9.5 Asset Management Plans - 2024/25 Update

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PURPOSE

To seek Council's endorsement for the annual update of the suite of Asset Management Plans to be placed on public exhibition and for the repeal of the Road Maintenance Policy.

OFFICER'S RECOMMENDATION

THAT Council:

1. **Endorse the draft Asset Management Plans as included at Attachment 1-6 to be placed on public exhibition for 28 days.**
2. **If no submissions are received, Council adopt the draft Asset Management Plans as included at Attachment 1-6 the day following the conclusion of the public exhibition period.**
3. **Revoke the Road Maintenance Policy (Attachment 7) given that the current detail is duplicated within the Asset Management Plan- Transport and a Maintenance Policy does not exist for any other asset categories.**

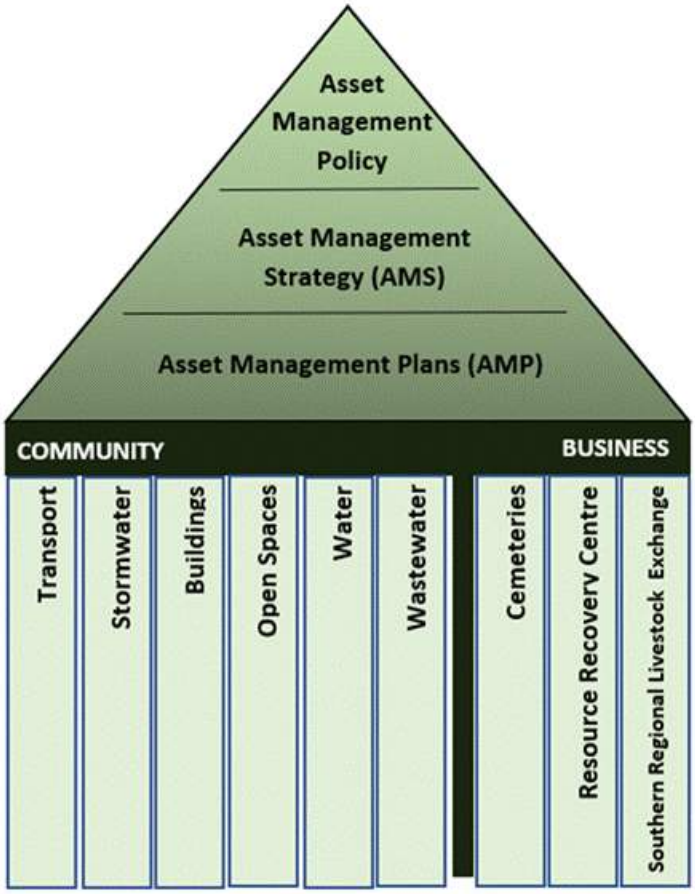
REPORT

BACKGROUND

In accordance with the Integrated Planning & Reporting (IP&R) Framework, which all NSW Local Governments are subject to, Council is required to prepare a suite of strategic documents – one being the Resourcing Strategy. It is through the Resourcing Strategy that the Asset Management Framework of Council is defined and endorsed.

The Asset Management Planning Framework integrates into the wider IP&R Framework and ensures Council performs the Asset Management functions of planning, coordinating, controlling, executing, monitoring and improving the activities associated with managing its assets.

The Asset Management Framework has three primary components and is illustrated in the figure below.



1. The Asset Management (AM) Policy defines Council's Asset Management objectives.
    a. Council's current AM Policy was last reviewed June 2024.
    b. This report seeks endorsement for a revision of the AM Policy.
2. Asset Management Strategy (AMS): also known as a Strategic Asset Management Plan (SAMP), shows how Council will achieve the objectives of the AM Policy. It is a road map for the delivery of these asset management objectives in accordance with the principles set in the AM Policy. It is to be continually monitored and regularly reviewed, in alignment with the formulation of the Long-Term Financial Plan (LTFP) and the Delivery Program & Operational Plans adopted annually by Council.
    a. The AMS is included within the Resourcing Strategy that has been publicly exhibited across April and May 2025.
3. Asset Management Plans (AMP): further explores the high-level summary contained in the AMS with a detailed analysis of inventory, risk, levels of service and sustainability undertaken. AMPs are developed for all major infrastructure asset classes, grouped by the type of function the assets serve – i.e., community assets or a specific business unit.
    a. This report seeks endorsement for the 2024/25 update of these AMPs

DISCUSSION

In accordance with the IP&R Framework, Asset Management Plans (AMPs) have been prepared for the six primary asset classes of the Wingecarribee Shire Council infrastructure portfolio:

- Transport
- Stormwater
- Buildings (including aquatics)
- Open Spaces

- Water
- Wastewater

The AMPs provide an overview of the current state of play for each asset class and follow a standard structure of:

- *Chapter 1 - Executive Summary*
- *Chapter 2 - Asset Systems and Structures:*
    - Provides an overview of the Asset Planning Framework, the systems and databases utilised and the structure within which it is delivered.
- *Chapter 3 - Our Assets:*
    - Provides an overview of the asset class with the fundamental data of inventory, value and condition. Which enables the reader to answer the basic questions of what Council owns, how much it is worth and what condition it is in.
- *Chapter 4 – Drivers of Level of Service:*
    - this chapter analyses the three basic drivers of the level of service that Council provides through the asset class. The drivers of the level of service are Risk Assessment, Community Satisfaction and Plans and Strategies. It is these three categories that drive the level of service, which is then constrained by funding and available resources.
- *Chapter 5 – Levels of Service*:
    - The level of service that Council provides through the asset class is described within the three categories of: Provision, Renewal, and Maintenance and Operations. These levels of service have been defined to the extent that current systems allow and in accordance with current practices.
- *Chapter 6 – Asset Base Growth*
    - In order to provide an analysis of financial investment required across the planning period, calculation of forecast asset base growth must be completed. Asset base growth is calculated through consideration of the value of the asset class growing as result of new and upgrade projects, assets contributed through development, development contributions plans and indexation, as well as subtracting any known asset disposals.
- *Chapter 7 – Lifecycle Analysis*
    - The current levels of service across the growing asset base are then forecast for the 10-year planning period to provide a recommended level of investment for Asset Renewal, Maintenance and Operations, and Overall Investment. And a comparison/comment is made in relation to how this compares to the Long-Term Financial Plan.
- *Chapter 8 – Improvement Plan*
    - In recognition of Asset Management being a journey of continuous improvement, this chapter summarises the asset management improvements planned for future years.

The structure and content of the AMPs aligns with the requirements outlined in the Integrated Planning and Reporting Guidelines. And it is recognised that they are to be annually reviewed and updated, with improvements made each iteration. The AMPs were first adopted June 2024 and so this marks the first annual update of the documents.

The primary improvements/updates made across the suite of documents are:

- Updated terminology and phrasing, in alignment with that utilised for the AMS
- Improvement Plans updated considering what was achieved in 2024/25 and any adjustments in organisational priorities.
- Planning period for the AMPs updated to 2025/26 to 2034/35
- Results of 2024 Community Satisfaction Survey considered
- Inventory, condition and value data updated
- Table of adopted Plans, Strategies and Masterplans updated.

- Transport AMP
    - Further definition provided on Lower Order Roads
    - Greater clarity provided on Provision Level of Service for roads in Urban Areas
    - Additional detail provided within Maintenance and Operations Level of Service
- Open Spaces AMP and Buildings & Aquatics AMP
    - Forecast dedication of assets from New Living Areas (NLAs) considered within the Asset Base Growth calculations
- Water AMP and Wastewater AMP
    - Estimated condition of underground water and wastewater mains updated through a recalculation of the age-based condition score

ROAD MAINTENANCE POLICY

The Road Maintenance Policy was adopted by the Council on 11 December 2019 and was to be subject to a review by December 2023.

The adoption of a Maintenance Policy for a specific asset category, not even the whole Transport asset class, is not a consistent approach – with this being the sole Maintenance Policy.

Through review of the Policy, it is also observed that there is minimal content of relevance within the Policy, with much of it consisting of general commentary, definitions and governance data.

The items that are of relevance are now fully covered by the Transport Asset Management Plan, which is namely the matters of:

- Prioritising and scheduling maintenance works within available resources
- Implementing suitable treatments to rectify defects and minimise risks
- Development and implementation of a long-term capital works program
- Definition of Lower Order Roads and clarification that maintenance works completed on these roads are to maintain emergency vehicle access, not ride quality.

It is therefore recommended that to avoid duplication with the Transport AMP, the Road Maintenance Policy is repealed.

COUNCIL BUDGET IMPLICATIONS

One theme that is largely consistent across the six AMPs is the inability for asset renewal, maintenance and operational budgets to keep up with asset base growth. This was primarily found to be for two reasons:

1. Asset base growth exceeds the rate peg
2. Funding models are not being structured for asset renewal to align with asset depreciation, nor for the maintenance budgets to increase in line with asset base growth.

This will result in a steady lowering of levels of service and will prevent assets from reaching their desired useful life - which in turn increases renewal expenditure requirements.

Potential solutions to these concerns will be investigated across 2025/26 in accordance with the proposed Delivery Plan Action 5.1.1:

5.1.1 DP1 - Assess Council's financial sustainability and service delivery needs, including an evaluation of the case for a potential Special Rate Variation (SRV)

For which the proposed 2025/26 Operational Plan Actions are:

5.1.1.1 OP1 - Develop and implement community engagement planning to raise awareness of Council's financial position and potential funding options (including SRV)

5.1.1.2 OP2 - Undertake Water Services Revenue Model review to ensure financial sustainability of the water and sewer funds

LINK TO STRATEGY

This report relates to the Wingecarribee 2035 Community Strategic Plan Outcome and Strategy:

Our Places

Outcome - 2.3 We have the services and facilities we need to live and work here

Strategy - 2.3.3. Provide reliable and resilient infrastructure

Indicator - Access to roads and public transport index

Asset Management Plans are the foundation of the Asset Planning Framework – which is the process through which the sustainable provision of infrastructure to our community can be assured.

ATTACHMENTS

1. Asset Management Plan - Transport [**9.5.1** - 46 pages]
2. Asset Management Plan - Stormwater [**9.5.2** - 37 pages]
3. Asset Management Plan - Buildings & Aquatics [**9.5.3** - 36 pages]
4. Asset Management Plan - Open Spaces [**9.5.4** - 36 pages]
5. Asset Management Plan - Wastewater [**9.5.5** - 37 pages]
6. Asset Management Plan - Water [**9.5.6** - 39 pages]
7. wsc-road-maintenance-policy-v 1 [**9.5.7** - 4 pages]

Wingecarribee
SHIRE COUNCIL

Asset Management Plan – Transport

We're with you

WINGECARRIBEE SHIRE COUNCIL

Document Name	Asset Management Plan - Transport
Version No.	2
Council File Reference	Document Set ID 5484378
Adoption Date	TBC
Resolution Number	MN 2024/201
Document Owner	Manager Assets
Responsible Branch	Assets
Responsible Business Unit	Assets Roads and Drainage
Review Schedule	Annually
Review Date	26 June 2026

Version	Adoption Date	Notes
1	26 June 2024	First version of Asset Management Plan - Transport
2	TBC	2024/25 Update

Contents

1 Executive Summary

This Asset Management Plan (AMP) is part of a suite of Portfolio AMPs, which together sit under the Asset Management Strategy (AMS). It is to be read in conjunction with the AMS and Four Year Capital Works Program.

This AMP provides an overarching document of Council's management of, and investment in, the Transport Asset Class over a 10-year planning period.

Council manages a transport asset class of over 1,300km of roads plus other assets across a broad range of asset categories worth a combined $1.4B.

The level of service that Council provides through this asset class can be described within the three categories of: Provision, Renewal, and Maintenance and Operations. What Council delivers through these levels of service are driven by consideration of: Risk Management, Community Satisfaction and Strategies and Masterplans. But is constrained by funding and availability of resourcing.

Upon review of the survey results, it is evident that community satisfaction continues to decline in relation to condition of local roads and management of local traffic. There is a significant 59% performance gap in relation to roads – which continues to be the largest performance gap by a margin for past 5 years.

Given the continued decline in satisfaction, further improvements in road renewal, maintenance and management are planned for future years.

In order to provide an analysis of financial investment required across the planning period, calculation of forecast asset base growth must be completed. Asset base growth is calculated through consideration of the value of the asset class growing as result of new and upgrade projects, assets contributed through development, development contributions plans and indexation, as well as subtracting any known asset disposals.

It is forecast that across the planning period the asset base will grow by $217M.

To maintain existing renewal and maintenance service levels, an investment of $159M $133M respectively is required across the life of the plan. However it must be noted that this will only maintain current service levels across the growing asset base. Delivering the significant service level increase desired by the community through the continued dissatisfaction results, requires the allocation of additional funds which are beyond the capacity of the Long Term Financial Plan.

Asset management is a journey of continuous improvement, and so the AMP concludes with a concise Improvement Plan detailing the asset management maturity tasks programmed for the years ahead.

2 Asset Systems and Structures

2.1 Asset Planning Framework

Council's Asset Management Planning Framework is a critical part of the wider Integrated Planning and Reporting (IP&R) Framework used across all NSW local governments. It provides a structured and consistent approach to planning, delivering, maintaining and renewing Council's infrastructure assets.

The Framework ensures Council can make informed decisions and perform the key functions of asset management — including planning, coordinating, operating, maintaining, monitoring and improving the infrastructure services our community relies on every day. The structure of Council's Asset Management Framework is shown in Figure 1.

Council's Asset Management Framework consists of three key components:

1. Asset Management (AM) Policy:

The Asset Management Policy sets Council's overarching commitment and objectives for how we manage infrastructure. It outlines the principles that guide decision-making and establishes our focus on responsible, sustainable and risk-aware asset stewardship.

2. Asset Management Strategy (AMS):

This Strategy provides the roadmap for achieving the goals outlined in the Asset Management Policy. It aligns with the Long-Term Financial Plan 2025–2035 and the Delivery Program 2025–2029 to ensure our asset investments and service levels are sustainable and community-informed.

The Strategy is reviewed regularly to remain relevant and responsive. Specific works and activities arising from this Strategy are included in Council's Operational Plan and Annual Budget.

3. Asset Management Plans (AMP):

Asset Management Plans translate the strategic direction of this Strategy into detailed actions for each major asset class. These plans provide a deeper analysis of:

- Asset condition and inventory
- Levels of service
- Risks and renewal priorities
- Financial sustainability over the asset lifecycle

AMP's are developed for both community assets and business unit assets, grouped by the type of function the assets serve:

a) Community assets
   i) Transport (roads, bridges, footpaths)
   ii) Stormwater
   iii) Buildings and Aquatic facilities
   iv) Open Space and Recreation
   v) Water

vi) Wastewater

b) Business units

i) Cemeteries

ii) Resource Recovery Centre (RRC)

iii) Southern Regional Livestock Exchange (SRLX)

AMP's are regularly reviewed to ensure they continue to meet the service needs of the community and reflect changing conditions. These reviews are informed by community consultation and engagement. AMP's also act as core inputs into Council's Long-Term Financial Plan, helping to shape future budgets and investment decisions.

All adopted AMPs are available on Council's Asset Management Planning page at https://www.wsc.nsw.gov.au/Residents/Asset-Management-Planning

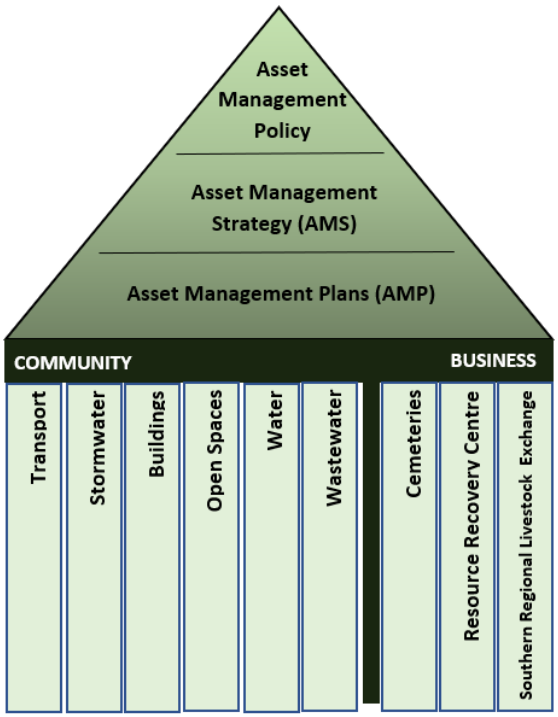


Figure 1: Asset management Planning Framework

2.2 Asset Planning Systems

Effective asset planning relies on accurate, integrated and up-to-date data. Council uses several systems and databases to support asset management planning, service delivery and reporting. These tools enable staff to maintain reliable asset information, assess risks, model future scenarios and plan capital investment.

Table 1 summarises the core systems currently use across Council for asset planning and management:

System	Description
Conquest	Asset register – inventory, condition and attribute data
ArcGIS	Geographic Information System – maps and spatial asset data
Technology One – Finance	Manages budgets, purchase orders and expenditure
Technology One – Enterprise Content Management (ECM)	Enterprise Content Management – document and record keeping
Technology One – Customer Request Management (CRM)	Customer Request Management – workflows for customer enquiries and requests
Pulse – Project Management	Project management – scoping, planning and delivery of capital projects
Infoworks WS Pro and ICM	Water and wastewater network modelling software

Table 1: Asset Planning Systems

As part of Council's ongoing digital transformation, several new Technology One modules are being implemented to streamline workflows, improve integration across teams, and reduce manual processes.

During 2025–2026, the following upgrades will be rolled out:

- Asset Register: This module will replace Conquest and become Council's single source of truth for asset inventory, condition and attribute data. It will integrate with Finance through the creation of Asset Books, eliminating the need for manual reconciliation
- Strategic Assets: An advanced modelling tool that connects with the Asset Register. It enables future condition forecasting based on varying levels of investment and supports long-term scenario planning
- Works Management: This module will support field-based delivery teams by enabling integrated work orders. It will fully align with the Asset Register and Finance systems to provide seamless job tracking and cost control

These improvements will help Council make better-informed decisions, plan more proactively, and improve the efficiency of asset lifecycle management.

2.3 Organisational Structure

Wingecarribee Shire Council uses a collaborative, whole-of-organisation approach to asset management.

Asset planning and network-level planning functions are centralised within Council's Asset Branch, which sits under the Service and Project Delivery Directorate. This structure ensures a coordinated and strategic approach to infrastructure planning and lifecycle decision-making.

Meanwhile, the day-to-day operations, maintenance and capital project delivery functions are primarily managed through three key teams:

1) Shire Presentation
2) Water Services
3) Project Delivery

These assets are used to support a wide range of services across the community — from libraries and aquatics to depots and the visitor information centre. Each of these services is overseen by a Service Manager, who is accountable for delivering the function to the community.

To ensure services meet the needs and expectations of our community, Council integrates asset planning and delivery with service design. This is achieved through close collaboration between the Asset Branch, Project Delivery teams and each relevant Service Manager.

Together, these teams work to ensure that infrastructure is planned, funded and maintained in ways that:

- Deliver on service objectives
- Maximise asset performance and lifespan
- Respond to community priorities and satisfaction

Service Manager	Asset / Facility
Manager Community Life and Libraries	Libraries
Manager Waste and Resource Recovery	Resource Recovery Centre
Manager Business and Property	Southern Regional Livestock Exchange
	Southern Highlands Visitor Information Centre
	Bowral Memorial Hall
	Aquatics Portfolio
Manager Water Services	Mittagong Works Depot
Manager Shire Presentation	Moss Vale Works Depot

Table 2 - Service Managers

The below figures detail the organisational structure relationship between Assets and the Delivery branches within the Project Delivery Directorate, as well as that of the Roads and Drainage Assets Team.

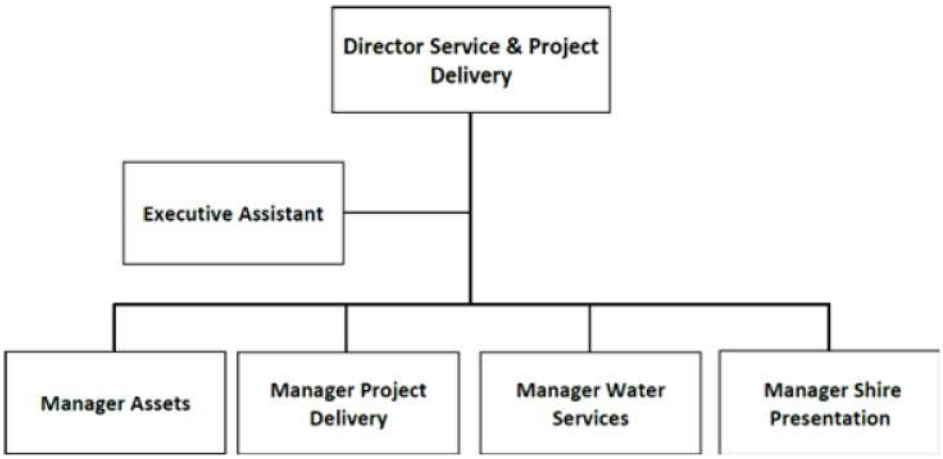


Figure 2: Service and Project Delivery Directorate

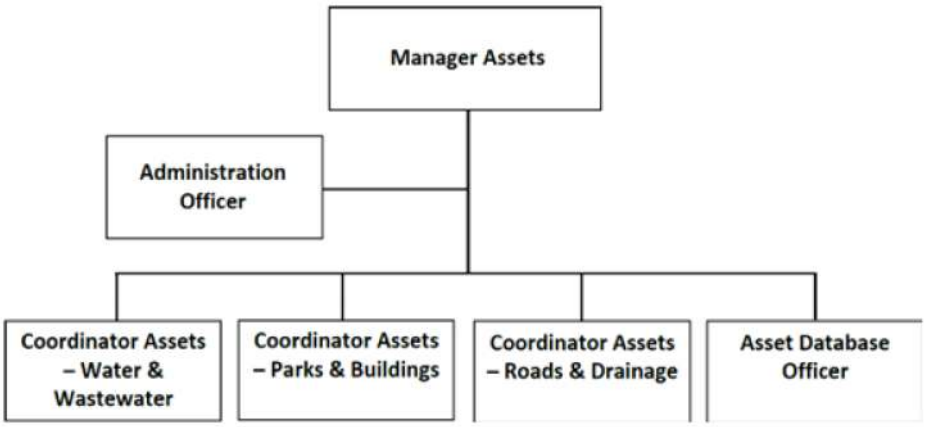


Figure 3: Assets Team Structure

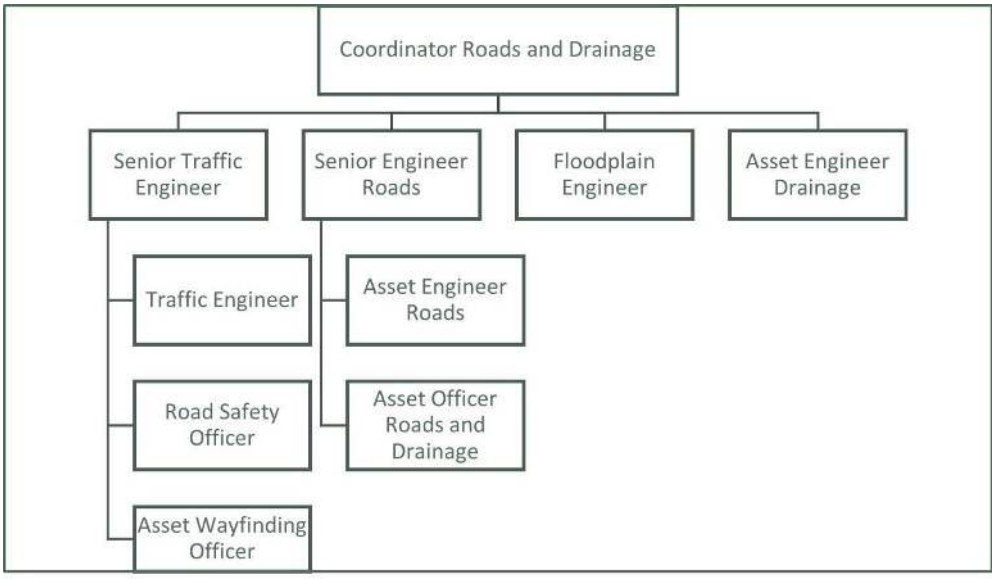


Figure 4: Roads and Drainage Team Structure

3 Our Assets

3.1 Overall Inventory

A summary of the asset types contained in the Transport asset class, valued at over $1.1B, and the amount of assets stored in the register is shown in the table below.

Category	Subcategory		Amount	UoM	Value ($)
Roads	Local Roads	Sealed	822	Km	$685,482,223
		Unsealed	265	Km	$117,570,348
		Lower Order Roads	42	Km	-
	Regional Roads	Sealed	103	km	$111,309,782
		Unsealed	28	km	$13,905,301
	Shoulders (State Roads)		16	km	8,242,138
Fire Trails	Strategic Trails		30	km	-
	Tactical Trails		32	km	-
	Management Trails		19	km	-
Carparks	Carparks		70458	m2	$9,528,507
Bridges	Bridges		59	item	$50,589,927
	Footpath Bridges		13	item	$2,481,086
Footpaths	Cycle paths		35	km	$16,732,618
	Footpaths		119	km	$37,217,828
Kerb and Gutter	Kerb and Gutter		457	km	$63,851,028
Traffic Facilities	Crash Barriers		31	km	$6,696,052
	Kerb Extensions (Necking)		69	km	$426,231
	Medians		55	item	$2,594,697
	Pedestrian Refuges		22	item	$752,997
	Road Crossings		16	item	$269,073
	Roundabouts		50	item	$3,213,039
	Thresholds		104	item	$3,875,515
	Traffic Islands		38	item	$411,742
Street Furniture	Bus Shelters		99	item	$1,475,593

	Litter Bins	107	item	$139,227
	Signs	10083	item	$3,933,710
	Street Seats	101		$210,273

We maintain our asset register through a combination of proactive inspections, project-related updates and external contributions.

Key processes include:

- Newly constructed assets: Assets are added to the register following delivery by Council capital works or dedication through subdivision development.
- Ad-hoc inspections: Triggered by internal requests, customer feedback or during project scoping phases.
- Scheduled inspections: All assets are included in a structured inspection schedule. Inspection frequency is based on the asset's rate of deterioration, cost to inspect, and potential consequences of failure.

All assets are valued in line with Australian Accounting Standards, with a comprehensive revaluation undertaken for each asset class at least every five years.

In years where a full revaluation is not scheduled, Council conducts an annual fair value assessment across all asset classes. If a material change in value is detected, the relevant classes are indexed using industry-recognised methods.

A comprehensive valuation for Transport assets was performed in the financial year 2023/24. The comprehensive valuation is therefore scheduled for financial year 2028/29.

Figure below shows the current estimated value of the asset class, broken down by asset category.

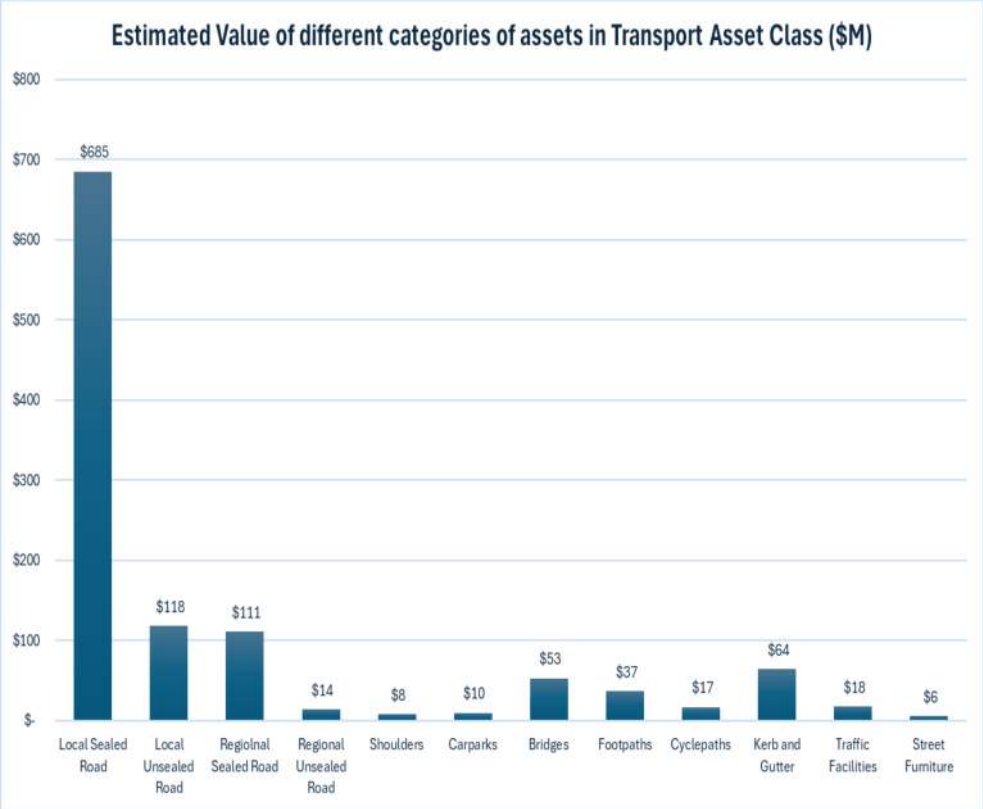


Figure 5: Value of Transport Assets

Given the high value of the road assets, they will be further explored in Section 3.3.

3.2 Overall Condition

Council regularly assesses the condition of its assets to help plan maintenance, renewal and capital works programs. These assessments form part of a rolling inspection schedule across the entire asset network.

Condition assessments are undertaken in line with industry standards, using guidelines developed by the Institute of Public Works Engineering Australasia (IPWEA). These assessments are used to:

- Track asset performance over time
- Identify assets approaching failure
- Inform risk management and lifecycle planning
- Support annual budgeting and long-term financial modelling

Council uses a standardised 5-point rating system:

1. As new / Excellent
2. Good / Satisfactory
3. Fair / Tolerable
4. Poor / Intolerable
5. Very Poor / Reconstruction required

Asset condition by asset count and value is shown below in Figures 7 and 8. The average condition for each asset class is contained in Table 4

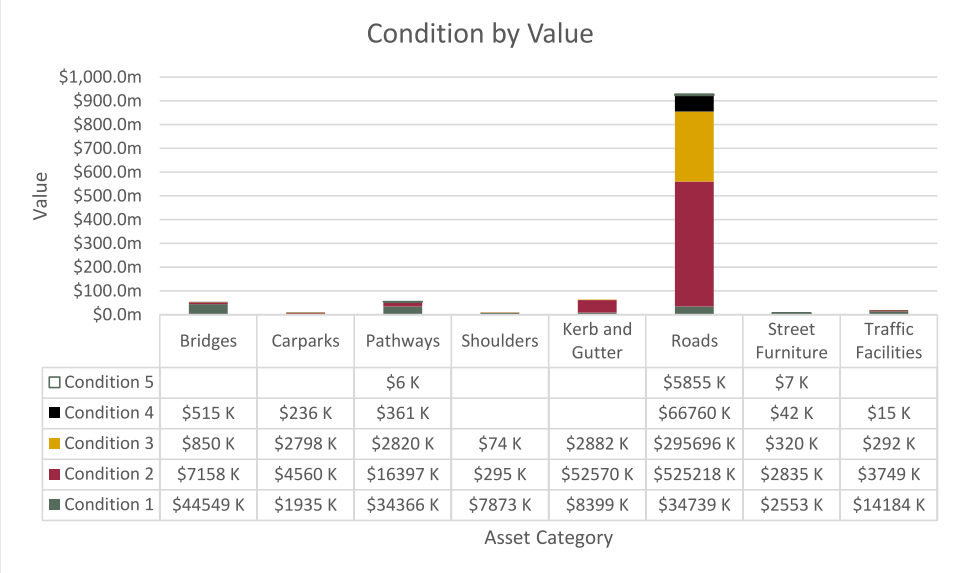


Figure 6: Condition by Value of Transport Assets

It is noted in some of the above charts that there is a condition series that is blank. The condition for these assets in not currently stored within Council's Asset Register due to how recently the inspections were conducted. This includes assets such bridges, crash barriers, road pavements and road shoulders, for a total of 1,303 assets. The recognition and updating of these assets will be listed as a step in the Improvement plan in Section 8.

Asset Category			Average Condition
Bridges			1.27
Carparks			2.17
Footpaths			1.20
Kerb and Gutter			1.80
Roads - Categorised	Sealed Roads	Surface	2.33
		Pavement	2.52
		Earthworks	2.00

	Unsealed Roads	Surface	2.63
		Pavement	2.57
		Earthworks	2.00
Roads – Sub Total			*2.37*
Street Furniture			1.66
Traffic Facilities			1.50
Grand Total			**1.96**

Table 3: Average Condition of Asset Categories in Transport Asset Class

The above table contains the average condition of all asset categories in the transport asset class. Due to the size of the road category, that has been categorised in to sealed and unsealed roads, then componentised into wearing surface, pavement, and earthworks layers. Due to the non-depreciable nature of road earthworks, that category is assigned a condition rating of two, and will not deteriorate.

3.3 Road Inventory & Segmentation

The Transport asset class is the largest of the entire asset base of the Wingecarribee Shire, accounting for 45% of the entire asset base. Within this, the road asset category is the largest in the Transport asset class, with 82% of the asset class value.

This aligns with the nature of the Wingecarribee Shire area, in that the magnitude of a council's road asset base corresponds to the size of the LGA, and parks and buildings relate to the size of population.

Council manages a network of 1,200km of roads – which equates to the distance from Moss Vale NSW to Gympie QLD. The road network is comprised of 800km sealed, 120km asphalt and 270km unsealed roads. These roads carry approximately 1/3 of the value of the entire Council asset base.

To enable effective management of the 1,200km road network, the roads are not treated as one single asset but are instead broken up into smaller assets (or segments). The segmentation of the Wingecarribee road network is primarily done with a segment from intersection to intersection. This works well for the urban areas where there are frequent intersections, however some rural roads or connector type roads can have long distances between intersections and so they will at times be segmented between an intersection.

Council's asset register therefore breaks the road network down into 2,737 segments, with some of the statistics being:

- Shortest segment = 33 metres
- Longest segment = 5.8 kilometres
- Average segment length = 486 metres
- Median segment length = 271 metres

Although intersection to intersection segmentation is an industry standard approach and works well with urban areas, it can result in overly long segments for some rural or collector type roads – examples being Wombeyan Caves, Belanglo Road and Meryla Road which each have multi-kilometre long segments.

As part of a future asset management maturity action, re-segmentation of the road network to align with the following segmentation rules is intended for completion in 2026.

- Intersection to intersection
    - If resultant segment is greater than 800m, than it will be further segmented such that no segment is less than 200m nor greater than 800m.

The re-segmentation of the road network is a significant undertaking primarily due to the financial movements required – with each re-segmented road needing to first be written off and new assets created and capitalised.

3.4 Road Condition

In order to better understand the condition of the road network, industry experts Infrastructure Management Group (IMG) were engaged in 2023 to complete an inspection of the full road network.

The road network audit produced two primary outputs:

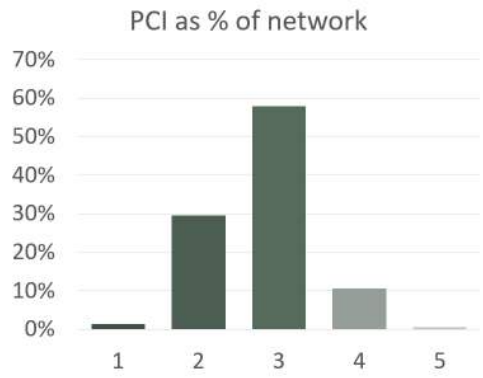
1. Defect data
    - Captured at 20m sub-intervals
2. Surface Condition (SCI) and Pavement Condition (PCI) scores (1 = good, 5 = bad)
    - Calculated per segment using the sub-interval defect data

The SCI and PCI are utilised to determine the capital renewal programs for the resealing, asphalting and pavement rehabilitation of road segments.

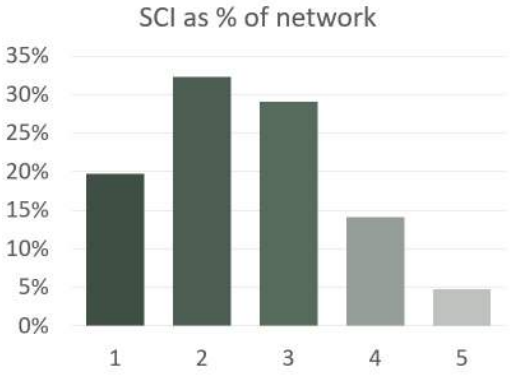
It is recognised that when considering an overall segment, if there are some poor condition sections but the majority of the segment is in good condition – then the resulting SCI and PCI will be reflecting the overall average condition, not that solely of the poor sections.

To overcome this, the sub-interval defect data is analysed to identify poor condition sub-intervals that will not be actioned through the resealing, asphalting and pavement rehabilitation program (likely because the remainder of the segment is in satisfactory condition). These isolated sub-intervals are then actioned through either proactive maintenance works or the annual capital heavy patching program.

The following tables provide a summary of the resultant Pavement Condition Index (PCI) and Surface Condition Index (SCI) scores and this data was also reported to the Ordinary Council Meeting 17 April 2024.



PCI	%	Km
1	1.3%	16 km
2	29.6%	352 km
3	57.9%	690 km
4	10.6%	126 km
5	0.6%	7 km



SCI	%	Km
1	19.8%	181 km
2	32.3%	295 km
3	29.1%	266 km
4	14.1%	129 km
5	4.8%	44 km

These resulting condition scores were a significant downward shift from those previously held with Council's asset register. It is understood that the updated condition scoring is reflective of the damaging weather conditions since the previous 2019 condition audit and is also a more accurate, and reality reflecting, condition determination exercise.

Over the past five years, the Wingecarribee road network has endured a series of extreme weather events, making the Shire the unfortunate holder of the highest number of natural disaster declarations since 2019–20, totalling 16, with the most recent occurring in January 2025.

These disasters have inflicted nearly $40 million in direct damage to the local road network, with recovery efforts currently progressing through the Disaster Recovery Funding Arrangements (DRFA) program, administered by State and Federal Governments. However, it is important to note that $13.5 million in funding remains pending approval.

Beyond direct damage, the frequent extreme weather events have also caused significant indirect impacts. Although it no obvious damage or defects can be attributed to the disaster events —making it ineligible for DRFA claims — the heavy rainfall will have inevitably

accelerated the natural wear and deterioration of the road network. As a result, road surfaces and pavement assets will require renewal at a higher frequency than would otherwise be necessary.

It is therefore intended that, following resegmentation of the road network, another condition audit for the road network is to be completed across the 2026 winter period.

3.5 Roads and Potential Asbestos Contamination

Following Council's findings in 2012 that a number of roads had been treated with a material containing suspected asbestos fragments, a thorough investigation was undertaken by an independent asbestos specialist including visual inspections, air quality monitoring and risk assessments.

Through collaboration with Environmental Protection Agency (EPA), Department of Health and WorkCover NSW, Council prepared an Asbestos Management Plan for the roads which was approved by the EPA February 2013 and is available on the Council website.

The asbestos management plan identified an appropriate treatment for the 36 roads that were either found to, suspected to, contain asbestos contaminated material. As well as dictating an ongoing maintenance requirement for six monthly inspections.

The following table provides a summary of the treatment identified for the road segments.

Road Segment	Suburb	Road Length (km)	Fragments Identified	Initial Treatment	Inspections
Walkers Lane	Avoca	1.34	0		Six Monthly
Scarlett Street (2nd rh bend to Clariville St)	Balaclava	0.54	4	Sealed	Six Monthly
Beresford Street (end Bitumen-Balaclava Rd)	Balaclava	0.13	0		Six Monthly
Birchalls Lane (Old Mandemar Rd-end of road)	Berrima	2.00	0		Six Monthly
Nathan Street (all)	Berrima	0.98	0		Six Monthly
Parry Drive (all)	Bowral	0.71	2	Sealed	Six Monthly
MR258 Wombeyan Caves Rd (Bullio gate - 1st c/way past tower)	Bullio	2.21	0		Six Monthly
Ferndale Road (end bitumen-Old Argyle Rd)	Bundanoon	2.69	2	Sealed	Six Monthly
Ellsmore Road (end of bitumen-Morgans Rd)	Bundanoon	1.47	0		Six Monthly
Hayman Road (all)	Bundanoon	0.67	0		Six Monthly
Quarry Road (end of seal-Ferndale)	Bundanoon	0.50	0		Six Monthly
Quarry Road (part of Penrose Rd-end of seal)	Bundanoon	0.21	0		Six Monthly

Barrett Street (Mcgraths rd to end)	Burrawang	0.49	3	Sealed	Six Monthly
East Parade (Wilson Drive-shire boundary)	Buxton	1.01	9	Sealed	Six Monthly
Foxgrove Road (1010m past c/Leigh Rd-end of road)	Canyonleigh	2.32	0		Six Monthly
Old Argyle road (end of bitumen-ferndale rd - part of)	Exeter	2.00	1	Gravel Resheet	Six Monthly
Ryans Lane (end of bitumen-end of road)	Fitzroy Falls	0.63	1	Gravel Resheet	Six Monthly
MR258 Wombeyan Caves rd (end bitumen-1st concrete c/way	Goodman Ford	4.83	0		Six Monthly
High Range Lane (Wombeyan Caves Rd-end of road)	High Range	1.32	0		Six Monthly
MR258 Wombeyan Caves Rd (360m from yabbamore-cos/stockpile)	High Range	1.20	0		Six Monthly
Brookdale Road (Berrima Rd-Berrima Rd)	Medway	1.29	7	Gravel Resheet	Six Monthly
Liebmans Road	Medway	0.62	3	Gravel Resheet	Six Monthly
Broughton Street (Caber st to end)	Medway	0.56	3	Gravel Resheet	Six Monthly
Carribee Road (end bitumen-end of road)	Medway	0.58	2	Gravel Resheet	Six Monthly
Australia Avenue (old hume hwy-burwan st)	New Berrima	0.66	14	Gravel Resheet	Six Monthly
Yeola Road	Robertson	1.90	20	Sealed	Six Monthly
Vandenbergh Road	Robertson	1.50	19	Sealed	Six Monthly
Lees Road (Jamberoo Rd-end of rd)	Robertson	1.82	11	Sealed	Six Monthly
McEvilly Road (top of hill to road to left)	Robertson	0.60	14	Gravel Resheet	Six Monthly
Fountaindale Road	Robertson	1.07	9	Gravel Resheet	Six Monthly
Belmore Falls Road (Pearsons Ln to Burrawang Creek)	Robertson	3.39	0		Six Monthly
Allambie Road (Old Hume Hwy-start bitumen)	Welby	0.49	0		Six Monthly
Kells Creek Rd (end Bitumen-Spring Hill Rd)	Welby	2.33	0		Six Monthly

Gatehouse Lane	Werai	0.38	0		Six Monthly
Cordeaux Street (end of bitumen to end of rd)	Willow Vale	0.16	0		Six Monthly
Davys Lane (Murrimba Rd-unformed section)	Wingello	0.17	7	Sealed	Six Monthly

3.6 Crown Roads

Crown land is land that is owned and managed by the NSW Government. It accounts for approximately half of all land in New South Wales and carries special provisions.

