

Snowy-Monaro Regional Council



Water Services



Asset Management Plan (Concise)



COOMA WATER TREATMENT PLANT ON MITTAGANG ROAD

Version 2

March 2018

Document Control		 			
Document ID : Smrc_2017 Water_Nams.Plus Amp_Concise_V2 20180327					
Rev No	Date	Revision Details	Author	Reviewer	Approver
1.00	15/01/2018	Version 1 – Draft for Comment	CL (T1)	SMRC	
2.00	27/03/2018	Version 2 – Updated as per Organisation’s comments	CL (T1)		

NAMS.PLUS Asset Management Plan Templates

NAMS.Plus offers two Asset Management Plan templates – ‘Concise’ and ‘Comprehensive’.

The Concise template is appropriate for those entities who wish to present their data and information clearly and in as few words as possible whilst complying with the ISO 55000 Standards approach and guidance contained in the International Infrastructure Management Manual.

The Comprehensive template is appropriate for those entities who wish to present their asset management plan and information in a more detailed manner.

The entity can choose either template to write/update their plan regardless of their level of asset management maturity and in some cases may even choose to use only the Executive Summary.

The illustrated content is suggested only and users should feel free to omit content as preferred (e.g. where info not currently available).

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

This is the **Concise** Asset Management Plan template.

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1 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

This asset management plan details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services over a 20-year planning period.

This plan covers the infrastructure assets that provide water supply infrastructure.

1.2 Asset Description

These assets include:

The water supply infrastructure network comprises:

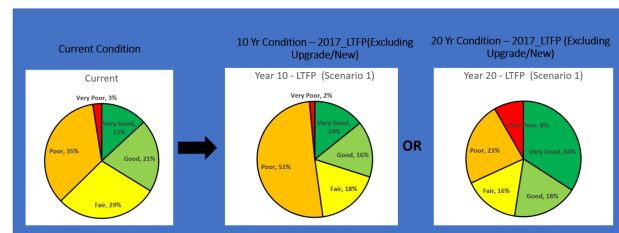
- Distribution Network
 - Gravity Mains
 - Gravity Rising Mains
 - Reticulation Mains
 - Rising Mains
 - Town Water Supply Reticulation Plan
 - Trunk Mains
 - Water Reticulation System
 - Water Storage
- Treatment & Storage
 - Balance Tanks
 - Reservoirs
 - Telemetry
 - Water Pumping Stations
 - Water Telemetry
 - Water Treatment Works

These infrastructure assets have significant value estimated at \$196,222,331.

1.3 Levels of Service

Stakeholder expectations and the importance of sustaining services are typically high on the agenda for most of the people residing across the Council area.

The assets supporting these services are overall well maintained and operate at a high standard and are comparable to other areas the region.



State of the Assets

Our present funding levels are sufficient to continue to provide existing services at current levels in the short-term. However, the 5, 10 to 20-year outlook suggest priorities should remain focused on ensuring operations, maintenance and renewal of existing assets remain funded at required and agreed levels.

The main service level priorities anticipated in the short to medium term are:

- Water supply infrastructure is safe and well maintained.
- Water supply infrastructure is 'ready for the future'.
- Water supply infrastructure meets the capacity requirements.

The focus is to ensure the ongoing provision of safe and fit for purpose infrastructure, access to essential services, timely response to defects and failures ensuring well maintained assets.

Coupled with an appreciation of the risk profile by way of identifying critical assets, analysing failure modes and implement affordable control measures will ensure wastewater drainage assets and services are fit for the future.

1.4 Future Demand

The main demands for new services are created by:

- efficiency
- renewal program

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

- Improving productivity of water supply assets by reviewing specifications regularly with end users to ensure correct size matching and incorporation of the latest technology and operational systems.
- Investigating alternative renewal timeframes including the possibility of component rebuilds during ownership to extend the renewal period

1.5 Lifecycle Management Plan

What does it Cost?

The projected outlays necessary to provide the services covered by this Asset Management Plan (AM Plan) includes operations, maintenance, renewal and upgrade of existing assets over the 10-year planning period is \$168,276,000 or \$16,827,000 on average per year.

1.6 Financial Summary

What we will do

Estimated available funding for this period is \$92,778,000 or \$9,277,800 on average per year as per the long term financial plan or budget forecast. This is 39% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long term financial plan can be provided. The emphasis of the Asset Management Plan is to communicate the consequences that this will have on the service provided and risks, so that decision making is “informed”.

The allocated funding leaves a shortfall of \$13,867,843 on average per year of the projected expenditure required to provide services in the AM Plan compared with planned expenditure currently included in the Long Term Financial Plan. This is shown in the figure below.

Projected Operating and Capital Expenditure

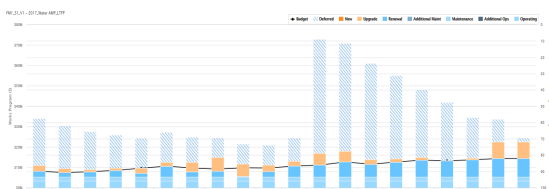


Figure Values are in current (real) dollars.

We plan to provide water supply services for the following:

- Operation, maintenance, renewal and upgrade of water supply assets to meet service levels set by in annual budgets.
- Renewals & upgrades in line with the LTFF.

What we cannot do

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

- Provision of all the additional water supply assets to support the services desired by the community.

Managing the Risks

There are risks associated with providing water supply infrastructure to the community these will require monitoring to ensure intervention can be undertaken in a planned manner without funding shocks. We have identified the major risks as:

- Not achieving drinking water standards
- Premature ageing of the water supply infrastructure network
-

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

- Continue to improve data by carrying out water sample monitoring
- Continue to develop the detail of the costs to manage the water supply system
- Additional analysis of the infrastructure data inventory and assessment of useful lives being achieved.

1.7 Asset Management Practices

Our systems to manage assets include:

- TechnologyOne
- Civica Authority

Assets requiring renewal/replacement are identified from one of three methods provided in the ‘Expenditure Template’.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal

Plan and Defect Repair Plan worksheets on the 'Expenditure template'.

Method 1 was used for this asset management plan.

1.8 Monitoring and Improvement Program

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

- Implement a continuous improvement strategy to assess and report on the condition, function and capacity of council controlled assets.
- Develop and confirm current and desired levels of service in consultation with the community to understand sustainable levels of service.
- Assess remaining life of our assets and align with up to date performance data and knowledge.
- Develop and adopt a prioritisation framework for renewal and upgrade/new projects.
- Assess wastewater drainage infrastructure risks and report to the audit committee.
- Ensure the Asset Management Plan is updated on an annual basis incorporating an annual review and update of service level performance, financial projections, and risk.

2. INTRODUCTION

2.1 Background

This asset management plan communicates the actions required for the responsive management of assets (and services provided from assets), compliance with regulatory requirements, and funding needed to provide the required levels of service over a 20-year planning period.

The asset management plan is to be read with the relevant Snowy-Monaro Regional Council strategic planning documents. This should include the Asset Management Policy and Asset Management Strategy where these have been developed along with other key planning documents:

- Snowy-Monaro Regional Council Annual Report 2016-17
- Snowy-Monaro Regional Council Financial Statements 2016-17
- Snowy-Monaro Regional Council Operational Plan 2018

The infrastructure assets covered by this asset management plan are shown in Table 2.1. These assets are used to provide water supply services and related infrastructure to the local government area of Snowy-Monaro Regional Council.

Table 2.1: Assets covered by this Plan

AMP Category	Model Category	Valuation Dimension (No. of Assets)	Replacement Value	Written Down Value	Annual Depreciation Value
Water Services	Water Network\Distribution Network\Gravity Mains	296	\$10,730,676.42	\$7,850,005.90	\$149,163.09
Water Services	Water Network\Distribution Network\Gravity Rising	33	\$1,838,800.52	\$1,113,647.09	\$22,985.01
Water Services	Water Network\Distribution Network\Reticulation Ma	3809	\$48,106,063.71	\$23,803,465.78	\$601,325.80
Water Services	Water Network\Distribution Network\Rising Mains	345	\$20,830,775.35	\$12,691,324.55	\$288,690.84
Water Services	Water Network\Distribution Network\Town Water Supp	219	\$7,510,384.73	\$2,647,983.97	\$93,879.81
Water Services	Water Network\Distribution Network\Trunk Mains	376	\$16,732,518.88	\$6,203,929.19	\$209,156.49
Water Services	Water Network\Distribution Network\Water Reticulat	47	\$2,253,370.99	\$747,553.88	\$28,167.14
Water Services	Water Network\Distribution Network\Water Storage	10	\$5,512,470.39	\$5,214,407.96	\$220,498.82
Water Services	Water Network\Treatment Storage & Bulk Storage Sup	245	\$82,707,270.20	\$35,350,960.28	\$2,061,969.56
TOTAL		5,380	\$196,222,331.19	\$95,623,278.60	\$3,675,836.56

2.2 Goals and Objectives of Asset Ownership

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

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

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

- International Infrastructure Management Manual 2015 ¹
- ISO 55000²

2.3 Core and Advanced Asset Management

This asset management plan is prepared as a ‘core’ asset management plan over a 20 year planning period in accordance with the International Infrastructure Management Manual³. Core asset management is a ‘top down’ approach where analysis is applied at the system or network level. An ‘advanced’ asset management approach uses a ‘bottom up’ approach for gathering detailed asset information for individual assets.

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

At the time of preparation of the Asset Management Plan council has not conducted any formal process of customer research relating to the provision of water supply services. This will be investigated for future updates of the asset management plan.

Previous organisations have had systems of logging customer requests and plant performance measures. The information obtained from these systems has facilitated prioritising capital renewals and maintenance plans and in developing the Business Plan for allocation of resources in the budget.

Table 3.1: Community Satisfaction Survey Levels

Performance Measure	Satisfaction Level				
	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not satisfied
To Be Developed					

3.2 Strategic and Corporate Goals

This asset management plan is prepared under the direction of the Council vision, values, code of conduct, goals and objectives.

¹ Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2 | 13

² ISO 55000 Overview, principles and terminology

³ IPWEA, 2015, IIMM.

Our vision is:

A Trusted Community Partner

Our values that will achieve our vision are:

- ***Solutionary***
- ***Together***
- ***Accountable***
- ***Innovative***
- ***Caring***

Our code of conduct:

Snowy-Monaro Regional Council has a commitment to providing all staff with a common understanding of the professional standards of behaviour required in our workplace and to the Community. Guidelines have been produced and must be read in conjunction with the Model Code of Conduct.

Council also endorses the Model Code of Conduct for Local Councils in NSW and the procedures and for the Administration of the Model Code of Conduct for Local Councils in NSW issued by Premier and Cabinet, Division of Local Government, March 2013.

Council Policy:

Following are related documents:

- The Model Code of Conduct for Local Councils in NSW, March 2013
- Procedures for the administration of the Model Code of Conduct for Local Councils in NSW, March 2013
- SMRC 001 - The Model Code of Conduct – Standards of Conduct for Council Officials - Summary

Councils Local Government Charter

Our Charter:

The roles and responsibilities of Snowy Monaro Regional Council are set out in the Local Government Act. Specifically, Council's Charter as defined as Section 8 of the Act is:

- To provide directly or on behalf of other levels of government, after due consultation, adequate, equitable and appropriate services and facilities for the community and to ensure that those services are managed efficiently and effectively;
- To exercise community leadership;
- To exercise its functions with due regard for the cultural and linguistic diversity of its community;
- To properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible;
- To have regard to the long term and cumulative effects of its decisions;
- To bear in mind that it is the custodian and trustee of public assets and effectively account for and manage the assets for which it is responsible;
- To facilitate the involvement of Councillors, members of the public, users of facilities & services and Council staff in the development, improvement and co-ordination of Local Government;
- To raise funds for local purposes by the fair imposition of rates, charges and fees, by income earned from investments and, when appropriate, by borrowings and grants;
- To keep the local community and the State Government (and through it, the wider community) informed about its activities;
- To ensure that, in the exercise of its regulatory functions, it acts consistently and without bias, particularly where an activity of Council is affected; and
- To be a responsible employer.

Relevant goals and objectives and how these are addressed in this asset management plan are:

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

Goal	Objective	How Goal and Objectives are addressed in AM Plan
<p>Community – Our communities are welcoming, inclusive and safe; our lifestyle needs are actively considered and planned for; and opportunities exist to enhance our health and social wellbeing.</p>	<ul style="list-style-type: none"> • Providing a defined level of service and monitoring performance • Managing the impact of growth through demand management and infrastructure investment • Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service • Identifying, assessing and appropriately controlling risks • Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed 	<ul style="list-style-type: none"> • The Asset Management Plan in conjunction with Long Term Financial Plan and the Community Plan are the tools by which Council assesses the long term financial sustainability of council’s infrastructure assets • Planning long term sustainable infrastructure is important to enable the appropriate resources to be identified and provided. • Infrastructure is provided to support services. Getting the correct infrastructure appropriate to the needs of the community is a primary goal of Asset Management Planning • Council has limited resources. The Asset Management Planning provides a way in which the community can be engaged in setting the priorities and allocation of these resources.
<p>Economy – We are a vibrant and prosperous community providing opportunities for growth and learning.</p>		
<p>Environment – Our iconic natural environment and heritage is preserved and enhanced for future generations whilst balancing the needs for regional development and growth.</p>		
<p>Leadership - We have contemporary civic leadership and governance that fosters trust and efficiency.</p>		

The council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this AM Plan. Management of infrastructure risks is covered in Section 6.

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. These include:

Table 3.3: Legislative Requirements

Legislation	Requirement
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.

