



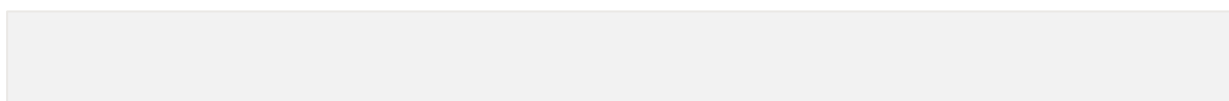
DRAFT ASSET MANAGEMENT PLAN

Hilltops Council Water Supply 2026

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Contents

1.0EXECUTIVE SUMMARY	5
1.1Purpose of the Plan	5
1.2Asset Description	5
1.3Levels of Service.....	5
1.4Future Demand	5
1.5Lifecycle Management Plan.....	6
1.6Risk Management.....	6
1.7Financial Summary	6
1.8Monitoring and Improvement Program	7
2.0INTRODUCTION	8
2.1Background.....	8
2.2Principles, Goals and Objectives of Asset Management.....	8
3.0LEVELS OF SERVICE	10
3.1Customer Research and Expectations	10
3.2Strategic and Corporate Goals.....	10
3.3Legislative Requirements	10
3.4Customer Values	11
3.5Customer Levels of Service	11
3.6Technical Levels of Service.....	12
4.0FUTURE DEMAND	15
4.1Demand Drivers	15
4.2Demand Forecasts	15
4.3Impacts and Demand Management Plan.....	15
4.4Asset Programs to meet Demand	15
4.5Climate Change Adaptation	15
5.0LIFECYCLE MANAGEMENT PLAN	17
5.1Background Data	18
5.2Operations and Maintenance Plan	19
5.3Renewal Plan	20
5.4Acquisition Plan.....	22
5.5Disposal Plan	23
5.6Summary of asset forecast costs	23
6.0RISK MANAGEMENT PLANNING	24
6.1Critical Assets.....	24

6.2Risk Assessment	24
6.3Infrastructure Resilience Approach	25
6.4Service and Risk Trade-Offs.....	26
7.0FINANCIAL SUMMARY	27
7.1Financial Sustainability and Projections.....	27
7.2Valuation Forecasts	28
8.0ASSUMPTIONS AND IMPROVEMENT PLANNING	29
8.1Data and Information Sources	29
8.2Key Assumptions.....	29
8.3Forecast Reliability and Confidence	29
8.4Improvement Plan	30
8.5Monitoring and Review Procedures.....	31
8.6Performance Measures.....	31
9.0REFERENCES	32
10.0APPENDICES	33
Appendix A Acquisition Forecast.....	33
Appendix B Operation Forecast	34
Appendix C Maintenance Forecast.....	35
Appendix D Renewal Forecast Summary	36
Appendix E Disposal Summary.....	37
Appendix F Budget Summary by Lifecycle Activity	38

1.0 EXECUTIVE SUMMARY

Our community relies on a diverse portfolio of infrastructure assets, including water mains and valves, reservoirs, service lines and booster pump stations valued at approximately \$113,661,131.

The Asset Management Plan (AM Plan) provides a strategic framework for managing our community's infrastructure assets, ensuring they remain safe, reliable, and capable of meeting current and future demands.

1.1 Purpose of the Plan

The AM Plan aims to:

- Provide a systematic approach to asset management.
- Address critical risks associated with aging infrastructure and limited funding.
- Ensure infrastructure supports the community's social, economic, and environmental goals.

This AM Plan details information about water reticulation assets with key actions required to maintain service levels, optimise lifecycle costs, and support long-term financial sustainability.

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

1.2 Asset Description

The Water Supply network comprises:

- 323km Pipe works including valves and hydrants for urban firefighting support.
- 24 Reservoirs
- 4 Booster pump stations
- 7210 Service lines

The above infrastructure assets have replacement value estimated at \$113,661,131

1.3 Levels of Service

This plan covers the infrastructure assets that provide reticulated water supply service(s) provided from the assets group.

Service levels are described as satisfactory, however there are areas where general service levels are below requirements at times (i.e. during peak demand affecting operating pressure)

Service levels are identified for update as an improvement item in this plan which may lead to additional expenditure requirements.

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

The main service consequences of the planned budget are:

- Backup plans not in place to support continuity of service during natural disaster or major equipment failure.

1.4 Future Demand

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

- Population changes
- Updated regulations and standards
- Climate change

Strategies to manage these demands are discussed in Section 4.0.

1.5 Lifecycle Management Plan

How we plan to manage and operate the assets at the agreed levels of service throughout their lifecycle is contingent on 10-year Long-Term Financial Plan (LTFP).

Furthermore, when Hilltops Council commits to the upgrade of existing and acquisition of new assets, future operations, maintenance and renewal costs including depreciation will increase.

1.5.1 What does it Cost?

The lifecycle costs necessary to provide the services covered by this AM Plan include operations, maintenance, renewal and upgrade of existing assets, and the acquisition of new assets to meet demand. Disposal of assets is also considered.

When lifecycle costs are prepared for a minimum 10-year planning period, they can be used to inform the 10-year LTFP. The first 10-year lifecycle forecast is estimated to cost \$170,330,336 or \$17,033,034 on average per year.

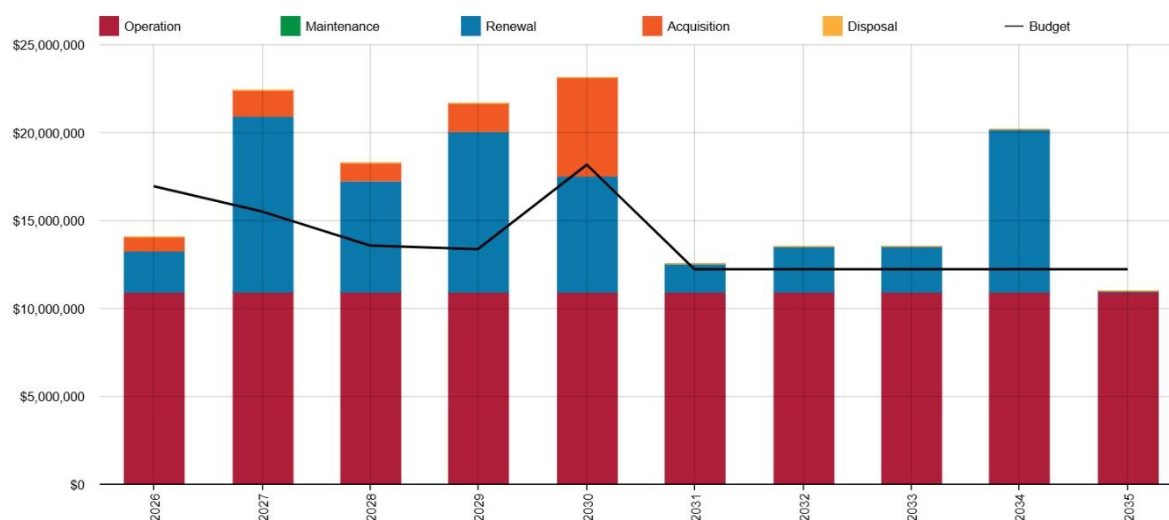
Depreciation is excluded from these cost estimates.

1.5.2 What we will do

The funding made available in the first 10-years' of the LTFP is \$138,744,944 or \$13,874,494 on average per year which is approximately 81.46% of the cost to undertake the lifecycle activities.

The reality is, only what is funded in the LTFP can be provided. Informed decision making depends on the AM Plan emphasising the consequences of planned budgets on the service levels provided and communicating the residual risks. It is important to ensure the organisation is delivering the services in a financially sustainable manner.

The 10-year LTFP results in a shortfall of \$-3,158,539 on average per year of the forecast lifecycle costs required to provide services. This is shown in the figure below.



Forecast Lifecycle Costs and Planned Budgets

Amounts are shown in real values (i.e., current values, net of inflation).

We plan to provide Water services for the following:

- Operation, maintenance, renewal and acquisition of water main and infrastructure to meet service levels set by Hilltops Council in annual budgets.
- Replacement of reticulation pipelines in all three major towns features within the 10-year planning period. Along with the proposed construction of new reservoirs to further support and extend reticulation to customers.

1.5.3 What we cannot do

We currently do not allocate enough budget to sustain services at the proposed standard including the provision of new assets. Works and services that cannot be provided under present funding levels are:

- Forecast renewal projects in excess of the LTFP budgets.
- Acquisition and upgrade projects not included in the current forecast
- Asset maintenance activities beyond the maintenance budgets and agreed service levels e.g. pro-active inspections and condition assessment of the water assets.

1.6 Risk Management

The planned budget is sufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Potential for some assets to not be renewed at the optimum times leading to condition deterioration beyond agreed service levels.
- Damage to assets due to a significant event e.g. power outages.
- Backup plans not in place to support continuity of service during natural disaster or major equipment failure.
- Sub optimal water asset condition and operation effectiveness e.g. failed treatment.
- Community dissatisfaction with water asset performance and service level.
- Public health and environmental issues from failing water treatment assets.

Strategies and actions to manage these risks are discussed in Section 6.0.

1.7 Financial Summary

Providing financially sustainable and affordable services from infrastructure requires the careful management of service levels, costs and risks.

The 10-year LTFP is \$13,874,494 on average per year giving a 10 year funding shortfall of \$-3,158,539 per year. This indicates that 81.46% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the LTFP.

Asset values are forecast to increase as additional assets are added to the network.

1.8 Monitoring and Improvement Program

Key assumptions made in this AM Plan are:

- Council's current asset register is complete
- Current valuation data is accurate

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

This AM Plan is based on a reliable level of confidence information.

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

- Develop a section 64 contribution plan relating to developments
- Implement adequate resourcing and capability for updating the water services asset inventory, collection of asset repair data, and updating asset condition assessment records.
- Implement proactive monitoring and assessment of asset functionality to be incorporated into the register. Such as identifying problem areas with increased asset failures such as breaks or dirty water complaints.

Revise and improve the effectiveness of the current water supply renewal programs

2.0 INTRODUCTION

2.1 Background

This AM Plan communicates the actions and necessary funds required to sustainably deliver services through the careful management of assets for the foreseeable future.

The AM Plan is to be read with the Hilltops Council planning documents. This should include the Asset Management Policy and Strategy, where developed, along with the following planning documents:

- Asset Management Policy;
- Long Term Financial Plan 2024-2034
- Delivery Program 2025-2029
- Operational Plan 2025-2026

The infrastructure assets covered by this AM Plan include pipelines, reservoirs, booster stations and service lines of varying degrees of age and condition. For a detailed summary of the assets covered in this AM Plan refer to Table in Section 5.

These assets are used to provide reticulated water to towns and villages across Hilltops including Boorowa, Harden-Murrumburrah, Young, Wombat, Kingsvale, Galong, Jugiong and Prunevale.

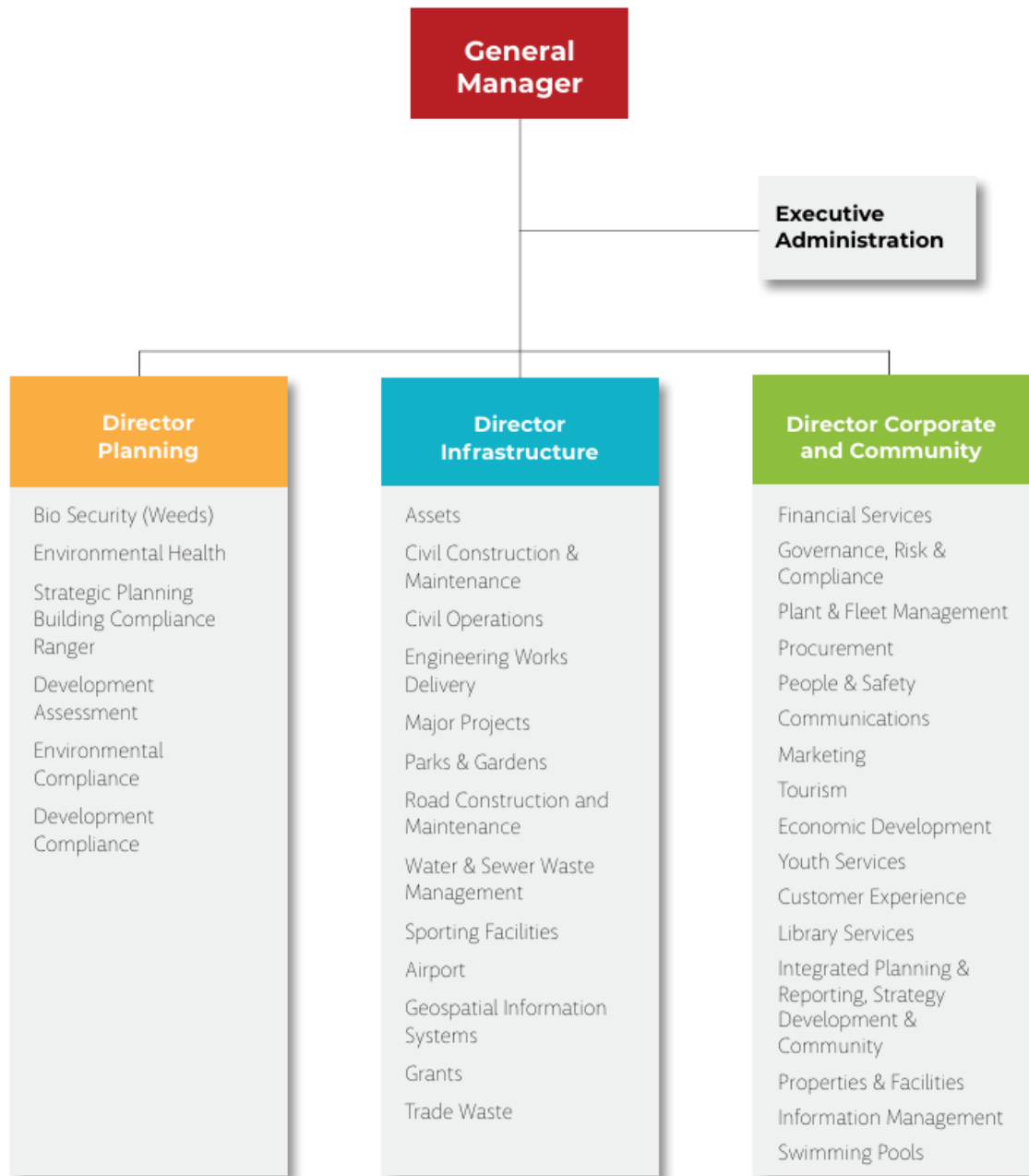
The infrastructure assets included in this plan have a total replacement value of \$113,661,131

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
Council Representatives	■ Represent needs of community/shareholders, ■ Allocate resources to meet planning objectives in providing services while managing risks, ■ Ensure service sustainable.
Council Officers	Manage water network assets over their lifecycle.
Residential Community	Primary beneficiaries of water network assets. Their needs, wants and expectations are conveyed to the Council and should be reflected in desired levels of service
Insurers	Insurers have interest in implementation of systems which allow Council to gain better knowledge of the condition of their assets.