The origin of Crown land is from when European settlement began in 1788, Governor Phillip claimed possession of the land for a penal colony on behalf of the British Government. All lands were vested in the name of the Crown, hence the name Crown lands. Over the subsequent years, the management and sale/granting of Crown land has been governed by a range of Federal and State Acts, with the current legislation for the administration of Crown lands being the Crown Land Management Act 2016 and Roads Act 1993.

There are several types of Crown land including, but not limited to, reserves, cemeteries and Crown roads.

The NSW Government Crown Lands website provides the following description of Crown roads:

- Crown or 'paper' roads were established during the settlement of NSW and are part of the state's public road network.
- Generally, Crown public roads provide access to freehold and leasehold land where little or no subdivision has occurred since the original Crown subdivision of NSW in the early nineteenth century.
- Most Crown roads are found in rural areas and many have never been constructed, so they are called 'paper roads'. They are managed under the Roads Act 1993.

The Roads Act 1993, Clauses 152A to 152J, provides specific functions for the administration of Crown roads – the most pertinent being Clause 152I:

- 152I Transfer of Crown road to roads authority
  - The roads authority may, by order published in the Gazette, transfer a specified Crown road to another roads authority
  - On the publication of the order, the road ceases to be a Crown road
  - An order transferring a Crown road to TfNSW may not be made except with the consent of TfNSW.

It is therefore at the discretion of Crown Lands as to if they wish to transfer a Crown Road to Council.

3.7 Lower Order Roads

A lower order road is defined as a road that does not have gravel paving but has been simply formed using a grader so that storm water will drain off laterally. It can also be

defined as a road with no geometry that has just been cleared and open to use by the public – essentially being no more than a formed track.

Lower order roads have low access to residential properties, minimal commercial use and are generally not through roads.

Across the Shire, Council has identified a portfolio of 42km of lower order roads across 115 segments.

Given they do not feature engineered surface or pavement layers, there is no financial value attributed to a lower order road – nor are there any asset renewal works planned for these roads.

Maintenance works along these roads do not include consideration of ride quality but instead focused on maintaining emergency vehicle access where possible.

4 Drivers of Level of Service

Council's Levels of Service (LoS) define the standard at which assets are provided, maintained, renewed and operated. These levels determine how often assets are inspected, how quickly they are repaired, and how long they are expected to last.

While Levels of Service are shaped by available funding and staff resources, they are primarily driven by three key factors:

- Risk Management
- Community Satisfaction
- Strategies and Masterplans

4.1 Risk Management

Risk is the potential impact of uncertainty on Council's ability to meet its objectives. Council uses a structured approach to identify, monitor and respond to risks across its asset portfolio.

The risk assessment will identify potential hazards and select a treatment option to be implemented to control the generated risk. The resultant treatments will primarily fall within the categories of ensuring compliance with regulations and standards, adhering to a regime of systemic inspections, committing to a program of upgrades and ensuring proactive and reactive maintenance is completed.

This Risk Assessment will cover generic hazards that are typical across the entire asset network, however it also provides a closer analysis of Critical Assets where appropriate.

4.1.1 Critical Assets

Critical assets are those that have a high consequence of failure in terms of community impact. By identifying critical assets and failure modes, an organisation can ensure that condition inspection programs, maintenance and capital expenditure plans are targeted to ensure that the risk of critical asset failure is minimised.

The critical road assets have been separated into three categories, high criticality bridges, other bridges, and regional roads. A list of critical Transport assets is tabulated below:

Status	Road	Creek
High Criticality bridges (no secondary route available)	Greenhills Rd	Lutwyche Creek
	Redhills Road	Unnamed Creek
	Meryla Road	Bundanoon Creek
	Meryla Road	Gunrock Creek
	Meryla Road	Ritters Creek
	Scarlet Street	Unnamed Creek
	Sproules Lane	Wingecarribee River
	Diamonds Field Road	Diamonds Field Creek
Other bridges (secondary route available, may cause a significant detour)	All other bridges	

Regional Roads (significant roads that link Council's local roads to the state road network)	MR264 – Jamberoo Mountain Road
	MR569 – Bundanoon Road
	MR372 – Taylor Ave/Berrima Road
	MR7639 – Station St
	MR258 – Wombeyan Caves Road
	MR7635 – Wilson Drive
	MR645 – Old Hume Highway (New Berrima to Medway)
	MR7636 – Penrose Road
Local Roads (High traffic, Council owned roads that provide economic benefits, or act as a direct route between State and Regional Roads)	Old South Road
	Eridge Park Road
	Old Hume Highway
	Old Bowral Road
	Lyell Street
	Cavendish Street
	Greenhills Road
	Myra Vale Road
	Pearsons Lane

Table 4: Critical transport Assets

4.1.2 Risk Assessment Framework

The below risk matrix categories the risk that Council is exposed to, depending on the consequence, and the likelihood the risk.

Risk (R) Matrix		**Consequence (C)**				
		Severe	**Major**	**Moderate**	**Minor**	**Insignificant**
Likelihood (L)	**Almost Certain**	Extreme	Extreme	High	High	Moderate
	Likely	Extreme	Extreme	High	Moderate	Moderate
	Possible	Extreme	High	Moderate	Moderate	Low
	Unlikely	High	High	Moderate	Low	Insignificant
	Rare	High	Moderate	Low	Insignificant	Insignificant

Table 5 - Risk Assessment Framework

4.1.3 Risk Assessment

Risk	Hazard	Inherent Risk			Treatment	Residual Risk			Implementation Status	Branch Responsibility	Level of Service
		C	L	R		C	L	R			
Personal injury	Deteriorated or poor quality: Footpaths	MOD	LIK	H	Undertake proactive network inspections.	MOD	RAR	L	Future	Assets	Operations
					Reactive maintenance of paths through CRM and Work order system (e.g., grinding of trip hazards)				Current	Shire Presentation	Maintenance
					Review Subdivision DAs and CCs to ensure satisfactory design methodology and adjacent tree plantings are suitable to prevent the increased likelihood of trip hazards.				Future	Assets	Provision
					Prioritised renewal of poor condition paths.				Current	Assets	Renewal
	Deteriorated or poor quality: Sealed Roads	MOD	POS	M	Undertake proactive network inspections.	MOD	RAR	L	Future	Assets	Operations
					Reactive maintenance of sealed roads through CRM system (e.g., pothole repair)				Current	Shire Presentation	Maintenance
					Allocate Block grant funding to repair poor condition segments of regional roads, managing the critical asset.				Current	Assets	Renewal
					Prioritised renewal of poor condition road wearing surfaces and pavements.				Current	Assets	Renewal
	Deteriorated or poor quality: Unsealed Roads.	MOD	POS	M	Undertake proactive network inspections.	MOD	RAR	L	Future	Assets	Operations
					Reactive maintenance of unsealed roads through CRM system (e.g., maintenance grading)				Current	Shire Presentation	Maintenance
					Prioritised renewal of poor condition unsealed pavements in conjunction with the Shire Presentation team.				Current	Assets	Renewal
	Deteriorated or poor quality: Bridges	MOD	UNL	M	Undertake proactive network inspections.	MOD	RAR	L	Future	Assets	Operations
					Undertake level 3 bridge inspections on bridges with defects to ensure the asset can carry heavy vehicles. Implement load limits if not.				Current	Assets	Operation
					Reactive maintenance through Council's CRM system				Current	Shire Presentation	Maintenance

Risk	Hazard	Inherent Risk			Treatment	Residual Risk			Implementation Status	Branch Responsibility	Level of Service
		C	L	R		C	L	R			
					Undertake quarterly inspections of high criticality bridges.				Future	Assets	Operation
					Development of an annual bridge refurbishment program				Current	Assets	Maintenance

Table 6: Risk assessment for Transport Assets

Further development of Council's strategic and operational risk management assessments is identified as an improvement action in Section 8.

4.2 Community Satisfaction

Service levels are also informed by what the community expects, needs and values. We regularly consult with the community — through engagement programs, surveys, and feedback channels — to understand:

- What services are most important
- Where performance gaps exist
- Where improvements are needed

This feedback helps guide investment decisions and supports transparency around service trade-offs.

As part of our performance monitoring, a Community Satisfaction Survey is conducted that asks residents to rate both the importance and satisfaction of Council services and facilities on a five-point scale (1 = low, 5 = high). The 2024 Performance Gap is the difference between community importance and community satisfaction.

The most recent survey was undertaken in 2024, with previous years' results provided for comparison.

The table below presents the results that relate specifically to this Asset Management Plan.

Council Service	Importance				Satisfaction				2024 Performance Gap
	2019	2021	2022	2024	2019	2021	2022	2024	
Condition of Local Roads	4.61	4.72	4.67	4.48	2.27	1.98	1.53	1.51	59%
Provision and quality of footpaths	4.32	4.37	4.31	4.15	2.64	2.67	2.73	2.8	27%
Local Traffic Management	4.32	4.44	4.35	4.21	2.79	2.7	2.86	2.56	33%

Table 7: Comparison of Importance and Satisfaction in Council Transport services.

The 2024 Community Satisfaction Survey revealed several key trends across Council's major asset classes. These results help guide service reviews, prioritise investment, and identify where performance gaps exist between community expectations and current service delivery.

Upon review of the survey results, it is evident that community satisfaction continues to decline in relation to condition of local roads and management of local traffic. There is a significant 59% performance gap in relation to roads – which continues to be the largest performance gap by a margin for past 5 years.

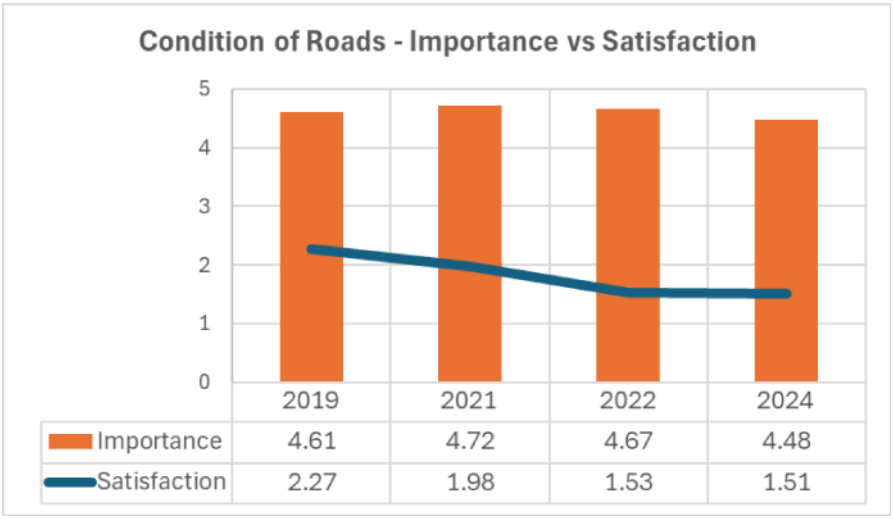


Figure 7 - Satisfaction with Condition of Roads

Given the continued decline in satisfaction, further improvements in road renewal, maintenance and management are planned for future years.

4.3 Strategies and Masterplans

The third key driver of service levels is Council's suite of adopted strategies and masterplans.

These documents help ensure that Council's planning, delivery and maintenance of infrastructure is strategic, coordinated, and responsive to community needs. They are developed in consultation with the community and provide clear direction for how specific asset types — or assets in specific locations — should be managed.

Each strategy or masterplan directly informs one or more Levels of Service by:

- Setting future directions or standards for service provision
- Prioritising improvements in specific locations
- Aligning asset management with broader community goals and legislative requirements

A list of strategies and masterplans that impact the levels of service for the Buildings & Aquatics asset class is provided in the table below.

Plan	Town covered by plan	Level of Service
Wingecarribee Integrated Transport Plan	Shire-wide	Provision
Town Centre Masterplans	Bowral	Provision
	Mittagong	Provision
	Moss Vale	Provision
Pedestrian Access and Mobility Plans (PAMPs)	Bowral	Provision
	Mittagong	Provision

	Moss Vale	Provision
	Villages	Provision
Robertson Place Plan	Robertson	Provision
Asbestos Management Plan	Various	Renewal and Maintenance & Operations
Bicycle Strategy	LGA wide	Provision
Disability Inclusion Action Plan 2022-2026	LGA wide	Provision and Renewal

Table 8: Strategic plans and Masterplans

The above strategies and masterplans can be found on Council's website.

5 Levels of Service

Council defines its Levels of Service (LoS) across three key components:

- Provision – What assets Council provides, where, and how much
- Renewal – How frequently assets are replaced at the end of their useful life
- Maintenance and Operations – How assets are maintained to ensure safety, function and longevity

These components are interdependent — changing one may impact the others. For example, delaying renewal may increase maintenance needs, while expanding asset provision will create additional operational costs

5.1 Provision Level of Service (LoS)

Provision LoS refers to the number, type and location of assets Council provides across the Shire.

Council's currently provides over $1.1B of Transport assets to provide services for the community.

The level of provision is not consistent across all areas. This is due to changes in planning and engineering standards over time. Assets in newer subdivisions are delivered under current design standards, while older areas reflect the requirements of past eras.

The Provision LoS for new development is shaped by several guiding documents:

- Local Environmental Plan (LEP)
- Development Control Plan (DCP)
- Engineering Design and Construction Specifications
- Developer Contribution and Servicing Plans
- Relevant strategies and masterplans (refer to Table 8 in Section 4.3)

While consistency across the Shire is a long-term challenge, Council continues to pursue a more equitable and contemporary provision standard over time. This work is led primarily by the implementation of adopted strategies and masterplans, which identify priority gaps and upgrades.

The provision level of service for the asset categories of this asset class can be generally described as follows:

<table>
<tr><th>Asset Category</th><th>Document</th><th>Provision Level of Service</th></tr>
<tr><td>Roads – Urban Areas</td><td>Asset Management Plan - Roads</td><td>All new roads constructed within Urban Areas as result of private development are to have an asphalt road surface

Existing roads (including unsealed roads) within Urban Areas are to be progressively renewed by Council as either an asphalt or sealed road in accordance with that assigned to their locality:

<table><tr><th>Urban Locality</th><th>Road Surface</th></tr><tr><td>AYLMERTON</td><td>Sprayseal</td></tr><tr><td>BALACLAVA</td><td>Sprayseal</td></tr><tr><td>BALMORAL VILLAGE</td><td>Sprayseal</td></tr><tr><td>BERRIMA</td><td>Sprayseal</td></tr><tr><td>BOWRAL</td><td>Asphalt</td></tr><tr><td>BRAEMAR</td><td>Asphalt</td></tr><tr><td>BUNDANOON</td><td>Sprayseal</td></tr><tr><td>BURRADOO</td><td>Sprayseal</td></tr><tr><td>BURRAWANG</td><td>Sprayseal</td></tr><tr><td>COLO VALE</td><td>Sprayseal</td></tr><tr><td>EAST BOWRAL</td><td>Asphalt</td></tr><tr><td>EXETER</td><td>Sprayseal</td></tr><tr><td>HILL TOP</td><td>Sprayseal</td></tr><tr><td>MEDWAY</td><td>Sprayseal</td></tr><tr><td>MITTAGONG</td><td>Asphalt</td></tr><tr><td>MOSS VALE</td><td>Asphalt</td></tr><tr><td>NEW BERRIMA</td><td>Sprayseal</td></tr><tr><td>PENROSE</td><td>Sprayseal</td></tr><tr><td>RENWICK</td><td>Asphalt</td></tr><tr><td>ROBERTSON</td><td>Sprayseal</td></tr><tr><td>SUTTON FOREST</td><td>Sprayseal</td></tr><tr><td>WELBY</td><td>Sprayseal</td></tr><tr><td>WILLOW VALE</td><td>Sprayseal</td></tr><tr><td>WINGELLO</td><td>Sprayseal</td></tr><tr><td>YERRINBOOL</td><td>Sprayseal</td></tr></table></td></tr>
<tr><td>Roads – Rural Areas</td><td>Asset Management Plan - Roads</td><td>A provision level of service will be defined for roads within Rural Areas as an improvement for the 2025/26 update of the Transport AMP.

It will define when an unsealed road should become a sealed road. And when a rural road should be an asphalt road as opposed to the default of a sealed road.</td></tr>
<tr><td>Roads – Asbestos Contamination</td><td>Asbestos Management Plan</td><td>The 36 road segments identified within the Asbestos Management Plan will be managed in accordance with this Plan.

Consideration will be given to the sealing of the nine roads initially treated with gravel resheeting, as funding allows.</td></tr>
</table>

Asset Category	Document	Provision Level of Service
Lower Order Roads	Asset Management Plan - Roads	No upgrades are planned for roads which align with the definition of a Lower Order Road
Bus Shelters	Ordinary Council Meeting 21 June 2023	New bus shelters to only be provided within town centres, village centres and along State roads that are serviced by a public bus route.
	Ordinary Council Meeting 18 October 2023	That advertising not be approved for installation on bus shelters.
Bridges	Asset Management Plan - Roads	All new vehicular bridges will contain pedestrian access along at least one side of the bridge.
Footpaths	Pedestrian Access and Mobility Plans	New footpath or shared path connections will not be considered unless they are contained within a PAMP or the Cycling Strategy.
	Cycling Strategy	
Kerb and Gutter	Asset Management Plan - Roads	Kerb and Gutter will not be provided in locations without stormwater pipes and pits.

Table 9 - Provision Level of Service Summary

It recognised that an uplift in community satisfaction is required for the provision of footpaths and shared paths across the Shire. To this end, the Capital Works Program features an allocation of $500k for new footpaths and shared paths across the Shire. With this allocation, Council will construct targeted connections across the Shire and prepare designs for large strategic links. Delivery of these large strategic links will however be subject to grant funding outcomes, and so these will be actively pursued as opportunity arises.

5.1.1 Paper Roads

Historically, there are numerous paper roads within the Wingecarribee Local Government Area.

Council reserves the right to name/gazette and classify any section of these paper roads which have been identified as public roads under Council control in accordance with the Roads Act 1993. Until this classification occurs, the paper road will not be included in Council's maintenance program.

Council also reserves the right to close a section of paper road in accordance with the Roads Act 1993

5.2 Renewal Level of Service

Renewal LoS defines how often assets are replaced with a Modern Engineering Equivalent Replacement Asset (MEERA) — typically at the end of their useful life.

The useful life of an asset is the period over which it provides value. It is a key factor in both depreciation calculations and long-term renewal planning. Ideally, Council's annual capital renewal investment should match the value of annual depreciation, averaged over time.

If renewal falls below this level for extended periods, Council may face a backlog of ageing infrastructure and rising maintenance costs. Conversely, shortening useful lives can reduce maintenance needs but increase renewal costs.

The relationship between useful life, depreciation, and maintenance is carefully balanced to ensure sustainable asset management.

The below table includes the asset renewal lives for assets in the Road Asset Class. These useful lives are currently stored in the Conquest Asset Management System

Asset Category	Asset type/Material	Useful Life (years)
Bridges	Timber	50-80
	Concrete/Steel	100
Footpaths	Concrete	50
	Asphalt	20
	Pavers	50
	Unsealed	15
Kerb and Gutter	Concrete	60
	Natural Stone	30-100
Roads	Base material – Sealed Road	80-100
	Base material – Unsealed Road	14
	Subbase	80-100
	Wearing surface – Concrete	15
	Wearing surface – Pavers	20
	Wearing surface – Asphalt	25
	Wearing surface – Double coat spray seal	16
	Wearing surface – Single coat spray seal	15
Street Furniture	Bus Shelter	20
	Timber fencing	20
	Galvanised fencing	25
	Retaining walls	80
Traffic Facilities	Concrete traffic facilities	50
	Guardrail	50
	Signs	20-30

Table 10: Transport Asset Useful Lives.

The intent is therefore that all building assets will be renewed prior to exceeding their designated useful life.

However, renewal works will also be based on asset condition. When an asset is found to be of Condition 4 or 5 it will then be programmed for renewal within the Capital Works program.

5.3 Maintenance and Operations Level of Service

Maintenance and operational activities are essential for ensuring that Council's assets remain safe, functional and fit for purpose. These activities are delivered through a mix of proactive scheduling and reactive response across the entire asset network.

- Operational activities (such as inspections, servicing or compliance tasks) are generally well suited to structured scheduling and can often be delivered in a controlled and timely manner
- Maintenance activities (such as repairing damage, replacing worn components or responding to faults) are more difficult to schedule reliably and require mature systems, consistent data and adequate resourcing

Maintenance and operations budgets are heavily constrained by both funding and resourcing availability. And so although the results of the recent community satisfaction survey indicate a performance gap in transport maintenance, these constraints mean that solutions will need to be found whilst maintaining existing budget levels, as 89% of the maintenance budget for Transport assets is already allocated to roads.

Potential opportunities being investigated are a more strategic approach being adopted for maintenance, as well as programming and delivery of more effective capital renewal and upgrade projects.

Maintenance and operations level of service will be provided under two categories: inspections and maintenance.

5.3.1 Inspections

Inspection of road assets is included in the Maintenance and Operation Level of Service, and is a critical component of the risk mitigation processes.

Inspections will be of two categories. Scheduled inspection and reactive inspection.

- Scheduled inspection

Full network inspections are undertaken by specialist consultants proactively on a 5-year cycle to match the revaluation schedule outlined by the Office of Local Government. The outcomes of these inspections are used to prioritise works in the Capital Works Program and provide an updated condition to best reflect the current asset depreciation.

It is intended that the next network audit will be completed in the winter of 2026.

- Reactive inspection

Council Staff undertake reactive inspections of assets in the network. These are undertaken after one of the three triggers occur:

1. Customer Request
2. Weather Event
3. Events that may damage council infrastructure i.e. traffic collisions.

After a reactive inspection, the asset is either assessed to be in a satisfactory condition or functioning as designed, made safe through maintenance staff, or programmed for a capital renewal.

5.3.2 Maintenance

Currently, Council transport maintenance budget is used to undertake repairs to the road network in a reactive manner and is largely driven by requests submitted by the community.

The types of maintenance works undertaken include pothole repair, edge break repair, maintenance grading of unsealed roads and heavy patches under 60m^2.

With the introduction of the Technology 1 Works Management System across 2025/26, it is intended that there will be a shift from reactive to scheduled maintenance works – which will maximise outcomes achieved from existing maintenance budgets.

The current maintenance and operations budgets are provided in Table 10 below:

Asset Class	Annual Maintenance and Operations	
	$	as % of Asset Value
Transport	$9,122,908	0.80%

Table 11 - Asset Class Maintenance

This can be further broken down into the relevant asset categories of:

Maintenance items	Budget	
Carparks	$	18,270
Cyclepath	$	57,032
Kerb and Gutter	$	57,185
General Maintenance	$	393,695
General Maintenance	$	116,032
Pothole	$	338,260
Cyclepath	$	94,963
Footpath	$	116,518
Wombeyan Caves Road	$	158,251
General Maintenance	$	200,000
Roads-Unsealed	$	1,425,279
Roads-Sealed	$	2,335,963
Heavy Patching	$	171,332
Roads	$	919,130
Regional Roads-Unsealed	$	70,667

Maintenance items	Budget	
Regional Roads-Sealed	$	467,354
General Maintenance	$	357,512
Bus Shelters	$	18,516
Traffic-Line marking	$	154,653
Traffic Signage	$	176,615
Administration	$	1,925,219
Total	**$9,122,908**	

Table 12: Annual maintenance for Transport Assets

With these maintenance budgets, the following levels of service are currently being generally achieved across the Shire.

Activity	Current Resourcing	Current Level of Service
Pot Hole Response	2 dedicated pothole teams	Towns & Villages - 4 weeks Rural - 6 months
Unsealed Road Maintenance (grading & drainage)	2 maintenance grading teams	1 grade / 4.5 years (6km/month)
Drainage Maintenance (table drains, channels, swales)	1 dedicated team	10km per month

6 Asset Base Growth

Over the next 10 years, Council's asset base will continue to grow as a result of:

- New and upgraded assets delivered through Council and grant-funded capital projects
- Assets contributed by developers as conditions of consent or because of a Planning Agreement
- Infrastructure delivered through Developer Contributions and Servicing Plans

Council's current forecasts do not include any significant asset disposals during this period. Future updates may consider this as part of the ongoing development of Council's Property Strategy.

6.1 New and Upgraded Assets

The new and upgrade asset projects category covers those projects resourced by Council or grant funding, but excluding Development Contributions, that involve existing assets being enhanced or new assets being constructed.

This expenditure is partly derived from grant funded projects, however with grant funding only being reflected in Council's budget upon notification of success, grant funding does not impact the asset base growth calculation at this stage.

The table below summarises the new or upgrade projects that Council has committed for delivery within the 10-year window of this AMP. These projects are being funded by Council through the General Fund and grant funding.

Financial Year	Project Name	Sum of Value
2025/26	New Footpath - Railway St Moss Vale	$70,000
2025/26	New Footpath - Bowral Walkway: Burradoo cycleway - 90 degree bend	$199,483
2025/26	Moss Vale Bypass	$500,000
2025/26	Traffic Upgrade - Design - Bundanoon High Pedestrian Activity Area	$100,000
2026/27	New Footpath - Crimea St Willow Vale	$250,000
2026/27	New Footpath - Fitzroy St Mittagong: 40m missing segment	$15,000
2026/27	New Footpath - Hoddle St Burrawang: Church St to Region St (design)	$50,000
2026/27	New Footpath - Middle Rd Exeter: Bundanoon Rd to Ellsemore Rd (design)	$50,000
2026/27	New Footpath - Oxley Street Berrima: 45m missing segment at School	$25,000
2026/27	New Footpath - Regent St Mittagong: missing segments	$60,000
2026/27	New Footpath - School Lane Exeter (design)	$50,000
2026/27	Moss Vale Bypass	$8,990,000
2026/27	Traffic Upgrade - Design - Old Hume Hwy / Pioneer Dr Intersection	$100,000
2027/28	New Footpath - Bendooley St Bowral	$25,000
2027/28	New Footpath - Hoddle St Burrawang: Church St to Region St (construction)	$150,000
2027/28	New Footpath - Innes Road: North side, Between Waite Street and Garrett Street (design)	$50,000

2027/28	New Footpath - Railway Ave: William St - Brigadoon Dr (Design & Stage 1 Construction)	$150,000
2027/28	New Footpath - St Jude Street: West side, Between Boolwey Street to Bowral Street	$125,000
2027/28	Traffic Upgrade - Design	$100,000
2028/29	New Footpath - Hoddle St Burrawang: Church St to Region St (construction)	$150,000
2028/29	New Footpath - Main St: Hoddle St - North Street	$150,000
2028/29	New Footpath - Railway Ave: William St - Brigadoon Dr (Stage 2 Construction)	$150,000
2028/29	New Footpath - Station St: Bowral St to Funston St	$50,000
2028/29	Traffic Upgrade - Design	$100,000
2029/30	New Footpath Program	$500,000
2030/31	New Footpath Program	$500,000
2031/32	New Footpath Program	$500,000
2032/33	New Footpath Program	$500,000
2033/34	New Footpath Program	$500,000
2034/35	New Footpath Program	$500,000

Table 13:New and Upgraded Assets

6.2 Assets Contributed by Development through Conditions of Consent

As development continues, new infrastructure is delivered directly by developers under Conditions of Consent or a Planning Agreement and subsequently transferred to Council.

Council's Local Housing Strategy targets a 50:50 balance between infill development and greenfield development. Since only greenfield development typically leads to new asset contributions, it is estimated that 50% of population growth results in asset base growth.

Historical analysis shows that for every 1% increase in population from greenfield development, the asset base increases by approximately 0.3%. This reflects the fact that most contributed assets are minor in scale — such as pipes or footpaths, not major facilities like treatment plants.

Financial Year	Population Forecast	Population Growth	Forecast Asset Base Growth
2025/26	54,776	1.1%	0.16%
2026/27	55,357	1.1%	0.16%
2027/28	55,975	1.1%	0.17%
2028/29	56,593	1.1%	0.17%
2029/30	57,212	1.1%	0.16%
2030/31	57,830	1.1%	0.16%
2031/32	58,448	1.1%	0.16%
2032/33	59,138	1.2%	0.18%
2033/34	59,828	1.2%	0.18%

2034/35	60,527	1.2%	0.18%

Table 14 - Forecast.ID Population Growth

6.3 Developer Contributions and Servicing Strategies

An important funding source for new infrastructure are Development Contributions collected under Section 7.11 and 7.12 of the Environmental Planning and Assessment Act. These contributions fund a significant proportion, though not all, of the infrastructure required by new development.

Council currently levies contributions for road assets through the following Plans:

- Roads and Traffic Facilities 2012 to 2031
- Section 94A Contributions Plan (Footpaths)
- Southern Highlands Innovation Park (SHIP) Plan

It is acknowledged that the infrastructure programs contained within these plans are due for revision or are currently under development, with it being currently uncertain whether contributions are being received in line with expected forecasts – as well as whether the magnitude of Council co-funding remains financially viable.

Several strategic studies have been completed or are in progress which will inform future updates to the plans, some of these strategic studies being:

- Integrated Transport Study
- Pedestrian Access and Mobility Plans

Therefore, only projects that currently feature within the 2025/26 to 2028/29 Capital Works Program which are funded by developer contributions are to be included within this section.

There are no projects within the 2025/26 to 2028/29 Capital Works Program which are funded by developer contributions.

6.4 Asset Disposals

No significant disposals are currently committed. Asset disposals — where an asset is removed and not replaced — may be considered in future revisions pending community engagement outcomes and the adoption of Council's Property Policy.

6.5 Asset Indexation

To ensure lifecycle costs remain comparable year-to-year, this Strategy adopts the same indexation assumptions as Council's LTFP:

- 3.0% annually for 2025/26 and 2026/27
- 2.5% annually from 2027/28 onward

6.6 Efficiencies

In line with the adopted LTFP, Council anticipates achieving 1% annual efficiency improvements. These will result from:

- New digital systems
- Workforce optimisation
- Strengthened business processes

These ongoing improvements will support Council's ability to deliver services effectively while managing the impacts of asset growth.

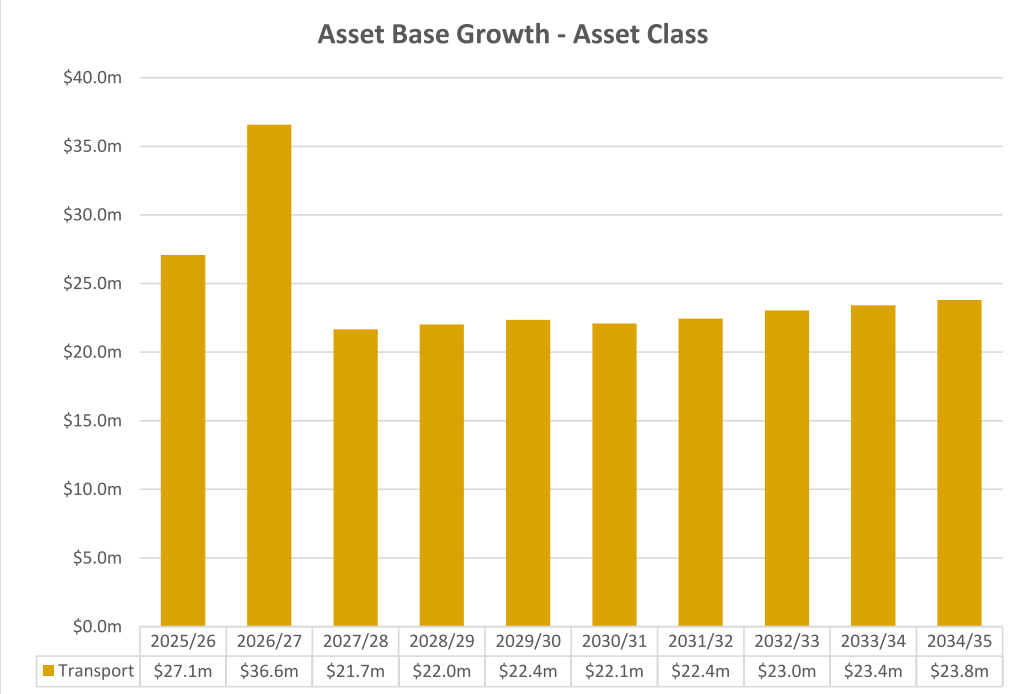
6.7 Asset Base Growth

The total growth of the Transport asset class over the next 10 years is projected at approximately $217M. This growth is influenced by a range of factors, including:

- New and upgraded assets
- Assets contributed by development through conditions of consent
- Infrastructure funded through Development Contributions
- Asset disposals (none currently forecast)
- Annual indexation
- Efficiency gains

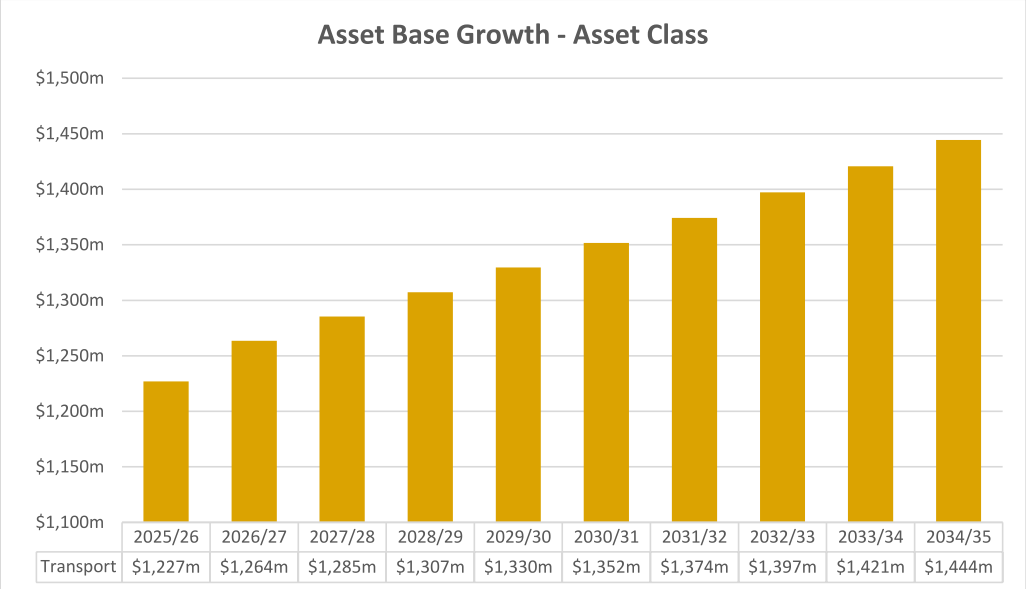
While each of these elements contributes to asset base growth, indexation can be considered the primary source of the total increase in asset value over the 10-year forecast period.

The following graphs illustrate the resultant annual and cumulative asset base growth.



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Transport	$27.1m	$36.6m	$21.7m	$22.0m	$22.4m	$22.1m	$22.4m	$23.0m	$23.4m	$23.8m

Figure 8: Annual Asset Base Growth



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Transport	$1,227m	$1,264m	$1,285m	$1,307m	$1,330m	$1,352m	$1,374m	$1,397m	$1,421m	$1,444m

Figure 9: Cumulative Asset Base Growth.

7 Financial Lifecycle Forecast

To deliver the Levels of Service (LoS**)** outlined in this Strategy, Council must allocate funding for maintenance, operations, and asset renewal across the asset class.

7.1 Renewal Forecast

To keep Council's assets in good condition and maintain a healthy Infrastructure Backlog Ratio, assets must be renewed when they reach the end of their useful lives. Renewal involves disposing of the old asset and replacing it with a Modern Engineering Equivalent Replacement Asset (MEERA).

Relying solely on useful life expiry or condition data to plan renewals causes large fluctuations in annual renewal budgets. This makes long-term planning and resource allocation more difficult. Instead, Council uses an averaged renewal forecast to spread the investment more evenly over time.

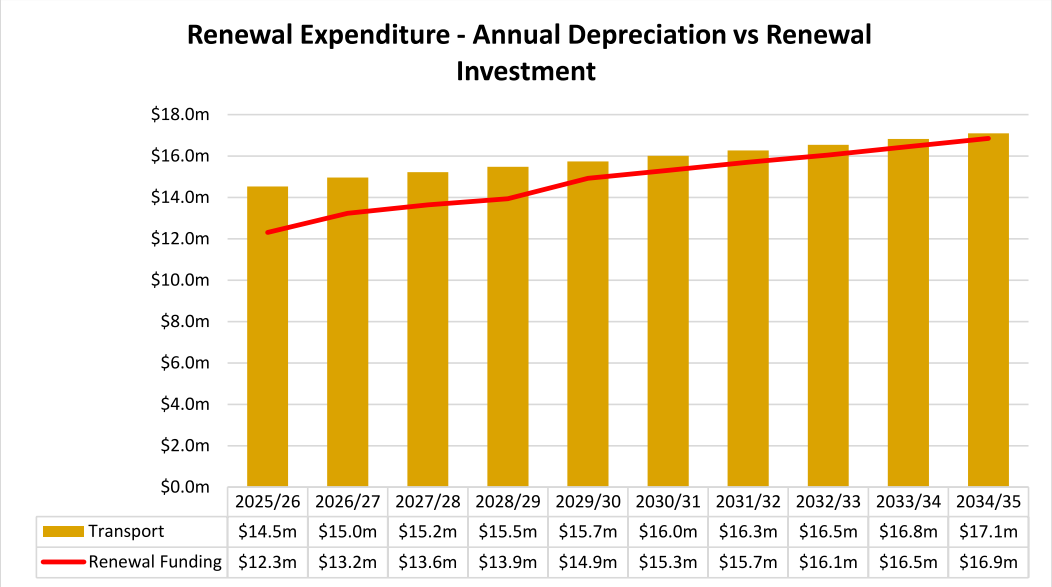
In practice, actual investment in each asset class may vary based on the scale and timing of individual projects. These allocations are refined during the preparation of each new Delivery Program.

Over the 10-year planning period, the required renewal expenditure for the Transport asset class is forecast at approximately $159M.

Scenario 1 of Council's Long-Term Financial Plan can accommodate $149M in renewal investment over the same period, based on:

- Consideration of the 2025/26 to 2028/29 Capital Works Program
- For 2029/30 to 2034/35, the SRV and Council General Fund allocations have been distributed proportionally to each asset classes by their annual depreciation
- And the assumption is that all funded projects will be 100% renewal
- Includes the annual granting funding of $2Mpa from Roads to Recovery Program and $500Kpa from the Regional Road Block Grant

This leaves a forecast funding gap of $10M between accumulated depreciation and actual renewal investment by 30 June 2035, as shown in Figure below.



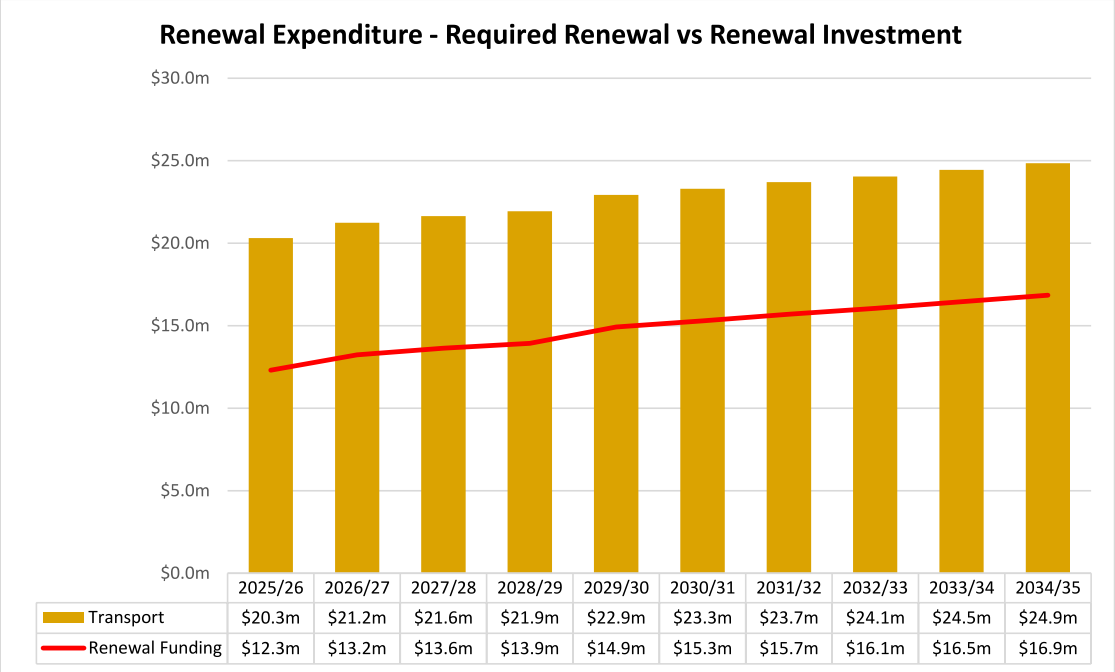
	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Transport	$14.5m	$15.0m	$15.2m	$15.5m	$15.7m	$16.0m	$16.3m	$16.5m	$16.8m	$17.1m
Renewal Funding	$12.3m	$13.2m	$13.6m	$13.9m	$14.9m	$15.3m	$15.7m	$16.1m	$16.5m	$16.9m

The above forecast depicts what is required to maintain current service levels across a growing asset base. However it must be acknowledged that community satisfaction with the condition of local roads continues to decline. The 2024 performance gap for local roads sits at 59%, the largest of any satisfaction metric for the fifth year running.

It is therefore apparent that maintaining current service levels will not result in a significant uplift in community satisfaction, and instead the renewal level of service itself needs to increase.

It is estimated that an annual renewal funding increase of $8M, and so $80M across the 10 year planning period, then confidence can be had in a significant uplift in community satisfaction. This increase in renewal funding would bridge the current $10M gap between depreciation and renewals and enable a further $70M in road renewals.

The funding gap between current renewal investment and that required to achieve a significant uplift in community satisfaction is shown in Figure below.



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Transport	$20.3m	$21.2m	$21.6m	$21.9m	$22.9m	$23.3m	$23.7m	$24.1m	$24.5m	$24.9m
Renewal Funding	$12.3m	$13.2m	$13.6m	$13.9m	$14.9m	$15.3m	$15.7m	$16.1m	$16.5m	$16.9m

Figure 10: Recommended Renewal Expenditure, measured in millions of dollars.

7.2 Maintenance and Operations Forecast

As Council's asset base grows, maintenance and operations budgets must also increase to maintain current levels of service. Without this investment, the community may experience a gradual decline in service delivery, particularly for high-use infrastructure.

To assess future needs, Council has used the 10-year asset base growth forecast to estimate the additional funding required to maintain current service levels across all asset classes.

The required maintenance and operations expenditure across the 10-year period is forecast to be $113M.

Under Scenario 1 of the LTFP, Council can accommodate this budget requirement.

