LEETON
SHIRE COUNCIL

# Wastewater Asset Management Plan

Leeton Shire Council
October 2023

# DOCUMENT CONTROL

| | |
|---|---|
| **RESPONSIBLE OFFICER:** | Asset /GIS Coordinator |
| **REVIEWED BY:** | Director Operations – Acting |
| **LINK TO CSP/DELIVERY PROGRAM/OPERATIONAL PLAN:** | D.P 9.7 OP 9.7.6 |
| **DATE ADOPTED:** | 28/02/2024 |
| **ADOPTED BY:** | Council |
| **RESOLUTION NO: (IF RELEVANT):** | 24/011 |
| **FOR PUBLICATION:** | ☐ INTRANET ☐ COUNCIL WEBSITE ☐ BOTH |
| **REVIEW DUE DATE:** | October 2028 |
| **REVISION NUMBER:** | 1 |

| PREVIOUS VERSIONS: | DATE | DESCRIPTION OF AMENDMENTS | AUTHOR/ EDITOR | REVIEW/ SIGN OFF | MINUTE NO (IF RELEVANT) |
|---|---|---|---|---|---|
| | **18/07/2023** | Initial Draft for Review | RJ/ DB | | |
| | **25/07/2023** | Draft reissue with initial feedback | RJ | | |
| | **12/09/2023** | Final Draft | RJ | | |
| | **03/10/2023** | Final Version | RJ | | |
| | | | | | |

# REVIEW OF THIS DOCUMENT

This document will be reviewed every 5 years following a comprehensive revaluation of the asset class or as required in the event of legislative changes or operational requirements.
Any major amendments to the document must be made by way of a Council Resolution. Minor amendments such as corrections to spelling, changes to wording for improved clarity, formatting and updates to the Appendixes may be made without approval from the Council.

# CONTENTS

## Table of Tables



## Table of Figures

# 1. EXECUTIVE SUMMARY

## 1.1. Purpose of the Plan

This Asset Management Plan demonstrates that Leeton Shire Council is managing its wastewater assets in a responsible manner. It has been developed in accordance with Council's Asset Management Policy and principles of the Strategic Asset Management Plan (SAMP).

This Asset Management Plan details information about Council's wastewater assets. The plan outlines the management approach to:

- Describing and aligning delivery objectives of wastewater assets to Liveable Leeton 2035 strategic objectives.
- Managing the future demand for assets to achieve and maintain financial sustainability.
- Optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost).
- Identifying and managing risks associated with wastewater assets.
- Funds required to operate the wastewater assets.
- Continual improvement in the management of the assets and performance monitoring.

## 1.2. Asset Description

This Asset Management Plan has a focus on wastewater services provided to the community and the infrastructure assets that support the service.

Council's wastewater asset portfolio has an estimated replacement cost of $61.7 million (as of 30 June 2021).

The wastewater asset portfolio includes sewer mains, wastewater treatment plants, pump stations, and manholes and vents.

## 1.3. Levels of Service

Council is continuing to develop comprehensive levels of service for Council's wastewater assets to meet community expectations whilst maintaining financial sustainability. At present, management of wastewater assets, including intervention points and chosen treatment methods, is based upon:

- Available budget and resource allocations.
- Feedback from the community.
- Active monitoring of the performance of the wastewater asset portfolio.

According to the 2021 community consultation results, service provide by wastewater infrastructure has not been identified within the top 5 important or top 5 satisfaction areas by the community. Council is interpreting this as the community is satisfied with the levels of service being provided.

## 1.4. Future Demand

The future demand for services is impacted by:

- Population and demographic change
- Changing design standards
- Climate change impacts
- Council financial sustainability
- Community satisfaction

These will be managed through a combination of managing existing assets, upgrading existing assets, completing, and implementing a sewer services strategy, minimising climate change impact on assets and better management of customer expectations whilst maintaining financial sustainability.

## 1.5. Lifecycle Management Plan

Lifecycle planning describes the approach to maintaining an asset from construction to disposal. It involves the prediction of future performance of an asset, or a group of assets, based on investment scenarios and maintenance strategies.

Council's current approach to managing and operating Council's wastewater assets is transitioning to a more proactive approach as Council seeks to continually improve its knowledge on performance, changing requirements and service demands.

Council is always striving to improve its approach to lifecycle management to make sure it delivers on Council's service commitments in the most cost effective and efficient manner.

## 1.6. Financial Summary

Based on Council's current forecasting, the renewal demand of existing wastewater assets over the next ten (10) years is **$15.4 million** or **$1.54 million** on average per year. This total renewal demand is inclusive of ***$8* million** of renewal backlog.

Council's Long-Term Financial Plan (adopted June 2023) has currently allocated **$10.5 million** which means Council is only funding **68%** of Council's required renewal over the next 10 years. The following graph shows the financial summary of wastewater assets.

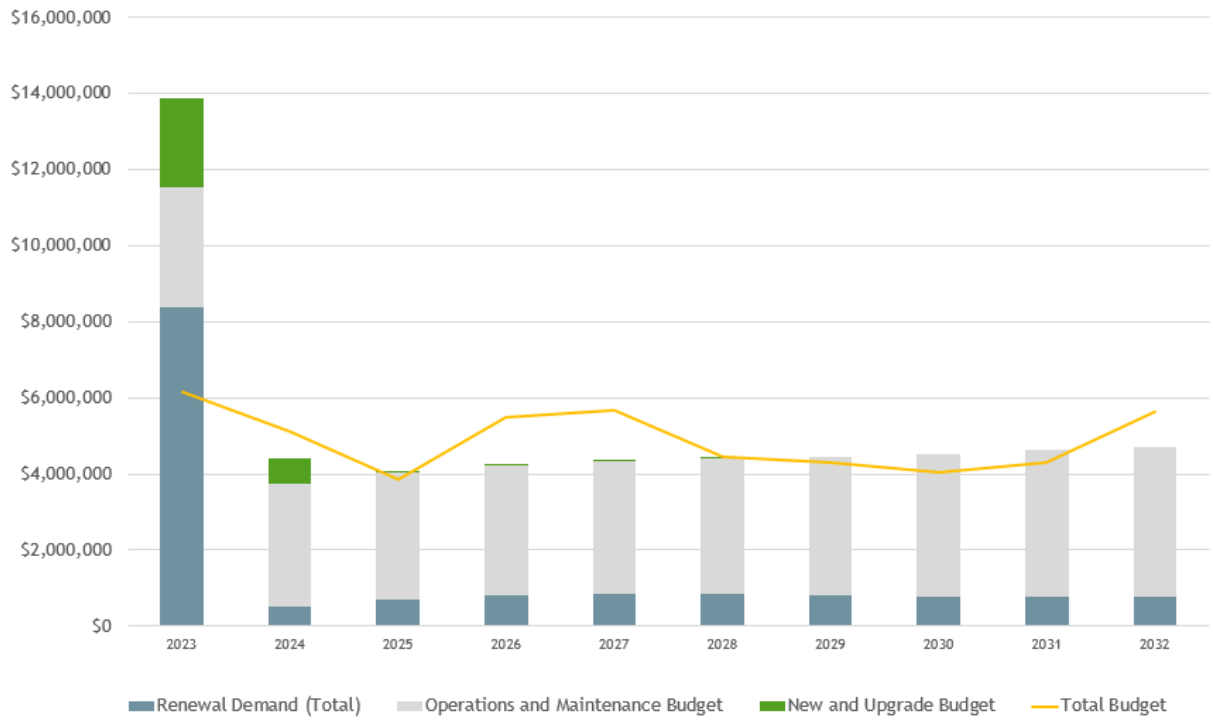



**Figure 1: Financial Summary - Wastewater Assets**

## 1.7. Council's priority

Council will continue to inspect and proactively maintain Council's wastewater assets to ensure they are safe and functional within the current levels of service. Council also needs to prioritise renewals, upgrades, expansion and adding new wastewater assets to Council's wastewater asset base according to priorities and annual budget allocations and to ensure wastewater assets comply with all relevant statutory requirements and Australian Standards.

Council will continue to work with local community, industries, businesses to press for more funding from both state and federal government to ensure Leeton Shire can continue to grow.

## 1.8. Risk Management

There are several risks that need to be carefully managed in order to maintain Council's asset base to the expected standards and continue to provide the current level of service. The main risks are:

- Limited resourcing to enable the implementation of annual maintenance and inspection programs.
- Limited information to enable Council to plan for the timely renewal and maintenance of wastewater assets.
- Inadequate funding allocation for renewal of wastewater assets.
- The Leeton sewer treatment plant is nearing its capacity limits and funding allocations for augmentation need future consideration.
- Safety Considerations.

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

- Developing and implementing a planned maintenance and inspection program.
- Undertaking master planning to identify the scope and the cost estimates of treatment plant augmentation.
- Continuing to implement Liveable Leeton 2035 and supporting strategies to guide development and enhancement of Wastewater Assets.
- Designing Council's assets to achieve maximum economical lives.
- Practising safe work methods/protocols and following health and safety guidelines.

## 1.9. Improvement Plan

This Wastewater Asset Management plan has identified a number of actions to improve overall management of wastewater assets.

Some of these actions include:

- Review Council's resourcing and funding strategies.
- Implementation of the asset management information system and works management system.
- Implementation of cyclic condition assessment programs.
- Development of renewal programs based on asset condition.
- Development and implementation of planned maintenance and inspection programs.

# 2. INTRODUCTION

## 2.1. Background

Leeton Shire is located in southwest New South Wales, 584km from Sydney, 470km from Melbourne and 371km from Canberra. Leeton is the birthplace of the Murrumbidgee Irrigation Area and was purposely built as part of the Murrumbidgee Irrigation Scheme.

The Local Government Area covers 1,167km2 and has a population of 11,452 (ABS, 2021). Leeton is the second largest regional centre in the Western Riverina region and plays an integral role in value-added agricultural processing, agriculture, education and research, transport, and logistics. Leeton Shire Council includes the towns of Leeton, Yanco and Whitton and the villages of Murrami and Wamoon.

Council has about 100 kilometres of sewer mains, 3 wastewater treatment plants, 42 sewer pump stations, and 1494 manholes, vents, and end caps. These assets are central to providing an effective wastewater service.


**Figure 2: Leeton Shire Council Area**

## 2.2. Purpose of the Plan

This Asset Management Plan covers a 10-year horizon and is intended to demonstrate how Council will support its vision in the provision of community assets to plan, develop and maintain infrastructure that is sustainable. This is achieved by applying the principles of responsible asset management planning, the objective of which is to deliver the required level of service to existing and future customers in the most cost-effective way.

The purpose of the Asset Management Plan is to ensure Council's wastewater assets fulfil their intended purpose and life expectancy at the most economical cost to the community. It balances financial, design, landscape, architectural and technical practices with community expectations to achieve this purpose.

The key objectives of this plan are to:

- Provide a plan to convey the long-term planning and strategy for the management of Council's wastewater assets.
- Improve Councils understanding of service level standards and options, while improving customer satisfaction and organisational image.
- Identify optimal whole of lifecycle costs to provide target levels of service.
- Provide the basis for improved understanding and forecasting of asset related management options and costs to meet funding demands.
- Clearly justify long term works programmes and evidence of future funding requirements.
- Manage the environmental and financial risks of asset failure.

## 2.3. Asset Management Plan Structure

This Asset Management Plan has been prepared using good practice guidance from the *ISO55000 - Asset Management standard, International Infrastructure Management Manual* and has been developed based on existing processes, practices, data, and standards. We are committed to striving towards best appropriate asset management practices and it is recognised that this Asset Management Plan will need to be updated periodically to reflect changes to management of Council's assets.

It is intended that Council's Asset Management Plans should always reflect as closely as practicable actual practices used in managing its assets. Only in this way will Council be best able to ascertain its long-term financial needs for delivering sustainable assets and services.

## 2.4. Council's Wastewater Assets

Council operates three separate wastewater systems; the separate systems are organised into catchments comprises a network of reticulation pipes, carrier mains, pressure mains, pumping stations and a treatment plant.

The following table shows the summary of Council's wastewater assets.

| Asset Class | Asset Type | Asset Quantity |
|---|---|---|
| **Wastewater** | Sewer Mains | 100 km |
| | Wastewater Treatment Plants | 3 |
| | Sewer Pump Stations | 42 |
| | Manholes/Vents/End Caps | 1494 |

**Table 1: Summary of Wastewater Assets**

**Leeton Sewerage Treatment Plant**

Leeton Sewerage Treatment Plant, now powered by solar, is currently based on a conventional biological trickling filter combined with an Extended Aeration Tank with a total biological capacity of 27,000 EP (equivalent persons). The treated effluent is located next to and discharged into the RAMSAR listed wetland Fivebough Wetland, under license from the NSW Environment Protection Authority (EPA).

**Yanco Sewerage Treatment Plant**

Yanco Sewerage Treatment Plant is based on "Pasveer Channel" type of aeration treatment system, located in Houghton Road and has a capacity of 1000 EP (equivalent persons). The volume of sewerage treated is approximately 60 megalitres per year. Treated effluent is used for on-site watering of the surrounds, with minimal discharge into the Murrumbidgee Irrigation Drainage System in River Road, under license from the NSW Environment Protection Authority (EPA).

**Whitton Sewerage Treatment Plant**

Whitton Sewerage Treatment Plant is based on an oxidation pond treatment system with treated effluent discharging into an evaporation area, with no discharge off-site. The plant has a designed capacity of 500 EP (equivalent persons).

# 3. STRATEGIC ALIGNMENT

This Asset Management Plan is aligned with Asset Management Policy, Strategic Asset Management Plan (SAMP) and Community Strategic Plan. The objective of this asset management plan is to support the delivery of the Liveable Leeton 2035 Community Strategic Plan.

The following diagram shows the Integrated Planning and Reporting (IP&R) framework which helps deliver the community, Council and Government aspirations.