Legislation	Requirement
	<p>Under S64 of the Act, in conjunction with the Water Management Act it facilitates the levying of developer charges.</p> <p>Amended in 2009 by the Local Government Amendment (Planning and Reporting) Act 2009, to incorporate the Integrated Planning & Reporting framework</p>
Water Management Act 2000	Covers issues such as water rights, licences and water allocations and mechanisms for levying developer charges.
Fluoridation of Public Water Supplies Act 1957	Under the Act the approval of the Department of Health is required in order that a Council can add fluoride to a water supply.
Public Health Act 1991	The Act provides for the prevention of the spread of disease and allows for the inspection and sampling of water supplies as well as prohibition of pollution and closure of polluted water supply.
Pollution Control Act 1970 and Clean Waters Act 1970	These Acts cover limits for monitoring and reporting of discharge from water treatment plants and environmental safeguards for the quantity and quality of waste output.
Environmental Offences and Penalties Act 1989	<p>This Act supplements other legislation in protecting the environment from pollution and in particular creates additional offences relating to the disposal of wastes and the leaking, spillage and escape of substances from their containers. The Act requires that Council be duly diligent in undertaking operations that do or may have an adverse effect on the environment.</p> <p>The main application of this Act would be pollution arising from chlorination of the Water Supply and sludge from the treatment of the raw water.</p>
Protection of the Environment Operations Act (POEO)	<p>The Protection of the Environment Operations (POEO) 1997 as amended by the POEO Amendment Act 2005 is the primary piece of legislation for the control of environmental pollution in NSW.</p> <p>The POEO Act provides a key role for local councils in regulating non-scheduled industry. Authorised officers within local government are responsible for the management of all media: air, noise, water and waste for which they are the appropriate regulatory authority (ARA)</p>
Environmental Planning and Assessment Act 1979	<p>The Act requires that the environmental impact of projects be studied at all stages on the basis of scale, location and performance.</p> <p>This Act is applicable to approvals for subdivision and major redevelopments as well as water supply works in their own right. The Act would be applicable to major Capital works involving new construction.</p>
Catchment Management Authorities Act 2003	This Act establishes catchment management authorities and devolves to them certain natural resource management functions in their regions. This Act repealed the Catchment Management Act 1989.
Soil Conservation Act 1938	<p>The objectives of this Act are the conservation of soil resources, farm water resources and the mitigation of erosion and land degradation.</p> <p>Aspects of this Act will affect construction works, particularly where proposed works are likely to cause erosion which could be prevented and which are reported to the Secretary.</p>
Dams Safety Act 1978	Under the Act the Dams Safety Committee may require the owner of a prescribed dam to make observations, take measurements and furnish the Committee with such information. Councils are required to prepare five-

Legislation	Requirement
	yearly Dam Surveillance Reports for their dams.
Occupational Health and Safety Act 2000	All Councils Operational activities are affected by the requirements of this Act
Dangerous Goods Act 1975	This Act sets down guidelines for the handling of prescribed dangerous goods (includes chlorine and caustic soda) and requires Council's facilities for the storage of such goods to be licensed if more than the prescribed quantity is kept in storage. For chlorine, the prescribed amount is 50kg in gaseous form, whilst for caustic soda the amount is 500kg or 500 litres. In addition the chlorine shall be kept and conveyed in accordance with the Chlorine Code ED 2B 03, "Recommended Practice for the Storage and handling of Chlorine" published by the Workcover Authority.

3.4 Customer Levels of Service

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

Customer Levels of Service measure how the customer receives the service and whether value to the customer is provided.

Customer levels of service measures used in the asset management plan are:

Quality How good is the service ... *what is the condition or quality of the service?*

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

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

The current and expected customer service levels are detailed in Tables 3.4 and 3.5. Table 3.4 shows the expected levels of service based on resource levels in the current long-term financial plan.

Organisational measures are measures of fact related to the service delivery outcome e.g. number of occasions when service is not available, condition %'s of Very Poor, Poor/Average/Good, Very good.

These Organisational measures provide a balance in comparison to the customer perception that may be more subjective.

Table 3.4: Customer Level of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years based on the current budget.
Service Objective: To maintain current service levels				
Condition	Water supply infrastructure is safe and well maintained.	State of the Assets*: % good/very good % fair % poor/very poor	34% good/very good. 29% fair 37% poor/very poor.	33% good/very good. 17% fair 50% poor/very poor.
	Confidence levels		Medium	Low
Function	Water supply infrastructure is 'ready for the future'.	State of the Assets*: % good/very good % fair % poor/very poor	Default Position As Condition 34% good/very good. 29% fair 37% poor/very poor.	Default Position As Condition 33% good/very good. 17% fair 50% poor/very poor.
	Confidence levels		Medium	Low
Capacity	Water supply drainage infrastructure meets the capacity requirements.	State of the Assets*: % good/very good % fair % poor/very poor	Default Position As Condition 34% good/very good. 29% fair 37% poor/very poor.	Default Position As Condition 33% good/very good. 17% fair 50% poor/very poor.
	Confidence levels		Medium	Low

3.5 Technical Levels of Service

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

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

- Operations – the regular activities to provide services (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc).
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading, building and structure repairs),
- Renewal – the activities that return the service capability of an asset up to that which it had originally (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),
- Upgrade/New – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library).

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

Table 3.5 shows the technical levels of service expected to be provided under this AM Plan. The 'Desired' position in the table documents the position being recommended in this AM Plan.

Table 3.5: Technical Levels of Service

⁴ IPWEA, 2015, IIMM, p 2 | 28.

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance *	Desired for Optimum Lifecycle Cost **
TECHNICAL LEVELS OF SERVICE				
Operations	Water supply infrastructure is safe for users' needs.	To be reviewed following further community consultation		
		Budget (10 Yr Total)	\$39,469,427	\$33,357,796
Maintenance	Repair defects within target intervention levels and response times.	To be reviewed following further community consultation		
		Budget	\$24,614,936	\$19,622,233
Renewal	Asset components are replaced to sustain agreed service levels.	To be reviewed following further community consultation		
		Budget	\$24,709,900	\$176,042,883
Upgrade/New	Water supply infrastructure is 'fit for purpose' and satisfies capacity requirements.	To be reviewed following further community consultation		
		Budget	\$30,416,100	\$32,190,100

It is important to monitor the service levels provided regularly as these will change. The current performance is influenced by work efficiencies and technology, and customer priorities will change over time. Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

4. FUTURE DEMAND

4.1 Demand Drivers

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

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in Table 4.3.

4.3 Demand Impact on Assets

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

Table 4.3: Demand Drivers, Projections and Impact on Services

Demand drivers	Present position	Projection	Impact on services
Our People	<p>The Snowy Monaro region has proud Aboriginal connections and Council acknowledges the Ngarigo, Walgalu, and Southern Ngunnawal people are the original and current custodians of our beautiful region.</p>	<p>The Snowy Monaro region has always been a place where people have recognised opportunities and worked hard to realise them. It is a place of great potential, but there are challenges that we must tackle.</p>	<p>There is a strong case to suggest that, outside of the established rural/farming community the region has a fairly unstable or mobile population due to a high percentage of the population employed in the tourism/ski industry which is by its nature a very mobile industry. This increase in permanent population across all age groups combined with a high seasonal population suggests that there will be a future need for future community services and infrastructure to be provided by Council</p>
	<p>Our Snowy Monaro region is proud and diverse. Its eclectic mix of people contributes to the growing and vibrant that almost 21,000 people love and call home. With roots in agriculture, timber, snowsports and the Snowy Mountains Hydro-Electric Scheme, our region boasts an indelible diversity.</p>	<p>Population and demographic change is one such challenge. We must properly accommodate and care for an increasingly older and diverse population, while welcoming newcomers.</p>	
	<p>The Snowy Scheme underpinned a cultural revolution as more than 100,000 migrants converged on the region to work on the scheme. More than 30 countries were represented and today the Snowy Monaro revels in this influx from half a century ago.</p>		
Economy and Employment	<p>Our region is on the precipice of a new era in innovation, education, and employment opportunities. Tourism forms one of the key sectors of the region's economy with more than one million visits annually.</p>		<p>The global marketplace challenges us to develop, produce and sell our products profitably. To meet these, we must increase the productivity of our land, be innovative, adopt new technology and invest in the creativity of our people.</p> <p>Compliance and regulation is required to meet the highest standards of environmental performance, health, safety and probity. Although we all benefit from this, we are conscious of the need to work more efficiently, and where possible eliminate unnecessary red tape.</p>
	<p>The majority of these occur through the snow season with visits to Australia's best snowfields that are located in the Snowy Monaro LGA. The Cooma and Bombala regions are experiencing greater tourist numbers through successful council marketing campaigns.</p>		
	<p>The majority of these occur through the snow season with visits to Australia's</p>		

Demand drivers	Present position	Projection	Impact on services
	best snowfields that are located in the Snowy Monaro LGA. The Cooma and Bombala regions are experiencing greater tourist numbers through successful council marketing campaigns.		
Our Environment	The region covers 15,162 square kilometres, surrounded by rolling plains country and mountain ranges. With 28% of our region consisting of national parks or reserves. The remaining area is largely privately owned rural land.	Climate change in our sensitive environment presents another challenge. To respond to this, we must first establish what climate change means for our community. We must then plan and adapt our lives and work accordingly.	Addition costs may be imposed to fund environmental initiatives e.g. carbon tax in response to climate change.
	The Region sits at the top of both the Snowy and Murrumbidgee River catchments. Along with their major tributaries, they offer significant environmental values, as well as a source of fresh water for urban, recreational, irrigation and energy uses.	To construct and maintain public infrastructure remains one of our most resource-intensive challenges. We must not only extend the life of existing assets, but also plan and pay for new infrastructure, within our resources, that meets the needs of the community and our many visitors.	The cost to construct, maintain and renew infrastructure is increasing at a rate greater than council's revenue making it increasingly difficult to maintain current levels of service.
	Our region is home to the iconic, Mount Kosciuszko. It is located within the Kosciuszko National Park and with a height of 2,228m above sea level is Australia's highest mountain		Regulations relating to water supply increasing e.g water quality & distribution will add further to the cost of providing, operating, maintaining and renewing water supply infrastructure

4.4 Demand Management Plan

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

Opportunities identified to date for demand management are shown in Table 4.4. Further opportunities will be developed in future revisions of this asset management plan.

Table 4.4: Demand Management Plan Summary

Demand Driver	Demand Management Plan
Efficiency	Improve productivity of water supply assets by reviewing specifications regularly with end users to ensure correct size matching and incorporation of the latest technology and operational systems.
Renewal Program	Investigate alternative renewal timeframes including the possibility of component rebuilds during ownership to extend the renewal period

4.5 Asset Programs to meet Demand

The new assets required to meet demand can be acquired, donated or constructed. Additional assets are discussed in Section 5.5. The summary of the cumulative value of additional asset is shown in Figure 1.

Figure 1: Upgrade and New Assets to meet Demand – (Cumulative)

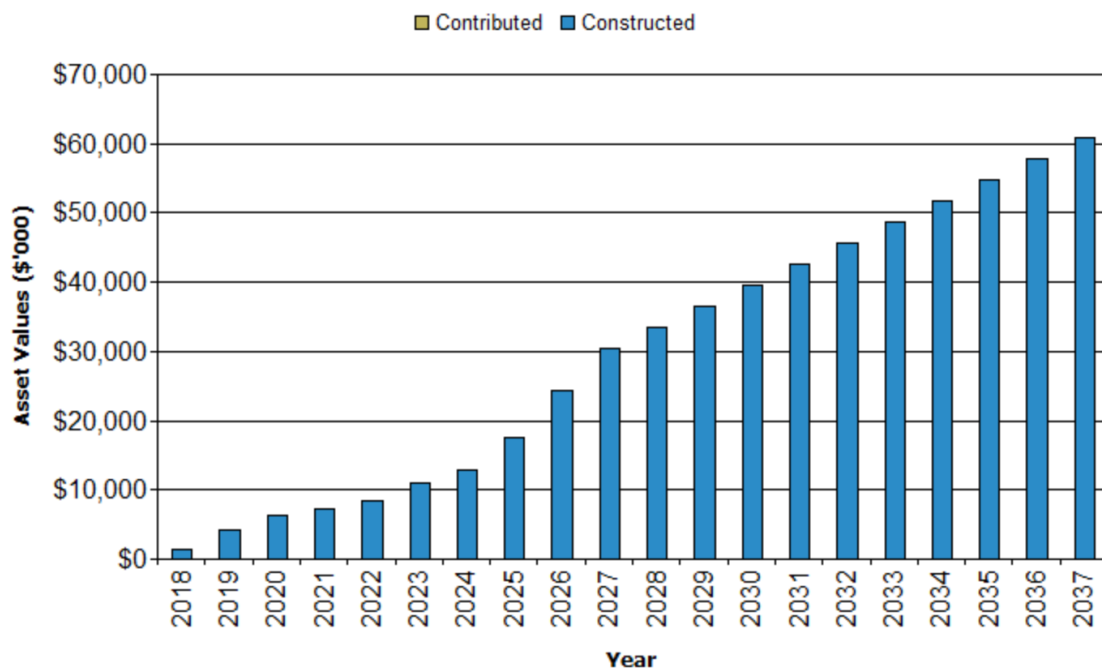


Figure Values are in current (real) dollars.

Acquiring these new assets will commit ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the long term financial plan further in Section 5.

5. LIFECYCLE MANAGEMENT PLAN

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

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this asset management plan are shown in Table 2.1.

The age profile of the assets included in this AM Plan are shown in Figure 2.

Figure 2: Asset Age Profile

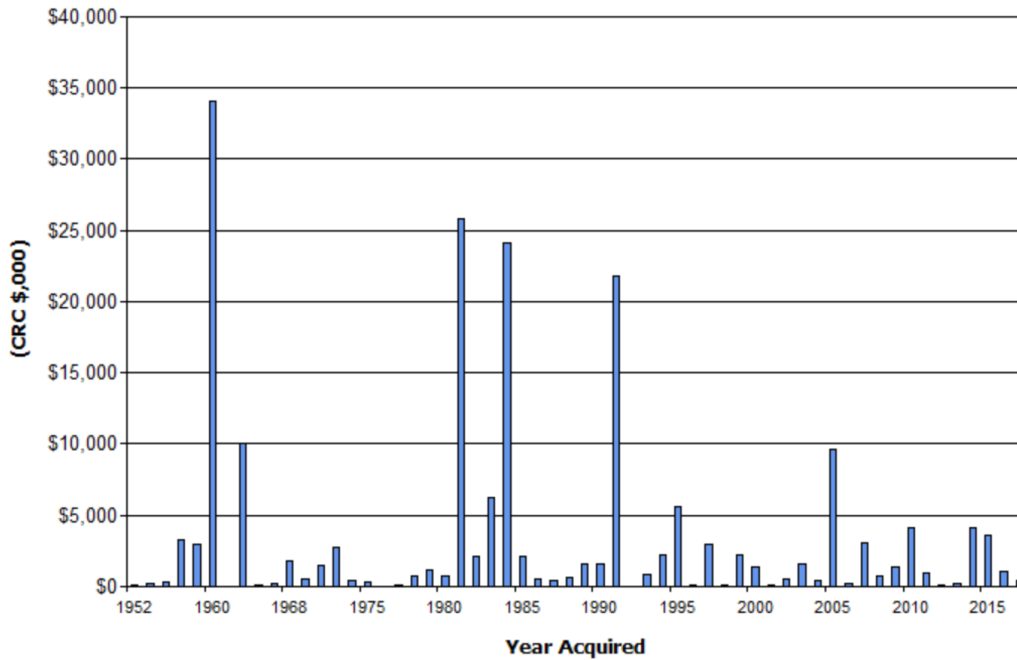


Figure Values are in current (real) dollars.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available.