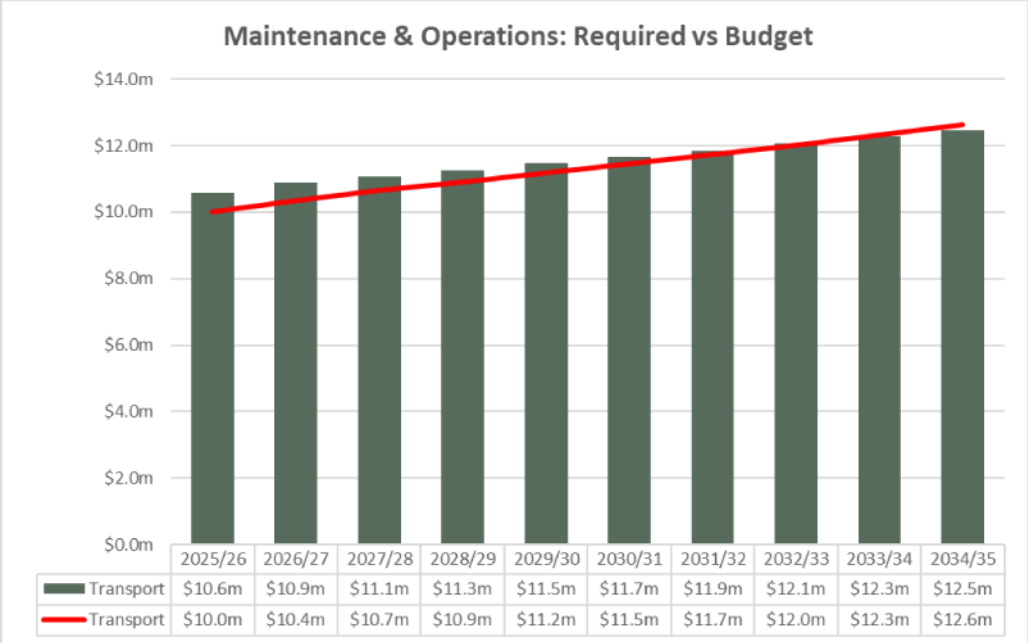


Figure 11 Recommended Maintenance and Operations.

However it must be noted that this is just maintain current service levels across a growing asset base – it does not enable for the delivery of higher level of service.

Council's current maintenance and operations budget is 0.8% of the value of the transport asset class. Upon comparison with the maintenance and operations budgets of neighbouring / similar councils, it is observed that this is on the lower end.

The average maintenance budget as a percentage of transport asset class value is 1.0%. This would correlate to a $2.3M increase in the maintenance and operations budget. Increasing it further to 1.4%, similar to Shoalhaven City Council and less than Upper Lochlan Shire Council, would correlate to a $8.0M budget increase.

An increase in maintenance budgets to being 1.4% of asset class value is considered within Option 2 of the LTFP.

Council	Maintenance as % of Transport Asset Class value.
Goulburn Mulwarree	0.5%
QPRC	0.7%
WSC	0.8%
Snowy Monaro	0.9%
Bathurst	1.0%

Lithgow	1.2%
Shoalhaven	1.3%
Upper Lochlan	1.9%

Table 15 - Comparison of transport maintenance across Councils

8 Improvement Plan

Asset Planning is a journey of continuous improvement with there always being opportunities to further improve the accuracy of asset data, better understand community needs and expectations and more efficiently meet the service needs of the Shire.

To this end, an Asset Management Improvement Plan has been prepared to guide this journey of continuous improvement.

The below items are specific improvements that can be made to this document as well as the asset management maturity of Council.

Ranking	Improvement	Responsibility	Timeline
1	Re-segmentation of road network	Assets	2025/26
2	Implementation of Technology One Assets, Strategic Assets and Works Management modules	Assets	2025/26
3	Creation of Defects Register – to be populated from scheduled and reactive inspections	Assets	2025/26
4	Road Network Audit	Assets	2026/27
5	Refinement of Asset Inventory	Assets	Ongoing

Table 16: Improvement Plan

Wingecarribee
SHIRE COUNCIL

Asset Management Plan - Stormwater

We're with you

WINGECARRIBEE SHIRE COUNCIL

Document Name	Asset Management Plan - Stormwater
Version No.	2
Council File Reference	Document Set ID 5484375
Adoption Date	TBC
Resolution Number	MN 2024/201
Document Owner	Manager Assets
Responsible Branch	Assets
Responsible Business Unit	Assets Roads and Drainage
Review Schedule	Annually
Review Date	26 June 2026

Version	Adoption Date	Notes
1	26 June 2024	First version of Asset Management Plan - Stormwater
2	TBC	2024/25 Update

Contents

1 Executive Summary

This Asset Management Plan (AMP) is part of a suite of Portfolio AMPs, which together sit under the Asset Management Strategy (AMS). It is to be read in conjunction with the AMS and Four Year Capital Works Program.

This AMP provides an overarching document of Council's management of, and investment in, the Stormwater Asset Class over a 10-year planning period.

Council manages a water asset class of 230km of pipes and culverts, plus other assets across a broad range of asset categories, worth a combined $265M. The average condition of these structures is 2.0, which is defined as therefore being in 'good' condition.

The level of service that Council provides through this asset class can be described within the three categories of: Provision, Renewal, and Maintenance and Operations. What Council delivers through these levels of service are driven by consideration of: Risk Management, Community Satisfaction and Strategies and Masterplans. But is constrained by funding and availability of resourcing.

Review of the 2024 Community Satisfaction Survey demonstrate stormwater drainage continuing to grow in importance for the community, however the community's satisfaction with the stormwater drainage continues to decline. This shows a clear disconnect between Council's current performance in the provision of adequate drainage and the community's expectations.

In review of Levels of Service, it is noted that available budgets are heavily constrained by both funding and resourcing availability. And so despite the noted satisfaction performance gap, these constraints mean that solutions will need to be found whilst maintaining exist budget levels. Potential opportunities being investigated are a more strategic approach being adopted for maintenance, as well as programming & delivery of more effective capital renewal & upgrade projects.

A community wide survey is being conducted in May 2025 to better understand the community's dissatisfaction with Council's drainage services, such that targeted solutions/improvements can then be made. It needs to be better understood as to if the community is dissatisfied with provision of drainage to new areas, quality of existing drainage infrastructure, management of creeks or delivery of water quality outcomes

In order to provide an analysis of financial investment required across the planning period, calculation of forecast asset base growth must be completed. Asset base growth is calculated through consideration of the value of the asset class growing as result of new and upgrade projects, assets contributed through development, development contributions plans and indexation, as well as subtracting any known asset disposals.

It is forecast that across the planning period the asset base will grow by $48M.

Recommended financial investment for the Renewal Level of Service and Maintenance and Operations Level of Service is calculated at $20M and $20M respectively. These have been calculated through aligning renewals with annual depreciation and ensuring maintenance and operational budgets increase in step with asset base growth.

Asset management is a journey of continuous improvement, and so the AMP concludes with a concise Improvement Plan detailing the asset management maturity tasks programmed for the years ahead.

2 Asset Systems & Structures

2.1 Asset Planning Framework

Council's Asset Management Planning Framework is a critical part of the wider Integrated Planning and Reporting (IP&R) Framework used across all NSW local governments. It provides a structured and consistent approach to planning, delivering, maintaining and renewing Council's infrastructure assets.

The Framework ensures Council can make informed decisions and perform the key functions of asset management — including planning, coordinating, operating, maintaining, monitoring and improving the infrastructure services our community relies on every day. The structure of Council's Asset Management Framework is shown in Figure 1.

Council's Asset Management Framework consists of three key components:

1. Asset Management (AM) Policy:

The Asset Management Policy sets Council's overarching commitment and objectives for how we manage infrastructure. It outlines the principles that guide decision-making and establishes our focus on responsible, sustainable and risk-aware asset stewardship.

2. Asset Management Strategy (AMS):

This Strategy provides the roadmap for achieving the goals outlined in the Asset Management Policy. It aligns with the Long-Term Financial Plan 2025–2035 and the Delivery Program 2025–2029 to ensure our asset investments and service levels are sustainable and community-informed.

The Strategy is reviewed regularly to remain relevant and responsive. Specific works and activities arising from this Strategy are included in Council's Operational Plan and Annual Budget.

3. Asset Management Plans (AMP):

Asset Management Plans translate the strategic direction of this Strategy into detailed actions for each major asset class. These plans provide a deeper analysis of:

- Asset condition and inventory
- Levels of service
- Risks and renewal priorities
- Financial sustainability over the asset lifecycle

AMP's are developed for both community assets and business unit assets, grouped by the type of function the assets serve:

a) Community assets
   i) Transport (roads, bridges, footpaths)
   ii) Stormwater
   iii) Buildings and Aquatic facilities
   iv) Open Space and Recreation
   v) Water
   vi) Wastewater

b) Business units
   i) Cemeteries
   ii) Resource Recovery Centre (RRC)
   iii) Southern Regional Livestock Exchange (SRLX)

AMP's are regularly reviewed to ensure they continue to meet the service needs of the community and reflect changing conditions. These reviews are informed by community consultation and engagement. AMP's also act as core inputs into Council's Long-Term Financial Plan, helping to shape future budgets and investment decisions.

All adopted AMPs are available on Council's Asset Management Planning page at https://www.wsc.nsw.gov.au/Residents/Asset-Management-Planning

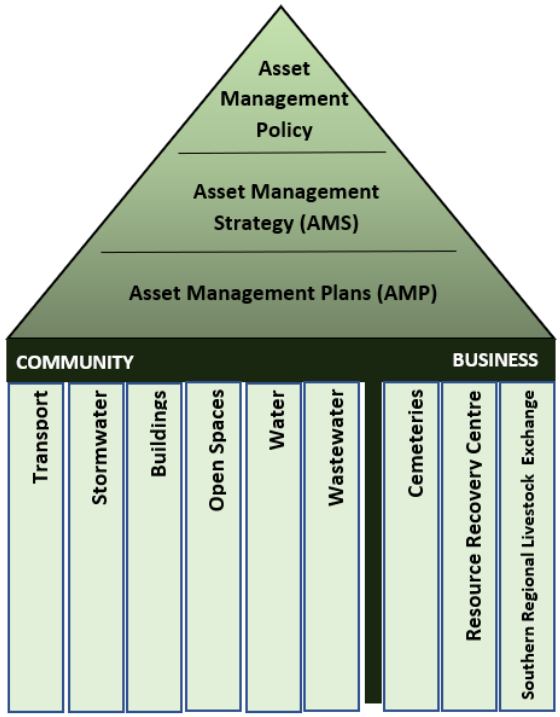


Figure 1: Asset management Planning Framework

2.2 Asset Planning Systems

Effective asset planning relies on accurate, integrated and up-to-date data. Council uses several systems and databases to support asset management planning, service delivery and reporting. These tools enable staff to maintain reliable asset information, assess risks, model future scenarios and plan capital investment.

Table 1 summarises the core systems currently use across Council for asset planning and management:

System	Description
Conquest	Asset register – inventory, condition and attribute data
ArcGIS	Geographic Information System – maps and spatial asset data
Technology One – Finance	Manages budgets, purchase orders and expenditure
Technology One – Enterprise Content Management (ECM)	Enterprise Content Management – document and record keeping
Technology One – Customer Request Management (CRM)	Customer Request Management – workflows for customer enquiries and requests
Pulse – Project Management	Project management – scoping, planning and delivery of capital projects
Infoworks WS Pro and ICM	Water and wastewater network modelling software

Table 1: Asset Planning Systems

As part of Council's ongoing digital transformation, several new Technology One modules are being implemented to streamline workflows, improve integration across teams, and reduce manual processes.

During 2025–2026, the following upgrades will be rolled out:

- Asset Register: This module will replace Conquest and become Council's single source of truth for asset inventory, condition and attribute data. It will integrate with Finance through the creation of Asset Books, eliminating the need for manual reconciliation
- Strategic Assets: An advanced modelling tool that connects with the Asset Register. It enables future condition forecasting based on varying levels of investment and supports long-term scenario planning
- Works Management: This module will support field-based delivery teams by enabling integrated work orders. It will fully align with the Asset Register and Finance systems to provide seamless job tracking and cost control

These improvements will help Council make better-informed decisions, plan more proactively, and improve the efficiency of asset lifecycle management.

2.3 Organisational Structure

Wingecarribee Shire Council uses a collaborative, whole-of-organisation approach to asset management.

Asset planning and network-level planning functions are centralised within Council's Asset Branch, which sits under the Service and Project Delivery Directorate. This structure ensures a coordinated and strategic approach to infrastructure planning and lifecycle decision-making.

Meanwhile, the day-to-day operations, maintenance and capital project delivery functions are primarily managed through three key teams:

1) Shire Presentation
2) Water Services
3) Project Delivery

These assets are used to support a wide range of services across the community — from libraries and aquatics to depots and the visitor information centre. Each of these services is overseen by a Service Manager, who is accountable for delivering the function to the community.

To ensure services meet the needs and expectations of our community, Council integrates asset planning and delivery with service design. This is achieved through close collaboration between the Asset Branch, Project Delivery teams and each relevant Service Manager.

Together, these teams work to ensure that infrastructure is planned, funded and maintained in ways that:

- Deliver on service objectives
- Maximise asset performance and lifespan
- Respond to community priorities and satisfaction

Service Manager	Asset / Facility
Manager Community Life and Libraries	Libraries
Manager Waste and Resource Recovery	Resource Recovery Centre
Manager Business and Property	Southern Regional Livestock Exchange
	Southern Highlands Visitor Information Centre
	Bowral Memorial Hall
	Aquatics Portfolio
Manager Water Services	Mittagong Works Depot
Manager Shire Presentation	Moss Vale Works Depot

Table 2 - Service Managers

The below figures detail the organisational structure relationship between Assets and the Delivery branches within the Project Delivery Directorate, as well as that of the Roads and Drainage Assets Team.

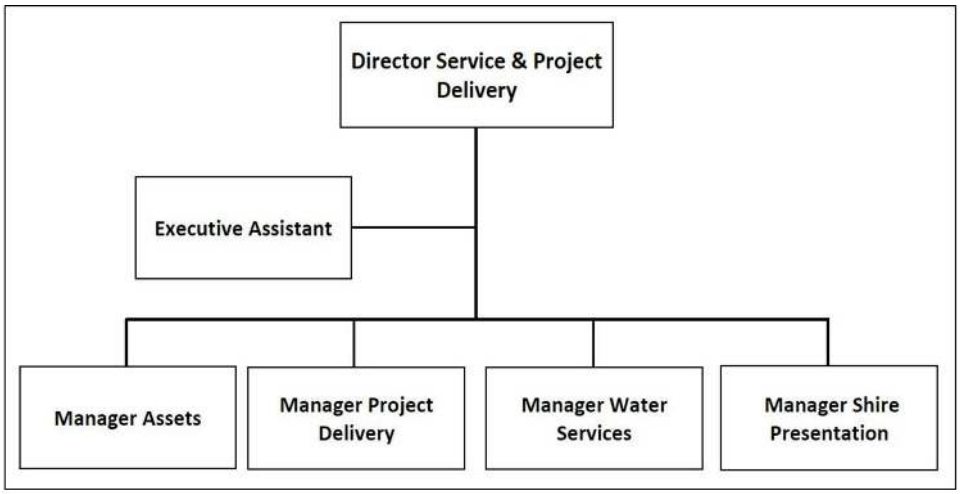


Figure 2 Service and Project Delivery Directorate

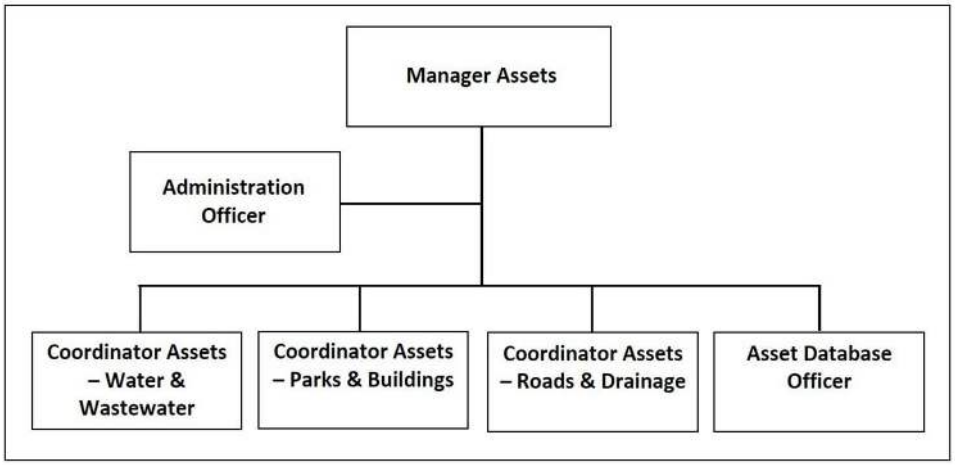


Figure 3 Asset Team Structure

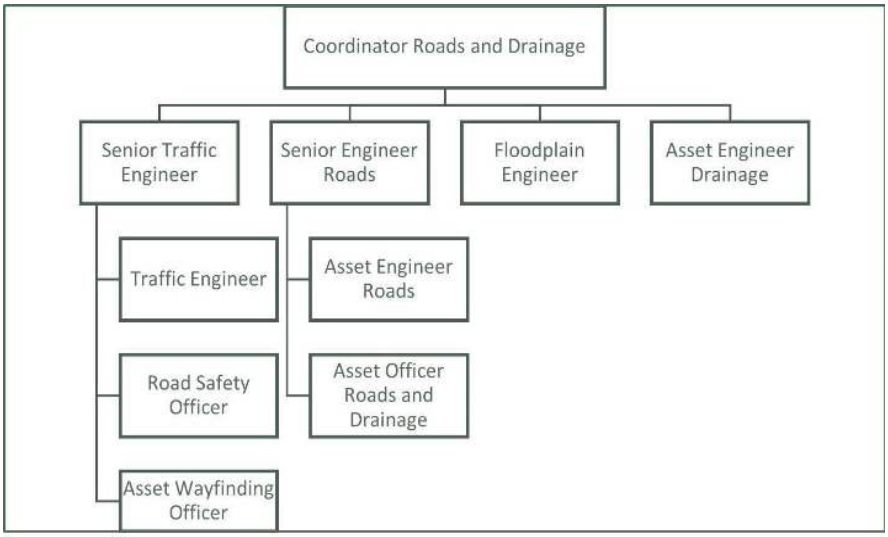


Figure 4 Roads and Drainage Team Structure

3 Our Assets

3.1 Asset Class Inventory

Council drainage assets are pits, pipes, headwalls, culverts, kerb and gutter, table drains, lined channel, detention basins. The table below provides an inventory of Council drainage assets.

Asset Category	Amount	Unit of Measure
Stormwater Conduits - Culverts	7,933	metres
Stormwater Conduits - Causeway	248	metres
Stormwater Conduits - Swale	3,252	metres
Stormwater Conduits - Pipes	214,546	metres
Stormwater Conduits -Open Channels	59,770	metres
Stormwater Facilities - Detention Basins	77	item
Stormwater Nodes - Headwalls	2486	item
Stormwater Nodes - Pits	7117	item
Stormwater Nodes - SQIDS (GPTs)	45	item

Table 3 Stormwater Assets

Council manages 19,780 assets with a Current Asset Cost of $265 million.

We maintain our asset register through a combination of proactive inspections, project-related updates and external contributions.

Key processes include:

- Newly constructed assets: Assets are added to the register following delivery by Council capital works or dedication through subdivision development.
- Ad-hoc inspections: Triggered by internal requests, customer feedback or during project scoping phases.
- Scheduled inspections: All assets are included in a structured inspection schedule. Inspection frequency is based on the asset's rate of deterioration, cost to inspect, and potential consequences of failure.

All assets are valued in line with Australian Accounting Standards, with a comprehensive revaluation undertaken for each asset class at least every five years.

In years where a full revaluation is not scheduled, Council conducts an annual fair value assessment across all asset classes. If a material change in value is detected, the relevant classes are indexed using industry-recognised methods.

A comprehensive valuation for stormwater was performed in the financial year 2021/22. Next valuation will fall on financial year 2026/27.

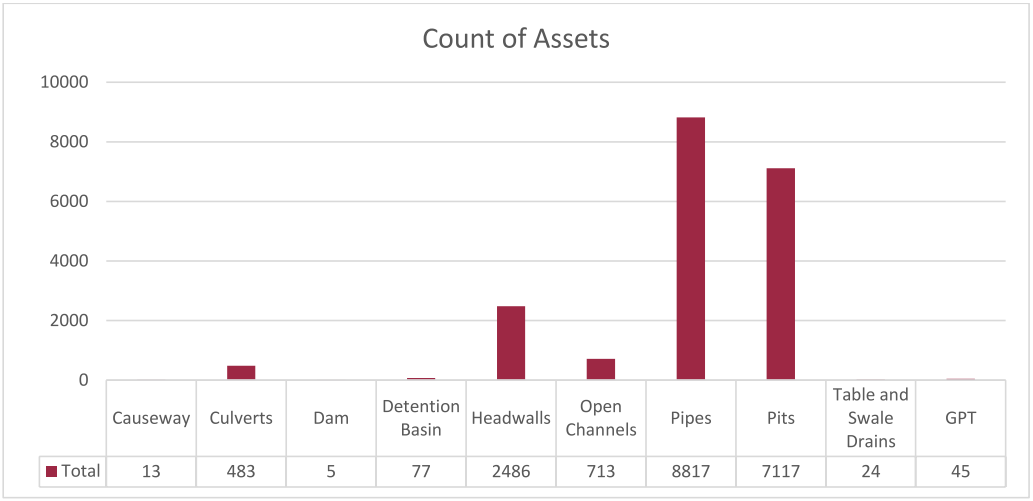


Figure 5 - Asset Category by Count

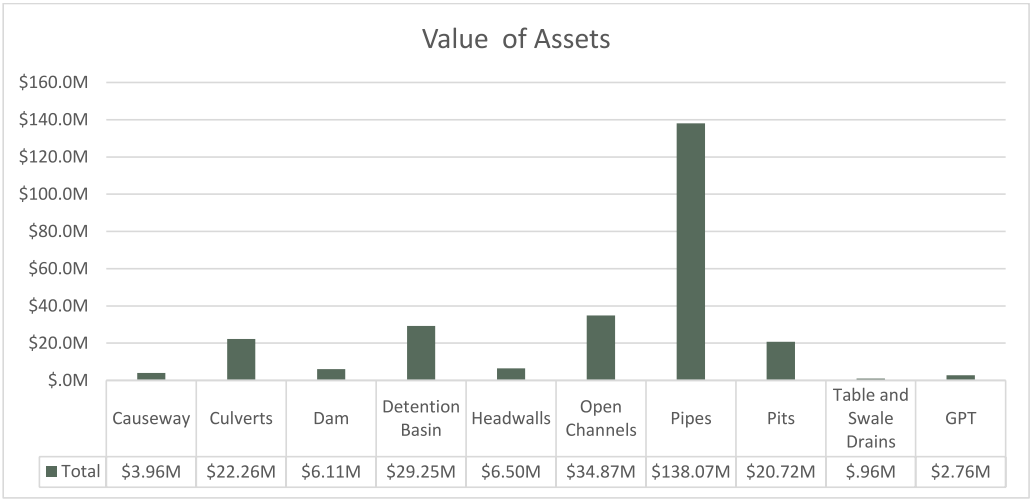


Figure 6 Current Asset Value

3.2 Asset Class Condition

Council regularly assesses the condition of its assets to help plan maintenance, renewal and capital works programs. These assessments form part of a rolling inspection schedule across the entire asset network.

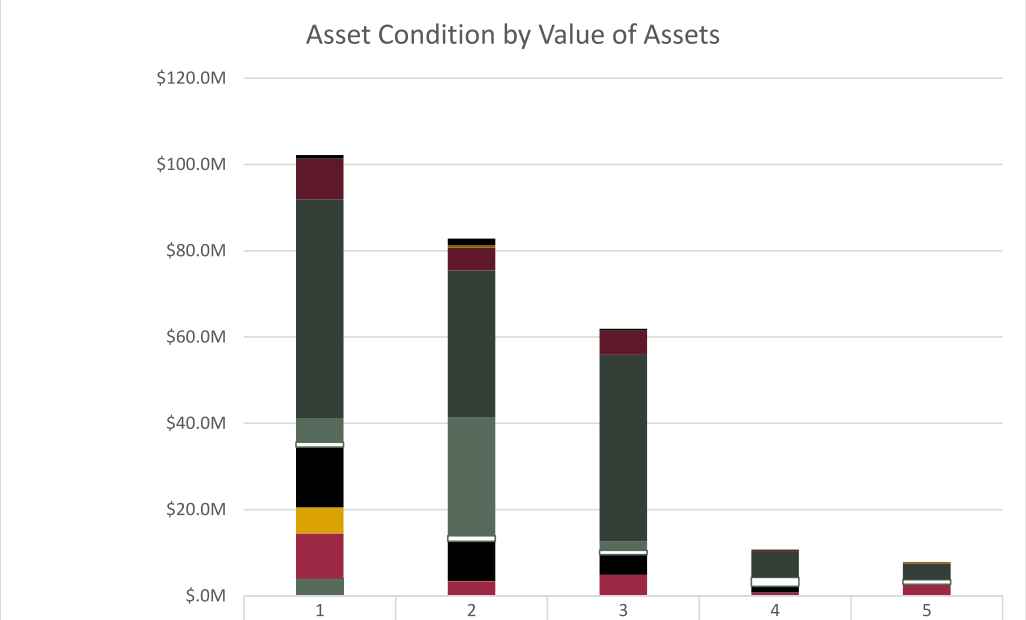
Condition assessments are undertaken in line with industry standards, using guidelines developed by the Institute of Public Works Engineering Australasia (IPWEA). These assessments are used to:

- Track asset performance over time
- Identify assets approaching failure
- Inform risk management and lifecycle planning
- Support annual budgeting and long-term financial modelling

Council uses a standardised 5-point rating system:

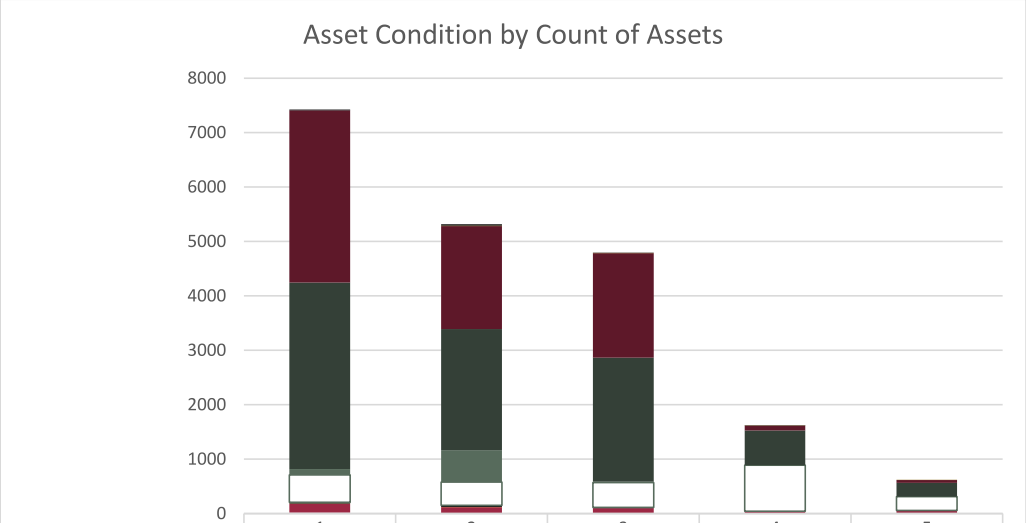
1. As new / Excellent
2. Good / Satisfactory
3. Fair / Tolerable
4. Poor / Intolerable
5. Very Poor / Reconstruction required

Asset condition by asset count and value is shown below in Figures 7 and 8. The average condition for each asset class is contained in Table 4



	1	2	3	4	5
GPT	$.81M	$1.51M	$.37M	$.06M	
Table and Swale Drains		$.60M	$.03M	$.05M	$.28M
Pits	$9.39M	$5.30M	$5.61M	$.26M	$.15M
Pipes	$50.90M	$34.10M	$43.28M	$6.10M	$3.69M
Open Channels	$5.44M	$27.38M	$2.05M		
Headwalls	$1.12M	$1.28M	$.98M	$2.07M	$1.06M
Detention Basin	$13.98M	$9.20M	$4.69M	$1.38M	
Dam	$6.04M	$.08M			
Culverts	$10.52M	$3.38M	$4.87M	$.82M	$2.67M
Causeway	$3.96M				

Figure 7 Asset Condition Profile (by value)



	1	2	3	4	5
GPT	12	24	8	1	
Table and Swale Drains		11	1	3	9
Pits	3164	1889	1923	90	51
Pipes	3427	2227	2274	638	251
Open Channels	109	585	19		
Headwalls	501	428	456	846	255
Detention Basin	24	32	14	7	
Dam	4	1			
Culverts	168	120	101	37	57
Causeway	13				

Figure 8 Asset Condition Profile (by Asset Count)

Reviewing this data, it is evident that $18.58M of assets are deemed to be of Condition 4 or 5 – and so would need renewal. This equates to 7% of the asset class by value, and 11% of the asset class by asset count.

The overall average condition of Council's drainage assets is good / satisfactory. However, there are 23 % assets are in condition 3 which might be worthy of including into current year inspection list before they turn into 4 and 5. Average condition rating for stormwater assets is 2.04.

Asset Category	Average Condition	
	By Count of Asset	By Value of Asset
Table & Swale Drains	3.42	3.01
Pit	1.87	1.86
Pipes	2.10	2.11

Open Channels	1.87	1.90
Headwall	2.97	3.10
GPT	1.96	1.88
Detention Basin	2.05	1.78
Dam	1.20	1.01
Culverts	2.37	2.18
Causeway	1.00	1
Dam	1.20	1.01
Grand Total	**2.13**	**2.02**

Table 4 - Average Asset Condition

3.3 Age Profile

Construction years have not been recorded for many older assets. As a result, when comprehensive inspections and revaluations are undertaken, construction years are estimated using the asset condition and expected useful life, assuming straight-line deterioration. As a result, the written down value of the asset can be used, together with the Useful Life, to calculate an estimated construction year.

The following figure displays the estimated value of assets constructed across the decades. From the graph it appears that for 1917-1926 period growth was low, but there was a steady period of asset base growth.

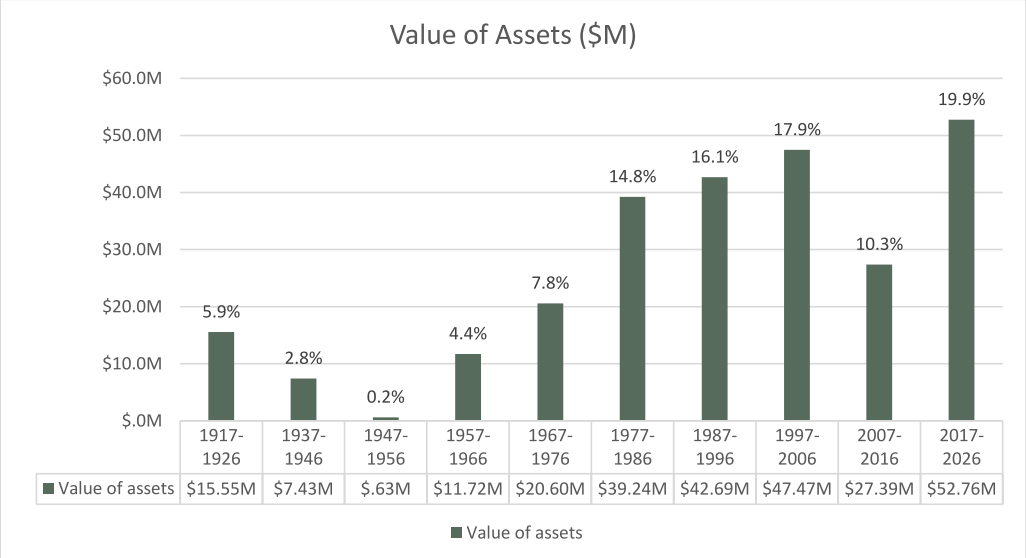


Figure 9 Age Profile of Assets

3.4 Asset Category Inventory

Over 50% of the value of the stormwater network is in the 214 km of stormwater pipes.

The following tables provide further insight into this asset category.

Pipe Materials	Length (km)
Reinforced Concrete	199.16
Asbestos Cement	6.23
Fibre Reinforced Cement	4.21
UPVC	1.73
Unknown	1.68
Vitreous Clay	0.33
Ribbed Polypropylene	1.10
Total	214.5

Figure 10 Stormwater Pipes by Material

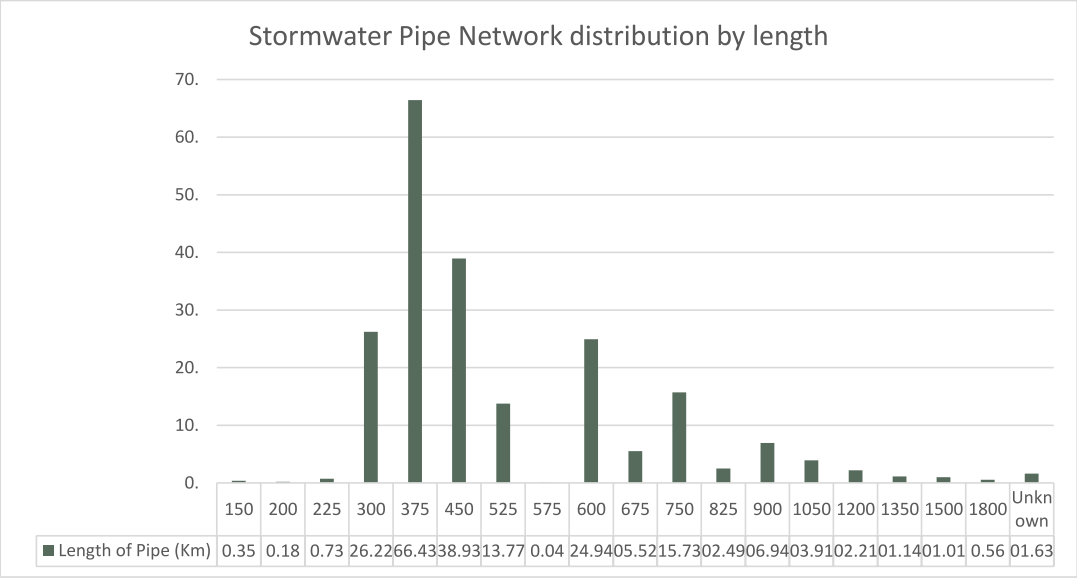


Figure 11 Stormwater Pipes Length

3.5 Data Confidence

Confidence in the completeness and accuracy of stormwater asset data is mixed.

Asset inventory data for the three town centres and some villages is of high confidence, however inventory data is missing entirely for many villages – examples being Yerrinbool, Colo Vale, Hill Top, Balmoral and Berrima. Drainage infrastructure along rural roads is also largely uncaptured.

The majority of condition data is derived from an age-based calculation. With a rolling CCTV program, it is desired that 5% of the network may be inspected per year – which will enable higher confidence to be had in condition and inventory data.

Further inventory data collection is listed within the Improvement Program of Section 8.

4 Drivers of Level of Service

Council's Levels of Service (LoS) define the standard at which assets are provided, maintained, renewed and operated. These levels determine how often assets are inspected, how quickly they are repaired, and how long they are expected to last.

While Levels of Service are shaped by available funding and staff resources, they are primarily driven by three key factors:

- Risk Management
- Community Satisfaction
- Strategies and Masterplans

4.1 Risk Management

Risk is the potential impact of uncertainty on Council's ability to meet its objectives. Council uses a structured approach to identify, monitor and respond to risks across its asset portfolio.

The risk assessment will identify potential hazards and select a treatment option to be implemented to control the generated risk. The resultant treatments will primarily fall within the categories of ensuring compliance with regulations and standards, adhering to a regime of systemic inspections, committing to a program of upgrades and ensuring proactive and reactive maintenance is completed.

This Risk Assessment will cover generic hazards that are typical across the entire asset network, however it also provides a closer analysis of Critical Assets where appropriate.

4.1.1 Critical Assets

Critical assets are those that have a high consequence of failure in terms of community impact. By identifying critical assets and failure modes, an organisation can ensure that condition inspection programs, maintenance and capital expenditure plans are targeted to ensure that the risk of critical asset failure is minimised.

Critical assets for the stormwater asset class are determined to be:

- The trunk drainage network – that is stormwater pipes of diameter greater than 900mm and culverts greater than 0.636m2 in area.
- Flood retention basins and dams having current replacement cost over $500k.
- The following tables provide an indication as to the magnitude of these critical assets.

Diameter (mm)	Length of Pipes (km)
1050	4.00
1200	2.45
1350	1.19
1500	1.02
1800	0.64
	9.29 Km

- *Table 5 - Critical Assets: Pipes*

Box culvert Size	Length in meter
1200X600	256.4

1200X900	6
1200X1200	119
1250X0900	198
1500X0600	393.4
1500X0750	11
1500X0900	24
1500X1200	274.46
1500X1600	52
1800X0600	237.49
1800X0900	171
1800X1200	80
1850X1700	13
1900X0600	20
2100X0450	40.32
2100X0600	53
2100X0900	176
2100X1200	115
2150X0750	116
2300X0700	23
2400X600	10.8
2400X0750	81
2400X0900	45
2400X1200	101.22
2400X1800	109
2600X0600	10
2700X0600	212.19
2700X0900	95.2
2700X1200	25
2800X1300	32
3000X0600	149.1
3000X0750	20
3000X0900	35
3000X1200	46
3000X1500	72
3400X0300	7.5
3600X0750	15

3600X0900	8.43
3600X1200	29.54
3600X1500	171
3600X1800	85
3600X2100	103
4000X2500	21.9
4200X900	91.6
4200X1200	19.6
6100x2950	9
Total	**3.98 km**

Table 6 Critical Assets: Box Culverts

Asset Category	Location	Asset ID	Year Acquired	Value	Condition
Detention Basin	1 Old South Road Bowral	182882	2003	2.27	1
Detention Basin	1 Old South Road Bowral	182898	2003	1.88	1
Detention Basin	1 Old South Road Bowral	182891	2003	1.21	1
Detention Basin	13-15 fern Brook Crescent Mittagong	184976	2003	0.71	3
Detention Basin	Drainage Reserve Eloura Lane Moss Vale	184978	1970	0.61	3
Detention Basin	566 Moss Vale Road Burradoo	44850	2006	0.57	2
Dam	Bowral Golf Course, Bowral	36024	1983	1.26	1
Dam	62 Alfred Street Mittagong	36027	1917	4.54	1

Table 7 Critical Assets: Basins and Dam

4.1.2 Risk Assessment Framework

Risk (R) Matrix		Consequence (C)				
		Severe	**Major**	**Moderate**	**Minor**	**Insignificant**
Likelihood (L)	**Almost Certain**	Extreme	Extreme	High	High	Moderate
	Likely	Extreme	Extreme	High	Moderate	Moderate
	Possible	Extreme	High	Moderate	Moderate	Low
	Unlikely	High	High	Moderate	Low	Insignificant
	Rare	High	Moderate	Low	Insignificant	Insignificant

Table 8 Risk Assessment Framework

4.1.3 Risk Assessment

Risk	Source	Inherent Risk			Treatment	Residual Risk			Implementation Status	Responsible Team	Level of Service
		C	L	R		C	L	R			
Personal injury	Pipes and Culverts	MOD	POS	M	Inspect pipes and culverts in accordance with inspection regime prioritised to account for trunk drainage	MOD	RAR	L	Current	Assets	Operations
					Reactive maintenance of pipes & culverts through CRM system				Current	Shire Presentation	Maintenance
					Programming and renewal of assets in accordance with useful life				Current	Assets	Renewal
	Pits & Headwalls	MOD	POS	M	Reactive maintenance of stormwater pits & headwalls through CRM system	MOD	RAR	L	Current	Shire Presentation	Maintenance
					Inspect locations susceptible to sediment and debris blockages in accordance inspection regime				Future	Assets / Shire Presentation	Operations
	Detention basins	MOD	UNL	M	Inspect detention basins in accordance with inspection regime	MOD	RAR	L	Future	Assets	Operations
					Reactive maintenance of assets through CRM system				Current	Shire Presentation	Maintenance
					Programming and renewal of assets in accordance with useful life				Current	Assets	Maintenance
	Open Channels & Creeks	MOD	UNL	M	Inspect open channels & creeks in accordance with inspection regime	MOD	RAR	L	Future	Assets	Operations
					Reactive maintenance of channels to address significant blockages				Current	Shire Presentation	Maintenance
Reduction in water quality	GPT	MIN	LIK	M	Define acceptable GPT devices, consolidate GPT network, identify & prioritise new install locations, develop prioritised cleaning schedule	INS	RAR	I	Future	Assets	Provision
					Removal of pollution from GPTs on scheduled basis				Future	Shire Presentation	Operations
					Review Subdivision DAs and SWXs to ensure satisfactory GPT design				Current	Assets	Provision
	Secondary & Tertiary water quality improvement devices	MIN	LIK	M	Define acceptable secondary & tertiary devices, identify & prioritise new install locations, develop prioritised cleaning schedule	INS	RAR	I	Future	Assets	Provision
					Develop Operation & Maintenance Plans for the complex systems				Future	Assets	Operations
					Removal of pollution from secondary & tertiary devices on scheduled basis				Future	Shire Presentation	Operations

Risk	Source	Inherent Risk			Treatment	Residual Risk			Implementation Status	Responsible Team	Level of Service
		C	L	R		C	L	R			
Personal injury and loss of property	Flooding behaviour of LGA not understood	SEV	POS	E	Develop flood studies and floodplain risk management studies in accordance with the Flood Prone Land Policy and the Floodplain Development Manual	MOD	UNL	M	Current	Assets	Provision
	Stormwater network of insufficient capacity	MAJ	POS	H	Pursue funding opportunities to progress infrastructure upgrades identified within Floodplain Risk Management Plans.	MOD	UNL	M	Current	Assets	Provision

Table 9 Risk Assessment

4.2 Community Satisfaction

Service levels are also informed by what the community expects, needs and values. We regularly consult with the community — through engagement programs, surveys, and feedback channels — to understand:

- What services are most important
- Where performance gaps exist
- Where improvements are needed

This feedback helps guide investment decisions and supports transparency around service trade-offs.

As part of our performance monitoring, a Community Satisfaction Survey is conducted that asks residents to rate both the importance and satisfaction of Council services and facilities on a five-point scale (1 = low, 5 = high). The 2024 Performance Gap is the difference between community importance and community satisfaction.

The most recent survey was undertaken in 2024, with previous years' results provided for comparison.

The table below presents the results that relate specifically to this Asset Management Plan.

Service	Importance				Satisfaction				2024 Performance Gap
	2019	2021	2022	2024	2019	2021	2022	2024	
Providing adequate drainage	4.35	4.44	4.57	4.28	2.99	2.75	2.56	2.54	35%

Table 10 Community Satisfaction Survey Result

In the table above, the 2024 Performance Gap is the difference between community importance and community satisfaction.

Results demonstrate stormwater drainage continuing to grow in importance for the community, however the community's satisfaction with the stormwater drainage continues to decline.

This shows a clear disconnect between Council's current performance in the provision of adequate drainage and the community's expectations.

The complexity is that dissatisfaction with 'Providing adequate drainage' could be as the result of many different factors – each of which could be addressed through an entirely different approach.

A community drainage survey is therefore being conducted across May 2025 to better understand the cause of the dissatisfaction.

Resultant actions will be further explored in Chapter 5 Levels of Service.

4.3 Strategies & Masterplans

The third key driver of service levels is Council's suite of adopted strategies and masterplans.

These documents help ensure that Council's planning, delivery and maintenance of infrastructure is strategic, coordinated, and responsive to community needs. They are developed in consultation with the community and provide clear direction for how specific asset types — or assets in specific locations — should be managed.

Each strategy or masterplan directly informs one or more Levels of Service by:

- Setting future directions or standards for service provision
- Prioritising improvements in specific locations
- Aligning asset management with broader community goals and legislative requirements

4.3.1 Drainage Masterplans:

Draft Stormwater Masterplans have been developed for several villages of the Shire – however further refinement is required to enable their public exhibition and final adoption by Council.