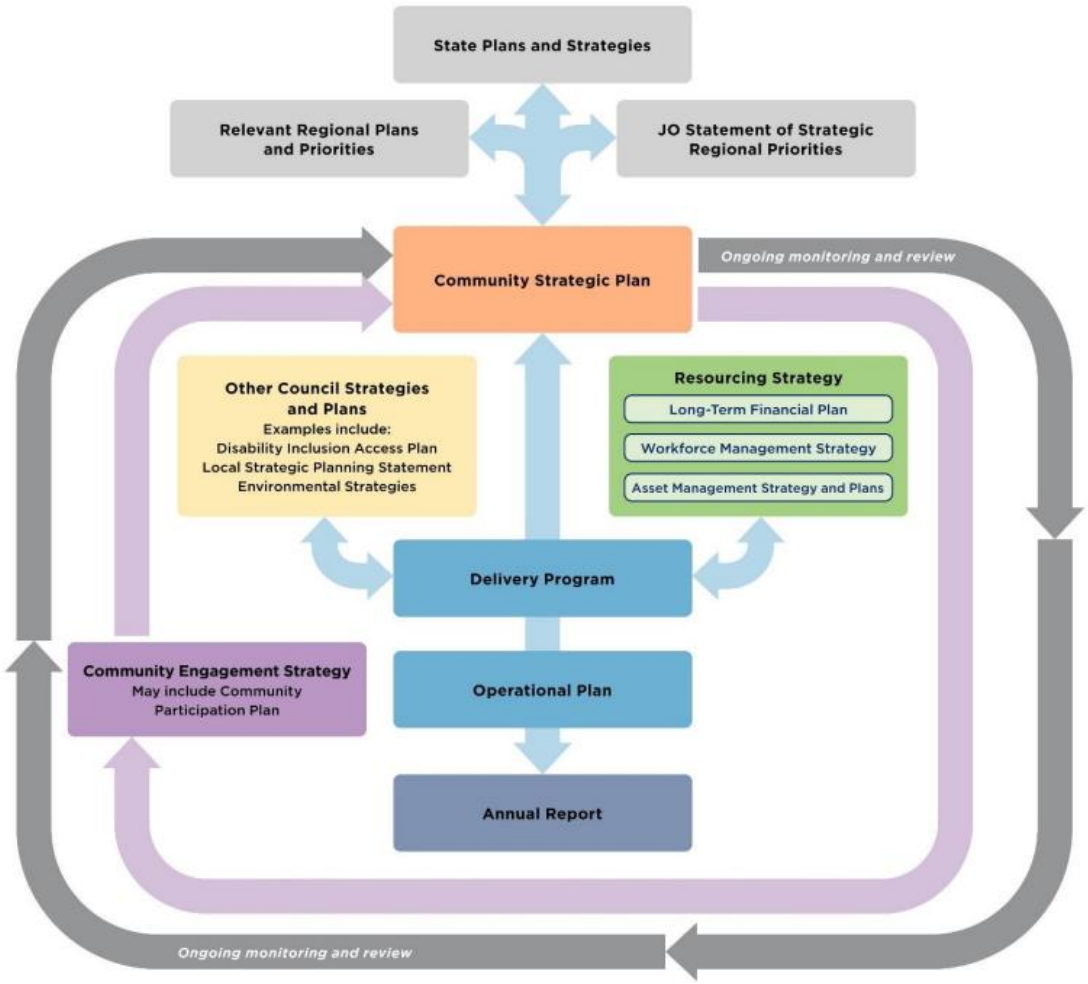



**Figure 3: Integrated Planning & Reporting Framework – Leeton Shire Council**

## 3.1. Strategic Goals and Objectives

Liveable Leeton 2035 is Leeton Shire's Community Strategic Plan. It outlines the community's aspirations and long-term vision for Leeton Shire. The vision for liveable Leeton 2035 is.

***"We are a healthy, safe and connected community that respects people and the environment, enjoying active lives in a strong local economy underpinned by quality, accessible infrastructure, reliable water supplies and strong leadership".***

It has been prepared by Council in collaboration with, and on behalf of, residents, other levels of government and agencies. Responsibility for meeting the long-term community vision and desired outcomes rests with everyone.

Liveable Leeton 2035 Community Strategic Plan not only provides a clear vision it also sets out the priority steps Council and others can take towards achieving that vision so that we can work together to make Leeton Shire the place we want it to be.

Liveable Leeton 2035 makes a commitment to outcomes and priority initiatives across several strategic objectives that align with the Community Vision. The Community Strategic Plan is broken into five focus areas and for each focus area there is a set of outcomes.

The five focus areas are:

- FOCUS AREA 1. A connected, inclusive, and enriched community (Cc)
- FOCUS AREA 2. A safe, active, and healthy community (Sc)
- FOCUS AREA 3. A thriving regional economy (Ec)
- FOCUS AREA 4. A quality environment (En)
- FOCUS AREA 5. Strong leadership and civic participation (L)

Effective asset management supports the strategic objectives and outcomes of the Liveable Leeton 2035 and the delivery of sustainable services and programs. This Asset Management Plan is integrated with Liveable Leeton 2035 and provides a view (both strategic and in financial terms) of how Council proposes to manage the wastewater assets that its owns and controls.

### 3.1.1. Liveable Leeton 2035 Strategic Objectives – Wastewater Assets

The following table shows Shire's relevant strategic objectives for wastewater service and assets to achieve the Liveable Leeton 2035 vision.

| Focus Area | Strategic Community Objective | Outcome |
|---|---|---|
| **A safe, active, and healthy community (Sc)** | Sc1.2 Take action to safeguard public health and safety. | Our community is safe to live in and move about. |
| **A quality environment (En)** | En2.2 Mitigate the impacts of climate change reduce Council's carbon footprint and apply sustainable energy solutions. | We live sustainably, use Council's resources responsibly and have adapted to climate change. |
| | En.3.3 Provide wastewater systems and services in urban areas. | Council's built environment is attractive and serviceable. |
| | En.4.2 Intelligent land use planning and utilities planning to meet the needs of a growing population, with consideration for the environment and future generations. | We balance the needs of our natural and built environments. |
| **Strong leadership and civic participation (L)** | L1.1 Provide clear, accessible, relevant information to our community. | We are well informed and engaged in decision-making. |
| | L1.2 Actively engage with and seek direction from our community and other stakeholders. | |
| | L2.2 Advocate on behalf of the community to ensure the long-term sustainability of our region and lifestyle. | Our leaders speak out for the good of our community. |
| | L3.1 Develop and maintain relationships and partnerships for the benefit of the community. | We work together to achieve our goals. |
| | L4.1 Provide and promote opportunities for community involvement. | We are active community members who recognise we all have a role to play. |
| | L5.1 Practice sound financial and resource management. | Our Council operates efficiently and effectively. |
| | L5.2 Maintain a framework of up-to-date plans, policies, procedures, systems, and service standards. | |

| | | |
|---|---|---|
| | L5.3 Sustainably manage our assets and infrastructure to ensure they are fit for their current purpose and are maintained for future generation. | |
| | L5.4 Effectively manage risk, quality assurance, and work health and safety. | |
| | L5.5 Deliver high quality customer service. | |
| | L6.1 Provide effective disaster prevention/mitigation, emergency management and disaster recovery services. | We demonstrate leadership in the face of disaster. |

**Table 2: Strategic Community Objectives – Wastewater Assets**

## 3.2. Liveable Leeton 2035 Alignment to Council Services & Key Stakeholders – Wastewater Assets

The following table presents the activities and the key stakeholders involved in achieving relevant strategic objectives of Liveable Leeton 2035.

| Liveable Leeton Strategic Objective | Service/Activities | Key Stakeholders |
|---|---|---|
| Sc1.2 | Compliance programs for breaches of legislation.<br>On-site Wastewater management inspections. | Council, Department Planning, Housing & Infrastructure |
| En2.2 | Energy Masterplan, Shire activation | Council, local businesses, farmers, Department Planning, Housing & Infrastructure, Federal Government |
| En3.3 | Wastewater systems | Council |
| En4.2 | Planning and development services, Leeton Local Environment Plan, Leeton Strategic Planning Statement, Development Control Plan | Council, Department Planning, Housing & Infrastructure developers |
| L1.1 | Media releases, Council News, reports, social media, Council Meeting Business Papers | Council, State and Federal Governments, media outlets |
| L1.2 | Engagement activities, advisory groups | Council, State and Federal Governments, community members |
| L2.2 | Advocacy | Council, Members of Parliament (State & Federal), RAMJO |
| L3.1 | Community Wastewater | Council, State and Federal Governments and their agencies, businesses, community groups, Department Planning, Housing & Infrastructure – Crown Lands and Department of Climate Change, Energy, the Environment and Water - NSW Parks, and Wildlife |
| L4.1 | Working groups | Council, State and Federal Governments and their agencies |
| L5.1 | Financial management, human resource management | Council, State Government |
| L5.2 | Governance, integrated planning and reporting, information technology, customer service | Council, Office of Local Government |
| L5.3 | Corporate Services – Finance, Operations – roads and drainage, waste, water and wastewater, parks, and gardens | Council |
| L5.4 | Work health and safety, risk management, quality control | Council, Audit, Risk and Improvement Committee, Safe Work Australia |

| | | |
|---|---|---|
| **L5.5** | Customer Service | Council |
| **L6.1** | Disaster planning, disaster recovery, emergency services support, business continuity | Council, State and Federal Governments, Murrumbidgee Irrigation, Rural Fire Service, NSW Fire Brigade, NSW Reconstruction Authority, NSW Police, NSW Health/MLHD |

**Table 3: Services Delivered by Wastewater Assets**

## 3.3. Council Policies, Strategies and Plans Relevant to Wastewater Assets

The following table shows various Council policies, strategies and plans that are relevant to and support management of wastewater assets.

| Policy/Strategy/Plan |
|---|
| • **Asset Management Policy 2022**<br>• **Revenue Policy**<br>• **Long Term Financial Plan**<br>• **Strategic Asset Management Plan 2022-2032**<br>• **Delivery Program 2022–2025**<br>• **Operational Plan 22/23**<br>• **Workforce Management Strategy 2022-2025**<br>• **Procurement Policy**<br>• **Risk Management Policy**<br>• **Business Continuity Plan**<br>• **Engineering Guidelines**<br>• **Development Control Plan (DCP)**<br>• **Liquid Trade Waste Policy 2022** |

## 3.4. Goals and Objectives of Asset Ownership

Councils goal for managing infrastructure assets is to meet the defined range and levels of service in the most cost-effective manner for present and future consumers. By achieving the most cost-effective approach, we will ensure affordability and liveability, contributing to a vibrant, growing, and connected community.

The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance.
- Managing the impact of growth through demand management and infrastructure investment.
- Taking a lifecycle approach to developing cost-effective management strategies that meet the defined levels of service.
- Identifying, assessing, and appropriately controlling risks.
- Linking to a long-term financial plan that identifies required expenditure and how it will be allocated.

### 3.4.1. Ownership and Stakeholder Arrangements

The ownership and management of wastewater assets within the municipal area can take various forms and involves various public entities. The number of stakeholders involved in the provision of wastewater services within the Shire indicates why engagement and co-ordinated decision making is vital for successful planning and delivery.

# 4. LEVELS OF SERVICE

Levels of Service is the defined quality of service of an asset. Understanding the required level of service is vital for lifecycle management, as this largely determines an asset's development, operation, maintenance, replacement, and ultimate disposal. In developing the levels of service outlined in this Asset Management Plan, Council has given due regard to the following:

| | |
|---|---|
| ***(Customer Expectations)*** | These are the expectations of the customers/community. These expectations must be balanced with the community's ability and desire to pay (balancing risk, cost, and performance). |
| **Strategic Goals and Objectives *(Strategic Drivers)*** | The lifecycle management of assets (service offered by assets, service delivery mechanism and specific levels of service that Council wishes to achieve) will be consistent with goals and objectives stated in the Community Vision and Council Plan. |
| **Legislative Requirements *(Mandatory Requirements)*** | These are the objectives and standards that must be met, set by legislation, regulations, Codes or Practice, etc that impact the way assets are managed. |
| **Industry Standards and Guidelines *(Operating Requirements)*** | Design and construction standards and guidelines that provide the principles and minimum standards for an asset. |

**Table 4: Key Levels of Service Drivers**

## 4.1. Customer Research and Expectations

Leeton Shire Council 's Community Strategic Plan was prepared with the input of many people from the Leeton Shire community. Starting as early as 2020, a range of community engagement activities were undertaken to give Leeton Shire residents the opportunity to list what they value now, what they'd like to see changed and what they'd like Leeton Shire to look like in 2035.

In July 2021, community engagement sessions were held in Leeton, Murrami, Wamoon, Whitton, and Yanco. Also in July 2021, emails requesting input into the development of the Community Strategic Plan were sent to a range of community groups, government agencies and other organisations identified as having a stake or a role to play in Leeton Shire. Based on the customer research and expectations, 5 areas of focus have been identified in Liveable Leeton 2035:

- A connected, inclusive, and enriched community
- A safe, active, and healthy community
- A thriving regional economy
- A quality environment
- Strong leadership and civic participation

A number of Strategic objectives to realise these focus areas have been identified and the strategic objectives relevant to wastewater assets are documented in Chapter 3 of this plan. These strategic objectives help identify strategic direction for wastewater assets to realise Liveable Leeton 2035.

### 4.1.1. Community Consultation

Leeton Shire Council undertook telephone surveys of its residents to gauge the community satisfaction of assets at an operational level. The most recent community satisfaction survey was conducted in June 2021.

Based on the 2021community consultation, the following areas related to wastewater assets have been identified as the priorities for the next 4 years for the Leeton community

- Better communication and involvement with the community/a proactive Council.

### 4.1.2. Community Satisfaction/Importance Rating

Wastewater services have not been rated as highly important by the community. However, Council understands that it is a service that is critical to the health of the community, therefore, Council is committed to maintain its efforts to supply that service to a high standard. There are still some urban areas that are unsewered and Council will continue to identify and address these.

It should be highlighted that the Leeton community support growth and want to see more housing developed. This can't happen without getting a full understanding of how new houses must be serviced with water and sewer. Therefore, there will be a strong focus on sewer and water strategic planning over the period of 2022-25.

## 4.2. Legislative Requirements

There are many legislative requirements relating to the management of assets. The following table shows a list of laws applicable to wastewater assets.

| Legislation | Requirement |
|---|---|
| ***Local Government Act 1993.***<br><br>***Local Government Amendment (Planning and Reporting) Act 2009.***<br><br>***Local Government (General) Amendment (Planning and Reporting) Regulation 2010.*** | Sets out role, purpose, responsibilities, and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery. Including integrated planning requirements for NSW Local Governments which cover asset management planning, long term financial plan and community strategic plan integration. |
| ***Public Health Act 2010*** | The Act addresses a range of public health matters, such as notification of diseases and conditions and the regulation of areas that have the potential to affect public health, such as drinking water, water cooling systems, skin penetration and public swimming pools. The Act sets out a series of legislative requirements governing a wide range of public health issues including water. |
| ***Environmental Planning and Assessment Act 1979.***<br><br>***Environmental Protection Act 1994***<br><br>***Protection of the Environment Operations Act 1997*** | Sets out guidelines for land use planning and promotes sharing of responsibilities between various levels of government across the State. |
| ***Work Health and Safety Act 2011*** | Sets out roles and responsibilities to secure the health, safety, and welfare of persons at work and covering injury |

| | |
|---|---|
| ***Work Health and Safety Regulation 2017*** | management, emphasising rehabilitation of workers particularly for return to work. Organisations are to provide a safe working environment and supply equipment to ensure safety. |
| ***Civil Liability Act 2002 and Civil Liability Regulation 2019*** | The Act establishes the principle of negligence in pursuit of civil claims. |
| ***Crown Lands Management Act*** | Act to provide for the reservation of Crown Lands for certain purposes and for the management of such reserved lands and for other purposes. |

**Table 5: Legislations Relevant to Wastewater Assets**

## 4.3. Industry Standards and Guidelines

The majority of standards applicable to wastewater infrastructure are covered by Council Standard Drawings, guidelines or design standards, along with other industry standards.

| Standards and guidelines | Requirement |
|---|---|
| **AS3500 - Plumbing and drainage Part 2: Sanitary plumbing and drainage** | This Standard specifies the requirements for the design and installation of sanitary plumbing and drainage. It applies to new installations as well as alterations, maintenance, additions, and repairs. |
| **Water Services Association Australia 02 – Gravity Sewer – 2014** | Addresses the planning, design, and construction of sewerage infrastructure, and incorporates much of the additional material published by utilities. |
| **Leeton Shire Council Engineering Guidelines** | As per guidelines. |
| **Leeton Shire Council Building in the Vicinity of Sewer and trunk water Mains Guidelines** | As per guidelines. |
| **SafeWork NSW – How to Safely Remove Asbestos Code of Practice December 2022** | An approved code of practice provides practical guidance on how to achieve the standards of work health and safety required under the WHS Act and the Work Health and Safety Regulation (the WHS Regulation) and effective ways to identify and manage risks. |
| **NSW liquid trade waste Guidelines 2021** | Provides guidance on Councils trade waste policy |

**Table 6: Guidelines and Standards Relevant to Wastewater Assets**

## 4.4. Level of Service

Levels of service are generally set based on legislative and compliance obligations, and historical standards that Council used in the past. In future, Council expects to undertake further community engagement to validate levels of service.