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
Detailed performance deficiencies have not been identified	In the development of next asset management plans, and in particular as these plans are developed and integrated along with the Long Term Financial Plans and Community Plans service deficiencies will be identified

5.1.3 Asset condition

The condition profile of our assets is shown in Figure 3.1.

Fig 3.1: Current Asset Condition Profile

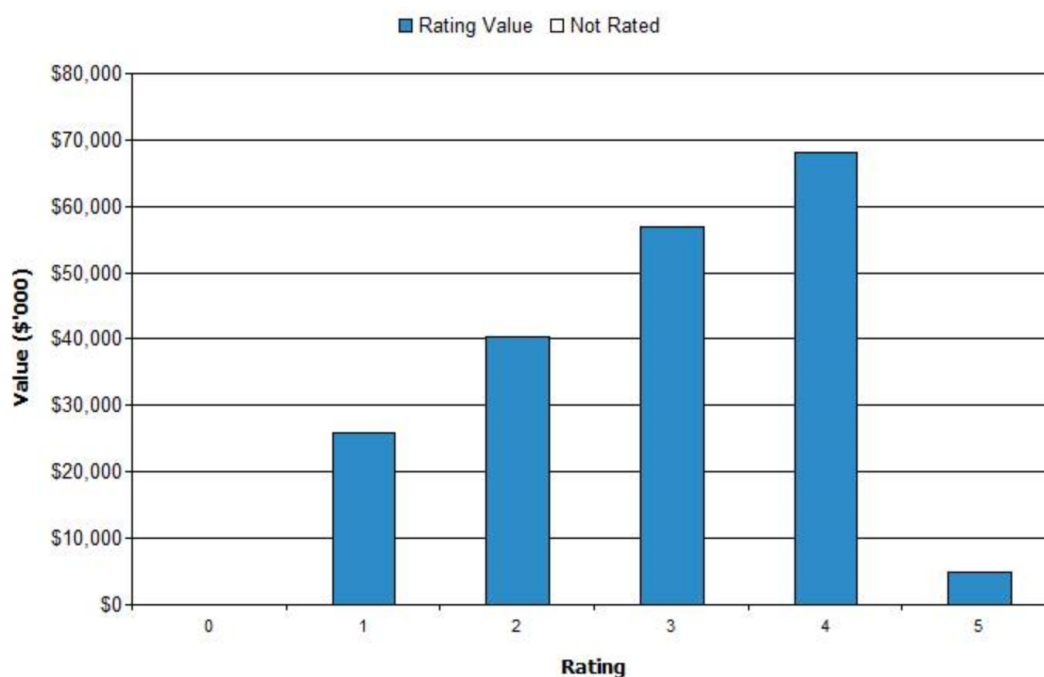


Figure Values are in current (real) dollars.

Condition is measured using a 1 – 5 grading system⁵ as detailed in Table 5.1.3.

Table 5.1.3: Simple Condition Grading Model

Condition Grading	Description of Condition
1	Very Good: only planned maintenance required
2	Good: minor maintenance required plus planned maintenance
3	Fair: significant maintenance required
4	Poor: significant renewal/rehabilitation required
5	Very Poor: physically unsound and/or beyond rehabilitation

Current modelling is based on the existing valued technical register provided by Council following the amalgamation of the former Bombala, Cooma & Snowy River Councils into the consolidated Snowy-Monaro Regional Council. The condition graphs demonstrate that modelling the current LTFP scenario maintaining the current level of upgrade/new would be sustainable over a 10 year period and it is possible to maintain the current high levels of service over the 1st 10 years of the planning period with the existing levels of funding. Due to high value renewal requirements in the next 10 years of the planning period the condition graphs demonstrate that a review of expenditure of the current LTFP funding level in the would be required to maintain the current condition profile for water supply infrastructure. Over the course of the 20 year period assets are progressively renewed under the works program and the overall asset condition of the water supply assets are able to be maintained to a very high standard. As an asset deteriorates to very poor condition it is identified and renewed as part of the works program. The condition profile is a snapshot of the register in time and the funding levels in the current LTFP are adequate to renew these assets as required ensuring that there is no increased risk and deterioration from asset renewals that are deferred due to insufficient funding. This takes into account the cyclical operations, maintenance and renewal requirements of the existing assets in

⁵ IPWEA, 2015, IIMM, Sec 2.5.4, p 2 | 80.

addition to the requirements of the total value of water supply assets increasing and the subsequent operations and maintenance requirements of any additional assets. Any year modelled will show a snapshot in the renewal cycle of the asset class as assets progressively deteriorate with time to a point where renewal is required. Adequate operations & maintenance schedules will increase the life of the asset and improve the overall condition of the asset group. If funding is insufficient over the long term we will expect to see a progressive increase in the total value of assets in very poor condition as renewals are deferred. A sample result of the current funding scenario modelled over 20 years is provided in figure 3.2. Figure 3.3 shows the condition profile associated with an optimum renewal scenario (excluding any requirement for additional costs for upgrade/new), where 100% renewal funding is available for the duration of the planning period as required. This comparison indicates that the assets in very poor condition at any modelled year is demonstrative of the snapshot of the register at a point in time and these assets will be renewed as part of the budget cycle which is adequate for all renewal requirements in the foreseeable future based on the current asset registers level of maturity which is subject to ongoing improvement.

Fig 3.2: Condition Profile - Continuing Current LTFP Level of Expenditure Over the Planning Period

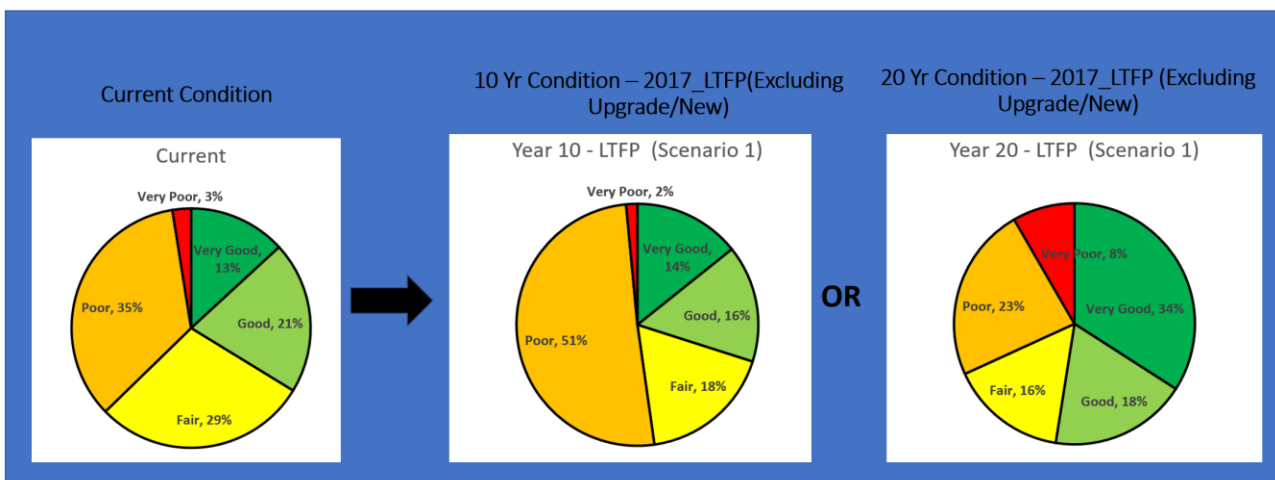
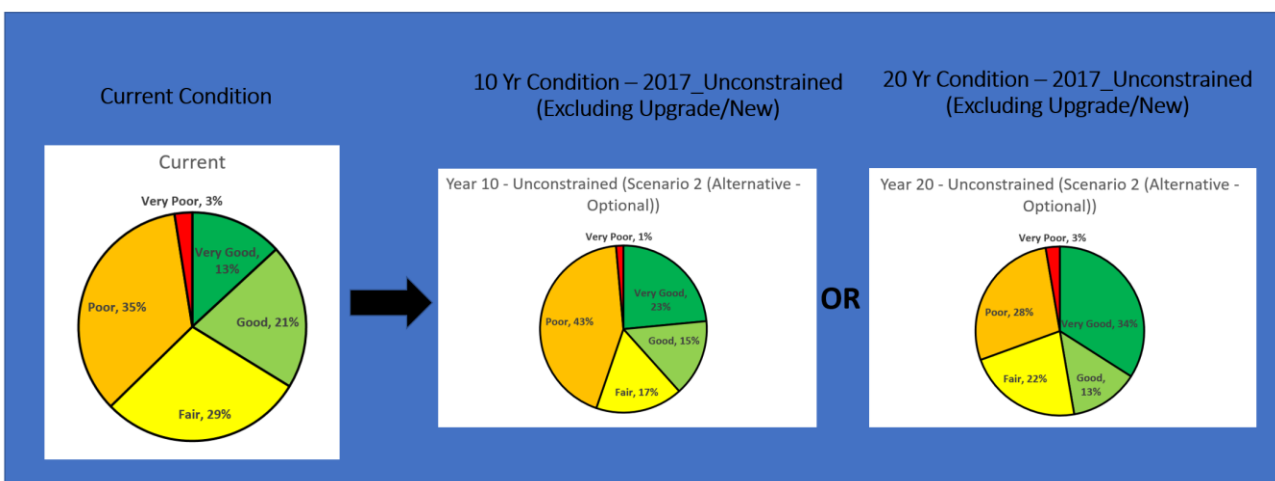


Fig 3.3: Condition Profile – Unconstrained Condition Profile of SMRC assets with no budget restrictions to renewal (Optimum Renewal Scenario – 100%)



5.2 Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity, e.g. cleaning, street sweeping, utilities costs and street lighting.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again, e.g. road patching.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating.

Maintenance expenditure is shown in Table 5.2.1.

Table 5.2.1: Maintenance Expenditure Trends

Year	Maintenance Budget \$'000
2018	\$1,957 - \$1,174 (Reactive) / \$783 (Planned)
2019	\$2,055 - \$1,233 (Reactive) / \$822 (Planned)
2020	\$2,158 - \$1,295 (Reactive) / \$863 (Planned)

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

Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Figure 4. Note that all costs are shown in current 2018 dollar values (i.e. real values).

Figure 4: Projected Operations and Maintenance Expenditure

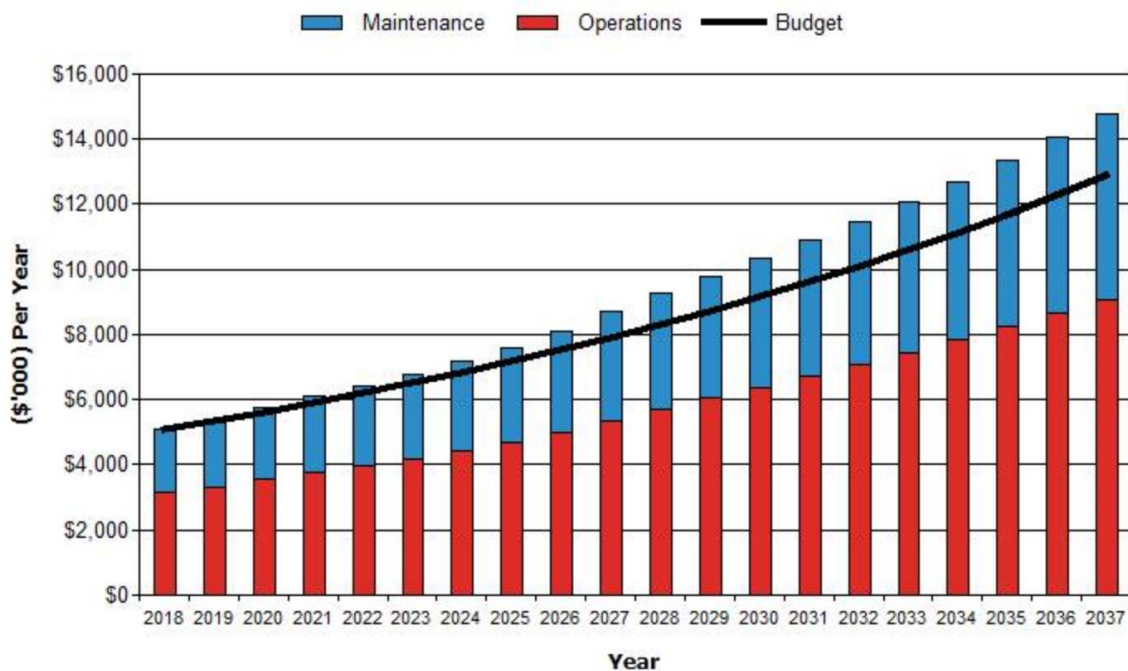


Figure Values are in current (real) dollars.

Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded are to be included in the risk assessment and analysis in the infrastructure risk management plan.

Maintenance is funded from the operating budget where available. This is further discussed in Section 7.

5.3 Renewal/Replacement Plan

Renewal and replacement expenditure is major work which does not increase the asset’s design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an

asset to original service potential is considered to be an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

Assets requiring renewal/replacement are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the 'Expenditure template'.

Method 1 was used for this asset management plan.

