LACHLAN SHIRE
COUNCIL
Wiradjuri Country

ASSET MANAGEMENT PLAN 2022

WATER & SEWER

Document Control	Asset Management Plan
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V1.11	May 2021	Template	IPWEA		
V1.2	Oct 2021	LSC Water & Sewer	B McBean	ELT	
V1.3	June 2022	Corrected names of external stakeholders. Executive summary updated to reflect current total asset value	B McBean	OMT	

This Asset Management Plan may be used as a supporting document to inform an overarching Strategic Asset Management Plan.

Contents

1.0 Executive summary

1.1 The Purpose of the Plan

This Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide over the ten year planning period. The AM Plan will link to a Long-Term Financial Plan.

1.2 Asset Description

This plan covers the infrastructure assets that provide water and sewage services

The Water &Sewer network comprises:

- Water sources (e.g. bores, weirs, dams)
- Water treatment plants and reservoirs
- Water reticulation network
- Sewer reticulation (pipes and pumps)
- Sewer treatment plants

The above infrastructure assets have replacement value estimated at $147M.

1.3 Levels of Service

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

The main service consequences of the Planned Budget are:

- Existing reticulation networks for water and sewer are able to be maintained in a similar state that exists presently
- There is insufficient budget to cover the replacement of Condobolin Water Treatment Plant
- There is insufficient budget to cover the replacement of Condobolin Sewer Treatment Plant

1.4 Future Demand

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

- Changes in population – this has been slowly declining over many years. It is unlikely to have significant impact on water and sewer infrastructure

- Regulatory changes – standards for potable water supply and effluent discharges to the environment necessitate substantial infrastructure upgrades

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10 year total outlays, which for water and sewer is estimated as $165M or $16.5M on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is $108M or $10.8M on average per year as per Planned Budget. This is 65.29% of the cost to sustain the current level of service at the lowest lifecycle cost.

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

The anticipated Planned Budget for Water and Sewer leaves a shortfall of $57M or $5.7M on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below. This shortfall is mainly caused by the Condobolin water and sewer treatment plants and bore field – these comprise the orange bars in the graph below.

Forecast Lifecycle Costs and Planned Budgets

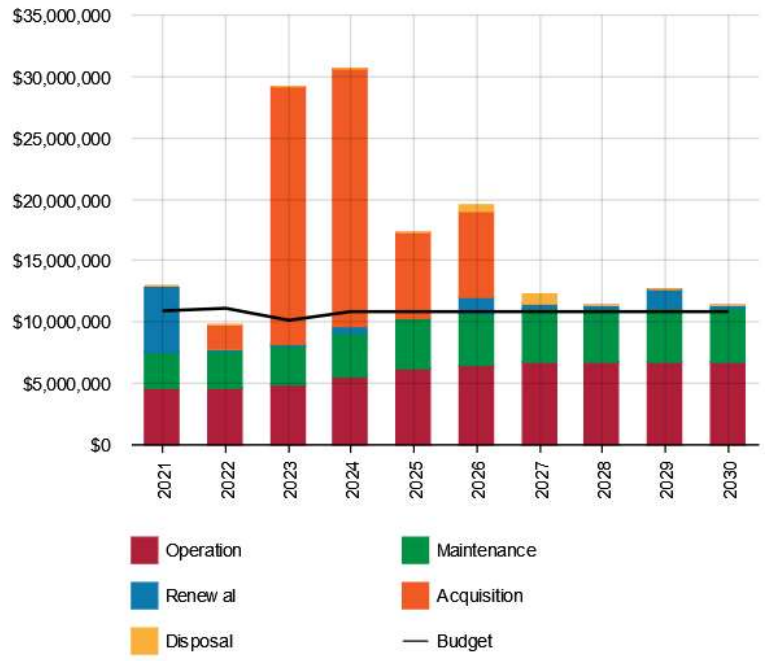


Figure Values are in current dollars.

We plan to provide water and sewer services for the following:

- Operation, maintenance, renewal and acquisition of water and sewer infrastructure to meet service levels set by Lachlan Shire Council in annual budgets
- Scheduled asset renewals within the 10 year planning period

Substantial replacements and upgrades are listed below:

- Replacement of Condobolin water treatment plant and sewer treatment plant to meet modern regulatory requirements
- Construction of a water supply bore field and associated supply pipeline for Condobolin
- Other asset acquisitions as per the Community Strategic Plan and Management Plans for individual sites or asset groups

1.6.2 What we cannot do

We currently do **not** allocate enough budget to sustain these services at the proposed standard or to provide all new services being sought. Works and services that cannot be provided under present funding levels are:

- Replacement of the Condobolin water treatment plant
- Replacement of the Condobolin sewer treatment plant

The above facilities are likely to qualify for state government grants which cover up to 75% of their cost. However, the balance (about $14M) may have to be funded through commercial loans.

1.6.3 Managing the Risks

Our present budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- No provision for unexpected events requiring additional expenditure. This means overspending is a likelihood in some years
- We will not be able to respond to increases in community expectations with current budget
- There is insufficient budget to renew assets as they are due for replacement. Increased breakdowns, facility unavailability are likely outcomes

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

- Prioritising the most critical renewals
- Not acquiring more new assets than the plan allows for

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- The life, value and condition data in the asset register is reasonably accurate
- The current annual budget is expected to remain similar in future years (but adjusted for inflation)
- No significant changes in population levels or facility demands
- All values are in current day dollars

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

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

The Asset Register was used to forecast the renewal lifecycle costs for this AM Plan.

This AM Plan is based on an uncertain level of confidence information.

1.8 Monitoring and Improvement Program

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

- Verify age data for the asset group. At present some values are incorrect, which affects scheduled renewal dates
- Improve links between Asset management Plan and Council's Long Term Financial Plan

2.0 Introduction

2.1 Background

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

The AM Plan is to be read with other asset management documents. This includes the Asset Management Policy 2022 and Asset Management Strategy 2022, along with other key planning documents:

- Long term financial plan
- Community Strategic Plan 2017-2026
- Delivery Program 2017-2021 and 2022 to 2026

Lachlan Shire Council is working towards integration and further implementation of Asset Management Plans, Strategic Plans to align with the Long Term Financial Plan. Senior management are committed to improving Council's asset management performance.

The infrastructure assets covered by this AM Plan include infrastructure providing sewerage services and supply of potable water. For a detailed summary of the assets covered in this AM Plan refer to Table in Section 5.

The infrastructure assets included in this plan have a total replacement value of $147M.

Key stakeholders in the preparation and implementation of this AM Plan are shown in Table 2.1.

Table 2.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Elected Councillors and Mayor	responsible for adopting the policy and ensuring that sufficient resources are applied to manage the assets.
General Manager	has overall responsibility for developing an asset management strategy, plans and procedures and reporting on the status and effectiveness of asset management within Council
Director Infrastructure Services	responsible for implementing asset management systems, policies and procedures
Manager Utilities and staff	responsible for the management of assets within the area of responsibility as determined under asset management plans

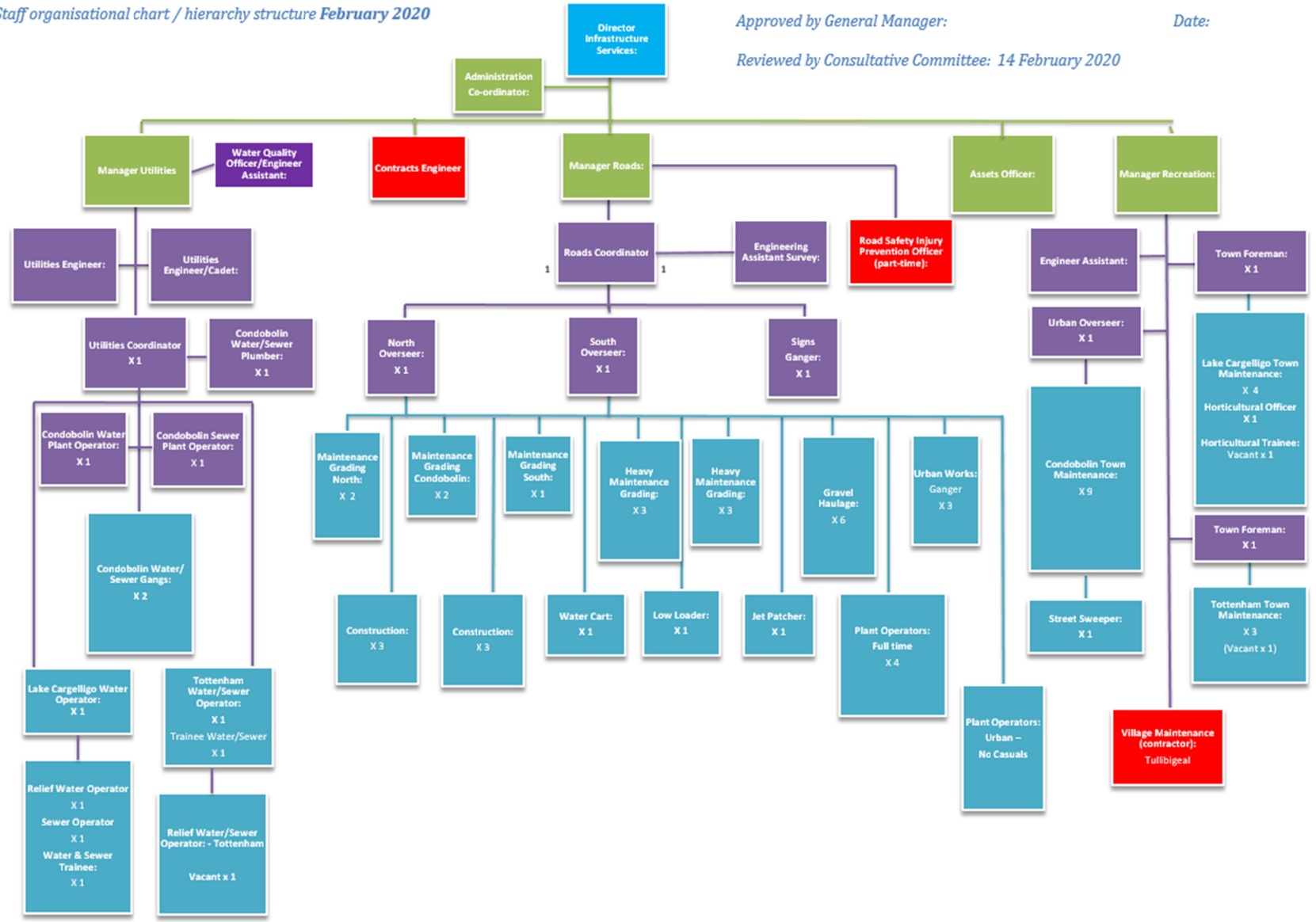
Our organisational structure for service delivery from infrastructure assets is detailed below. The Water and Sewer section is shown magnified on the subsequent page for clarity.