Our organisational structure for service delivery from infrastructure assets is detailed below,



2.2 Principles, Goals and Objectives of Asset Management

The principles of asset management as per the International Standards for asset management are:

- **Value:** asset management focuses on the value assets provide to the organization over time.
- **Alignment:** asset management aligns financial, technical and operational decisions with the organizational objectives, promoting vertical and horizontal coordination.
- **Leadership:** leadership and sustained commitment at all levels are crucial for successful asset management.¹

Our goal for managing infrastructure assets is to deliver the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers.

The key objectives of infrastructure asset management as defined by the International Infrastructure Management Manual are:

- Defining levels 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 accommodates the required expenditure and how it will be funded.²

3.0 LEVELS OF SERVICE

Levels of service define the standards and performance targets that infrastructure assets are expected to meet to ensure they provide reliable, safe, and efficient services to the community.

3.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the Hilltops Council. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist the Hilltops 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.

We currently have no research on customer expectations. This will be investigated for future updates of the AM Plan.

3.2 Strategic and Corporate Goals

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

Our mission is:

Our infrastructure is reliable and helps us to live well, move around with ease, and connect with each other. Strategic goals have been set by the Hilltops Council. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 3.2.

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

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Our community are supported to live healthy and connected lives.	CO2 Ensure all community members have equitable access to services, resources, and opportunities. CO5 Encourage the development of facilities Advocate and services to assist our most vulnerable	In urban areas, access to reticulated water supply.
Respond to our changing environment	EN6 Adapt to the impact of climate change	Ongoing review of water supply management system
Minimise the environmental impact of growth and development.	EN9 Plan future growth to preserve local character and ensure sustainable and thoughtful development. EN10 New developments are assessed fairly, with a focus on community needs and sustainability.	Ensure water supply connectivity is available for proposed development. New connections are completed within 20 days of payment.
Provide and maintain reliable and efficient built infrastructure	IN9 Secure quality potable water supply to our towns and villages and increase access to water infrastructure and utilities for emergency services.	Ongoing review of water supply management system. Ensure routine maintenance and regular monitoring and testing is completed to ensure water meets safety and quality standards.

3.3 Legislative Requirements

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

Table 3.3: Legislative Requirements

Legislation	Requirement
Local Government Act 1993 (NSW) • Local Government Amendment Act 2019 • Local Government Amendment (Planning and Reporting) Act 2016.	<i>Sets out the role, purpose, responsibilities, and powers of local governments including the preparation of a LTTP supported by asset management plans for sustainable service delivery.</i>
Work Health & Safety Act 2011 (NSW) and Regulations.	<i>Sets out roles and responsibilities to secure the health, safety and welfare of persons at work and covering injury management, emphasising rehabilitation of workers particularly for return to work. Organisations are to provide a safe working environment and supply equipment to ensure safety.</i>
Environmental Planning and Assessment act 1979 (NSW).	<i>"An Act to protect the environment. The objects of the Act include: - to protect, restore and enhance the quality of the environment in NSW, having regard to the need to maintain ecologically sustainable development - to provide increased opportunities for public involvement and participation in environment protection - to ensure that the community has access to relevant and meaningful information about pollution - to reduce risks to human health and prevent the degradation of the environment including: pollution prevention and cleaner production, the reduction to harmless levels of the discharge of substances likely to cause harm to the environment, the elimination of harmful wastes, the reduction in the use of materials and the re-use, recovery or recycling of materials, the making of progressive environmental improvements, including the reduction of pollution at source, the monitoring and reporting of environmental quality on a regular basis, the proper environmental management of chemicals throughout their whole lifecycle, the rationalisation, simplification and strengthening the regulatory framework for environment protection.</i>
Public Works and Procurement Act 1912.	<i>An Act to consolidate the Acts relating to Public Works; and to make provision in relation to the procurement of goods and services for New South Wales government agencies.</i>
Public Health Act 2010 (NSW).	<i>An Act with respect to public health the objects of the Act include: - to promote, protect and improve public health - to control the risks to public health - to promote the control of infectious diseases - to prevent the spread of infectious diseases - to recognise the role of local government in protecting public health - to monitor diseases and conditions affecting public health.</i>
Plumbing and Drainage Act 2011.	<i>The Act regulates certain plumbing and drainage work and establishes a single regulator for that work.</i>
Water Management Act 2000.	<i>The Act provides for the protection, conservation, and ecologically sustainable development of the water sources of NSW.</i>
National Construction code (NCC)	<i>The NCC is Australia's primary set of technical design and construction provisions for buildings. It sets the minimum required level for the safety, health, amenity, accessibility, and sustainability of certain buildings.</i>
Civil Liability Act 2002.	<i>An Act to make provision in relation to the recovery of damages for death or personal injury caused by the fault of a person; to amend the Legal Profession Act 1987 in relation to costs in civil claims.</i>
Australian Accounting Standards and Local Government Code of Accounting Practice and Financial Reporting.	<i>Sets out the financial reporting standards for the (re)valuation and depreciation of assets.</i>

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 system is managed effectively with minimal interruptions to service.	Customer complaints/feedback.	On track	No change. Potential to deteriorate without additional maintenance including proactive inspections.
Providing quality clean and clear water.	Customer complaints/feedback. Incident records. Staff Inspections.	Multiple complaints on social media, phone calls, in person, and formal letters/emails.	No change. Potential to deteriorate without additional maintenance including proactive inspections.
Providing and maintaining adequate water pressure.	Customer complaints/feedback. Incident records. Staff Inspections	Multiple complaints on social media, phone calls, in person, and formal letters/emails.	No change. Potential to deteriorate without additional maintenance including proactive inspections.

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	Water supply pipe network is reliable with minimal interruptions / pipe leakage and bursts.	Service requests, maintenance records. Elected member and staff feedback.	Reactive maintenance with limited proactive intervention.	Assets will continue to deteriorate without a developed proactive inspection and maintenance program. Renewal plan to be developed with Public works inputs, inputs from Acoustic testing and IWCM.
	Above ground water assets are in good and safe condition. No access to public to treatment plants, water reservoirs or other sites .	Service requests, maintenance records.	Reactive maintenance with limited proactive intervention. Limited issues with safety incidents.	
	Satisfactory response times to service interruptions.	Service request closeout review.	Service requests tracked - generally satisfactory response times.	No change.
Function / Capacity	Water infrastructure fit for purpose and suitable to handle supply volume requirements including an allowance for known development and growth.	Output flow measurements, Customer requests.	Planned water mains cleaning. No major capacity issues.	No change.
	Sufficient storage capacity to handle peak flow and pressure requirements and to cover for minor supply interruptions.	Service requests, maintenance records.	Occasional constraints during extreme demand, generally meeting community expectations.	Monitor for issues and determine renewal/upgrade requirements as part of detailed 10 year plan in line with the IWCM.
	Meet Health Department standards and all legal requirements for supply of drinking water in line with Councils water policy and drinking water management system.	Compliance to approval conditions. Water quality testing.	Irregular community complaints regarding water quality.	Anticipated improvements through dead end link up plan, reservoir maintenance and water main replacements.

3.6 Technical Levels of Service

Technical Levels of Service – To deliver on the customer values, and impact they have on Customer Levels of Service, are operational or technical measures of performance. These technical measures relate to the lifecycle activities (see Section 5) and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.³

Table 3.6 shows the lifecycle activities related to the current 10 year planned budget, and the forecast costs 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	Upgrades are cost effective, meet end user's needs, are affordable and are in line with council policies. Ensure adequate capacity for anticipated future land development.	Budget and Audit Review	Upgrades approved in annual budget process.	Multiyear detailed upgrade plan to be developed and approved for implementation for all water asset types in line with policies and expected usage requirements and informed by Public Works inputs and ICWM.
Operations and Maintenance Maintenance	Efficiently utilise assets which will consume resources such as human resources, energy and materials - Chlorination testing - Mains flushing - Water tower readings - Water quality testing - Site condition maintenance - Desludging	Manager/ Supervisor audits	Meeting current schedules.	Improved proactive inspections to optimise service delivery.
	Leakage rates are managed to best practice standards and Council Policies.	Leak detection program.	Leak detection testing is currently carried out on ad hoc basis triggered by visual identification of leak near water infrastructure.	Proactive leak detection program across all networks to inform maintenance and renewal planning.
	Maintain assets in a suitable condition to meet original service potential in line with expected	Manager/ Supervisor audits Internal maintenance schedule	Opportunities to improve proactive maintenance schedules.	Formalised proactive maintenance schedule and management including mains flushing and scouring, hydrant

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
	useful life and in line with manufacturers recommendation and best practices.			maintenance and reservoir cleaning (desludging).
	Track usage of water through scheduled meter reads.	Quarterly meter reading schedule.	On track.	Implement Smart meter reading for instantaneous system and customer readings to assist in water usage.
	Backup plans in place in place for significant interruptions to ensure continuity of service for essential utility.	Plans in place.	None in place for Water Supply assets	Business continuity plan to be developed.
Renewal	Replace existing assets with assets of equivalent capacity or performance capability.	Annual renewal plan.	Opportunities exist to improve scheduled renewal.	Clearly defined multi-year detailed renewal program in line with lifecycle analysis of water supply assets and inputs from water quality testing, Public Works review and ICWM.
Disposal	Demolition of surplus / end of life assets	End of life assets are demolished and removed from service in a timely and safe manner.	All covered within renewal budget	No change.

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 that circumstances such as technology and customer priorities will change over time.

4.0 FUTURE DEMAND

Future demand refers to the anticipated need for infrastructure services driven by factors such as population movement, economic development, technological advancements, and changing environmental or community expectations.

4.1 Demand Drivers

A demand driver refers to the factors or trends that influence the need for infrastructure services and capacity. The factors influencing future demand are created by: population growth/decline and demographics, economic development, changes in technology, regulatory requirements and shifts in community expectations.

Demand drivers help predict future infrastructure needs and guide planning and investment decisions.

4.2 Demand Forecasts

The current position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented in Table 4.3.

4.3 Impacts 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.

The impact on service delivery will be managed through a combination of managing and upgrading existing assets and the provision of new assets to meet demand. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to manage demand 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	Population at 30 June 2024 was 19,300.	On previous year, population grew by 0.24 %	Increase in population and demographic will increase community infrastructure need. existing services may require amendment to cater for additional patronage. Housing market pressure and movement from city to country a impact current.	Upgrade targeted infrastructure where resourcing permits. New developments will contain contributed assets to assist in demand.
Demographics	Hilltops has an aging population, median age is 45 years, diverse and changing backgrounds	Greater proportion of over 60 years. Lifestyle changes factor in drivers with families.	See above. More aged access demand.	See above.
Technology changes	Materials used in water supply to be suitable for setting and environment.	Use of materials that are environmentally friendly, cheaper to construct, provide longer life and reduces maintenance and life cycle costs	Potential to reduce maintenance and operational costs	Emerging technologies to be assessed.

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 Hilltops Council to ongoing operations, maintenance and renewal costs, and depreciation expenses for the period that the service provided from the assets is required. These future costs and expenses are identified and considered in developing the long-term financial plan.

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 that needs to be managed.

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.⁴

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 risk	Projection	Impact on services	Climate Change Management Plan
Rising Temperatures.	Increasing peak temperatures and longer heatwaves and fire danger periods.	Potential impact on treatment efficacy and energy usage. Potential for ground movement, pipe damage and high demand for water supply.	Monitor for emerging issues. Complete design studies for areas of concern. Additional upgrade where required with inputs from Public works studies. Review system for adequate storage to manage peak demand.
Extended dry	Potential for reduced soil moisture levels to increase shrinkage in reactive soils, increasing risk of underground pipe cracking.	Potential for additional reactive maintenance and shortening of useful lives for affected pipe assets.	Monitor for increased leakage across the network, consider CCTV for affected areas to baseline condition and expected useful life assumptions.
	Dry periods and impact on raw water supply	Potential for supply restrictions	Consider additional backup water source/s and/or storages. Business continuity planning development with backup solutions for water treatment and distribution
More extreme weather patterns.	Storm damage may impact on power supply to the treatment and distribution equipment.	Potential for additional treatment and storage capacity requirements.	Consider additional backup power requirements for storm damage and extended power outages. Business continuity planning development with backup solutions for water treatment and distribution

Additionally, the way in which we construct new and upgrade existing 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 opportunities to build climate change resilience into new and existing assets.

Table 4.5.2 Building Climate Change Resilience into New and Existing Assets

Asset Description	Climate change risk	Resilience Plan for New Assets	Resilience Plan for Existing Assets
Water Supply network	Extended heatwaves and warmer summers leading to ground movement and pipe damage..	Optimise installation methodologies for future renewal works.	Monitor asset performance.
Treatment plant and booster pump stations.	Extreme weather events leading to power outages.	Future systems designed with backup power supplies and holding reservoirs to manage demand during power outage.	Monitor asset performance.

The impact of climate change on new and existing assets is evolving and new opportunities will be developed in future revisions of this AM Plan.

5.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the Hilltops Council plans to manage and operate the assets at the agreed levels of service (Refer to Section 3) throughout their entire lifecycle, from acquisition or creation to disposal. The goal is to maximise the value of the assets while minimising costs and risks, ensuring they continue to meet performance requirements over time.

From a financial perspective, infrastructure activities tend to be classified as being either Operating or Capital. The lifecycle activities used in the asset management and financial planning and reporting process cover:

■ Capital

- **Acquisition** – the activities to provide a higher level of service (e.g., widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library).
- **Renewal** – the activities that replace or restore assets to the standard it had originally provided (e.g., road resurfacing and pavement reconstruction, pipeline replacement and building component replacement).

■ Operating

- **Operations** - the routine activities that keep services accessible and effective, balancing efficiency with user expectations (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc.)
- **Maintenance** – the preventative and corrective actions to sustain asset functionality and minimise unexpected failures. Maintenance activities enable an asset to provide service for its planned life (e.g., road patching, unsealed road grading, building and structure repairs).
- **Disposal** – the decommissioning, removing, or repurposing of assets that are no longer cost-effective, safe, or necessary (e.g. shutting down an old water treatment plant, demolishing unsafe buildings, dismantling old bridges, etc.).