The vision is for Stormwater Masterplans to be developed for areas that a Floodplain Risk Management Plan is not suitable, as result of the area not being subject to significant flooding.

However, it is acknowledged that the infrastructure works noted within the Stormwater Masterplans will exceed Council's available stormwater capital budgets. And so the primary purpose of the Masterplans is to ensure that suitable upgrades are included within conditions of consent for future developments, as well as providing options for grant funding opportunities.

The table below details the status and program of Stormwater Masterplan development:

Location	Status	Level of Service it influences
West Mittagong	Complete – October 2013	Provision
Wembley Road & Farnborough Drive Catchments	Complete – September 2017	Provision
Yerrinbool	Draft – Adoption by Council forecast for September 2025	Provision
New Berrima	Draft – Adoption by Council forecast for 2025/26	Provision
Hilltop	Draft – Adoption by Council forecast for 2025/26	Provision
Bundanoon	Draft – Adoption by Council forecast for 2025/26	Provision
Colo Vale	Not Started – Adoption by Council forecast for 2026/27	Provision

Table 11 Drainage masterplan

4.3.2 Floodplain Management Program

Council develops flood studies and floodplain risk management plans in accordance with the Flood Prone Land Policy and the Floodplain Development Manual.

The resultant Floodplain Risk Management Plans contain a variety of actions for Council to undertake in order to manage flooding hazards within the catchment. The actions will generally fall within the categories of either infrastructure upgrades, development controls, emergency services and community education. A comprehensive list of actions and their corresponding implementation status is available on the Council website and updated on a quarterly basis.

The table below provides a summary of the Flood Studies and Risk Management Studies that Council has completed or are in progress.

Catchment	Study	Status	Year of Completion	Level of Service it influences
Nattai Ponds	Flood Study	Complete	2016	-
	Risk Management Study and Plan	Complete	2020	Provision
Nattai River	Flood Study	Complete	2014	-
	Risk Management Study and Plan	Complete	2017	Provision
Gibbergunyah Creek	Flood Study	Complete	2013	-
	Risk Management Study and Plan	Complete	2016	Provision
Bowral (Mittagong Creek)	Flood Study	Complete	2009	-
	Risk Management Study and Plan	Complete	2009	Provision
	Revision of Risk Management Study and Plan	In progress	Forecast - 2026	Provision
Whites Creek	Flood Study	Complete	2012	-
	Risk Management Study and Plan	Complete	2012	Provision
	Revision of Risk Management Study and Plan	Complete	2020	Provision
Burradoo BU2	Flood Study	Complete	2010	-
	Risk Management Study and Plan	Complete	2014	Provision
Robertson Village (Caalong Creek)	Overland Flow Study	Complete	2016	-
	Risk Management Study and Plan	Complete	2016	Provision

Table 12 Floodplain Management Program

5 Levels of Service

Council defines its Levels of Service (LoS) across three key components:

- Provision – What assets Council provides, where, and how much
- Renewal – How frequently assets are replaced at the end of their useful life
- Maintenance and Operations – How assets are maintained to ensure safety, function and longevity

These components are interdependent — changing one may impact the others. For example, delaying renewal may increase maintenance needs, while expanding asset provision will create additional operational costs

5.1 Provision Level of Service (LoS)

Provision LoS refers to the number, type and location of assets Council provides across the Shire.

Council's stormwater asset network is composed of 19,780 assets with a total value of $265.47M.

community.

The level of provision is not consistent across all areas. This is due to changes in planning and engineering standards over time. Assets in newer subdivisions are delivered under current design standards, while older areas reflect the requirements of past eras.

The Provision LoS for new development is shaped by several guiding documents:

- Local Environmental Plan (LEP)
- Development Control Plan (DCP)
- Engineering Design and Construction Specifications
- Developer Contribution and Servicing Plans
- Relevant strategies and masterplans (refer to Table 8 in Section 4.3)

While consistency across the Shire is a long-term challenge, Council continues to pursue a more equitable and contemporary provision standard over time. This is to be primarily achieved through the implementation of actions identified through Stormwater Masterplans and Floodplain Risk Management Plans – the details of which are provided in Section 4.4.

It is however acknowledged that these Masterplans and Risk Management Plans have not been developed for all areas within the Shire, and so upgrades will be considered in these areas on a case-by-case basis.

There is significant financial support available for the implementation of actions identified within Floodplain Risk Management Plans from State and Federal grant funding programs – the annual Floodplain Management Plan being the primary source.

Unfortunately, there are limited funding opportunities for the implementation of Stormwater Masterplans and so they will primarily be utilised to inform conditions of consent for developments, as well as providing options for unique grant funding opportunities when available. However, opportunities will be taken as part of road and drainage renewal projects to deliver improved drainage outcomes when possible.

It is to also be noted that the Wingecarribee Stormwater Management Policy provides detail as to areas of Council and private responsibility for the management of the stormwater network.

5.2 Renewal

5.3 Renewal Level of Service

Renewal LoS defines how often assets are replaced with a Modern Engineering Equivalent Replacement Asset (MEERA) — typically at the end of their useful life.

The useful life of an asset is the period over which it provides value. It is a key factor in both depreciation calculations and long-term renewal planning. Ideally, Council's annual capital renewal investment should match the value of annual depreciation, averaged over time.

If renewal falls below this level for extended periods, Council may face a backlog of ageing infrastructure and rising maintenance costs. Conversely, shortening useful lives can reduce maintenance needs but increase renewal costs.

The relationship between useful life, depreciation, and maintenance is carefully balanced to ensure sustainable asset management.

Summary of useful lives for stormwater asset categories are provided below:

Asset Class	Asset Category	Useful life (years)
Stormwater	Pits	100
	Pipes	100
	GPT	80
	Headwall	80

Table 13 Useful lives

The intent is therefore that all stormwater assets will be renewed prior to exceeding their designated useful life.

However, renewal works will also be based on asset condition. When an asset is found to be of Condition 4 or 5 it will then be programmed for renewal within the Capital Works program.

5.4 Maintenance & Operations

Maintenance and operational activities are essential for ensuring that Council's assets remain safe, functional and fit for purpose. These activities are delivered through a mix of proactive scheduling and reactive response across the entire asset network.

- Operational activities (such as inspections, servicing or compliance tasks) are generally well suited to structured scheduling and can often be delivered in a controlled and timely manner
- Maintenance activities (such as repairing damage, replacing worn components or responding to faults) are more difficult to schedule reliably and require mature systems, consistent data and adequate resourcing

Results from the recent community satisfaction survey show a noted lack of satisfaction in Council's current maintenance level of service for the stormwater networks.

Nevertheless, maintenance and operations budgets are heavily constrained by both funding and resourcing availability. Although results of the recent community satisfaction survey indicate a performance gap in stormwater maintenance, these constraints mean that solutions will need to be found whilst maintaining exist budget levels.

Potential opportunities being investigated are a more strategic approach being adopted for maintenance, as well as programming & delivery of more effective capital renewal & upgrade projects.

A community wide survey being conducted across May 2025 will assist in better understanding the community's dissatisfaction with Council's drainage services, such that targeted solutions/improvements can then be made. It needs to be better understood as to if the community is dissatisfied with provision of drainage to new areas, quality of existing drainage infrastructure, management of creeks or delivery of water quality outcomes.

Maintenance and operations level of service will be provided under two categories: inspections and maintenance.

5.4.1 Inspections:

Inspections will be of two categories. Scheduled inspection and reactive inspection.

- Scheduled inspection

As part of the risk management of the asset network, all assets are to be inspected at a regular interval. The frequency of the inspection will be commensurate to the magnitude of the network as well as the assets rate of decay. The following condition inspection frequencies have been adopted for the following asset categories:

Asset Class	Asset Category	Inspection Method	Inspection Frequency
Stormwater	Pits	CCTV Tractor Camera	20 years (5% of network inspected annually)
	Pipes	CCTV Tractor Camera	20 years (5% of network inspected annually)
	GPT	Visual Inspection	Annually
	Headwall	Visual Inspection	5 years (20% of network inspected annually)
	Detention Basins	Visual Inspection	Annually

Table 14 Scheduled Asset Inspection

- Reactive inspection

Reactive inspections will be conducted as required in response to notification, or suspicion, of asset structural or performance failure. The reactive inspection will generally be an onsite visual inspection; however, CCTV Tractor Camera inspections will be utilised to inspect the stormwater pipeline network.

5.4.2 Maintenance:

Maintenance works are currently completed on a solely reactive basis. This is largely as result of current work management systems, but also due to available resourcing.

The current level of service can therefore be detailed as such in the following table:

Activities	Reactive or scheduled	Annual Budget
• Pit, pipe and headwall clearing. • Repairs and replacement of minor items • Vegetation and litter removal • Cleaning of GPTs and water quality devices	Reactive	$1,043,411

Table 15 Maintenance Activities

6 Asset Base Growth

Over the next 10 years, Council's asset base will continue to grow as a result of:

- New and upgraded assets delivered through Council and grant-funded capital projects
- Assets contributed by developers as conditions of consent or because of a Planning Agreement
- Infrastructure delivered through Developer Contributions and Servicing Plans

Council's current forecasts do not include any significant asset disposals during this period. Future updates may consider this as part of the ongoing development of Council's Property Strategy.

6.1 New & Upgraded Assets

The new and upgrade asset projects category covers those projects resourced by Council or grant funding, but excluding Development Contributions, that involve existing assets being enhanced or new assets being constructed.

The table below summarises the new or upgrade projects that Council is known to be delivering within the 10-year window of this AMP. These projects are being funded by Council through a combination of General Fund, Stormwater Management Levy and Grant funding. The financial year listed is that in which the project will be completed, but construction may have commenced in the years prior.

Asset Class	Financial Year	Project Name	Value
Stormwater	2025/26	Retford Farm Basin	$6.15M
Stormwater	2025/26	Gascoigne Street Drainage	$0.81M
Stormwater	2025/26	Sunninghill Ave Burradoo	$1.85M
Stormwater	2025/26	Drapers Road Drainage	$0.80M
Stormwater	2025/26	Penrose Road Drainage	$0.30M
Stormwater	2026/27	Bowral Golf Course Basins	$2.00M

Table 16 New and Upgraded Assets

6.2 Assets Contributed by Development through Conditions of Consent

As development continues, new infrastructure is delivered directly by developers under Conditions of Consent or a Planning Agreement and subsequently transferred to Council.

Council's Local Housing Strategy targets a 50:50 balance between infill development and greenfield development. Since only greenfield development typically leads to new asset contributions, it is estimated that 50% of population growth results in asset base growth.

Historical analysis shows that for every 1% increase in population from greenfield development, the asset base increases by approximately 0.3%. This reflects the fact that most contributed assets are minor in scale — such as pipes or footpaths, not major facilities like treatment plants.

Financial Year	Population Forecast	Population Growth	Forecast Asset Base Growth
2025/26	54,776	1.1%	0.16%

2026/27	55,357	1.1%	0.16%
2027/28	55,975	1.1%	0.17%
2028/29	56,593	1.1%	0.17%
2029/30	57,212	1.1%	0.16%
2030/31	57,830	1.1%	0.16%
2031/32	58,448	1.1%	0.16%
2032/33	59,138	1.2%	0.18%
2033/34	59,828	1.2%	0.18%
2034/35	60,527	1.2%	0.18%

Table 17 - Forecast.ID Population Growth

6.3 Developer Contributions and Servicing Strategies

An important funding source for new infrastructure are Development Contributions collected under Section 7.11 and 7.12 of the Environmental Planning and Assessment Act. These contributions fund a significant proportion, though not all, of the infrastructure required by new development.

Council currently primarily levies contributions through the following plan relating to stormwater.

- Stormwater Development Servicing Plan 2010

Several strategic studies have been completed or are in progress which will inform future updates to the plans, these being:

- Floodplain Risk Management Plans
- Stormwater Masterplans

Therefore, only projects that currently feature within the 2025/26 to 2028/29 Capital Works Program which are funded by developer contributions are to be included within this section – however there are currently none featured within the Capital Program.

6.4 Asset Disposals

No significant disposals are currently committed. Asset disposals — where an asset is removed and not replaced — may be considered in future revisions pending community engagement outcomes and the adoption of Council's Property Policy.

6.5 Asset Indexation

To ensure lifecycle costs remain comparable year-to-year, this Strategy adopts the same indexation assumptions as Council's LTFP:

- 3.0% annually for 2025/26 and 2026/27
- 2.5% annually from 2027/28 onward

6.6 Efficiencies

In line with the adopted LTFP, Council anticipates achieving 1% annual efficiency improvements. These will result from:

- New digital systems
- Workforce optimisation

- Strengthened business processes

These ongoing improvements will support Council's ability to deliver services effectively while managing the impacts of asset growth.

6.7 Asset Base Growth

Total asset base growth is comprised these components:

- Asset upgrades
- Assets contributed by development through conditions of consent.
- Development Contributions
- Subtracting asset disposals
- Indexation

The stormwater asset base is forecast to see $48M of growth across the 10-year window of this AMP.

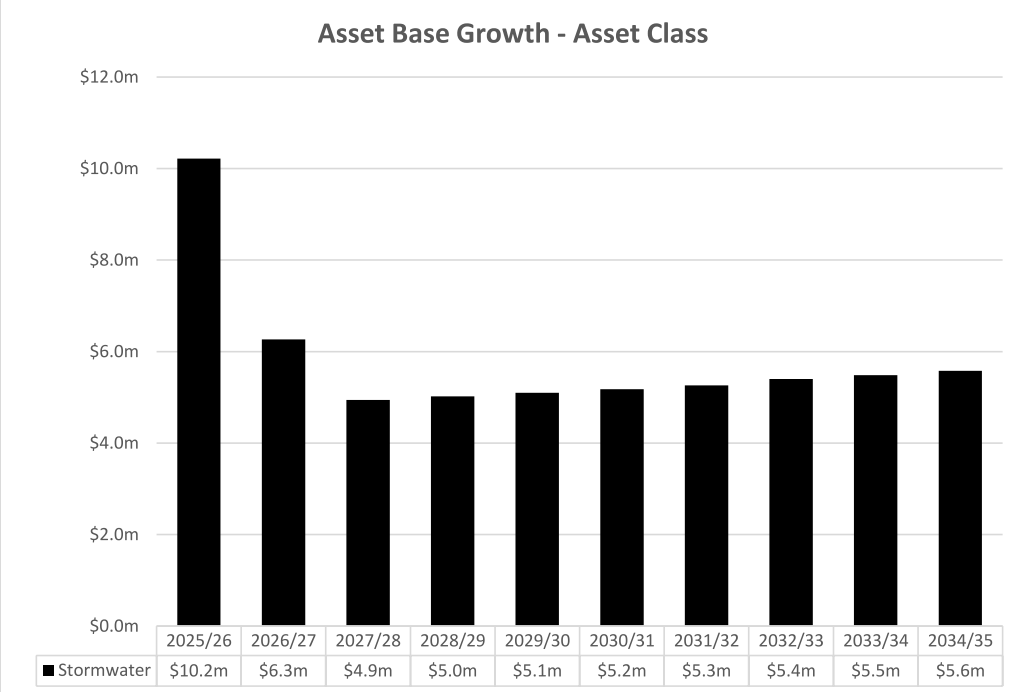


Figure 12 Annual Asset Base Growth

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Stormwater	$290m	$297m	$301m	$307m	$312m	$317m	$322m	$327m	$333m	$339m

Figure 13 Cumulative Asset Base Growth

7 Financial Lifecycle Forecast

To deliver the Levels of Service (LoS**)** outlined in this Strategy, Council must allocate funding for maintenance, operations, and asset renewal across the asset class.

7.1 Renewal Forecast

To keep Council's assets in good condition and maintain a healthy Infrastructure Backlog Ratio, assets must be renewed when they reach the end of their useful lives. Renewal involves disposing of the old asset and replacing it with a Modern Engineering Equivalent Replacement Asset (MEERA).

Relying solely on useful life expiry or condition data to plan renewals causes large fluctuations in annual renewal budgets. This makes long-term planning and resource allocation more difficult. Instead, Council uses an averaged renewal forecast to spread the investment more evenly over time.

In practice, actual investment in each asset class may vary based on the scale and timing of individual projects. These allocations are refined during the preparation of each new Delivery Program.

Across the 10-year planning period, the required renewal expenditure for the Stormwater asset class is forecast at approximately $20M.

Scenario 1 of Council's LTFP can accommodate $9M in renewal investment over the same period, based on:

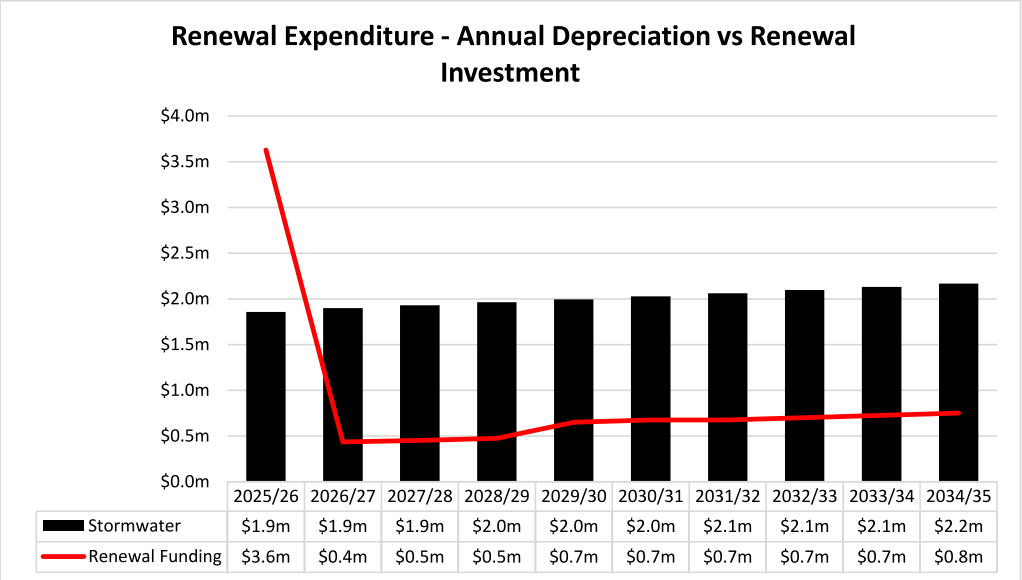
- Consideration of the 2025/26 to 2028/29 Capital Works Program
- For 2029/30 to 2034/35, the SRV allocation has been distributed proportionally to each asset classes by their annual depreciation.
- The assumption is that all funded projects will be 100% renewal.

This leaves a forecast funding gap of $11M between accumulated depreciation and actual renewal investment by 30 June 2035, as shown in Figure 15.

Figure 15 – Transport Annual Depreciation vs Renewal Investment

Community satisfaction with the drainage network is low and if renewal investment is below that of annual depreciation, then it is unlikely that a significant uplift in satisfaction can be achieved.

Therefore, Council must continue to seek and rely on grant funding opportunities to keep up with the asset deterioration of the stormwater asset class.



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Stormwater	$1.9m	$1.9m	$1.9m	$2.0m	$2.0m	$2.0m	$2.1m	$2.1m	$2.1m	$2.2m
Renewal Funding	$3.6m	$0.4m	$0.5m	$0.5m	$0.7m	$0.7m	$0.7m	$0.7m	$0.7m	$0.8m

Figure 14 Recommended Renewal Expenditure

7.2 Maintenance & Operations Forecast

As Council's asset base grows, maintenance and operations budgets must also increase to maintain current levels of service. Without this investment, the community may experience a gradual decline in service delivery, particularly for high-use infrastructure.

To assess future needs, Council has used the 10-year asset base growth forecast to estimate the additional funding required to maintain current service levels across all asset classes.

The required maintenance and operations expenditure across the 10-year period is forecast to be $20M.

Under Scenario 1 of the LTFP, Council can accommodate this budget requirement.

However it must be noted that this is just maintain current service levels across a growing asset base – it does not enable for the delivery of higher level of service.

8 Improvement Plan

Asset Planning is a journey of continuous improvement with there always being opportunities to further improve the accuracy of asset data, better understand community needs and expectations and more efficiently meet the service needs of the Shire.

To this end, an Asset Management Improvement Plan has been prepared to guide this journey of continuous improvement.

The below items are specific improvements that can be made to this document as well as the asset management maturity of Council.

Ranking	Improvement	Responsibility	Timeline
1	Annual CCTV Tractor Camera inspection of 5% of stormwater pipe network.	Assets	Annually
2	Implementation of Technology One Assets, Strategic Assets and Works Management modules	Assets	2025/26
3	Creation of Defects Register – to be populated from scheduled and reactive inspections	Assets	2025/26
4	Stormwater Levy layer update.	Assets	2025/26
5	Prepare Stormwater Masterplan for Colo Vale.	Assets	2025/26
6	Asset Inventory capture of collector and major collector roads.	Assets	2025/26
7	Asset Inventory Capture of villages Berrima, Bundanoon, Exeter, Wingello.	Assets	2025/26
8	Review of Robertson Village Overflow Study and Risk management plan.	Assets	2026/27
9	Conducting WSUD audit and Preparing scheduled WSUD cleaning program.	Assets	2026/27

Table 18 Asset Management Improvement Plan

Wingecarribee
SHIRE COUNCIL

Asset Management Plan – Buildings & Aquatics

We're with you

WINGECARRIBEE SHIRE COUNCIL

Document Name	Asset Management Plan - Buildings
Version No.	2
Council File Reference	Document Set ID 5484364
Adoption Date	TBD
Resolution Number	MN 2024/201
Document Owner	Manager Assets
Responsible Branch	Assets
Responsible Business Unit	Assets Parks and Buildings
Review Schedule	Annually
Review Date	26 June 2026

Version	Adoption Date	Notes
1	26 June 2024	First version of Asset Management Plan - Buildings
2	TBC	2024/25 update

Contents

1 Executive Summary

This Asset Management Plan (AMP) is part of a suite of Portfolio AMPs, which together sit under the Asset Management Strategy (AMS). It is to be read in conjunction with the AMS and Four Year Capital Works Program.

This AMP provides an overarching document of Council's management of, and investment in, the Buildings Asset Class over a 10-year planning period.

Council manages a buildings asset class of 313 structures across a broad range of asset categories, including aquatics, worth a combined $208M. The average condition of these structures is 2.1, which is defined as therefore being in 'good' condition.

The level of service that Council provides through this asset class can be described within the three categories of: Provision, Renewal, and Maintenance and Operations. What Council delivers through these levels of service are driven by consideration of: Risk Management, Community Satisfaction and Strategies and Masterplans. But is constrained by funding and availability of resourcing.

The 2024 satisfaction survey results contained the following trends of satisfaction with the provision and operation of libraries slightly exceeding the importance residents place on this service, and there being a growing performance gap for the maintenance of public toilets and the operation of aquatic facilities.

In accordance with these results, the Level of Service chapter details how the Capital Works Program features investment in renewal of public toilets and refurbishment of heritage significant buildings.

In order to provide an analysis of financial investment required across the planning period, calculation of forecast asset base growth must be completed. Asset base growth is calculated through consideration of the value of the asset class growing as result of new and upgrade projects, assets contributed through development, development contributions plans and indexation, as well as subtracting any known asset disposals.

It is forecast that across the planning period the asset base will grow by $42M.

Recommended financial investment for the Renewal Level of Service and Maintenance and Operations Level of Service have been calculated through aligning renewals with annual depreciation, and ensuring maintenance and operational budgets increase in step with asset base growth.

The Long-Term Financial Plan is unfortunately not able to accommodate the entirety of this desired financial investment, largely as result of asset base growth exceeding the Council rate peg.

This will therefore result in a lowering of levels of service and will prevent assets from reaching their desired useful life - which in turn increases renewal expenditure requirements.

Asset management is a journey of continuous improvement, and so the AMP concludes with a concise Improvement Plan detailing the asset management maturity tasks programmed for the years ahead.

2 Asset Systems and Structures

2.1 Asset Planning Framework

Council's Asset Management Planning Framework is a critical part of the wider Integrated Planning and Reporting (IP&R) Framework used across all NSW local governments. It provides a structured and consistent approach to planning, delivering, maintaining and renewing Council's infrastructure assets.

The Framework ensures Council can make informed decisions and perform the key functions of asset management — including planning, coordinating, operating, maintaining, monitoring and improving the infrastructure services our community relies on every day. The structure of Council's Asset Management Framework is shown in Figure 1.

Council's Asset Management Framework consists of three key components:

1. Asset Management (AM) Policy:

The Asset Management Policy sets Council's overarching commitment and objectives for how we manage infrastructure. It outlines the principles that guide decision-making and establishes our focus on responsible, sustainable and risk-aware asset stewardship.

2. Asset Management Strategy (AMS):

This Strategy provides the roadmap for achieving the goals outlined in the Asset Management Policy. It aligns with the Long-Term Financial Plan 2025–2035 and the Delivery Program 2025–2029 to ensure our asset investments and service levels are sustainable and community-informed.

The Strategy is reviewed regularly to remain relevant and responsive. Specific works and activities arising from this Strategy are included in Council's Operational Plan and Annual Budget.

3. Asset Management Plans (AMP):

Asset Management Plans translate the strategic direction of this Strategy into detailed actions for each major asset class. These plans provide a deeper analysis of:

- Asset condition and inventory
- Levels of service
- Risks and renewal priorities
- Financial sustainability over the asset lifecycle

AMP's are developed for both community assets and business unit assets, grouped by the type of function the assets serve:

a) Community assets
   i) Transport (roads, bridges, footpaths)
   ii) Stormwater
   iii) Buildings and Aquatic facilities
   iv) Open Space and Recreation
   v) Water
   vi) Wastewater
b) Business units

i) Cemeteries

ii) Resource Recovery Centre (RRC)

iii) Southern Regional Livestock Exchange (SRLX)

AMP's are regularly reviewed to ensure they continue to meet the service needs of the community and reflect changing conditions. These reviews are informed by community consultation and engagement. AMP's also act as core inputs into Council's Long-Term Financial Plan, helping to shape future budgets and investment decisions.

All adopted AMPs are available on Council's Asset Management Planning page at https://www.wsc.nsw.gov.au/Residents/Asset-Management-Planning

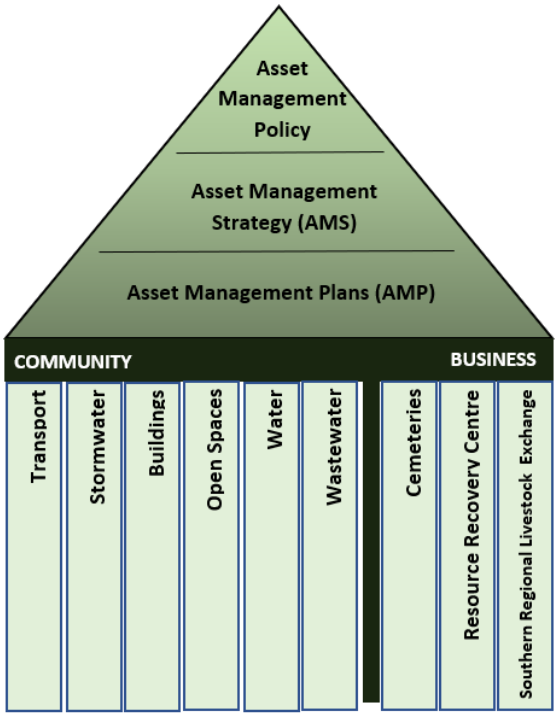


Figure 1: Asset management Planning Framework

2.2 Asset Planning Systems

Effective asset planning relies on accurate, integrated and up-to-date data. Council uses several systems and databases to support asset management planning, service delivery and reporting. These tools enable staff to maintain reliable asset information, assess risks, model future scenarios and plan capital investment.

Table 1 summarises the core systems currently use across Council for asset planning and management:

System	Description
Conquest	Asset register – inventory, condition and attribute data
ArcGIS	Geographic Information System – maps and spatial asset data
Technology One – Finance	Manages budgets, purchase orders and expenditure
Technology One – Enterprise Content Management (ECM)	Enterprise Content Management – document and record keeping
Technology One – Customer Request Management (CRM)	Customer Request Management – workflows for customer enquiries and requests
Pulse – Project Management	Project management – scoping, planning and delivery of capital projects
Infoworks WS Pro and ICM	Water and wastewater network modelling software

Table 1: Asset Planning Systems

As part of Council's ongoing digital transformation, several new Technology One modules are being implemented to streamline workflows, improve integration across teams, and reduce manual processes.

During 2025–2026, the following upgrades will be rolled out:

1. Asset Register: This module will replace Conquest and become Council's single source of truth for asset inventory, condition and attribute data. It will integrate with Finance through the creation of Asset Books, eliminating the need for manual reconciliation
2. Strategic Assets: An advanced modelling tool that connects with the Asset Register. It enables future condition forecasting based on varying levels of investment and supports long-term scenario planning
3. Works Management: This module will support field-based delivery teams by enabling integrated work orders. It will fully align with the Asset Register and Finance systems to provide seamless job tracking and cost control

These improvements will help Council make better-informed decisions, plan more proactively, and improve the efficiency of asset lifecycle management.

2.3 Organisational Structure

Wingecarribee Shire Council uses a collaborative, whole-of-organisation approach to asset management.

Asset planning and network-level planning functions are centralised within Council's Asset Branch, which sits under the Service and Project Delivery Directorate. This structure ensures a coordinated and strategic approach to infrastructure planning and lifecycle decision-making.

Meanwhile, the day-to-day operations, maintenance and capital project delivery functions are primarily managed through three key teams:

1) Shire Presentation
2) Water Services
3) Project Delivery

These assets are used to support a wide range of services across the community — from libraries and aquatics to depots and the visitor information centre. Each of these services is overseen by a Service Manager, who is accountable for delivering the function to the community.

To ensure services meet the needs and expectations of our community, Council integrates asset planning and delivery with service design. This is achieved through close collaboration between the Asset Branch, Project Delivery teams and each relevant Service Manager.

Together, these teams work to ensure that infrastructure is planned, funded and maintained in ways that:

- Deliver on service objectives
- Maximise asset performance and lifespan
- Respond to community priorities and satisfaction

Service Manager	Asset / Facility
Manager Community Life and Libraries	Libraries
Manager Waste and Resource Recovery	Resource Recovery Centre
Manager Business and Property	Southern Regional Livestock Exchange
	Southern Highlands Visitor Information Centre
	Bowral Memorial Hall
	Aquatics Portfolio
Manager Water Services	Mittagong Works Depot
Manager Shire Presentation	Moss Vale Works Depot

Table 2 - Service Managers

The below figures detail the organisational structure relationship between Assets and the Delivery branches within the Project Delivery Directorate, as well as that of the Parks and Buildings Assets Team.

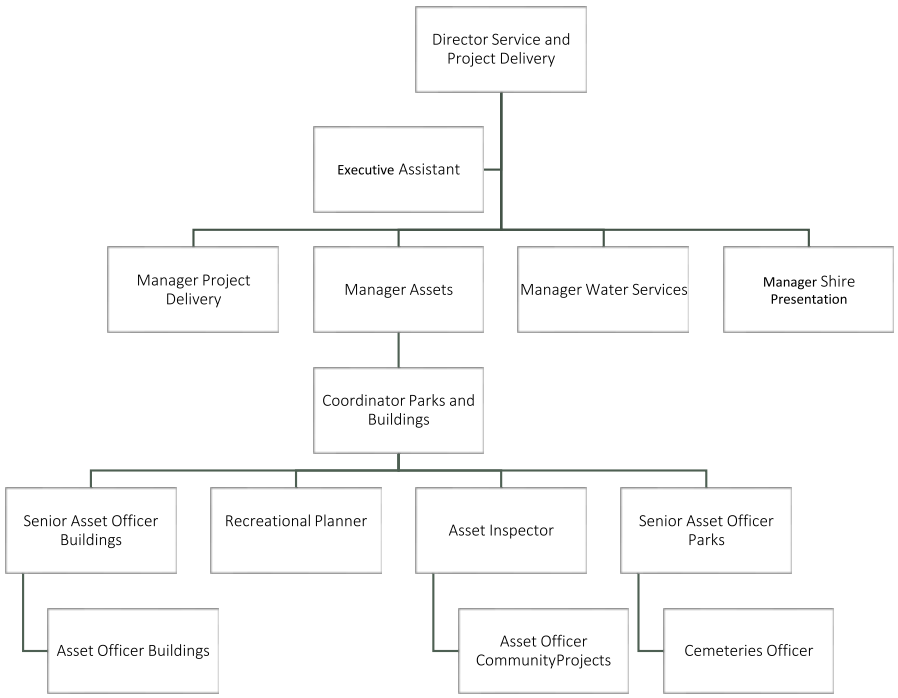


Figure 2 - Organisational Structure

3 Our Assets

3.1 Asset Class Inventory

Council manages a building & aquatics asset register of 313 buildings covering a wide range facility types and purposes. The table below provides a summary of this inventory:

Asset Category	Count of Structures	Replacement Value ($)
Administration, Operational and Libraries Buildings	48	$46,129,256
Community Buildings	38	$57,950,402
Commercial Buildings	24	$30,563,983
Childcare Buildings	19	$10,182,142
Emergency Buildings	33	$14,363,058
Public Toilets	35	$8,330,857
Sports Field Amenities and Clubrooms	36	$17,821,710
Sports Field and Parks Shelters	36	$1,666,021
Sports Field and Parks Storage Sheds	21	$1,036,463
Swimming Pools and Buildings	23	$20,447,679
TOTAL	313	$208,491,571

Table 3 - Asset Inventory Summary

Several of these structures are located on the same property and so these locations are considered 'centres'. As example:

- The 23 buildings of Asset Category 'Swimming Pools' are located across 4 swimming centres
- The 19 buildings of Asset Category 'Childcare Centres' are located across 6 childcare centres

The Saleyards (Southern Regional Livestock Exchange – SRLX) and the Resource Recovery Centre (RRC) are not included within this Asset Management Plan (AMP) as they are subject to their own dedicated Business AMP.

The buildings & aquatics asset register has a total value of $208M and can be further componentised into 2,324 building assets.

We maintain our asset register through a combination of proactive inspections, project-related updates and external contributions.

Key processes include:

- Newly constructed assets: Assets are added to the register following delivery by Council capital works or dedication through subdivision development.
- Ad-hoc inspections: Triggered by internal requests, customer feedback or during project scoping phases.
- Scheduled inspections: All assets are included in a structured inspection schedule.

Inspection frequency is based on the asset's rate of deterioration, cost to inspect, and potential consequences of failure.

All assets are valued in line with Australian Accounting Standards, with a comprehensive revaluation undertaken for each asset class at least every five years.

In years where a full revaluation is not scheduled, Council conducts an annual fair value assessment across all asset classes. If a material change in value is detected, the relevant classes are indexed using industry-recognised methods.

A comprehensive valuation for buildings was performed in the financial year 2022/2023. The comprehensive valuation is therefore scheduled for financial year 2027/2028.

Figure 3 (below) shows the current estimated value of the asset class, broken down by asset category.

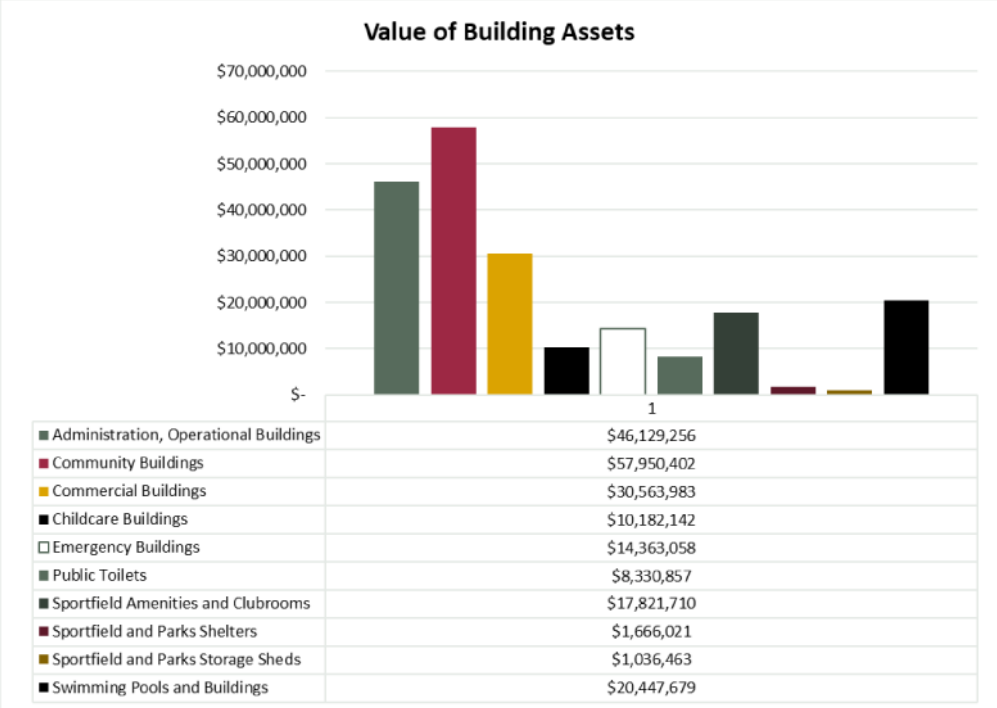


Figure 3 - Asset Category Value

3.2 Condition

Council regularly assesses the condition of its assets to help plan maintenance, renewal and capital works programs. These assessments form part of a rolling inspection schedule across the entire asset network.

Condition assessments are undertaken in line with industry standards, using guidelines developed by the Institute of Public Works Engineering Australasia (IPWEA). These assessments are used to:

- Track asset performance over time
- Identify assets approaching failure
- Inform risk management and lifecycle planning
- Support annual budgeting and long-term financial modelling

Council uses a standardised 5-point rating system:

1. As new / Excellent
2. Good / Satisfactory
3. Fair / Tolerable
4. Poor / Intolerable
5. Very Poor / Reconstruction required

The overall condition of Buildings Asset is shown in figure 3. Asset condition by asset value are shown in Figure 4.

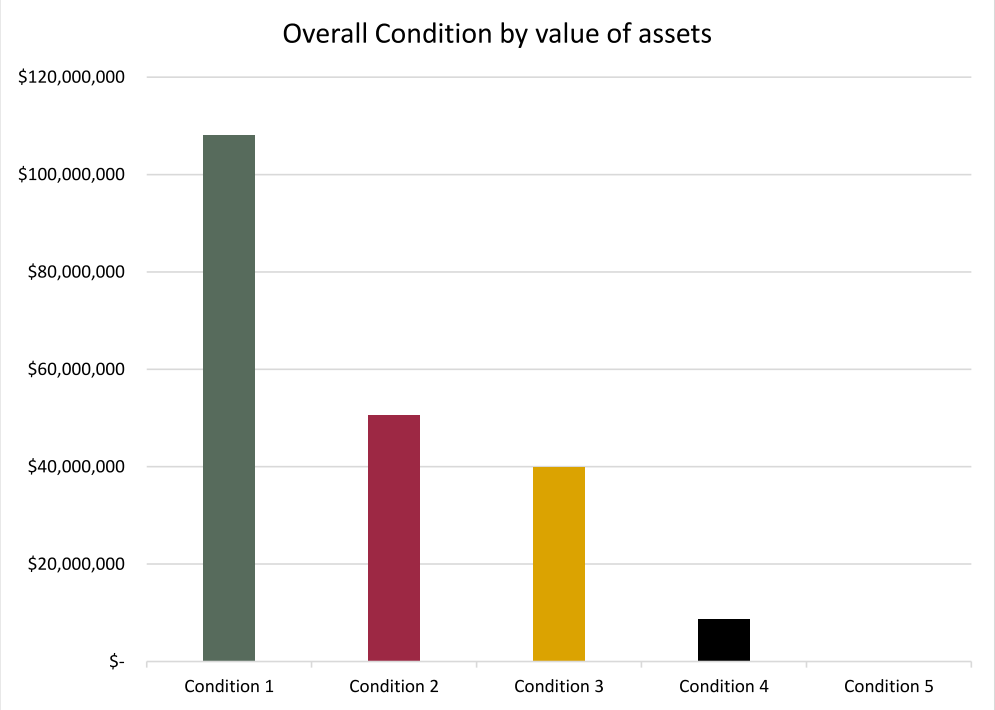
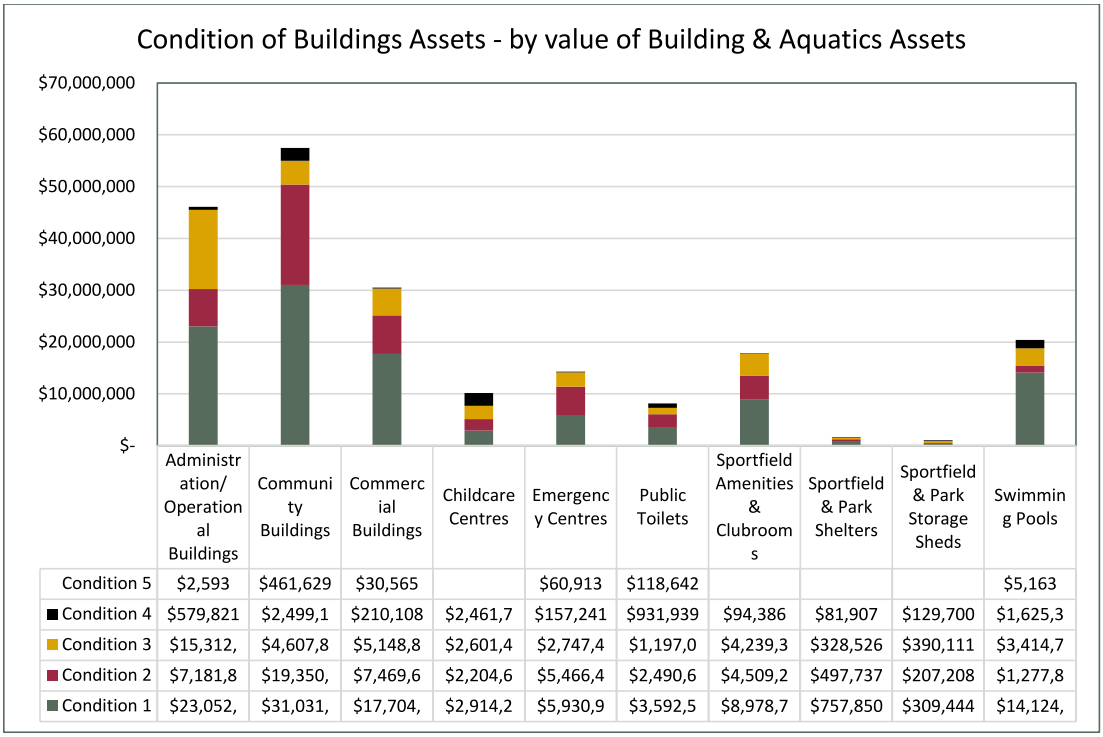


Figure 4- Asset Class Condition by Value



	Administration/ Operational Buildings	Community Buildings	Commercial Buildings	Childcare Centres	Emergency Centres	Public Toilets	Sportfield Amenities & Clubrooms	Sportfield & Park Shelters	Sportfield & Park Storage Sheds	Swimming Pools
Condition 5	$2,593	$461,629	$30,565		$60,913	$118,642				$5,163
Condition 4	$579,821	$2,499,1	$210,108	$2,461,7	$157,241	$931,939	$94,386	$81,907	$129,700	$1,625,3
Condition 3	$15,312,	$4,607,8	$5,148,8	$2,601,4	$2,747,4	$1,197,0	$4,239,3	$328,526	$390,111	$3,414,7
Condition 2	$7,181,8	$19,350,	$7,469,6	$2,204,6	$5,466,4	$2,490,6	$4,509,2	$497,737	$207,208	$1,277,8
Condition 1	$23,052,	$31,031,	$17,704,	$2,914,2	$5,930,9	$3,592,5	$8,978,7	$757,850	$309,444	$14,124,

Figure 5 - Asset Category Condition by Value

The overall average condition of Council's Buildings & Aquatics assets is good / satisfactory.