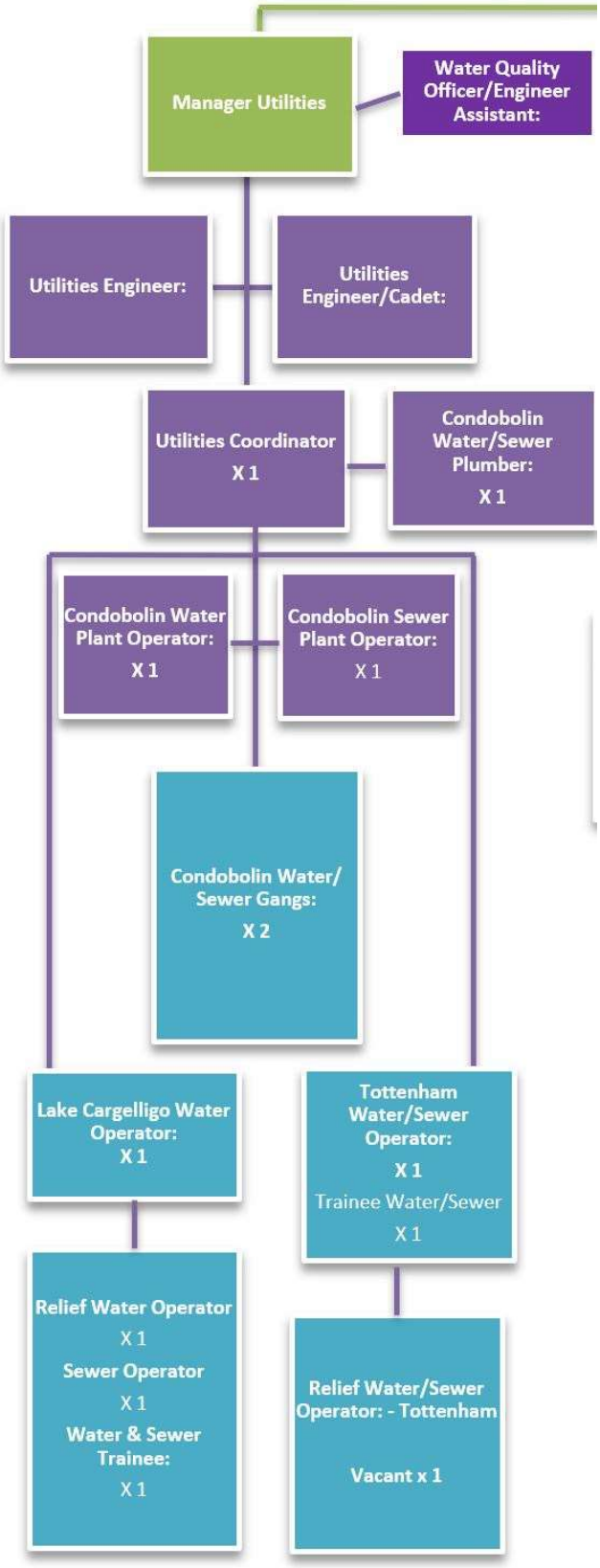
Lachlan Shire Council – Infrastructure Services Department

Staff organisational chart / hierarchy structure ***February 2020***

Approved by General Manager: *Date:*

Reviewed by Consultative Committee: 14 February 2020




Manager Utilities
Water Quality Officer/Engineer Assistant:
Utilities Engineer:
Utilities Engineer/Cadet:
Utilities Coordinator X 1
Condobolin Water/Sewer Plumber: X 1
Condobolin Water Plant Operator: X 1
Condobolin Sewer Plant Operator: X 1
Condobolin Water/ Sewer Gangs: X 2
Lake Cargelligo Water Operator: X 1
Tottenham Water/Sewer Operator: X 1
Trainee Water/Sewer X 1
Relief Water Operator X 1
Sewer Operator X 1
Water & Sewer Trainee: X 1
Relief Water/Sewer Operator: - Tottenham
Vacant x 1

2.2 Goals and Objectives of Asset Ownership

Our goal for managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. 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 for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Linking to a Long-Term Financial Plan which identifies required, affordable forecast costs and how it will be allocated.

Key elements of the planning framework are

- Levels of service – specifies the services and levels of service to be provided,
- Risk Management,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Lifecycle management – how to manage its existing and future assets to provide defined levels of service,
- Financial summary – what funds are required to provide the defined services,
- Asset management practices – how we manage provision of the services,
- Monitoring – how the plan will be monitored to ensure objectives are met,
- Asset management improvement plan – how we increase asset management maturity.

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

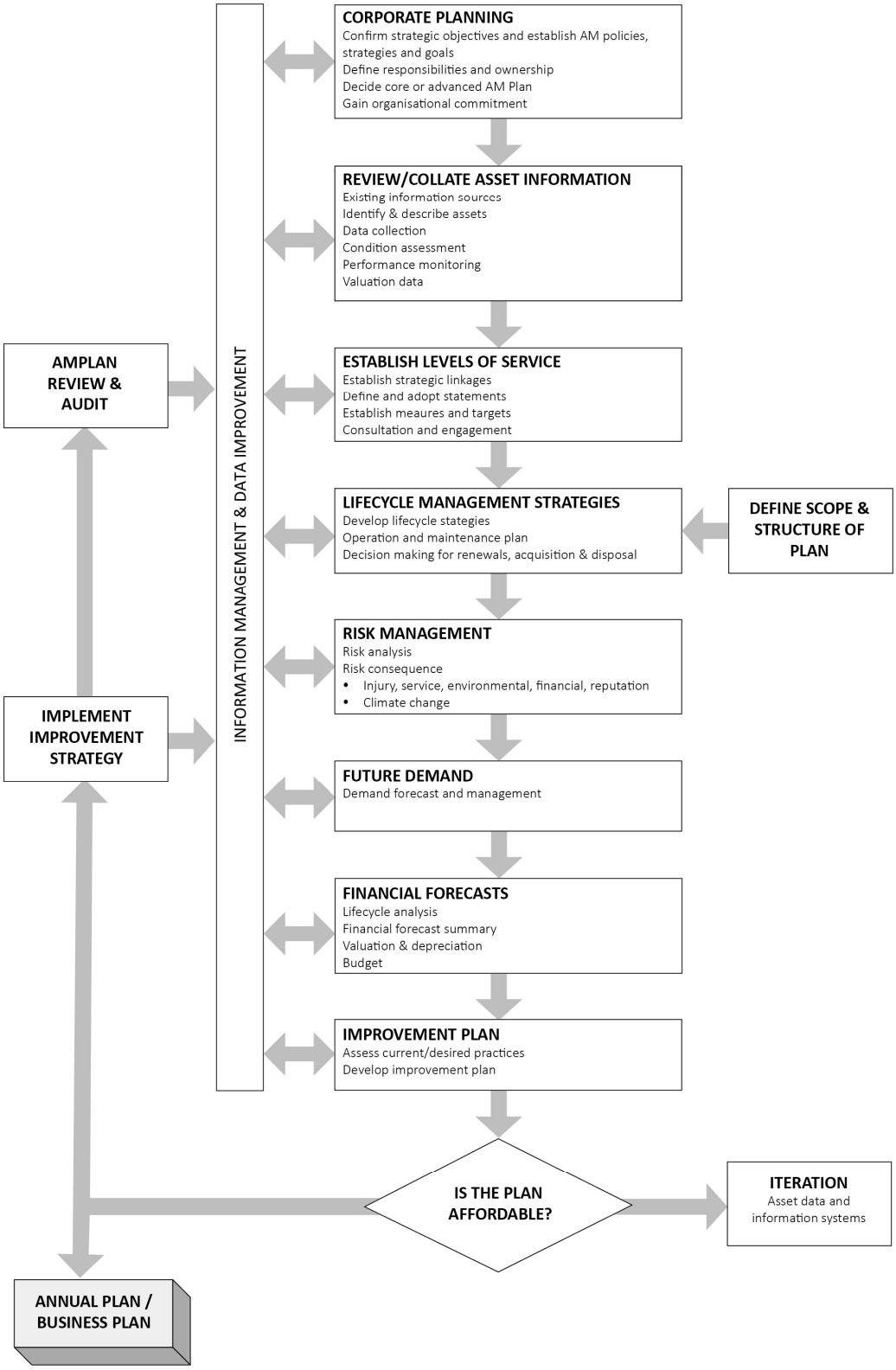
- International Infrastructure Management Manual 2015 [1]
- ISO 55000[2]

A road map for preparing an AM Plan is shown below.

[1] Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13
[2] ISO 55000 Overview, principles and terminology

Road Map for preparing an Asset Management Plan

Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11



3.0 Levels of service

3.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by Lachlan Shire Council. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist the Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

Water and sewer services are largely governed by federal guidelines and state legislation e.g. Australian Drinking Water Guidelines. If Council elects to provide a service, it must meet the relevant requirements. Therefore Council's options are limited to the choice of providing or not providing a service to a community. For example, some communities within the shire are provided with non-potable water (i.e. not suitable for drinking). There have been requests to upgrade the supply to potable, which could be done at considerable expense.

3.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Lachlan Shire Council vision, mission, goals and objectives.

Our vision is:

Lachlan Shire Council's vision for the future is to be a progressive, vibrant and prosperous community where families come to stay and enjoy a relaxed, healthy way of life and community spirit. [3]

Our mission is:

To engage the community, providing and delivering progressive services whilst implementing a long term strategic plan leading to the social and economic benefit of the community.

Strategic goals have been set by the Lachlan Shire Council. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 3.2.

[3] Council website www.lachlan.nsw.gov.au – retrieved June 2021

Table 3.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Water, sewer and energy utilities meet best practice standards with up to date technology	Consistent supply of services that meet all legislative requirements	Expectations are greater than current budget allows. If possible, allocate sufficient budget for acquisition of new relevant assets. Management Plans checked for details and implemented
Ensure water security for all towns and villages	Infrastructure ready to provide water supply in all situations	Expectations are greater than current budget allows. With community consultation, identify appropriate areas for improvements. This may necessitate reduction in some other facilities

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the Water and Sewer service are outlined in Table 3.3.

Table 3.3: Legislative Requirements

Legislation	Requirement
NSW Local Government Act 1993	Roles and responsibilities of Councils. Includes preparation of Strategic Plans
NSW Local Government Regulation 2005	
Australian Drinking Water Guidelines 2011	Providing a basis for determining the quality of water to be supplied to consumers in all parts of Australia
Work Health & Safety Act 2011 and NSW Work Health & Safety Regulation 2017	Employer to provide a safe work environment for staff
NSW Water Management Act 2000	Sourcing of water must meet legislative requirements
NSW Public Health Act 2010 & Regulation 2012	Sets standards for drinking water
NSW Protection of the Environment Operations Act 1997	Sets standards for any discharges to the environment

3.4 Customer Values

Service levels are defined in three ways, customer values, customer levels of service and technical levels of service.

Customer Values indicate:

- what aspects of the service is important to the customer,
- whether they see value in what is currently provided and
- the likely trend over time based on the current budget provision

Table 3.4: Customer Values

Service Objective:			
Customer Values	**Customer Satisfaction Measure**	**Current Feedback**	**Expected Trend Based on Planned Budget**
Water supply is reliable	Customer feedback	Frequent breakages in reticulation affect groups of customers, typically for several hours	May get worse due to old network being slowly renewed
Sewer service is "invisible" i.e. don't have to think about it or notice it	Customer feedback	Minimal complaints	No change
Water supplied is potable water	Customer feedback	Some villages only have non-potable water. This causes frequent requests to upgrade the supply	Not practical to change the current supply arrangements

3.5 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

Condition How good is the service … what is the condition or quality of the service?

Function Is it suitable for its intended purpose …. Is it the right service?

Capacity/Use Is the service over or under used … do we need more or less of these assets?

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

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

Table 3.5: Customer Level of Service Measures

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Condition rating of the facilities	Condition assessment, done periodically e.g. annual inspection	Most assets are in poor or fair condition (refer condition graph in this plan)	No significant change – renewal budget is matched to the aging process
	Confidence levels		Medium (Professional judgement supported by data sampling	Medium (Professional judgement supported by data sampling
Function	Are the assets appropriate for the intended purpose?	Utilisation of facilities by community	Most facilities are appropriate for the purpose and aligned with community needs	No significant change
	Confidence levels		Medium (Professional judgement supported by data sampling	Medium (Professional judgement supported by data sampling
Capacity	Are the facilities sufficient for community needs	Utilisation of facilities by community	Facilities are sufficient for community needs	Most facilities expected to remain sufficient for community needs
	Confidence levels		Medium (Professional judgement supported by data sampling	Medium (Professional judgement supported by data sampling

3.6 Technical Levels of Service

Technical Levels of Service – To deliver the customer values, and impact the achieved Customer Levels of Service, are operational or technical measures of performance. These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

- **Acquisition** – the activities to provide a higher level of service (e.g. widening a road, building a new water reservoir, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library).