A pictorial representation of the asset lifecycle activities is shown below in Figure 5.0.



Figure 5.0: Asset Lifecycle Activities

5.1 Background Data

5.1.1 Physical parameters

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

Table 5.1.1: Assets covered by this Plan

Asset Category	Dimension
Pipelines (m)	322,758
Reservoirs (No.)	24
Pump stations (boosters) No.	4
Chlorine booster stations No.	4

TOTAL

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

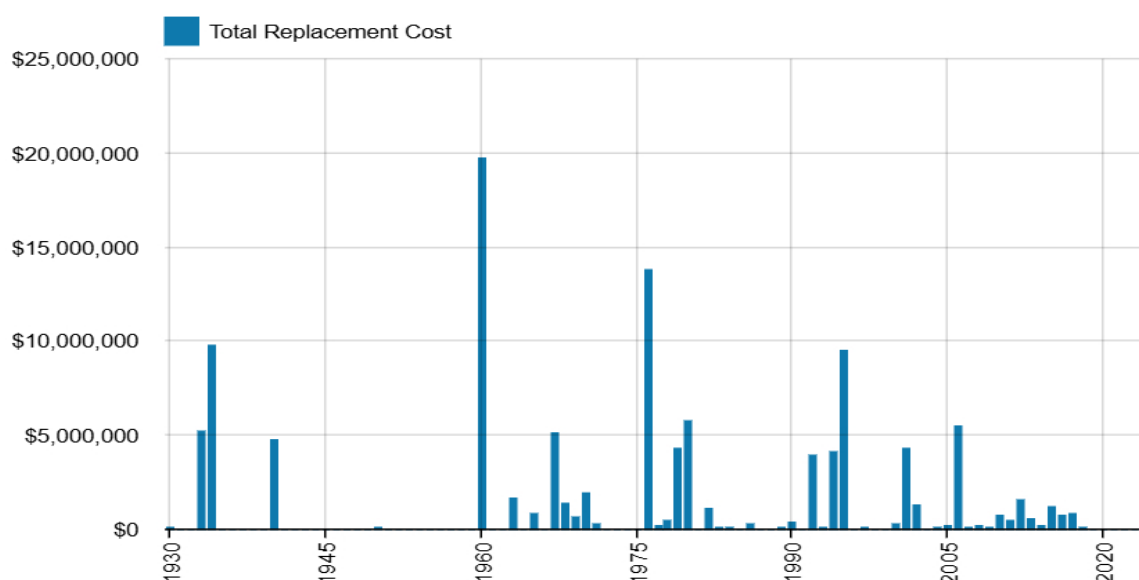


Figure 5.1.1: Asset Age Profile

Amounts are shown in real values (i.e., current values, net of inflation).

Much of the base Water reticulation was constructed pre 1970. This date has a bearing on future renewals with expected life of these assets of 100 years. These include pipe, and booster pump stations.

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
Young, Harden and Boorowa	Pipe degradation due to age and original material types used. Asbestos Cement pipes are fragile and fracture easily with ground movement, sudden pressure changes or tree root invasion. Cast iron pipes are tuberculated with manganese oxide providing cleaning difficulty water quality and pressure loss.

The above service deficiencies were identified from known industry sources and field observations by staff.

5.1.3 Asset condition

During the 2023/24 valuation it was not possible to visually condition rate underground assets such as pipes and nodes or the non-accessible assets at treatment plants.

Regular planned condition assessment of underground assets using methodologies including CCTV and acoustic analysis along with reviewing mains repair data is an area for improvement to the condition assessment of the water asset register especially as assets progress through their standard useful life. It also provides valuable insights into ongoing needs for node and pipe maintenance and is essential for the development of the 10-year detailed renewal plan.

District wide condition inspection is a key improvement item for this AM Plan which will improve the accuracy of the register detail and forecasts for renewal and better inform the LTFP.

Condition can also be gained from pipe work visual via main breaks that verifies an age to condition relationship.

The overall condition score assigned for this AM Plan is derived from the consumption of the assets (i.e. Written Down Value/ Current Replacement Cost) which has been calculated based on a combination of available data such as age, the standard useful life of the asset and the condition data where available.

This is considered to have a moderate to high level of confidence given the limited condition information on the underground pipe network.

The condition rating uses an industry standard 1 – 5 grading system⁵ 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.



Figure 5.1.3: Asset Condition Profile

Condition overall for the network is in the satisfactory to good profile range with focus on mains replacement a feature in past years to reduce the older and poorer pipe sections.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include air scouring, mains flushing and asset inspection.

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, hydrants and valve maintenance.

The trend in maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Operational and Maintenance Budget Trends

Year	Maintenance Budget \$
2026	\$10,965,247
2027	\$10,965,247

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.

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 in Table 5.2.2.

Table 5.2.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Extraction and Treatment	
Civil Electrical and instrumentation Mechanical	Extraction of water from River/creek or groundwater sources (Boorowa). Treatment of water to required standards prior to distribution through the reticulation system.
Storage	
Reservoirs.	Buffer and storage of water for the reticulation system. The reservoirs shall hold adequate volume of water to provide uninterrupted supply to the community at adequate pressure.
Reticulation System Pipes	
Rising Main Reticulation Property Connection	Distribution of source water from provider source (Goldenfields Water County Council- Young and Harden) or river/creek and groundwater from the treatment plant (Boorowa) to reservoirs and customer service connections. Distribution of treated water to storage reservoirs and end users from treatment plants/provider source.
Reticulation System Nodes	
Blank Caps/Dead Ends Valves Fire Hydrants Water Meters	Operational nodes to meet their intended purpose: - Control of flow through the reticulation network for operation and maintenance. - Points for air scouring and mains flushing. - Monitoring of volume supplied to consumers.

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.

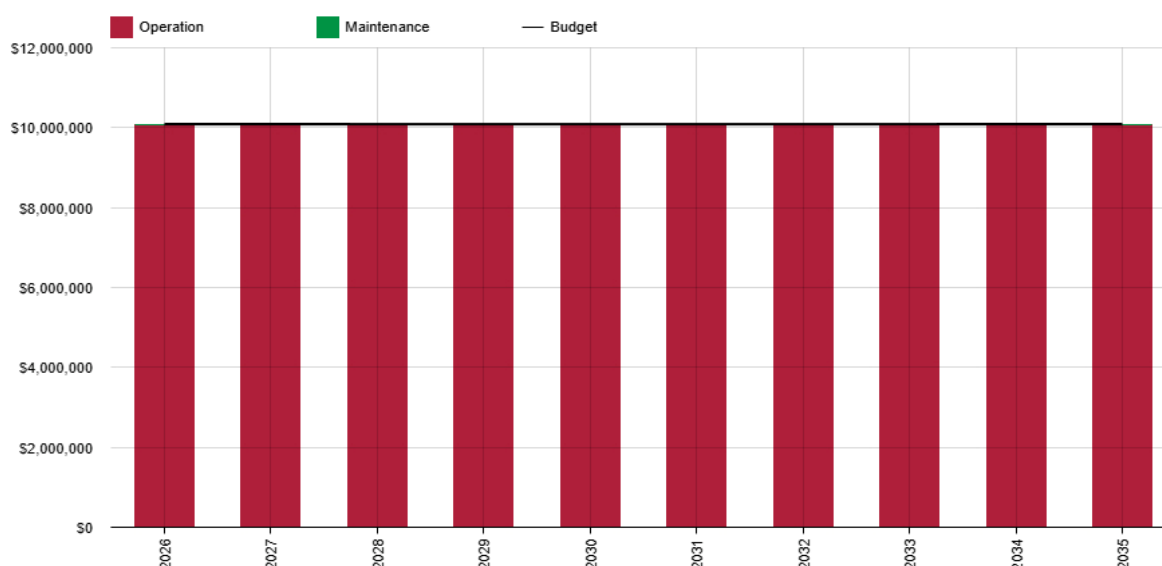


Figure 5.2: Operations and Maintenance Summary

Amounts are shown in real values (i.e., current values, net of inflation).

Forecast operations and maintenance costs compared to the proposed operations and maintenance budget are balanced for the current level of service provided.

5.3 Renewal Plan

Note that water purchases from Golden Fields Water County Council is also included in operational costs.

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 (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 on 23/2024 as part of the revaluation of water supply assets.

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Pipe work	80 years
Concrete Reservoir	80-100 years
Pumps above ground – booster	20

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

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 damaged section of a main), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. replacing a non-functional stop valve).⁶

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.⁷
- Renewal prioritisation for this AM Plan is based on condition only and an improvement item identified is to develop a prioritisation methodology for water supply asset renewal projects.

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 5.3.2. A detailed summary of the forecast renewal costs is shown in Appendix D. Gen 1 is the first generation renewal.

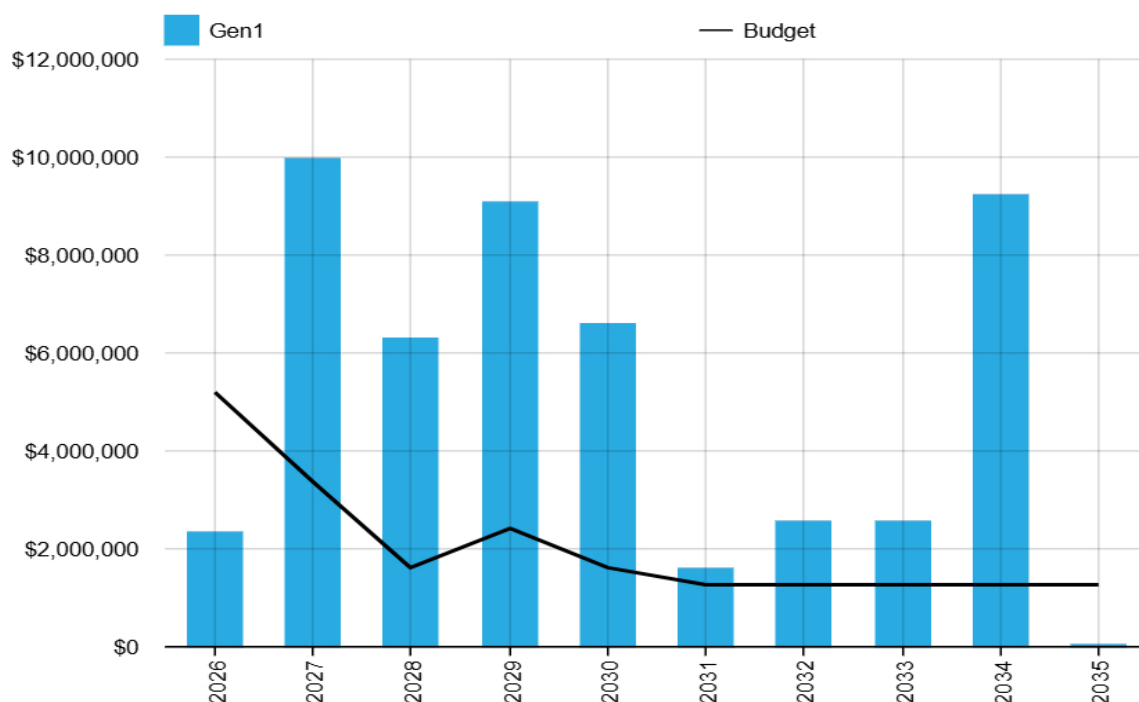


Figure 5.3.2: Forecast Renewal Costs

Amounts are shown in real values (i.e., current values, net of inflation).

The forecast renewal costs based on asset register data is significantly below the proposed renewal budget. Further analysis of the asset register including useful lives of the current asset is needed to verify this current graph statement.

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 original service level. They may result from growth, demand, social or environmental needs. Assets may also be donated to the Hilltops Council.

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.

A priority ranking system for acquisition and upgrade of assets has not yet been developed and is highlighted as an improvement item in this AM Plan. This will be developed in line with the 10 year detailed acquisition/upgrade plan.

5.4.2 Summary of future asset acquisition costs

Forecast acquisition asset costs are summarised in Figure 5.4.1 and shown relative to the proposed acquisition budget. The peaks in 2027, 2029 and 2030 result from assets generated from the duplication and replacement of new reservoirs for Wombat, Harden, Boorowa, Galong and Young. Including the construction and extension of the existing Young water supply capacity.

The forecast acquisition capital works program is shown in Appendix A.

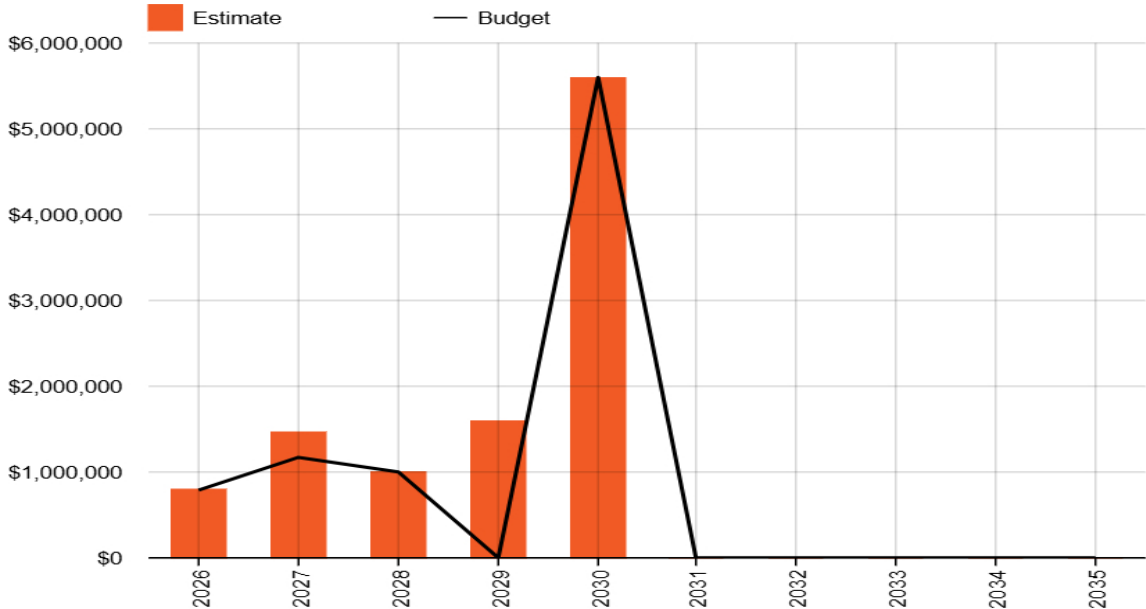


Figure 5.4.1: Acquisition (Constructed) Summary

Amounts are shown in real values (i.e., current values, net of inflation).