5.3.1 Renewal ranking criteria

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. roughness of a road).⁶

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

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be greatest,
- Have a total value representing the greatest net value,
- Have the highest average age relative to their expected lives,
- Are identified in the AM Plan as key cost factors,
- Have high operational or maintenance costs, and
- Have replacement with a modern equivalent asset that would provide the equivalent service at a savings.⁷

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

Table 5.3.1: Renewal and Replacement Priority Ranking Criteria

Criteria	Weighting
Potential Health risks	43%
Potential to cause property damage	29%
Frequency of failure	14%
Age	14%
Total	100%

5.3.2 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditures are forecast to increase over time when the asset stock increases. The expenditure is required is shown in Fig 5. Note that all amounts are shown in current (real) dollars.

⁶ IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

⁷ Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

The projected capital renewal and replacement program is shown in Appendix B.

Fig 5: Projected Capital Renewal and Replacement Expenditure

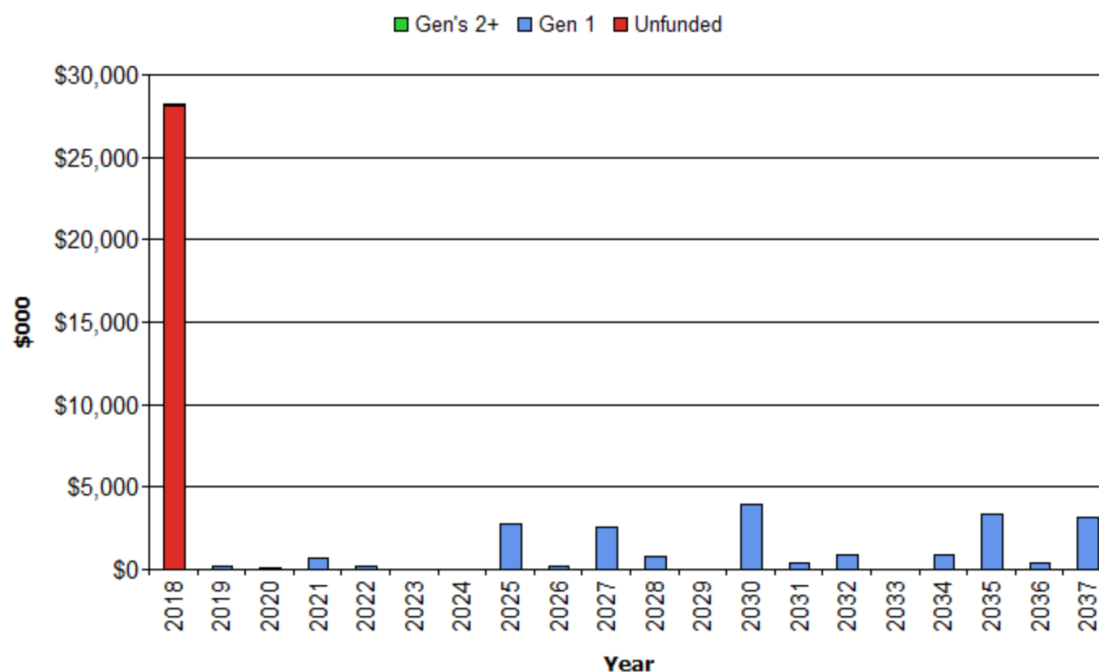


Figure Values are in current (real) dollars.

Deferred renewal and replacement, i.e. those assets identified for renewal and/or replacement and not scheduled in capital works programs are to be included in the risk analysis process in the risk management plan.

Renewals and replacement expenditure in the capital works program will be accommodated in the long term financial plan. This is further discussed in Section 7.

5.4 Creation/Acquisition/Upgrade Plan

New works are those that create a new asset that did not previously exist, or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost. These additional assets are considered in Section 4.4.

5.4.1 Selection criteria

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

Table 5.4.1: New Assets Priority Ranking Criteria

Criteria	Weighting
Potential for property damage	50%
Water mains – frequency of failures	25%
Age	25%
Total	100%

5.4.2 Summary of future upgrade/new assets expenditure

Projected upgrade/new asset expenditures are summarised in Fig 6. The projected upgrade/new capital works program is shown in Appendix C. All amounts are shown in real values.

Fig 6: Projected Capital Upgrade/New Asset Expenditure

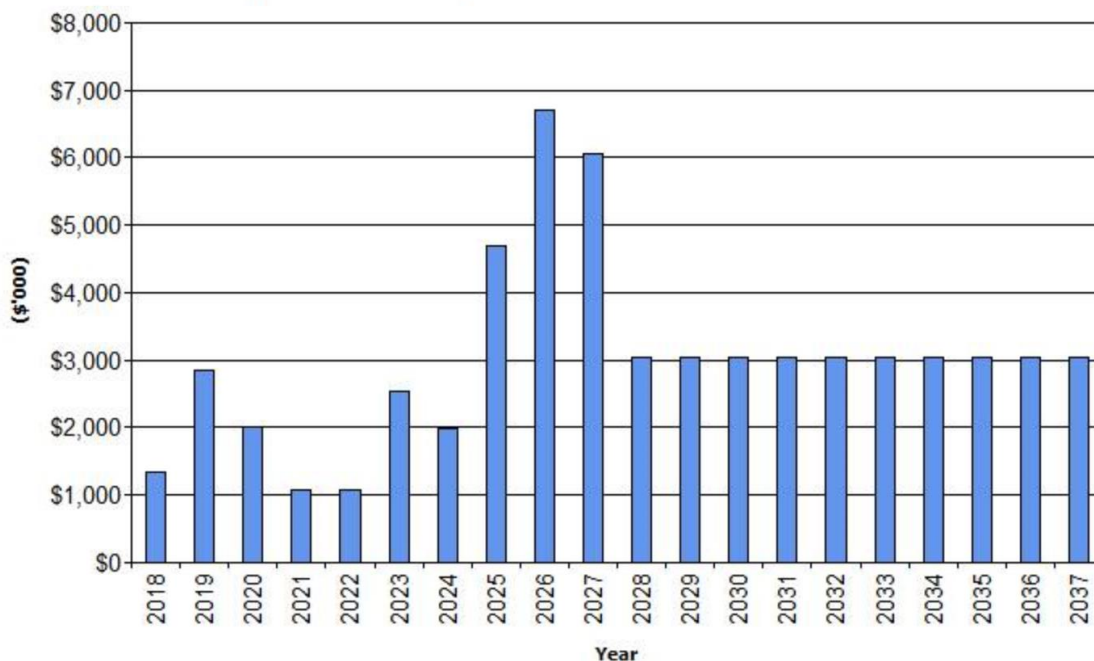


Figure Values are in current (real) dollars.

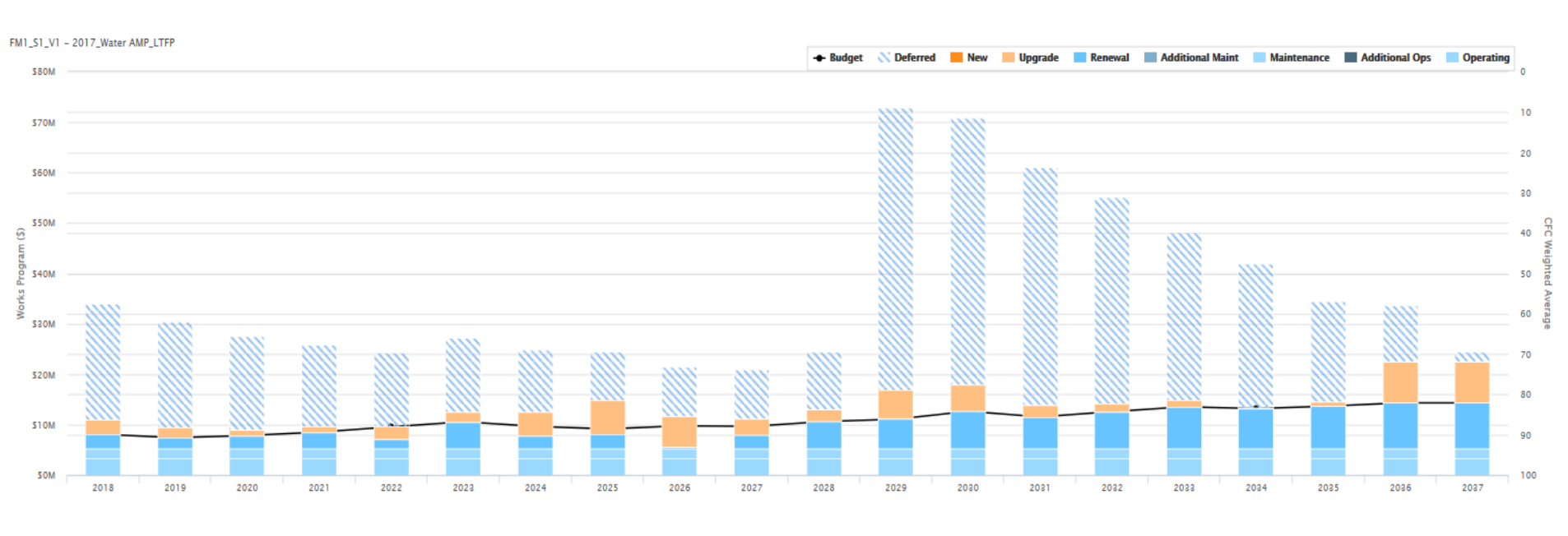
Expenditure on new assets and services in the capital works program will be accommodated in the long term financial plan but only to the extent of the available funds

5.4.3 Summary of asset expenditure requirements

The financial projections are shown in Fig 7 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in current values. Figure 7 is based on the JRAKMS ODM modelling. This explores the likely effect of the current funding scenario.

Figure 7 shows the projected works program for the planning period against the budget from the Long Term Financial Plan. The black line shows the total budget for operations, maintenance, renewal and upgrade/new as a total. The bars show the ongoing required expenditures to maintain service levels for the existing assets held in the technical asset register. The bars that are above the budget line shows funding requirements above the available budget level. The works program will prioritise the renewal requirements based on pre-set criteria that contribute to the criticality score as outlined in table 5.4.1. The model will fund operations, maintenance and renewal up to the level of the pre-set budget. Once renewal requirements exceed the available budget the asset will be deferred in the register until the next budget year and identified within the register. Where assets are deferred, the criticality is automatically increased, condition is deteriorated by one year in the model and risk, operational and maintenance requirements are adjusted. The following budget year the prioritisation of renewal requirements is completed again with assets calculated as having the highest criticality funded first. An asset can be deferred for multiple years with the criticality, operational and maintenance requirements will continue to be adjusted.

Fig 7: Projected Operating and Capital Expenditure



**Future improvements to data maturity will review incorporating assets that have operating and maintenance requirements but no capital renewal requirement as well as improving data to ensure technical register is complete inclusive of all assets, this ongoing data improvement will “close the gap” between the black current LTFP budget line (inclusive of \$3,024,800 capital renewal budget and Recurrent Expenditure FY 17/18 - Total \$5,095,000 (made up of \$3,138,000 Operational costs and \$1,957,000 Maintenance costs) and the budget renewal requirement in the asset register for water supply assets. Figure 7 indicates that the budget availability for upgrade/new is a separate funding amount and is not applied to renewal in the event of deferred renewals. As a required renewal is deferred due to insufficient budget availability the risk associated with the deferral of renewal will increase the criticality score and increase its priority for renewal on the next available years works program.*

Figure Values are in current (real) dollars.

5.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.5, together with estimated annual savings from not having to fund operations and maintenance of the assets. These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any. Any costs or revenue gained from asset disposals is accommodated in the long term financial plan.

Table 5.5: Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Expenditure	Operations & Maintenance Annual Savings
Not yet identified in this AMP				

6. RISK MANAGEMENT PLAN

The purpose of infrastructure risk management is to document the results and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2009 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2009 as: ‘coordinated activities to direct and control with regard to risk’⁸.

An assessment of risks⁹ associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a ‘financial shock’. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

6.1 Critical Assets

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

Critical assets have been identified and their typical failure mode and the impact on service delivery are as follows:

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
None Identified		

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

6.2 Risk Assessment

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

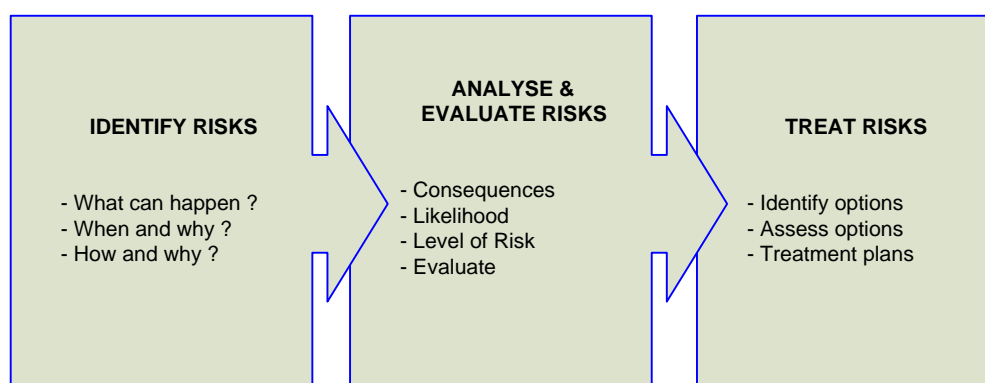
It is an analysis and problem solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

⁸ ISO 31000:2009, p 2

⁹ Snowy-Monaro Regional Council Infrastructure Risk Management Plan

The process is based on the fundamentals of the ISO risk assessment standard ISO 31000:2009.

Fig 6.2 Risk Management Process – Abridged



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

An assessment of risks¹⁰ associated with service delivery from infrastructure assets has identified the critical risks that will result in significant loss, ‘financial shock’ or a reduction in service.

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 cost after the selected treatment plan is implemented is shown in Table 6.2. These risks and costs are reported to management and Council.