Average condition rating for building assets is 2.1

Asset Category	Average Condition by Count of Assets
Administration/ Operational Buildings	2.0
Community Buildings	2.1
Commercial Buildings	2.0
Childcare Centres	2.5
Emergency Centres	1.8
Public Toilets	1.9
Sportfield Amenities and Clubhouses	2.1
Sportfield and Park Shelters	2.0
Sportfield and Park Sheds	2.3
Swimming Pools	2.3

Overall	2.1

Table 4 - Average Asset Condition

3.3 Age Profile

Data confidence in the asset profile of the Buildings & Aquatics asset portfolio is mixed.

Construction date data for prior to 1940 and post 1990 is of high confidence.

However construction date data for buildings constructed between 1940 and 1990 is based upon estimates from physical inspection of the building and general knowledge. This explains the spikes on some years and may not represent a true depiction.

It is certain, however, that most Council buildings were constructed between the years of 1960 and 2000.

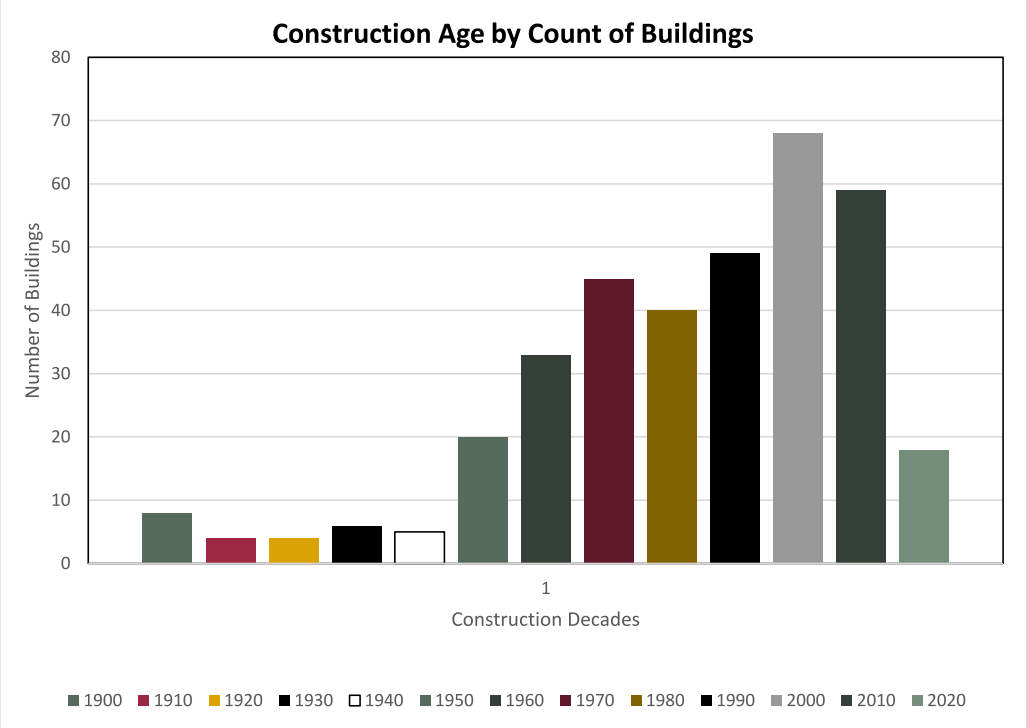


Figure 6 – Average Asset Construction Year

3.4 Asset Category Inventory

3.4.1 Accessibility of Public Toilets

Currently 43% of the public toilets in the Wingecarribee Shire Council are accessible. Council is committed to implementing its Public Toilet Strategy for the renewal of public toilet facilities.

As per Council's Disability Inclusion Action Plan 2022-2026 and the Building Code Australia, all new toilets will include an accessible toilet.

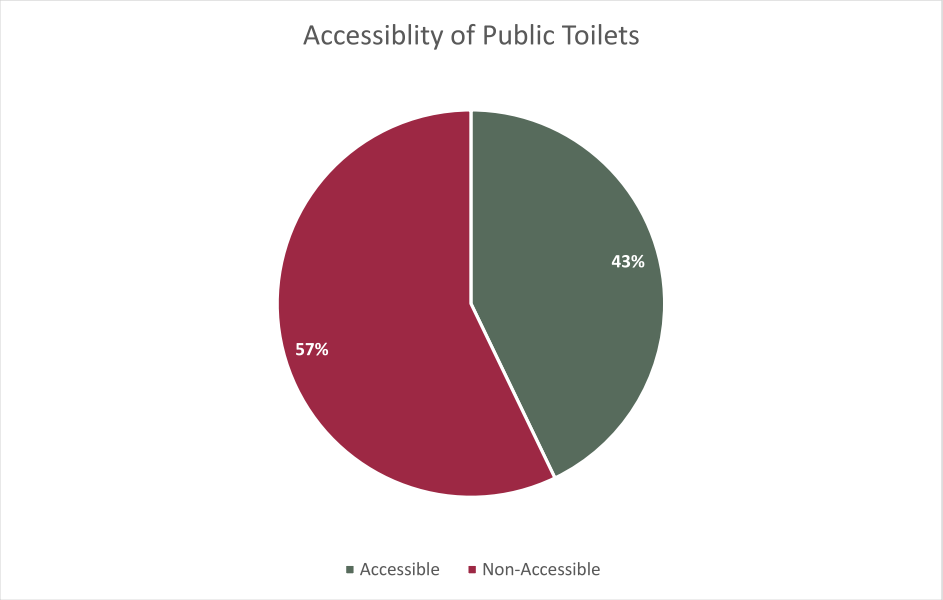


Figure 7 - Accessibility of Public Toilet Portfolio

3.4.2 Swimming Pools and Buildings

Swimming Pools consist of 4 Swimming Centres, namely Moss Vale Aquatic Centre, Bundanoon, Bowral and Mittagong Outdoor Swimming Centres. Each of the outdoor swimming centres have multiple structures, including the pool structures, pump sheds, kiosks, shade sail structures etc. and these are all counted towards the total number of buildings within the swimming pools asset category.

3.4.3 Administration and Operational Buildings

Administration and Operational Buildings include the Civic Centre, Animal Shelter, Libraries and Council Depots. It is important to note that each of the Council Depots have multiple sheds and workshops on site which all count towards the total number of operational buildings.

4 Drivers of Level of Service

Council's Levels of Service (LoS) define the standard at which assets are provided, maintained, renewed and operated. These levels determine how often assets are inspected, how quickly they are repaired, and how long they are expected to last.

While Levels of Service are shaped by available funding and staff resources, they are primarily driven by three key factors:

- Risk Management
- Community Satisfaction
- Strategies and Masterplans

4.1 Risk Management

Risk is the potential impact of uncertainty on Council's ability to meet its objectives. Council uses a structured approach to identify, monitor and respond to risks across its asset portfolio.

The risk assessment will identify potential hazards and select a treatment option to be implemented to control the generated risk. The resultant treatments will primarily fall within the categories of ensuring compliance with regulations and standards, adhering to a regime of systemic inspections, committing to a program of upgrades and ensuring proactive and reactive maintenance is completed.

This Risk Assessment will cover generic hazards that are typical across the entire asset network, however it also provides a closer analysis of Critical Assets where appropriate.

4.1.1 Critical Assets

Critical assets are those that have a high consequence of failure in terms of community impact. By identifying critical assets and failure modes, an organisation can ensure that condition inspection programs, maintenance and capital expenditure plans are targeted to ensure that the risk of critical asset failure is minimised.

Council's critical assets in Building & Aquatics assets class include:

Administration / Operational Buildings – Civic Centre and Council Depots
Emergency operations – RFS and SES buildings

Table 5 - Critical Assets

4.2 Risk Assessment Framework

Risk (R) Matrix		Consequence (C)				
		Severe	Major	Moderate	Minor	Insignificant
Likelihood (L)	Almost Certain	Extreme	Extreme	High	High	Moderate
	Likely	Extreme	Extreme	High	Moderate	Moderate
	Possible	Extreme	High	Moderate	Moderate	Low
	Unlikely	High	High	Moderate	Low	Insignificant
	Rare	High	Moderate	Low	Insignificant	Insignificant

Table 6 - Risk Assessment Framework

Risk	Hazard	Inherent Risk			Treatment	Residual Risk			Implementation Status	Responsibility	Level of Service
		C	L	R		C	L	R			
Personal injury	Deteriorated building assets	MAJ	POS	H	Renew assets in accordance with designated useful life	MIN	POS	M	Current	Assets	Renewal
					Complete building inspections at regular intervals				Current	Assets	Operations
					Reactive maintenance of building assets through CRM system.				Current	Shire Presentation	Operations
Personal injury	Compliance with statutory requirements	MAJ	POS	H	Meeting testing and certification requirements of building components/items (fire safety, lifts etc)	MIN	POS	M	Current	Shire Presentation	Operations
Personal injury	Deferred maintenance (i.e. works that are identified for maintenance activities but unable to be completed due to available resources)	MOD	LIK	H	Ensure maintenance budgets increase with asset base growth	MOD	LIK	H	Future	Assets	Operations

Risk	Hazard	Inherent Risk			Treatment	Residual Risk			Implementation Status	Responsibility	Level of Service
		C	L	R		C	L	R			
Poor results as result of non-evidence based decision making	Poor quality asset inventory and performance data	MOD	LIK	H	Adopt approach of continuous improvement, with progressive implementation of Improvement Program (see Section 8)	INS	POS	L	Current	Assets	Operations
Damage due to increased extreme weather events.	Building Structure and components	MOD	LIK	H	Design principles to reduce impact of extreme weather events when undertaking new developments	MIN	POS	M	Current	Asset	Provision
Public health and hygiene	Poor water quality within swimming pools	MOD	LIK	H	Manage pool operations in accordance with statutory requirements	MIN	POS	M	Current	Shire Presentation	Operations

Table 7 - Risk Assessment

4.3 Community Satisfaction

Service levels are also informed by what the community expects, needs and values. We regularly consult with the community — through engagement programs, surveys, and feedback channels — to understand:

- What services are most important
- Where performance gaps exist
- Where improvements are needed

This feedback helps guide investment decisions and supports transparency around service trade-offs.

As part of our performance monitoring, a Community Satisfaction Survey is conducted that asks residents to rate both the importance and satisfaction of Council services and facilities on a five-point scale (1 = low, 5 = high). The 2024 Performance Gap is the difference between community importance and community satisfaction.

The most recent survey was undertaken in 2024, with previous years' results provided for comparison.

The table below presents the results that relate specifically to this Asset Management Plan.

Council Service	Importance				Satisfaction				2024 Performance Gap
	2019	2021	2022	2024	2019	2021	2022	2024	
Provision and operation of libraries	4.11	4.07	4.2	4.01	4.02	4	4.14	4.11	-2%
Provision and maintenance of community halls	4.09	3.96	3.84	3.74	3.57	3.5	3.39	3.39	7%
Protecting heritage values and buildings	3.92	3.96	4.05	3.77	3.33	3.23	3.19	3.43	7%
Cleanliness and functionality of public toilets	4.15	4.32	4.03	4.09	3.39	3.46	3.31	3.27	16%
Provision and maintenance of swimming pools	3.95	4.03	3.5	3.6	3.61	3.11	3.24	2.89	14%

Table 8 - Comparison of Importance and Satisfaction in Council Building Services

The 2024 Community Satisfaction Survey revealed several key trends across Council's major asset classes. These results help guide service reviews, prioritise investment, and identify where performance gaps exist between community expectations and current service delivery.

Upon review of the satisfaction survey results, the following trends are observed:

- Satisfaction with the provision and operation of libraries slightly exceeds the importance residents place on this service.
- A growing performance gap is emerging for the maintenance of public toilets and the operation of aquatic facilities, where satisfaction has declined despite high importance ratings

Resultant actions will be further explored in Chapter 5 Levels of Service.

4.4 Strategies and Masterplans

The third key driver of service levels is Council's suite of adopted strategies and masterplans.

These documents help ensure that Council's planning, delivery and maintenance of infrastructure is strategic, coordinated, and responsive to community needs. They are developed in consultation with the community and provide clear direction for how specific asset types — or assets in specific locations — should be managed.

Each strategy or masterplan directly informs one or more Levels of Service by:

- Setting future directions or standards for service provision
- Prioritising improvements in specific locations
- Aligning asset management with broader community goals and legislative requirements

A list of strategies and masterplans that impact the levels of service for the Buildings & Aquatics asset class is provided in the table below.

Strategy/ Masterplan	Level of Service
2023 Community and Recreation Facilities Strategy (CRFS)	Provision
2017 Public Toilet Strategy - Note: will be superseded by the 2025 Public Plan in early 2025/26	Provision and Renewal
2016 Park Strategy - Note: will be superseded by the 2025 Open Spaces, Parks & Play Strategy (OPPS) in early 2025/26	Provision and Operations and Maintenance
2025 Aquatics Plan	Provision and Renewal
Disability Inclusion Action Plan 2022-2026	Provision
Site specific Masterplans - Note: All endorsed Masterplans are available on the Council website.	Provision

Table 9 - Strategies and Masterplans

5 Levels of Service

Council defines its Levels of Service (LoS) across three key components:

- Provision – What assets Council provides, where, and how much
- Renewal – How frequently assets are replaced at the end of their useful life
- Maintenance and Operations – How assets are maintained to ensure safety, function and longevity

These components are interdependent — changing one may impact the others. For example, delaying renewal may increase maintenance needs, while expanding asset provision will create additional operational costs

5.1 Provision Level of Service (LoS)

Provision LoS refers to the number, type and location of assets Council provides across the Shire.

Council's currently provides 313 structures, worth a combined $208M, to provide services for the community.

The level of provision is not consistent across all areas. This is due to changes in planning and engineering standards over time. Assets in newer subdivisions are delivered under current design standards, while older areas reflect the requirements of past eras.

The Provision LoS for new development is shaped by several guiding documents:

- Local Environmental Plan (LEP)
- Development Control Plan (DCP)
- Engineering Design and Construction Specifications
- Developer Contribution and Servicing Plans
- Relevant strategies and masterplans (refer to Table 8 in Section 2.5)

While consistency across the Shire is a long-term challenge, Council continues to pursue a more equitable and contemporary provision standard over time. This work is led primarily by the implementation of adopted strategies and masterplans, which identify priority gaps and upgrades.

The provision level of service for the asset categories of the buildings asset class can be generally described as follows:

Asset Category	Provision Level of Service
Administration/ Operational Buildings	Subject to individual Business Cases
Library Buildings	Council is currently preparing a Library Strategy which will guide both the provision and operation of libraries within the Shire.
Public Toilets	In accordance with the 2017 Public Toilet Strategy Note: will be superseded by the 2025 Public Plan in early 2025/26

Sports Field Amenities	In accordance with the 2025 Open Space, Parks & Play Strategy (OPPS), to be adopted early 2025/26. The provision of new facilities within each sports field will be subject to a site-based masterplan.
Swimming Pools	2025 Aquatics Plan: - **Mittagong Pool**: Pursue a master plan for the rewilding of the Mittagong Pool site as a future natural swimming area, with delivery subject to external funding. - **Moss Vale War Memorial Aquatic Centre**: Ensure that maintenance and/or capital works identified for Moss Vale War Memorial Pool are adequately planned, budgeted and undertaken. - **Bowral Swimming Complex**: Continue to implement proactive maintenance works to maximise the longevity of the existing facility & prepare a masterplan and funding strategy for the eventual renewal of the facility. - **Bundanoon Swimming Pool**: Continue to implement proactive maintenance works to maximise the longevity of the existing facility, noting unless Council receives additional capital funding the facility will close when the asset reaches the end of its useful life. Notwithstanding above though, Council to participate in structured efforts led by the Bundanoon Community Association to explore possible alternative models for the future of the Pool.
Community Buildings	Council is not pursuing an increase in the community buildings portfolio. The existing portfolio will be managed in accordance with the Shire-wide and Precinct Actions of the 2023 Community and Recreation Facilities Strategy (CRFS).
Commercial Buildings	Subject to individual Business Cases and lease agreements.
Childcare Buildings	Pursuant to Lease agreements
Emergency Buildings	Council will collaborate with the relevant State Government Agency

Table 10 - Provision Level of Service

One emerging trend from community satisfaction survey results was the condition of public toilets. It is anticipated that the following efforts will help to deliver the desired uplift in public toilet maintenance and condition:

- Construction of new public toilet facility in Yerrinbool in 2024

- Preparation of new Public Toilet Plan in 2025
- New public toilet facility in Hill Top planned for 2026
- Renewal of deteriorated public toilets at Mount Gibraltar planned for 2027
- Council will also seek grant funding opportunities for the renewal of the Lions Park Bowral and Berrima Camping Ground public amenities projects.

The other identified trend was that of a performance gap in the satisfaction of Council's aquatics portfolio. The adoption of the 2025 Aquatics Plan at the 21 May 2025 Council Meeting now provides a clarified direction for the aquatics portfolio. Through delivery of masterplanninf efforts for both a Rewilded Mittagong Pool and Bowral Swimming Centre, it is envisaged that an uplift in community satisfaction may be realised.

5.2 Renewal

Renewal LoS defines how often assets are replaced with a Modern Engineering Equivalent Replacement Asset (MEERA) — typically at the end of their useful life.

The useful life of an asset is the period over which it provides value. It is a key factor in both depreciation calculations and long-term renewal planning. Ideally, Council's annual capital renewal investment should match the value of annual depreciation, averaged over time.

If renewal falls below this level for extended periods, Council may face a backlog of ageing infrastructure and rising maintenance costs. Conversely, shortening useful lives can reduce maintenance needs but increase renewal costs.

The relationship between useful life, depreciation, and maintenance is carefully balanced to ensure sustainable asset management.

Summary of useful lives for the buildings asset categories are provided below:

Asset Category	Asset Type	Useful Life in years
Access Control	Access Control	15
Structure	Brick Structure (short and long life)	40-195
	Concrete Block Structure (short and long life)	40-195
	Fibre Cement Structure (short and long life)	28-175
	Metal Clad Structure (short and long life)	72-195
	Posts (short and long life)	10-55
	Timber Structure (short and long life)	35-195
Sub-Structure	Subfloor Concrete Structure (short and long life)	69-179
	Subfloor Fibre Cement	43
	Subfloor Timber	50-131
	Timber Structure	
Roof	Concrete Suspended Roof (short and long life)	40-104
	Glass Roof (short and long life)	40-80

	Metal Roof (short and long life)	28-80
	Shade cloth Roof (short and long)	4-8
	Slate Roof	80
Electrical Service	Electrical Service (short and long life)	40-105
Solar Panels	Solar Panels	25
Fire Service	Fire Service	15
Floor Coverings	Floor Coverings	10-36
HVAC Service	HVAC (Heating, Ventilation and Air-Conditioning)	15-46
Hydraulic Service	Hydraulic Service (short and long life)	44-115
Fit Out	Internal Finishes	26-75
Pool Structure	Concrete Structure	60
Pool Structure	Expansion Joints	10
Pool Structure	Pool Tiling	30
Pool Structure	Pool Grates	20

Table 11 - Renewal Level of Service

The intent is therefore that all building assets will be renewed prior to exceeding their designated useful life.

However, renewal works will also be based on asset condition. When an asset is found to be of Condition 4 or 5 it will then be programmed for renewal within the Capital Works program.

5.3 Maintenance and Operations

Maintenance and operational activities are essential for ensuring that Council's assets remain safe, functional and fit for purpose. These activities are delivered through a mix of proactive scheduling and reactive response across the entire asset network.

- Operational activities (such as inspections, servicing or compliance tasks) are generally well suited to structured scheduling and can often be delivered in a controlled and timely manner
- Maintenance activities (such as repairing damage, replacing worn components or responding to faults) are more difficult to schedule reliably and require mature systems, consistent data and adequate resourcing

Results from the recent community satisfaction survey show that the community is generally satisfied with Council's performance in relation to community halls and libraries. However it is evident that there is a community desire for an increased Council performance in the maintenance of public toilets and the operation of aquatics facilities.

Nevertheless, maintenance and operations budgets are heavily constrained by both funding and resourcing availability. Although results of the recent community satisfaction survey indicate a performance gap in some areas, these constraints mean that solutions need to be found whilst maintaining exist budget levels. Potential opportunities being

investigated are a more strategic approach being adopted for maintenance, as well as programming and delivery of more effective capital renewal and upgrade projects.

Maintenance and operations level of service will be provided under two categories: inspections and maintenance.

5.3.1 Inspections

Inspections will be of two categories. Scheduled inspection and reactive inspection.

- Scheduled inspection

As part of the risk management of the asset network, all assets are to be inspected at a regular interval. The frequency of the inspection will be commensurate with the magnitude of the network as well as the assets rate of decay. Inspections will also run in line with commercial agreements for currently leased asset to align maintenance with agreed terms of upkeep.

The following condition inspection frequencies have been adopted for the following asset categories:

Inspection Schedule Item	Frequency
Comprehensive Buildings Valuation	Every five years
Building Defect Inspections	Annually

Table 12 - Inspection Regime for Maintenance

Our current assets also undergo regulatory compliance inspections as per Australian standards, Safework NSW guidelines and current legislative requirements – for example:

Compliance Maintenance Inspections	Frequency
Lift Servicing	Monthly
Fire Equipment Maintenance	Every 6 months
RCD Testing	Annually
Wastewater Systems Maintenance (septic)	Annually
Defibrillator Maintenance	Annually
Roof Anchor Compliance	Annually
Automatic Door Servicing	Annually

Table 13 - Inspection Regime for Compliance

- Reactive inspection

Reactive inspections will be conducted as required in response to notification, or suspicion, of asset structural or performance failure. The reactive inspection will generally be an onsite visual inspection, however specialist consultants will be engaged as required.

5.3.2 Maintenance

The annual maintenance and operations budget for Buildings asset class is provided in the following table.

Asset Class	Annual Maintenance and Operations	
	$	as % of Asset Value
Buildings	$5,853,957	3%

Table 14- Asset Class maintenance budget

This can be further broken down into the relevant asset categories of:

Asset Category	Sum of Budget	Activities
Swimming Pools	$3,124,305	General maintenance requirements, including plant maintenance and servicing. Compliance maintenance to meet code, lifeguard duties, cost of goods, utilities. *Note:* A significant portion of this is covered through the lease arrangements of Moss Vale Aquatic Centre
Civic Centre	$451,602	All general maintenance requirements and compliance maintenance to meet code, cleaning and utilities
Community Halls/ Facilities	$1,388,602	All general maintenance requirements and compliance maintenance to meet code
Public Toilets	$402,650	All general maintenance requirements and cleaning
Emergency Services	$25,410	All general maintenance requirements and compliance maintenance to meet code
Overhead Budget	$481,369	Consists of administrative salaries, insurances, licenses, utilities

Table 15 - Asset Category maintenance budget

It is recognised that minor building maintenance works can at times be funded from the operational budgets of the Service Managers across Council – however these are opportunistic in nature and so are not included within the assessment of actual and forecast maintenance expenditure.

A large part of the buildings maintenance budget is expended on reactive maintenance. This includes items such as repairs of leaking roofs and windows, downpipes and guttering and some vandalism repair works.

However, proactive maintenance including planned testing and servicing is also being undertaken as part of the maintenance program. This includes items such as air conditioning maintenance, pest control, test and tag electrical appliances, solar panel maintenance and gutter cleaning.

Of these, achieving compliance with regulatory requirements is proving an ongoing challenge with current maintenance budgets not enabling all buildings to be brought in alignment with current standards.

Public Toilets are cleaned according to their assigned service levels, as stated in the Public Toilet Plan.

6 Asset Base Growth

Over the next 10 years, Council's asset base will continue to grow as a result of:

- New and upgraded assets delivered through Council and grant-funded capital projects
- Assets contributed by developers as conditions of consent or because of a Planning Agreement
- Infrastructure delivered through Developer Contributions and Servicing Plans

Council's current forecasts do not include any significant asset disposals during this period. Future updates may consider this as part of the ongoing development of Council's Property Strategy.

6.1 New and Upgraded Assets

The new and upgrade asset projects category covers those projects resourced by Council or grant funding, but excluding Development Contributions, that involve existing assets being enhanced or new assets being constructed.

This expenditure is partly derived from grant funded projects, however with grant funding only being reflected in Council's budget upon notification of success, grant funding does not impact the asset base growth calculation at this stage.

The table below summarises the new or upgrade projects that Council has committed for delivery within the 10-year window of this AMP. These projects are being funded by Council through the General Fund and grant funding.

Asset Class	Financial Year	Project Name	Value
Buildings	2026/27	Hill Top Public Toilets	$250,000

Table 16 - New and Upgrade Assets

6.2 Assets Contributed by Development through Conditions of Consent

As development continues, new infrastructure is delivered directly by developers under Conditions of Consent or a Planning Agreement and subsequently transferred to Council.

Council's Local Housing Strategy targets a 50:50 balance between infill development and greenfield development. Since only greenfield development typically leads to new asset contributions, it is estimated that 50% of population growth results in asset base growth.

Historical analysis shows that for every 1% increase in population from greenfield development, the asset base increases by approximately 0.3%. This reflects the fact that most contributed assets are minor in scale — such as pipes or footpaths, not major facilities like treatment plants.

Financial Year	Population Forecast	Population Growth	Forecast Asset Base Growth
2025/26	54,776	1.1%	0.16%
2026/27	55,357	1.1%	0.16%
2027/28	55,975	1.1%	0.17%
2028/29	56,593	1.1%	0.17%
2029/30	57,212	1.1%	0.16%

2030/31	57,830	1.1%	0.16%
2031/32	58,448	1.1%	0.16%
2032/33	59,138	1.2%	0.18%
2033/34	59,828	1.2%	0.18%
2034/35	60,527	1.2%	0.18%

Table 17 - Forecast.ID Population Growth

6.2.1 New Living Areas (NLAs)

The New Living Areas across the Shire are unique and do not align with the historical population trend model described above.

The Ashbourne Estate Landscape Masterplan has therefore been reviewed and estimates made as to the value of the buildings assets to be dedicated.

This has then been applied to the other New Living Areas (NLAs) on a pro-rata basis according to expected lot yield.

Assumptions were made for staging and delivery timeframes solely for planning purposes within this Strategy. These assumptions should not be used for operational or development decision-making.

LTFP Year	Ashbourne Estate	Bowral South NLA	East Mittagong NLA
1			
2	$36,947		
3			
4	$225,000	$1,411,840	
5			$317,982
6	$150,000	$1,411,840	
7			$317,982
8	$0	$1,411,840	
9			$317,982
10	$0	$1,411,840	

Table 18 - Estimate value of building assets to be dedicated from NLAs

6.3 Developer Contributions and Servicing Strategies

An important funding source for new infrastructure are Development Contributions collected under Section 7.11 and 7.12 of the Environmental Planning and Assessment Act. These contributions fund a significant proportion, though not all, of the infrastructure required by new development.

Council currently primarily levies contributions through the following plan relating to buildings.

- Open Space, Recreation, Community and Cultural Facilities 2013 to 2036

As of 30 June 2023, $8M is currently held in reserve for the delivery of infrastructure items detailed within this plan. However, it is acknowledged that the infrastructure program within the plan is due for revision, with it being currently uncertain whether contributions are being received in line with expected forecasts – as well as whether the magnitude of Council co-funding detailed within the Plan remains financially viable.

These plans are currently under review. Several recently completed strategies will inform updates, including:

- Community and Recreation Facilities Strategy
- Integrated Transport Study
- Water and Wastewater Masterplans

Only those developer-funded projects identified in the 2025–2029 Capital Works Program have been included in this Strategy.

There are no projects within the 2025/26 to 2028/29 Capital Works Program which are funded by developer contributions.

6.4 Asset Disposals

No significant disposals are currently committed. Asset disposals — where an asset is removed and not replaced — may be considered in future revisions pending community engagement outcomes and the adoption of Council's Property Policy.

6.5 Asset Indexation

To ensure lifecycle costs remain comparable year-to-year, this Strategy adopts the same indexation assumptions as Council's LTFP:

- 3.0% annually for 2025/26 and 2026/27
- 2.5% annually from 2027/28 onward

6.6 Efficiencies

In line with the adopted LTFP, Council anticipates achieving 1% annual efficiency improvements. These will result from:

- New digital systems
- Workforce optimisation
- Strengthened business processes

These ongoing improvements will support Council's ability to deliver services effectively while managing the impacts of asset growth.

6.7 Asset Base Growth

The total growth of the Buildings & Aquatics asset class over the next 10 years is projected at approximately $42M. This growth is influenced by a range of factors, including:

- New and upgraded assets
- Assets contributed by development through conditions of consent
- Infrastructure funded through Development Contributions
- Asset disposals (none currently forecast)
- Annual indexation
- Efficiency gains

While each of these elements contributes to asset base growth, indexation can be considered the primary source of the total increase in asset value over the 10-year forecast period.

The following graphs illustrate the resultant annual and cumulative asset base growth.

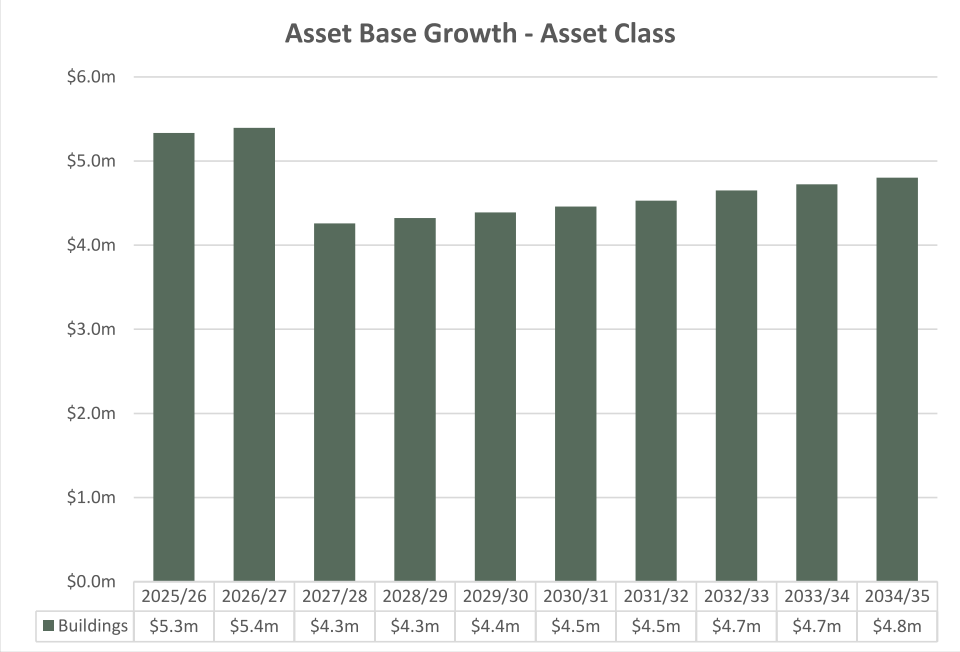


Figure 8 - Annual Asset Base Growth

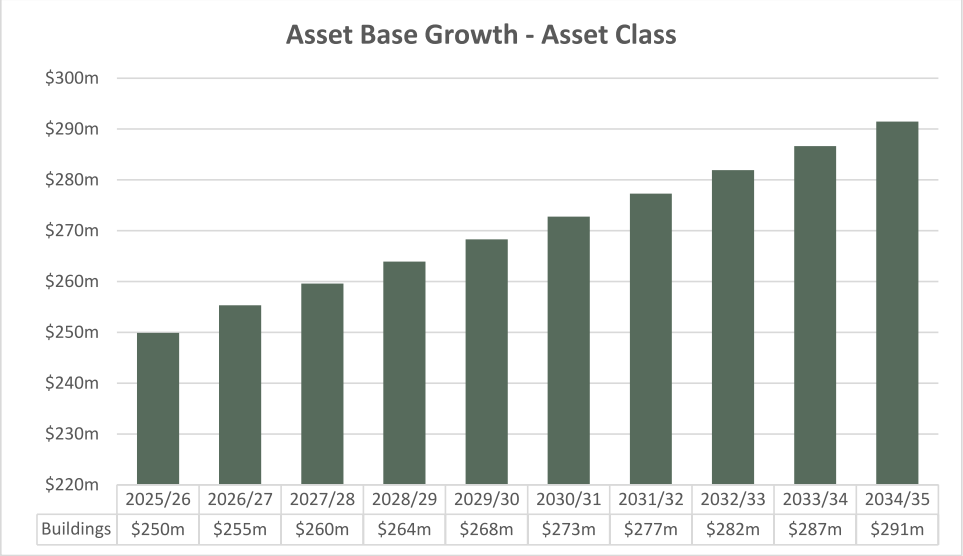


Figure 9 - Cumulative Asset Base Growth

7 Financial Lifecycle Forecast

To deliver the Levels of Service (LoS**)** outlined in this Strategy, Council must allocate funding for maintenance, operations, and asset renewal across the asset class.

7.1 Renewal Forecast

To keep Council's assets in good condition and maintain a healthy Infrastructure Backlog Ratio, assets must be renewed when they reach the end of their useful lives. Renewal involves disposing of the old asset and replacing it with a Modern Engineering Equivalent Replacement Asset (MEERA).

Relying solely on useful life expiry or condition data to plan renewals causes large fluctuations in annual renewal budgets. This makes long-term planning and resource allocation more difficult. Instead, Council uses an averaged renewal forecast to spread the investment more evenly over time.

In practice, actual investment in each asset class may vary based on the scale and timing of individual projects. These allocations are refined during the preparation of each new Delivery Program.

Across the 10-year planning period, there is a required renewal expenditure for the Buildings asset class of $33M to ensure that renewals align with depreciation.

Scenario 1 of Council's Long-Term Financial Plan can accommodate $30M in renewal investment over the same period, based on:

- Consideration of the 2025/26 to 2028/29 Capital Works Program
- For 2029/30 to 2034/35, the SRV and Council General Fund allocations have been distributed proportionally to each asset classes by their annual depreciation.
- The assumption is that all funded projects will be 100% renewal

This leaves a forecast funding gap of $6M between accumulated depreciation and actual renewal investment by 30 June 2035.

However, it must be noted that of the $30M budgeted renewal investment, $8.7M of this is associated with the Mittagong Playhouse Renewal project programed for 2025/26 and 2026/27 – which is 50:50 funded by grants and borrowings. However, in the years subsequent, funding returns to solely that of SRV and General Fund – which cannot meet the value of annual depreciation.

If this outlier project is removed, the forecast shows that Council's renewal investment would fall short of accumulated depreciation by almost $12M dollars across the 10 year planning period.

The figure below shows the renewal budget featured in the Capital Works Program and Long-Term Financial Plan, as well as the required renewal expenditure to align with asset depreciation.

It is also anticipated that renewal values for major aquatic centres are likely to be significantly underestimated in the current asset register:

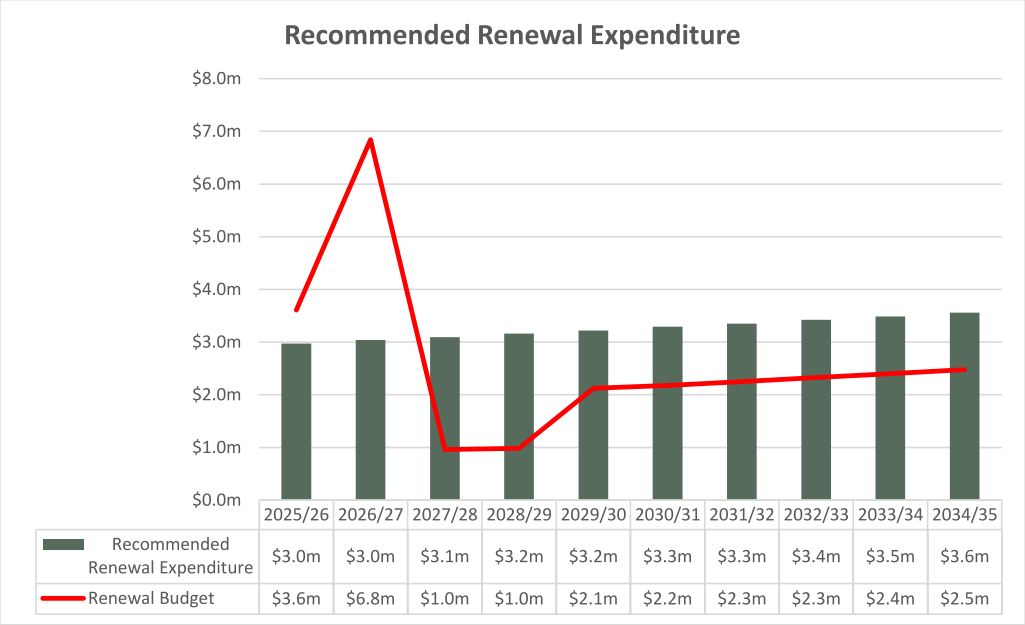
- Bowral Pool is valued at $3.2M but may require $40M to renew
- Bundanoon Pool is valued at $1M but would require $15M if it was to be renewed
- Mittagong Pool was written off in the 2023–2024 financial audit and is no longer valued, despite requiring an estimated $5M for decommissioning

These facilities are unlikely to require full renewal within the current 10-year period, but they represent significant future unfunded liabilities.

With a comprehensive revaluation of the buildings asset class completed in 2023/24, there is minimal opportunity in a repeated review of asset useful lives and unit rates.

Mitigation measures therefore must be primarily based around seeking to diversify the revenue streams of Council, such that the limitations of the rate peg can be overcome. Three such opportunities being actively pursued are:

- Grant funding opportunities
- Review of fees and charges associated buildings and swimming pools
- Leasing arrangements to include greater building management and maintenance responsibilities.
- Review of building asset portfolio, to identify potential areas of optimisation.



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Recommended Renewal Expenditure	$3.0m	$3.0m	$3.1m	$3.2m	$3.2m	$3.3m	$3.3m	$3.4m	$3.5m	$3.6m
Renewal Budget	$3.6m	$6.8m	$1.0m	$1.0m	$2.1m	$2.2m	$2.3m	$2.3m	$2.4m	$2.5m

Figure 10 - Recommended Renewal Expenditure

7.2 Maintenance and Operations Forecast

As Council's asset base grows, maintenance and operations budgets must also increase to maintain current levels of service. Without this investment, the community may experience a gradual decline in service delivery, particularly for high-use infrastructure.

To assess future needs, Council has used the 10-year asset base growth forecast to estimate the additional funding required to maintain current service levels across all asset classes.

The required maintenance and operations expenditure across the 10-year period is forecast to be $68M.

Under Scenario 1 of the LTFP, Council can allocate $38M, leaving a significant shortfall over the planning period.

Further review however yields that the forecast required maintenance figure is likely overinflated due to the accounting treatment of the Moss Vale War Memorial Aquatic Centre lease. If this is to be excluded, it is estimated that the funding shortfall would drop to a figure more in the order of $5-10M.

That withstanding, a substantial funding gap still remains and so unless additional resources become available, levels of service are expected to decline gradually across the asset class.

Importantly, the 2024 Community Satisfaction Survey highlights that residents already want to see improved performance. However, based on current funding constraints, further improvement is unlikely without additional resourcing. Satisfaction levels may decline further in line with reduced service levels.

8 Improvement Plan

Asset Planning is a journey of continuous improvement with there always being opportunities to further improve the accuracy of asset data, better understand community needs and expectations and more efficiently meet the service needs of the Shire.

To this end, an Asset Management Improvement Plan has been prepared to guide this journey of continuous improvement.

The below items are specific improvements that can be made to this document as well as the asset management maturity of Council.

Ranking	Improvement	Responsibility	Timeline
1	Implementation of Technology One Assets, Strategic Assets and Works Management modules	Assets	2025/26
2	Creation of Defects Register – to be populated from scheduled and reactive inspections	Assets	2025/26
3	Business AMP: Resource Recovery Centre	Assets	2025/26
4	Business AMP: Saleyards	Assets	2025/26
5	Prepare standard designs: - Public Toilets and Sports Field Amenities	Assets	2026/27
6	Compile/Prepare Drawings Register: - Administrative and Operational Buildings	Assets	2026/27
7	Compile/Prepare Drawings Register: - Commercial Buildings	Assets	2027/28
8	Compile/Prepare Drawings Register: - Emergency Buildings	Assets	2028/29
9	Compile/Prepare Drawings Register: - Childcare Centres	Assets	2028/29

Table 19 - Asset Management Improvement Plan

Wingecarribee
SHIRE COUNCIL

Asset Management Plan – Open Spaces

We're with you

WINGECARRIBEE SHIRE COUNCIL

Document Name	Asset Management Plan – Open Spaces
Version No.	2
Council File Reference	Document Set ID 5484367
Adoption Date	TBC
Resolution Number	MN 2024/201
Document Owner	Manager Assets
Responsible Branch	Assets
Responsible Business Unit	Assets Parks and Buildings
Review Schedule	Annually
Review Date	26 June 2026

Version	Adoption Date	Notes
1	26 June 2024	First version of Asset Management Plan – Open Spaces
2	TBC	2024/25 update

Contents

1 Executive Summary

This Asset Management Plan (AMP) is part of a suite of Portfolio AMPs, which together sit under the Asset Management Strategy (AMS). It is to be read in conjunction with the AMS and Four Year Capital Works Program.

This AMP provides an overarching document of Council's management of, and investment in, the Open Spaces Asset Class over a 10-year planning period.

Council manages an open spaces asset class of over 1,500 assets across a broad range of asset categories worth a combined $41M. The average condition of these structures is defined as being in 'good' condition.

The level of service that Council provides through this asset class can be described within the three categories of: Provision, Renewal, and Maintenance and Operations. What Council delivers through these levels of service are driven by consideration of: Risk Management, Community Satisfaction and Strategies and Masterplans. But is constrained by funding and availability of resourcing.

The 2024 satisfaction survey results continued a trend of annual decline in satisfaction with parks, playspaces and sporting facilities. The results suggest a growing community expectation for Council to improve both the quality and maintenance of open space assets across the Shire.

In accordance with these results, the Level of Service chapter details some current projects and initiatives that will help to counter this trend.

In order to provide an analysis of financial investment required across the planning period, calculation of forecast asset base growth must be completed. Asset base growth is calculated through consideration of the value of the asset class growing as result of new and upgrade projects, assets contributed through development, development contributions plans and indexation, as well as subtracting any known asset disposals.

It is forecast that across the planning period the asset base will grow by $36M.

Recommended financial investment for the Renewal Level of Service and Maintenance and Operations Level of Service is calculated at $32M and $90M respectively. These have been calculated through aligning renewals with annual depreciation, and ensuring maintenance and operational budgets increase in step with asset base growth.

The Long-Term Financial Plan is unfortunately not able to accommodate the entirety of this desired financial investment, largely as result of asset base growth exceeding the Council rate peg.

This will therefore result in a lowering of levels of service and will prevent assets from reaching their desired useful life - which in turn increases renewal expenditure requirements.

Asset management is a journey of continuous improvement, and so the AMP concludes with a concise Improvement Plan detailing the asset management maturity tasks programmed for the years ahead.