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 5.4.2. again the peaks represent forecast assets from development works and new constructed assets to increase capacity.

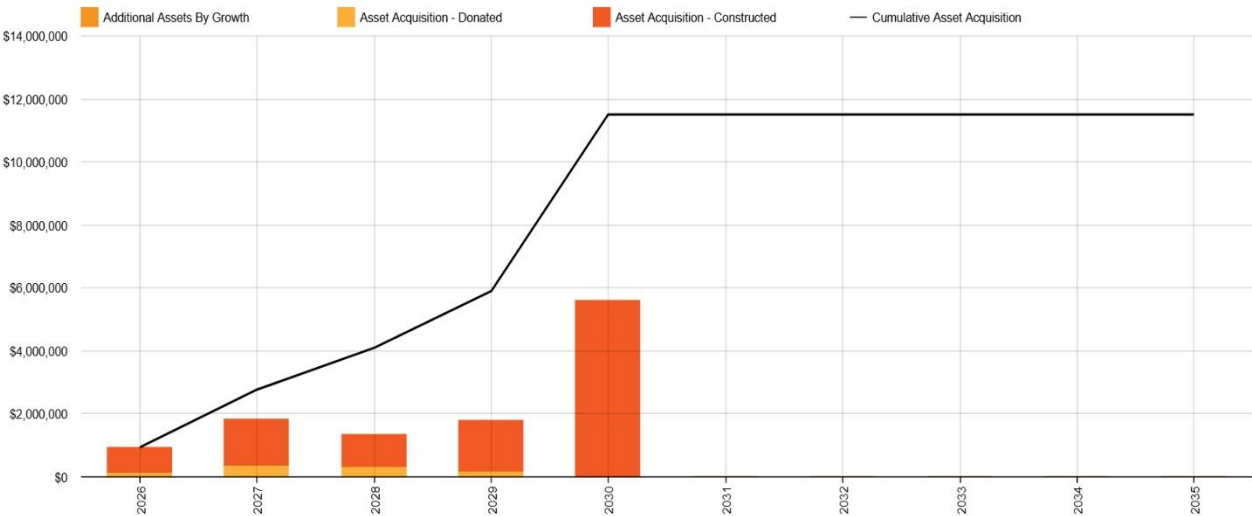


Figure 5.4.2: Acquisition Summary

Amounts are shown in real values (i.e., current values, net of inflation).

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.

5.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation.

For this AM Plan there are no forecast standalone disposal projects. All renewal forecasts include an allowance for disposal of the previously expired assets where applicable.

5.6 Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.6. 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.

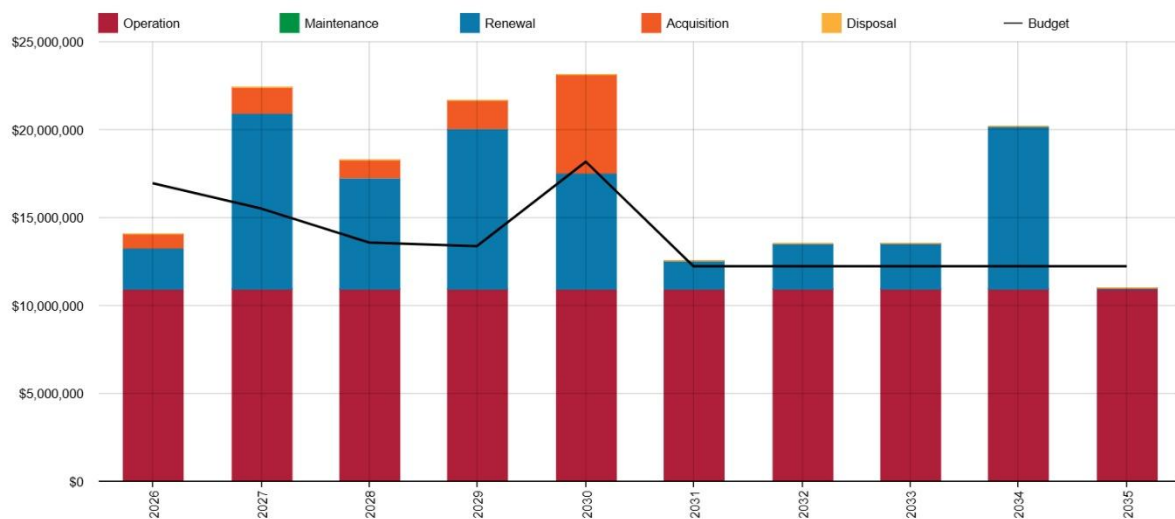


Figure 5.6: Lifecycle Summary

Amounts are shown in real values (i.e., current values, net of inflation).

Forecast operations/maintenance and renewals are less than the current budget including forecast renewal funding from the LTFP. As discussed earlier in this document, this discrepancy requires further in depth analysis and review of the water supply asset register, replacement values and the useful lives of those assets providing the required service level to the community.

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'⁸.

An assessment of risks⁹ 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.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Treatment Plants	Equipment failure	Limited or no drinking water available for the community
	Treatment / Compliance failure.	Supplied water may be unfit for consumption.
Water Reservoirs & secondary disinfection	Equipment or power failure	Limited or no drinking water available for the community.
	Disinfection failure	Compromised drinking water quality.
Reticulation pipe and node network.	Pipe cracking, joint displacement.	Leakage of treated water leading to shortfall of supply, overwork of the treatment plants, supply outages during repair.
Booster Pump Stations	Equipment or power failure	Loss of pressure in water mains limiting water supply

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.

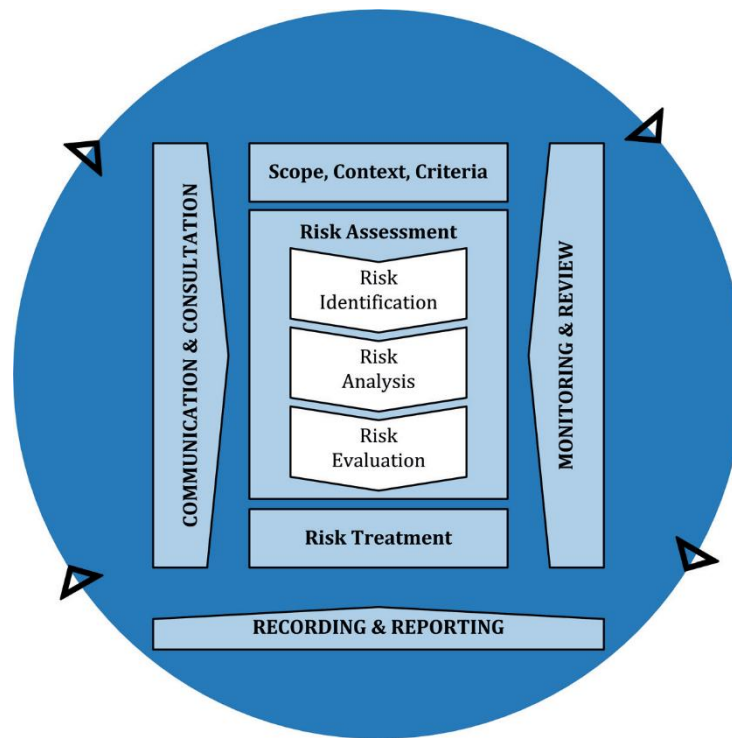


Fig 6.2 Risk Management Process – Abridged
Source: ISO 31000:2018, Figure 1, p9

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 risks¹⁰ 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 Hilltops Council.

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
Environmental	Increasing peak temperatures and extended heatwaves may impact demand requirements.	H	Monitor for emerging issues. Complete design studies for areas of concern. Additional upgrade where required with inputs from NSW Public works studies.	M	Costs to be developed in the operations and acquisition/upgrade budget as part of the improvement plan review of environmental impacts and resilience.
	Damage to assets because of a significant natural event.	H	Ensure resources are redirected to manage the National Disaster Recovery Fund (NDRF). process when an event is declared. Procedures and training for key staff to be developed and documented. Recovery is highly reliant on external assistance such as the NDRF. Ensure Business continuity plan is updated and relevant.	M	Staff time commitments managed within existing budgets.
Increasing contract and material costs	Increasing external costs for contract and materials continues to increase at a high rate leading to additional funding requirements.	H	Further develop asset hierarchies, customer and technical service levels to ensure only sustainable renewal and maintenance activities are required. Develop shovel ready projects for grant funding opportunities. Develop long term renewal plans to allow for adequate planning and project delivery efficiencies.	H	Staff time commitments managed within existing budgets.

Staff Retention	Loss of corporate knowledge to support Asset Management.	H	Development of Standardised work procedures. High quality AMP's linked to LTFP and operational management planning. Cross Training of roles within key positions..	M	Staff time commitments managed within existing budgets.
Lack of asset information	Defects causing injury or property damage.	H	Proactive scheduled inspections based on affordable and prioritised inspection schedule within agreed service level targets. Inspections to feed into comprehensive proactive maintenance plan and multi-year renewal plan.	M	Staff time commitments managed within existing budgets.
	Inability to complete all renewals in line with expiry - impacting on service levels.	H	Continue to improve data and knowledge by carrying out proactive targeted inspections. Development of multi-year detailed renewal plan in line with recommendations from NSW Public works studies. Optimise service levels with updated inspection and risk inputs.	M	Costs to be developed in the renewal budget as part of the improvement plan item for renewal plan development.
Ageing infrastructure	Stricter regulations forecast to manage worker, public and environmental health risks.	H	Future renewal and upgrade to be designed in conjunction with Public Works. Applications for grant funding to minimise cost impacts to Council and ratepayers.	M	Costs to be developed in the renewal budget as part of the improvement plan item for renewal plan development.

	Treatment plant failure leading to contaminated water entering system.	H	Develop upgrade & renewal plan and/or alternate water source , advocate for grant funding,	M	Costs to be developed in the renewal budget as part of the improvement plan item for renewal plan development.
Grant Funding Availability.	Grant Funding fluctuation may impact Councils ability to manage ongoing renewals requirements. Inability to complete all renewals in line with expiry - impacting on service levels.	H	Continue to advocate for and seek additional Grant Funding. Targeted detailed multi year renewal and upgrade plan for Sewerage asset network utilising existing grant funding with optimised renewal schedule aligned with NSW Public Works recommendations.	M	Costs to be developed in the renewal budget as part of the improvement plan item for renewal plan development.

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.

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

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

- Forecast renewal projects in excess of the LTFP budgets
- Acquisition and Upgrade projects not forecast.
- Asset maintenance activities beyond the maintenance budgets and current agreed service levels including Pro-active inspections and condition assessment of the water assets.

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:

- Potential for some assets to not be renewed at the optimum times leading to condition deterioration beyond agreed service levels
- Sub optimal water asset condition and operation effectiveness e.g. failed treatment plant assets.

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:

- Community dissatisfaction with water asset performance and service level
- Treatment plant failure leading to contaminated water and public health risk
- Extended supply restrictions due to asset failure.

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 and valuation forecasts resulting from the information presented in the previous sections of this plan. Forecasts will be improved as the discussion on sustainable levels of service, risk and cost matures in line with the financial strategy.

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 (planned renewal budget for the next 10 years / forecast renewal outlays for the next 10 years identified as warranted in the AM Plan), and
- Lifecycle Funding Ratio (planned lifecycle budget for the next 10 years / forecast lifecycle outlays for the next 10 years identified as warranted in the AM Plan).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹¹ 40.89%

The Asset Renewal Funding Ratio illustrates that over the next 10 years we expect to have 40.89% of the funds required for the optimal renewal of assets.

The forecast renewal works along with the planned renewal budget, and the cumulative shortfall where one exists, is illustrated in Appendix D.

Lifecycle Funding Ratio – 10-year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide the levels of service to the community over a 10 year period. This provides input into 10 year long-term financial plan (LTFP) aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the planned 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 \$15,987,133 4 average per year.

The 10-year LTFP is \$13,018,495 on average per year giving a 10 year funding shortfall of \$-2,968,638 per year. This indicates that 81.43% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude depreciation and the acquisition of new and upgrade of existing assets.

Providing sustainable and affordable 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.

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

Table 7.1.2 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 and/or financial projections in the LTFP.

We will manage any 'gap' by communicating the service performance, cost, and risk implications in consultation with the community and key stakeholders.

Forecast costs are shown in 2026 dollar values.

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

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2026	789,000	10,965,247	0	2,329,099	0
2027	1,470,000	10,965,247	0	9,951,435	0
2028	1,000,000	10,965,247	0	6,292,885	0
2029	1,600,000	10,965,247	0	9,069,141	0
2030	5,600,000	10,965,247	0	6,583,725	0
2031	0	10,965,247	0	1,596,841	0
2032	0	10,965,247	0	2,566,794	0
2033	0	10,965,247	0	2,573,729	0
2034	0	10,965,247	0	9,219,253	0
2035	0	10,965,247	0	35,960	0

7.2 Valuation Forecasts

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued at fair value to replace service capacity.

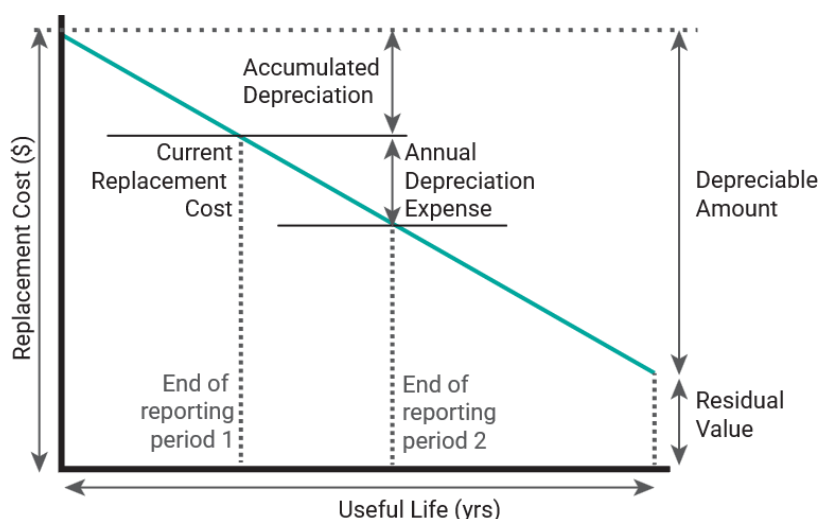


Figure 7.2.1: Valuation Terminology

Replacement Cost (Gross)	\$113,661,131
Depreciable Amount	\$113,661,131
Current Replacement Cost ¹²	\$32,582,034
Annual Depreciation Expense	\$1,769,516.0

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

Acquiring new assets will add to existing operations, maintenance, future renewal, and depreciation expenses.