- **Operation** – the regular activities to provide services (e.g. opening hours, running a water treatment plant, inspections, etc.
- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, replacing a broken water valve),
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally provided (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.[4]

Table 3.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan.

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEVELS OF SERVICE				
Acquisition	Construct new Condobolin water treatment plant	Successful completion within budget	Not commenced, not budgeted (will require substantial grant and loan funding)	Spending close to estimated amount, completed on time
	Construct new Condobolin sewer treatment plant	Successful completion within budget	Not commenced, not budgeted (will require substantial grant and loan funding)	Spending close to estimated amount, completed on time
	Other acquisitions as per the Operational Plan	Successful completion within budget	Scheduled, not commenced	Spending close to estimated amount, completed on time
		Budget	$0.3M	$5.8M
Operation	Operate water treatment plants and reticulation	Meet all regulatory requirements	Meets requirements consistently	Meets requirements consistently
		Provide consistent supply	Water supply interruptions due to pipe breakages etc.	Water supply is constant and reliable

[4] IPWEA, 2015, IIMM, p 2|28.

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
	Operate sewer treatment plants and reticulation	Meet all regulatory requirements Provide consistent service	Fails to meet all requirements Service for customers is consistent	Meets requirements consistently Service for customers is consistent
		Budget	$4.7M	$5.9M
Maintenance	Maintain water treatment plants and especially reticulation	Repairs done quickly to minimise interruption to supply	Adequate, repairs normally done same day	Repairs normally done same day
	Maintain sewer treatment plants and especially reticulation	Repairs done quickly to minimise interruption to service	Adequate, repairs normally done with minimal interruption to service	Repairs done with minimal impact on customers
		Budget	$3.1M	$3.9M
Renewal	Replace assets as they are due for renewal	Assets replaced on time and within budget	Some backlog of overdue renewals	Gradual clearing of backlog
		Budget	$2.7M	$0.99M
Disposal	Disposal of old Condobolin water & sewer treatment plants once new are constructed	Sites rehabilitated. Water treatment plant possibly restored for heritage purposes	Not commenced, not budgeted (may require grant or loan funding)	Spending close to estimated amount, completed on time
		Budget	$0	$1.25M

Note: * Current activities related to Planned Budget
** Expected performance related to forecast lifecycle costs

It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time.

4.0 Future demand

4.1 Demand Drivers

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

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented.

4.3 Demand Impact and Demand Management Plan

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 4.3.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this AM Plan.

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population change and movement	Facilities match demand	Gradual decline in population and shift of population from smaller towns	Operational & maintenance costs will not change significantly, so "cost per use" will increase at some facilities	The nature of water & sewer infrastructure means there is little scope for change to accommodate this demand driver
Change in demands by the public e.g. a change in community preference or needs	Facilities match demand	Unknown at present	Possible need to upgrade or change some facilities and services	Monitor usage. Where necessary, plan and implement changed or upgraded facilities
Regulatory change	Some treatment plants do not meet current requirements	Water supply is more strictly controlled and monitored	These are the main drivers requiring replacement of Condobolin WTP and STP	

		Sewage is more strictly regulated regarding pollution		

4.4 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit the Lachlan Shire Council to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the long-term financial plan (Refer to Section 5).

4.5 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets we manage and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk.

How climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which we respond and manage those impacts.[5]

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

Risk and opportunities identified to date are shown in Table 4.5.1

Table 4.5.1 Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Average temperatures	Current trend is 0.43° per decade in the region	Increased temperature will make buildings less comfortable for occupants	Install better insulation and air-conditioning in buildings
Average rainfall	Average annual rainfall is slowly decreasing in the region	Less rainfall will impact availability of water for irrigation	Investigate water recycling
Storms and severe weather events	Severe weather events are increasing	Increased damage to infrastructure	Construction standards may increase (with consequent increased costs)

[5] IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

Additionally, the way in which we construct new assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience can have the following benefits:

- Assets will withstand the impacts of climate change;
- Services can be sustained; and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint

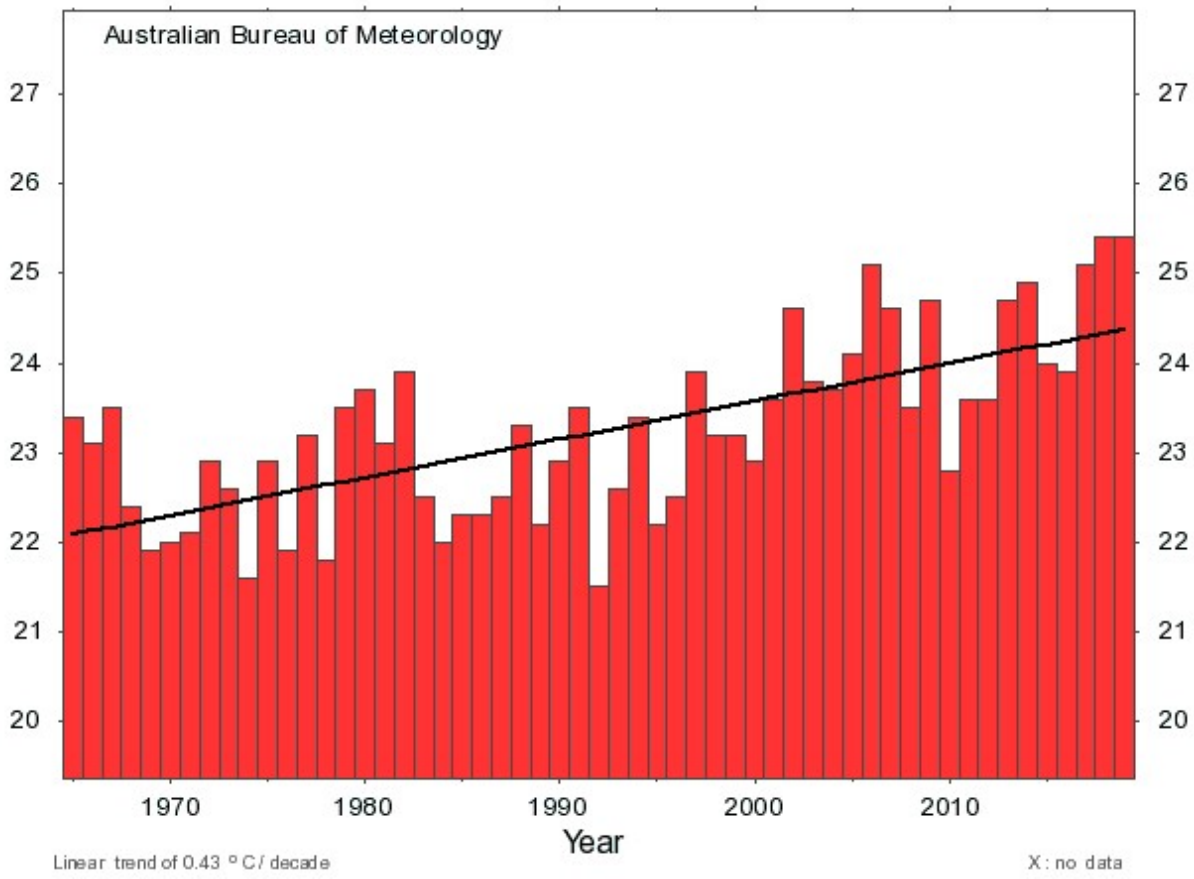
Table 4.5.2 summarises some asset climate change resilience opportunities.

Table 4.5.2 Building Asset Resilience to Climate Change

New Asset Description	Climate Change impact These assets	Build Resilience in New Works
New and renewed treatment plants and pump stations	Solar radiation	Solar power is an increasingly worthwhile investment with short payback time
New or renewed buildings and structures	Storms and severe weather	Designs to include water capture e.g. tanks for roof water, to use for watering vegetation

The impact of climate change on assets is a new and complex discussion and further opportunities will be developed in future revisions of this AM Plan.

Figure 4.5.3 Mean temperature 1965-2019 at West Wyalong (nearest monitoring site)



5.0 Lifecycle management plan

The lifecycle management plan details how the Lachlan Shire Council plans to manage and operate the assets at the agreed levels of service (Refer to Section 3) while managing life cycle costs.

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this AM Plan are shown in Table 5.1.1.

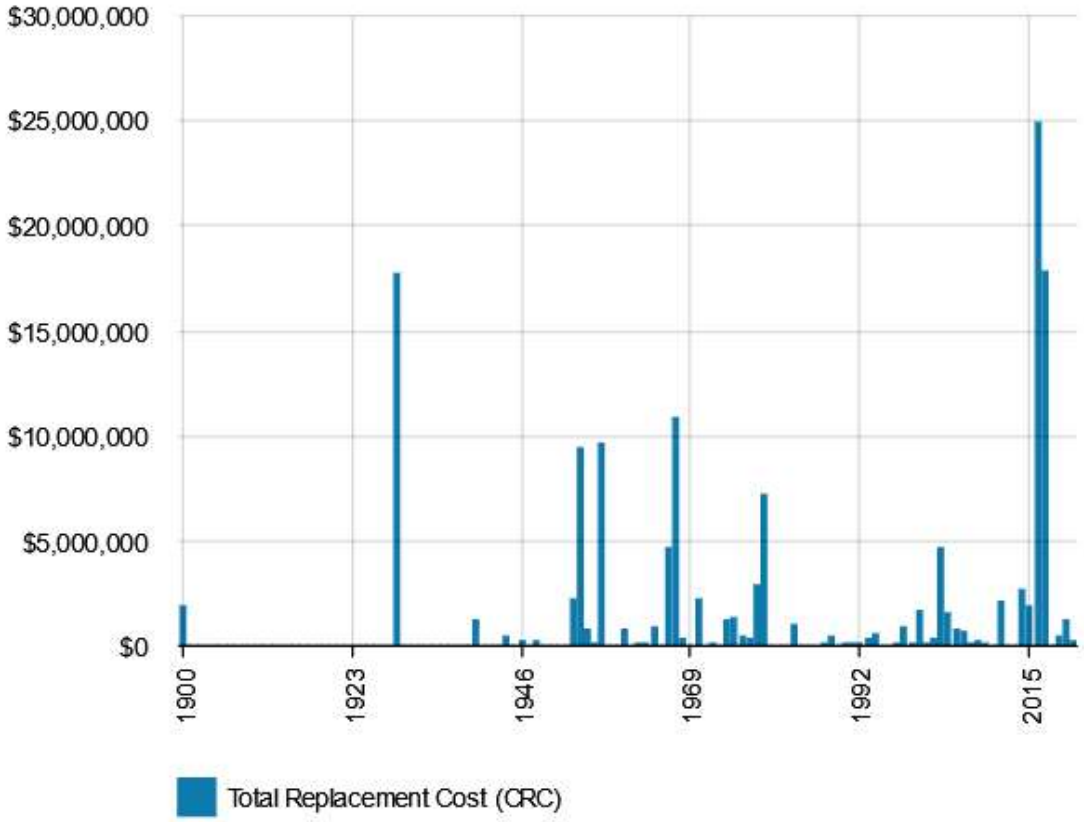
Water treatment plants are located in Condobolin, Lake Cargelligo and Tottenham. Sewer treatment plants are located in Condobolin, Lake Cargelligo and Tottenham. In addition to town water reticulation networks, there are pipelines of significant value across the shire including the B-section pipeline from Forbes to Albert and Tottenham and pipelines from Lake Cargelligo to Tullibigeal and Kikoira, Lake Cargelligo to Murrin Bridge and Merri Abba Bores to Lake Cargelligo.