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

The level of service provided by wastewater assets are documented in Operational Plan 22/23 and the Delivery Program 2022-25.

### 4.4.1. Community Levels of Service

**Community Levels of Service** measure how the customer receives the service and whether value to the customer is provided. Community 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 following table shows widely used customer service levels and measures to assess the level of service provided to the community.

| Activity | Performance Measure | Target Performance | Outcomes as at January 2024 |
|---|---|---|---|
| **Operate and maintain sewage treatment and effluent discharge plants and reticulation services at Leeton, Yanco, and Whitton** | Number of noncompliance in relation to effluent discharge | < 4 | **Leeton: < 3**<br>**Yanco: 0** |
| | Percentage compliance with EPA license. | 100% | **87%** |
| **Install and commission Wamoon Wastewater Scheme** | Percentage of houses connected by June 2023 | 90% | **95%** |
| **Continue implementation of Council's Liquid Trade Waste program** | Number of businesses inspected | ≥ 30 | **20** |
| | Percentage of all currently discharging businesses with approvals issued | ≥ 80% | **91%** |
| | **Amount of penalty payments from noncomplying discharges** | **No target – report when occurs** | **11** |

**Table 7: Customer Level of Service**

## 4.5. 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 (Reliability, Safety, and Responsiveness) | The regular activities to provide services. |
|---|---|
| **Maintenance (Reliability, Safety, and Responsiveness)** | 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. |

| | |
|---|---|
| **Renewal (Condition and Cost)** | The activities that return the service capability of an asset up to that which it had originally. |
| **Asset Improvements (Availability, Function, Sustainability and Capacity)** | The activities to provide a higher level of service or a new service that did not exist previously. |

Council's Delivery Program 2022-2025 is Council's statement of commitment to the community regarding what Council will do during its term of office to bring the community closer to achieving its long-term goals using the resources identified in the Resourcing Strategy. It turns the community's strategic goals into actions in asset operations, maintenance, renewal, and improvements.

Its overall purpose is to program the strategies and activities Leeton Shire Council will undertake to deliver the aspirational goals of the community, as set out in the Liveable Leeton 2035 Community Strategic Plan.

Leeton Shire Council's Operational Plan 22/23 details the projects, programs, and actions to be undertaken in the 2022/23 financial year to achieve the Delivery Program commitments. Operational Plan 22/23 provides performance measures and targets expected to be provided by the Council in delivering Delivery program 2022-2025.

| Activity | Performance Measure | Target Performance | Outcomes as at January 2024 |
|---|---|---|---|
| **Operate and maintain sewage treatment and effluent discharge plants and reticulation services at Leeton, Yanco, and Whitton** | Percentage of scheduled maintenance program completed | 100% | **15%** |
| | Percentage of scheduled capital program completed | 100% | **15%** |
| | Volume of sewage treated at each sit | No target – report volume | **Leeton: 208Ml**<br>**Yanco – 1.14Ml** |
| **Install and commission Wamoon Wastewater Scheme** | Percentage of sewer network construction | 100% | **95%** |
| **Minimise number of wastewater main bursts** | Number of bursts per year | Reduction in number of bursts each year | **0** |
| **Complete an Integrated Water Cycle Management (IWCM) Strategy that complies with new regulations and requirements** | Percentage completion of IWCM | 100% | **60%** |
| **Complete a sewer services strategy** | Percentage completion of Sewer Services Strategy | 100% | **60%** |
| **Continue effective Asset Management Planning (AMP) and GIS Service** | **Percentage completion of revaluation and condition assessments** | **100%** | **80%** |

**Table 8: Technical Levels of Service**

# 5. FUTURE DEMAND

The objective of asset management is to create, operate, maintain, rehabilitate, and replace assets at the required level of service for present and future customers in a cost effective and environmentally sustainable manner. The Asset Management Plan must therefore forecast the needs and demands of the community in the future and outline strategies to develop the assets to meet these needs.

## 5.1. Demand Forecasts and Impact on Assets

The present position, demand drivers, and their potential impacts on future service delivery and use of assets are presented in table below.

| Demand Drivers | Present Position | Projection | Impact |
|---|---|---|---|
| **Population Change** | 11,452 in 2021 | 12,700 by 2041 | **Future population growth will generate additional demand for wastewater infrastructure. However, demand will not be greatly impacted by the growth.** |
| **Increase in Level of Service** | Increasing demand for new Wastewater schemes to connect properties currently on septic systems.<br><br>Evolving design standards for wastewater assets | Demand to increase.<br><br>Further improvements to design standards to bring wastewater assets to current standards | **Expansion of current level of service**<br><br>**Increased level of service and economical assets** |
| **Climate Change** | The Bureau of Meteorology and CSIRO 2022 State of the Climate report outlines the following impacts of climate change in Australia:<br>Australia's climate has warmed by an average of 1.47 ± 0.24 °C since national records began in 1910. Sea surface temperatures have increased by an average of 1.05 °C since 1900. This has led to an increase in the frequency of extreme heat events over land and sea.<br>The duration, frequency and intensity of extreme heat events have increased. | Wastewater assets are impacted by a range of changing climate conditions:<br>More intense and frequent rainfall<br>More severe drought periods.<br>Changes to humidity levels<br>Longer and more intense heat spells<br>Changes to ground water levels | **Higher levels of deterioration may result in increased asset maintenance requirements and changed schedules to maintain asset in a serviceable condition, resulting in increased maintenance costs.**<br><br>**More intense and frequent rainfall events and high ground water levels cause capacity issues, pressure on wastewater treatment and frequent environmental discharge.**<br><br>**water quality deterioration due to increased uncontrolled wastewater discharges.**<br><br>**Frequent drying and wetting of soil causing stabilisation issues in buried pipes.** |

| | | | |
|---|---|---|---|
| **Council Financial Sustainability** | **Utility charges are the main source of funding for renewal, upgrade, and new projects.** | **May result in funding constraints for future projects.** | **Achieving equitable distribution of resources**<br><br>**Ensure community receives maximum benefit from the investment in wastewater infrastructure.** |

**Table 9: Demand Drivers, Projections, and Impact on Service**

## 5.2. Demand Management Strategy

The table below presents the strategies to meet the current projected demands on wastewater assets.

| Demand | Demand Management Activities |
|---|---|
| **Population Change/Increase in Level of Service** | Complete and implement a sewer services strategy. |
| **Increased Community Expectations**<br><br>**Achieve Financial Sustainability** | Prepare long term wastewater asset maintenance and renewal programs according to priorities and funding availability.<br><br>Review asset criticality, inspection programs and maintenance programs to identify improvements.<br><br>Conduct level of service analysis including community desired level of service and review affordability and risks.<br><br>Ensure that the Financial Plan and Asset Plan are integrated and reflect future asset needs. |
| **Adapting to climate change** | Undertake impact analysis of climate change on wastewater assets.<br><br>Undertake flood studies to identify impact on wastewater assets. |
| **Design Standards** | Ensure design standards take into consideration climate change, local conditions, increasing demand and whole of life costings. |

**Table 10: Demand Management Strategies**

# 6. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council plans to manage and operate the assets at the agreed levels of service while managing life cycle costs.

Council is the custodian of a portfolio of wastewater assets with a replacement value of $61.7 million as reported in the financial statements as at 30 June 2021. These assets require significant and ongoing planning and management to meet both stakeholder and legislative requirements within the financial resources available to us. Our wastewater portfolio is summarised in the table below.

| Asset Class | Asset Type | Asset Quantity | Replacement Value as at June 2021 | Written Down as at June 2021 |
|---|---|---|---|---|
| **Wastewater** | Sewer Mains (Inc. Earthworks and Relining) | 100km | $21,685,414 | $16,178,956 |
| | Manholes/Vents/End Caps | 1494 | $10,043,544 | $5,313,485 |
| | Sewer Pump Stations | 42 | $11,423,040 | $6,185,766 |
| | Sewer Treatment Plants | 3 | $18,574,154 | $8,231,533 |
| | Total | | $61,726,152 | $35,909,741 |

**Table 11: Summary of Wastewater Asset Information**

## 6.1. Asset Data

Council is committed to maintain the currency of all wastewater asset data. There are number of initiatives currently underway (e.g.: wet well inspection program, manhole condition assessment program) to improve asset data and systems to centralise wastewater asset information. Actions include:

- Capturing asset condition information and collecting attribute data.
- Configuration of "Univerus Assets" (Asset Management Information System) and migration of asset data including condition and valuation information.
- Configuration of "Univerus Assets" works order management system to streamline work order management. Actions include:

These initiatives will place the Council in a better position for life cycle management of wastewater assets. It should also be noted that Operation and Maintenance (O&M)) manuals for our treatment plants and pump stations should be developed.

**Improvement Opportunity**

- Continue to review wastewater asset information for accuracy and completeness and identify gaps.
- Develop and implement asset condition assessment and data collection program.
- Upload all wastewater asset data onto "Univerus" Assets.
- Identify and develop/obtain O&M manuals for treatment plants and pump stations.

## 6.2. Asset Condition

Asset condition is a measure of the health of an asset and is a key consideration in determining remaining useful life, as well as predicting how long it will be before an asset needs to be repaired, renewed, or replaced. Asset condition is also an indicator of how well it can perform its function. Condition data is valuable for developing long term funding scenarios for the strategic planning of our budgets.

We use a 1 to 5 condition rating system for council's wastewater assets as described in table below.

| Score | Condition Rating | Characteristics |
|---|---|---|
| 1 | Very Good | Asset looks new or very close to as new. |
| 2 | Good | Asset is no longer in new condition. Only minor maintenance may be required. |
| 3 | Fair/ Average | The asset is serviceable and in a satisfactory condition however some maintenance may be required to address aesthetic, safety, or functional issues. |
| 4 | Poor | Asset requires significant maintenance or replacement of the asset is required |
| 5 | Very Poor | Asset is physically unsound, and replacement is required |

**Table 12: Condition Rating System**

Council's condition grading system follows best practice guidance as provided by various industry standards including the *International Infrastructure Management Manual.* Condition data for Council's wastewater assets is recorded in valuation registers as at June 2020 have been used for renewal modelling. The following sections provide an overview of the condition of our wastewater assets.

**Current Condition - Sewer Mains**

Our sewer network has been relined within the last 10 years and is in a good condition. The planning of Asbestos Cement main replacement is currently being undertaken.

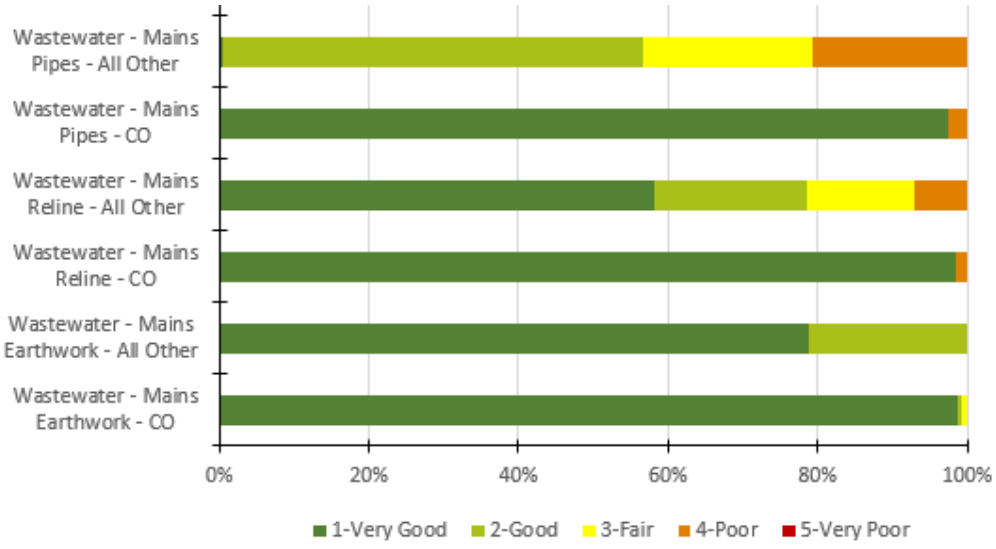



**Figure 4: Condition Profile – Sewer Mains**

**Current Condition - Sewer Manholes/Vents/End Caps**

About 57% of vents, 18% of end caps and 10% of manholes are in very poor condition and will require immediate intervention.

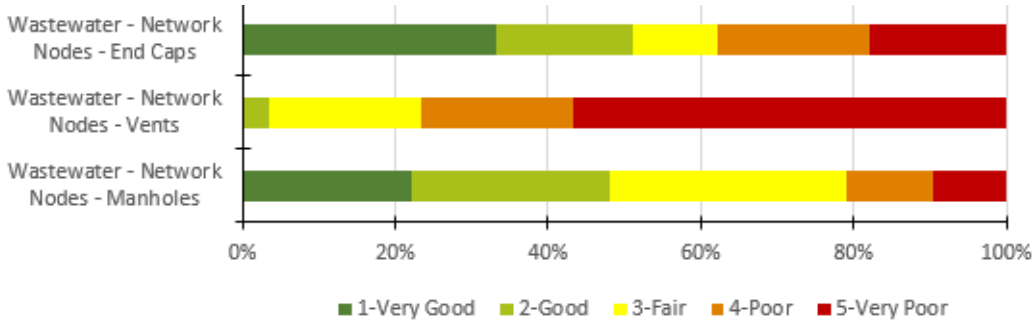



**Figure 5: Condition Profile – Sewer Manholes/Vents/End Caps**

**Current Condition – Sewer Pump Stations**

About 14% of pipes & metal work, 6% of switch boards, 10% of pumps and 3% of wet wells are in poor condition and require immediate intervention. The majority of the telemetry network is in very good condition and will not require any intervention soon apart from regular maintenance for upkeep.

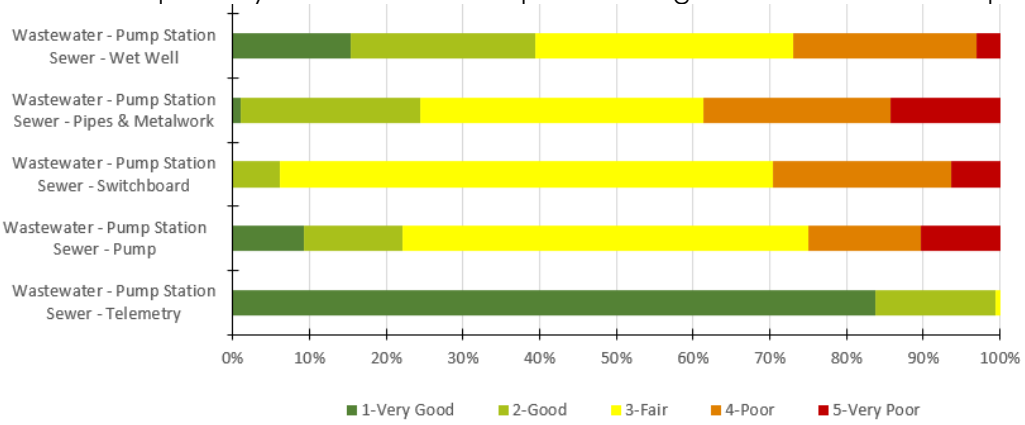



**Figure 6: Condition Profile – Sewer Pump Stations**

**Current Condition – Wastewater Treatment Plants**

The majority of our filtration plant assets are in good to fair condition. The following assets in the Leeton treatment plant are in poor to very poor condition and will require intervention following a condition assessment.