8.0 ASSUMPTIONS AND IMPROVEMENT PLANNING

8.1 Data and Information Sources

8.1.1 Accounting and financial data sources

This AM Plan utilises accounting and financial data sourced from Councils Long Term Financial Plan 2025/26.

8.1.2 Asset management data sources

This AM Plan also utilises asset management data sourced from Hilltops Councils Water asset register.

8.2 Key Assumptions

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 forecasts.

Key assumptions made in this AM Plan are:

- Asset values and dimensions are correct. Changes to asset values and dimensions will have an effect on resources required to operate, maintain and renew the sewer assets.
- Council's water assets have been inspected and the water asset conditions have been updated accordingly. Monitoring of change of condition may show change in the asset's useful life which is likely to have an impact on funding required to maintain the level of service.
- The estimates used for current rates of renewal will remain constant at the current 2026 values for the next 10 years. Any increase to the renewal costs may reduce the amount of work budgeted with possible reduction in the service level for stormwater drainage assets.

■

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. When doing so, the forecast remaining useful life in the asset register should be adjusted where necessary.

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

8.3 Forecast Reliability and Confidence

The forecast demands, costs, planned budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset management and financial planning and reporting, it is critical that the information is reliable and up to date. Data confidence is classified on an A to E level scale in accordance with the guidance provided in the International Infrastructure Management Manual.¹³

Table 8.3.1: 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 $\pm 2\%$
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 $\pm 10\%$

Confidence Grade	Description
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 $\pm 25\%$
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 $\pm 40\%$
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 8.3.2.

Table 8.3.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	Medium	Based on NSW Department on Planning Requirements
Growth projections	Medium	Based on Bureau of Statistics past growth.
Acquisition forecast	High	Council LTFP
Operation forecast	High	Council LTFP
Maintenance forecast	High	Based on current budgets
Asset values	High	Based on Asset register data
Asset useful lives	High	Based on industry standards for asset life.

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

8.4 Improvement Plan

It is important that we recognise gaps in the planning process that require improvement to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 8.4.

Table 8.4: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Improve Asset Register Confidence with more breakdown of components in the register to reflect those actual components that require renewal/replacement.	Infrastructure	Staff	Ongoing
2	Improve proactive maintenance planning and reporting mechanism	Infrastructure	Staff	Ongoing
3	Devise measuring resilience in asset service delivery.	Infrastructure	Staff	Ongoing
4	Impact of climate change on new and existing assets. Explore new opportunities for development in future revisions of this AM Plan	Infrastructure	Staff	Ongoing

5	Implement protocols that enables systematic update of asset register following asset renewal, replacement, acquisition and disposal	Infrastructure	Staff	Ongoing
6	Install system that allows the field staff to easily identify the asset information including reference number using the geospatial information so that relevant condition data and maintenance history of an asset can be recorded.	Infrastructure	Staff	12 months and ongoing
7	Develop an Asset Management System that outlines the procedures and requirements of preparing and maintaining asset registers	Infrastructure	Staff	3 years
8	Develop an Asset Management System that streamlines budget reallocation processes and updates the AMP and the register	Infrastructure	Staff	3 years

8.5 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 within 9 months of each Hilltops Council election.

8.6 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 to 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 – 110%).

9.0 REFERENCES

- IPWEA, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/resourcesnew/bookshop/iimm>
- IPWEA, 2024 'International Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/resourcesnew/bookshop/iifmm>
- IPWEA, 2018, Practice Note 12.1, 'Climate Change Impacts on the Useful Life of Assets', Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/resourcesnew/bookshop/pn12-1>
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- ISO, 2024, ISO 55000:2024 Asset Management – Vocabulary, overview, and principles
- ISO, 2018, ISO 31000:2018 Risk management – Guidelines
- Hilltops Council Long Term Financial Plan 2026-2035.
- Hilltops Council Operational and Delivery Plan 2026/27.
- Hilltops Council Community Strategic Plan 2042.

10.0 APPENDICES

Appendix A Acquisition Forecast

A.1 – Acquisition Forecast Assumptions and Source

Developer Constructed from current known subdivisions in defect periods and those with either Development Consent or working through that consent. Forecast years for these estimates are based on an estimated construction year. These could change from site to site due to developer cash flow and other external influences.

A.2 – Acquisition Project Summary

The project titles included in the lifecycle forecast are included here.

Year	Constructed	Donated
2026	New Wombat Reservoir	2 Rockdale Road YNG
2026	New Harden- Bobbara Reservoir	72 Hills Street YNG
2027	New Galong Reservoir	Donohoe's Estate Stage 1 BWA
2027	Commons Road mains Extension 750m	87 Back Creek Rd YNG
	New Boorowa Reservoir	
2028	Boorowa Res Duplication	67 Back Creek YNG
		McVeigh Street YNG
		6 Smith Street HDN
		Smith Street HDN
2029	Young Water Supply Capacity	Viginia Estate/Orchard Street stage 1 YNG
2030	Young Water Supply Capacity	
2031	-	
2032	-	
2033	-	
2034	-	
2035		

A.3 – Acquisition Forecast Summary

Table A3 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2026	789,000	155,000	0
2027	1,470,000	355,000	0
2028	1,000,000	335,000	0
2029	1,600,000	200,000	0
2030	5,600,000	0	0
2031	0	0	0
2032	0	0	0
2033	0	0	0
2034	0	0	0
2035	0	0	0

Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

- No new assets are assumed to be acquired beyond what is planned.
- Amounts are shown in real values (i.e. current 2026 dollars, net inflation).

B.2 – Operation Forecast Summary

Table B2 - Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast
2026	10,965,247	0	10,965,247
2027	10,965,247	0	10,965,247
2028	10,965,247	0	10,965,247
2029	10,965,247	0	10,965,247
2030	10,965,247	0	10,965,247
2031	10,965,247	0	10,965,247
2032	10,965,247	0	10,965,247
2033	10,965,247	0	10,965,247
2034	10,965,247	0	10,965,247
2035	10,965,247	0	10,965,247

Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

Maintenance forecast is included in the Operations Forecast in Appendix B

Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

Renewal forecast is based on the current asset register.

The general assumption of the asset register is that condition of the assets are assessed appropriately and that the physical data of the asset is correct.

Renewal Budget is sourced from the adopted LTFP 2025/26.

No new assets are assumed to be acquired beyond what is planned.

Amounts are shown in real values (i.e. current 2026 dollars, net inflation).

D.3 – Renewal Forecast Summary

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2026	2,329,099	5,197,787
2027	9,951,435	3,372,753
2028	6,292,885	1,613,992
2029	9,069,141	2,413,992
2030	6,583,725	1,613,992
2031	1,596,841	1,263,992
2032	2,566,794	1,263,992
2033	2,573,729	1,263,992
2034	9,219,253	1,263,992
2035	35,960	1,263,992

D.4 – Renewal Plan

Asset ID	Category	Asset Name	Forecast Re-nuwal Year
2000084	Water Mains Young	Campbell St Demondrille St South East corner	2026
2000082	Water Mains Young	Campbell St Berthong St South East corner	2026
2000080	Water Mains Young	Campbell St South East corner Old Mercy Care Center fire service	2026
2000079	Water Mains Young	Campbell St opp mcc deadend	2026
2000078	Water Mains Young	Campbell St Berthong St North West corner	2026
2000035	Water Mains Young	Willawong St Trafalgar St North West corner	2026
2000935	Water Non Active Boor-owa	BOOROWA WEIR PUMP STATION CENTRIFUGAL SUB-MERSIBLE PUMPS	2026
2000568	Water Mains Young	Boundary Rd 50m before Kingsvale Rd	2026
2000567	Water Mains Young	Boundary Rd 50m before Kingsvale Rd	2026
2000093	Water Mains Young	Campbell St Old Mercy Care Center fire service	2026
2000092	Water Mains Young	Campbell St South East cornerntre Old Mercy Care Center West Side	2026
2000026	Water Mains Young	Campbell St Berthong St South East corner	2026
2000025	Water Mains Young	Campbell St old Mercy care center west side	2026

2000690	Water Mains Harden	200 AC Main, Scott to Albury St	2026
2000538	Water Mains Young	Wickham Lane Kerbs Lane West Side	2026
2000537	Water Mains Young	Wickham Lane Kerbs Lane West Side	2026
2000536	Water Mains Young	Wickham Lane Old Temora Rd South West corner	2026
2000534	Water Mains Young	Wickham Lane Old Temora Rd South West corner	2026
2000533	Water Mains Young	Wickham Lane Old Temora Rd South East corner	2026
2000532	Water Mains Young	Wickham Lane Old Temora Rd South East corner	2026
2000418	Water Mains Young	Kingsvale Rd north off Windemere St	2026
2000406	Water Mains Young	Willawong St Kingsvale Rd intersection West Side	2026
2000350	Water Mains Young	Lachlan St hall bros oval Eastern Side	2026
2000349	Water Mains Young	Lachlan St Patterson Lane North East corner	2026
2000250	Water Mains Young	Lachlan St alfred oval Eastern Side	2026
2000153	Water Mains Young	Campbell St Demondrille St South East corner	2026
2000091	Water Mains Young	Campbell St Berthong St North West corner	2026
2000090	Water Mains Young	Campbell St high school Western Side	2026
2000034	Water Mains Young	Berthong St Willawong St South West corner	2026
2000027	Water Mains Young	North East corner Campbell St and Demondrille St	2026
2000957	Water Non Active Boor- owa	Boorowa Water Treatment Plant PAC Tank inc agitator and valves	2027
2000958	Water Non Active Boor- owa	Boorowa Water Treatment Plant PAC PCA Vacuum Loading System	2027
2000963	Water Non Active Boor- owa	Boorowa Water Treatment Plant Sand Filter Electrical Backwash Water Pump Local Control Panel	2027
2000964	Water Non Active Boor- owa	Boorowa Water Treatment Plant Sand Filter Electrical Local Control Panel	2027
2000965	Water Non Active Boor- owa	Boorowa Water Treatment Plant Sand Filter Electrical Assorted cabling and instrumentation	2027
2000790	Water Mains Harden	Station and Smith St Corner	2027
2000791	Water Mains Harden	Swift St West	2027
2000792	Water Mains Harden	Swift St Derby to East St	2027
2000805	Water Mains Harden	Ward St near School	2027
2000808	Water Mains Harden	Whitton Lane Railway to SWSCC	2027
2000809	Water Mains Harden	Whitton Lane SWSCC to East St	2027
2000811	Water Mains Harden	Whitton St Medical Centre to Police	2027
2000899	Water Non Active Harden	AURVILLE WATER PUMP STATION 37kW	2027
2000900	Water Non Active Harden	PRUNEVALE WATER PUMP STATION 7500W	2027
2000901	Water Non Active Harden	CUNNINGAR BOOSTER STATION 30kW	2027
2000930	Water Non Active Boor- owa	Boorowa Bore 2 pump	2027
2000931	Water Non Active Boor- owa	Boorowa Bore 1 pump	2027
2000932	Water Non Active Boor- owa	BOOROWA WEIR PUMP STATION BUILDING	2027

2000933	Water Non Active Boorowa	BOOROWA WEIR PUMP STATION ELECTRICAL SWITCH-BOAR AND WIRING	2027
2000936	Water Non Active Boorowa	BOOROWA PUMP STATION REMOTE TELEMETRY UNIT	2027
2000937	Water Non Active Boorowa	BOOROWA PUMP STATION RWPA AND RES REMOTE TELEMETRY UNIT	2027
2000940	Water Non Active Boorowa	Boorowa Weir Mechanicals Inc Trunnion pipe work and handrails	2027
2000941	Water Non Active Boorowa	Boorowa Buffer Tank Civils Cast In situ Concrete Tank	2027
2000942	Water Non Active Boorowa	Boorowa Buffer Tank Electricals Inc cabling local control panel and instrumentation	2027
2000946	Water Non Active Boorowa	Boorowa Buffer Tank Electrical Local Control Switch-board	2027
2000947	Water Non Active Boorowa	Boorowa Buffer Tank Intrumentation Chlorine Detector	2027
2000948	Water Non Active Boorowa	Boorowa Water Treatment Plant Chemical Dosing As-sorted Chlorine Pipe work and valves	2027
2000762	Water Mains Harden	Neill St Roberts park to M . Malone	2027
2000758	Water Mains Harden	Neill St nth side Stair to Lucan	2027
2000950	Water Non Active Boorowa	Boorowa Water Treatment Plant Chemical Dosing Electricals Local Control Switchboard	2027
2000952	Water Non Active Boorowa	Boorowa Water Treatment Plant Chemical Dosing Feed Water Pump Small Multistage	2027
2000953	Water Non Active Boorowa	Boorowa Water Treatment Plant Chemical Dosing Small Water Softening Plant	2027
2000954	Water Non Active Boorowa	Boorowa Water Treatment Plant Chemical Poly Dosing Flash mixers	2027
2000956	Water Non Active Boorowa	Boorowa Water Treatment Plant Inlet Structure Flow Meter and other instruments	2027
2000369	Water Mains Young	Thornhill St Memagong St North East corner	2027
2000124	Water Mains Young	Zouch St Rosemary Lane West Side	2027
2001008	Water Non Active Young - Pump Stations	Young Water Pump Station Marina St Water PS Pump	2027
2000392	Water Mains Young	Thornhill St Dundas St South East corner	2027
2000001	Water Mains Young	Allanan St hospital fire service	2027
2000002	Water Mains Young	Thornhill St Toompang St Eastern Side	2027
2000004	Water Mains Young	Allanan St deadend 80m south Yass St	2027
2000634	Water Mains Boorowa	Jugiong Street	2027
2000638	Water Mains Boorowa	Long Street	2027
2000660	Water Mains Boorowa	North Street	2027
2000693	Water Mains Harden	Across Bridge Murrumburrah	2027
2000695	Water Mains Harden	Albury St near School	2027
2000696	Water Mains Harden	Albury St Scoutt Hall to East St	2027
2000697	Water Mains Harden	Albury st sth side east to Ford car yard	2027
2000700	Water Mains Harden	Albury St Iris st to Ward St	2027
2000701	Water Mains Harden	Albury st Murrumburrah shops	2027
2000702	Water Mains Harden	Albury St near Court House	2027