2 Asset Systems & Structures

2.1 Asset Planning Framework

Council's Asset Management Planning Framework is a critical part of the wider Integrated Planning and Reporting (IP&R) Framework used across all NSW local governments. It provides a structured and consistent approach to planning, delivering, maintaining and renewing Council's infrastructure assets.

The Framework ensures Council can make informed decisions and perform the key functions of asset management — including planning, coordinating, operating, maintaining, monitoring and improving the infrastructure services our community relies on every day. The structure of Council's Asset Management Framework is shown in Figure 1.

Council's Asset Management Framework consists of three key components:

1. Asset Management (AM) Policy:

The Asset Management Policy sets Council's overarching commitment and objectives for how we manage infrastructure. It outlines the principles that guide decision-making and establishes our focus on responsible, sustainable and risk-aware asset stewardship.

2. Asset Management Strategy (AMS):

This Strategy provides the roadmap for achieving the goals outlined in the Asset Management Policy. It aligns with the Long-Term Financial Plan 2025–2035 and the Delivery Program 2025–2029 to ensure our asset investments and service levels are sustainable and community-informed.

The Strategy is reviewed regularly to remain relevant and responsive. Specific works and activities arising from this Strategy are included in Council's Operational Plan and Annual Budget.

3. Asset Management Plans (AMP):

Asset Management Plans translate the strategic direction of this Strategy into detailed actions for each major asset class. These plans provide a deeper analysis of:

- Asset condition and inventory
- Levels of service
- Risks and renewal priorities
- Financial sustainability over the asset lifecycle

AMP's are developed for both community assets and business unit assets, grouped by the type of function the assets serve:

a) Community assets
   i) Transport (roads, bridges, footpaths)
   ii) Stormwater
   iii) Buildings and Aquatic facilities
   iv) Open Space and Recreation
   v) Water

vi) Wastewater

b) Business units

i) Cemeteries

ii) Resource Recovery Centre (RRC)

iii) Southern Regional Livestock Exchange (SRLX)

AMP's are regularly reviewed to ensure they continue to meet the service needs of the community and reflect changing conditions. These reviews are informed by community consultation and engagement. AMP's also act as core inputs into Council's Long-Term Financial Plan, helping to shape future budgets and investment decisions.

All adopted AMPs are available on Council's Asset Management Planning page at https://www.wsc.nsw.gov.au/Residents/Asset-Management-Planning

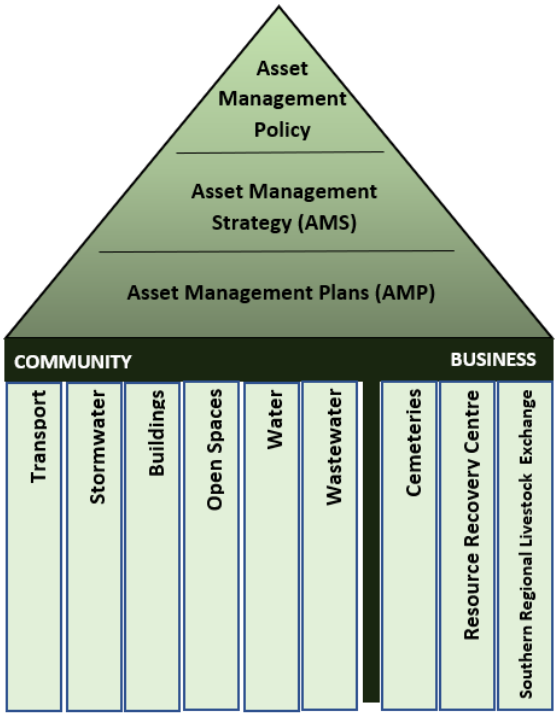


Figure 1: Asset management Planning Framework

2.2 Asset Planning Systems

Effective asset planning relies on accurate, integrated and up-to-date data. Council uses several systems and databases to support asset management planning, service delivery and reporting. These tools enable staff to maintain reliable asset information, assess risks, model future scenarios and plan capital investment.

Table 1 summarises the core systems currently use across Council for asset planning and management:

System	Description
Conquest	Asset register – inventory, condition and attribute data
ArcGIS	Geographic Information System – maps and spatial asset data
Technology One – Finance	Manages budgets, purchase orders and expenditure
Technology One – Enterprise Content Management (ECM)	Enterprise Content Management – document and record keeping
Technology One – Customer Request Management (CRM)	Customer Request Management – workflows for customer enquiries and requests
Pulse – Project Management	Project management – scoping, planning and delivery of capital projects
Infoworks WS Pro and ICM	Water and wastewater network modelling software

Table 1: Asset Planning Systems

As part of Council's ongoing digital transformation, several new Technology One modules are being implemented to streamline workflows, improve integration across teams, and reduce manual processes.

During 2025–2026, the following upgrades will be rolled out:

- Asset Register: This module will replace Conquest and become Council's single source of truth for asset inventory, condition and attribute data. It will integrate with Finance through the creation of Asset Books, eliminating the need for manual reconciliation
- Strategic Assets: An advanced modelling tool that connects with the Asset Register. It enables future condition forecasting based on varying levels of investment and supports long-term scenario planning
- Works Management: This module will support field-based delivery teams by enabling integrated work orders. It will fully align with the Asset Register and Finance systems to provide seamless job tracking and cost control

These improvements will help Council make better-informed decisions, plan more proactively, and improve the efficiency of asset lifecycle management.

2.3 Organisational Structure

Wingecarribee Shire Council uses a collaborative, whole-of-organisation approach to asset management.

Asset planning and network-level planning functions are centralised within Council's Asset Branch, which sits under the Service and Project Delivery Directorate. This structure ensures a coordinated and strategic approach to infrastructure planning and lifecycle decision-making.

Meanwhile, the day-to-day operations, maintenance and capital project delivery functions are primarily managed through three key teams:

1) Shire Presentation
2) Water Services
3) Project Delivery

These assets are used to support a wide range of services across the community — from libraries and aquatics to depots and the visitor information centre. Each of these services is overseen by a Service Manager, who is accountable for delivering the function to the community.

To ensure services meet the needs and expectations of our community, Council integrates asset planning and delivery with service design. This is achieved through close collaboration between the Asset Branch, Project Delivery teams and each relevant Service Manager.

Together, these teams work to ensure that infrastructure is planned, funded and maintained in ways that:

- Deliver on service objectives
- Maximise asset performance and lifespan
- Respond to community priorities and satisfaction

Service Manager	Asset / Facility
Manager Community Life and Libraries	Libraries
Manager Waste and Resource Recovery	Resource Recovery Centre
Manager Business and Property	Southern Regional Livestock Exchange
	Southern Highlands Visitor Information Centre
	Bowral Memorial Hall
	Aquatics Portfolio
Manager Water Services	Mittagong Works Depot
Manager Shire Presentation	Moss Vale Works Depot

Table 2 - Service Managers

The below figures detail the organisational structure relationship between Assets and the Delivery branches within the Project Delivery Directorate, as well as that of the Parks and Buildings Assets Team.

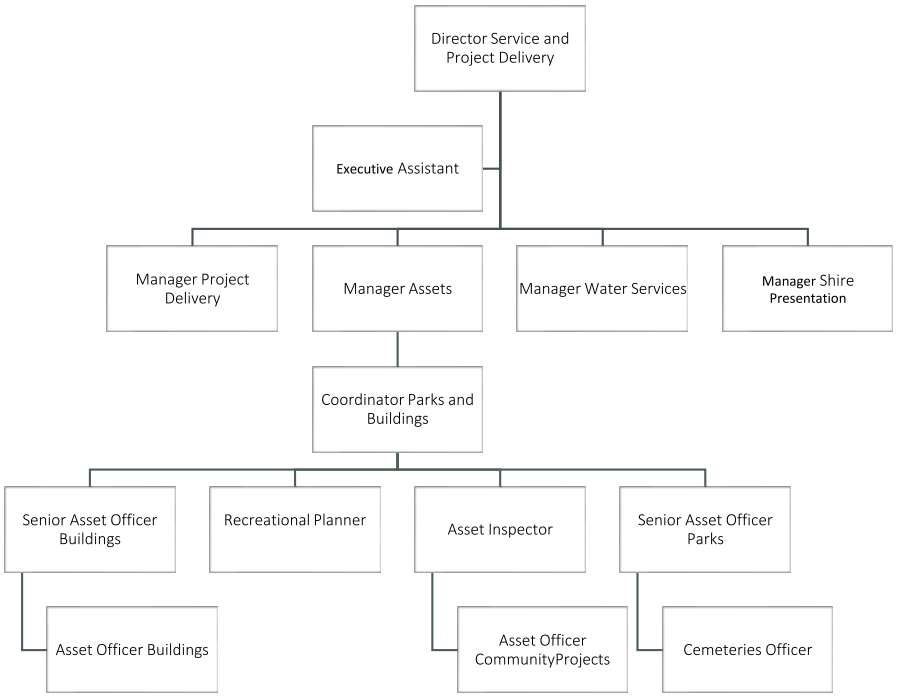


Figure 2 - Organisational Structure

3 Our Assets

3.1 Asset Class Inventory

Council's Open Spaces portfolio features a diverse range of infrastructure across several different land types.

The land can be consolidated into four main categories, with the following table providing a summary:

Land Type	Number of Sites	Total Area (h)
Community Parks	77	92
Sports Parks	30	101
Linear Parks	22	127
Bushland Reserves	35	2,737
TOTAL	164	3,057

Table 3 - Land Type Summary

Across this 3,057 hectares of land, over 1500 assets are provided with a combined value of $41M.

The following table provides a summary of the asset categories within the Open Space Asset Class.

Asset Category	Number of Items	Replacement Value $
Park Furniture	372	$3,329,782
Drainage Irrigation	52	$1,297,556
Playground	64	$3,037,406
Sport Facilities	180	$14,059,452
Fitness Equipment	4	$138,711
Sportsfield Lighting	39	$4,728,373
Fences Gates	324	$3,575,266
Shelters	30	$678,855
Other Structures	11	$328,157
Monuments	116	$2,663,369
Landscaping	179	$1,452,020
Paths & Parking	188	$5,558,848
TOTAL	**1559**	**$40,847,795**

Table 4 - Asset Category Summary

We maintain our asset register through a combination of proactive inspections, project-related updates and external contributions.

Key processes include:

- Newly constructed assets: Assets are added to the register following delivery by Council capital works or dedication through subdivision development.
- Ad-hoc inspections: Triggered by internal requests, customer feedback or during project scoping phases.
- Scheduled inspections: All assets are included in a structured inspection schedule. Inspection frequency is based on the asset's rate of deterioration, cost to inspect, and potential consequences of failure.

All assets are valued in line with Australian Accounting Standards, with a comprehensive revaluation undertaken for each asset class at least every five years.

In years where a full revaluation is not scheduled, Council conducts an annual fair value assessment across all asset classes. If a material change in value is detected, the relevant classes are indexed using industry-recognised methods.

A comprehensive valuation for open spaces was performed in the financial year 2020/21. The comprehensive valuation is therefore scheduled for financial year 2025/26.

Figure 3 (below) shows the current estimated value of the asset class, broken down by asset category.

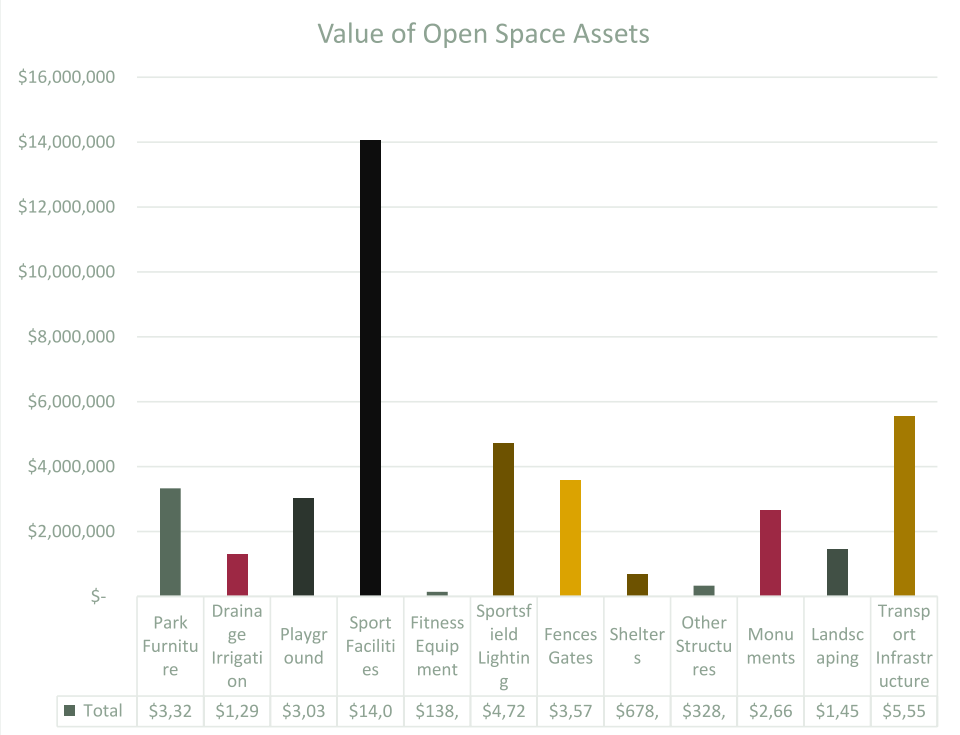


Figure 3 - Park Assets by Value

3.2 Asset Class Condition

Council regularly assesses the condition of its assets to help plan maintenance, renewal and capital works programs. These assessments form part of a rolling inspection schedule across the entire asset network.

Condition assessments are undertaken in line with industry standards, using guidelines developed by the Institute of Public Works Engineering Australasia (IPWEA). These assessments are used to:

- Track asset performance over time
- Identify assets approaching failure
- Inform risk management and lifecycle planning
- Support annual budgeting and long-term financial modelling

Council uses a standardised 5-point rating system:

1. As new / Excellent
2. Good / Satisfactory
3. Fair / Tolerable
4. Poor / Intolerable
5. Very Poor / Reconstruction required

The overall condition of Open Spaces Assets is shown in Figure 4. Asset category condition by asset value are shown in Figure 5.

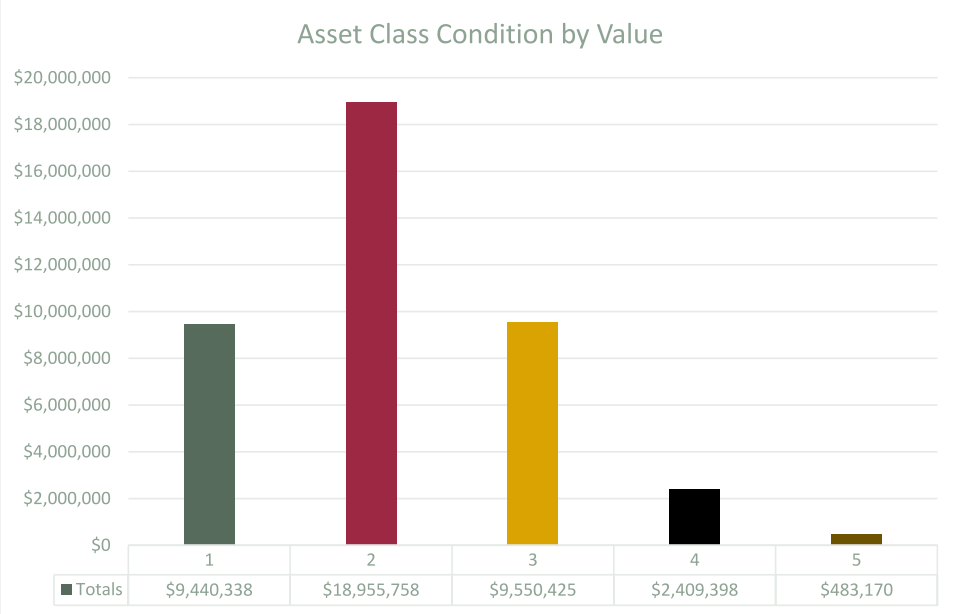
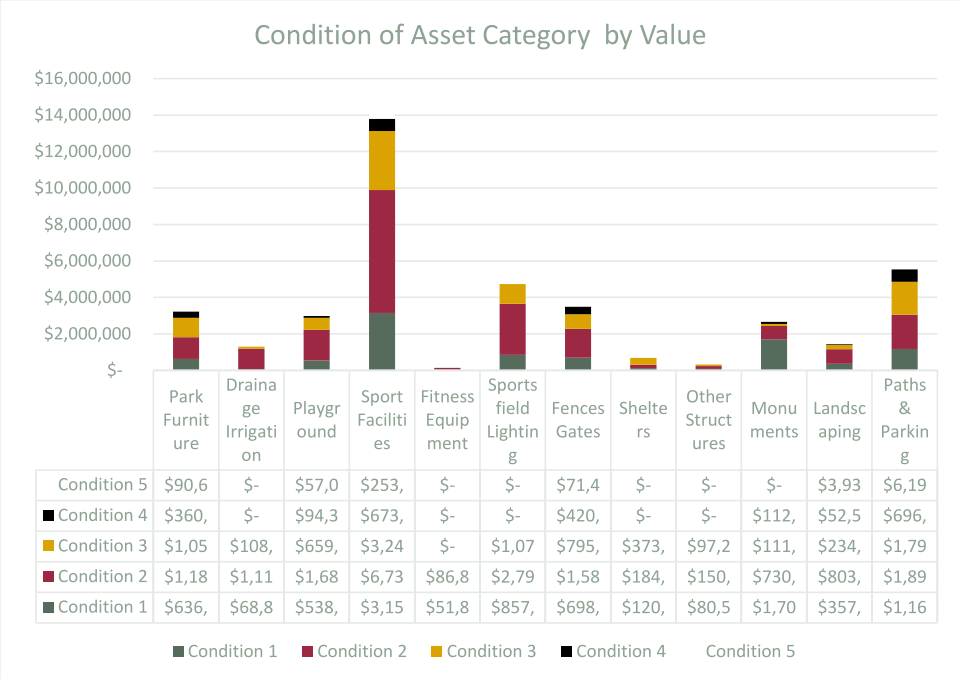


Figure 4 - Condition of Asset Class by Value



	Park Furniture	Drainage Irrigation	Playground	Sport Facilities	Fitness Equipment	Sportsfield Lighting	Fences Gates	Shelters	Other Structures	Monuments	Landscaping	Paths & Parking
Condition 5	$90,6	$-	$57,0	$253,	$-	$-	$71,4	$-	$-	$-	$3,93	$6,19
Condition 4	$360,	$-	$94,3	$673,	$-	$-	$420,	$-	$-	$112,	$52,5	$696,
Condition 3	$1,05	$108,	$659,	$3,24	$-	$1,07	$795,	$373,	$97,2	$111,	$234,	$1,79
Condition 2	$1,18	$1,11	$1,68	$6,73	$86,8	$2,79	$1,58	$184,	$150,	$730,	$803,	$1,89
Condition 1	$636,	$68,8	$538,	$3,15	$51,8	$857,	$698,	$120,	$80,5	$1,70	$357,	$1,16

Figure 5 - Asset Category condition by Value

The overall average condition of Council's open spaces assets is good / satisfactory.

Average condition rating for open spaces assets is 1.9

Asset Category	Average Condition by Count of Assets
Park Furniture	2.3
Drainage Irrigation	1.9
Playground	2.3
Sport Facilities	2.4
Fitness Equipment	1.8
Sportsfield Lighting	2.3
Fences Gates	2.4
Shelters	2.0

Other Structures	2.0
Monuments	1.8
Landscaping	2.0
Paths & Parking	2.2
Total	2.1

Table 5 - Summary of Average Asset Condition

3.3 Asset Category Inventory

3.3.1 Sports Facilities

There are a wide range of sports facilities within Council's open space network. The table below provides a summary of the facilities offered.

Sports Facilities	Suburb/ Village	No. of Fields
Soccer/Rugby Fields		
Jo Smith Playing Fields	Yerrinbool	2
Boronia Park	Hill Top	2
Mittagong Oval	Mittagong	1
Ironmines Oval	Mittagong	1
David Wood Playing Fields	Bowral	2
Stephens Park	Bowral	2
Eridge Park	Burradoo	2
Church Road	Moss Vale	2
Community Oval	Moss Vale	1
Hampden Park	Robertson	2
Exeter Oval	Exeter	1
Ferndale Oval	Bundanoon	2
Cricket		
Jo Smith Oval	Yerrinbool	1
Boronia Park	Hill Top	1
Welby Oval	Welby	1
Bradman Oval	Bowral	1
Brian Martin Oval	Bowral	1
Stephens Park	Bowral	2
Eridge Park	Burradoo	1
Lackey Park	Moss Vale	1
Tourist Road Oval	Glenquarry	1
Hampden Park	Robertson	1
Burrawang Oval	Burrawang	1
Bundanoon Oval	Bundanoon	1
Exeter Road	Exeter	1
Bill O'Reilly Oval	Wingello	1
Cricket Nets		
Boronia Park	Hill Top	3
Welby Oval	Welby	2

Bradman Oval	Bowral	4
Brian Martin Oval	Bowral	2
Stephens Park	Bowral	2
Lackey Park	Moss Vale	3
Hampton Park	Robertson	2
Exeter Road	Exeter	2
Bill O'Reilly Oval	Wingello	2
Athletics Field		
Eridge Park	Burradoo	1
Baseball		
Jurd Park	Colo Vale	1
Tennis Courts		
Mittagong Oval	Mittagong	2
Corlette Park	Moss Vale	5
Loseby Park	Bowral	8
Lake Alexandra	Mittagong	2
Burrawang Oval	Burrawang	2
Hampden Park	Robertson	3
Tourist Road Oval	Glenquarry	2
Penrose Park	Penrose	2
Jurd Park	Colo Vale	2
Bundanoon Oval	Bundanoon	3
Exeter Road	Exeter	2
Bill O'Reilly Oval	Wingello	2
Boronia Park	Hill Top	2
Tennis Hit Walls		
Lake Alexandra	Mittagong	1
Loseby Park	Bowral	1
Exeter Oval	Exeter	1
Penrose Park	Penrose	1
David Wood Playing Fields	East Bowral	1
Netball Courts		
Eridge Park	Burradoo	6
David Woods Playing Fields	East Bowral	1
Bundanoon Oval	Bundanoon	1
Hockey		
Welby Heights	Welby	4
Burrawang Oval	Burrawang	1
Skate Parks		
Hampton Park	Robertson	1
Community Oval	Moss Vale	1
Loseby Park	Bowral	1

Bundanoon Oval	Bundanoon	1
Jo Smith Oval	Yerrinbool	1
Basketball Half-Courts		
Bundanoon Oval	Bundanoon	1
Casburn Park	Wingello	1
Hampden Park	Robertson	1
Loseby Park	Bowral	1
Jo Smith Oval	Yerrinbool	1
David Woods Playing Fields	East Bowral	1
Remote Control Car Track		
Jo Smith Oval	Yerrinbool	1
Mountain Bike Parks		
Welby Trails	Welby	1
Cycling Velodrome		
Eridge Park	Burradoo	1
Horse/ Pony Clubs		
Berrima District Pony Club	Burradoo	1
Loop Line Pony Club	Colo Vale	1
Southern Villages Pony Club	Bundanoon	1
Wingello Pony Club	Wingello	
Bundanoon Carraige Club	Bundanoon	1
Croquet/ Boulles		
Exeter Oval	Exeter	1
Berrima Marketplace	Berrima	1
Off Leash Dog Parks		
Seymour Park	Moss Vale	1
Centennial Park	Bowral	1
Alexandra Square Park	Mittagong	1
Jordans Crossing	Bundanoon	1

Table 6 - Summary of Sports, Locations & Associated Fields

3.3.2 Recreational Walking Tracks

The Open Spaces asset class also includes the portfolio of walking tracks as identified within the recreational walking tracks strategy.

This details 28 walking tracks across 11 reserves for a total trail length of 64km.

Reserve	Number of Trails	Total Trail Length (km)
Berrima Weir Reserve	1	1.4
Bong Bong Common (Link to Cecil Hoskins Nature Reserve)	1	0.17

Gibbergunyah Reserve	3	6.2
Glow Worm Glen (Bundanoon Access)	2	1.2
Hammock Hill Reserve	2	2.15
Lake Alexandra Reserve	1	0.6
Mansfield Reserve	2	3.5
Mount Gibraltar Reserve	4	7.1
Mt Alexandra Reserve (primary access from Box Vale Trailhead)	3	20
Mt Alexandra Reserve (primary access from Lake Alexandra Trailhead)*	6	18.25
River Bend Reserve and Berrima River Reserve (Berrima)	2	2.7
Stone Quarry Walk Reserve (Berrima)	1	0.65
Grand Total	**28**	**63.92**

Table 7 - Summary of Recreational Walking Tracks

4 Drivers of Level of Service

Council's Levels of Service (LoS) define the standard at which assets are provided, maintained, renewed and operated. These levels determine how often assets are inspected, how quickly they are repaired, and how long they are expected to last.

While Levels of Service are shaped by available funding and staff resources, they are primarily driven by three key factors:

- Risk Management
- Community Satisfaction
- Strategies and Masterplans

4.1 Risk Management

Risk is the potential impact of uncertainty on Council's ability to meet its objectives. Council uses a structured approach to identify, monitor and respond to risks across its asset portfolio.

The risk assessment will identify potential hazards and select a treatment option to be implemented to control the generated risk. The resultant treatments will primarily fall within the categories of ensuring compliance with regulations and standards, adhering to a regime of systemic inspections, committing to a program of upgrades and ensuring proactive and reactive maintenance is completed.

This Risk Assessment will cover generic hazards that are typical across the entire asset network, however it also provides a closer analysis of Critical Assets where appropriate.

4.1.1 Critical Assets

Critical assets are those that have a high consequence of failure in terms of community impact. By identifying critical assets and failure modes, an organisation can ensure that condition inspection programs, maintenance and capital expenditure plans are targeted to ensure that the risk of critical asset failure is minimised.

There are no critical assets within the Open Spaces asset class.

4.2 Risk Assessment Framework

Risk (R) Matrix		Consequence (C)				
		Severe	**Major**	**Moderate**	**Minor**	**Insignificant**
Likelihood (L)	**Almost Certain**	Extreme	Extreme	High	High	Moderate
	Likely	Extreme	Extreme	High	Moderate	Moderate
	Possible	Extreme	High	Moderate	Moderate	Low
	Unlikely	High	High	Moderate	Low	Insignificant
	Rare	High	Moderate	Low	Insignificant	Insignificant

Table 8 - Risk Assessment Matrix

Risk	Hazard	Inherent Risk			Treatment	Residual Risk			Implementation Status	Responsibility	Level of Service
		C	L	R		C	L	R			
Personal injury	Deteriorated open space assets	MAJ	POS	H	Renew assets in accordance with designated useful life	MIN	POS	M	Current	Assets	Renewal
					Complete open space inspections at regular intervals				Future	Assets	Operations
					Reactive maintenance of open space assets through CRM system.				Current	Shire Presentation	Operations
Personal injury	Compliance with statutory requirements	MAJ	POS	H	Inspection of playspaces in accordance with statutory requirements	MIN	POS	M	Current	Shire Presentation	Operations
Personal injury	Deferred maintenance (i.e. works that are identified for maintenance activities but unable to be completed due to available resources)	MOD	LIK	H	Ensure maintenance budgets increase with asset base growth	MOD	LIK	H	Future	Assets	Operations
Personal injury	Anti-social behaviour within parks and sportsfields	MOD	LIK	H	Ensure asset renewals and upgrade deliver passive surveillance and crime prevention through design outcomes.	MOD	LIK	H	Current	Assets	Provision, Renewal
Poor results as result of non-evidence based decision making	Poor quality asset inventory and performance data	MOD	LIK	H	Adopt approach of continuous improvement, with progressive implementation of Improvement Program (see Section 8)	INS	POS	L	Current	Assets	Operations
Inability for community to utilise ovals	Parks & sportsfields not functional from overgrown grass	MOD	LIK	H	Sportsfield mowing to be completed in accordance with mowing schedule	MIN	POS	M	Current	Shire Presentation	Operations
Personal Injury	Bushfires	MOD	LIK	H	Implement bushfire closure policy	MIN	POS	M	Current	Assets	Operations
					Ensure APZ are maintained				Current	Environment & Sustainability	Operations

Figure 6 - Risk Assessment

4.3 Community Satisfaction

Service levels are also informed by what the community expects, needs and values. We regularly consult with the community — through engagement programs, surveys, and feedback channels — to understand:

- What services are most important
- Where performance gaps exist
- Where improvements are needed

This feedback helps guide investment decisions and supports transparency around service trade-offs.

As part of our performance monitoring, a Community Satisfaction Survey is conducted that asks residents to rate both the importance and satisfaction of Council services and facilities on a five-point scale (1 = low, 5 = high). The 2024 Performance Gap is the difference between community importance and community satisfaction.

The most recent survey was undertaken in 2024, with previous years' results provided for comparison.

The table below presents the results that relate specifically to this Asset Management Plan.

Council Service	Importance				Satisfaction				2024 Performance Gap
	2019	2021	2022	2024	2019	2021	2022	2024	
Provision and maintenance of local parks and gardens	4.21	4.35	4.15	3.99	3.46	3.39	3.31	3.05	19%
Provision and maintenance of playgrounds	4.23	4.24	3.98	3.93	3.52	3.43	3.15	3.14	16%
Provision and maintenance of sporting facilities	4.13	4.24	3.79	4.07	3.52	3.52	3.32	3.21	17%
Cycle paths and walking tracks	4.14	4.28	4	3.97	3.11	3.2	3.26	3.22	15%

Table 9 - Comparison of Importance and Satisfaction in Council Open Spaces Services

The 2024 Community Satisfaction Survey revealed several key trends across Council's major asset classes. These results help guide service reviews, prioritise investment, and identify where performance gaps exist between community expectations and current service delivery.

Upon review of the satisfaction survey results, it is observed that satisfaction with parks, playspaces and sporting facilities has declined for the fourth consecutive survey.

The results suggest a growing community expectation for Council to improve both the quality and maintenance of open space assets across the Shire.

Resultant actions will be further explored in Chapter 5 Levels of Service.

4.4 Strategies & Masterplans

The third key driver of service levels is Council's suite of adopted strategies and masterplans.

These documents help ensure that Council's planning, delivery and maintenance of infrastructure is strategic, coordinated, and responsive to community needs. They are developed in consultation with the community and provide clear direction for how specific asset types — or assets in specific locations — should be managed.

Each strategy or masterplan directly informs one or more Levels of Service by:

- Setting future directions or standards for service provision
- Prioritising improvements in specific locations
- Aligning asset management with broader community goals and legislative requirements

A list of strategies and masterplans that impact the levels of service for the Open Spaces asset class is provided in the table below.

Strategy/ Masterplan	Level of Service
2023 Community and Recreation Facilities Strategy (CRFS)	Provision
2016 Park Strategy Note: will be superseded by the 2025 Open Spaces, Parks & Play Strategy (OPPS) in early 2025/26	Provision and Operations and Maintenance
2020 Playspace Strategy Note: will be superseded by the 2025 Open Spaces, Parks & Play Strategy (OPPS) in early 2025/26	Provision and Renewal
2020 Recreational Walking Tracks Strategy	Provision and Renewal
Site specific Masterplans Note: All endorsed Masterplans are available on the Council website.	Provision
Plans of Management	Provision

Table 10 - Summary of Masterplans and Strategies

5 Levels of Service

Council defines its Levels of Service (LoS) across three key components:

- Provision – What assets Council provides, where, and how much
- Renewal – How frequently assets are replaced at the end of their useful life
- Maintenance and Operations – How assets are maintained to ensure safety, function and longevity

These components are interdependent — changing one may impact the others. For example, delaying renewal may increase maintenance needs, while expanding asset provision will create additional operational costs

5.1 Provision

Provision LoS refers to the number, type and location of assets Council provides across the Shire.

Council's currently provides over $41M of assets across 164 parks & reserves to provide services for the community.

The level of provision is not consistent across all areas. This is due to changes in planning and engineering standards over time. Assets in newer subdivisions are delivered under current design standards, while older areas reflect the requirements of past eras.

The Provision LoS for new development is shaped by several guiding documents:

- Local Environmental Plan (LEP)
- Development Control Plan (DCP)
- Engineering Design and Construction Specifications
- Developer Contribution and Servicing Plans
- Relevant strategies and masterplans (refer to Table 8 in Section 2.5)

While consistency across the Shire is a long-term challenge, Council continues to pursue a more equitable and contemporary provision standard over time. This work is led primarily by the implementation of adopted strategies and masterplans described in Section 2.5, which identify priority gaps and upgrades.

It is, however, recognised that as per the results from the 2024 community satisfaction survey, the community is generally not satisfied with Council's provision of open assets across the Shire.

Several capital projects have been completed, or are in progress, since the community satisfaction survey and so it is anticipated that this will see an uplift in community satisfaction. These projects are:

- David Woods Playspace - delivery of a new playspace, supported by local philanthropy group The 4k. This facility will cater for all ages and provide a central adventure playspace, as well as learn to ride, ninja warrior and BMX pump track attractions.

- Welby Mountain Bike Trails – refurbishment of the Kevins Dream trail, including an upgrade of it to more of a downhill flow trail to add further variety to the style of

trails within the network.

- Colo Vale Railway Park – significant park upgrade with inclusion of combination climbing tower, bike/scooter loop and swings.

- Hill Top Railway Park – park upgrade delivered in collaboration with Hill Top Community Association, which will leverage of increased activation from the new Loop Line Heritage Train.

- Sports Field Lighting Upgrades – through Federal Grant funding commitments and a draft Section 7.12 Plan, sports field lighting upgrades will be delivered at several locations across the Shire, increasing the resilience and operational hours of key fields. This will be of significant benefit to community sporting groups, providing greater opportunity for training and competition games.

That withstanding, it is funding availability that is the primary constraint on the provision of additional open space assets. Council own-source revenue must first be allocated to asset renewal in order to maintain pace with the deterioration of the existing asset network. Provision of new assets is therefore heavily reliant on the receipt of grant funding opportunities.

5.2 Renewal

Renewal LoS defines how often assets are replaced with a Modern Engineering Equivalent Replacement Asset (MEERA) — typically at the end of their useful life.

The useful life of an asset is the period over which it provides value. It is a key factor in both depreciation calculations and long-term renewal planning. Ideally, Council's annual capital renewal investment should match the value of annual depreciation, averaged over time.

If renewal falls below this level for extended periods, Council may face a backlog of ageing infrastructure and rising maintenance costs. Conversely, shortening useful lives can reduce maintenance needs but increase renewal costs.

The relationship between useful life, depreciation, and maintenance is carefully balanced to ensure sustainable asset management.

Summary of useful lives for the open spaces asset categories are provided below:

Asset Category	Asset Type	Useful Life in years
Fencing	Chain Wire Fence Timber Rail Fence & Gates Metal Fence General & Gates Steel Fence Pool Style – Standard Wire Agricultural Fence	25-30
Bridges	Timber Foot Bridge Concrete Bridge Steel Foot Bridge	30-100
Synthetic Surfaces	Velodrome Surface Synthetic Sports Surface	10
Sports Courts	Concrete Sports Slab Dugouts – Basic	10-80

	Goal Posts Clay Court Surface Tennis Umpire Chair Tennis Net Posts Modular Sports Tile Basketball/ netball hoops	
Retaining Wall	Stone blocks (manufactured &/or natural) Brick Retaining Wal &/or Edging Retaining Wall - Concrete (cast-in-situ) Retaining Wall – Timber	20-30
Lighting	Sportsfield Lighting Ovals	25
Furniture	BBQ's – Standard & High Quality Basketball Ring w Backboard Bike Rack Bin - Basic Bubblers - High Quality Fitness Equipment - Standard	20
	Fountain – Ornate	50
	Flagpole	40
Irrigation	Irrigation System Weather Station Irrigation Systems (Pipes, Sprinklers)	10-25
Playspace	Playground Equipment Plastic/Rubber Edging	20-25
	Softfall Material	10
Picnic/ Seating	Picnic Shelter Picnic Table & Chair Set Grandstand Seating	25
	Decking	25
	Hand Rail - Metal	40
Signage	Signage Valuation - Interpretive/Info Panel Scoreboards Signage Valuation - Timber Park Name	10-25
Other	Sandstone Blocks - Decorative	250
	Dog Waste Bag Dispenser	5

Table 11 - Useful Lives

The intent is therefore that all open space assets will be renewed prior to exceeding their designated useful life.

However, renewal works will also be based on asset condition. When an asset is found to be of Condition 4 or 5 then it will be programmed for renewal with the capital works program.

5.3 Maintenance & Operations

Maintenance and operational activities are essential for ensuring that Council's assets remain safe, functional and fit for purpose. These activities are delivered through a mix of proactive scheduling and reactive response across the entire asset network.

- Operational activities (such as inspections, servicing or compliance tasks) are generally well suited to structured scheduling and can often be delivered in a controlled and timely manner
- Maintenance activities (such as repairing damage, replacing worn components or responding to faults) are more difficult to schedule reliably and require mature systems, consistent data and adequate resourcing

Maintenance and operations level of service will be provided under two categories: inspections and maintenance.

5.3.1 Inspections

Inspections will be of two categories. Scheduled inspection and reactive inspection.

- Scheduled inspection

As part of the risk management of the asset network, all assets are to be inspected at a regular interval. The frequency of the inspection will be commensurate with the magnitude of the network as well as the assets rate of decay. Inspections will also run in line with commercial agreements for currently leased asset to align maintenance with agreed terms of upkeep.

Inspection Schedule Item		Frequency
Comprehensive Open Spaces Valuation		Every five years
Asset Condition Assessment		Two years
Playspaces	Comprehensive Inspection	Annually
	Defect Inspection	Quarterly

Table 12 - Asset Inspection Schedule

- Reactive inspection

Reactive inspections will be conducted as required in response to notification, or suspicion, of asset structural or performance failure. The reactive inspection will generally be an onsite visual inspection, however specialist consultants will engaged as required.

5.3.2 Maintenance

The annual maintenance and operations budget for the Open Space asset class is provided in the following table.

Asset Class	Annual Maintenance & Operations	
	$	as % of Asset Value
Open Spaces	$6,642,699	12%

Table 13 – Asset Class maintenance budget

This can be further broken down into the relevant subcategories of:

Asset Category / Service	Maintenance & Operations Budget
Bushland & Weeds	$852,931
CBD	$66,099
Civic Centre Landscape Maintenance	$35,625
Gardens	$137,948
General	$1,669,651
Litter	$441,220
Renwick Maintenance	$140,534
Roadside Mowing & Gardens	$19,569
Sportsfields General	$382,275
Sportsfields Mowing	$1,417,870
Trees	$636,304
Tulip Time	$41,600
Administration	$801,072
Total	$6,642,699

Table 14 - Maintenance and Operations Detailed Summary

Results from the recent community satisfaction survey show that the community is generally not satisfied with Council's maintenance performance across all asset categories of Open Spaces.

However, the difficulty faced is that maintenance and operations budgets are heavily constrained by both funding and resourcing availability. Although results of the recent community satisfaction survey indicate a performance gap in some areas, these constraints mean that solutions need to be found whilst maintaining existing budget levels.

Potential opportunities being investigated are a more strategic approach being adopted for maintenance, as well as programming & delivery of more effective capital renewal & upgrade projects.

To this end, there are several initiatives currently in progress:

- Shire Presentation has continued its rollout of QR codes in public spaces such as parks and sporting fields. The QR codes have been successful in enabling the community to easily provide feedback. This initiative ensures suggestions may be considered, and issues can be rectified as quickly as possible.
- An approach of continuous improvement has been adopted for the scheduling of park and sports field mowing and landscaping. The aim is to see consistent

improvement in scheduling whilst balancing challenges such as staff shortages, budget restraints, and weather. There is now scheduled fortnightly maintenance for mowing, trimming and blowing across the vast area of the Parks and Open Spaces portfolio.

- With a renewed focus on the delivery of resilient and efficient sports field lighting across the Shire, the opportunity will be taken to progressively integrate all sports field lighting onto smart controllers to enable remote access capabilities and capture of utilisation data – which will in turn assist in financial sustainability and end-user functionality benefits.

6 Asset Base Growth

Over the next 10 years, Council's asset base will continue to grow as a result of:

- New and upgraded assets delivered through Council and grant-funded capital projects
- Assets contributed by developers as conditions of consent or because of a Planning Agreement
- Infrastructure delivered through Developer Contributions and Servicing Plans

Council's current forecasts do not include any significant asset disposals during this period. Future updates may consider this as part of the ongoing development of Council's Property Strategy.

6.1 New and Upgraded Assets

The new and upgrade asset projects category covers those projects resourced by Council or grant funding, but excluding Development Contributions, that involve existing assets being enhanced or new assets being constructed.

This expenditure is partly derived from grant funded projects, however with grant funding only being reflected in Council's budget upon notification of success, grant funding does not impact the asset base growth calculation at this stage.

There are no committed new or upgrade projects for the Open Space asset class within the 2025/26 – 2028/29 Capital Works Program. There are numerous renewal based projects (including playspaces, sports field lighting, walking tracks etc) but these will achieve the renewal of existing deteriorated assets and so will not directly contributed to asset base growth.

As development continues, new infrastructure is delivered directly by developers under Conditions of Consent or a Planning Agreement and subsequently transferred to Council.

Council's Local Housing Strategy targets a 50:50 balance between infill development and greenfield development. Since only greenfield development typically leads to new asset contributions, it is estimated that 50% of population growth results in asset base growth.

Historical analysis shows that for every 1% increase in population from greenfield development, the asset base increases by approximately 0.3%. This reflects the fact that most contributed assets are minor in scale — such as pipes or footpaths, not major facilities like treatment plants.

Financial Year	Population Forecast	Population Growth	Forecast Asset Base Growth
2025/26	54,776	1.1%	0.16%
2026/27	55,357	1.1%	0.16%
2027/28	55,975	1.1%	0.17%
2028/29	56,593	1.1%	0.17%
2029/30	57,212	1.1%	0.16%
2030/31	57,830	1.1%	0.16%
2031/32	58,448	1.1%	0.16%

2032/33	59,138	1.2%	0.18%
2033/34	59,828	1.2%	0.18%
2034/35	60,527	1.2%	0.18%

Table 15 - Forecast.ID Population Growth

6.1.1 New Living Areas (NLAs)

The New Living Areas across the Shire are unique and do not align with the historical population trend model described above.

The Ashbourne Estate Landscape Masterplan has therefore been reviewed and estimates made as to the value of open space assets to be dedicated.

This has then been applied to the other New Living Areas (NLAs) on a pro-rata basis according to expected lot yield.

Assumptions were made for staging and delivery timeframes solely for planning purposes within this Strategy. These assumptions should not be used for operational or development decision-making.

LTFP Year	Ashbourne Estate	Bowral South NLA	East Mittagong NLA
1			
2	$456,982		
3			
4	$597,763	$2,799,019	
5			$630,410
6	$3,305,634	$2,799,019	
7			$630,410
8	$525,634	$2,799,019	
9			$630,410
10	$316,708	$2,799,019	

Table 16 - Estimate value of building assets to be dedicated from NLAs

6.2 Developer Contributions and Servicing Strategies

An important funding source for new infrastructure are Development Contributions collected under Section 7.11 and 7.12 of the Environmental Planning and Assessment Act. These contributions fund a significant proportion, though not all, of the infrastructure required by new development.

Council currently primarily levies contributions through the following plan relating to buildings.

