may be resolved without legal remedy or internal consultation only.	Fines or penalties of a minor nature being imposed on the Council; or Involvement of legal firms.	Council directed to undertake specific activities to remedy breaches. Formal investigations by 3rd parties	Deliberate breach or gross negligence.	Major breach of legislation resulting in major Council penalties, fines; or imprisonment of Council staff; or Class Action.	
Environment	Minor adverse event that can be remedied immediately. On-site release immediately contained  Isolate instances of environmental damage requiring effort to fix in the short term and reversible.  Issues affect more than 1 site but still localised.		Adverse events cause widespread damage; reversible in short - medium term.  On-site release immediately contained with outside assistance	Significant adverse event causing widespread damage which may be reversed through remedial action in the medium term.  Off-site release with no detrimental effects	Major adverse environmental event requiring continuing long term remedial attention.  Toxic release off-site with detrimental effect	

	Insignificant	ificant Minor Moderate Major		Major	Catastrophic		
Reputation	No adverse effect on public image. No media attention.	Minor adverse effect on public image and established community relationships & links. Non-headline exposure.	Moderate adverse effect on public image. Negative article in Courier. Repeated non-headline exposure; slow resolution, Council enquiry/briefing.	Major adverse effect on public image.  Negative front page in Media. National coverage repeated exposure.  Significant level of community concern or opposition or breakdown of established community relationships.  Unresolved complexities.	Huge effect on public image. Widespread community outrage. Maximum high level headline exposure, international coverage, loss of credibility. Political activity that results in irreparable damage. Ministerial involvement.		
Service Delivery	Diversion of staff from normal operations/activities.  No material disruption.  Small delays in routine needs/tasks for ½ day.  Activity that requires minor changes in operations	Minor impact in undertaking routine tasks for 1 day or impact on multiple areas within Council.  Activity that requires changes in operations.	Moderate impact on stakeholders & routine needs or tasks for up to 2-5 days - backlog cleared by additional resources.  Activity that requires changes in operations within budget & resource implications.	Prolonged suspension of work (major impact on stakeholders & routine tasks) for 6-7 days.  Activity that requires changes in operations with significant ongoing budget or resource implications	Indeterminate prolonged suspension of work; for > 7 days.  Non achievement of organisational objective / performance failure.		
Social / Cultural	Resident (household) experiences minor wellbeing impact, disempowered, inconvenience or temporary disadvantage.  A group of residents within a suburb or identified cultural or community group experiences ongoing minor wellbeing impact or are disempowered, inconvenienced or disadvantaged.		A number of neighbourhoods (up to 25% of residents) or cultural groups experience wellbeing impact, are disempowered, inconvenienced or disadvantaged.	Up to 50% of residents are disadvantaged, inconvenienced, disempowered or may experience wellbeing harm. Cultural group or community offended, unable to practice recognised traditions.	Majority of MBDC residents are disadvantaged, inconvenienced, disempowered or may experience wellbeing harm.		

Table 35: Mount Barker District Council Risk Framework - Consequence Descriptors

	Insignificant	Minor	Moderate	Major	Catastrophic		
Cost	<1% of project or affected portion	1-20% of project or affected portion	3-10% of project or affected portion	11–30% of project or affected portion	>30% of project or affected portion		
Time delay	Up to 2 weeks	Up to 1 month	1–3 months	3–12 months	> 12 months or terminated		
Quality	Elements of the project will not meet original design but still meet project scope/charter and AS Standards	Elements of the project will not meet original design & require rectification to meet project scope/charter (see also delay and/or financial implications	Elements of the project only achievable with project variation to meet project scope/charter (see financial/delay impacts)	Key project outcome reduced/ limited - project change approval required to original project scope/charter	Key project outcome compromised/lost - project change approval required to original project scope/charter		
PR	No dissatisfaction or opposition to a project	Localised opposition to or dissatisfaction with the project	Opposition to or dissatisfaction with the project from more than 1 group or more widespread	Extensive and ongoing opposition to or dissatisfaction with the project or a district wide reputational impact for Council	Political action may stop the project		

Table 36: Mount Barker District Council Risk Framework - Project Consequence Descriptors

#### Appendix E RACI

	External			GMB Water					Mount Barker District Council						
Element	Community	Customers	Council/Elected Members	Regulators	Board	CEO/MD	Business Development	Planning	Capital Delivery	Operations	Finance and Procurement	ICT and Records	People and Culture	Governance	Communications
Purpose and Context	Consult	Consult	Consult	Consult	Responsible	Accountable	Consult	Consult	Inform	Inform					
Leadership and Governance	Inform	Inform	Inform		Consult	Responsib A	Consult	Consult	Consult	Consult					
Strategy and Planning	Consult	Consult	Consult	Consult		Responsible	Consult	Accountable	Inform	Consult	Inform				
Asset Management Decision Making	Consult	Consult	Consult	Inform	Consult	Responsible	Consult	Accountable	Consult	Consult	Inform				
Life Cycle Delivery			Inform		Inform	Responsible	Inform	Consult	Accountable	Accountable	Inform				
Organisation and People					Inform	Responsible	Consult	Consult	Consult	Consult	Consult		Consult		
Information and Knowledge Management						Responsiti A	Consult	Consult	Consult	Consult		Accountable			
Review and Continual Improvement					Inform	Responsib A					Consult			Consult	Consult
Risk Management			Inform	Consult	Consult	Responsib A	Accountable	Accountable	Accountable	Accountable	Inform			Inform	

Figure 15: RACI Team Structure and Responsibilities

## greater water recovery for the future

www.gmbwater.au customerservice@gmbwater.au 08 8188 9300