- Inlet works.
- Mechanical equipment.
- Sedimentation tank.
- Digestion tank.
- Filter tanks.

Current replacement values of these assets are about $5.3M and significant amount of investment will be required in the near future for renewal of these tanks.

All assets within Whitton and Yanco treatment plants are in very good to fair condition.

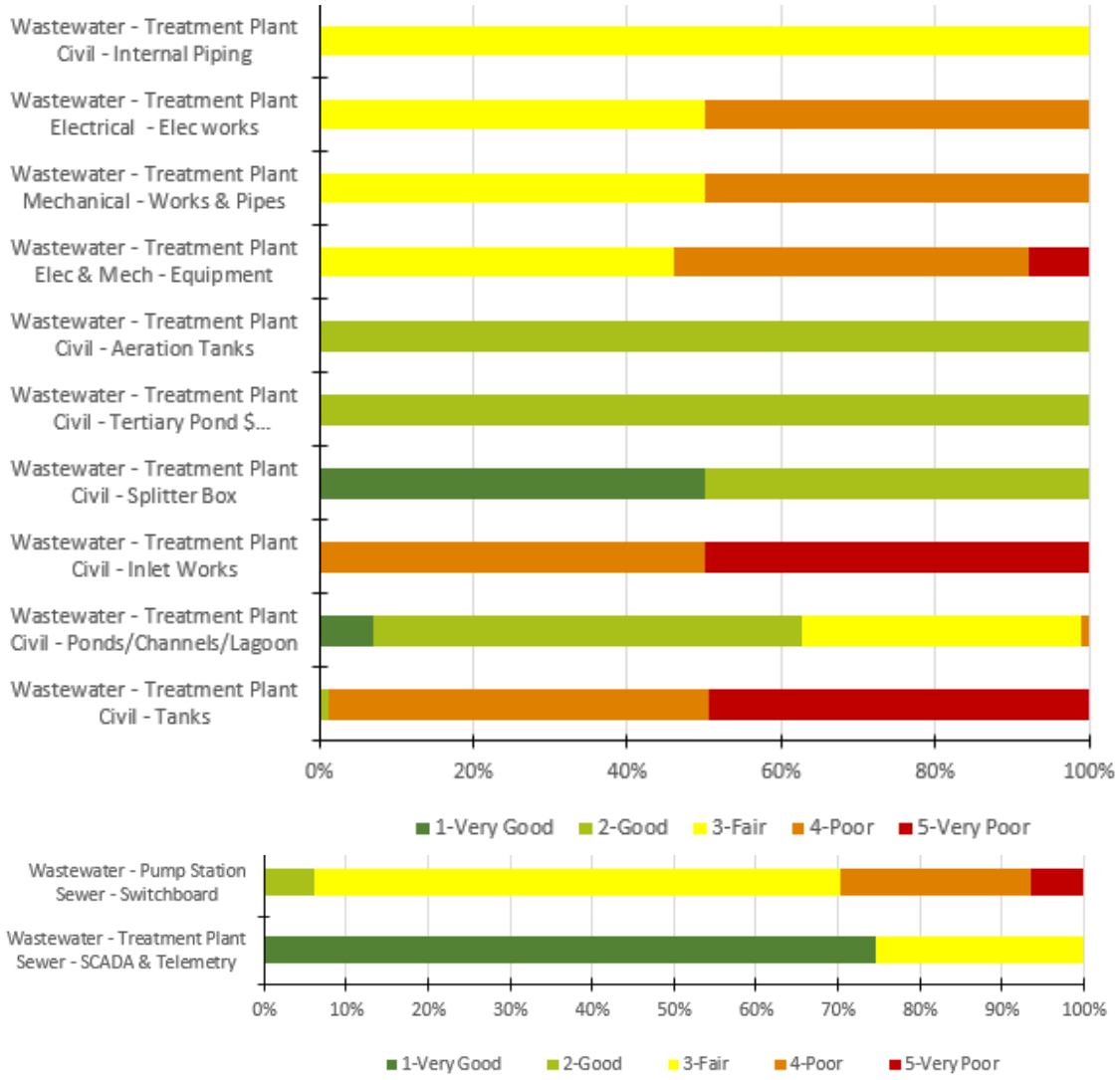



**Figure 7: Condition Profile - Wastewater Treatment Plants**

## 6.3. Asset Maintenance and Inspections

Leeton Shire Council carries out several maintenance and inspection programs to enable existing assets to operate to their service potential over their useful life. This is necessary to meet service standards, achieve target standards and prevent premature asset failure or deterioration. This is achieved by providing the optimum level of maintenance and care in a financially and environmentally sustainable manner.

Our objectives in maintaining and operating wastewater assets are:

- To maintain safety, amenity, and aesthetics of wastewater networks and assets to the satisfaction of Council and the community.
- To maintain and preserve the functionality and value of the existing assets.
- To provide and maintain a safe environment for the community.
- To work within the constraints of our financial capacity and resource capability, while displaying a reasonable 'duty of care'.
- To ensure the provision of excellent customer service and that customer requests are responded to quickly and efficiently.

### 6.3.1. Wastewater Asset Maintenance & Inspections

In order to carry out effective planning and competent management of our Wastewater assets, it is essential that maintenance and performance related information is collected through disciplined and regular inspections of the whole portfolio.

Some programs we currently undertake are listed below.

- Test & tag electrical equipment
- Pump service & maintenance - Every 12 months

Council's inspections and maintenance are predominantly reactive, and there are plans afoot to implement a planned maintenance and inspections program.

**Improvement Opportunity**

- Develop and implement planned maintenance and inspection program for wastewater assets.
- Identify resource requirements for implementation of planned maintenance and inspection program.

### 6.3.2. Future Operation and Maintenance Costs

The figure below outlines the forecast operations and maintenance budgets based on the understanding of the current levels of service delivered for our wastewater assets.

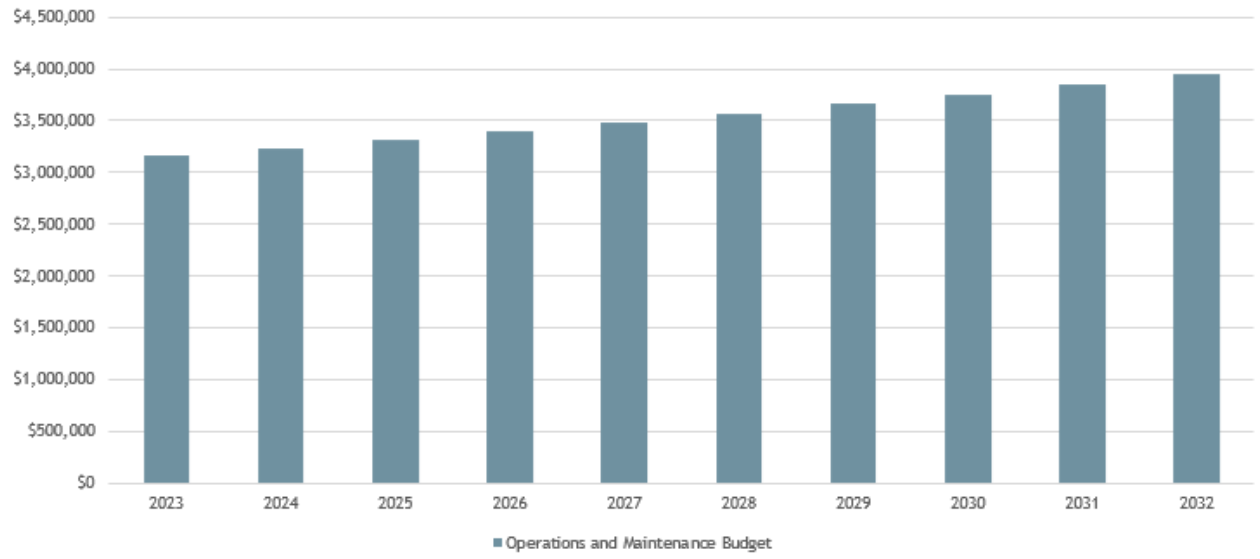



**Figure 8: Projected Operations and Maintenance Expenditure**

The total operations and maintenance budget over the next 10-years starting 2022/23 is **$35.4 million**. This is the required operations and maintenance budget to continue to deliver present service standards over the long term. An annual indexation rate of 2.5% has been applied to the forecast consistent with Council's Long Term Financial Plan. The forecast maintenance expenditure requirements comprise two components: routine maintenance and operations, and consequential maintenance. The routine program is made up of ongoing activities required to maintain the amenity, safety, and functionality of our wastewater networks.

Detailed analysis of the current levels of service compared to desired levels of service has not yet been undertaken. Council will need to review the budget allocations set aside for wastewater maintenance and operations within its Financial Plan. This is to make sure that they are adequate to continue to maintain current levels of service and to maintain safe and serviceable wastewater assets. Depending on funding availability, Council may also need to review its levels of service to ensure that they are affordable and financially sustainable.

**Improvement Opportunity**

- Review current funding allocations for wastewater asset operations and maintenance to ensure that that they are sufficient to deliver current levels of service and compare against any desired levels of service.

## 6.4. Wastewater Asset Renewal

Renewal is major work that does not increase the design capacity of an asset but restores, rehabilitates, replaces, or renews the asset to its original service potential. Work over and above restoring an asset to original service potential is an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs. Assets requiring renewal are identified using a combination of an analysis of the long-term financial needs at a portfolio level and other information that identifies specific assets that require renewal at a project level.

### 6.4.1. Renewal Strategy

Renewal strategies are based on assessing a range of factors to ensure the appropriate level of investment is targeted at the optimum time to ensure the assets remain fit for purpose and that renewal plans are efficient and effective.

The factors considered include the following:

- Criticality
- Maintenance and/or failure history
- Age
- Expected life
- Remaining useful life
- Condition (where known)
- Condition prediction
- Climate change factors and impacts affecting assets
- Geographical grouping
- Demand and use patterns
- Timing in relation to linked asset renewal plans

As a general principle the number and cost of repairs will determine the optimum timing to invest in the renewal of assets. Every time an asset is repaired it provides information about its performance and rate of deterioration and is a prediction of the optimum time to renew.

As the rate of repairs increase a prediction can be made about the best time to renew an asset to keep the cost of ownership at the lowest possible levels.

### 6.4.2. Renewal Standards

Renewal work is carried out in accordance with the current standards and specifications.

### 6.4.3. Renewal Ranking Criteria

In general, renewal works are prioritised and planned by assessing the following considerations:

- Safety issues.
- Physical condition.
- Risk and asset criticality.
- Community/user feedback.
- Location and use type and patterns.

The following indicators are generally used to determine the criticality of an asset:

- Consequences of failure.
- Use (high/medium/low) and subsequent impact on users.
- The total value representing the greatest net value.
- The highest average age relative to their expected lives.
- Identification in the Asset Management Plan as key cost factors.
- High operational or maintenance costs.
- Availability of an asset that would provide the equivalent service at a reduced operational cost if replaced with a modern equivalent.

Leeton Shire Council's renewal program development is based upon the principles set out in Council's Strategic Asset Management Plan (SAMP). Renewal planning is carried out utilising a predefined set of indicators as well as the technical expertise of staff.

These indicators, when placed into a weighted matrix, produce a prioritised lists of assets requiring renewal works. This list is then assessed by technical staff for accuracy and validity. Following Council approval, renewal programs are rolled into annual, and 4 year works programs.

Following the development of a 4 year works program (Delivery Plan), Council Officers begin selecting and working on the planning and development of the various renewal works as separate projects to be completed within the year / operational plan. See below for the breakdown of tasks:

- Development of a proposed 4 year works program with the budget as the limitation on a year's work.
- Council staff review this list (desktop exercise) for validation.
- Council staff review the first year of the program with a view to:
    - Assess for overlaps with upcoming upgrades or expansion (within or outside of the current asset class)
    - Promote or demote works from/to the year 1 program based on spatial economies (i.e. proximity of works), overlaps identified, and/or obvious errors within the matrix computation method.
- All works within the finalised year 1 program are costed and assessed prior to submission for delivery.

**Improvement Opportunity**

- Develop a capital work prioritisation framework and include renewal ranking criteria.
- Undertake cyclic condition assessments and develop renewal programs based on asset conditions.
- Align roads capital works program and sewer mains replacement program to avoid roads being replaced in quick succession.

### 6.4.4. Summary of 10-Year Wastewater Asset Renewal, Upgrade and New Program

The following table presents a summary of our 10-year wastewater asset renewal, upgrade, and new programs.

| | PROGRAM | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 10 Year Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Renewals | Pump Replacements | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| | Sewerage - Pump Stations | $80,000 | $537,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $617,000 |
| | Sewerage mains, manholes and vents | $0 | $0 | $190,000 | $190,000 | $190,000 | $190,000 | $190,000 | $190,000 | $190,000 | $190,000 | $1,520,000 |
| | Sewage pumping stations | $0 | $0 | $250,000 | $1,800,000 | $250,000 | $100,000 | $250,000 | $100,000 | $250,000 | $1,500,000 | $4,500,000 |
| | Sewage treatment plants | $0 | $0 | $0 | $0 | $1,650,000 | $500,000 | $200,000 | $0 | $0 | $0 | $2,350,000 |
| | Other (e.g. telemetry) | $200,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $200,000 |
| | Sewer Relining and investigation-Cedar /Railway/Ins Yanco | $70,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $70,000 |
| | Leeton Sewerage Tertiary Ponds Cleaning & Bank Repairs | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| | Aerator No 1 Overhaul | $0 | $0 | $65,000 | $65,000 | $65,000 | $65,000 | $0 | $0 | $0 | $0 | $260,000 |
| | Sewerage Mains - Sewer Mains Renewals | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| | Tertiary Pond | $40,000 | $260,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $300,000 |
| | Manhole Renewals | $100,000 | $175,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $275,000 |
| | Leeton STP - Renewal | $177,683 | $200,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $377,683 |
| Upgrades | Telemetry Upgrades - 2023 | $50,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $50,000 |
| | Telemetry Upgrades - 2024 | $0 | $50,000 | $15,000 | $15,000 | $15,000 | $15,000 | $0 | $0 | $0 | $0 | $110,000 |
| | Sewer Pump Station #27 Upgrade | $0 | $50,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $50,000 |
| | Sustainability projects | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| | Whitton STP - Solar Array Installation | $28,576 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $28,576 |
| | Solar Array_ Yanco SPT | $62,256 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $62,256 |
| | Renewable Energy LED Installation Upgrade | $43,500 | $200,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $243,500 |
| | Inlet Pipework Upgrade and Mixer lifting Equipment Replacement | $40,000 | $65,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $105,000 |
| New | Wamoon Sewerage Project - RESTART funded 18/19 | $1,950,000 | $327,359 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $2,277,359 |
| | Servicing Strategy - IWCM (Part funded) | $125,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $125,000 |
| | Almond Road Sewer | $30,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $30,000 |

**Table 13: 10 Year Renewal and Upgrade Budget -Wastewater Assets**

### 6.4.5. Renewal Modelling Assumptions

The analysis to determine future asset renewal requirements is based on the best available information held by the Council. The future funding forecasts will be revised and refined to best represent the performance of the asset base as the maturity of the asset management practices improves.