Table 6.2: Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Treatment Costs
Water quality	Reduction of quality in treated water	High	Water quality action plan and monitoring plan	Within existing budget
Water treatment plant	Mechanical/electrical/chemical failure	High	Water treatment plan monitoring and improvement program	Within existing budget
Deterioration of water supply system	High numbers of mains breaks leaving customers without water	High	Continue to improve data by keeping records of main breaks and their locations	Within existing budget
Deterioration of water supply system	Underfunding of renewals leading to frequent failures and higher operating and maintenance costs	High	Ensure funding for renewals is provided in the medium and long term Implement preventative maintenance programs for all mechanical and electrical components	Within existing budget

¹⁰ Snowy-Monaro Regional Council Infrastructure Risk Management Plan

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Treatment Costs
Extreme weather events	Failure of a water supply to the community	High	Continue to implement disaster management plan and involvement in regional strategies	Within existing budget

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

7. FINANCIAL SUMMARY

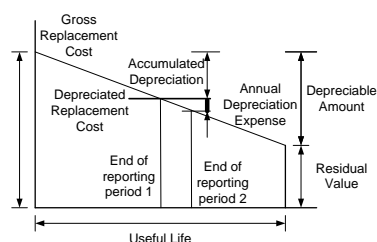
This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

7.1 Financial Statements and Projections

7.1.1 Asset valuations

The best available estimate of the value of assets included in this Asset Management Plan are shown below. Assets are valued using fair value principles at cost to replace service potential.

Gross Replacement Cost	\$196,222,331
Depreciable Amount	\$196,222,331
Depreciated Replacement Cost ¹¹	\$95,623,279
Annual Average Asset Consumption	\$3,675,837



7.1.1 Sustainability of service delivery

Two key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category, these being the:

- asset renewal funding ratio, and
- medium term budgeted expenditures/projected expenditure (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹² 15%

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have 15% of the funds required for the optimal renewal and replacement of assets based on the current Long Term Financial Plan.

	Current LTFP - (Current Long Term Financial Plan - NAMS Scenario 1)	Current Unconstrained - (Funding As Required - NAMS Scenario 2)
--	----------------------------------------------------------------------------	------------------------------------------------------------------------

¹¹ Also reported as Written Down Value, Carrying or Net Book Value.

¹² AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

	(\$000's)	(\$000's)
Asset Renewal Funding Ratio		
Asset Renewal Funding Ratio (10 Yr Total Renewal Need / 10 Yr Total Renewal Budget)	15%	47%
Life Cycle Cost (long term)(\$000)		
Life Cycle Cost ((Annual Depreciation Cost x 10) + 10 Yr Operations Need + 10 Yr Operations Need)	\$89,738	\$89,738
Life Cycle Exp. (10 Yr Renewal Budget + 10 Yr Operations Budget + 10 Yr Maintenance Budget)	\$90,344	\$69,442
Life Cycle Gap (Life Cycle Expenditure - Life Cycle Cost)	\$606	-\$20,296
Life Cycle Sustainability Indicator (Life Cycle Expenditure / Life Cycle Cost)	101%	77%
Medium Term (10 yrs) Sustainability		
10 Yr Operations Need + 10 Yr Maintenance Need & 10 Yr Renewal Need	\$229,023	\$69,442
10 Yr Operations Budget + 10 Yr Maintenance Budget & 10 Yr Renewal Budget	\$90,344	\$69,442
10 year Funding Shortfall (10 Yr Projected Expenditures - 10 Yr Budget Expenditures)	-\$138,678	\$0
10 year Sustainability Indicator (10 Yr Projected Expenditures / 10 Yr Budget Expenditures)	39%	100%
Short Term (5 years) Sustainability		
5 Yr Operations Need + 5 Yr Maintenance Need & 5 Yr Renewal Need	\$132,539	\$33,219
5 Yr Operations Budget + 5 Yr Maintenance Budget & 5 Yr Renewal Budget	\$41,485	\$33,219
5 year Funding Shortfall (5 Yr Projected Expenditures - 5 Yr Budget Expenditures)	-\$91,053	\$0
5 year Sustainability Indicator (5 Yr Projected Expenditures / 5 Yr Budget Expenditures)	31%	100%

Medium term – 10 year financial planning period (LTFP)

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

These projected expenditures may be compared to budgeted expenditures in the 10 year period to identify any funding shortfall. In a core asset management plan, a gap is generally due to increasing asset renewals for ageing assets.

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is \$22,902,291 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$9,034,448 on average per year giving a 10 year funding shortfall of \$13,867,843 per year. This indicates 39% of the projected expenditures needed to provide the services documented in the asset management plan. This excludes upgrade/new assets.

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 1.0 for the first years of the asset management plan and ideally over the 10-year life of the Long Term Financial Plan.

		10 Yr Total	Annual Average	
10 Yr	Required (Including Upgrade/New)	\$229,022,912.39	\$229.02	\$22,902,291.24
	Budget	\$90,344,480.59	\$90.34	\$9,034,448.06
	Shortfall (-)/Surplus (+)	-\$138,678,431.80	-\$138.68	-\$13,867,843.18
			39%	
5 Yr	Required (Including Upgrade/New)	\$132,538,753.87	\$132.54	\$13,253,875.39
	Budget	\$41,485,345.78	\$41.49	\$4,148,534.58
	Shortfall (-)/Surplus (+)	-\$91,053,408.09	-\$91.05	-\$9,105,340.81
			31%	
Lifecycle	Required (Including Upgrade/New)	\$89,738,394.82	\$89.74	\$8,973,839.48
	Budget	\$90,344,480.59	\$90.34	\$9,034,448.06
	Shortfall (-)/Surplus (+)	\$606,085.77	\$0.61	\$60,608.58
			101%	
Renewal Ratio	Required	\$176,042,882.96	\$176.04	
	Budget	\$26,051,102.25	\$26.05	
	Shortfall (-)/Surplus (+)	-\$149,991,780.72	-\$149.99	
			15%	

7.1.2 Projected expenditures for long term financial plan

Table 7.1.2 shows the projected expenditures for the 10 year long term financial plan from the JRAKMS ODM modelling.

Expenditure projections are in 2017/18 real values.

Table 7.1.2: Projected Expenditures for Long Term Financial Plan (\$000)

ModelYear	BudgetConstraint_LTFP	RenewalFunded	RenewalDeferred	OperatingNeed	MaintenanceNeed	RenewalNeed	UpgradeNeed	NewNeed	OpexBudget	CapexBudget
2017	\$8,086,850	\$2,786,515	\$22,992,709	\$3,335,780	\$1,962,223	\$25,779,225	\$2,854,900	\$0	\$5,298,003	\$2,788,847
2018	\$7,431,738	\$2,131,321	\$21,025,500	\$3,335,780	\$1,962,223	\$23,156,822	\$2,020,500	\$0	\$5,298,003	\$2,133,735
2019	\$7,852,099	\$2,546,758	\$18,646,650	\$3,335,780	\$1,962,223	\$21,193,409	\$1,087,000	\$0	\$5,298,003	\$2,554,096
2020	\$8,537,004	\$3,230,566	\$16,227,194	\$3,335,780	\$1,962,223	\$19,457,759	\$1,087,000	\$0	\$5,298,003	\$3,239,001
2021	\$9,577,655	\$1,778,835	\$14,682,689	\$3,335,780	\$1,962,223	\$16,461,524	\$2,546,000	\$0	\$5,298,003	\$4,279,652
2022	\$10,586,787	\$5,234,170	\$14,771,620	\$3,335,780	\$1,962,223	\$20,005,790	\$1,992,000	\$0	\$5,298,003	\$5,288,784
2023	\$9,663,177	\$2,563,841	\$12,280,040	\$3,335,780	\$1,962,223	\$14,843,881	\$4,692,000	\$0	\$5,298,003	\$4,365,174
2024	\$9,161,635	\$2,790,896	\$9,788,460	\$3,335,780	\$1,962,223	\$12,579,356	\$6,718,000	\$0	\$5,298,003	\$3,863,633
2025	\$9,777,517	\$260,100	\$9,788,460	\$3,335,780	\$1,962,223	\$10,048,559	\$6,065,500	\$0	\$5,298,003	\$4,479,514
2026	\$9,670,018	\$2,728,099	\$9,788,460	\$3,335,780	\$1,962,223	\$12,516,558	\$3,127,200	\$0	\$5,298,003	\$4,372,015
10 Yr Total	\$90,344,481	\$26,051,102	\$149,991,781	\$33,357,796	\$19,622,233	\$176,042,883	\$32,190,100	\$0	\$52,980,029	\$37,364,451
2027	\$10,629,979	\$5,328,759	\$11,645,403	\$3,335,780	\$1,962,223	\$16,974,163	\$2,334,200	\$0	\$5,298,003	\$5,331,976
2028	\$11,090,688	\$5,792,656	\$56,001,421	\$3,335,780	\$1,962,223	\$61,794,077	\$5,849,200	\$0	\$5,298,003	\$5,792,685
2029	\$12,656,182	\$7,358,157	\$53,041,906	\$3,335,780	\$1,962,223	\$60,400,062	\$5,197,200	\$0	\$5,298,003	\$7,358,179
2030	\$11,553,552	\$6,255,503	\$47,152,478	\$3,335,780	\$1,962,223	\$53,407,981	\$2,282,200	\$0	\$5,298,003	\$6,255,549
2031	\$12,593,139	\$7,295,100	\$40,942,979	\$3,335,780	\$1,962,223	\$48,238,079	\$1,640,000	\$0	\$5,298,003	\$7,295,136
2032	\$13,552,746	\$8,254,706	\$33,303,527	\$3,335,780	\$1,962,223	\$41,558,233	\$1,265,000	\$0	\$5,298,003	\$8,254,743
2033	\$13,197,833	\$7,899,726	\$28,439,229	\$3,335,780	\$1,962,223	\$36,338,955	\$230,000	\$0	\$5,298,003	\$7,899,830
2034	\$13,683,325	\$8,385,301	\$20,093,993	\$3,335,780	\$1,962,223	\$28,479,294	\$804,400	\$0	\$5,298,003	\$8,385,322
2035	\$14,328,311	\$9,030,196	\$11,063,797	\$3,335,780	\$1,962,223	\$20,093,993	\$8,242,500	\$0	\$5,298,003	\$9,030,308
2036	\$14,328,311	\$9,028,907	\$2,034,890	\$3,335,780	\$1,962,223	\$11,063,797	\$8,242,500	\$0	\$5,298,003	\$9,030,308
20 Yr Total	\$217,958,547	\$100,680,114	\$453,711,404	\$66,715,593	\$39,244,466	\$554,391,518	\$68,277,300	\$0	\$105,960,059	\$111,998,489

7.2 Funding Strategy

Funding for assets is provided from the budget and long term financial plan.

The financial strategy of the entity determines how funding will be provided, whereas the asset management plan communicates how and when this will be spent, along with the service and risk consequences of differing options.

7.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to service from the LTFP upgrade/new projections.

Additional assets will generally add to the operations and maintenance needs in the longer term, as well as the need for future renewal. Additional assets will also add to future depreciation forecasts.

7.4 Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this asset management plan are:4.

Table 7.4: Key Assumptions made in AM Plan and Risks of Change

- The assets will remain in the organisations ownership and control throughout the planning period.
- Planned and reactive maintenance is to take place in accordance with relevant guidelines/standards.
- All expenditure is stated in 2017/18 dollar values.
- Regulations/standards relating to operations will remain the same over the planning period.

7.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale¹³ in accordance with Table 7.5.

Table 7.5: Data Confidence Grading System

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate \pm 2%
B Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate \pm 10%
C Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated \pm 25%
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset

¹³ IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

Confidence Grade	Description
	may not be fully complete and most data is estimated or extrapolated. Accuracy ± 40%
E Unknown	None or very little data held.

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

8. PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices¹⁴

8.1.1 Accounting and financial data sources

The Local Government Act 1993 requires Council to prepare an annual report on its achievements with respect to the objectives and performance targets set out in its management plan for that year.

This report provides Council's audited financial statements including the condition of public works under the control of the council as at the end of that year, together with:

- An estimate (at current values) of the amount of money required to bring the works up to a satisfactory standard; and
- An estimate (at current values) of the annual expense of maintaining the works at that standard; and
- The council's program of maintenance for that year in respect of the works.
- Australian Accounting Standard (AAS) 27 is applicable to financial reporting by local governments, and provides guidelines for accounting methods and procedures.

8.1.2 Asset management data sources

Currently council uses the TechnologyOne and Civica Authority software for Asset Management Purposes. However it should be qualified that future improvements will move the organisation to a single consolidated asset management system. Water supply infrastructure data was amalgamated from several sources in order to generate projections for this asset management plan.

8.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 8.1.

Table 8.1: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Improve record and reporting on expenditures, with separate costs for operations, maintenance and capture capital expenditures as renewal or upgrade/new with improved forecasting for continuing expenditure	Corporate (Technical & Financial)	Staff Time	Ongoing
2	Continue the development of the corporate asset register, in which financial calculations including calculation of annual depreciation are undertaken by Council.	Corporate (Technical & Financial)	Staff Time	Ongoing
3	Linking of the customer service system to the corporate	Corporate	Staff Time	

¹⁴ ISO 55000 Refers to this the Asset Management System

Task No	Task	Responsibility	Resources Required	Timeline
	asset register to link requests to asset records			
4	Continue to Improve project cost accounting to record costs against the asset component and develop valuation unit rates	Corporate (Technical & Financial)	Staff Time	
5	Continue to review the accuracy and currency of asset data	Technical	Staff Time	
6	Review methodology for determining remaining life, with detail assessment for assets requiring renewal in the medium term (next 10-20 years)	Corporate (Technical & Financial)	Staff Time	
8	Develop procedures for maintaining the Asset and Financial Registers	Corporate (Technical & Financial)	Staff Time	
9	Maintenance response levels should be documented and adopted.	Technical Services	Staff Time	

8.3 Monitoring and Review Procedures

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

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

The AM Plan has a life of 4 years and is due for complete revision and updating within 2 years of each Council/board election.

8.4 Performance Measures

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

- The degree to which the required projected expenditures identified in this asset management plan are incorporated into the long term financial plan,
- The degree to which 1-5 year detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the asset management plan,
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Strategic Plan and associated plans,
- The Asset Renewal Funding Ratio achieving the target of 1.0.

9. REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.

- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2012 LTFP Practice Note 6 PN Long Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney
- Snowy-Monaro Regional Council Annual Report 2016-17
- Snowy-Monaro Regional Council Financial Statements 2016-17
- Snowy-Monaro Regional Council Operational Plan 2018

10. APPENDICES

Appendix A Projected 10 year Deferred Capital Renewal and Replacement Works Program

Appendix B Projected 10 year Capital Renewal and Replacement Works Program

Appendix C LTFP Budgeted Expenditures Accommodated in AM Plan

Appendix A Projected 10-year Deferred Capital Renewal and Replacement Works Program

JRAKMS ID	Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Deferred Year	Condition
8091993	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne WPS Intake - Mech & Elect	\$4,894,229.76	20	2016	2018	4
8092053	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Kalkite Chlorination Equipment	\$107,744.00	20	2016	2018	4
8091998	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyn Barry Way Zone Pump Stn M&E	\$4,894,229.76	15	2016	2018	3
8092000	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Barry Way Treatment - Chlorination	\$257,591.04	15	2016	2018	3
8092031	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Industrial Estate WPS - M&E 2 x 250kW	\$57,187.19	15	2016	2018	3
8092052	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Kalkite Intake WPS M&E	\$1,562,288.00	15	2016	2018	3
8092056	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Kalkite WPS - M&E	\$57,187.19	15	2016	2018	3
8091987	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindy Lakewood BoostWPS M&E 2 x 30 KW	\$166,236.55	10	2016	2018	2
8091991	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Leesville WPS M&E - 2 x30kW @ 30 l/s	\$166,236.55	10	2016	2018	2
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	10	2016	2018	2
8092029	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	EJ WPS M&E Berridale 2 x 250kW @ 50 l/s	\$431,960.20	10	2016	2018	2
8092018	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindy Treatment - Fluoridation	\$257,591.04	5	2016	2018	1
8092019	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Treatment - Chlorinator	\$257,591.04	5	2016	2018	1
8074514	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Nimmitabel \Water Storage \Nimmitabel Reservoir \Nimmitabel Storag	\$36,750.04	15	2017	2018	3
8074502	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Pine Range Reservoir \Roof	\$91,064.40	25	2016	2018	5
8074508	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Snowy 1 Reservoir \Roof	\$318,570.00	25	2016	2018	5
8074510	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Snowy 2 Reservoir \Roof	\$191,919.00	25	2016	2018	5
8058172	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Electrical (3.2ML/day)	\$808,080.00	25	2017	2018	5
8058173	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Process (3.2ML/day)	\$808,080.00	25	2017	2018	5
8058174	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Mechanical (3.2ML/day)	\$808,080.00	25	2017	2018	5
8058176	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Delegate Chlorinator (2.38 ML/Day)	\$59,052.00	20	2022	2018	5
8058188	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Reservoir Delegate - Roof (0.283 ML)	\$24,087.00	20	2020	2018	5
8092023	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jind 2 x 0.17ml Reservoirs Roof	\$28,717.92	20	2021	2018	5
8074489	WATER NETWORK\DISTRICTION NETWORK\WATER STORAGE	Bredbo \Water Storage \Telemetry	\$28,487.00	12	2018	2018	3
8092021	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindy Treatment - Lime Dosing Syste	\$733,395.39	10	2030	2018	5
8092078	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Telemetry Systems All Pump Stations & Reservoirs Calcula	\$62,273.87	10	2047	2018	5
8092079	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Telemetry Systems All Pump Stations & Reservoirs Calculate	\$14,562.53	10	2048	2018	5
8092080	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Berridale Telemetry Systems All Pump Stations & Reservoirs Calcula	\$30,520.04	10	2049	2018	5

JRAKMS ID	Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Deferred Year	Condition
8092081	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Kalkite Telemetry Systems All Pump Stations & Reservoirs Calculate	\$13,865.32	10	2049	2018	5
8092072	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Water Treatment & Intake Upgrade	\$396,867.33	5	2080	2018	5
8092073	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Water Treatment pH Corrector	\$101,047.01	5	2080	2018	5
8092075	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Adaminaby Reservoir Roof Ladders	\$91,204.47	5	2036	2018	5
8092076	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Mack Valve Mackay St Reservoir	\$19,241.74	5	2037	2018	5
8092077	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Booster Reservoir and Varneys Range Concrete Lining	\$189,209.55	5	2084	2018	5
8092082	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Berridale Telemetry SCADac RMF System Calculate Depreciation Off R	\$68,185.66	5	2051	2018	5
8092083	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Telemetry Systems All Pump Stations & Reservoirs Ca	\$26,610.52	5	2051	2018	5
8092084	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Adaminaby Telemetry All Pump Stations & Reservoirs Calculate Depre	\$30,646.36	5	2057	2018	5
8092085	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Water Telemetry 2015	\$7,889.98	5	2065	2018	5
2018 Total			\$22,992,709.21				
8091993	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne WPS Intake - Mech & Elect	\$4,894,229.76	6.02	2016	2019	4
8091998	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyn Barry Way Zone Pump Stn M&E	\$4,894,229.76	1.104	2016	2019	3
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	0.193	2016	2019	2
8092029	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	EJ WPS M&E Berridale 2 x 250kW @ 50 l/s	\$431,960.20	0.193	2016	2019	2
8091987	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindy Lakewood BoostWPS M&E 2 x 30 KW	\$166,236.55	0.18	2016	2019	2
8091991	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Leesville WPS M&E - 2 x30kW @ 30 l/s	\$166,236.55	0.18	2016	2019	2
8092018	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindy Treatment - Fluoridation	\$257,591.04	0.0235	2016	2019	1
8092019	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Treatment - Chlorinator	\$257,591.04	0.0235	2016	2019	1
8074502	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Pine Range Reservoir \Roof	\$91,064.40	24.93	2016	2019	5
8074508	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Snowy 1 Reservoir \Roof	\$318,570.00	24.93	2016	2019	5
8074510	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Snowy 2 Reservoir \Roof	\$191,919.00	24.93	2016	2019	5
8058172	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Electrical (3.2ML/day)	\$808,080.00	24.93	2017	2019	5
8058173	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Process (3.2ML/day)	\$808,080.00	24.93	2017	2019	5
8058174	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Mechanical (3.2ML/day)	\$808,080.00	24.93	2017	2019	5
8058176	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Delegate Chlorinator (2.38 ML/Day)	\$59,052.00	19.944	2022	2019	5
8092023	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jind 2 x 0.17ml Reservoirs Roof	\$28,717.92	19.944	2021	2019	5
8092021	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindy Treatment - Lime Dosing Syste	\$733,395.39	9.972	2030	2019	5
8092078	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Telemetry Systems All Pump Stations & Reservoirs	\$62,273.87	9.972	2047	2019	5

JRAKMS ID	Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Deferred Year	Condition
		Calcula					
8092079	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Telemetry Systems All Pump Stations & Reservoirs Calculate	\$14,562.53	9.972	2048	2019	5
8092080	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Berridale Telemetry Systems All Pump Stations & Reservoirs Calcula	\$30,520.04	9.972	2049	2019	5
8092081	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Kalkite Telemetry Systems All Pump Stations & Reservoirs Calculate	\$13,865.32	9.972	2049	2019	5
8092072	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Water Treatment & Intake Upgrade	\$396,867.33	4.986	2080	2019	5
8092073	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Water Treatment pH Corrector	\$101,047.01	4.986	2080	2019	5
8092075	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Adaminaby Reservoir Roof Ladders	\$91,204.47	4.986	2036	2019	5
8092076	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Mack Valve Mackay St Reservoir	\$19,241.74	4.986	2037	2019	5
8092077	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Booster Reservoir and Varneys Range Concrete Lining	\$189,209.55	4.986	2084	2019	5
8092082	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Berridale Telemetry SCADac RMF System Calculate Depreciation Off R	\$68,185.66	4.986	2051	2019	5
8092083	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Telemetry Systems All Pump Stations & Reservoirs Ca	\$26,610.52	4.986	2051	2019	5
8092084	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Adaminaby Telemetry All Pump Stations & Reservoirs Calculate Depre	\$30,646.36	4.986	2057	2019	5
8092085	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Water Telemetry 2015	\$7,889.98	4.986	2065	2019	5
8090518	WATER NETWORK\DISTRI BUTION NETWORK\GRAVITY MAINS	GM DICL 300 Barry Way	\$31,182.58	0.1656	2019	2019	2
8090519	WATER NETWORK\DISTRI BUTION NETWORK\GRAVITY MAINS	GM DICL 300 Barry Way	\$48,140.51	0.1656	2019	2019	2
8090520	WATER NETWORK\DISTRI BUTION NETWORK\GRAVITY MAINS	GM DICL 300 Barry Way	\$84,789.65	0.1656	2019	2019	2
2019 Total			\$21,025,500.49				
8091993	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne WPS Intake - Mech & Elect	\$4,894,229.76	2.2388	2016	2020	4
8091998	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Barry Way Zone Pump Stn M&E	\$4,894,229.76	0.1004	2016	2020	3
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	0.0049	2016	2020	2
8058172	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Electrical (3.2ML/day)	\$808,080.00	24.8602	2017	2020	5
8058173	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Process (3.2ML/day)	\$808,080.00	24.8602	2017	2020	5
8058174	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Mechanical (3.2ML/day)	\$808,080.00	24.8602	2017	2020	5
8092021	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindy Treatment - Lime Dosing Syste	\$733,395.39	9.9441	2030	2020	5
8092072	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Water Treatment & Intake Upgrade	\$396,867.33	4.972	2080	2020	5
8092077	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Booster Reservoir and Varneys Range Concrete Lining	\$189,209.55	4.972	2084	2020	5
8092083	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Telemetry Systems All Pump Stations & Reservoirs Ca	\$26,610.52	4.972	2051	2020	5
8092084	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Adaminaby Telemetry All Pump Stations &	\$30,646.36	4.972	2057	2020	5

JRAKMS ID	Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Deferred Year	Condition
		Reservoirs Calculate Depre					
8090536	WATER NETWORK\DISTRI BUTION NETWORK\GRAVITY MAINS	GM AC 150 Myack St	\$15,576.92	2.7334	2020	2020	4
8090537	WATER NETWORK\DISTRI BUTION NETWORK\GRAVITY MAINS	GM AC 150 Myack St	\$63,874.55	2.7334	2020	2020	4
8074493	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Nimmitabel \Pump Stations - Header \McLaughlin River \McLaughlin R	\$83,540.43	2.2124	2020	2020	4
2020 Total			\$18,646,650.33				
8091993	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne WPS Intake - Mech & Elect	\$4,894,229.76	1.0285	2016	2021	4
8091998	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyn Barry Way Zone Pump Stn M&E	\$4,894,229.76	0.0113	2016	2021	3
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	0.0002	2016	2021	2
8092021	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindy Treatment - Lime Dosing Syste	\$733,395.39	9.9162	2030	2021	5
8074487	WATER NETWORK\DISTRI BUTION NETWORK\WATER STORAGE	Bredbo \Water Storage \Disinfection System \Chlorination - Civil	\$15,756.30	1.2555	2021	2021	4
8074488	WATER NETWORK\DISTRI BUTION NETWORK\WATER STORAGE	Bredbo \Water Storage \Aerator	\$123,815.36	1.2555	2021	2021	4
8074490	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bredbo \Water Storage \Reservoir \Roof	\$48,951.00	1.2555	2021	2021	4
8074515	WATER NETWORK\DISTRI BUTION NETWORK\WATER STORAGE	Nimmitabel \Disinfection System \Chlorination - Civil	\$8,566.63	1.2555	2021	2021	4
8092015	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Leesville Reservoir Roof (Jindabyne)	\$20,885.76	0.6659	2021	2021	4
8074497	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Nimmitabel \Pump Stations - Header \Lucan Street \Bore - Mechanics	\$68,615.57	0.0137	2021	2021	3
8092003	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Barry Way Reservoir Roof 2.5ML Concrete	\$190,365.00	0.0073	2021	2021	3
8092007	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Low Zone Reservoir Roof	\$98,212.80	0.0073	2021	2021	3
8092009	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne High Zone Reservoir Roof	\$155,400.00	0.0073	2021	2021	3
8092011	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Lakewood 4 x 1.0ml Conc. Roof	\$47,482.48	0.0073	2021	2021	3
8092013	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jind High Country 0.091ml Conc. Roof	\$8,909.08	0.0073	2021	2021	3
8092058	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Kalkite Intake Reservoir Roof	\$9,790.20	0.0073	2021	2021	3
8092060	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Kalkite Reservoir Roof 2 x 0.17ML	\$14,358.96	0.0073	2021	2021	3
2021 Total			\$53,520,494.47				
8091993	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne WPS Intake - Mech & Elect	\$4,894,229.76	0.544	2016	2022	4
8091998	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyn Barry Way Zone Pump Stn M&E	\$4,894,229.76	0.0015	2016	2022	3
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	0	2016	2022	3
2022 Total			\$14,682,689.28				
8091998	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyn Barry Way Zone Pump Stn M&E	\$4,894,229.76	0.0002	2016	2023	4
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	0	2016	2023	3
8074482	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Treatment Plant \WTP - Electrical	\$2,491,580.00	0.4655	2025	2023	5
8074484	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Treatment Plant \WTP - Process	\$2,491,580.00	0.3491	2027	2023	5
2023 Total			\$14,771,619.52				
8091998	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyn Barry Way Zone Pump Stn M&E	\$4,894,229.76	0	2016	2024	4
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	0	2016	2024	3
8074484	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Treatment Plant \WTP - Process	\$2,491,580.00	0.3482	2027	2024	5