- Open Space, Recreation, Community and Cultural Facilities 2013 to 2036

As of 30 June 2023, $8M is currently held in reserve for the delivery of infrastructure items detailed within this plan. However, it is acknowledged that the infrastructure

program within the plan is due for revision, with it being currently uncertain whether contributions are being received in line with expected forecasts – as well as whether the magnitude of Council co-funding detailed within the Plan remains financially viable.

These plans are currently under review. Several recently completed strategies will inform updates, including:

- Community and Recreation Facilities Strategy
- Integrated Transport Study
- Water and Wastewater Masterplans

Only those developer-funded projects identified in the 2025–2029 Capital Works Program have been included in this Strategy.

There are no projects within the 2025/26 to 2028/29 Capital Works Program which are funded by developer contributions.

6.3 Asset Disposals

No significant disposals are currently committed. Asset disposals — where an asset is removed and not replaced — may be considered in future revisions pending community engagement outcomes and the adoption of Council's Property Policy.

6.4 Asset Indexation

To ensure lifecycle costs remain comparable year-to-year, this Strategy adopts the same indexation assumptions as Council's LTFP:

- 3.0% annually for 2025/26 and 2026/27
- 2.5% annually from 2027/28 onward

6.5 Efficiencies

In line with the adopted LTFP, Council anticipates achieving 1% annual efficiency improvements. These will result from:

- New digital systems
- Workforce optimisation
- Strengthened business processes

These ongoing improvements will support Council's ability to deliver services effectively while managing the impacts of asset growth.

6.6 Asset Base Growth

The total growth of the Open Spaces asset class over the next 10 years is projected at approximately $36M. This growth is influenced by a range of factors, including:

- New and upgraded assets
- Assets contributed by development through conditions of consent
- Infrastructure funded through Development Contributions
- Asset disposals (none currently forecast)
- Annual indexation
- Efficiency gains

While each of these elements contributes to asset base growth, indexation and the NLAs can be considered the primary source of the total increase in asset value over the 10-year forecast period.

The following graphs illustrate the resultant annual and cumulative asset base growth.

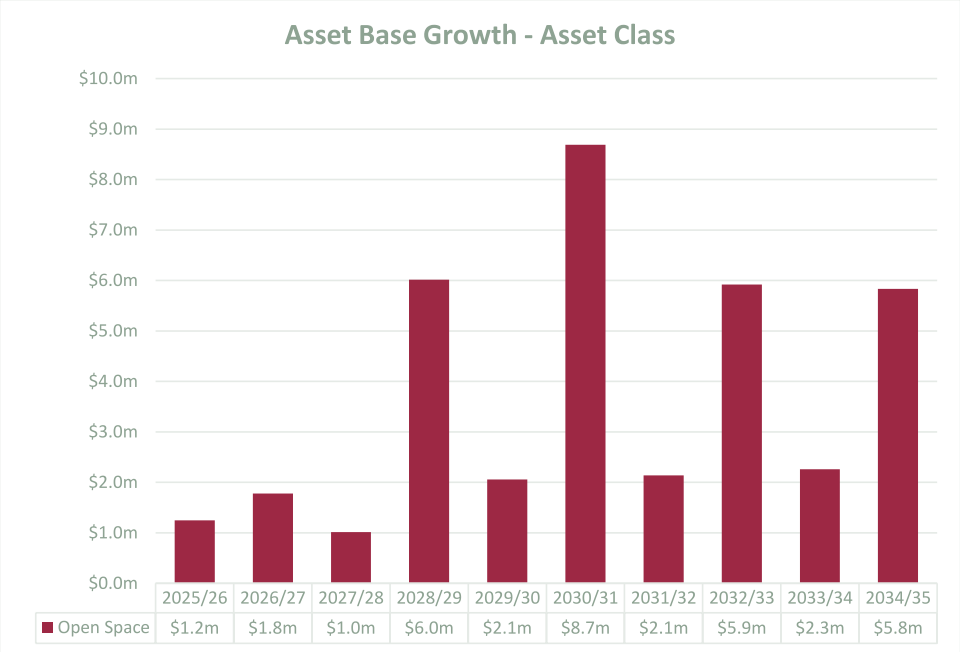


Figure 7 - Annual Asset Base Growth

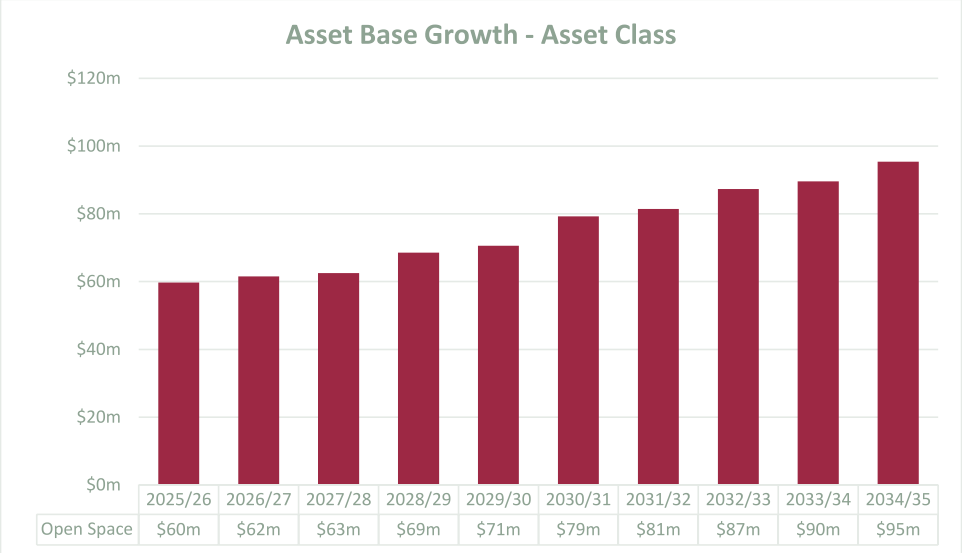


Figure 8 - Cumulative Asset Base Growth

7 Financial Lifecycle Forecast

To deliver the Levels of Service (LoS**)** outlined in this Strategy, Council must allocate funding for maintenance, operations, and asset renewal across the asset class.

7.1 Renewal Forecast

To keep Council's assets in good condition and maintain a healthy Infrastructure Backlog Ratio, assets must be renewed when they reach the end of their useful lives. Renewal involves disposing of the old asset and replacing it with a Modern Engineering Equivalent Replacement Asset (MEERA).

Relying solely on useful life expiry or condition data to plan renewals causes large fluctuations in annual renewal budgets. This makes long-term planning and resource allocation more difficult. Instead, Council uses an averaged renewal forecast to spread the investment more evenly over time.

In practice, actual investment in each asset class may vary based on the scale and timing of individual projects. These allocations are refined during the preparation of each new Delivery Program.

Across the 10-year planning period, the required renewal expenditure for the Open Spaces asset class is forecast at approximately $32M.

Scenario 1 of Council's LTFP can accommodate $14M in renewal investment over the same period, based on:

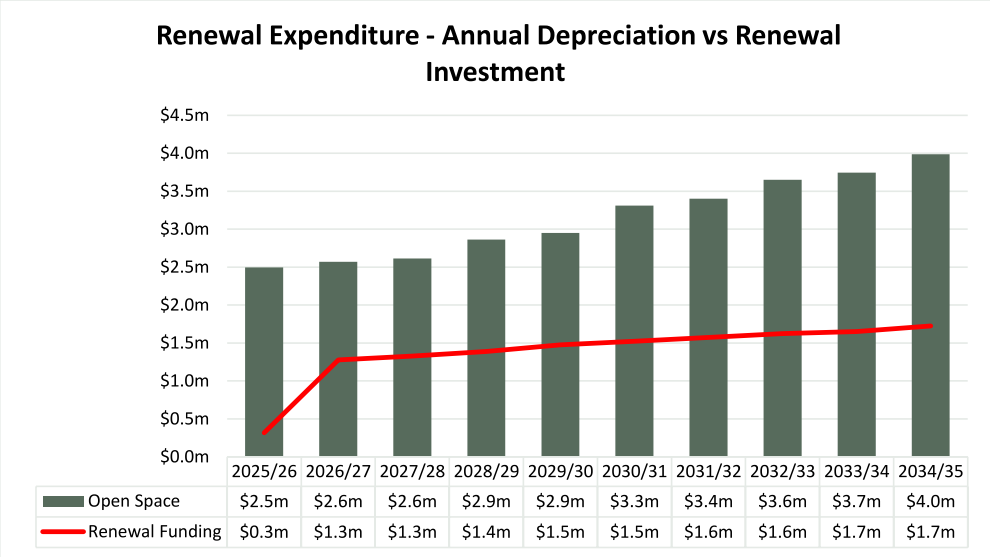
- Consideration of the 2025/26 to 2028/29 Capital Works Program
- For 2029/30 to 2034/35, the SRV and Council General Fund allocations have been distributed proportionally to each asset classes by their annual depreciation
- The assumption is that all funded projects will be 100% renewal.

This leaves a significant forecast funding gap of $18M between accumulated depreciation and actual renewal investment by 30 June 2035, as shown in Figure below.

The Open Spaces asset class is also the subject of extensive forecast growth across the 10 year planning period as a result of the New Living Areas.

Even with potential grant funding (estimated at $1–2M per year), a significant gap remains. Over time, this will result in more assets slipping into poor condition (Condition 4 or 5), requiring above-average renewal investment to recover service levels.

Therefore, Council must continue to seek and rely on grant funding opportunities to keep up with the asset deterioration of the open space asset class.



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Open Space	$2.5m	$2.6m	$2.6m	$2.9m	$2.9m	$3.3m	$3.4m	$3.6m	$3.7m	$4.0m
Renewal Funding	$0.3m	$1.3m	$1.3m	$1.4m	$1.5m	$1.5m	$1.6m	$1.6m	$1.7m	$1.7m

Figure 9 - Required Renewal Expenditure

7.2 Maintenance & Operations Forecast

As Council's asset base grows, maintenance and operations budgets must also increase to maintain current levels of service. Without this investment, the community may experience a gradual decline in service delivery, particularly for high-use infrastructure.

To assess future needs, Council has used the 10-year asset base growth forecast to estimate the additional funding required to maintain current service levels across all asset classes.

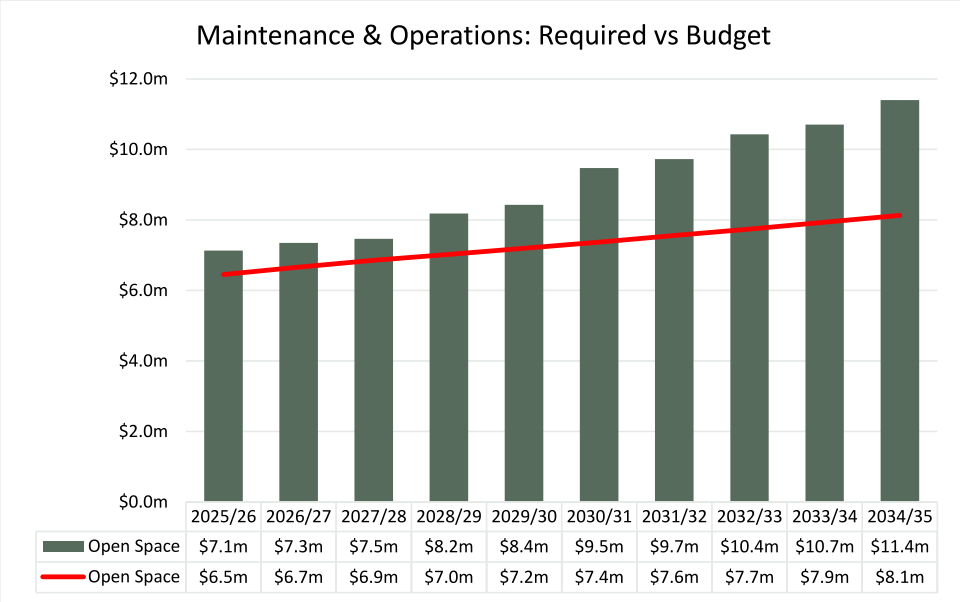
The required maintenance and operations expenditure across the 10-year period is forecast to be $90M.

Under Scenario 1 of the LTFP, Council can allocate $73M, leaving a $17M shortfall over the planning period.

This funding gap means that, unless additional resources become available, levels of service are expected to decline gradually across the asset class.

Importantly, the 2024 Community Satisfaction Survey highlights that residents already want to see improved performance. However, based on current funding constraints,

further improvement is unlikely without additional resourcing. Satisfaction levels may decline further in line with reduced service levels.



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Open Space	$7.1m	$7.3m	$7.5m	$8.2m	$8.4m	$9.5m	$9.7m	$10.4m	$10.7m	$11.4m
Open Space	$6.5m	$6.7m	$6.9m	$7.0m	$7.2m	$7.4m	$7.6m	$7.7m	$7.9m	$8.1m

Figure 10 - Required Maintenance & Operations Expenditure

8 Improvement Plan

Asset Planning is a journey of continuous improvement with there always being opportunities to further improve the accuracy of asset data, better understand community needs & expectations and more efficiently meet the service needs of the Shire.

To this end, an Asset Management Improvement Plan has been prepared to guide this journey of continuous improvement.

The below items are specific improvements that can be made to this document as well as the asset management maturity of Council.

Ranking	Improvement	Responsibility	Timeline
1	Open Space, Parks & Play Strategy - Public exhibition and adoption	Assets	2025/26
2	Sports Field Lighting Plan - Public exhibition and adoption	Assets	2025/26
3	Implementation of Technology One Assets, Strategic Assets and Works Management modules	Assets	2025/26
4	Creation of Defects Register – to be populated from scheduled and reactive inspections	Assets	2025/26
5	Re-wilding of Mittagong Pool - Concept Design	Assets	2025/26
6	Bowral Swimming Centre Masterplan	Assets	2026/27
7	Business AMP: Cemeteries	Assets	2026/27
8	Prepare Masterplans as per Open Space, Parks & Play Strategy priority listing	Assets	Ongoing

Table 17 - Asset Management Improvement Plan

Wingecarribee
SHIRE COUNCIL

Asset Management Plan – Wastewater

WINGECARRIBEE SHIRE COUNCIL

We're with you

Document Name	Asset Management Plan - Wastewater
Version No.	2
Council File Reference	Document Set ID 5484380
Adoption Date	TBC
Resolution Number	MN 2024/201
Document Owner	Manager Assets
Responsible Branch	Assets
Responsible Business Unit	Assets Water and Wastewater
Review Schedule	Annually
Review Date	26 June 2026

Version	Adoption Date	Notes
1	26 June 2024	First version of Asset Management Plan - Wastewater
2	TBC	2024/25 Update

Contents

1 Executive Summary

This Asset Management Plan (AMP) is part of a suite of Portfolio AMPs, which together sit under the Asset Management Strategy (AMS). It is to be read in conjunction with the AMS and Four Year Capital Works Program.

This AMP provides an overarching document of Council's management of, and investment in, the Wastewater Asset Class over a 10-year planning period.

Council manages a water asset class of 551km of wastewater gravity mains and 98km of rising mains, plus other assets across a broad range of asset categories, worth a combined $581.8M. The average condition of these structures is defined as being in 'good' condition.

The level of service that Council provides through this asset class can be described within the three categories of: Provision, Renewal, and Maintenance and Operations. What Council delivers through these levels of service are driven by consideration of: Risk Management, Community Satisfaction and Strategies and Masterplans. But is constrained by funding and availability of resourcing.

Review of the 2024 Community Satisfaction Survey shows that community satisfaction for the overall performance of the wastewater network has consistently been valued of high importance and high satisfaction by the community.

In accordance with these results, the Provision Level of Service details how the focus is to therefore to continue ensuring the resilience, performance and sustainability of the existing wastewater management network.

In order to provide an analysis of financial investment required across the planning period, calculation of forecast asset base growth must be completed. Asset base growth is calculated through consideration of the value of the asset class growing as result of new and upgrade projects, assets contributed through development, development contributions plans and indexation, as well as subtracting any known asset disposals. It is forecast that across the planning period the asset base will grow by $170M.

Recommended financial investment for the Renewal Level of Service and Maintenance and Operations Level of Service is calculated at $101M and $106M respectively. These have been calculated through aligning renewals with annual depreciation, and ensuring maintenance and operational budgets increase in step with asset base growth.

The Long-Term Financial Plan is able to accommodate the required investment to maintain current maintenance and operations service levels, but it cannot accommodate the renewal investment due to the funding model for the Sewer Fund not being structured such that renewals align with depreciation.

Asset management is a journey of continuous improvement, and so the AMP concludes with a concise Improvement Plan detailing the asset management maturity tasks programmed for the years ahead.

2 Asset Systems & Structures

2.1 Asset Planning Framework

Council's Asset Management Planning Framework is a critical part of the wider Integrated Planning and Reporting (IP&R) Framework used across all NSW local governments. It provides a structured and consistent approach to planning, delivering, maintaining and renewing Council's infrastructure assets.

The Framework ensures Council can make informed decisions and perform the key functions of asset management — including planning, coordinating, operating, maintaining, monitoring and improving the infrastructure services our community relies on every day. The structure of Council's Asset Management Framework is shown in Figure 1.

Council's Asset Management Framework consists of three key components:

1. Asset Management (AM) Policy:

The Asset Management Policy sets Council's overarching commitment and objectives for how we manage infrastructure. It outlines the principles that guide decision-making and establishes our focus on responsible, sustainable and risk-aware asset stewardship.

2. Asset Management Strategy (AMS):

This Strategy provides the roadmap for achieving the goals outlined in the Asset Management Policy. It aligns with the Long-Term Financial Plan 2025–2035 and the Delivery Program 2025–2029 to ensure our asset investments and service levels are sustainable and community-informed.

The Strategy is reviewed regularly to remain relevant and responsive. Specific works and activities arising from this Strategy are included in Council's Operational Plan and Annual Budget.

3. Asset Management Plans (AMP):

Asset Management Plans translate the strategic direction of this Strategy into detailed actions for each major asset class. These plans provide a deeper analysis of:

- Asset condition and inventory
- Levels of service
- Risks and renewal priorities
- Financial sustainability over the asset lifecycle

AMP's are developed for both community assets and business unit assets, grouped by the type of function the assets serve:

a) Community assets
   i) Transport (roads, bridges, footpaths)
   ii) Stormwater
   iii) Buildings and Aquatic facilities
   iv) Open Space and Recreation
   v) Water

vi) Wastewater

b) Business units

i) Cemeteries

ii) Resource Recovery Centre (RRC)

iii) Southern Regional Livestock Exchange (SRLX)

AMP's are regularly reviewed to ensure they continue to meet the service needs of the community and reflect changing conditions. These reviews are informed by community consultation and engagement. AMP's also act as core inputs into Council's Long-Term Financial Plan, helping to shape future budgets and investment decisions.

All adopted AMPs are available on Council's Asset Management Planning page at https://www.wsc.nsw.gov.au/Residents/Asset-Management-Planning

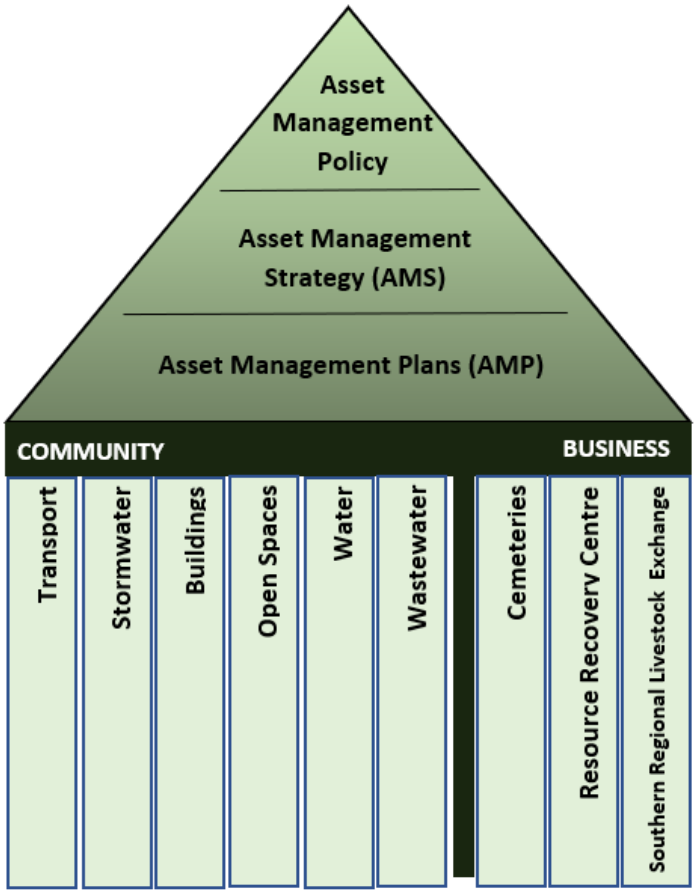


Figure 1: Asset management Planning Framework

2.2 Asset Planning Systems

Effective asset planning relies on accurate, integrated and up-to-date data. Council uses several systems and databases to support asset management planning, service delivery and reporting. These tools enable staff to maintain reliable asset information, assess risks, model future scenarios and plan capital investment.

Table 1 summarises the core systems currently use across Council for asset planning and management:

System	Description
Conquest	Asset register – inventory, condition and attribute data
ArcGIS	Geographic Information System – maps and spatial asset data
Technology One – Finance	Manages budgets, purchase orders and expenditure
Technology One – Enterprise Content Management (ECM)	Enterprise Content Management – document and record keeping
Technology One – Customer Request Management (CRM)	Customer Request Management – workflows for customer enquiries and requests
Pulse – Project Management	Project management – scoping, planning and delivery of capital projects
Infoworks WS Pro and ICM	Water and wastewater network modelling software

Table 1: Asset Planning Systems

As part of Council's ongoing digital transformation, several new Technology One modules are being implemented to streamline workflows, improve integration across teams, and reduce manual processes.

During 2025–2026, the following upgrades will be rolled out:

- Asset Register: This module will replace Conquest and become Council's single source of truth for asset inventory, condition and attribute data. It will integrate with Finance through the creation of Asset Books, eliminating the need for manual reconciliation
- Strategic Assets: An advanced modelling tool that connects with the Asset Register. It enables future condition forecasting based on varying levels of investment and supports long-term scenario planning
- Works Management: This module will support field-based delivery teams by enabling integrated work orders. It will fully align with the Asset Register and Finance systems to provide seamless job tracking and cost control

These improvements will help Council make better-informed decisions, plan more proactively, and improve the efficiency of asset lifecycle management.

2.3 Organisational Structure

Wingecarribee Shire Council uses a collaborative, whole-of-organisation approach to asset management.

Asset planning and network-level planning functions are centralised within Council's Asset Branch, which sits under the Service and Project Delivery Directorate. This structure ensures a coordinated and strategic approach to infrastructure planning and lifecycle decision-making.

Meanwhile, the day-to-day operations, maintenance and capital project delivery functions are primarily managed through three key teams:

1) Shire Presentation
2) Water Services
3) Project Delivery

These assets are used to support a wide range of services across the community — from libraries and aquatics to depots and the visitor information centre. Each of these services is overseen by a Service Manager, who is accountable for delivering the function to the community.

To ensure services meet the needs and expectations of our community, Council integrates asset planning and delivery with service design. This is achieved through close collaboration between the Asset Branch, Project Delivery teams and each relevant Service Manager.

Together, these teams work to ensure that infrastructure is planned, funded and maintained in ways that:

- Deliver on service objectives
- Maximise asset performance and lifespan
- Respond to community priorities and satisfaction

Service Manager	Asset / Facility
Manager Community Life and Libraries	Libraries
Manager Waste and Resource Recovery	Resource Recovery Centre
Manager Business and Property	Southern Regional Livestock Exchange
	Southern Highlands Visitor Information Centre
	Bowral Memorial Hall
	Aquatics Portfolio
Manager Water Services	Mittagong Works Depot
Manager Shire Presentation	Moss Vale Works Depot

Table 2 - Service Managers

The below figures detail the organisational structure relationship between Assets and the Delivery branches within the Project Delivery Directorate, as well as that of the Water and Wastewater Team.

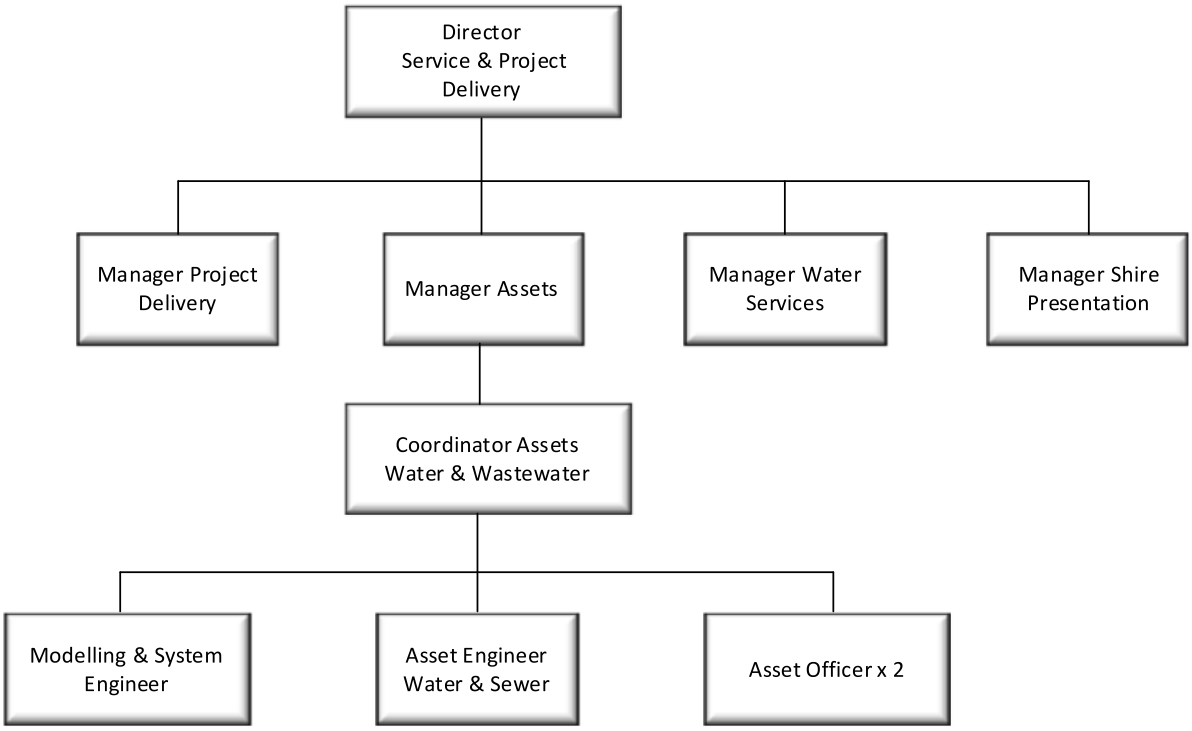


Figure 2: Service & Project Delivery Directorate

3 Our Assets

3.1 Overall Inventory

The sewer infrastructure assets included in this plan have a total replacement value of $581,814,404 and include the following major asset category:

Asset Category	Quantity/Length (Km)	Replacement Value ($)
Sewer Pump Stations	77	$48,147,646
Sewer Gravity Mains	551	$243,709,907
Sewer Rising Mains	98	$39,694,752
Sewer Vents	126	$1,986,611
Sewer Valves	248	$1,452,153
Sewer Access Chambers	11,097	$53,442,799
Sewer Service Lines	17,410	$91,558,143
Sewer Treatment works	6	$101,555,076
Sewer Telemetry Systems	10	$267,318
Total Replacement Cost		**$581,814,404**

Table 3 - Asset Category Inventory

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

Service Hierarchy	Service Level Objective
Pump Stations	Temporary storage and bulk transfers
Gravity Mains	Conveyance of wastewater
Rising Mains	Pressurised conveyance of wastewater
Valves	Operational control of the network
Vents	Removal of harmful gas build up from the network
Access Chambers	Point of entry for technical staff to carry out inspections and maintenance
Services Lines	Connecting sewer mains to individual properties
Treatment Works	Treatment of wastewater to protect the environment

Table 4 - Asset Category Description

We maintain our asset register through a combination of proactive inspections, project-related updates and external contributions.

Key processes include:

- Newly constructed assets: Assets are added to the register following delivery by Council capital works or dedication through subdivision development.

- Ad-hoc inspections: Triggered by internal requests, customer feedback or during project scoping phases.
- Scheduled inspections: All assets are included in a structured inspection schedule. Inspection frequency is based on the asset's rate of deterioration, cost to inspect, and potential consequences of failure.

All assets are valued in line with Australian Accounting Standards, with a comprehensive revaluation undertaken for each asset class at least every five years.

In years where a full revaluation is not scheduled, Council conducts an annual fair value assessment across all asset classes. If a material change in value is detected, the relevant classes are indexed using industry-recognised methods.

A comprehensive valuation for wastewater was performed in the financial year 2021/22. Next comprehensive valuation was scheduled for 2026/27.

Figure 3 (below) shows the current estimated value of the asset class, broken down by asset category.

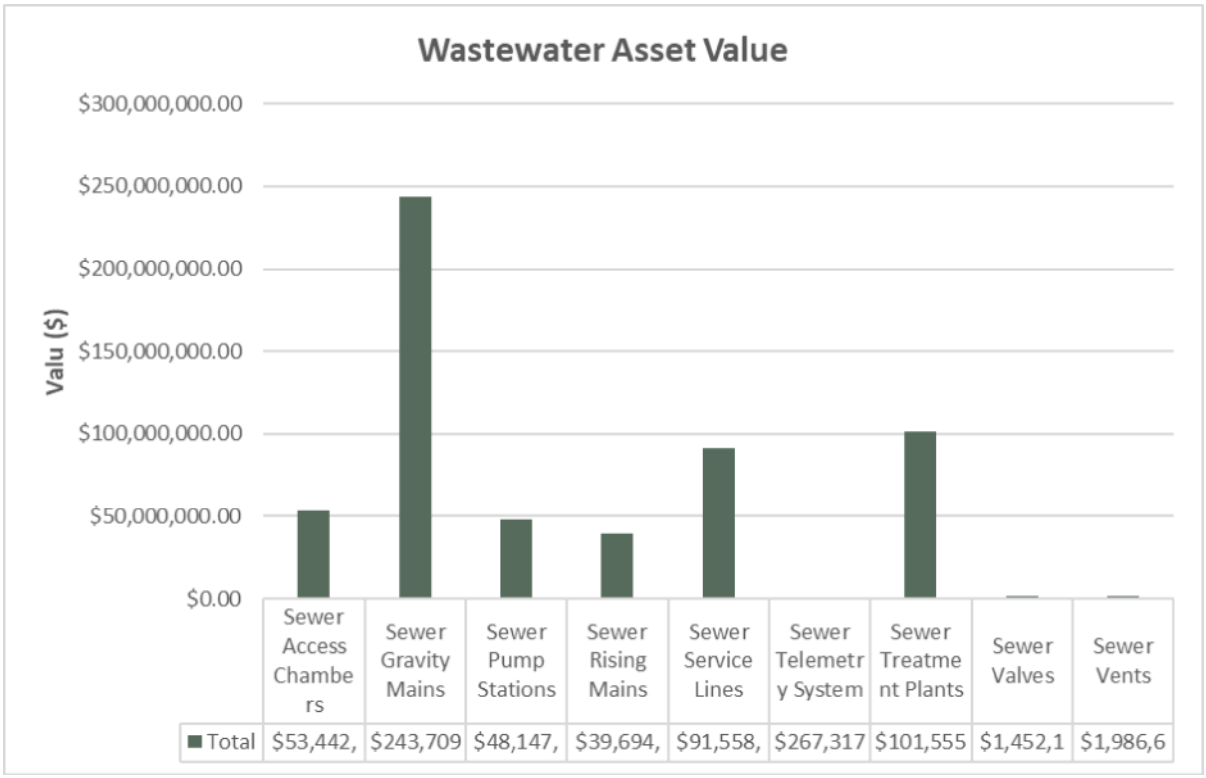


Figure 3 - Asset Category Value

3.2 Overall Condition

Council regularly assesses the condition of its assets to help plan maintenance, renewal and capital works programs. These assessments form part of a rolling inspection schedule across the entire asset network.

Condition assessments are undertaken in line with industry standards, using guidelines developed by the Institute of Public Works Engineering Australasia (IPWEA). These assessments are used to:

- Track asset performance over time

- Identify assets approaching failure
- Inform risk management and lifecycle planning
- Support annual budgeting and long-term financial modelling

Council uses a standardised 5-point rating system:

1. As new / Excellent
2. Good / Satisfactory
3. Fair / Tolerable
4. Poor / Intolerable
5. Very Poor / Reconstruction required

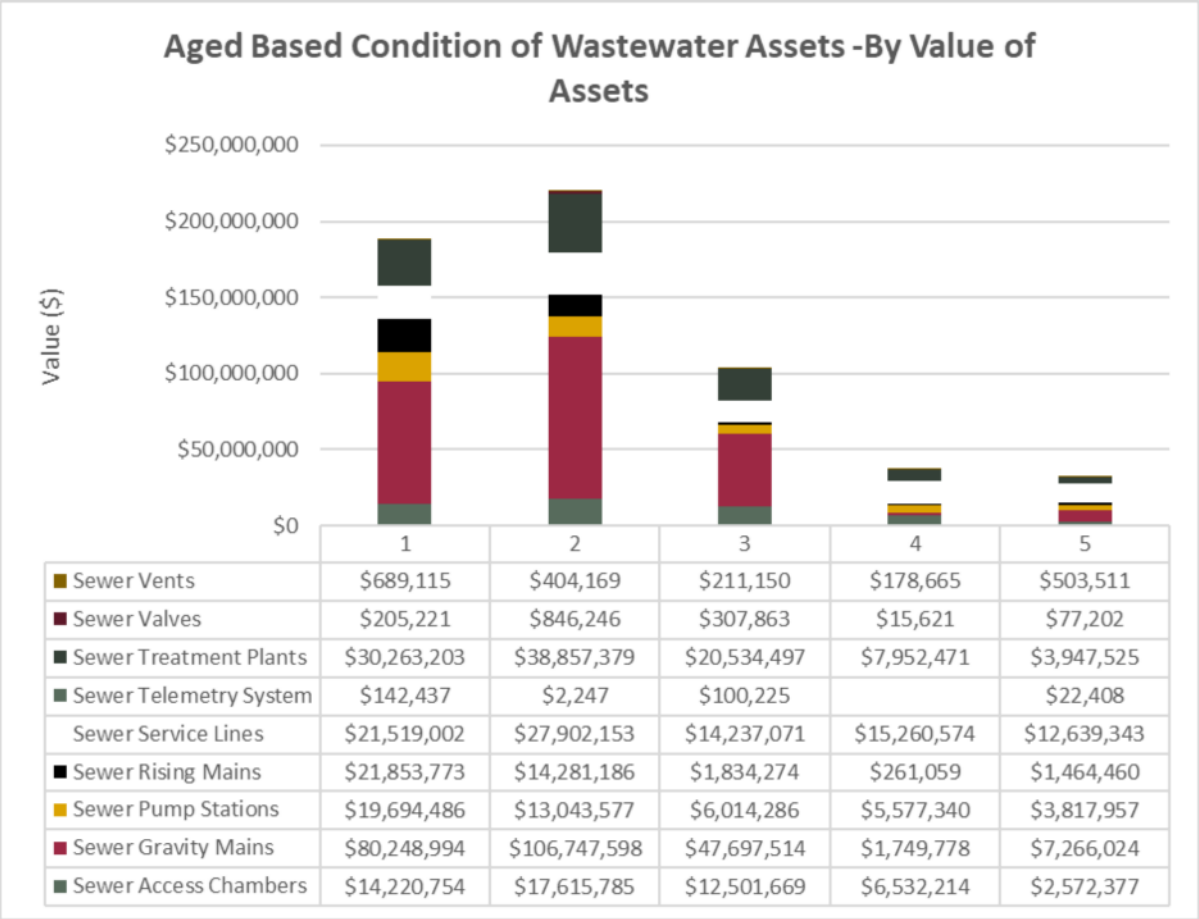
With a vast network of underground wastewater assets, obtaining good condition data is often difficult and expensive.

The Council makes use of ad-hoc condition assessments of its underground assets during works that expose those assets. For example, during routine maintenance, excavating for new service connections or during emergency repairs, information such as pipe diameter, condition, wall thickness, consequence of failure and location should be recorded and entered the asset register for future reference.

Desktop method of condition assessments is carried out by analysing the asset inventory data such as age, material, useful life, failures, risk and criticality.

The overall average condition of Council's wastewater assets is good / satisfactory.

Average condition rating for wastewater assets is 1.43.



	1	2	3	4	5
Sewer Vents	$689,115	$404,169	$211,150	$178,665	$503,511
Sewer Valves	$205,221	$846,246	$307,863	$15,621	$77,202
Sewer Treatment Plants	$30,263,203	$38,857,379	$20,534,497	$7,952,471	$3,947,525
Sewer Telemetry System	$142,437	$2,247	$100,225		$22,408
Sewer Service Lines	$21,519,002	$27,902,153	$14,237,071	$15,260,574	$12,639,343
Sewer Rising Mains	$21,853,773	$14,281,186	$1,834,274	$261,059	$1,464,460
Sewer Pump Stations	$19,694,486	$13,043,577	$6,014,286	$5,577,340	$3,817,957
Sewer Gravity Mains	$80,248,994	$106,747,598	$47,697,514	$1,749,778	$7,266,024
Sewer Access Chambers	$14,220,754	$17,615,785	$12,501,669	$6,532,214	$2,572,377

Figure 4: Condition by Value of Wastewater Assets

3.3 Asset Category Inventory

3.3.1 Wastewater mains

Council manages a wastewater pipe network of 649 kilometres – of which 551 kilometres are gravity mains and 98 kilometres are rising mains (aka pressure mains). This network of water pipes is comprised of many different material types with UPVC accounting for 54% of the network.

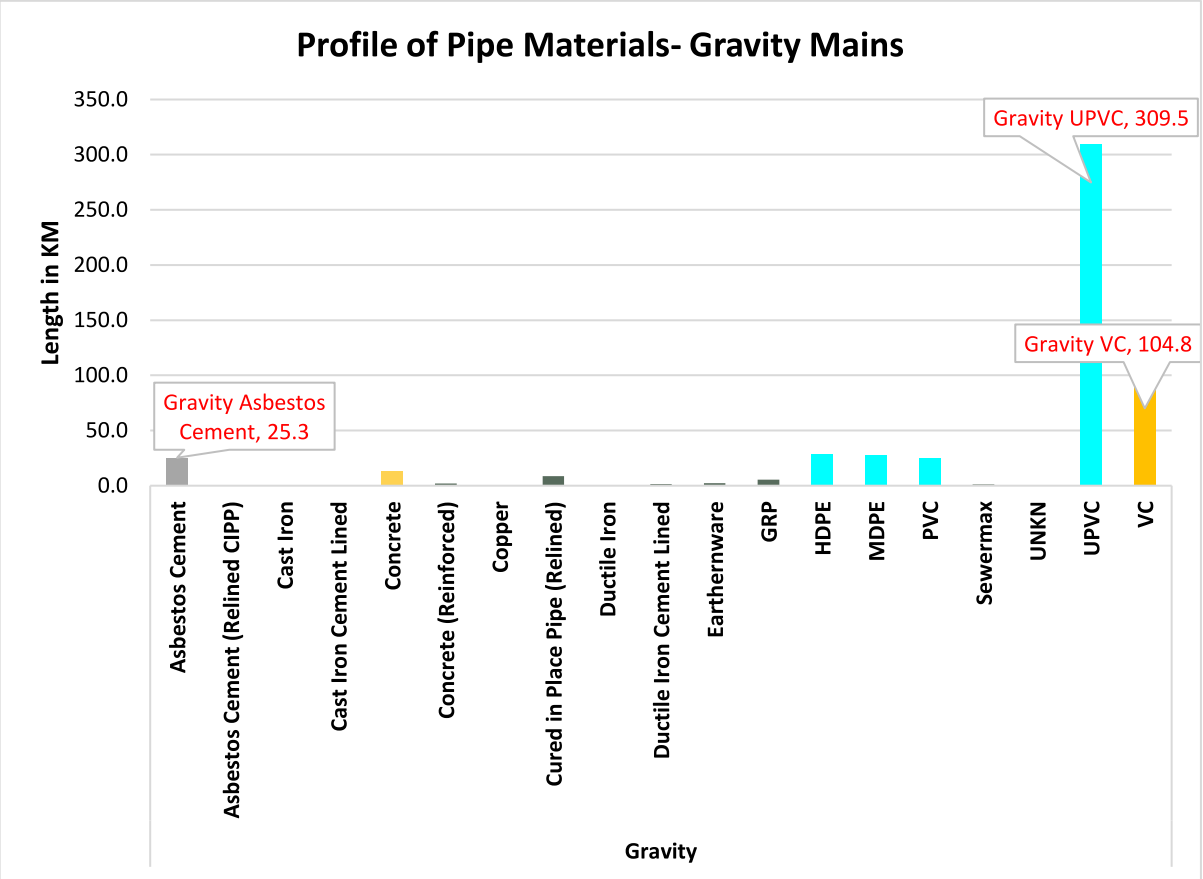


Figure 5 - Gravity Mains material

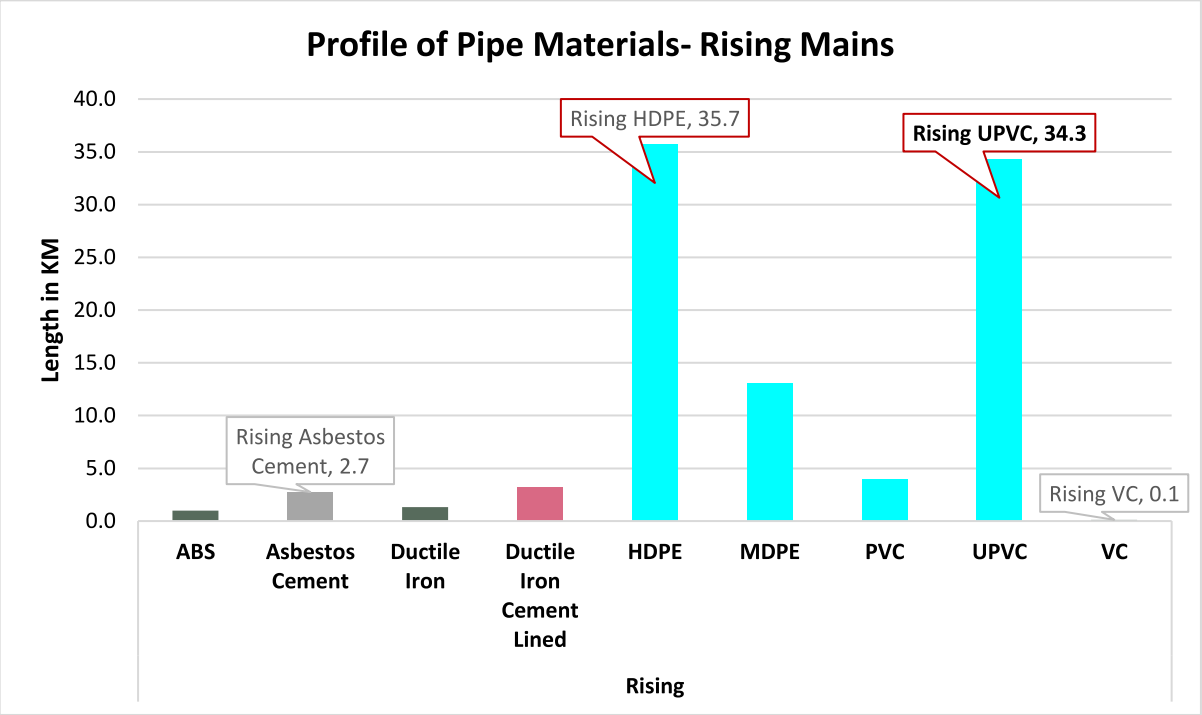


Figure 6 - Rising Mains Material

It is however acknowledged that Council has limited detailed condition data on these underground pipes, but this will change in the coming years with a CCTV inspection target of 5% of the network per year.