The renewal funding projections presented within this asset management plan are based on the following assumptions:

- The renewal costs are based on the asset data register as of 1 July 2021.
- Asset quantities, condition data and financial information within the current asset registers are assumed to be correct.
- Intervention standards are based on providing a balanced level of service before assets reach "very poor" condition.
- The renewal models are subject to the limitations of the CT Management renewal model and data used in it, which includes assumed performance of the asset types, deterioration curves, and trigger intervention levels.
- Useful lives for wastewater assets are Council's adopted lives and are a reasonable estimate of the life of the wastewater assets.
- All projections are in present dollar value.
- There is no significant increase to the existing asset base over the next ten (10) years.
- Future renewal funding levels are derived from the Long-Term Financial Plan.
- Service levels are based on current service levels and may not reflect community's future expectations or Council's future strategic goals and objectives.

### 6.4.6. Asset Useful Lives

The following table shows a high-level summary of useful lives of wastewater assets.

| Asset Sub Class | Asset Type | Useful Life (Years) |
|---|---|---|
| **Sewer Mains** | Earth Works - CO | 180 |
| | Earth Works AC/HDPE/PVC/VC | 160 |
| | Reline - CO | 90 |
| | Reline AC/HDPE/PVC/VC | 80 |
| | CO | 90 |
| | AC/CI/HDPE/PVC/VC | 80 |
| **Nodes** | Manholes | 100 |
| | Vents | 80 |
| | End Caps | 100 |
| **Sewer Pump Stations** | Telemetry | 20 |
| | Pump | 20 |
| | Switchboard | 30 |
| | Pipes & Metalwork | 50 |
| | Wet Well | 80 |
| **Wastewater Treatment Plant** | Tanks | 90 |
| | Ponds/Channels/Lagoon | 90 |
| | Inlet Works | 90 |

| | | |
|---|---|---|
| | Splitter Box | 90 |
| | Tertiary Ponds Earthwork | 100 |
| | Aeration Tanks | 60 |
| | Electrical/Mechanical Equipment | 30 |
| | Mechanical Works & Pipes | 25 |
| | Electrical Works | 25 |
| | Internal Piping | 30 |
| | SCADA & Telemetry | 20 |
| | Chemical Dosing Systems | 20 |

**Table 14: Useful Life - Wastewater Assets**

### 6.4.7. Renewal Forecast and Budget – Sewer Mains

Current funding levels will result in "assets above intervention level" to about 3.5% over the next 10-year period. The renewal demand of the next 10 years in slightly higher than the funding levels.

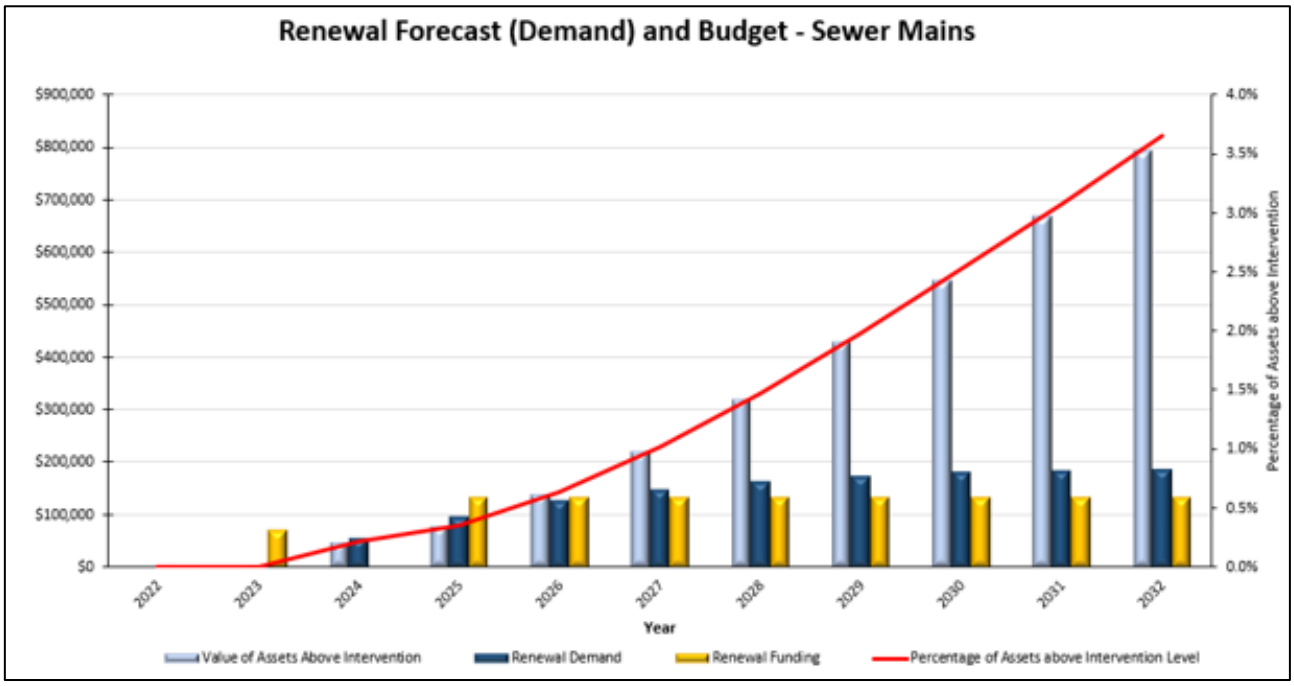



**Figure 9: Renewal Forecast and Budget – Sewer Mains**

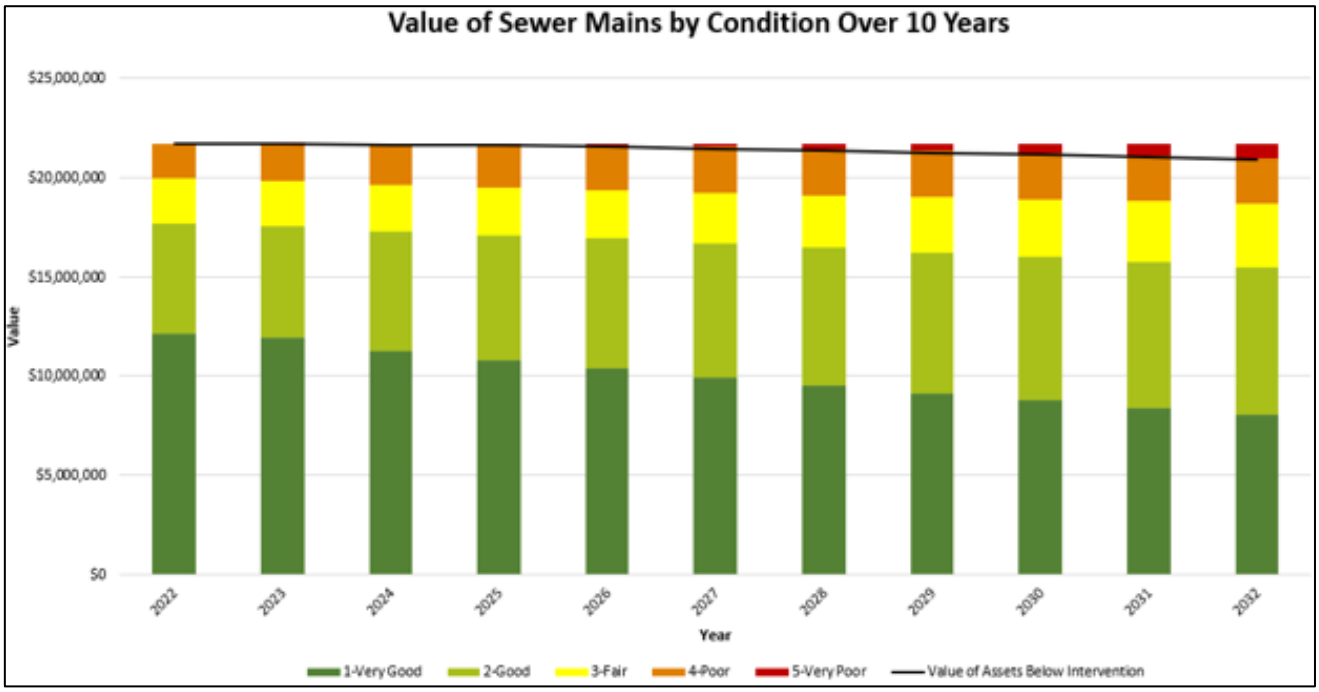
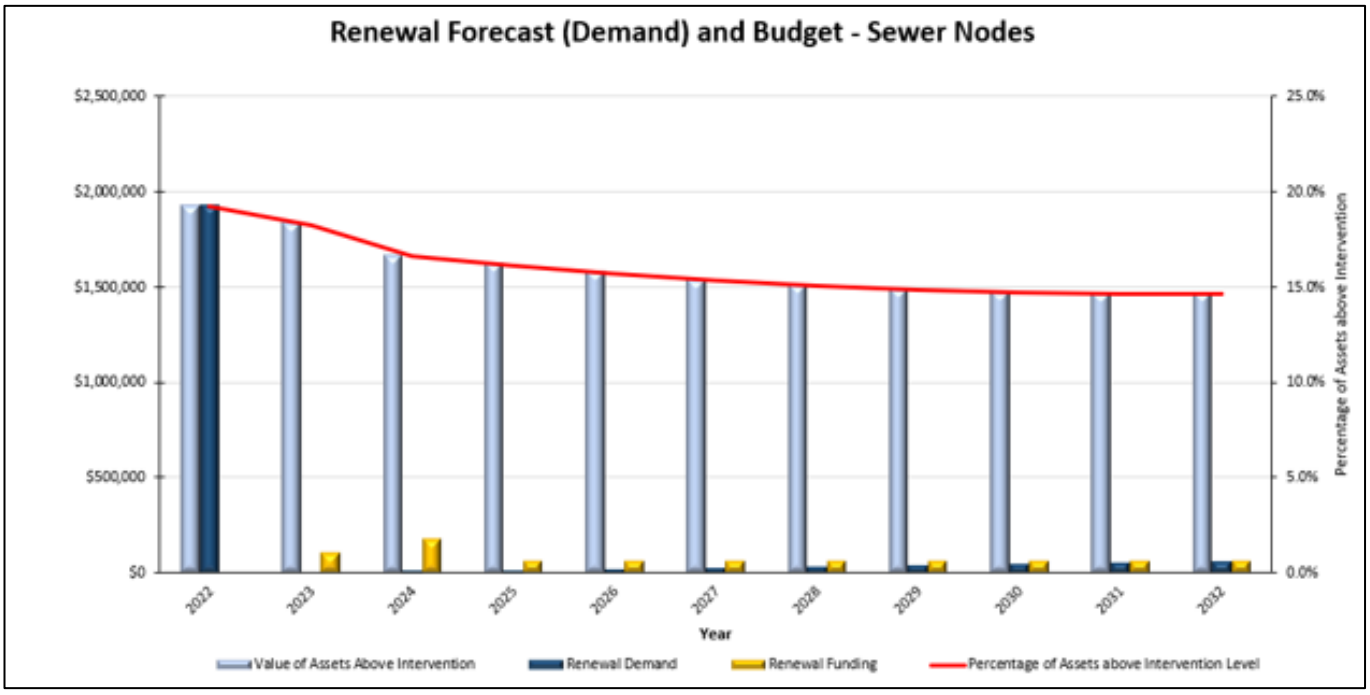



**Figure 10 : Value of Sewer Mains By Condition Over 10 Years**

The forecast condition profile for sewer mains shows current funding levels will result in approximately $700K worth of mains in very poor condition at the end of this period.

### 6.4.8. Renewal Forecast and Budget – Nodes (Manholes/Vents/End Caps)

The renewal back log for nodes requiring immediate renewal intervention is valued at about $2 million. The majority of these assets are in Leeton wastewater catchment No 1. Current funding levels are not adequate to maintain nodes in a good condition and at the end of the 10-year period about 15% of nodes worth about $1.5 million will be above the intervention level.