JRAKMS ID	Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Deferred Year	Condition
2024 Total			\$12,280,039.52				
8091998	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyn Barry Way Zone Pump Stn M&E	\$4,894,229.76	0	2016	2025	4
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	0	2016	2025	3
2025 Total			\$9,788,459.52				
8091998	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyn Barry Way Zone Pump Stn M&E	\$4,894,229.76	0	2016	2026	4
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	0	2016	2026	3
2026 Total			\$9,788,459.52				
8091998	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyn Barry Way Zone Pump Stn M&E	\$4,894,229.76	0	2016	2027	4
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	0	2016	2027	4
2027 Total			\$9,788,459.52				
8092017	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne WPS - M&E	\$4,894,229.76	0	2016	2028	4
8091992	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne WPS Intake - Civil	\$1,931,932.80	0.0005	2051	2028	5
8092002	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Barry way 2.5ml Conc.	\$1,078,735.00	0.0005	2051	2028	5
8074477	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Treatment Plant \Raw Water Delivery System \Raw Water	\$122,000.00	0.0005	2065	2028	5
8074478	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Treatment Plant \Raw Water Delivery System \Raw Water	\$202,520.00	0.0005	2065	2028	5
8074483	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Treatment Plant \WTP - Mechanical	\$2,491,580.00	0.0005	2065	2028	5
8092069	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Reservoir Roof	\$19,580.40	0.0003	2073	2028	5
8092044	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Eucumbene Cove - Chlorination	\$66,109.87	0	2034	2028	5
8092062	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Intake Pump Station - M&E	\$23,828.00	0	2028	2028	4
8092063	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Intake Pump Station Filtration	\$691,012.00	0	2028	2028	4
8092065	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety WPS Emergency Pontoon	16527.47	0	2028	2028	4
8092067	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Pump Station - 11kW @ 9.3 l/s	57187.19	0	2028	2028	4
8090463	WATER NETWORK\DISTRICTION NETWORK\GRAVITY MAINS	GM DICL 100 Old Adaminaby Road	26332.78	0	2028	2028	4
8092064	WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety - Chlorine Equipment	23828	0	2028	2028	3
2028 Total			\$11,645,403.27				

Appendix B Projected 10-year Capital Renewal and Replacement Works Program

Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Funded Year	Condition	JRAKMS ID	Client ID	Renewal Need	Maintenance Need	Operations Need	Total Need	Treatment	Dimension 1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Low Zone WPS M&E 2 x 18.5kW	\$114,219.00	20	2016	2018	4	8091983	62797	\$114,219.00	\$1,142.19	\$1,941.72	\$117,302.91	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne High Zone WPS - M&E 3 x 30kW	\$166,236.55	20	2016	2018	4	8091985	62799	\$166,236.55	\$1,662.37	\$2,826.02	\$170,724.94	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Treatment - Fluoridation	\$257,591.04	20	2016	2018	4	8091994	62808	\$257,591.04	\$2,575.91	\$4,379.05	\$264,546.00	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Treatment - Chlorinator	\$257,591.04	20	2016	2018	4	8091995	62809	\$257,591.04	\$2,575.91	\$4,379.05	\$264,546.00	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Intake Balance Tank Roof	\$9,790.20	20	2021	2018	5	8092005	62819	\$9,790.20	\$97.90	\$166.43	\$10,054.53	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Nimmitabel \Water Storage \Nimmitabel Reservoir \Roof	\$71,794.80	16	2001	2018	2	8074512	45318	\$71,794.80	\$717.95	\$1,220.51	\$73,733.26	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jind High Count WPS 2 x 2.5kW @ 1.5 l/s	\$27,600.00	15	2016	2018	3	8091989	62803	\$27,600.00	\$276.00	\$469.20	\$28,345.20	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Adaminaby Reservoir Roof (0.45ML)	\$42,346.50	15	2016	2018	3	8092048	62862	\$42,346.50	\$423.47	\$719.89	\$43,489.86	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Snowy 2 Reservoir \Structure (4.5ML) (Steel)	\$1,087,541.00	12	2008	2018	2	8074511	45317	\$1,087,541.00	\$10,875.41	\$18,488.20	\$1,116,904.61	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Royal Hill 2 Reservoir \Roof	\$66,822.00	12	2010	2018	2	8074506	45312	\$66,822.00	\$668.22	\$1,135.97	\$68,626.19	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Royal Hill 2 Reservoir \Structure (0.5ML) (S	\$378,658.00	12	2010	2018	2	8074507	45313	\$378,658.00	\$3,786.58	\$6,437.19	\$388,881.77	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bredbo \Water Storage \Reservoir \Structure (0.5MI) (Concrete)	\$277,389.00	10	2013	2018	2	8074491	45297	\$277,389.00	\$2,773.89	\$4,715.61	\$284,878.50	Infrastructure: Water Supply	1

Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Funded Year	Condition	JRAKMS ID	Client ID	Renewal Need	Maintenance Need	Operations Need	Total Need	Treatment	Dimension 1
STORAGE SUP													Network	
WATER NETWORK\DISTRI BUTION NETWORK\GRAVITY MAINS	GM DICL 100 Old Adaminaby Road	\$26,332.78	5	2015	2018	1	8090463	61277	\$26,332.78	\$263.33	\$447.66	\$27,043.76	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	East Jindabyne Flowmeter & Water Treatment	\$2,603.56	5	2035	2018	5	8092074	62888	\$2,603.56	\$26.04	\$44.26	\$2,673.85	Infrastructure: Water Supply Network	1
Total 2018		\$2,786,515.46							\$2,786,515.46	\$27,865.15	\$47,370.76	\$2,861,751.38		
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Reservoir Delegate - Roof (0.283 ML)	\$24,087.00	19.94 4	2020	2019	5	8058188	4938	\$24,087.00	\$240.87	\$409.48	\$24,737.35	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Kalkite Chlorination Equipment	\$107,744.00	6.02	2016	2019	4	8092053	62867	\$107,744.00	\$1,077.44	\$1,831.65	\$110,653.09	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Industrial Estate WPS - M&E 2 x 250kW	\$57,187.19	1.183 5	2016	2019	3	8092031	62845	\$57,187.19	\$571.87	\$972.18	\$58,731.25	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Nimmitabel \Water Storage \Nimmitabel Reservoir \Nimmitabel Storag	\$36,750.04	1.183 5	2017	2019	3	8074514	45320	\$36,750.04	\$367.50	\$624.75	\$37,742.30	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Barry Way Treatment - Chlorination	\$257,591.04	1.104	2016	2019	3	8092000	62814	\$257,591.04	\$2,575.91	\$4,379.05	\$264,546.00	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Kalkite Intake WPS M&E	\$1,562,288.00	1.104	2016	2019	3	8092052	62866	\$1,562,288.00	\$15,622.88	\$26,558.90	\$1,604,469.78	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Kalkite WPS - M&E	\$57,187.19	1.104	2016	2019	3	8092056	62870	\$57,187.19	\$571.87	\$972.18	\$58,731.25	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRI BUTION NETWORK\WATER STORAGE	Bredbo \Water Storage \Telemetry	\$28,487.00	0.946 8	2018	2019	3	8074489	45295	\$28,487.00	\$284.87	\$484.28	\$29,256.15	Infrastructure: Water Supply Network	1
Total 2019		\$2,131,321.47							\$2,131,321.47	\$21,313.21	\$36,232.47	\$2,188,867.15		
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Pine Range Reservoir \Roof	\$91,064.40	24.86 02	2016	2020	5	8074502	45308	\$91,064.40	\$910.64	\$1,548.09	\$93,523.14	Infrastructure: Water Supply Network	1

Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Funded Year	Condition	JRAKMS ID	Client ID	Renewal Need	Maintenance Need	Operations Need	Total Need	Treatment	Dimension 1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Snowy 1 Reservoir \Roof	\$318,570.00	24.8602	2016	2020	5	8074508	45314	\$318,570.00	\$3,185.70	\$5,415.69	\$327,171.39	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Snowy 2 Reservoir \Roof	\$191,919.00	24.8602	2016	2020	5	8074510	45316	\$191,919.00	\$1,919.19	\$3,262.62	\$197,100.81	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Delegate Chlorinator (2.38 ML/Day)	\$59,052.00	19.8882	2022	2020	5	8058176	4926	\$59,052.00	\$590.52	\$1,003.88	\$60,646.40	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jind 2 x 0.17ml Reservoirs Roof	\$28,717.92	19.8882	2021	2020	5	8092023	62837	\$28,717.92	\$287.18	\$488.20	\$29,493.30	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Telemetry Systems All Pump Stations & Reservoirs Calcula	\$62,273.87	9.9441	2047	2020	5	8092078	62892	\$62,273.87	\$622.74	\$1,058.66	\$63,955.27	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Telemetry Systems All Pump Stations & Reservoirs Calculate	\$14,562.53	9.9441	2048	2020	5	8092079	62893	\$14,562.53	\$145.63	\$247.56	\$14,955.72	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Berridale Telemetry Systems All Pump Stations & Reservoirs Calcula	\$30,520.04	9.9441	2049	2020	5	8092080	62894	\$30,520.04	\$305.20	\$518.84	\$31,344.08	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Kalkite Telemetry Systems All Pump Stations & Reservoirs Calculate	\$13,865.32	9.9441	2049	2020	5	8092081	62895	\$13,865.32	\$138.65	\$235.71	\$14,239.68	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Water Treatment pH Corrector	\$101,047.01	4.972	2080	2020	5	8092073	62887	\$101,047.01	\$1,010.47	\$1,717.80	\$103,775.27	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Adaminaby Reservoir Roof Ladders	\$91,204.47	4.972	2036	2020	5	8092075	62889	\$91,204.47	\$912.04	\$1,550.48	\$93,666.99	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Mack Valve Mackay St Reservoir	\$19,241.74	4.972	2037	2020	5	8092076	62890	\$19,241.74	\$192.42	\$327.11	\$19,761.27	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Berridale Telemetry SCADAc RMF System Calculate Depreciation Off R	\$68,185.66	4.972	2051	2020	5	8092082	62896	\$68,185.66	\$681.86	\$1,159.16	\$70,026.67	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Water Telemetry 2015	\$7,889.98	4.972	2065	2020	5	8092085	62899	\$7,889.98	\$78.90	\$134.13	\$8,103.01	Infrastructure: Water Supply Network	1

Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Funded Year	Condition	JRAKMS ID	Client ID	Renewal Need	Maintenance Need	Operations Need	Total Need	Treatment	Dimension 1
WATER NETWORK\DISTRI BU TION NETWORK\GRAVITY MAINS	GM AC 150 Myack St	\$4,916.30	2.7334	2020	2020	4	8090535	61349	\$4,916.30	\$49.16	\$83.58	\$5,049.04	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	EJ WPS M&E Berridale 2 x 250kW @ 50 l/s	\$431,960.20	0.0049	2016	2020	2	8092029	62843	\$431,960.20	\$4,319.60	\$7,343.32	\$443,623.13	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRI BU TION NETWORK\GRAVITY MAINS	GM DICL 300 Barry Way	\$31,182.58	0.0049	2019	2020	2	8090518	61332	\$31,182.58	\$311.83	\$530.10	\$32,024.51	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRI BU TION NETWORK\GRAVITY MAINS	GM DICL 300 Barry Way	\$48,140.51	0.0049	2019	2020	2	8090519	61333	\$48,140.51	\$481.41	\$818.39	\$49,440.30	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRI BU TION NETWORK\GRAVITY MAINS	GM DICL 300 Barry Way	\$84,789.65	0.0049	2019	2020	2	8090520	61334	\$84,789.65	\$847.90	\$1,441.42	\$87,078.97	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Jindy Lakewood BoostWPS M&E 2 x 30 KW	\$166,236.55	0.004	2016	2020	2	8091987	62801	\$166,236.55	\$1,662.37	\$2,826.02	\$170,724.94	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Leesville WPS M&E - 2 x30kW @ 30 l/s	\$166,236.55	0.004	2016	2020	2	8091991	62805	\$166,236.55	\$1,662.37	\$2,826.02	\$170,724.94	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	East Jindy Treament - Fluoridation	\$257,591.04	0.0001	2016	2020	1	8092018	62832	\$257,591.04	\$2,575.91	\$4,379.05	\$264,546.00	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	East Jindabyne Treatment - Chlorinator	\$257,591.04	0.0001	2016	2020	1	8092019	62833	\$257,591.04	\$2,575.91	\$4,379.05	\$264,546.00	Infrastructure: Water Supply Network	1
Total 2027		\$2,546,758.36							\$2,546,758.36	\$25,467.58	\$43,294.89	\$2,615,520.83		
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Electrical (3.2ML/day)	\$808,080.00	24.7906	2017	2021	5	8058172	4922	\$808,080.00	\$8,080.80	\$13,737.36	\$829,898.16	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Bombala Water Treatment Plant - Process (3.2ML/day)	\$808,080.00	24.7906	2017	2021	5	8058173	4923	\$808,080.00	\$8,080.80	\$13,737.36	\$829,898.16	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME	Bombala Water Treatment Plant -	\$808,080.00	24.7906	2017	2021	5	8058174	4924	\$808,080.00	\$8,080.80	\$13,737.36	\$829,898.16	Infrastructure: Water	1

Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Funded Year	Condition	JRAKMS ID	Client ID	Renewal Need	Maintenance Need	Operations Need	Total Need	Treatment	Dimension 1
NT STORAGE & BULK STORAGE SUP	Mechanical (3.2ML/day)												Supply Network	
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Water Treatment & Intake Upgrade	\$396,867.33	4.958 1	2080	2021	5	8092072	62886	\$396,867.33	\$3,968.67	\$6,746.74	\$407,582.75	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Booster Reservoir and Varneys Range Concrete Lining	\$189,209.55	4.958 1	2084	2021	5	8092077	62891	\$189,209.55	\$1,892.10	\$3,216.56	\$194,318.21	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindabyne Telemetry Systems All Pump Stations & Reservoirs Ca	\$26,610.52	4.958 1	2051	2021	5	8092083	62897	\$26,610.52	\$266.11	\$452.38	\$27,329.00	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Adaminaby Telemetry All Pump Stations & Reservoirs Calculate Depre	\$30,646.36	4.958 1	2057	2021	5	8092084	62898	\$30,646.36	\$306.46	\$520.99	\$31,473.81	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRIBUTION NETWORK\GRAVITY MAINS	GM AC 150 Myack St	\$15,576.92	1.916 4	2020	2021	4	8090536	61350	\$15,576.92	\$155.77	\$264.81	\$15,997.49	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRIBUTION NETWORK\GRAVITY MAINS	GM AC 150 Myack St	\$63,874.55	1.916 4	2020	2021	4	8090537	61351	\$63,874.55	\$638.75	\$1,085.87	\$65,599.17	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Nimmitabel \Pump Stations - Header \McLaughlin River \McLaughlin R	\$83,540.43	1.255 5	2020	2021	4	8074493	45299	\$83,540.43	\$835.40	\$1,420.19	\$85,796.02	Infrastructure: Water Supply Network	1
Total 2027		\$3,230,565.66							\$3,230,565.66	\$32,305.66	\$54,919.62	\$3,317,790.93		
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	East Jindy Treatment - Lime Dosing Syste	\$733,395.39	9.888 5	2030	2022	5	8092021	62835	\$733,395.39	\$7,333.95	\$12,467.72	\$753,197.06	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRIBUTION NETWORK\WATER STORAGE	Bredbo \Water Storage \Disinfection System \Chlorination - Civil	\$15,756.30	0.944 5	2021	2022	5	8074487	45293	\$15,756.30	\$157.56	\$267.86	\$16,181.72	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRIBUTION NETWORK\WATER STORAGE	Bredbo \Water Storage \Aerator	\$123,815.36	0.944 5	2021	2022	5	8074488	45294	\$123,815.36	\$1,238.15	\$2,104.86	\$127,158.37	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Bredbo \Water Storage \Reservoir \Roof	\$48,951.00	0.944 5	2021	2022	5	8074490	45296	\$48,951.00	\$489.51	\$832.17	\$50,272.68	Infrastructure: Water Supply Network	1

Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Funded Year	Condition	JRAKMS ID	Client ID	Renewal Need	Maintenance Need	Operations Need	Total Need	Treatment	Dimension 1
WATER NETWORK\DISTRI BU TION	Nimmitabel \Disinfection System \Chlorination - Civil	\$8,566.63	0.944 5	2021	2022	5	8074515	45321	\$8,566.63	\$85.67	\$145.63	\$8,797.93	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Nimmitabel \Pump Stations - Header \McLaughlin River \McLaughlin R	\$109,858.76	0.944 5	2022	2022	5	8074494	45300	\$109,858.76	\$1,098.59	\$1,867.60	\$112,824.94	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Nimmitabel \Pump Stations - Header \McLaughlin River \McLaughlin R	\$54,774.90	0.944 5	2022	2022	5	8074495	45301	\$54,774.90	\$547.75	\$931.17	\$56,253.82	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Leesville Reservoir Roof (Jindabyne)	\$20,885.76	0.328 2	2021	2022	4	8092015	62829	\$20,885.76	\$208.86	\$355.06	\$21,449.68	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Nimmitabel \Pump Stations - Header \Lucan Street \Bore - Mechanica	\$68,615.57	0.002 5	2021	2022	4	8074497	45303	\$68,615.57	\$686.16	\$1,166.46	\$70,468.19	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Cooma \Pump Stations - Header \Royal Hill 1 \Pumping Station - Mec	\$69,696.90	0.002 5	2022	2022	4	8074518	45324	\$69,696.90	\$696.97	\$1,184.85	\$71,578.72	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Barry Way Reservoir Roof 2.5ML Concrete	\$190,365.00	0.000 9	2021	2022	3	8092003	62817	\$190,365.00	\$1,903.65	\$3,236.21	\$195,504.86	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Jindabyne Low Zone Reservoir Roof	\$98,212.80	0.000 9	2021	2022	3	8092007	62821	\$98,212.80	\$982.13	\$1,669.62	\$100,864.54	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Jindabyne High Zone Reservoir Roof	\$155,400.00	0.000 9	2021	2022	3	8092009	62823	\$155,400.00	\$1,554.00	\$2,641.80	\$159,595.80	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Jindabyne Lakewood 4 x 1.0ml Conc. Roof	\$47,482.48	0.000 9	2021	2022	3	8092011	62825	\$47,482.48	\$474.82	\$807.20	\$48,764.50	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Jind High Country 0.091ml Conc. Roof	\$8,909.08	0.000 9	2021	2022	3	8092013	62827	\$8,909.08	\$89.09	\$151.45	\$9,149.63	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Kalkite Intake Reservoir Roof	\$9,790.20	0.000 9	2021	2022	3	8092058	62872	\$9,790.20	\$97.90	\$166.43	\$10,054.53	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Kalkite Reservoir Roof 2 x 0.17ML	\$14,358.96	0.000 9	2021	2022	3	8092060	62874	\$14,358.96	\$143.59	\$244.10	\$14,746.65	Infrastructure: Water Supply	1

Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Funded Year	Condition	JRAKMS ID	Client ID	Renewal Need	Maintenance Need	Operations Need	Total Need	Treatment	Dimension 1
STORAGE SUP													Network	
Total 2027		\$1,778,835.08							\$1,778,835.08	\$17,788.35	\$30,240.20	\$1,826,863.63		
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Water Pumping Station - Gunningra - Mech & Elec (2x2.2kW)	\$25,162.37	0.7064	2025	2023	5	8058178	4928	\$25,162.37	\$251.62	\$427.76	\$25,841.75	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Eucumbene Cove WPS - M&E 2 x 11kW	\$57,187.19	0.7064	2027	2023	5	8092043	62857	\$57,187.19	\$571.87	\$972.18	\$58,731.25	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne WPS Intake - Mech & Elect	\$4,894,229.76	0.3554	2016	2023	5	8091993	62807	\$4,894,229.76	\$48,942.30	\$83,201.91	\$5,026,373.96	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Barry Way Pump Station - Fluoridation	\$257,591.04	0.2355	2036	2023	5	8091999	62813	\$257,591.04	\$2,575.91	\$4,379.05	\$264,546.00	Infrastructure: Water Supply Network	1
Total 2027		\$5,234,170.36							\$5,234,170.36	\$52,341.70	\$88,980.90	\$5,375,492.96		
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Treatment Plant \WTP - Electrical	\$2,491,580.00	0.4642	2025	2024	5	8074482	45288	\$2,491,580.00	\$24,915.80	\$42,356.86	\$2,558,852.66	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Barneys Range Balance Tank - 0.2ml Roof	\$16,317.00	0.0979	2031	2024	5	8092027	62841	\$16,317.00	\$163.17	\$277.39	\$16,757.56	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Dalgety Reservoir Roof	\$55,944.00	0.0653	2043	2024	5	8092071	62885	\$55,944.00	\$559.44	\$951.05	\$57,454.49	Infrastructure: Water Supply Network	1
Total 2027		\$2,563,841.00							\$2,563,841.00	\$25,638.41	\$43,585.30	\$2,633,064.71		
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Treatment Plant \WTP - Process	\$2,491,580.00	0.3472	2027	2025	5	8074484	45290	\$2,491,580.00	\$24,915.80	\$42,356.86	\$2,558,852.66	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Water Pumping Station - River, Delegate - Civil (18kW)	\$34,110.30	0.0422	2030	2025	5	8058179	4929	\$34,110.30	\$341.10	\$579.88	\$35,031.28	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRIBUTION NETWORK\GRAVITY MAINS	GM DICL 150 Kosciuszko Rd	\$63,698.18	0.0003	2025	2025	4	8090534	61348	\$63,698.18	\$636.98	\$1,082.87	\$65,418.03	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Cooma \Water Treatment Plant \Telemetry - Header \WTP Telemetry	\$100,561.58	0	2025	2025	4	8074480	45286	\$100,561.58	\$1,005.62	\$1,709.55	\$103,276.74	Infrastructure: Water Supply	1

Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Funded Year	Condition	JRAKMS ID	Client ID	Renewal Need	Maintenance Need	Operations Need	Total Need	Treatment	Dimension 1
STORAGE SUP													Network	
WATER NETWORK\DISTRI BUTION NETWORK\GRAVITY MAINS	GM DICL 100 Old Adaminaby Road	\$9,057.60	0	2025	2025	2	8090456	61270	\$9,057.60	\$90.58	\$153.98	\$9,302.15	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRI BUTION NETWORK\GRAVITY MAINS	GM DICL 100 Old Adaminaby Road	\$86,518.42	0	2025	2025	2	8090457	61271	\$86,518.42	\$865.18	\$1,470.81	\$88,854.42	Infrastructure: Water Supply Network	1
WATER NETWORK\DISTRI BUTION NETWORK\GRAVITY MAINS	GM DICL 100 Old Adaminaby Road	\$5,370.06	0	2025	2025	2	8090533	61347	\$5,370.06	\$53.70	\$91.29	\$5,515.05	Infrastructure: Water Supply Network	1
Total 2027		\$2,790,896.13							\$2,790,896.13	\$27,908.96	\$47,445.23	\$2,866,250.33		
WATER NETWORK\DISTRI BUTION NETWORK\WATER STORAGE	Nimmitabel \Disinfection System \Chlorination - Mechanical and Ele	\$20,136.42	0	2026	2026	4	8074516	45322	\$20,136.42	\$201.36	\$342.32	\$20,680.11	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Adaminaby Reservoir 0.45ml SMA Built	\$239,963.50	0	2026	2026	3	8092047	62861	\$239,963.50	\$2,399.64	\$4,079.38	\$246,442.51	Infrastructure: Water Supply Network	1
Total 2027		\$260,099.92							\$260,099.92	\$2,601.00	\$4,421.70	\$267,122.62		
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Pine Range Reservoir \Structure (1.1ML) (Con	\$516,031.60	0	2027	2027	5	8074503	45309	\$516,031.60	\$5,160.32	\$8,772.54	\$529,964.45	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Cooma \Water Storage \Snowy 1 Reservoir \Structure (4.5ML) (Concre	\$1,805,230.00	0	2027	2027	5	8074509	45315	\$1,805,230.00	\$18,052.30	\$30,688.91	\$1,853,971.21	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Nimmitabel \Water Storage \Nimmitabel Reservoir \Structure (0.58ML	\$406,837.20	0	2027	2027	5	8074513	45319	\$406,837.20	\$4,068.37	\$6,916.23	\$417,821.80	Infrastructure: Water Supply Network	1
Total 2027		\$2,728,098.80							\$2,728,098.80	\$27,280.99	\$46,377.68	\$2,801,757.47		
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Jindabyne Low Zone WPS (Civil)	\$48,951.00	0.000 5	2051	2028	5	8091982	62796	\$48,951.00	\$489.51	\$832.17	\$50,272.68	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATME NT STORAGE & BULK STORAGE SUP	Jindabyne High Zone Pump Station - Civil	\$67,899.45	0.000 5	2051	2028	5	8091984	62798	\$67,899.45	\$678.99	\$1,154.29	\$69,732.73	Infrastructure: Water Supply Network	1

Model Category	Asset Name	Renewal Cost	Risk	Expiry Year	Funded Year	Condition	JRAKMS ID	Client ID	Renewal Need	Maintenance Need	Operations Need	Total Need	Treatment	Dimension 1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Intake Balance Tank 0.10mL	\$55,477.80	0.000 5	2051	2028	5	8092004	62818	\$55,477.80	\$554.78	\$943.12	\$56,975.70	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Leesville Reservoir 2 x 0.11ML	\$118,352.64	0.000 5	2051	2028	5	8092014	62828	\$118,352.64	\$1,183.53	\$2,011.99	\$121,548.16	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Industrial Estate Pump Station - Civil	\$25,692.81	0.000 5	2060	2028	5	8092030	62844	\$25,692.81	\$256.93	\$436.78	\$26,386.51	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Barneys Range Balance Tank - 0.2ml	\$92,463.00	0.000 5	2061	2028	5	8092026	62840	\$92,463.00	\$924.63	\$1,571.87	\$94,959.50	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Eucembene Cove WPS - Civil	\$25,692.81	0.000 3	2072	2028	5	8092042	62856	\$25,692.81	\$256.93	\$436.78	\$26,386.51	Infrastructure: Water Supply Network	1
WATER NETWORK\TREATMENT STORAGE & BULK STORAGE SUP	Jindabyne Barry Way Zone Pump Stn M&E	\$4,894,229.76	0	2016	2028	4	8091998	62812	\$4,894,229.76	\$48,942.30	\$83,201.91	\$5,026,373.96	Infrastructure: Water Supply Network	1
Total 2028		\$5,328,759.26							\$5,328,759.26	\$53,287.59	\$90,588.91	\$5,472,635.76		

Appendix C Budgeted Expenditures Accommodated in LTFP

SNOWY-MONARO REGIONAL COUNCIL - WATER										
CAPITAL RENEWAL BUDGET - 10 YEAR PROJECTION (\$000)										
Updated Estimation (Total)	FY 2018/2019	FY 2019/2020	FY 2020/2021	FY 2021/2022	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027	FY 2027/2028
TOTAL CAPITAL RENEWAL BUDGET	\$4,378.00	\$5,592.00	\$3,835.00		\$3,431.00	\$5,621.00	\$5,751.00	\$7,186.00	\$8,352.00	\$7,939.00
NEW/ UPGRADE	\$1,353.20	\$2,854.90	\$2,020.50	\$1,087.00	\$1,087.00	\$2,546.00	\$1,992.00	\$4,692.00	\$6,718.00	\$6,065.50
RENEWAL	\$3,024.80	\$2,737.10	\$1,814.50	\$1,954.00	\$2,344.00	\$3,075.00	\$3,759.00	\$2,494.00	\$1,634.00	\$1,873.50

Operations (Including Overheads)	\$3,138.00	\$3,294.90	\$3,459.65	\$3,632.63	\$3,814.26	\$4,004.97	\$4,205.22	\$4,415.48	\$4,636.26	\$4,868.07
Maintenance	\$1,957.00	\$2,054.85	\$2,157.59	\$2,265.47	\$2,378.75	\$2,497.68	\$2,622.57	\$2,753.70	\$2,891.38	\$3,035.95

Total Budget	\$9,473.00	\$10,941.75	\$9,452.24	\$8,939.10	\$9,624.00	\$12,123.65	\$12,578.79	\$14,355.18	\$15,879.64	\$15,843.02
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Total Budget (Excluding Upgrade/New)	\$8,119.80	\$8,086.85	\$7,431.74	\$7,852.10	\$8,537.00	\$9,577.65	\$10,586.79	\$9,663	\$9,162	\$9,778
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Total CRC	\$196,222.33
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Operations	\$3,295	1.7%
Maintenance	\$2,055	1.0%

Capital Renewal Budget - 10 Yr Projection