2000703	Water Mains Harden	Albury St North side R C Church	2027
2000704	Water Mains Harden	Albury St North side from East st to Stair St	2027
2000705	Water Mains Harden	Albury St south side from East St to Stair st	2027
2000706	Water Mains Harden	Albury St south side Lucan to Scott hall	2027
2000707	Water Mains Harden	Albury St Ward to Stair	2027
2000708	Water Mains Harden	Albury st west of court house	2027
2000709	Water Mains Harden	Albury St Station St to Redbank	2027
2000715	Water Mains Harden	Bathurst st south	2027
2000719	Water Mains Harden	Bobbara St to East end	2027
2000725	Water Mains Harden	Clarke St to Stair along East to Binalong	2027
2000731	Water Mains Harden	Derby St Neill to clarke	2027
2000736	Water Mains Harden	Iris St North	2027
2000737	Water Mains Harden	Iris St South	2027
2000740	Water Mains Harden	Kelly St East Side	2027
2000743	Water Mains Harden	Lane near underpass Murrumburrah	2027
2000745	Water Mains Harden	Lucan St Albury st to Fredericks	2027
2000746	Water Mains Harden	Lucan St Binalong to Hydrant	2027
2000748	Water Mains Harden	Lucan St from Swift st lane	2027
2000044	Water Mains Young	intersection Blackett Ave Boothby St West Side	2027
2000045	Water Mains Young	corner Blackett Ave Musgrove St North East corner side	2027
2000047	Water Mains Young	Blackett Ave creek crossing West Side	2027
2000048	Water Mains Young	Cram Ave creek crossing Eastern Side	2027
2000050	Water Mains Young	Boorowa St Zouch St North East corner	2027
2000051	Water Mains Young	Campbell St rosemary North West corner	2027
2000052	Water Mains Young	Thornhill St Boorowa St South East corner	2027
2000053	Water Mains Young	Boorowa St Penrose Bridge Southern Side	2027
2000066	Water Mains Young	Boorowa St Penrose Bridge Southern Side	2027
2000067	Water Mains Young	intersection Blackett Ave Melville St West Side	2027
2000068	Water Mains Young	Elizabeth St Boothby St Eastern Side	2027
2000069	Water Mains Young	North East corner Elizabeth St Prospect St intersection	2027
2000074	Water Mains Young	intersection Taylor Road Brock St North West corner	2027
2000075	Water Mains Young	Elizabeth St Boothby St Eastern Side	2027
2000076	Water Mains Young	center intersection Taylor Road Brock St	2027
2000081	Water Mains Young	Yass St Gordon St North West corner	2027
2000083	Water Mains Young	Demondrille St charles North West corner side	2027
2000086	Water Mains Young	Campbell St Mount St Joseph West Side	2027
2000094	Water Mains Young	Caple St Currawong St South West corner	2027
2000095	Water Mains Young	Campbell St Dundas St South West corner	2027
2000096	Water Mains Young	Berthong St Caple St intersection Southern Side	2027
2000099	Water Mains Young	Allanan St Caple St intersection Southern Side	2027
2000123	Water Mains Young	Clote St calabash North East corner	2027
2000125	Water Mains Young	Clote St calabash North East corner	2027
2000135	Water Mains Young	intersection Cram Ave Crichton Cres	2027
2000136	Water Mains Young	Fontenoy St 115m past Cram Ave Eastern Side	2027
2000146	Water Mains Young	Thornhill St Spring St South East corner	2027

2000149	Water Mains Young	Wombat St Demondrille St intersection	2027
2000155	Water Mains Young	Campbell St deadend catholic school	2027
2000218	Water Mains Young	intersection William St Blackett Ave Sourthern Side	2027
2000251	Water Mains Young	Lachlan St Patterson Lane North East corner	2027
2000270	Water Mains Young	intersection William St Lynch St South East corner	2027
2000271	Water Mains Young	Mackenzie St bridge Northern Side	2027
2000296	Water Mains Young	intersection William St Main St South East corner side	2027
2000300	Water Mains Young	Thornhill St Berthong St North East corner	2027
2000306	Water Mains Young	Thornhill St Ripon St Eastern Side	2027
2000360	Water Mains Young	Thornhill St Currawong St South East corner	2027
2000368	Water Mains Young	Campbell St Dundas St South West corner	2027
2000378	Water Mains Young	intersection William St Taylor Road North West corner side	2027
2000379	Water Mains Young	Thornhill St Currawong St South East corner	2027
2000395	Water Mains Young	Thornhill St Berthong St North East corner	2027
2000397	Water Mains Young	Thornhill St Berthong St South East corner	2027
2000398	Water Mains Young	Thornhill St Allanan St Eastern Side	2027
2000407	Water Mains Young	Lachlan St Western St North East corner	2027
2000453	Water Mains Young	Murringo St Allanan St South West corner	2027
2000484	Water Mains Young	Allanan St Bruce St South West corner	2027
2000485	Water Mains Young	Demondrille St Young Public school	2027
2000486	Water Mains Young	Allanan St between Bruce St Caple St	2027
2000494	Water Mains Young	Mackenzie St bridge Sourthern Side	2027
2000495	Water Mains Young	Fontenoy St Emily St Eastern Side	2027
2000496	Water Mains Young	Boorowa St Clarke St intersection Northern Side	2027
2000784	Water Mains Harden	Smith St East end	2027
2000959	Water Non Active Boor- owa	Boorowa Water Treatment Plant Poly Dosing Dosing Pump	2027
2000771	Water Mains Harden	Railway Cottages Aurville rd	2027
2000772	Water Mains Harden	Railway Cottages North St	2027
2000773	Water Mains Harden	Redbank St Sth to D Allen	2027
2000782	Water Mains Harden	Smith St Nth side, Kelly to Cunninham	2027
2000786	Water Mains Harden	Stair St Woolstore to Neill St	2027
2000787	Water Mains Harden	Stair St Fire Station to Wool Store	2027
2000498	Water Mains Young	Elizabeth St Brock St South East corner	2027
2000500	Water Mains Young	Lachlan St Western St North East corner	2027
2000578	Water Mains Boorowa	Brial Street	2027
2000579	Water Mains Boorowa	Brial Street	2027
2000580	Water Mains Boorowa	Brial Street	2027
2000585	Water Mains Boorowa	Campbell Street	2027
2000590	Water Mains Boorowa	Court Street	2027
2000604	Water Mains Boorowa	Farm Street	2027
2000619	Water Mains Boorowa	Ford Street	2027
2000967	Water Non Active Boor- owa	Boorowa Water Treatment Plant Sand Filter Media As-sorted Graded sands and rubble	2027

2000969	Water Non Active Boor-owa	Boorowa TP Settling Pond PS Elec cabling and instru and LCP	2027
2000970	Water Non Active Boor-owa	Boorowa Water Treatment Plant Settling Ponds PS Submersible pumps	2027
2000977	Water Non Active Boor-owa	Boorowa Water Treatment Plant Lighting Assorted Site Flood Lighting	2027
2000978	Water Non Active Boor-owa	Boorowa Water Treatment Plant Site wide Security Fencing	2027
2000979	Water Non Active Boor-owa	Boorowa Water Treatment Plant Hot Water Service	2027
2000982	Water Non Active Boor-owa	Boorowa Water Treatment Plant Equipment Gas detector	2027
2000984	Water Non Active Boor-owa	Boorowa Water Treatment Plant Equipment flocculator ET740 4 paddle Lab lovibond	2027
2000985	Water Non Active Boor-owa	Boorowa Water Treatment Plant Equipment Spectrophotometer 330-900NM Lovibond	2027
2000986	Water Non Active Boor-owa	Boorowa water Treatment Plant Equipment turbidity meter	2027
2001004	Water Non Active Young - Pump Stations	Young Water Pump Station John Hill PS Switchboard inc VSD	2027
2001005	Water Non Active Young - Pump Stations	Young Water Pump Station Marina St Water PS Building	2027
2001006	Water Non Active Young - Pump Stations	Young Water Pump Station Marina St Water PS Mechanical	2027
2001007	Water Non Active Young - Pump Stations	Young Water Pump Station Marina St Water PS Pipework	2027
2001009	Water Non Active Young - Pump Stations	Young Water Pump Station Marina St Water PS Switchboard	2027
2001011	Water Non Active Young - Reservoirs	Young water Storage John Hill Site Perimeter Fencing	2027
2001013	Water Non Active Young - Reservoirs	Young Water Storage John Hill Tank 1 Membrane Coating	2027
2001014	Water Non Active Young - Reservoirs	Young Water Storage John Hill Assorted Tank 1 Sensors and Electrical	2027
2001016	Water Non Active Young - Reservoirs	Young Water Storage John Hill Assorted Tank 1 Pipework	2027
2001017	Water Non Active Young - Reservoirs	Young Water Storage John Hill Tank 1 Roof Steel	2027
2001019	Water Non Active Young - Reservoirs	Young Water Storage John Hill Assorted Tank 2 Sensors & Electrical	2027
2000005	Water Mains Young	South West corner of Yass St and Berthong St	2027
2000028	Water Mains Young	Berthong St Yass St North West corner	2027
2000030	Water Mains Young	Wombat St Berthong St intersection Southern Side	2027
2000031	Water Mains Young	Berthong St Murringo St South West corner	2027
2000032	Water Mains Young	Wombat St Berthong St North West corner	2027
2000033	Water Mains Young	Wombat St Berthong St North West corner	2027
2000036	Water Mains Young	Gordon St Binalong St lane Southern corner	2027
2000037	Water Mains Young	Berthong St Binalong St South West corner	2027
2000038	Water Mains Young	Berthong St Binalong St lane South West corner	2027

2000039	Water Mains Young	Binalong St Allanan St North West corner	2027
2000040	Water Mains Young	Allanan St deadend opp cranfield	2027
2000041	Water Mains Young	Demondrille St Binalong St North West corner	2027
2000042	Water Mains Young	Binalong St West Side	2027
2000046	Water Mains Young	Elizabeth St Musgrove St South East corner side	2027
2000054	Water Mains Young	Junction St Northern Side	2027
2000055	Water Mains Young	Boorowa St Zouch St intersection	2027
2000056	Water Mains Young	Zouch St Lighting Lane intersection Eastern Side	2027
2000061	Water Mains Young	Clarke St Boorowa St South West corner side	2027
2000062	Water Mains Young	Boorowa St Rockdale Rd North East corner	2027
2000063	Water Mains Young	Rockdale Rd SES building	2027
2000065	Water Mains Young	Boorowa St Penrose Bridge Southern Side	2027
2000114	Water Mains Young	Lovell St Main St South East corner	2027
2000156	Water Mains Young	Campbell St Gordon St North East corner	2027
2000237	Water Mains Young	Fontenoy St North West corner opp park area	2027
2000282	Water Mains Young	Lovell St Main St South East corner	2027
2000289	Water Mains Young	Thornhill St Berthong St North East corner	2027
2000571	Water Mains Young	Back Creek Rd ext opp stanley	2028
2000371	Water Mains Young	Stanley St Memagong St North West corner	2028
2000290	Water Mains Young	stanley Memagong St North West corner	2028
2000768	Water Mains Harden	Offtake SWTWS main to hut	2028
2000944	Water Non Active Boor- owa	Boorowa Buffer Tank Town Supply Pumps Centrifugal	2028
2000825	Water Mains Harden	Gawalla road	2028
2000547	Water Mains Young	Spring Creek Rd Curtis Rd South West corner side	2028
2000356	Water Mains Young	Back Creek Rd pass Tadros Ave Eastern Side	2028
2000308	Water Mains Young	South West corner Taylor Road Orchard St	2028
2000172	Water Mains Young	Stoneridge St Edwards St South East corner	2028
2000718	Water Mains Harden	Bathurst St To RES NO 1	2028
2000457	Water Mains Young	T intersection Pineview Crt	2028
2000461	Water Mains Young	Bailes Cr deadend	2028
2000209	Water Mains Young	arbouretom park Southern Side creek	2028
2000527	Water Mains Young	black range reserivior outlet	2028
2000561	Water Mains Young	Batnicks Rd 180m of Isaacs Rd Northern Side	2028
2000807	Water Mains Harden	Whitton Lane railway to Chaff Mill	2028
2000545	Water Mains Young	Spring Creek Rd Whites La South West corner side	2028
2000318	Water Mains Young	Elizabeth St Prospect St North East corner	2028
2000806	Water Mains Harden	Whitton Lane Chaff Mill	2028
2000211	Water Mains Young	Berthong St Binalong St lane South West corner	2028
2000225	Water Mains Young	South West corner Orchard St Hill St	2028
2000238	Water Mains Young	North West Jasprizza Ave before Henry Lawson Way	2028
2001003	Water Non Active Young - Pump Stations	Young Water Pump Station John Hill Axial flow Pump	2028
2000477	Water Mains Young	alfred oval water first line right	2028
2000423	Water Mains Young	Back Creek Rd Petticoat Lane South East corner	2028

2000404	Water Mains Young	Toomping St Thornhill St North East corner	2028
2000516	Water Mains Young	Back Creek Rd Henry Pl South West corner	2028
2000524	Water Mains Young	Back Creek Rd intersection conect young terminal stor- age	2028
2000240	Water Mains Young	North West Jasprizza Ave before Henry Lawson Way	2028
2000333	Water Mains Young	Back Creek Rd Mathew St South West corner	2028
2000373	Water Mains Young	Stoneridge St Edwards St South East corner	2028
2000273	Water Mains Young	intersection Boorowa St Mackenzie St	2028
2000376	Water Mains Young	South West corner Orchard St Hill St	2028
2001002	Water Non Active Young - Pump Stations	Young Water Pump Station John Hill PS Mechanical inc valves and Pipework	2028
2000166	Water Mains Young	Stoneridge Edwards St North West corner	2028
2000312	Water Mains Young	Berthong St Binalong St South West corner	2028
2000043	Water Mains Young	William St Hill St Eastern Side	2028
2000088	Water Mains Young	Back Creek Rd Wombat St intersection West Side	2028
2000382	Water Mains Young	Spring Creek Rd White St Lane South West corner side	2028
2000252	Water Mains Young	alfred oval water system	2028
2000391	Water Mains Young	intersection Boorowa St Mckenzie St	2028
2000511	Water Mains Young	Back Creek Rd Settlers Pl South West corner	2028
2000546	Water Mains Young	Spring Creek Rd Hardys Rd West Side	2028
2000107	Water Mains Young	David Sains Rd Showground entrance Northern Side	2028
2000400	Water Mains Young	Berthong St Bruce St South West corner	2028
2000439	Water Mains Young	Allanan St Yass St South West corner	2028
2000819	Water Mains Harden	Barwang Road, South	2028
2000802	Water Mains Harden	Ward St South	2028
2000800	Water Mains Harden	Vernon Clarke Sts Murrumburrah	2028
2000797	Water Mains Harden	Vernon st and Araluen rd	2028
2000785	Water Mains Harden	Stair St Scott to Swift St	2028
2000528	Water Mains Young	black range 150mm intersection conect	2029
2000526	Water Mains Young	Back Creek Rd terminal storage	2029
2000525	Water Mains Young	Back Creek Rd terminal storage	2029
2000519	Water Mains Young	Thornhill St North West corner	2029
2000468	Water Mains Young	Brocade Pl deadend	2029
2000465	Water Mains Young	Southern Side landra St before Blackett Ave	2029
2000463	Water Mains Young	corner Blackett Ave Angle Court North West corner side	2029
2000416	Water Mains Young	showground service conection	2029
2000415	Water Mains Young	David Sains Dr Sourthern Side	2029
2000413	Water Mains Young	Berthong St Margaret St North West corner	2029
2000409	Water Mains Young	deadend Watson St	2029
2000403	Water Mains Young	Thornhill St Hardy Ave North East corner	2029
2000402	Water Mains Young	Thornhill St Keevil Dr North West corner	2029
2000393	Water Mains Young	Dundas St Caple St South West corner	2029
2000385	Water Mains Young	Templemore St Clifton St North East corner	2029
2000372	Water Mains Young	Berthong St White St intersection Northern Side	2029
2000358	Water Mains Young	corner Jasprizza Ave Renmark Ave Sourthern Side	2029