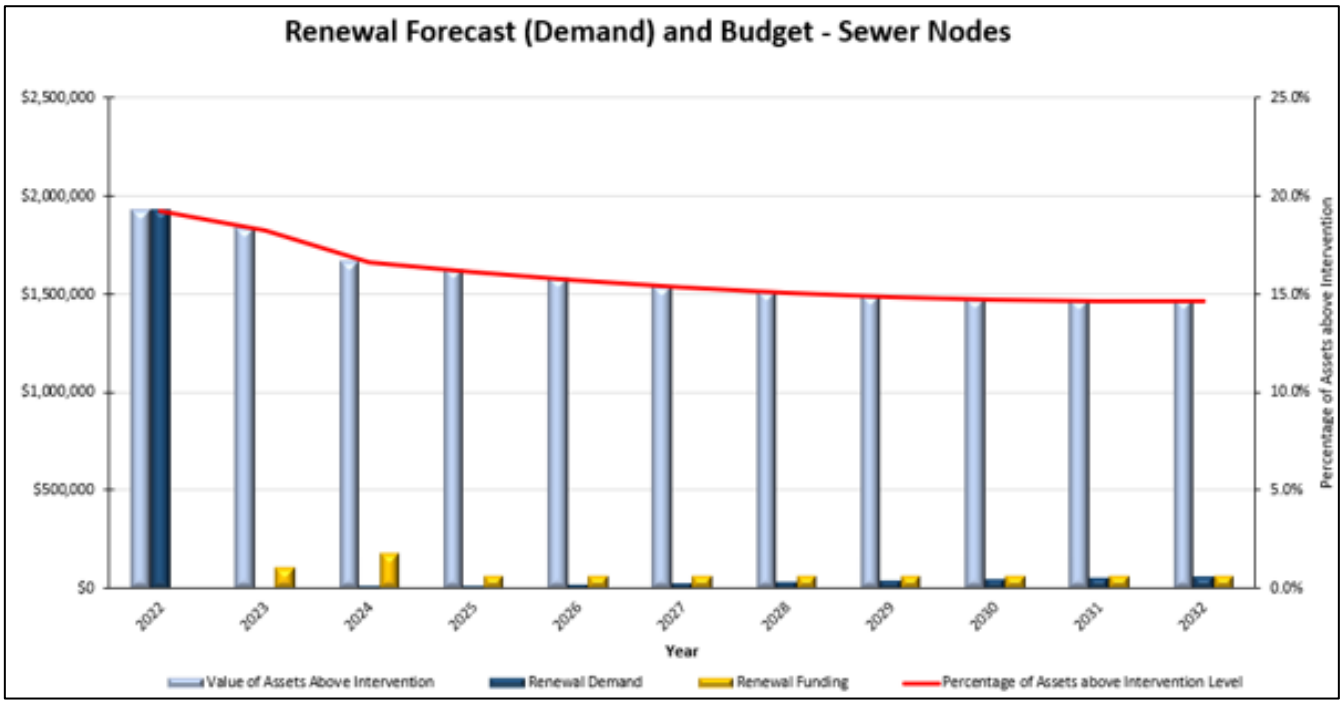



**Figure 11: Renewal Forecast and Budget – Nodes**

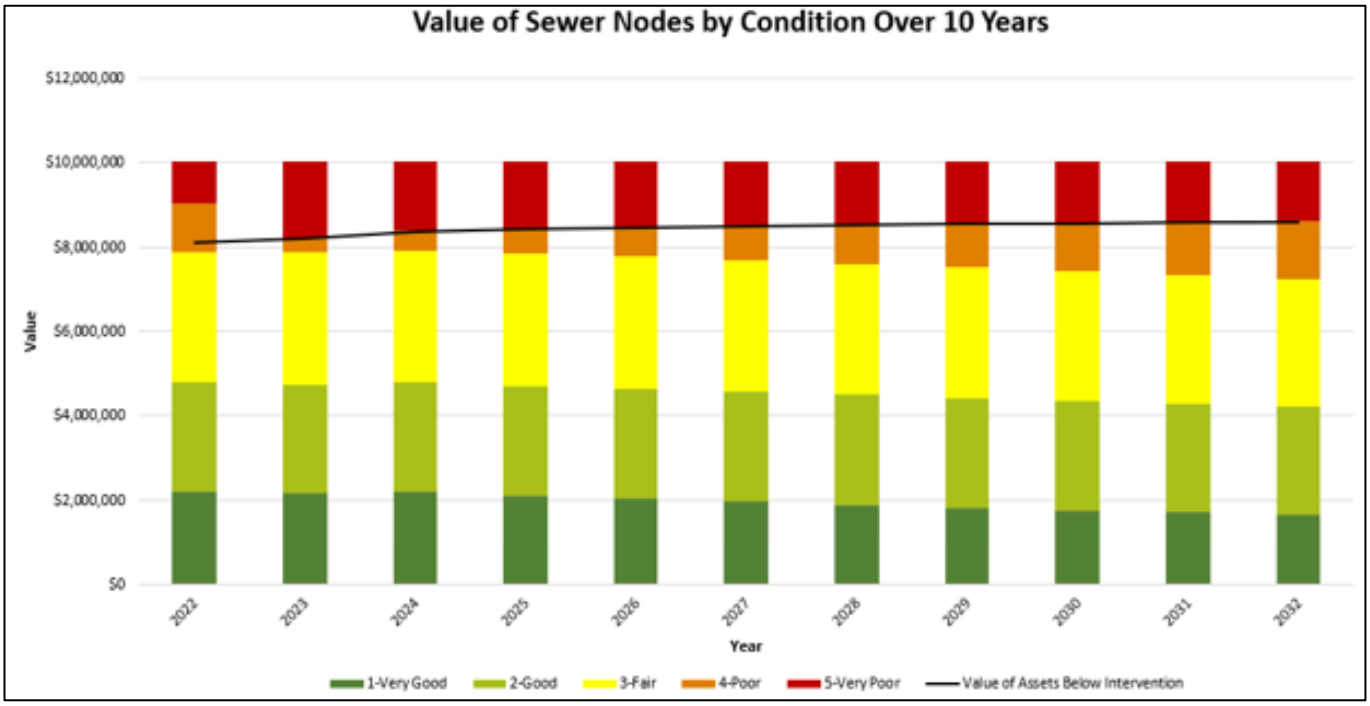



**Figure 12: Value of Nodes by Condition Over 10 Years**

Current funding levels will not improve the condition of the node asset base. The value of nodes in very poor condition will increase from $1M to $1.4M over the next 10 years.

### 6.4.9. Renewal Forecast and Budget – Sewer Pump Stations

Currently, there is a backlog of renewal work worth about $800K. It has been planned to invest significant amounts of funding for pump station renewals in year 2026 and 2032 with very little being invested in the remainder of the years. Therefore, it is important to identify true renewal requirements and ensure funding is allocated accordingly based on outcomes of the condition assessment program.

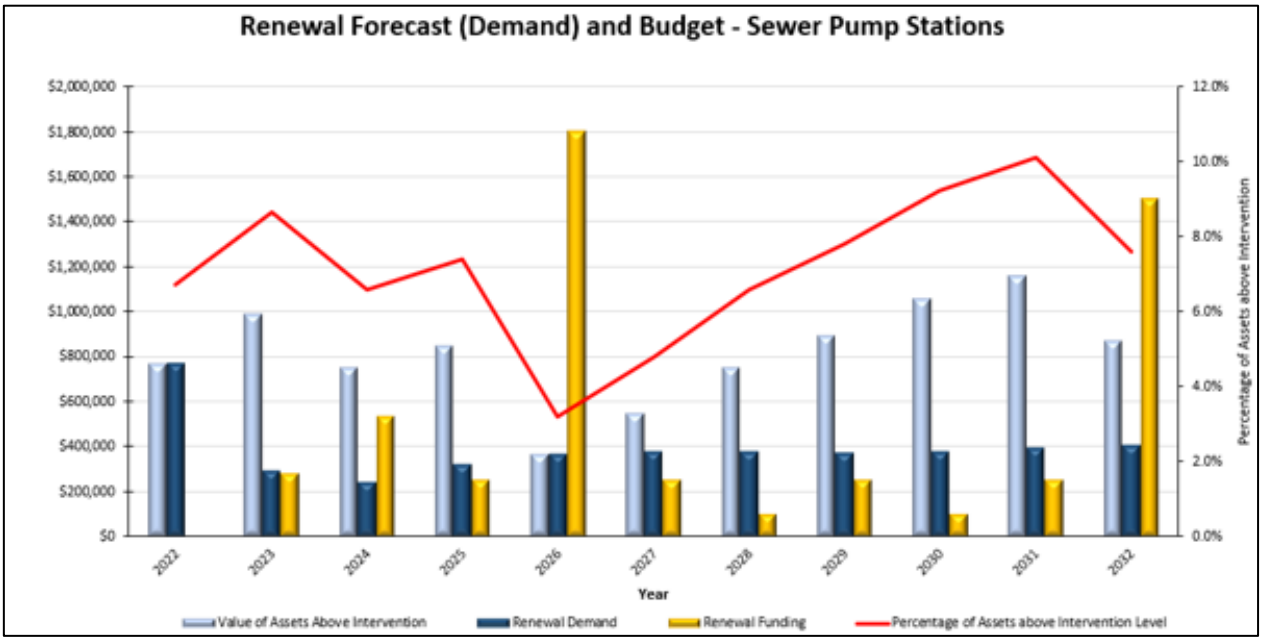



**Figure 13: Renewal Forecast and Budget – Sewer Pump Stations**

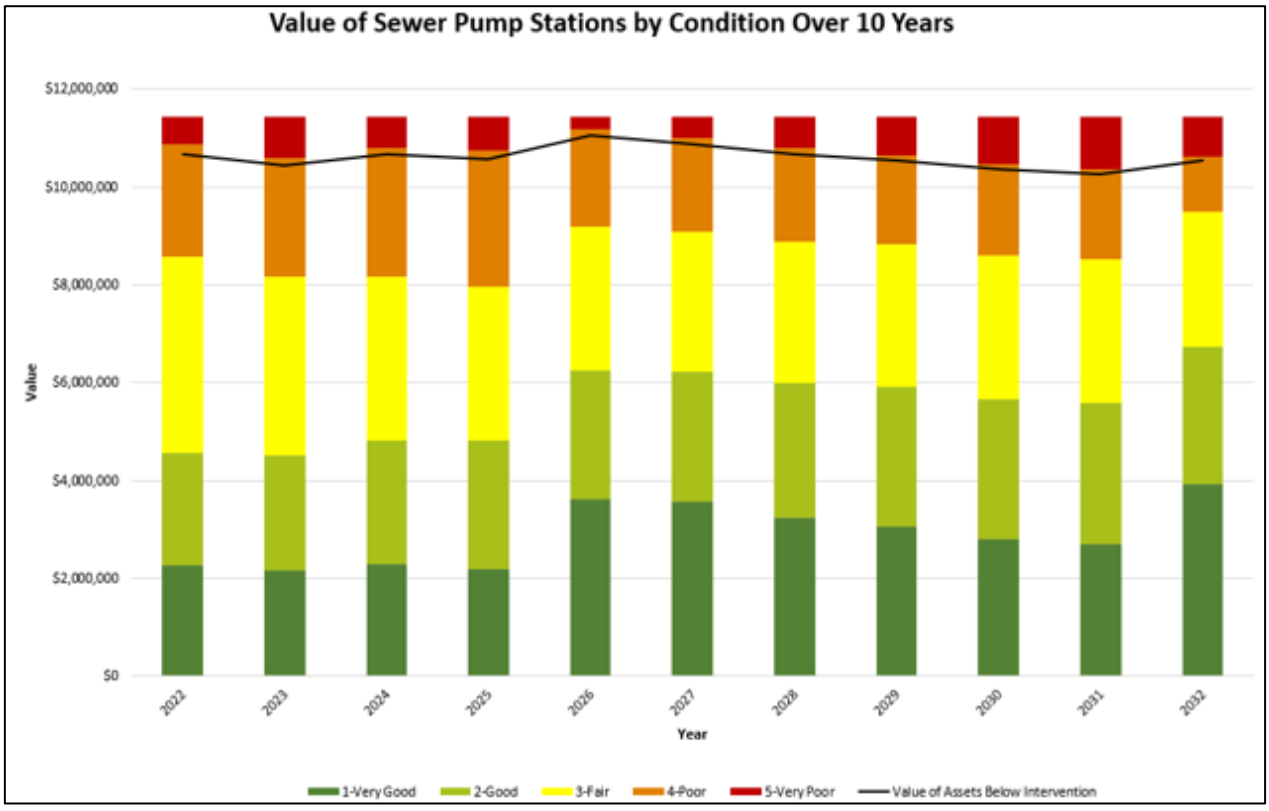



**Figure 14: Value of Sewer Pump Stations by Condition Over 10 Years**

Current funding levels will not improve the condition of the sewer pump station assets. However, the condition profile will not change greatly over the next 10 years. According to the forecast, about $600k of assets will be in very poor condition at the end of 10-year period.

It should be noted that several pumpstations out of the 42 sewer pumpstations only serve about 10 houses. Therefore, there is an opportunity to investigate and identify efficiencies by reducing the number of sewer pumps stations.

**Improvement Opportunity**

- Undertake assessment of sewer pump station capacities and locations to identify efficiencies by reducing/consolidating existing pump stations.

### 6.4.10. Renewal Forecast and Budget – Wastewater Treatment Plants

The back log of renewal work that require immediate intervention is about $5M. These assets are inlet works, mechanical equipment, sedimentation tank, digestion tank, and filter tank at Leeton Wastewater treatment plant. The amount of funding currently allocated for treatment plant renewals is insufficient. This lack of funding will result in 32% of assets moving above intervention levels within the Leeton treatment plant.

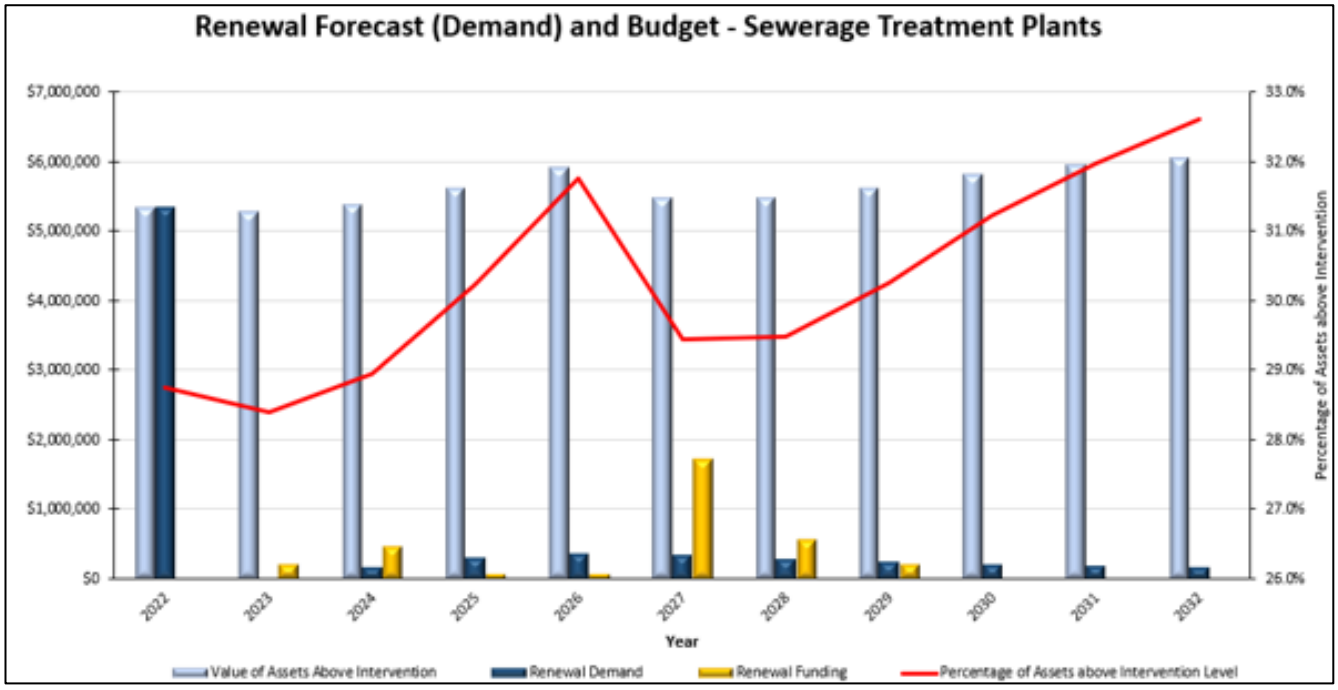



**Figure 15: Renewal Forecast and Budget – Wastewater Treatment Plants**

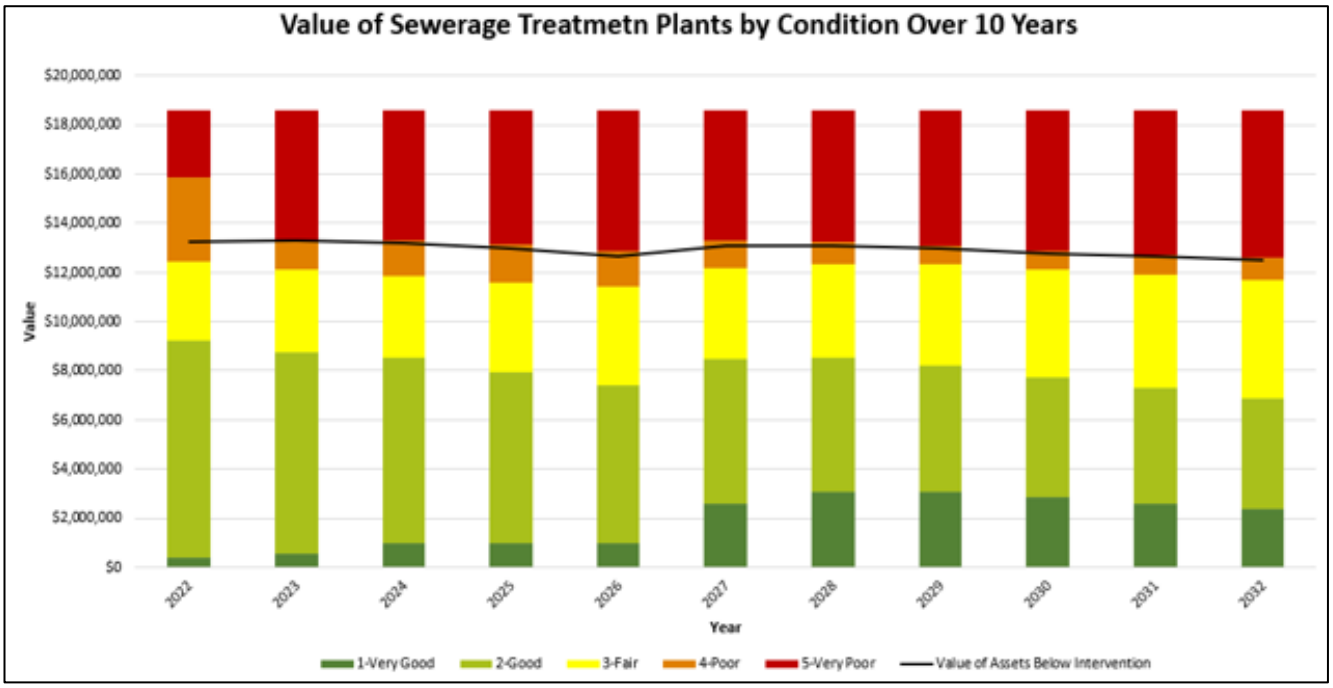



**Figure 16: Value of Wastewater Treatment Plants by Condition Over 10 Years**

The treatment plants assets in very poor condition will increase to $6M over the next 10 years.
All three plants are set to experience a rise in assets that are in a very poor condition. The bulk of these assets will be found within Leeton's Wastewater Treatment Plant, which is notably more complex and serves a larger community.