Table 5.1.1: Assets covered by this Plan

Asset Category	Dimension	Replacement Value
Water treatment plants	Qty 3	$23M
Water reservoirs	Qty 16	$21M
Water sources (bores, weirs, trunk mains)	Qty 5	$29M
Water reticulation	262km	$31M
Sewer reticulation	75km	$24M
Sewer pumping stations	Qty 21	$8M
Sewer treatment plants	Qty 3	$11M
TOTAL		**$147M**

The age profile of the assets included in this AM Plan are shown in Figure 5.1.1.

Figure 5.1.1: Asset Age Profile



All figure values are shown in current day dollars.

There are three substantial peaks in the graph. In 1929 there is a $15M item for Lake Cargelligo water reticulation. There is some question regarding data accuracy of this item. Similarly, the peaks in 2016 and 2017 likely represent assets acquired at other dates. Verification of asset data has been identified in the improvement plan.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there is insufficient resources to address all known deficiencies. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Condobolin water treatment plant	Capacity shortfall during high demand periods, high maintenance and running cost due to age
Condobolin water supply	Water source less secure than requirements during drought times. Requires supplementing with new bores
Condobolin sewer treatment plant	Frequently fails to comply with EPA (pollution) licence
Condobolin water reticulation network	High incidence of breakdowns due to age. Many non-operational valves make network maintenance difficult. Water loss due to leaks.
B-section pipeline (to Albert and Tottenham)	High incidence of breakdowns due to age

The above service deficiencies were identified from interviews with Manager Utilities.

5.1.3 Asset condition

Water and Sewer assets are revalued over 5 years however condition is not always monitored, with revaluation inspections being sampled rather than complete. Revaluation is carried out by independent consultants.

Condition is measured using a 1 – 5 grading system[6] as detailed in Table 5.1.3. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AM plan results are translated to a 1 – 5 grading scale for ease of communication.

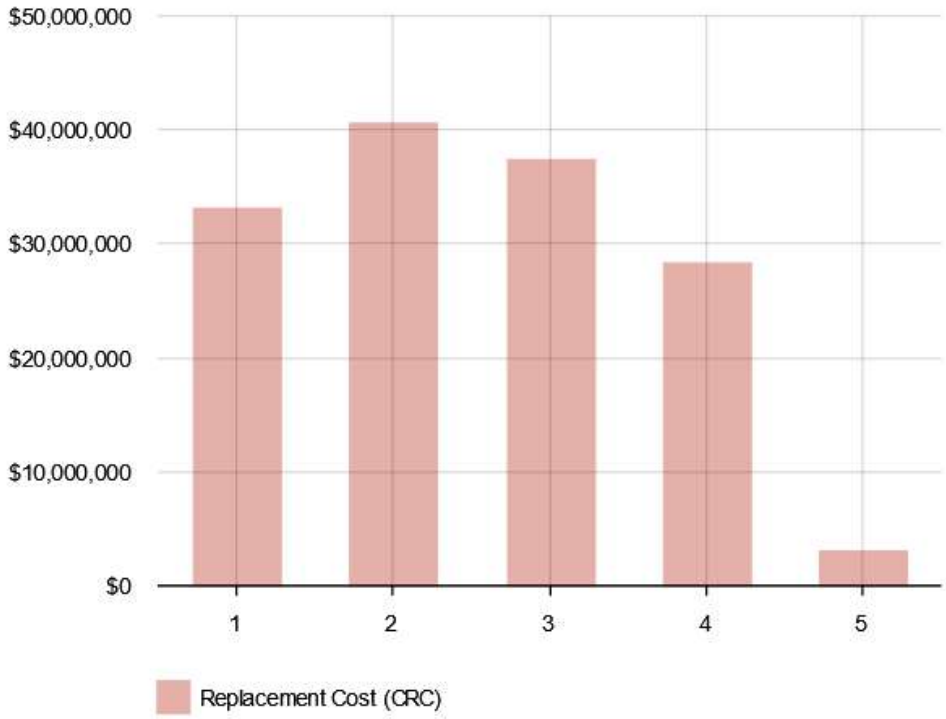
Table 5.1.3: Condition Grading System

Condition Grading	Description of Condition
1	**Very Good**: free of defects, only planned and/or routine maintenance required
2	**Good**: minor defects, increasing maintenance required plus planned maintenance
3	**Fair**: defects requiring regular and/or significant maintenance to reinstate service
4	**Poor**: significant defects, higher order cost intervention likely
5	**Very Poor**: physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 5.1.3.

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

Figure 5.1.3: Asset Condition Profile



All figure values are shown in current day dollars.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include running a water treatment plant, asset inspection, and utility costs.

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

The trend in maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Maintenance Budget Trends

Year	Maintenance Budget $
2021	$2,998,000
2022	$3,056,000
2023	$3,127,000

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

Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

5.2.1 Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 5.2.2.

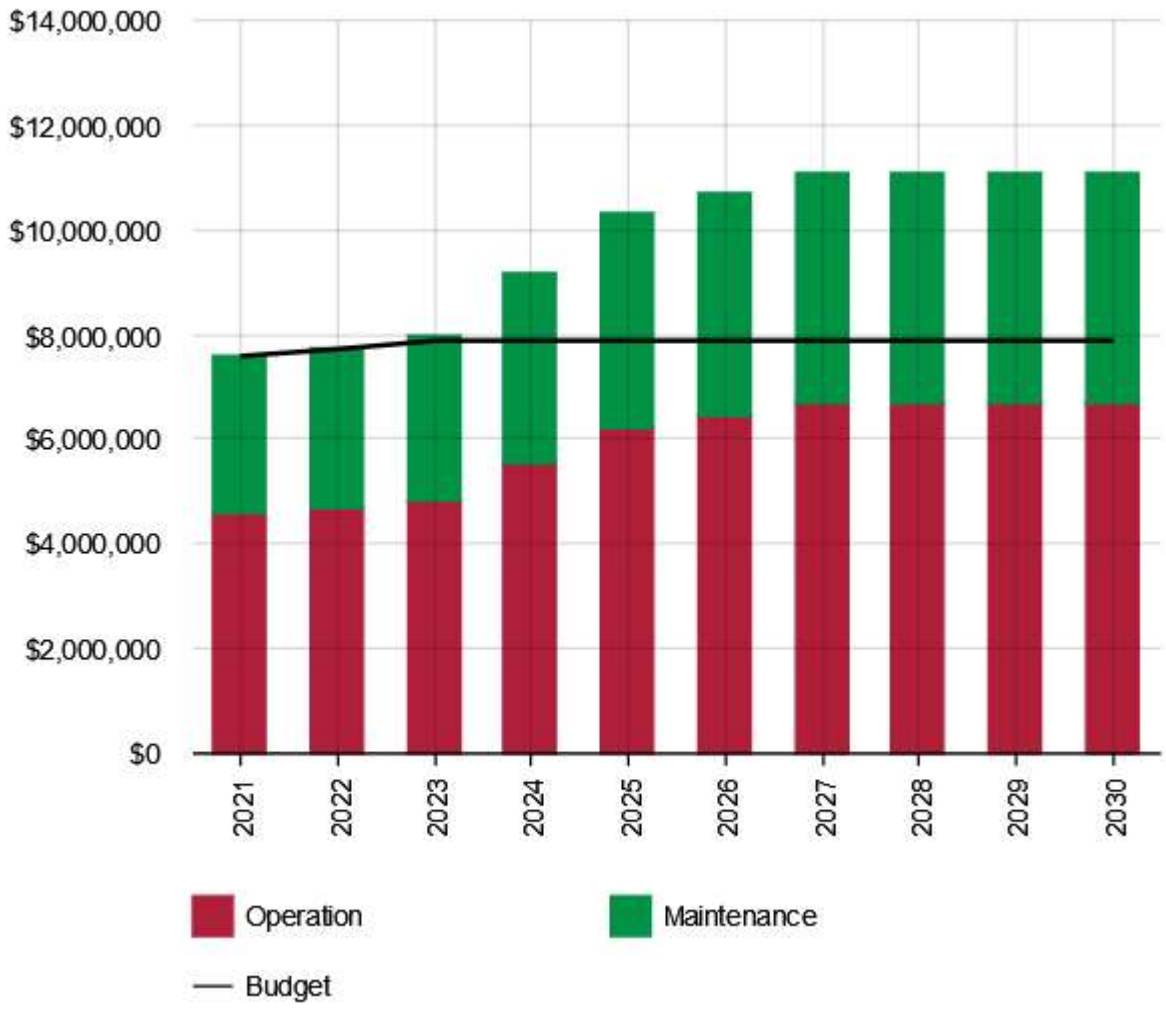
Table 5.2.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
To be determined	To be determined

5.2.2 Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 5.2 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.

Figure 5.2: Operations and Maintenance Summary



All figure values are shown in current day dollars.

The above graphs shows a shortfall in budget allocation. As new assets are added, the maintenance and operations costs tend to increase thereafter. Here, the new Condobolin water treatment plant is likely to have a greater operational cost than the old depot because of the higher water quality standards it will meet.

The consequence of the budget shortfall is that some maintenance will need to be deferred to later years. This has the effect of reducing the level of service – facilities will suffer a decline in amenity and functionality.

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.3. Asset useful lives were last reviewed in 2017 and 2018 during the revaluation process.[7] Water and sewer assets use unit rates and lifetimes determined by the **NSW Reference Rates Manual** published by Department of Primary Industries. Council's existing water and sewer assets are revalued every 5 years to match these reference rates. New assets are recorded in the finance system using the reference rates that apply at the time they are built or acquired.

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Water Treatment Works	Structure: 70 years Mechanical & electrical: 30 years
Water Mains	New: 80 years Relined mains: 50 years
Water Pumping Stations	Structure: 50 years Mechanical & electrical: 25 years
Water reservoirs	Roof: 40 years Structure: 100 years
Bores	30 years
Sewer Treatment Works	Structure: 50 years Mechanical & electrical: 20 years
Sewer Mains	AC pipes: 45 years VC pipes: 70 years UPVC pipes: 70 years

[7] LSC Sewer Pump Station & Mains Fair Valuation 2020

	Concrete pipes: 45 years DI pipes: 40 years Relined pipes: 50 years years
Access Chambers	Structure: 70 years Ladder: 25 years
Sewer Pumping Stations	Structure: 50 years Mechanical & electrical: 25 years years (componentised)

The estimates for renewals in this AM Plan were based on the asset register.

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a pipeline at end of its life), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a sewer pump).[8]

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.[9]

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

[8] IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.
[9] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

Table 5.3.1: Renewal Priority Ranking Criteria

Criteria	Weighting
Safety risk or legislative requirement	45%
Financial benefit i.e. replace with more efficient or economic item	15%
Condition of the asset	20%
Benefit to community e.g. replacement gives better service	20%
Total	**100%**

5.3.2 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4.1. A detailed summary of the forecast renewal costs is shown in Appendix D.