2000357	Water Mains Young	deadend Nutthall Cres	2029
2000337	Water Mains Young	Tadros Ave Bailes Cr South West corner	2029
2000336	Water Mains Young	Tadros Ave Normyle Cres South East corner	2029
2000317	Water Mains Young	corner Elizabeth St Musgrove St North East corner side	2029
2000316	Water Mains Young	Berthong St Murring St South West corner	2029
2000313	Water Mains Young	Demondrille St Binalong St North West corner	2029
2000302	Water Mains Young	Toompang St Milong St North West corner	2029
2000245	Water Mains Young	Thornhill St cementery West Side	2029
2000235	Water Mains Young	corner Jasprizza Ave Renmark Ave Sourthern Side	2029
2000234	Water Mains Young	Edwards St Nasmyth St North East corner	2029
2000226	Water Mains Young	South East corner end landra St Elizabeth St end	2029
2000212	Water Mains Young	Thornhill St Hardy Ave North East corner	2029
2000203	Water Mains Young	corner Fontenoy St Nuthall Cres North West corner side	2029
2000180	Water Mains Young	Edwards St opp boys police Northern Side	2029
2000377	Water Mains Young	deadend 10 Tate St	2029
2001024	Water Non Active Young - Telemetry	Young Water Pump Station telemetry	2029
2000227	Water Mains Young	corner Elizabeth St landra St	2029
2000456	Water Mains Young	corner McNarry Pl Jim Anderson Ave Eastern Side	2029
2000257	Water Mains Young	deadend Landowne St	2029
2000458	Water Mains Young	corner Blackett Ave Samuel Court West Side	2029
2000334	Water Mains Young	Tadros Ave Normyle Cres North East corner	2029
2000522	Water Mains Young	Clarke St Boorowa St South West corner side	2029
2000459	Water Mains Young	T intersection Pineview Crt	2029
2000460	Water Mains Young	Tadros Ave deadend	2029
2000462	Water Mains Young	Demondrille St Hennessy St Northern Side	2029
2000464	Water Mains Young	deadend Angel Court	2029
2000467	Water Mains Young	South West corner Orchard St Bendick St	2029
2000506	Water Mains Young	Thornhill St Jake Miller Pl South West corner	2029
2000507	Water Mains Young	Binalong St West Side	2029
2000508	Water Mains Young	Binalong St Hayden Pl South East corner	2029
2000509	Water Mains Young	Binalong St Hayden Pl South East corner	2029
2000510	Water Mains Young	Back Creek Rd Tadros Ave North West corner	2029
2000983	Water Non Active Boor- owa	Boorowa Water Treatment Plant Equipment Air com- pressor	2029
2000976	Water Non Active Boor- owa	Boorowa Water Treatment Plant Electrical Switchboards inc cabling	2029
2000974	Water Non Active Boor- owa	Boorowa Water Treatment Plant CA System Inc 2 Pumps valves pipe work and air receiver	2029
2000961	Water Non Active Boor- owa	Boorowa Water Treatment Plant Sand Filter Backwash Water Pump Centrifugal	2029
2000960	Water Non Active Boor- owa	Boorowa Water Treatment Plant Sand Filter Backwash blower 5LL inc attenuation cabinet	2029
2000951	Water Non Active Boor- owa	Boorowa Water Treatment Plant Chemical Dosing As- sorted Process Pipe work	2029
2000949	Water Non Active Boor- owa	Boorowa Water Treatment Plant Chemical Dosing Venti- lation inc dissipation chamber	2029

2000387	Water Mains Young	Templemore St Toompang St North West corner	2029
2000945	Water Non Active Boor- owa	Boorowa Buffer Tank Steel Roof	2029
2000943	Water Non Active Boor- owa	Boorowa Buffer Tank Interior Membrane Coating	2029
2000903	Water Non Active Harden	GALONG CHLORINATION STN	2029
2000902	Water Non Active Harden	DEMONDRILLE CHORINATION STN	2029
2000799	Water Mains Harden	Vernon st nearest railway	2029
2000789	Water Mains Harden	Station St From Holden Garage to Railway	2029
2000788	Water Mains Harden	Station St south	2029
2000783	Water Mains Harden	Smith St south side	2029
2000781	Water Mains Harden	Short St	2029
2000778	Water Mains Harden	Scott St Lucan to station St	2029
2000774	Water Mains Harden	Redbank St Nth Lane to Bundarbo	2029
2000767	Water Mains Harden	North St Bathurst Streets	2029
2000760	Water Mains Harden	Neill St Murrumburrah near Depot	2029
2000386	Water Mains Young	Clifton St Milong St North West corner	2029
2000759	Water Mains Harden	Neill St sth side Derby to Station	2029
2000384	Water Mains Young	Berthong St Stanley St intersection Northern Side	2029
2000429	Water Mains Young	Thornhill St Normans Rd South West corner	2029
2000440	Water Mains Young	Demondrille St Yass St intersection	2029
2000444	Water Mains Young	Boorowa St Zouch St South East corner	2029
2000452	Water Mains Young	deadend Martin Court	2029
2000332	Water Mains Young	deadend Nea St	2029
2000314	Water Mains Young	corner Blackett Ave Martin Place	2029
2000297	Water Mains Young	deadend Melville St 140m from Western intersection	2029
2000272	Water Mains Young	Boorowa St Penrose Bridge Sourthern Side	2029
2000230	Water Mains Young	Sourthern Side landra St before Blackett Ave	2029
2000224	Water Mains Young	South West corner Orchard St Hill St	2029
2000210	Water Mains Young	Binalong St Gordon St Sourthern corner	2029
2000207	Water Mains Young	Templemore St Currawong St North West corner	2029
2000206	Water Mains Young	deadend Glensloy St Northern Side	2029
2000200	Water Mains Young	Elizabeth St William St North East corner	2029
2000199	Water Mains Young	corner Fontenoy St Cram Ave North East corner side	2029
2000197	Water Mains Young	cullen oval supply	2029
2000196	Water Mains Young	Florence St cullen oval intersection conect Eastern Side	2029
2000191	Water Mains Young	cowra rd Taylor Road South West corner side	2029
2000450	Water Mains Young	deadend Jim Nonnan Cl	2029
2000449	Water Mains Young	deadend top Eastern Side McNarry Pl	2029
2000753	Water Mains Harden	Lyons St South	2029
2000733	Water Mains Harden	Derby St Swift to Binalong St	2029
2000717	Water Mains Harden	Bathurst st south	2029
2000716	Water Mains Harden	Bathurst st south	2029
2000699	Water Mains Harden	Albury St - Ford car yard to Holden Garage	2029

2000564	Water Mains Young	Boorowa St Lynch St South East corner	2029
2000563	Water Mains Young	Boorowa St Main St South East corner	2029
2000562	Water Mains Young	Boorowa St Main St South West corner	2029
2000559	Water Mains Young	Boorowa Rd showground hill	2029
2000557	Water Mains Young	Telegraph Rd intersection conect showground hill line	2029
2000554	Water Mains Young	Chums Lane McCafferys Rd North East corner	2029
2000556	Water Mains Young	Telegraph Rd Victoria St Gully West Side	2029
2000553	Water Mains Young	Tipperary Lane Mccmillians Rd North East corner side	2029
2000552	Water Mains Young	Tipperary Lane Mccmillians Rd North East corner side	2029
2000188	Water Mains Young	Elizabeth St Brock St South East corner	2029
2000174	Water Mains Young	Edwards St Clarke St South West corner	2029
2000173	Water Mains Young	corner William St Stoneridge St South West corner side	2029
2000171	Water Mains Young	Edwards St carvan park water supply	2029
2000168	Water Mains Young	Edwards St carvan park entrance	2029
2000162	Water Mains Young	Cowper St Earl St South West corner	2029
2000161	Water Mains Young	Campbell St back corner intersection West Side	2029
2000159	Water Mains Young	Campbell St 20m North back corner West Side	2029
2000142	Water Mains Young	deadend Crichton Cres South East corner	2029
2000140	Water Mains Young	deadend Crichton Cres North East corner	2029
2000139	Water Mains Young	Cram Ave creek crossing	2029
2000138	Water Mains Young	center William St Elizabeth St West Side	2029
2000137	Water Mains Young	center William St Elizabeth St intersection	2029
2000112	Water Mains Young	Chums Lane deadend	2029
2000108	Water Mains Young	Chums Lane Hintons Rd North East corner	2029
2000089	Water Mains Young	extension high school Main St	2029
2000087	Water Mains Young	Campbell St Demondrille St South West corner	2029
2000085	Water Mains Young	Campbell St Demondrille St South West corner	2029
2000077	Water Mains Young	center William St Elizabeth St intersection	2029
2000370	Water Mains Young	Templemore St Spring St North West corner	2029
2000338	Water Mains Young	corner Fontenoy St Jim Anderson Ave West Side	2029
2000339	Water Mains Young	corner Nuthall Cres Renmark Ave Northern Side	2029
2000345	Water Mains Young	South West corner Hill St Orchard St	2029
2000348	Water Mains Young	cosmag fire service	2029
2000513	Water Mains Young	Back Creek Rd Settlers Pl South West corner	2029
2000517	Water Mains Young	Blackett Ave Guigni Pl North West corner	2029
2000520	Water Mains Young	David Sains Dr Showground entrance Northern Side	2029
2000523	Water Mains Young	terminal storage inlet Back Creek Rd	2029
2000401	Water Mains Young	Demondrille St retirement village service	2029
2000399	Water Mains Young	Berthong St Caple St South West corner	2029
2000390	Water Mains Young	Thornhill St Purchase St North West corner	2029
2000389	Water Mains Young	Templemore St Hardy Ave North West corner	2029
2000186	Water Mains Young	corner William St Stoneridge St South West corner side	2029
2000388	Water Mains Young	Toompang St Milong St North West corner	2029
2000455	Water Mains Young	corner McNarry Pl Jim Anderson Ave Eastern Side	2029
2000454	Water Mains Young	corner Blackett Ave Samuel Court West Side	2029

2000214	Water Mains Young	Thornhill St Hardy Ave South East corner	2029
2000558	Water Mains Young	Telegraph Rd intersection conect showground hill line	2029
2000383	Water Mains Young	Templemore St Berthong St intersection West Side	2029
2000381	Water Mains Young	Templemore St Mcveigh St West Side	2029
2000380	Water Mains Young	Templemore St Spring St North West corner	2029
2000315	Water Mains Young	corner Elizabeth St Musgrove St North East corner side	2029
2000311	Water Mains Young	Berthong St Murringo St South West corner	2029
2000213	Water Mains Young	Thornhill St Keevil Dr North West corner	2029
2000187	Water Mains Young	Eastern Side William St Hill St	2029
2000111	Water Mains Young	Chums Lane Mccafferys Rd North East corner	2029
2000106	Water Mains Young	Chums Lane In private rd North East corner	2029
2000763	Water Mains Harden	Newson Park to Swimming Pool	2029
2000752	Water Mains Harden	Lucan St - Scott to Swift St	2029
2000023	Water Mains Young	intersection Orchard St Monteagle St Sourthern Side	2030
2000189	Water Mains Young	town reservoir	2030
2000185	Water Mains Young	Elizabeth St landra St South East corner	2030
2000184	Water Mains Young	intersectionnal conection town reserrior	2030
2000183	Water Mains Young	intersectionnal conection town reserrior	2030
2000182	Water Mains Young	water supply police boys club	2030
2000181	Water Mains Young	intersection Zouch St Edwards St	2030
2000178	Water Mains Young	intersection Lynch St Edwards St Eastern Side	2030
2000167	Water Mains Young	intersection Nasmyth St rail underpass Northern Side	2030
2000157	Water Mains Young	intersection Taylor Road Brock St North West corner	2030
2000143	Water Mains Young	intersection Crowther St Monteagle St	2030
2000141	Water Mains Young	intersection Cram Ave Crichton Cres North East corner	2030
2000128	Water Mains Young	intersection Taylor Road Dwyer Dr West Side	2030
2000110	Water Mains Young	Victoria St Gully Hintons Rd South East corner	2030
2000024	Water Mains Young	intersection Bendick St Monteagle St West Side	2030
2000548	Water Mains Young	Grenfell Rd Jasprizza Ave outside old JDs	2030
2000570	Water Mains Young	Hill St Jones sub	2030
2000569	Water Mains Young	Hill St Wells sub	2030
2000412	Water Mains Young	White St Barwang St intersection Eastern Side	2030
2000411	Water Mains Young	Western Ave Eastern Side railway	2030
2000448	Water Mains Young	Fontenoy St North West corner opp park area	2030
2000691	Water Mains Harden	250Ac main Smith to Scott St	2030
2000483	Water Mains Young	White St Barracks Lane entre to flats	2030
2000475	Water Mains Young	Forsythe St showground conection	2030
2000466	Water Mains Young	intersection Orchard St Hargreaves Cres Sourthern Side	2030
2000543	Water Mains Young	Hardy Rd Goldview Close South East corner	2030
2000504	Water Mains Young	Jordon Pl intersection conect 150mm line	2030
2000503	Water Mains Young	Jordon Pl intersection conect 150mm line	2030
2000502	Water Mains Young	Jordon Pl intersection Northern Side 80m east Hill St	2030
2000501	Water Mains Young	Hill St Jordon Pl North East corner	2030
2000499	Water Mains Young	Hargreaves Cres Twynam Crt South West corner	2030
2000497	Water Mains Young	Junction St Northern Side	2030