## 6.5. Overall Renewal Forecast and Budget – Wastewater Assets

The following graph shows a comparison between the:

- Level of funding required to renew wastewater assets to achieve Council's service level objectives; and
- The amount of funding which Council has projected to commit to renewing these assets in its current Long Term Financial Plan (June 2023).

The renewal forecasts show Council's wastewater renewal program is not adequately funding renewal requirements over the next 10 years. It is, therefore, important to conduct a condition assessment of all wastewater assets to develop and prioritise 4-to-5-year renewal program. This condition-based renewal program will identify the gaps in current renewal funding allocations and allow for a development of a better informed LTFP.

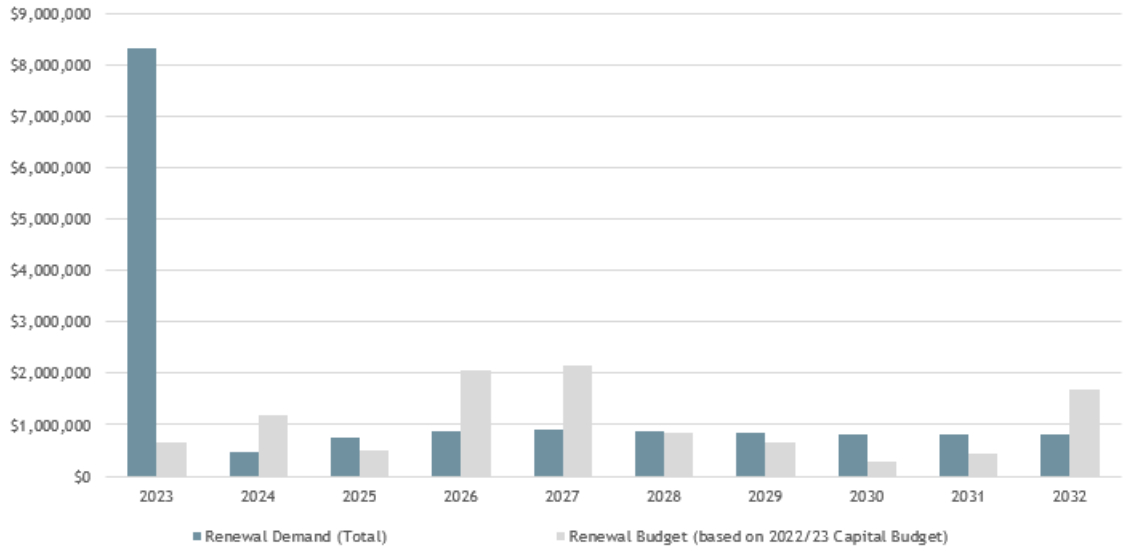



**Figure 17: Renewal Forecast Vs Renewal Budget**

Based on this renewal demand forecast the average annual renewal demand over the next 10 years is $ 1.54 million , including $8 million of renewal backlog.

The average annual renewal demand serves as an indicative measure, rather than an exact year-to-year requirement. Some years will require higher than average annual renewal demand, others will require lower than average annual renewal demand.

**Improvement Opportunity**

- Undertake cyclic condition assessments and develop renewal programs based on the condition of assets.
- Review current renewal funding allocations for adequacy.

## 6.6. Acquisition/Upgrade/Expansion Plan

Decisions pertaining to the acquisition, upgrade, and expansion of an asset is carried out considering the full lifecycle costing of the planned asset. Leeton Shire Council follows the following criteria when budget proposals are prepared:

- Capital cost of the asset
- Total borrowing costs associated with acquisition of the asset (if any)
- Total capital outlay required for the asset (sum of the above)
- Expected annualised maintenance and operational costs associated with the asset
- Expected reduction in any existing annualised maintenance and operational costs via efficiency gains or asset rationalisations
- Expected annualised renewal costs associated with the asset
- Total annualised lifecycle cost (sum of the above annualised costs)
- Total lifecycle cost (total annualised cost times useful life)
- Forecasted net position after acquisition, and consequences of not acquiring the asset

The current forecast is based on new and upgrade capital projects included in the LTFP. Total forecast expenditure on new and upgrade projects totals $3.1million over the next 10 years which is an average $300K per annum. The predominant driver of new and upgrade funding in the first 2 years of the forecast is the Wamoon Sewer upgrade program which amounts to $2.3 million.

Projected upgrade/new asset expenditures are shown in the graph below.

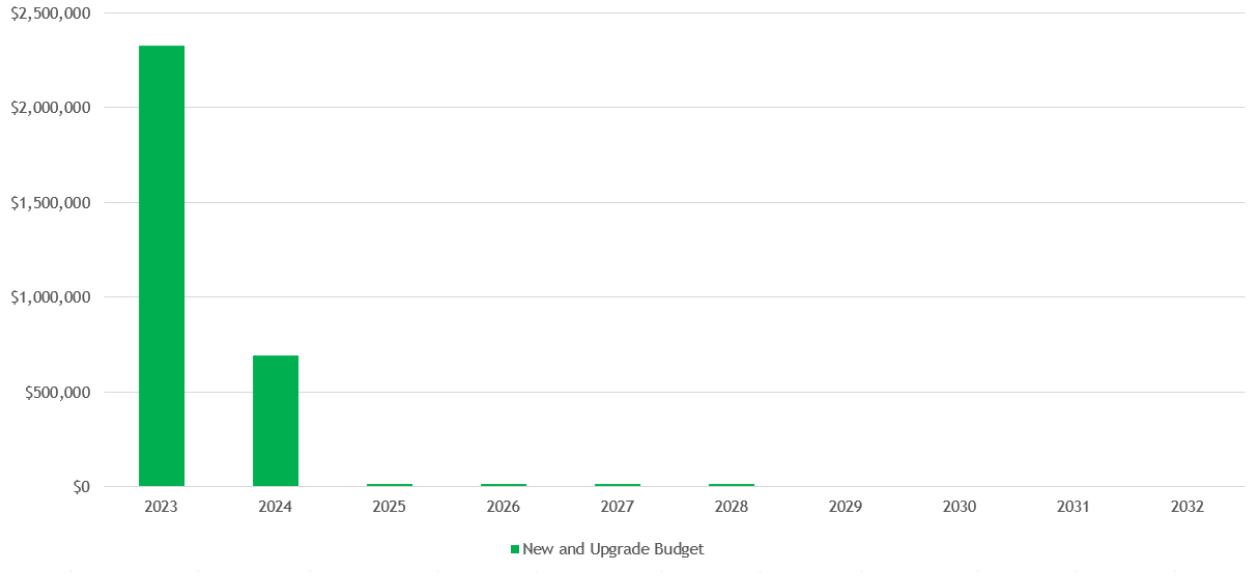



**Figure 18: Budget - New & Upgrade Projects**

## 6.7. Deliverability of the Capital Program

Council's capital program is delivered by Council staff and Council appointed contractors. A significant amount of capital works is delivered by the contractors. These contracts need to be properly managed to ensure effective and efficient delivery of projects.

## 6.8. Disposal Plan

The strategy for the development of an asset disposal plan is to first identify those wastewater assets, or parts thereof, that are either:

- Surplus to requirements,
- Technologically obsolete,
- No-longer meeting community needs; or
- Have reached the end of their useful life and there is no demand for renewal or replacement.

Where appropriate, such assets should also be considered for consolidation and rationalisation based on service needs and community benefit prior to being placed in the Disposal Plan. When disposal does occur, recognition needs to be made in the recurrent/operating budget of the reduction of associated operating or maintenance costs of the decommissioned assets, as well as any disposal costs. Costs associated with the sale, demolition or relocation of decommissioned assets and any associated works are to be included as part of the Disposal Plan. Associated works could include any necessary site remediation or rehabilitation.

**Improvement Opportunity**

- Develop an Asset Disposal Policy and identify a mechanism to streamline the asset disposal process.

## 6.9. Summary of Asset Expenditure Requirements

Council is projecting a deficit in capital and operational funding when compared to the level of funding that we predict will be required over the forthcoming 10-year period.

| Key Financial Performance Indicators for Current Projected Funding | |
|---|---|
| **Total Lifecycle Costs over next 10 years (projected demand)** | **$53,902,297** |
| **Total Lifecycle Budget over next 10 years (from Financial Plan)** | **$48,933,054** |
| **Total Lifecycle Funding Deficit** | **$4,969,242** |
| **Average Lifecycle Funding Deficit per annum** | **$496,242** |
| **Percentage Lifecycle Funding Being Met** | **91%** |

**Table 15: Summary of Asset Lifecycle Costs and Budget**

However, Council needs to review its asset condition and useful lives for wastewater assets where appropriate and then adjust the funding being proposed to set aside in the long-term financial plan. It should be noted that 2021valuation and condition data has been used for renewal modelling. Therefore, it is important that council undertake condition assessment of all wastewater assets to validate these forecasts. Council also needs to focus on determining appropriate and affordable levels of service in consultation with the community. It is only once service standards have been agreed that well informed lifecycle costs can be projected and used to inform the Financial Plan.

# 7. RISK MANAGEMENT

The purpose of this section is to describe the basis of our strategic risk and investment policies and the way it will manage risk associated with our wastewater assets.

## 7.1. Risk Management Process

Council's risk management framework and processes are in accordance with AS/NZS ISO 31000:2009 – Risk Management – Principles and Guidelines. The Framework is designed to provide the architecture for a common platform for all risk management activities undertaken by Council and is used to identify specific risks associated with the delivery of services and management of assets. The objective of the risk management process with regards to Council assets is to ensure that:

- All significant operational and organisational risks are understood and actioned.
- The highest risks that need to be addressed in the short to medium term are identified.
- Strategies and treatments to address risks are identified and applied.

An assessment of risks associated with service delivery from infrastructure assets has identified the most critical risks Council faces in relation to its wastewater asset portfolio. The risk assessment process identifies and assesses risks, develops a risk rating, and develops a risk mitigation plan for non-acceptable risks.

This process helps to determine the risks associated with wastewater assets by identifying the use, priority, and timeframes to be considered. The principal objectives of this risk management process in relation to wastewater assets include:

- To provide efficient wastewater service to the community,
- To enable a system of proactive maintenance (where possible),
- To identify areas that require maintenance through a systematic and prioritised inspection system,
- To facilitate scheduling and resource allocation where required, and
- To establish a priority system for carrying out maintenance works.

### 7.1.1. Risk Assessment

There are four (4) types of inspections that Council carries out with respect to risk identification and assessment. They are:

- Routine Inspections
- Supplementary Inspection
- External Inspection Requests
- Internal Inspection Requests

Routine Inspections are the primary type of inspection carried out by council and represent a proactive method of risk identification.

The Supplementary Inspections are performed in addition to Routine Inspections. These inspections may be performed for the following reasons:

- Following a storm event, flood, bushfire
- Review / audit of previously completed Routine Inspections
- Inspection seeking a specific defect type
- An inspection completed while driving to or from a Routine Inspection on a different asset
- Unauthorised third-party repairs
- Criticality of asset

External Inspection Requests are the requests from the public on condition and risks associated with wastewater assets. These inspection requests are registered by Council's Customer Request Management (CRM) system and assigned to the appropriate Council officer for action.

Internal Inspection Requests are generated by councillors, council staff & other council representatives. These requests are handled in the same manner as External Inspection Requests.

### 7.1.2. Risk Control

During Inspections control of "risk exposure" requires control measures to be implemented. Some of the control measures that Council will be able to use to lessen its exposure to risk are:

- Use of warning signs to indicate potential hazard.
- Erection of temporary barriers or barricades around the area until the risk is eliminated.
- Planning and allocating resources for the long-term replacement.
- Eliminate the risk by asset repair.

All requests are assigned a typical response time based on the criticality of asset.

| Risk Event and Cause | Risk Rating | Possible Risk Mitigation Practice | Residual Risk* |
|---|---|---|---|
| Absence of planned maintenance and inspection programs<br><br>Inability to identify and intervene proactively to mitigate asset failures. | High | Develop planned maintenance and inspection programs.<br><br>Identify resource requirements to fully implement maintenance and inspection programs. | Low |
| Absence of O&M manuals for treatment plants and pump stations<br><br>Inability to operate filtration plant and pump stations efficiently. | High | Identify and develop/obtain critical O&M manuals for treatment plants and pump stations. | Low |
| Trade waste discharge into sewer network | High | Regular inspections to identify hot spots. Education and infringement notices. | Low |
| Absence of emergency power supply to sewer pump stations causing disruption to pump station operation | High | Investigate and implement secondary power supply to sewer pumps stations. | Low |
| Illegal stormwater connections to sewer network causing capacity issues | High | Undertake CCTV inspections/smoke testing to identify illegal connections | Low |
| Treatment plant reaching its capacity | High | Plan for treatment plant upgrade, identify and allocate appropriate budget | Low |
| Inadequate renewal funding.<br><br>Current funding ratio is 69% and will result in majority of our assets in very poor condition over the next 10 years. | High | Conduct condition assessment of all wastewater assets.<br><br>Identify assets in poor to very poor condition.<br><br>Allocate funding for renewal of assets above intervention level. | Low |

**Table 16: Risk Register**

## 7.2. Critical Assets

Assets which have a high consequence of failure are identified as critical assets. Generally, criticality frameworks assess assets against the following areas outlined in the Risk Management Framework:

- Service interruption
- Public safety
- Environmental impact
- Environmental incident impact
- Financial impact
- Reputation/ complaints and legal action
- Political impact
- Obligations/ legislative/ compliance impacts

## 7.3. Climate Change Risk

The impacts of climate change have the potential to have a significant impact on the assets that Council manages and the services that are provided. In the context of the asset management planning process, climate change can be considered as both a future demand and a risk. How climate change will impact on assets can vary significantly depending on the location and the type of asset and services provided, as will how Council responds and manages these impacts.