Figure 5.4.1: Forecast Renewal Costs

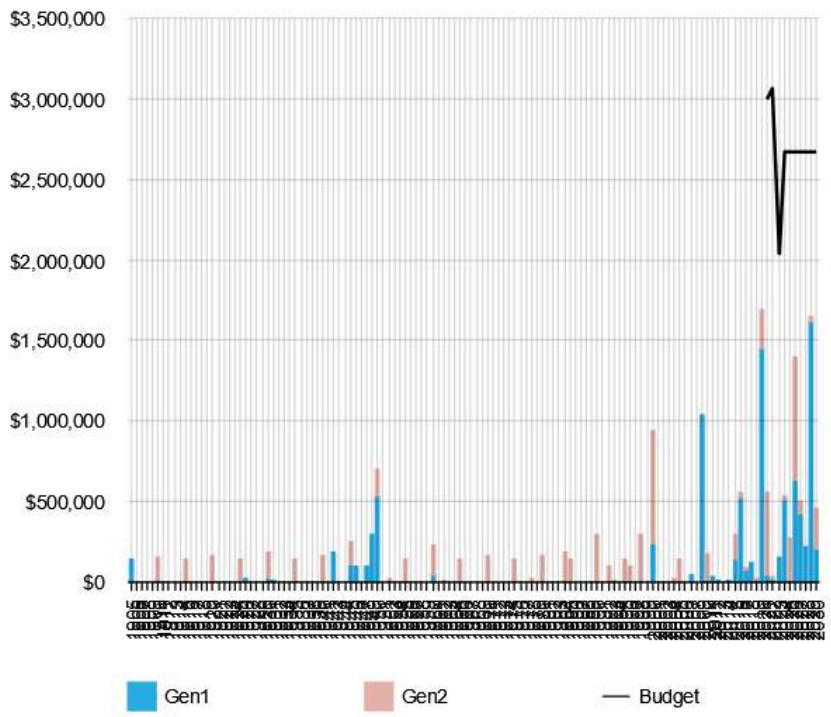
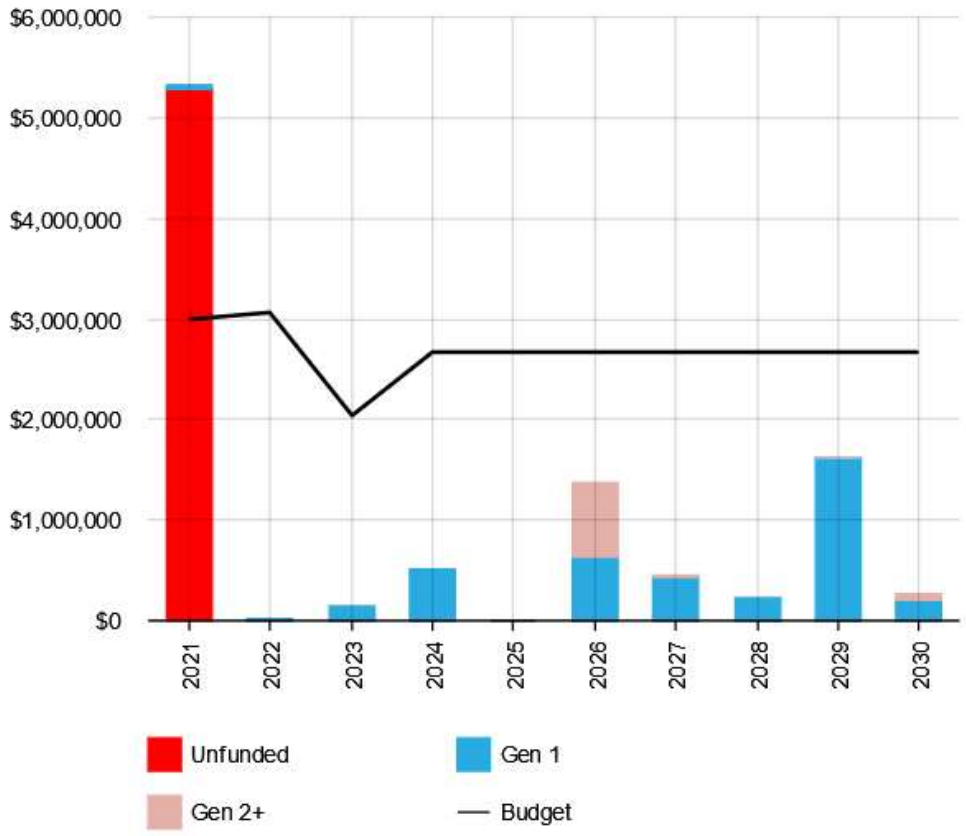


Figure 5.4.1: Forecast Renewal Costs



All figure values are shown in current day dollars.

It can be seen from the above graph that the first year has a renewal cost that is substantially greater than the expected budget. This represents a backlog of renewals from previous years. However upon inspection of the assets due for renewal, some may not need replacement immediately. The backlog of renewals actually needing to be done is likely to be spread over several subsequent years.

Deferred renewal increases risks to Council. Refer to Section 6 for details.

5.4 Acquisition Plan

Acquisition reflects are new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs. Assets may also be donated to the Lachlan Shire Council. Known acquisitions are the Condobolin water and sewer treatment plants along with the Condobolin bore field and associated pipeline.

5.4.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrade and new works should be reviewed to verify that they are essential to the Entities needs. Proposed upgrade and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals can then be ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.5.1.

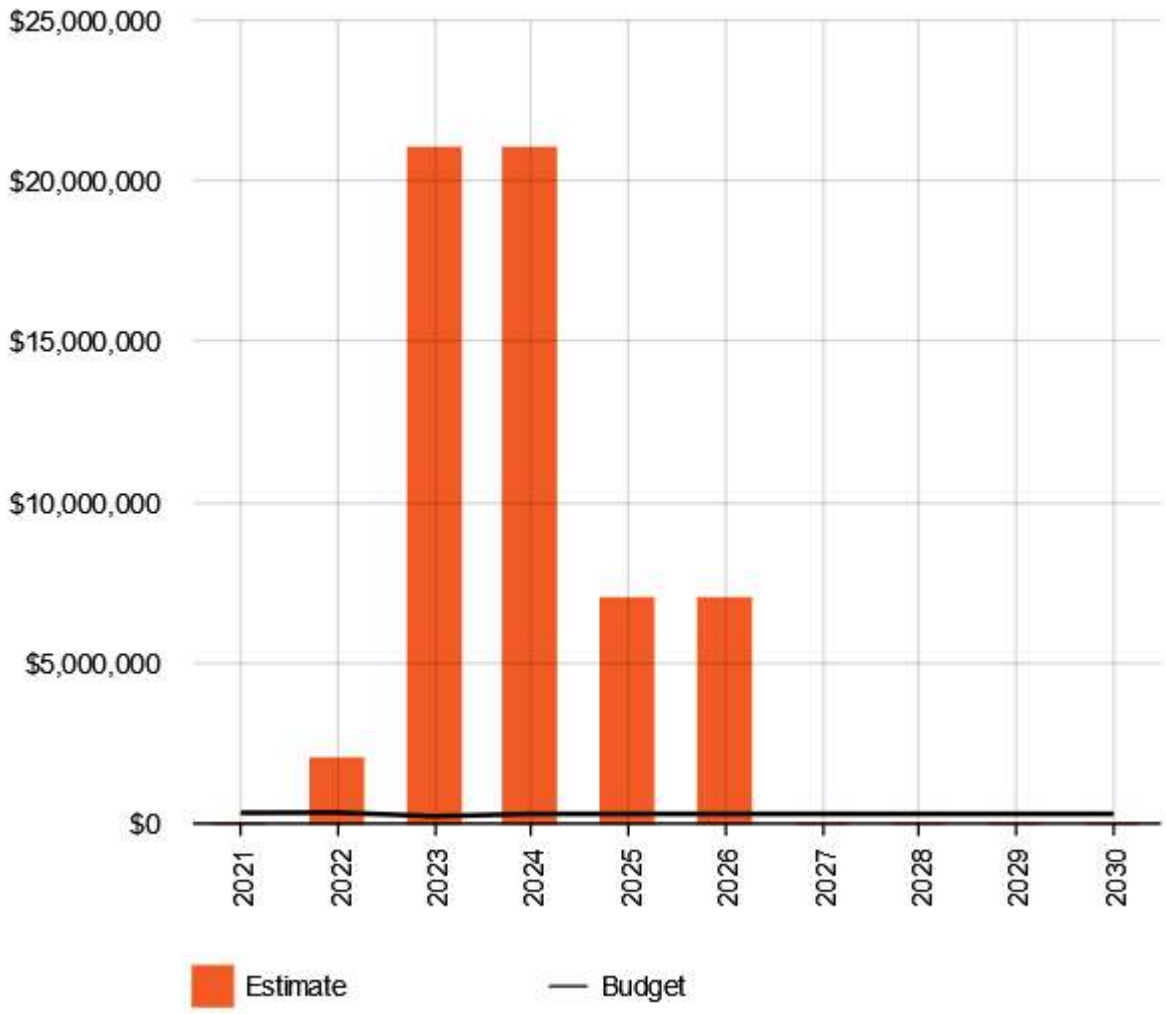
Table 5.5.1: Acquired Assets Priority Ranking Criteria

Criteria	Weighting
Community and user demands	30%
Legislative changes	60%
Financial benefits e.g. improved efficiency	10%
Total	**100%**

5.4.2 Summary of future asset acquisition costs

Forecast acquisition asset costs are summarised / summarized in Figure 5.5.1 and shown relative to the proposed acquisition budget. The forecast acquisition capital works program is shown in Appendix A.

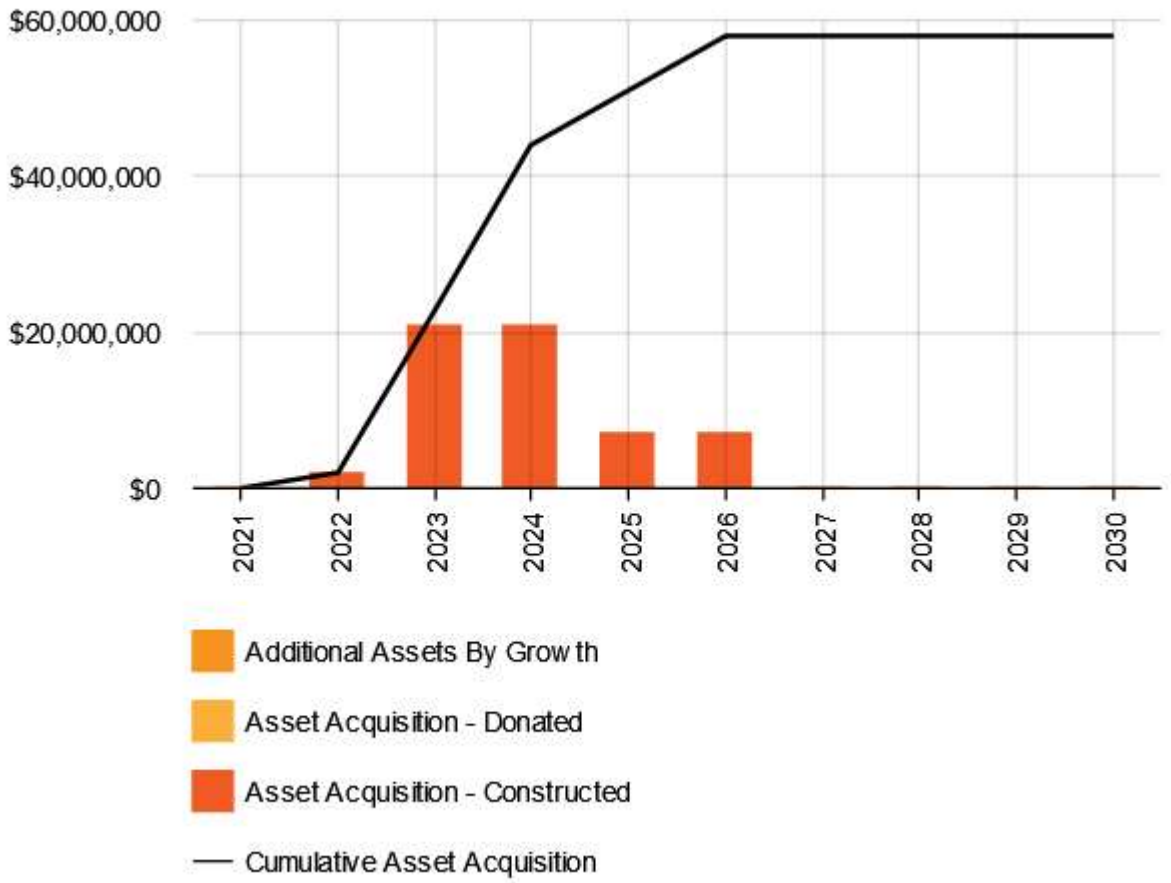
Figure 5.5.1: Acquisition (Constructed) Summary



All figure values are shown in current day dollars.