2000491	Water Mains Young	Gordon St Northern Side opp lane	2030
2000408	Water Mains Young	intersection William St Taylor Road North West corner side	2030
2000405	Water Mains Young	Trafalgar St Lachlan St North East corner	2030
2000394	Water Mains Young	intersection Thornhill St Miro St Eastern Side	2030
2000354	Water Mains Young	Hardy Ave Goldview Cl South East corner	2030
2000351	Water Mains Young	intersection Prospect St Landowne St	2030
2000331	Water Mains Young	intersection William St Main St South East corner side	2030
2000328	Water Mains Young	intersection Nasmyth St Russell St Northern Side	2030
2000305	Water Mains Young	intersection Thornhill St Miro St Eastern Side	2030
2000304	Water Mains Young	intersection Mackenzie St Glensloy St West Side	2030
2000301	Water Mains Young	White St Barwang St intersection Eastern Side	2030
2000298	Water Mains Young	intersection Blackett Ave Musgrove St South East corner side	2030
2000277	Water Mains Young	intersection William St Main St Sourthern Side	2030
2000274	Water Mains Young	intersection Mackenzie St Miro St West Side	2030
2000269	Water Mains Young	intersection William St Hill St North West corner	2030
2000254	Water Mains Young	hall bros oval deadend	2030
2000244	Water Mains Young	intersection Karabah Ave Hill St North West corner	2030
2000242	Water Mains Young	intersection Taylor Road Brock St South West corner	2030
2000233	Water Mains Young	grenfell Jasprizza Ave outside jd	2030
2000232	Water Mains Young	landra St Stop Valve intersection conections	2030
2000231	Water Mains Young	landra St Elizabeth St Northern Side	2030
2000228	Water Mains Young	town reservoir	2030
2000215	Water Mains Young	Hardy Ave Keevil Dr North East corner	2030
2000202	Water Mains Young	Jasprizza Ave South of JDs Eastern Side	2030
2000198	Water Mains Young	Victoria St dead end	2030
2000195	Water Mains Young	intersection David Sains Dr Chums Lane Northern Side	2030
2000193	Water Mains Young	intersection Nasmyth St	2030
2000204	Water Mains Young	Forsythe Ave showground conection	2030
2000205	Water Mains Young	Elizabeth St William St North West corner	2030
2000208	Water Mains Young	Gordon St Northern Side opposite lane	2030
2000217	Water Mains Young	intersection conection Hill St William St	2030
2000220	Water Mains Young	intersection William St Elizabeth St Sourthern Side	2030
2000222	Water Mains Young	intersection Forsythe St Hill St Eastern Side	2030
2000223	Water Mains Young	intersection Karabah Ave Hill St North West corner	2030
2000236	Water Mains Young	intersection William St Hill St North West corner	2030
2000243	Water Mains Young	intersection Karabah Ave Hill St North West corner	2030
2000276	Water Mains Young	intersection William St Lynch St South East corner	2030
2000303	Water Mains Young	Toompang St White St intersection Northern Side	2030
2000340	Water Mains Young	top intersection Orchard St Hargreaves Cres Sourthern Side	2030
2000341	Water Mains Young	intersectionnal conection town reserrior	2030
2000342	Water Mains Young	intersection Taylor Road Crowther St West Side	2030
2000344	Water Mains Young	intersection Taylor Road Cowra Rd West Side	2030

2000362	Water Mains Young	intersection Nasmyth St Florence St North East corner side	2030
2000375	Water Mains Young	intersection William St Nea St Southern Side	2030
2000451	Water Mains Young	intersection Prospect St Cook Cres Northern Side	2030
2000521	Water Mains Young	west line running north through showground	2030
2000549	Water Mains Young	Grenfell Rd Tipperary Lane North West corner side	2030
2000551	Water Mains Young	Grenfell Rd Tipperary Lane North West corner side	2030
2000555	Water Mains Young	Victoria St Gully Hintons Rd South East corner	2030
2000560	Water Mains Young	Forsyth Ave extension Batnicks Rd	2030
2000565	Water Mains Young	forsyth extension batnicks rd	2030
2000307	Water Mains Young	intersection Crowther St Monteagle St	2030
2000309	Water Mains Young	intersection Bendick St Monteagle St West Side	2030
2000352	Water Mains Young	intersection Prospect St Bendick St North East corner side	2030
2000310	Water Mains Young	Toompang St White St intersection Northern Side	2030
2000321	Water Mains Young	intersection Lynch St Edwards St Eastern Side	2030
2000447	Water Mains Young	Jim Anderson Ave West Side opp McNarry Pl	2030
2000544	Water Mains Young	Hardy Rd Goldview Close South East corner	2030
2000550	Water Mains Young	Henry Lawson Way Forbes Lane South West corner side	2030
2000288	Water Mains Young	Memagong St Margaret St North West corner	2031
2000256	Water Mains Young	Lachlan St close deadend	2031
2000255	Water Mains Young	Lachlan St Briggs St South East corner	2031
2000177	Water Mains Young	Main St Edwards St North East corner	2031
2000246	Water Mains Young	Kingsvale Rd Pitstone Rd North East corner	2031
2000529	Water Mains Young	Milvale Rd South West corner side penrose bdg 1sthyd	2031
2000531	Water Mains Young	Milvale Rd Wickham Lane South West corner	2031
2000170	Water Mains Young	Mclerie St opp Edwards St North East corner	2031
2000992	Water Non Active Young - Treatment	Young Water John Hill Chlorine Dosing Pumps	2031
2000291	Water Mains Young	Main St rotary park Eastern Side	2031
2000261	Water Mains Young	Lovell St woolies service	2031
2000253	Water Mains Young	Lachlan St Lachlan St close Eastern Side	2031
2000293	Water Mains Young	Lynch St Clote St North East corner	2031
2000323	Water Mains Young	Nasmyth St Lynch St North East corner	2031
2000325	Water Mains Young	Lovell St railway underpass Eastern Side	2031
2000330	Water Mains Young	mick dywer subdivison	2031
2000993	Water Non Active Young - Treatment	Young Water John Hill Chlorination Safety Shower	2031
2000994	Water Non Active Young - Treatment	Young Water John Hill Chlorination Switchboard	2031
2000292	Water Mains Young	Lynch St Marina St North East corner	2031
2000281	Water Mains Young	Lynch St Lighting Lane Eastern Side	2031
2000280	Water Mains Young	Main St Lighting Lane Eastern Side	2031
2000279	Water Mains Young	Main St Rosemary Lane Northern Side	2031
2000278	Water Mains Young	Main St Edwards St Eastern Side	2031
2000268	Water Mains Young	Nasmyth St Lynch St North East corner	2031

2000266	Water Mains Young	Lynch St Lighting Lane Eastern Side	2031
2000366	Water Mains Young	Main St short North East corner	2031
2000374	Water Mains Young	Nasmyth St Clarke St South West corner	2031
2000431	Water Mains Young	Lynch St Marina St North East corner	2031
2000176	Water Mains Young	Nasmyth St Clarke St South West corner	2031
2000541	Water Mains Young	Wickham Lane Rules Rd North West corner	2031
2000535	Water Mains Young	Milvale Rd swscc fire service	2031
2000492	Water Mains Young	Main St rotary park Eastern Side	2031
2000476	Water Mains Young	meter box on alfred oval	2031
2000530	Water Mains Young	Milvale Rd Wickham Lane South West corner	2031
2000410	Water Mains Young	Moppity Rd dead end	2031
2000539	Water Mains Young	Wickham Lane Rules Rd North West corner	2031
2000299	Water Mains Young	Memagong St Margaret St North West corner	2031
2000542	Water Mains Young	Wickham Lane Rules Rd James Lane North West corner	2031
2000990	Water Non Active Young - Treatment	Young Water John Hill Chlorination Electrical Chlorine Analyser	2031
2000175	Water Mains Young	Main St Edwards St Eastern Side	2031
2000283	Water Mains Young	Main St short North East corner	2031
0	Water Mains Harden	Hdn Water Rising Main Funded From Private Contribu- tions	2031
2000264	Water Mains Young	Lovell St railway underpass Eastern Side	2031
2000263	Water Mains Young	Lovell St woolies fire service Northern Side	2031
2000260	Water Mains Young	Lovell St woolies water service	2031
2000284	Water Mains Young	Main St Clote St North East corner	2031
2000285	Water Mains Young	Lynch St Rosemary Lane Northern Side	2031
2000259	Water Mains Young	Lovell St Clarke St South West corner	2031
2000286	Water Mains Young	Main St S and C club service	2031
2000287	Water Mains Young	Main St Marina St North East corner	2031
2000424	Water Mains Young	North East corner Watson St William St	2032
2000514	Water Mains Young	Petticoat Lane Scott Pl South East corner	2032
2000515	Water Mains Young	Petticoat Lane Mathew St	2032
2000540	Water Mains Young	Rules Rd White Rd South West corner	2032
2000169	Water Mains Young	North East corner Zouch St Nasmyth St	2032
2000239	Water Mains Young	private house below JDs Jasprizza Ave	2032
2000241	Water Mains Young	Red Hill Rd deadend	2032
2000442	Water Mains Young	pump station Tresillian Park Eastern Side	2032
2000469	Water Mains Young	Petticoat Lane Chantilly Pl North East corner	2032
2000144	Water Mains Young	North West corner Taylor Road Prospect St	2032
2000179	Water Mains Young	Nasmyth St Main St North East corner	2032
2000190	Water Mains Young	resivor entrance	2032
2000335	Water Mains Young	Normyle Cres dead end	2032
2000192	Water Mains Young	North East corner White Stman florence	2032
2000428	Water Mains Young	Windemere St Kingsvale Rd South West corner	2032
2000470	Water Mains Young	Petticoat Lane Chantilly Pl North East corner	2032
2000479	Water Mains Young	playing oval righthand line spear	2032

2000471	Water Mains Young	Petticoat Lane Scott St Eastern Side	2032
2000472	Water Mains Young	Petticoat Lane deadend	2032
2000473	Water Mains Young	Petticoat Lane Brocade Pl North East corner side	2032
2000478	Water Mains Young	playing oval lefthand spear line	2032
2000343	Water Mains Young	Orchard Tate South East corner	2032
2000346	Water Mains Young	North East cornercorner Russell St White St	2032
2000347	Water Mains Young	North West corner park Russell St White St	2032
2000355	Water Mains Young	Purchase St creek crossing Northern Side	2032
2000359	Water Mains Young	park area corner Jasprizza Ave Fontenoy St	2032
2000361	Water Mains Young	Rippon St Caple St South West corner	2032
2000363	Water Mains Young	North East corner Russell St White St	2032
2000365	Water Mains Young	North East corner White St Florence St	2032
2000421	Water Mains Young	Windemere St Kingsvale Rd South West corner	2032
2000364	Water Mains Young	North East corner Russell St White St	2032
2000353	Water Mains Young	North West corner Taylor Road Cook Cres	2032
2000329	Water Mains Young	North West corner Nasmyth St Tumbleton St	2032
2000327	Water Mains Young	North West corner park Russell St White St	2032
2000326	Water Mains Young	Nasmyth St Stoneridge St North East corner	2032
2000324	Water Mains Young	Nasmyth St Main St North East corner	2032
2000322	Water Mains Young	North East corner Zouch St Nasmyth St	2032
2000320	Water Mains Young	Nasmyth St McLerie North East corner	2032
2000319	Water Mains Young	Nasmyth St McLerie South East corner	2032
2000275	Water Mains Young	Nasmyth St McLerie North East corner	2032
2000258	Water Mains Young	North West corner Prospect St Bendick St	2032
2000248	Water Mains Young	Pitstone Rd dead end Northern Side	2032
2000229	Water Mains Young	North West corner Hill St pineview	2032
2000221	Water Mains Young	North West corner Hill St Pineview Crt	2032
2000219	Water Mains Young	North West corner Nasmyth St Tumbleton St	2032
2000216	Water Mains Young	North West corner Nasmyth St Tumbleton St	2032
2000201	Water Mains Young	Nea St deadend	2032
2000912	Water Non Active Boor-owa	BOOROWA RESERVOIR LARGE TANK 13 ROOF STRUCTURAL COSTS	2032
2000127	Water Mains Young	North West corner Taylor Road Prospect St	2032
2000194	Water Mains Young	North West corner White St Briggs St	2032
2000126	Water Mains Young	North West corner Taylor Road Cook Cres	2032
2000109	Water Mains Young	private lane off Chums Lane	2032
2000904	Water Non Active Harden	BOBBARA ST RESERVOIR 2950kL	2033
2000367	Water Mains Young	short st Northern Side boon&boon deadend	2033
2000414	Water Mains Young	showground intersection conection	2033
2000512	Water Mains Young	Settlers Pl Gold Court South East corner	2033
2000474	Water Mains Young	Short St Northern Side opp Short St Lane	2033
2000427	Water Mains Young	William St Hambrook Pl South West corner	2033
2000419	Water Mains Young	Willawong St Windemere St South East corner side	2033
2000422	Water Mains Young	Willawong St dead end	2033

2000420	Water Mains Young	Willawong St 150mm intersection Eastern Side	2033
2000425	Water Mains Young	William St Fontenoy St intersection Southern Side	2033
2000247	Water Mains Young	Windemere St Kingsvale Rd South West corner	2033
2000417	Water Mains Young	Willawong St West Side	2033
2000505	Water Mains Young	William St McLerie North East corner	2033
2000938	Water Non Active Boor- owa	Boorowa Weir Structure Mass Civils Concrete on Rock Foundations	2034
2000998	Water Non Active Young - Pump Stations	Young Water Pump Station Back Creek Rd pumps	2034
2000999	Water Non Active Young - Pump Stations	Young Water Pump Station Back Creek Rd switchboard	2034
0	Water Mains Young	Thornhill Street Bridge to Boorowa Street	2035

Appendix E Disposal Summary

E.1 – Disposal Forecast Assumptions and Source

No assets identified for disposal in asset register disposal forecast or in LTFP disposal budgets.

Appendix F Budget Summary by Lifecycle Activity

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation & Maintenance	Renewal	Disposal	Total Budget
2026	789,000	10,965,247	2,329,099	0	16,953,030
2027	1,470,000	10,965,247	9,951,435	0	15,508,000
2028	1,000,000	10,965,247	6,292,885	0	13,579,239
2029	1,600,000	10,965,247	9,069,141	0	13,379,239
2030	5,600,000	10,965,247	6,583,725	0	18,179,240
2031	0	10,965,247	1,596,841	0	12,229,239
2032	0	10,965,247	2,566,794	0	12,229,239
2033	0	10,965,247	2,573,729	0	12,229,239
2034	0	10,965,247	9,219,253	0	12,229,239
2035	0	10,965,247	35,960	0	12,229,239