Adaption and mitigation strategies for wastewater assets are developing as Council understands potential the climate change impacts in greater detail. As a minimum Council will consider how to manage its existing assets given potential climate change impacts in the region. Climate change indicators and potential impacts as they relate to wastewater assets have been identified in the table below:

| Climate Change Indicator | Potential Impact on Water Assets and Services | Management Actions |
|---|---|---|
| **Extreme rainfall (riverine flooding and pluvial flooding)** | Accelerated degradation of assets, reduced life expectancy, and increased lifecycle costs. | Identify when and where wastewater assets are most likely to be exposed to increased frequency and intensity of riverine and pluvial flooding through asset risk modelling. Undertake flood mapping to identify hot spots.<br><br>Reactive and proactive maintenance – to identify and initiate repairs where needed to maintain/improve asset integrity.<br><br>Factor future flooding impacts into design and maintenance program. |
| **Soil Subsidence** | Soil expansion and contraction causing damage to sewer mains | Use climate risk modelling to identify when and where assets are most likely to be exposed to soil subsidence.<br><br>Understand the prevalence of clay soils and changes to the wetting and drying climate cycles. |
| **Bushfires** | Destruction of wastewater assets | Use climate risk modelling to identify when and where assets are most likely to be exposed to bushfire.<br>Plan for rapid assessment of fire impacted assets to ensure that assets have maintained integrity post event.<br><br>Train staff for assessment tasks particularly for priority asset classes. |

| | | |
|---|---|---|
| **Extreme wind** | Trees and debris causing damage to assets. | Identify when and where assets are most likely to be exposed to increased frequency and intensity of extreme wind through asset risk modelling.<br><br>Where possible initiate ongoing management of vegetation to reduce risk of trees and debris impacting water assets. |
| **Higher Carbon Emissions** | Legislative requirements to reduce emissions. | Implement energy efficient methods in operation and maintenance of assets such as solar power. |

**Table 17: Managing the Impact of Climate Change on Wastewater Assets**

## 7.4. Building Resilience into New and Upgraded Assets

Additionally, the way in which Council constructs new assets should recognise that there is opportunity to design and build in resilience to climate change impacts. Building resilience in Council's wastewater assets will have the following benefits:

- Assets will withstand the impacts of climate change,
- Services can be sustained,
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint,
- Potentially increasing asset life and protecting financial investment returns.

As a minimum, we need to consider both how to manage existing assets given the potential impacts of climate change and how to create resilience to climate change in any new works or acquisitions. The table below summarises climate change resilience opportunities for wastewater assets.

| Climate Change Risk Event | Wastewater Asset Resilience Opportunities |
|---|---|
| **Accelerated degradation and structural damage due to climate change** | Review engineering standards to ensure more robust climate resilient structures.<br>Factor in the coefficient of thermal expansion for materials used where applicable (increased movement allowances).<br>Use trenchless technologies |
| **High rainfall and storm events** | Use materials that will weather and withstand future conditions, that is materials that are stronger, can withstand longer periods of wetting, are more resistant to thermal expansion and contraction, and are more durable in acidic and saline conditions. |
| **Increased frequency and intensity of flooding/storm** | Design assets above flood levels (where applicable) or outside of flood zones, low-lying areas, and areas vulnerable to rising water table. |
| **Drought** | Favour higher quality construction materials and ensure reactive soils (particularly acid sulphate soils) are identified during design and the design is altered accordingly. |
| **Bushfires** | Design assets that are affordable and easily replaceable in localities that are likely to experience multiple and frequent climate risks.<br>Implement appropriate vegetation management programs |
| **Reduced carbon emissions** | Use low embodied energy materials and employ energy efficient operation and maintenance practises.<br>Continue to implement the Energy Master Plan. |

| | |
|---|---|
| | Use LED lighting or solar LED lighting, purchase green power and install renewable energy sources such as solar power. |

**Table 18: Climate Change Resilience Opportunities – Wastewater Asset**

# 8. FINANCIAL SUMMARY

Council's Long-Term Financial Plan (adopted June 2023) provides a view of the resources required to be available to the Wastewater Department and how these will be allocated and prioritised over the next ten (10) years. The Financial Plan identifies the current and projected financial capacity to continue delivering high quality services, facilities, and infrastructure while identifying critical new capital investment to support Leeton's prosperity and to respond to Council's future challenges. This Wastewater Asset Management Plan will inform the budgets and projections outlined in Council's Financial Plan for wastewater asset management. Ongoing affordability and financial sustainability are the key objectives and the Long-Term Financial Plan in combination with Asset Management Plans support Council in achieving these objectives.

This section contains the financial information resulting from all the information presented in the previous sections of this Asset Management Plan. The financial forecasts made will be refined as Council improves its understanding of future asset performance and the required levels of service.

## 8.1. Financial Statements and Projections

### 8.1.1. Asset Valuations

The value of the assets covered by this Wastewater Asset Management Plan as recorded in the financial asset register as of 30 June 2021 are shown below.

| | |
|---|---|
| **Current Replacement Cost** | **$61,726,152** |
| **Accumulated Depreciation** | $25,816,412 |
| **Depreciated Replacement Cost (Fair Value)** | $35,909,741 |
| **Annual Average Asset Consumption** | $893,000 |

### 8.1.2. Asset Sustainability

Council uses the following indicators to measure asset sustainability:

- Asset renewal funding ratio, and
- Projected funding requirements compared with budget allocations (Long Term Financial Plan)

### 8.1.3. Asset Renewal Funding Ratio

| | |
|---|---|
| Asset Renewal Funding Ratio | 68% |

The Asset Renewal Funding Ratio is the most important indicator and shows that over the next ten (10) years we are expected to have 68% of the funds required for the optimal renewal and replacement of assets. The Asset Renewal Funding Ratio is calculated as the ratio between the calculated asset renewal forecast and allocated renewal funding.

.

### 8.1.4. Projected Expenditure for Long Term Financial Plan

The Asset Management Plans and Long-Term Financial Plan are the foundation of Council's long-term resource planning. These plans work together to ensure that expectations are achievable and sustainable. Council is working to improve the integration between the Asset Management Plans and Long-Term Financial Plan. The Asset Management Plans inform the Long-Term Financial Plan by identifying the amounts that are required to renew, maintain, and improve the assets over their lifecycle. The Long-Term Financial Plan determines how much funding is available to support these assets. It incorporates knowledge of the condition of Council's assets, and risk assessment issues, as well as the impact of reviewing and setting intervention and service levels for infrastructure.

The financial projections from this Asset Management Plan are shown in Figure 20 and Table19. This covers the full lifecycle costs over the next ten (10) years to sustain current levels of service. Note that all costs are shown in real values.

The bars in the graphs represent the anticipated budget needs required to achieve lowest lifecycle costs, the budget line indicates the funding that is forecast to be available.

These amounts need to be verified against affordable levels of expenditure as determined through the Long-Term Financial Plan and cyclic condition assessment of wastewater assets. The gap between these informs the discussion on achieving the balance between services, costs, and risk to achieve best value outcomes.

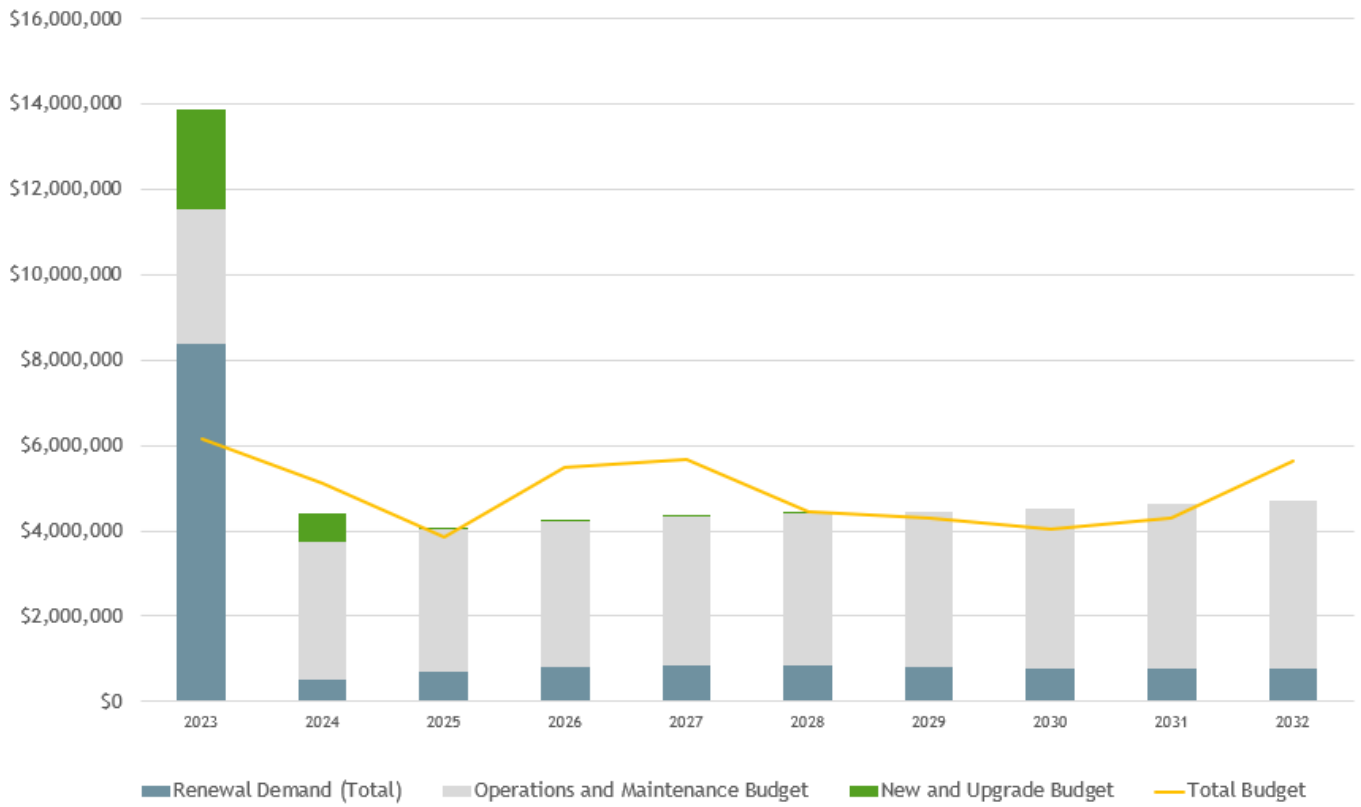



**Figure 19: Total Lifecycle Cost Demand - Wastewater Assets**

| Year | Renewal Demand | Renewal Budget | New and Upgrade | Operation & Maintenance | Total Budget | Total Lifecycle Demand |
|---|---|---|---|---|---|---|
| **2022** | $8,336,431 | $667,683 | $2,329,332 | $3,158,125 | $6,155,140 | $13,823,888 |
| **2023** | $479,849 | $1,172,000 | $692,359 | $3,237,078 | $5,101,437 | $4,409,286 |
| **2024** | $738,803 | $505,000 | $15,000 | $3,318,005 | $3,838,005 | $4,071,808 |
| **2025** | $868,657 | $2,055,000 | $15,000 | $3,400,955 | $5,470,955 | $4,284,612 |
| **2026** | $889,651 | $2,155,000 | $15,000 | $3,485,979 | $5,655,979 | $4,390,630 |
| **2027** | $862,204 | $855,000 | $15,000 | $3,573,129 | $4,443,129 | $4,450,333 |
| **2028** | $829,491 | $640,000 | $0 | $3,662,457 | $4,302,457 | $4,491,948 |
| **2029** | $810,726 | $290,000 | $0 | $3,754,018 | $4,044,018 | $4,564,744 |
| **2030** | $807,951 | $440,000 | $0 | $3,847,869 | $4,287,869 | $4,655,819 |
| **2031** | $815,163 | $1,690,000 | $0 | $3,944,065 | $5,634,065 | $4,759,228 |
| **Total** | $15,438,926 | $10,469,683 | $3,081,691 | $35,381,680 | $48,933,054 | $53,902,297 |

**Table 19: 10 Year Total Forecast and Current Capital Budget (22/23)- All Wastewater Assets**

## 8.2. Funding Sources

Funding for assets is provided from Council's annual budget and Financial Plan. Council's financial strategy determines how funding will be provided, whereas the Asset Management Plan communicates how and when this will be spent, particularly in the area of renewal investments. Major funding sources to maintain, renew and improve Council's wastewater assets are shown in the table below.

| Activity | Funding Source |
|---|---|
| **Maintenance and Operations** | Residential and non-residential fees and charges |
| **Renewal** | Residential and non-residential fees and charges |
| **Capital Investments (i.e. new, upgrade, and expansion)** | Renewal component of project - residential and non-residential fees and charges<br><br>Growth component of project - Developer contributions |

**Table 20: Funding Sources**

## 8.3. Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts. Key assumptions made in this Asset Management Plan are:

- Current levels of service reflect community needs.
- Future funding levels are derived from the Long-Term Financial Plan.
- No known legislative changes or other influences that will impact on or demand a change in level of service and associated funding throughout the period of the plan.
- Adequate funds to maintain wastewater are provided to maintain the current level of service.
- 2021 valuation data including the condition of assets are accurate and valid for current year.

# 9. IMPROVEMENT PLAN

Several improvements for overall asset management at Leeton Shire Council have been identified within this Asset Management Plan. It is important that these improvement actions are prioritised based on the business needs/ongoing projects and are sufficiently resourced.

## 9.1. Improvement Plan

The asset management improvement plan generated from this Asset Management Plan is shown in Table below.

| Item No. | Task | Responsibility | Priority |
|---|---|---|---|
| | Undertake Wastewater (sewer) strategic planning within next 2-4 years | Manger Water & Wastewater | High |
| | Identify and develop/obtain critical O&M manuals for treatment plants and pump stations | Manger Water & Wastewater | High |
| | Implement a CCTV inspection program for wastewater condition /service assessment. | Manger Water & Wastewater | High |
| | Undertake cyclic asset condition assessment and data capture program (every4-5 years). | Manger Water & Wastewater/Manger Assets | High |
| | Undertake assessment of sewer pump station capacities and locations to identify efficiencies by reducing/consolidating existing pump stations. | Manger Water & Wastewater | High |
| | Develop and prioritise renewal programs based on condition of the assets. | Manger Water & Sewerage /Asset Management Coordinator | High |
| | Develop a capital work prioritisation framework and include demand drivers as part of the prioritisation criteria.<br>Develop a Project Management Framework and including a framework for Acquisition (New), Upgrade, and Expansion of assets. | Asset Management Coordinator | Medium |
| | Develop an Asset Disposal Policy and identify a mechanism to streamline the asset disposal process. | Asset Management Coordinator | Medium |

| | | | |
|---|---|---|---|
| | Review current level of service including response times of unplanned maintenance work | Manger Water & Wastewater | High |
| | Develop an inspection program and identify budget required to implement the program.<br>Implement the inspection program. | Manger Water & Wastewater | High |
| | Develop a planned maintenance program and identify budget required to implement the program.<br>Implement a planned maintenance program. | Manger Water & Wastewater | High |
| | Continue implementation of "Univerus Assets" asset and work order management system to centralise asset data management. | Asset Management Coordinator | High |
| | Review current renewal funding program for adequacy. | Manger Water & Wastewater | High |
| | Align roads capital works program and sewer main replacement program to avoid roads being replaced in quick succession | Manger Water & Wastewater/Manager Roads & Drainage | High |

**Table 21: Wastewater Asset Management Improvement Plan**

## 9.2. Monitoring and Review – Improvement Actions

Prioritisation and implementation of the improvement plan of this Wastewater Asset Management Plan will be the responsibility of the Manager Water & Wastewater with the support and guidance from the Senior Management Team and Asset Management Coordinator.