When an Entity commits to new assets, they must be prepared to fund future operations, maintenance and renewal costs. They must also account for future depreciation when reviewing long term sustainability. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the Entity. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 5.5.2.

Figure 5.5.2: Acquisition Summary



All figure values are shown in current dollars.

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding.

Construction of the new assets (Condobolin water and sewer treatment plants and the bore field) is likely to attract substantial state government grant funding. However Council will need to supplement that with loans up to about $14M.

5.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.6. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposing of the assets are also outlined in Table

5.6. Any costs or revenue gained from asset disposals is included in the long-term financial plan.

Table 5.6: Assets Identified for Disposal

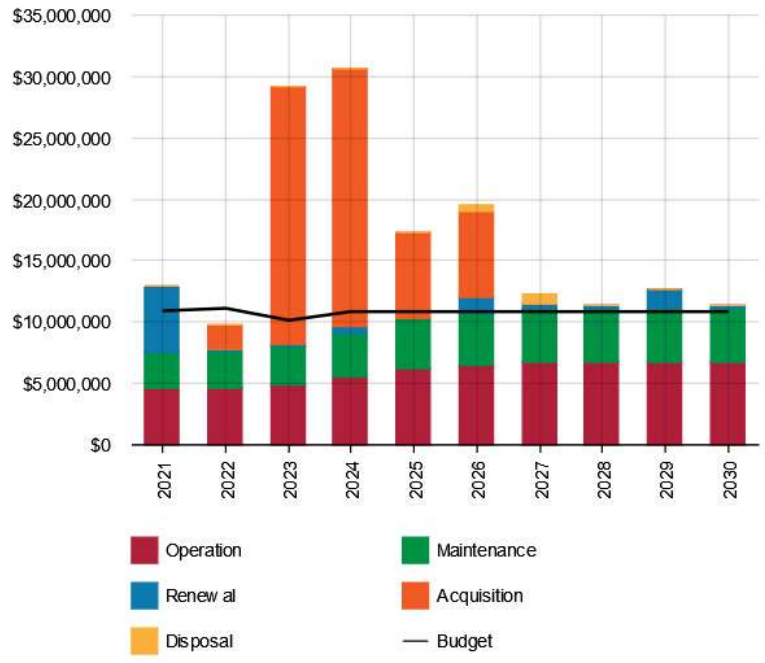
Asset	Reason for Disposal	Timing	Disposal Costs	Operations & Maintenance Annual Savings
Condobolin water treatment plant	obsolete	2026	$500,000	TBD (costs may increase)
Condobolin sewer treatment plant	obsolete	2027	$750,000	TBD

5.6 Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.7.1. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

The bars in the graphs represent the forecast costs needed to minimise the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 5.7.1: Lifecycle Summary



All figure values are shown in current day dollars.

The orange coloured portion of the bars represents the acquisition of the new Condobolin water treatment plant, sewer treatment plant and bore field with associated supply pipeline. These are at present unfunded. These assets are required urgently. It is likely the state government will fund a significant portion of the cost (up to 75% for the treatment plants and 100% for the bore field) by grant funding. The balance of the cost, about $14M may need to be funded by commercial loans or similar.

With the exception of the above mentioned three major projects, the chart shows that budget and expenditure are approximately matched for most years.

6.0 Risk management planning

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk'[10].

An assessment of risks[11] associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarised in Table 6.1. Failure modes may include physical failure, collapse or essential service interruption.

In water and sewer networks there is very little redundancy and the services provided are considered essential. Therefore, almost all the items within the asset group could be considered critical as failure will affect some customers. The most critical items are the ones that have potential to affect a large number of customers. These include water and sewer treatment plants, water reservoirs, large water supply mains (known as trunk mains) and sewer pump stations.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Water treatment plant	Breakdown causes loss of production	Water supplies reduced or stopped, water quality not meet standards
Sewer treatment plant	Failure to adequately treat sewage	Pollution event, overflows
Water pumping station	Stops pumping	Water supply interruptions

[10] ISO 31000:2009, p 2

[11] At June 2022 an overall risk assessment for water and sewer has commenced but not been completed

Critical Asset(s)	Failure Mode	Impact
Bores (esp. Merri Abba Bores)		Water supply interruptions
Sewer pumping station	Stops pumping	Potential for overflows, requiring expensive decanting and carting until repairs completed
Water reservoirs	Leaks	Substantial leaks increase cost of water supply, can affect structural integrity
Water mains (esp trunk)	Breakages	Many customers likely to lose water supply while repairs are done
Sewer mains		Blockages or overflows, requiring expensive decanting and carting until repairs completed

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

6.2 Risk Assessment

The risk management process used is shown in Figure 6.2 below.

It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of International Standard ISO 31000:2018.

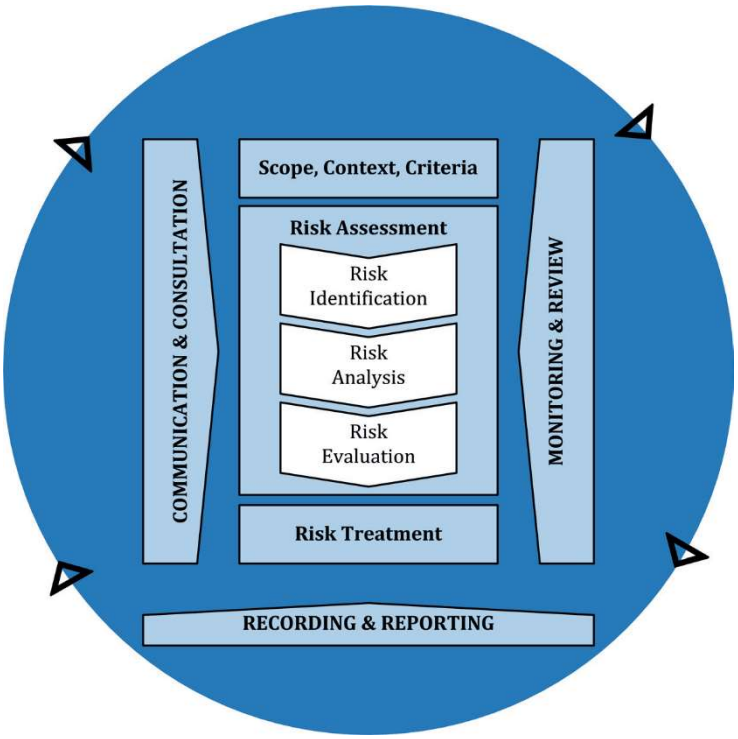


Fig 6.2 Risk Management Process – Abridged
Source: ISO 31000:2018, Figure 1, p9

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

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

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

Table 6.2: Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Condobolin water treatment plant	Not meeting water quality requirements[12], not able to supply sufficient water in hot weather	Very high	Construct new water treatment plant	Low	$24M
Condobolin sewer treatment plant	Not meeting pollution guidelines	Very high	Construct new sewer treatment plant	Low	$14M
Condobolin water supply	Not able to meet water demands during drought	Very high	Construct bore field and supply pipeline	Low	$20M

Note * The residual risk is the risk remaining after the selected risk treatment plan is implemented.

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership.

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

[12] This is a hypothetical situation. Condobolin WTP has always met water quality requirements

Table 6.3: Resilience Assessment

Threat / Hazard	Assessment Method	Current Resilience Approach
Changing community needs	Engage with community, ensure services are consistent with expectations	Low – we are not currently monitoring and assessing changing community needs
Changing regulatory environment	Monitor regulatory environment – participate in industry forums	Low – we have not been able to upgrade our infrastructure to meet modern water quality, WHS and pollution regulations
Climate change	Assess against benchmarks and guidelines	Medium – Council has recently started a significant rollout of solar power. There are opportunities to reduce Council's impact on the environment. Also planned bores will improve resilience for droughts

Note: We do not currently measure our resilience in service delivery. This will be included in future iterations of the AM Plan.

6.4 Service and Risk Trade-Offs

The decisions made in adopting this AM Plan are based on the objective to achieve the optimum benefits from the available resources.

6.4.1 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Acquiring new assets will cause further reductions in level of service due to budget barely covering cost to run existing asset base

6.4.2 Service trade-off

If there is forecast work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- Reduction in level of service and customer satisfaction when renewals and upgrades are deferred. In effect this can mean increases in water mains breakages and failures of sewer pump stations

6.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- Short to medium term interruption to service until repairs can be completed

- Impact to Council reputation when services are not available

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

7.0 Financial summary

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in the AM Plan for this service area. The two indicators are the:

- asset renewal funding ratio (proposed renewal budget for the next 10 years / forecast renewal costs for next 10 years), and
- medium term forecast costs/proposed budget (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio[13] 270.08%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have 270.08% of the funds required for the optimal renewal of assets. **Note** this does not include assets that need upgrading and are thus considered as acquisitions. Particularly this includes the Condobolin water and sewer treatment plants with a combined value of approximately $38M.

The forecast renewal work along with the proposed renewal budget, and the cumulative shortfall, is illustrated in Appendix D.

7.1.2 Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall.

The forecast operations, maintenance and renewal costs over the 10 year planning period is $10765115 average per year.

The proposed (budget) operations, maintenance and renewal funding is $10516000 on average per year giving a 10 year funding shortfall of $-249115 per year. This indicates that

[13] AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

97.69% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 1.0 for the first years of the AM Plan and ideally over the 10 year life of the Long-Term Financial Plan.

7.1.3 Forecast Costs (outlays) for the long-term financial plan

Table 7.1.3 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the long-term financial plan).

We will manage the 'gap' by developing this AM Plan to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Forecast costs are shown in 2021 dollar values.

Table 7.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2021	$0	$4,589,000	$2,998,000	$5,324,945	$0
2022	$2,000,000	$4,666,000	$3,056,000	$17,096	$0
2023	$21,000,000	$4,822,400	$3,170,600	$148,995	$0
2024	$21,000,000	$5,519,600	$3,628,400	$508,338	$0
2025	$7,000,000	$6,216,800	$4,086,200	$7,102	$0
2026	$7,000,000	$6,449,200	$4,238,800	$1,359,966	$500,000
2027	$0	$6,681,600	$4,391,400	$441,103	$750,000
2028	$0	$6,681,600	$4,391,400	$222,339	$0
2029	$0	$6,681,600	$4,391,400	$1,626,019	$0
2030	$0	$6,681,600	$4,391,400	$262,244	$0

7.2 Funding Strategy

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

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

7.3 Valuation Forecasts

7.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued at Fair Value in accordance with AASB 116[14]

Replacement Cost (Current/Gross)	$142582059
Depreciable Amount	$142582059
Depreciated Replacement Cost[15]	$75113384
Depreciation	$2648209.0

7.3.2 Valuation forecast

Asset values are forecast to increase overall as additional assets are added or removed from service.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

7.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this AM Plan are:

- The life, value and condition data in the asset register is reasonably accurate

[14] AASB (Australian Accounting Standards Board) 116 – Property Plant and Equipment

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

- The current annual budget is expected to remain similar in future years (but adjusted for inflation)
- No significant changes in population levels or facility demands
- All values are in current day dollars

7.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on an A - E level scale[16] in accordance with Table 7.5.1.

Table 7.5.1: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 7.5.2.

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

Table 7.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	E	Little data held or research done
Growth projections	B	From ABS data
Acquisition forecast	C	Based on 2021 budget
Operation forecast	C	Based on 2021 budget
Maintenance forecast	C	Based on 2021 budget
Renewal forecast - Asset values	C	To be reviewed next revaluation
- Asset useful lives	C	To be reviewed next revaluation
- Condition modelling	D	Errors noted in condition data
Disposal forecast	B	Two significant items to be disposed are known

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

8.0 Plan improvement and monitoring

8.1 Status of Asset Management Practices[17]

8.1.1 Accounting and financial data sources

This AM Plan utilises accounting and financial data. The source of the data is Council's financial asset register "Authority".

8.1.2 Asset management data sources

This AM Plan also utilises asset management data. The source of the data is the most recent revaluation reports for the water and sewer areas.

8.2 Improvement Plan

It is important that an entity recognise areas of their AM Plan and planning process that require future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 8.2.

Table 8.2: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Numerous entries in asset register have poor descriptions making identification of corresponding physical asset difficult. Verify each asset and update description where appropriate	Asset officer	Work with onsite staff to verify assets	2 years
2	Asset condition and age data has many errors, which makes renewal planning difficult. All assets to be assessed for condition and age	Manager Utilities	Work with asset officer	2 years
3	AM Plan needs to be better linked with long term financial plan	Senior management	Work with finance staff	2 years
4	Asses resilience to risk factors for each asset group	Asset officer	Work with asset manager	2 years
5	Where possible, provide detail of expected grant funded acquisitions	Senior management	More detail required in the delivery program	2 years

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

8.3 Monitoring and Review Procedures

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

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

The AM Plan has a maximum life of 4 years and is due for complete revision and updating in 2025.

8.4 Performance Measures

The effectiveness of this AM Plan can be measured in the following ways:

- The degree to which the required forecast costs identified in this AM Plan are incorporated into the long-term financial plan,
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the AM Plan,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organisational target (this target is often 90 – 100%).

9.0 References

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- LSC Community Strategic Plan 2017-2026
- LSC Delivery program 2022-2026

10.0 Appendices

Appendix A Acquisition Forecast

A.1 – Acquisition Forecast Assumptions and Source

The water and sewer asset group dos not normally have many acquisitions. However acquisitions are often of large value. Such acquisitions are often timed to suit available grant funding rather than renewal and condition requirements.

A.2 – Acquisition Project Summary

Substantial acquisitions are expected in 2022 through 2026.

Year	Project	$ Estimate
2022	Condobolin bore and pipeline	2,000,000
2023	Condobolin bore and pipeline	9,000,000
2023	Condobolin WTP	12,000,000
2024	Condobolin WTP	12,000,000
2024	Condobolin bore and pipeline	9,000,000
2025	Condobolin STP	7,000,000
2026	Condobolin STP	7,000,000

A.3 – Acquisition Forecast Summary

Table A3 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2021	$0	$0	$0
2022	$2,000,000	$0	$0
2023	$21,000,000	$0	$0
2024	$21,000,000	$0	$0
2025	$7,000,000	$0	$0
2026	$7,000,000	$0	$0
2027	$0	$0	$0
2028	$0	$0	$0
2029	$0	$0	$0
2030	$0	$0	$0

Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

Operations costs are based on the 2021-22 for that year and the following 2 years. The 2024 budget is assumed for subsequent years.

B.2 – Operation Forecast Summary

Table B2 - Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast
2021	$4,589,000	$0	$4,589,000
2022	$4,666,000	$66,400	$4,666,000
2023	$4,756,000	$697,200	$4,822,400
2024	$4,756,000	$697,200	$5,519,600
2025	$4,756,000	$232,400	$6,216,800
2026	$4,756,000	$232,400	$6,449,200
2027	$4,756,000	$0	$6,681,600
2028	$4,756,000	$0	$6,681,600
2029	$4,756,000	$0	$6,681,600
2030	$4,756,000	$0	$6,681,600

Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

Maintenance costs are based on the 2021-22 for that year and the following 2 years. The 2024 budget is assumed for subsequent years.

C.2 – Maintenance Forecast Summary

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Table C2 - Maintenance Forecast Summary

Year	Maintenance Forecast	Additional Maintenance Forecast	Total Maintenance Forecast
2021	$2,998,000	$0	$2,998,000
2022	$3,056,000	$43,600	$3,056,000
2023	$3,127,000	$457,800	$3,170,600
2024	$3,127,000	$457,800	$3,628,400
2025	$3,127,000	$152,600	$4,086,200
2026	$3,127,000	$152,600	$4,238,800
2027	$3,127,000	$0	$4,391,400
2028	$3,127,000	$0	$4,391,400
2029	$3,127,000	$0	$4,391,400
2030	$3,127,000	$0	$4,391,400

Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

Renewals are based on condition and expected life.

D.2 – Renewal Project Summary

Most years the renewals comprise many varying items. Therefore no renewal project summary is included in this AM Plan. The renewal plan below shows the first two years of the plan and the AM Plan includes a renewal schedule for the 10 year life of the plan.

D.3 – Renewal Forecast Summary

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2021	$5,324,945	$2,996,100
2022	$17,096	$3,063,600
2023	$148,995	$2,039,400
2024	$508,338	$2,669,700
2025	$7,102	$2,669,700
2026	$1,359,966	$2,669,700
2027	$441,103	$2,669,700
2028	$222,339	$2,669,700
2029	$1,626,019	$2,669,700
2030	$262,244	$2,669,700

D.4 –Renewal Plan

Detail output from NAMS+ is provided on the following 2 pages.

Asset ID	Category	Asset Name	Remaining Life	Register Renewal Year	Forecast Renewal Year	Renewal Cost	Useful Life
902	Water Fund	Computerised meter reading	-116	1905	2021	$18,683	5
904	Water Fund	Condo Water Meters	-116	1905	2021	$84,094	5
920	Water Fund	Tulli Water Meters	-116	1905	2021	$4,902	5
916	Water Fund	Lake Water Meters	-116	1905	2021	$39,068	5
918	Water Fund	Tott Water Meters	-111	1910	2021	$14,267	10
1809	Water Fund	Tott Reservoir Res Fence (82917)	-101	1920	2021	$1	20
1811	Water Fund	Tott L-O-M Dam Fence Res (86258)	-101	1920	2021	$1	20
1803	Water Fund	Condo Pump Stn Fence (Rogers)	-101	1920	2021	$1	20
508	Water Fund	Lake Water Filteration Depot - Plant Room Small	-101	1920	2021	$1	20
1690	Sewer Fund	Sewer drainage upgrade	-95	1926	2021	$18,462	26
22037	Water Fund	Lake Cargelligo - WTW - Plant Building - Sodium Flouride - Euabalong	-91	1930	2021	$12,000	30
22203	Water Fund	Condobolin - Fluoride Dosing Unit - Transportable Office - Stenhouse	-91	1930	2021	$10,800	30
1796	Water Fund	Condobolin - Landfill extend water pipeline	-90	1931	2021	$6,485	31
512	Water Fund	Tott Water Treatment Works	-79	1942	2021	$183,750	42
503	Water Fund	Condo Water Pumphouse	-76	1945	2021	$26,150	45
21928	Water Fund	Tullibigeal - Water Pumping Station - Booster Building - Wyalong Rd	-76	1945	2021	$19,750	45
21930	Sewer Fund	Condobolin - Sewage Treament Plant (building) - Golf Links Rd	-76	1945	2021	$38,800	45
21973	Water Fund	Condobolin WTP Switch Room Golf Links Road	-76	1945	2021	$11,100	45
21974	Sewer Fund	Condobolin STP Sewer Pump Station Lachlan Street	-76	1945	2021	$18,400	45
21922	Sewer Fund	Lake Cargelligo - STW - Amentiies Block/Office - Blackers Rd	-75	1946	2021	$96,200	46
22021	Water Fund	Lake Cargelligo - WTW Plant Building (Shed) - Water Treatment Plant -	-73	1948	2021	$93,850	48
21920	Water Fund	Lake Cargelligo - Water Treatement Works - Plant Building - DAF Plant	-72	1949	2021	$188,250	49
509	Water Fund	Lake Water Filteration Depot	-72	1949	2021	$106,350	49
510	Water Fund	Lake Water Treatment Works	-71	1950	2021	$56,700	50
504	Water Fund	Condo WTP Storage Shed	-71	1950	2021	$35,700	50
506	Water Fund	Lake Water Filteration Depot - Plant Romm Large	-71	1950	2021	$11,050	50
507	Water Fund	Lake Water Filteration Depot - Office	-71	1950	2021	$21,000	50
1810	Water Fund	Tottenham reservoir fence	-71	1950	2021	$18,000	50
1813	Water Fund	Tullibegeal reservoirs fencing and security	-71	1950	2021	$19,500	50
1804	Water Fund	Condo Reservoir Res Fence (Brady)	-71	1950	2021	$48,000	50
1805	Water Fund	Condo Treat Wks Fence (Parkes Rd)	-71	1950	2021	$1,760	50
1806	Water Fund	Condo WTP Fence & Security	-71	1950	2021	$33,200	50
1807	Water Fund	Fifield Reservoir Res Fence (1826)	-71	1950	2021	$7,500	50
1808	Water Fund	Lake Treat Wks Fence	-71	1950	2021	$22,000	50
22213	Sewer Fund	Condobolin - Sanitary Paddock - Perimeter Fence - Oppy Lane	-71	1950	2021	$7,000	50
22113	Sewer Fund	Condobolin SRA Ground Netball Fence Diggers Ave	-71	1950	2021	$23,400	50
22114	Sewer Fund	Condobolin STP Chainwire Fence Golf Links Road	-71	1950	2021	$48,000	50
22115	Sewer Fund	Condobolin STP Perimeter Fence Golf Links Road	-71	1950	2021	$19,500	50
22149	Water Fund	Tottenham WTP Fence Moodana Street	-71	1950	2021	$27,000	50
22167	Sewer Fund	Lake Cargelligo Sanitary Ponds Shed Blackers Road	-71	1950	2021	$14,400	50
22180	Water Fund	Tottenham - WTP - Starting Gates - Moondana Street WTP	-71	1950	2021	$50,000	50
22198	Sewer Fund	Tottenham - STW - Perimeter Fence - Minalong Street	-71	1950	2021	$42,000	50
22202	Water Fund	16 Mile - Chemical Dosing Shed - Gubatta Road	-71	1950	2021	$29,000	50
21978	Sewer Fund	Tottenham - Sewage Treatement Plant Office/Amenities - Mingelo Street	-61	1960	2021	$46,050	60
21421	Water Fund	Condobolin Bathurst Town Reticulation Water Mains	-32	1989	2021	$1	60
21428	Water Fund	Condobolin Boona/William Town Reticulation Water Mains	-32	1989	2021	$1	60
21432	Water Fund	Condobolin Boona/William Town Reticulation Water Mains	-32	1989	2021	$1	60
21433	Water Fund	Condobolin Boona/William Town Reticulation Water Mains	-32	1989	2021	$1	60
21442	Water Fund	Condobolin Brady Town Reticulation Water Mains	-32	1989	2021	$1	60
21467	Water Fund	Condobolin Goobang Town Reticulation Water Mains	-32	1989	2021	$1	60
21478	Water Fund	Condobolin Gordon Town Reticulation Water Mains	-32	1989	2021	$1	60
21503	Water Fund	Condobolin Mahonga Town Reticulation Water Mains	-32	1989	2021	$1	60
21516	Water Fund	Condobolin McDonnell Town Reticulation Water Mains	-32	1989	2021	$1	60
21527	Water Fund	Condobolin Molong Town Reticulation Water Mains	-32	1989	2021	$1	60
21528	Water Fund	Condobolin Molong Town Reticulation Water Mains	-32	1989	2021	$1	60
21531	Water Fund	Condobolin Molong Town Reticulation Water Mains	-32	1989	2021	$1	60
21532	Water Fund	Condobolin Molong Town Reticulation Water Mains	-32	1989	2021	$1	60
21533	Water Fund	Condobolin Molong Town Reticulation Water Mains	-32	1989	2021	$1	60
21586	Water Fund	Condobolin William Town Reticulation Water Mains	-32	1989	2021	$1	60
21587	Water Fund	Condobolin William Town Reticulation Water Mains	-32	1989	2021	$1	60
21620	Water Fund	Lake Cargelligo Canada Town Reticulation Water Mains	-32	1989	2021	$1	60
21621	Water Fund	Lake Cargelligo Canada Town Reticulation Water Mains	-32	1989	2021	$1	60
21631	Water Fund	Lake Cargelligo Foster Town Reticulation Water Mains	-32	1989	2021	$1	60
21422	Water Fund	Condobolin Bathurst Town Reticulation Water Mains	-31	1990	2021	$1	60
21434	Water Fund	Condobolin Boona/William Town Reticulation Water Mains	-26	1995	2021	$1	60
21462	Water Fund	Condobolin Gatenby Town Reticulation Water Mains	-26	1995	2021	$1	60
21489	Water Fund	Condobolin Innes Town Reticulation Water Mains	-26	1995	2021	$1	60
21490	Water Fund	Condobolin Innes Town Reticulation Water Mains	-26	1995	2021	$1	60

21584	Water Fund	Condobolin Whiley Town Reticulation Water Mains	-26	1995	2021	$1	60
21569	Water Fund	Condobolin Tasker Town Reticulation Water Mains	-26	1995	2021	$1	60
21576	Water Fund	Condobolin Turner Town Reticulation Water Mains	-26	1995	2021	$1	60
21548	Water Fund	Condobolin Orange Town Reticulation Water Mains	-21	2000	2021	$1	60
21430	Water Fund	Condobolin Brady Town Reticulation Water Mains	-21	2000	2021	$1	60
2829	Water Fund	Lake Cargelligo - Raw Water Pum Station - 11 Lachlan St, Lot 6 DP	-21	2000	2021	$39,000	100
2836	Water Fund	Tottenham - Water Supply Land Resumed, Parish Beaconsfield County	-21	2000	2021	$13,000	100
2842	Water Fund	Condobolin Truck Wash, Maitland	-21	2000	2021	$1	100
2843	Sewer Fund	Lake Cargelligo - Effluent Evaporation Pond 1, Blackers Road, Lot 1	-21	2000	2021	$36,000	100
2844	Sewer Fund	Lake Cargelligo - Effluent Evaporation Pond 2 - Blackers Road, Lot 23	-21	2000	2021	$24,000	100
2853	Sewer Fund	Tottenham - Drainage, 77 Mingelo St, Lot 13 DP 758989 Sec 11	-21	2000	2021	$3,200	100
2855	Sewer Fund	Condobolin - Lachlan Street Sewer Pump Station, Lachlan Street, Lot	-21	2000	2021	$800	100
1603	Water Fund	Water Mains Land (forest 855), Tottenham	-21	2000	2021	$1	100
1604	Water Fund	Water Reservoir Res, Tottenham	-21	2000	2021	$1	100
1605	Water Fund	Leg O Mutton Dam Reserve, Tottenham, Meadowview Road, Lot 7001 DP	-21	2000	2021	$77,000	100
1606	Water Fund	Water Reservoir, Tullibigeal, Dundoo Hills Parish Narden County	-21	2000	2021	$900	100
1595	Water Fund	Water Resevoir Reserve, Burcher, Bena Street, Lot 26 DP 753088	-21	2000	2021	$1,500	100
1596	Water Fund	Water Reservior Reserve (Brady), Condobolin, Brady St, Lot 97 DP	-21	2000	2021	$29,000	100
1597	Water Fund	Water Treatment Works (Parkes Rd), Condobolin, Henry Parkes Way	-21	2000	2021	$10,000	100
1598	Water Fund	Water Reservoir Reserve (Maitland), Condobolin	-21	2000	2021	$1	100
1599	Water Fund	Water Pump Station (Rogers), Condobolin	-21	2000	2021	$1	100
1600	Water Fund	Water Reservoir Reserve (Nth Forbes), Condobolin, North Forbes Road,	-21	2000	2021	$4,000	100
1601	Water Fund	Fifield Reservoir Reservoir Aquisition	-21	2000	2021	$500	100
21133	Water Fund	Fifield Swimming hole Res Raw Water Storage Raw water PS Mechanical	-14	2007	2021	$42,516	20
21412	Water Fund	Condobolin Bathurst Town Reticulation Water Mains	-12	2009	2021	$9,822	80
21452	Water Fund	Condobolin Denison Town Reticulation Water Mains	-12	2009	2021	$21,958	80
21453	Water Fund	Condobolin Denison Town Reticulation Water Mains	-12	2009	2021	$32,370	80
21468	Water Fund	Condobolin Goobang Town Reticulation Water Mains	-12	2009	2021	$47,295	80
21476	Water Fund	Condobolin Gordon Town Reticulation Water Mains	-12	2009	2021	$12,450	80
21483	Water Fund	Condobolin Hay Town Reticulation Water Mains	-12	2009	2021	$20,750	80
21549	Water Fund	Condobolin Orange Town Reticulation Water Mains	-12	2009	2021	$142,496	80
21543	Water Fund	Condobolin Orange Town Reticulation Water Mains	-12	2009	2021	$47,295	80
21537	Water Fund	Condobolin Napier Town Reticulation Water Mains	-12	2009	2021	$56,024	80
21538	Water Fund	Condobolin Napier Town Reticulation Water Mains	-12	2009	2021	$21,769	80
21526	Water Fund	Condobolin Molong Town Reticulation Water Mains	-12	2009	2021	$64,324	80
21530	Water Fund	Condobolin Molong Town Reticulation Water Mains	-12	2009	2021	$33,476	80
21487	Water Fund	Condobolin Hughes Town Reticulation Water Mains	-12	2009	2021	$20,633	80
21495	Water Fund	Condobolin Lachlan/Busby Town Reticulation Water Mains	-12	2009	2021	$144,127	80
21497	Water Fund	Condobolin Leifermann Town Reticulation Water Mains	-12	2009	2021	$81,688	80
21515	Water Fund	Condobolin McDonnell Town Reticulation Water Mains	-12	2009	2021	$10,979	80
21520	Water Fund	Condobolin Melrose Town Reticulation Water Mains	-12	2009	2021	$100,290	80
21521	Water Fund	Condobolin Melrose Town Reticulation Water Mains	-12	2009	2021	$28,081	80
21513	Water Fund	Condobolin McDonnell Town Reticulation Water Mains	-12	2009	2021	$24,324	80
21677	Water Fund	Lake Cargelligo Yelkin Town Reticulation Water Mains	-12	2009	2021	$115,791	80
912	Water Fund	Personal Protection Equipment [21/12/05]	-11	2010	2021	$7,884	5
917	Water Fund	Paddle Flocculater [13/01/06]	-10	2011	2021	$6,227	5
870	Sewer Fund	Project Muni Demo Unit	-10	2011	2021	$27,300	5
914	Water Fund	Dosing System	-9	2012	2021	$13,550	5
866	Sewer Fund	RT Portable 711 MLSS Metre with 71 sensor	-7	2014	2021	$3,500	5
868	Sewer Fund	4 x PT740 Photometer 7100 kits	-7	2014	2021	$5,000	5
872	Sewer Fund	CCTV Pipe Inspection Unit	-6	2015	2021	$22,320	10
874	Sewer Fund	Mains Jet Cleaning Kit	-6	2015	2021	$66,392	10
864	Sewer Fund	OH&S Equipment - Gas Detectors	-6	2015	2021	$6,430	10
862	Sewer Fund	OH&S Equipment - Signs	-6	2015	2021	$6,181	10
863	Sewer Fund	Major tap Kit	-6	2015	2021	$3,209	5
21545	Water Fund	Condobolin Orange Town Reticulation Water Mains	-6	2015	2021	$10,884	80
21482	Water Fund	Condobolin Harding Ave Town Reticulation Water Mains	-6	2015	2021	$24,514	80
43449	Sewer Fund	Flow Meters Condo STP/ Golf Course	-6	2015	2021	$1	15
875	Sewer Fund	Lake - Rose Rodding Machine	-5	2016	2021	$10,828	10
876	Sewer Fund	Tott - Rose Rodding Machine	-5	2016	2021	$10,828	10
873	Sewer Fund	Condo Treatment Works A/Water	-5	2016	2021	$22,280	5
903	Water Fund	Telemetry System	-5	2016	2021	$430,259	5
867	Sewer Fund	Plas AC Cutters & Conversion Kit	-5	2016	2021	$5,246	10
911	Water Fund	Electrofusion Welder	-5	2016	2021	$3,500	10
913	Water Fund	ITT Flyzt Model N53127	-5	2016	2021	$6,815	10
2096	Sewer Fund	Tool Viega Pressgun Picco x 3	-5	2016	2021	$7,028	5
2097	Sewer Fund	Flouride combination & dual star metre	-5	2016	2021	$3,885	5
2095	Sewer Fund	Quick Saw Husqvarna K960 Ring x 3	-5	2016	2021	$17,984	5
20437	Sewer Fund	Condobolin Town Reticulation Gravity Sewer Mains	-4	2017	2021	$30,997	60
21389	Water Fund	Tullibigeal Res Potable Water Storage Reservoir 3 Electrical	-4	2017	2021	$21,258	20
21135	Water Fund	Fifield Swimming hole Res Raw Water Storage Raw water PS Electrical	-4	2017	2021	$22,776	30

Appendix E Disposal Summary

E.1 – Disposal Forecast Assumptions and Source

When most assets are renewed any disposal cost is usually modest and is included in the renewal cost. Therefore most times there is no disposal cost recorded. However once the construction of the new Condobolin water and sewer treatment plants are completed, the old plants will have significant disposal costs in order to rehabilitate the land. At present these are estimates particularly for the water treatment plant as it is not currently known what may be done with the old building – it has heritage value.

E.2 – Disposal Project Summary

Disposal of the old Condobolin water treatment plant is expected in 2026 and the sewer treatment plant in 2027.

E.3 – Disposal Forecast Summary

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Table E3 – Disposal Activity Summary

Year	Disposal Forecast	Disposal Budget
2021	$0	$0
2022	$0	$0
2023	$0	$0
2024	$0	$0
2025	$0	$0
2026	$500,000	$0
2027	$750,000	$0
2028	$0	$0
2029	$0	$0
2030	$0	$0

Appendix F Budget Summary by Lifecycle Activity

Budgets are based on the 2021 budget. They may be subject to change over time.

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Disposal	Total
2021	$332,900	$4,589,000	$2,998,000	$2,996,100	$0	$10,916,000
2022	$340,400	$4,666,000	$3,056,000	$3,063,600	$0	$11,126,000
2023	$226,600	$4,756,000	$3,127,000	$2,039,400	$0	$10,149,000
2024	$299,967	$4,756,000	$3,127,000	$2,669,700	$0	$10,852,667
2025	$299,967	$4,756,000	$3,127,000	$2,669,700	$0	$10,852,667
2026	$299,967	$4,756,000	$3,127,000	$2,669,700	$0	$10,852,667
2027	$299,967	$4,756,000	$3,127,000	$2,669,700	$0	$10,852,667
2028	$299,967	$4,756,000	$3,127,000	$2,669,700	$0	$10,852,667
2029	$299,967	$4,756,000	$3,127,000	$2,669,700	$0	$10,852,667
2030	$299,967	$4,756,000	$3,127,000	$2,669,700	$0	$10,852,667