For pipelines that have not been subject to a recent CCTV condition inspections, condition ratings are estimated based upon construction age, useful life and straight line deterioration through an age-based condition calculation of:

- If remaining useful life is between 100% and 80%, then Condition is 1
- If remaining useful life is between 80% and 60%, then Condition is 2
- If remaining useful life is between 60% and 40%, then Condition is 3
- If remaining useful life is between 40% and 20%, then Condition is 4
- If remaining useful life is between 20% and 0%, then Condition is 5

The following figures display the range of construction years for sewer mains and the resulting spread of condition scores.

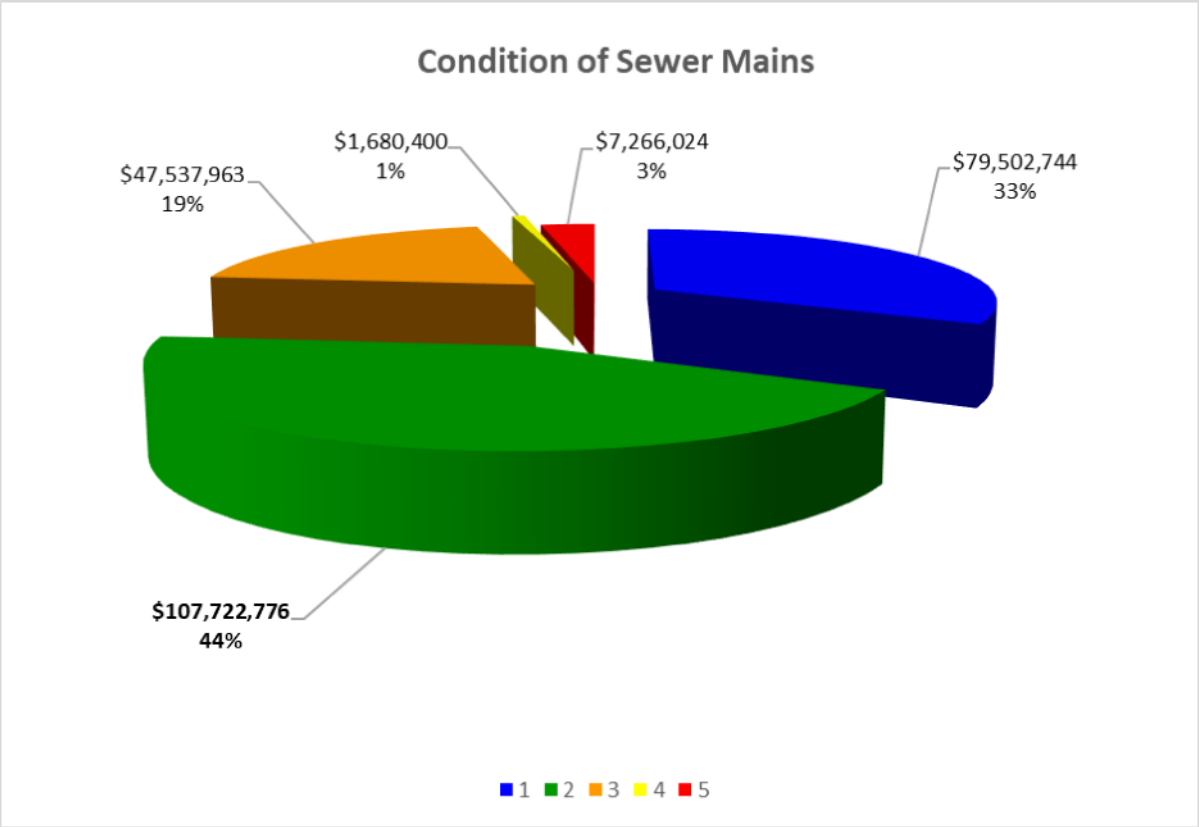


Figure 7 - Wastewater Main Condition

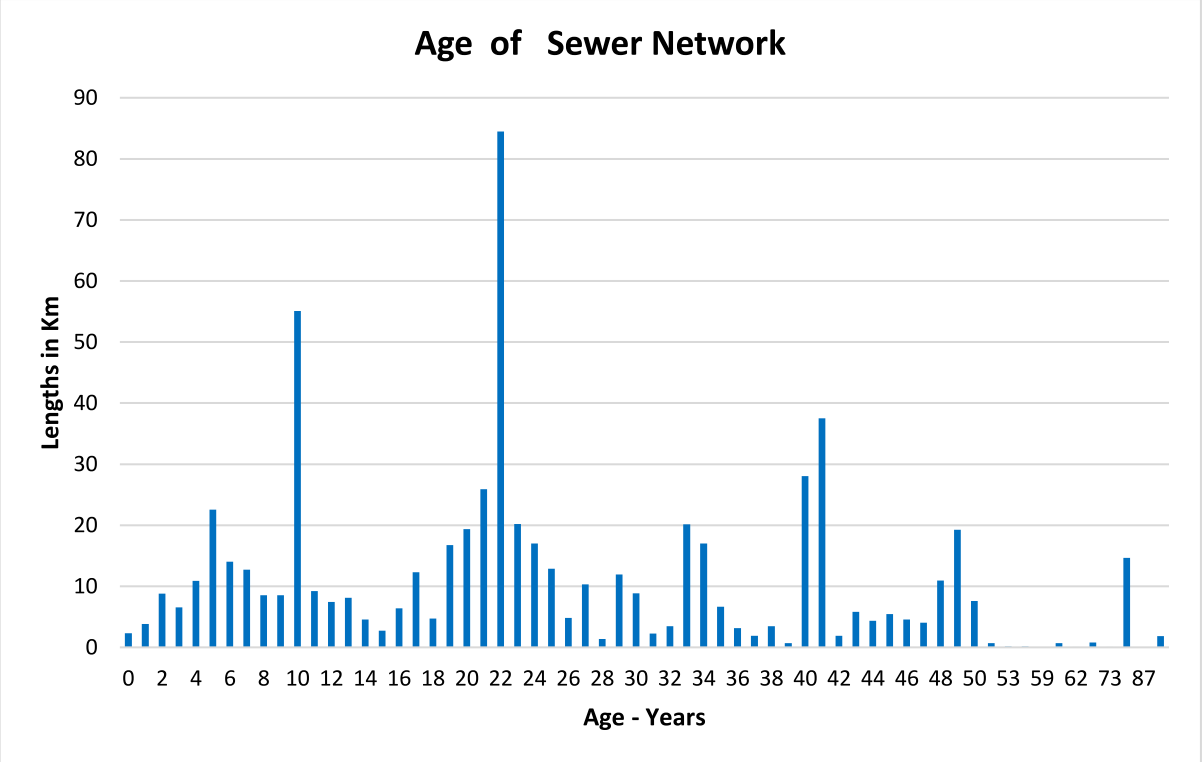


Figure 8 - Wastewater mains age

3.3.2 Access Chambers

The wastewater network of the Wingecarribee Shire has over 11,000 access chambers – which can be broadly grouped into three types: lamphole, maintenance shaft and manhole.

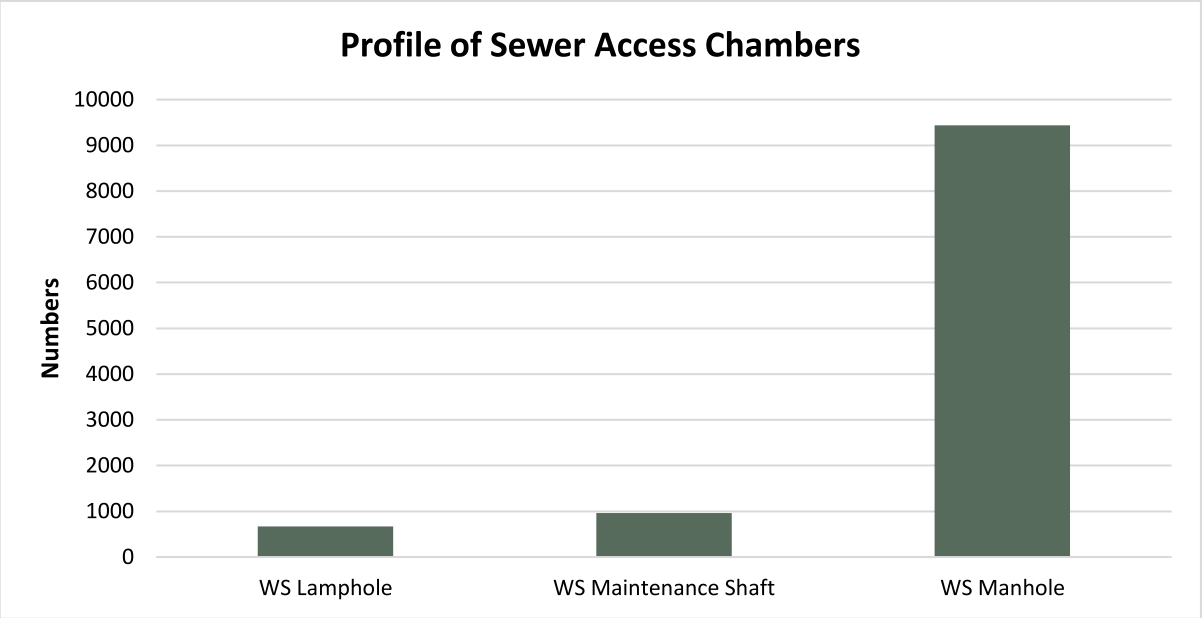


Figure 9 - Access Chamber Types

3.3.3 Wastewater Valves

The wastewater network of the Wingecarribee Shire has just under 500 valves – which can be broadly grouped into four types: air valve, non-return valve, scour valve and stop valve.

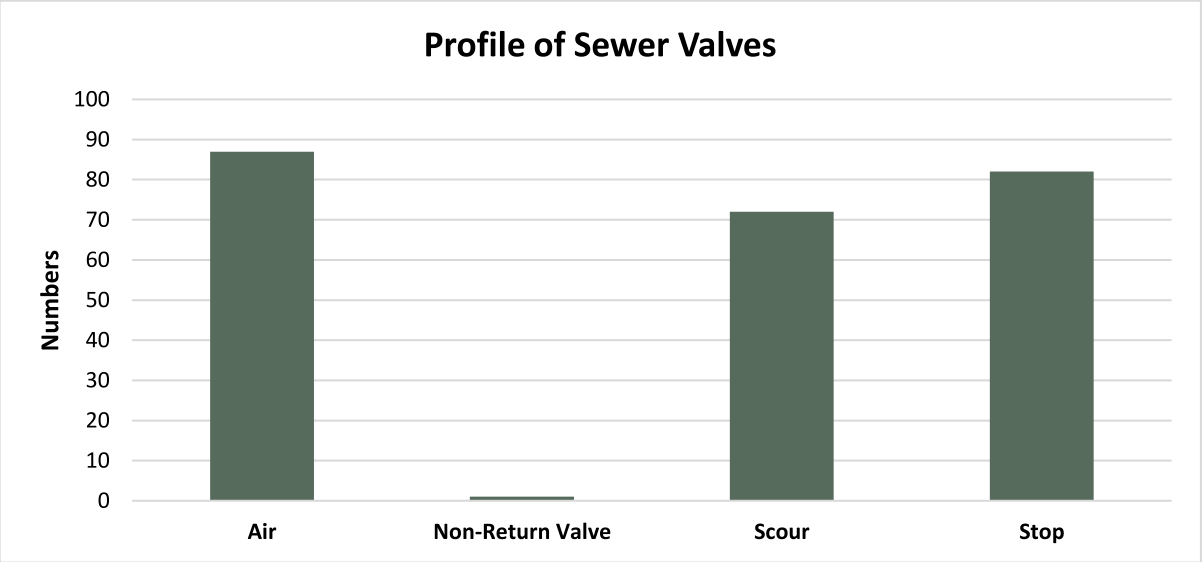


Figure 10 - Wastewater Valves Types

4 Drivers of Level of Service

Council's Levels of Service (LoS) define the standard at which assets are provided, maintained, renewed and operated. These levels determine how often assets are inspected, how quickly they are repaired, and how long they are expected to last.

While Levels of Service are shaped by available funding and staff resources, they are primarily driven by three key factors:

- Risk Management
- Community Satisfaction
- Strategies and Masterplans

4.1 Risk Management

Risk is the potential impact of uncertainty on Council's ability to meet its objectives. Council uses a structured approach to identify, monitor and respond to risks across its asset portfolio.

The risk assessment will identify potential hazards and select a treatment option to be implemented to control the generated risk. The resultant treatments will primarily fall within the categories of ensuring compliance with regulations and standards, adhering to a regime of systemic inspections, committing to a program of upgrades and ensuring proactive and reactive maintenance is completed.

A Risk Assessment has been completed for the asset class, covering generic hazards that are typical across the entire asset network and consideration of Critical Assets.

4.1.1 Critical Assets

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

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Pump Stations	Electrical fault, blockages, insufficient capacity	Inspection program, emergency generator points, and pump out points
Gravity Mains	Pipe failure, blockage	CCTV inspection and cleaning program
Rising Mains	Pipe failure	Inspection program
Valves	Seal failure	Inspection program
Vents	Cracking	Inspection program
Access Chambers	Blockage, cracking	Inspection program, cleaning
Services Lines	Pipe failure, blockage	Inspection program, root cutting

Treatment Works	Mechanical/electrical fault, biological failure	Inspection and preventative maintenance program

Table 5: Critical Assets

4.1.2 Risk Assessment Framework

The below risk matrix categories the risk that Council is exposed to, depending on the consequence, and the likelihood the risk.

Risk (R) Matrix		**Consequence (C)**				
		Severe	**Major**	**Moderate**	**Minor**	**Insignificant**
Likelihood (L)	**Almost Certain**	Extreme	Extreme	High	High	Moderate
	Likely	Extreme	Extreme	High	Moderate	Moderate
	Possible	Extreme	High	Moderate	Moderate	Low
	Unlikely	High	High	Moderate	Low	Insignificant
	Rare	High	Moderate	Low	Insignificant	Insignificant

Table 6 - Risk Assessment Framework

4.1.3 Risk Assessment

Hazard	Risk	Inherent Risk			Treatment	Residual Risk			Implementation Status	Responsibility	Level of Service
		C	L	R		C	L	R			
Operation of Sewer Treatment Plants fail to meet licence conditions	Environmental impact and EPA fines	**MAJ**	**POS**	**H**	Ensure sewage treatment plants are either of sufficient treatment capacity or upgrade works are programmed to ensure that they will be	**MIN**	**POS**	**M**	Current	Assets	Provision
Loss of Electricity Power Supply	Sewer Treatment Plants stop operating	**MOD**	**POS**	M	Liaise with Integral Energy on notification requirements, Investigate the provisions for standby generators and or dual feeds. Auto mode operations are available for diversion to storm ponds.	**INS**	**POS**	**L**	Current	Assets	Operations
Mechanical failure of sewer pump stations	Sewer pump stations stop operating	**MOD**	**LIK**	**H**	Implement preventative maintenance program	**MOD**	**POS**	**M**	Current	Water Services	Operations
					Ensure adequate spare parts are stored at Depot				Current	Water Services	Operations
					Upgrade SCADA system to improve control.				Future	Water Services	Operations
High levels of inflow and infiltration into sewer reticulation network	Capacity of reticulation network prematurely exceeded	**MOD**	**POS**	**M**	Complete flow gauging and calibration of reticulation models	**INS**	**POS**	**L**	Current	Assets	Operations
					Implement smoke testing and house to house inspections within the reticulation on a rolling program.				Future	Water Services	Operations
					Ensure upgrade works identified in containment modelling are included in capital works program and delivered.				Current	Assets	Operations

Hazard	Risk	Inherent Risk	Treatment			Residual Risk			Implementation Status	Responsibility	Level of Service
		C	L	R		C	L	R			
Poor quality assets dedicated through subdivision	Levels of service not meet and increased financial burden	**MOD**	**POS**	**M**	Review council's design and construction standards for Wastewater services.	**MOD**	**POS**	**M**	Current	Assets	Provision
					Ensure adequate hold points exist for quality inspections and testing (and are applied both internally and externally).				Current	Development Team	Provision

Table 7: Risk assessment

4.2 Community Satisfaction

Service levels are also informed by what the community expects, needs and values. We regularly consult with the community — through engagement programs, surveys, and feedback channels — to understand:

- What services are most important
- Where performance gaps exist
- Where improvements are needed

This feedback helps guide investment decisions and supports transparency around service trade-offs.

As part of our performance monitoring, a Community Satisfaction Survey is conducted that asks residents to rate both the importance and satisfaction of Council services and facilities on a five-point scale (1 = low, 5 = high). The 2024 Performance Gap is the difference between community importance and community satisfaction.

The most recent survey was undertaken in 2024, with previous years' results provided for comparison.

The table below presents the results that relate specifically to this Asset Management Plan.

	Importance				Satisfaction				2024 Performance gap
	2019	2021	2022	2024	2019	2021	2022	2024	
Overall sewerage system performance (chokes, overflows, odour)	4.54	4.61	4.47	4.58	4.13	4.14	3.96	4.1	10%

Table 8: Comparison of Importance and Satisfaction over 2019, 2021,2022 and 2024.

In the table above, the 2024 Performance Gap is the difference between community importance and community satisfaction.

The wastewater network continues to be rated as highly important, and satisfaction levels remain strong. The current focus is therefore on maintaining service quality and system reliability over the long-term.

4.3 Strategies & Masterplans

The third key driver of service levels is Council's suite of adopted strategies and masterplans.

These documents help ensure that Council's planning, delivery and maintenance of infrastructure is strategic, coordinated, and responsive to community needs. They are developed in consultation with the community and provide clear direction for how specific asset types — or assets in specific locations — should be managed.

Each strategy or masterplan directly informs one or more Levels of Service by:

- Setting future directions or standards for service provision
- Prioritising improvements in specific locations

- Aligning asset management with broader community goals and legislative requirements

A list of strategies and masterplans that impact the levels of service for the Wastewater asset class is provided in the table below.

Strategies /Masterplans	Asset Category	Level of Service Influenced	
Integrated Water Cycle Management (IWCM) Strategy	Pump Stations Gravity Mains Rising Mains Valves Vents Access Chambers Services Lines Treatment Works	Provision	Planning for Sewer Treatment and network capacity improvements to meet future demands. Planning for the extension of sewer services for new developments and subdivisions
Bowral/Mittagong/Moss Vale Wastewater Masterplans	Pump Stations Gravity Mains Rising Mains Valves Vents Access Chambers Services Lines Treatment Works Valves & Hydrants	Provision	Planning for Sewer Treatment and network capacity improvements to meet future demands in 2051. Planning for the extension of sewer services for new developments and subdivisions Mitigating the sewer overflow risks in existing network
Asbestos Management Strategy	Gravity Mains Rising Mains	Maintenance & Operations	Ensuring a healthy and safe environment for the community in handling asbestos in sewer assets.

Table 9: Strategic plans and Masterplans driving the Level of Service.

5 Levels of Service

Council defines its Levels of Service (LoS) across three key components:

- Provision – What assets Council provides, where, and how much
- Renewal – How frequently assets are replaced at the end of their useful life
- Maintenance and Operations – How assets are maintained to ensure safety, function and longevity

These components are interdependent — changing one may impact the others. For example, delaying renewal may increase maintenance needs, while expanding asset provision will create additional operational costs

5.1 Provision Level of Service (LoS)

Provision LoS refers to the number, type and location of assets Council provides across the Shire.

Council's current provision of wastewater assets is worth a combined $581.8M and provides services for 20,151 dwellings.

5.1.1 Extent of Wastewater Management Schemes

Council will not pursue any extension of the wastewater management schemes to areas currently not serviced.

The focus is on ensuring the resilience, performance and sustainability of the existing wastewater management networks.

5.1.2 Wastewater Management Schemes and New Developments

The Provision LoS for new subdivisions & development is that which is stipulated in the documents which govern it, namely Council's:

- Local Environmental Plan
- Local Housing Strategy
- Local Strategic Planning Statement
- Development Control Plans
- Engineering Design and Construction Specifications
- Developer Contribution & Servicing Plans
- Water and Wastewater Modelling Design Standards

5.1.3 Performance of Wastewater Management Schemes

Council has adopted the performance standards for the Wastewater Management network as detailed within the Modelling Design Standards – which are available on the Council website.

These standards provide a design criteria for:

- Loading rates
- Minimum Pipe Diameters
- Wet weather containment
- Pumping station specifications

A suite of wastewater reticulation masterplans are currently in delivery to outline the program of works required across the existing wastewater schemes to ensure these performance standards can be met.

5.1.4 Performance of Wastewater Treatment Plants

Council maintains a portfolio of six wastewater treatment plants across the Shire. The provision level of service for these facilities is such that each site can operate within licensing conditions and that they are of adequate capacity to accommodate project demand of 2051.

The following table provides a basic capacity analysis of the wastewater treatment plants:

Wastewater Treatment Plant	Current Design Capacity (EP)	Sufficient Capacity to 2051	Planned Upgrade
Berrima	2,000	Yes	
Robertson	2,000	Yes	
Bundanoon	5,400	Yes	
Moss Vale	9,000	No	20,000 – Forecast completion June 2026
Mittagong	14,000	No	21,000 – Forecast completion June 2030*
Bowral	14,600	No	21,000 – Forecast completion December 2025

Table 10 - Summary of Wastewater Treatment Plants

*Note: Delivery of Mittagong Wastewater Treatment Plant Upgrade is contingent upon receipt of grant funding support.

5.2 Renewal Level of Service

Renewal LoS defines how often assets are replaced with a Modern Engineering Equivalent Replacement Asset (MEERA) — typically at the end of their useful life.

The useful life of an asset is the period over which it provides value. It is a key factor in both depreciation calculations and long-term renewal planning. Ideally, Council's annual capital renewal investment should match the value of annual depreciation, averaged over time.

If renewal falls below this level for extended periods, Council may face a backlog of ageing infrastructure and rising maintenance costs. Conversely, shortening useful lives can reduce maintenance needs but increase renewal costs.

The relationship between useful life, depreciation, and maintenance is carefully balanced to ensure sustainable asset management.

Summary of useful lives for the wastewater asset categories are provided below:

Asset Category	Useful life (Years)
Pump Stations	3 - 80
Manholes / Maintenance Shafts	70
Residential Pump Stations	10 - 60

Treatment Plants	3 - 80
Service Lines	30 - 60
Vents	70
Valves	40
Rising Mains	50 - 100
Gravity Main	30 - 100

Table 11: Wastewater Asset Useful Lives.

The intent is therefore that all wastewater assets will be renewed prior to exceeding their designated useful life.

However, renewal works will also be based on asset condition. When an asset is found to be of Condition 4 or 5 it will then be programmed for renewal within the Capital Works program.

The following charts provide a comparison of asset category and their respective useful life.

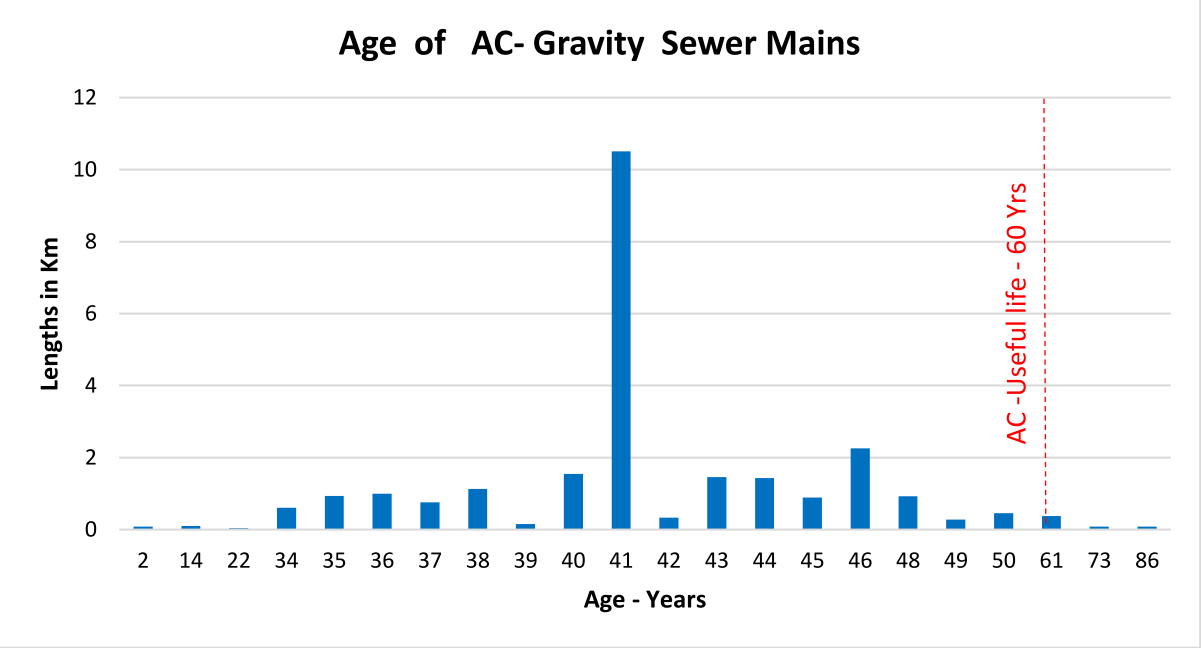


Figure 11 - Analysis of Useful Life for AC Gravity Mains

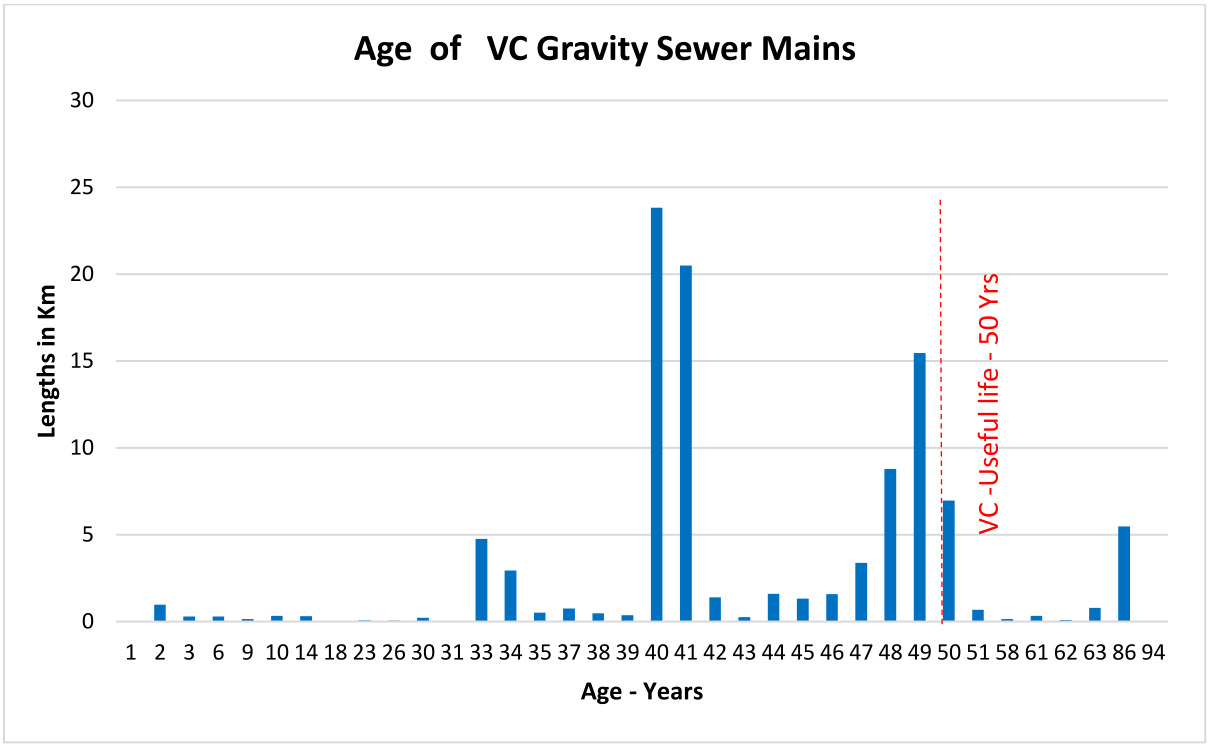


Figure 12 - Analysis of Useful Life for VC gravity mains

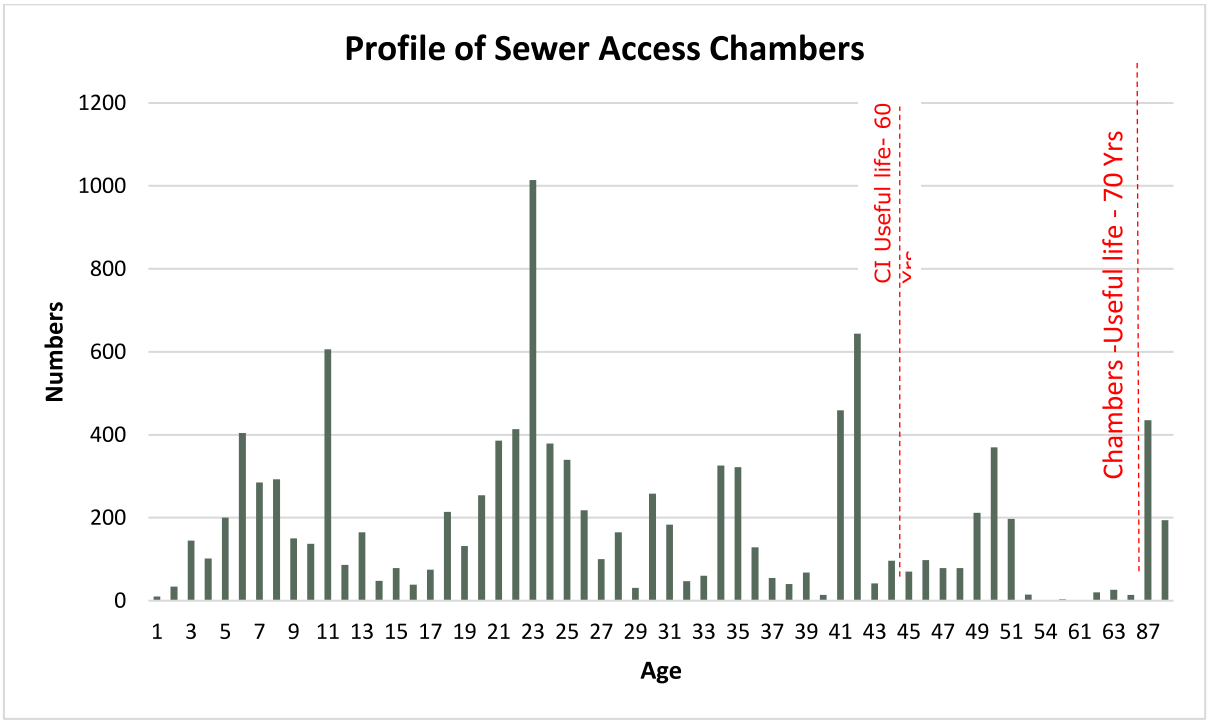


Figure 13 - Analysis of Useful Life for Access Chambers

5.3 Maintenance & Operations Level of Service

Maintenance and operational activities are essential for ensuring that Council's assets remain safe, functional and fit for purpose. These activities are delivered through a mix of proactive scheduling and reactive response across the entire asset network.

- Operational activities (such as inspections, servicing or compliance tasks) are generally well suited to structured scheduling and can often be delivered in a controlled and timely manner
- Maintenance activities (such as repairing damage, replacing worn components or responding to faults) are more difficult to schedule reliably and require mature systems, consistent data and adequate resourcing

Maintenance and operations level of service will be provided under two categories: inspections and maintenance.

5.3.1 Inspections

Asset condition assessments involve periodically monitoring assets and utilizing the collected inspection data to determine their condition Analysis of this data may reveal the need for preventative maintenance to ensure that assets meet their expected useful life or require replacement if they have reached the end of their lifespan.

- **Sewer Treatment Plants and Sewer Pumpstations**
  Visual and ad hoc specialised inspection of all assets, components and sub-components undertaken by suitable qualified consultants/contractors in conjunction with operations staff. These inspections are performed in every two years.

- **Sewer Mains**
  Desktop method is performed to analyse the inventory data of underground assets. This analysis is conducted annually and based on asset Age, material type, burst history, risk and criticality.
  Additionally, CCTV inspections and smoke testing are undertaken by contractors and operations staff annually based on the risk and criticality. Follows the WSAA Conduit Inspection Reporting Code and uses Wincan VX software.

- **Access Chambers**
  Desktop method data analysis of asset inventory. Age and material type analysis, burst history, risk and criticality analysis- Annually.
  Desk top method, visual and CCTV inspections are undertaken annually, by contractors and operations staff. Follows the WSAA Conduit Inspection Reporting Code and uses Wincan VX software annually based on their criticality.

- **Vents**
  Desktop method, visual inspection, and testing of reticulation assets by way of opportunistic methods are performed annually.

The condition assessment of aboveground treatment plant and pump station assets is carried out every 5 years during the asset revaluation process.

5.3.2 Maintenance

Maintenance concerning the essential activities required to keep existing assets functioning to their design capacity and performance. This LoS will combine activities which are either proactive (i.e. scheduled, cyclical activities) that are carried out before service delivery is

compromised, or reactive which are carried out after service delivery is compromised due to wear, malfunction or breakage.

Operational works attend to the day-to-day activities that are required to ensure the asset is kept in a functional state so that it can provide its service delivery to community. Operational activities are often active processes of utilising an asset which will consume resources such as manpower, energy, chemicals and materials.

Activities are completed in both a proactive and reactive fashion across the asset network. Many operational activities by their nature are more readily able to be scheduled and completed in a timely & controlled way. Maintenance activities are more difficult to deliver in scheduled fashion, with mature systems and full resourcing required to do so.

Asset Class	Annual Maintenance & Operations Budget
Reticulation Network	$2,239,357
Treatment - Berrima	$221,969
Treatment - Bowral	$1,073291
Treatment - Bundanoon	$388,206
Treatment - General	$1,502,245
Treatment - Mittagong	$1,492,155
Treatment - Moss Vale	$886,929
Treatment - Robertson	$482,904
Total	**$8,287,057**
Annual Maintenance as % of Asset Value	*1.42%*

Figure 14 - Asset Class Maintenance Budget

6 Asset Base Growth

Over the next 10 years, Council's asset base will continue to grow as a result of:

- New and upgraded assets delivered through Council and grant-funded capital projects
- Assets contributed by developers as conditions of consent or because of a Planning Agreement
- Infrastructure delivered through Developer Contributions and Servicing Plans

Council's current forecasts do not include any significant asset disposals during this period. Future updates may consider this as part of the ongoing development of Council's Property Strategy.

6.1 New & Upgraded Assets and Developer Contribution

The new and upgrade asset projects category covers those projects resourced by Council or grant funding that involve existing assets being enhanced or new assets being constructed.

An important funding source for new infrastructure are Development Contributions collected under Section 64. These contributions fund a significant proportion, though not all, of the infrastructure required by new development.

Council currently primarily levies contributions through the following Plans:

- Southern Highlands Innovation Park (SHIP) Plan
- Water & Sewer Development Servicing Plan

The Integrated Water Cycle Management Plan (IWCM) provides guidance as to the expenditure of the overall Sewer Fund and Section 64 contributions and forms the starting point for the 2025/26 to 2028/29 Capital Works Program.

The following table provides a summary of the new/upgrade components of projects within the 2025/26 to 2028/29 Capital Works Program and the works program within the IWCM has been used for the remaining years of the planning period.

Financial Year	Project Name	New/ Upgrade Component
2025/26	Sewer private works - extensions & connections	$75,000
2025/26	Robertson STP Effluent Dam Hardstand	$55,000
2025/26	Bowral STP Upgrade	$5,500,000
2025/26	Moss Vale STP Upgrade	$12,516,586
2025/26	Mittagong STP Upgrade *	$10,000,000
2025/26	Bowral Sewer Containment (construction)	$1,500,000
2025/26	Moss Vale Sewer Containment (design)	$175,000
2025/26	SPS-AM3 pump station upgrade (Pikkat Drive)	$3,045,546
2025/26	STP solar installation	$150,000
2026/27	Sewer private works - extensions & connections	$75,000
2026/27	Robertson STP Effluent Dam Hardstand	$55,000

2026/27	Moss Vale STP Upgrade	$5,500,000
2026/27	Mittagong STP Upgrade *	$9,775,000
2026/27	Moss Vale Sewer Containment (construction)	$1,500,000
2026/27	SPS-BW1 Pump Station Upgrade (design)	$175,000
2026/27	STP solar installation	$350,000
2027/28	Sewer private works - extensions & connections	$75,000
2027/28	Mittagong STP Upgrade *	$5,000,000
2027/28	Bowral Trunk Main Duplication (design)	$350,000
2027/28	SPS-BW1 Pump Station Upgrade (construction)	$1,500,000
2027/28	STP solar installation	$250,000
2028/29	Sewer private works - extensions & connections	$75,000
2028/29	STP solar installation	$250,000
2029/30	IWCM	$1,335,000
2030/31	IWCM	$1,350,000
2031/32	IWCM	$2,335,000
2032/33	IWCM	$12,935,000
2033/34	IWCM	$12,950,000
2034/35	IWCM	$1,335,000

Table 12:New and Upgraded Assets

*Note: Delivery of Mittagong Wastewater Treatment Plant Upgrade is contingent upon receipt of grant funding support.

6.2 Assets Contributed by Development through Conditions of Consent

As development continues, new infrastructure is delivered directly by developers under Conditions of Consent or a Planning Agreement and subsequently transferred to Council.

Council's Local Housing Strategy targets a 50:50 balance between infill development and greenfield development. Since only greenfield development typically leads to new asset contributions, it is estimated that 50% of population growth results in asset base growth.

Historical analysis shows that for every 1% increase in population from greenfield development, the asset base increases by approximately 0.3%. This reflects the fact that most contributed assets are minor in scale — such as pipes or footpaths, not major facilities like treatment plants.

Financial Year	Population Forecast	Population Growth	Forecast Asset Base Growth
2025/26	54,776	1.1%	0.16%

2026/27	55,357	1.1%	0.16%
2027/28	55,975	1.1%	0.17%
2028/29	56,593	1.1%	0.17%
2029/30	57,212	1.1%	0.16%
2030/31	57,830	1.1%	0.16%
2031/32	58,448	1.1%	0.16%
2032/33	59,138	1.2%	0.18%
2033/34	59,828	1.2%	0.18%
2034/35	60,527	1.2%	0.18%

Table 13 - Forecast.ID Population Growth

6.3 Asset Disposals

No significant disposals are currently committed. Asset disposals — where an asset is removed and not replaced — may be considered in future revisions pending community engagement outcomes and the adoption of Council's Property Policy.

6.4 Asset Indexation

To ensure lifecycle costs remain comparable year-to-year, this Strategy adopts the same indexation assumptions as Council's LTFP:

- 3.0% annually for 2025/26 and 2026/27
- 2.5% annually from 2027/28 onward

6.5 Efficiencies

In line with the adopted LTFP, Council anticipates achieving 1% annual efficiency improvements. These will result from:

- New digital systems
- Workforce optimisation
- Strengthened business processes

These ongoing improvements will support Council's ability to deliver services effectively while managing the impacts of asset growth.

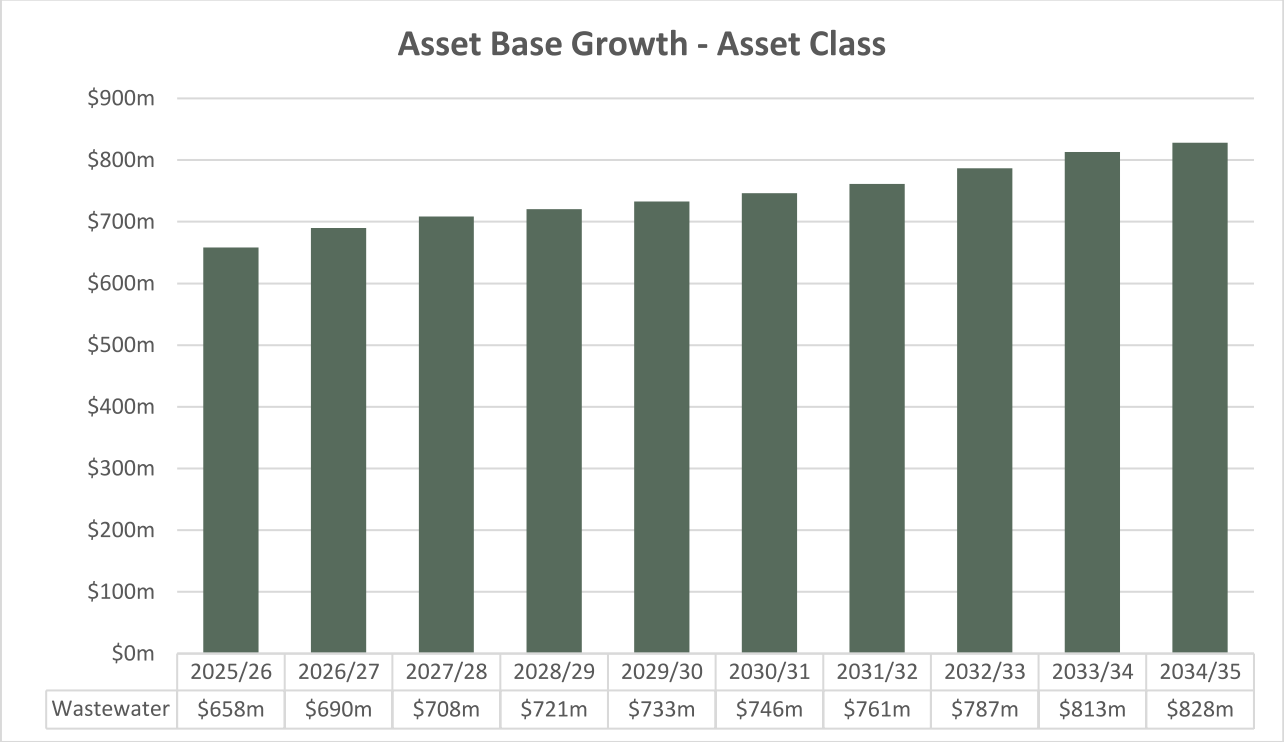
6.6 Asset Base Growth

The total growth of the Wastewater asset class over the next 10 years is projected at approximately $170M. This growth is influenced by a range of factors, including:

- New and upgraded assets
- Assets contributed by development through conditions of consent
- Infrastructure funded through Development Contributions
- Asset disposals (none currently forecast)
- Annual indexation
- Efficiency gains

While each of these elements contributes to asset base growth, indexation and STP Upgrades can be considered the primary source of the total increase in asset value over the 10-year forecast period.

The following graphs illustrate the resultant annual and cumulative asset base growth.



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Wastewater	$658m	$690m	$708m	$721m	$733m	$746m	$761m	$787m	$813m	$828m

Figure 15: Cumulative Asset Base Growth

7 Financial Lifecycle Forecast

To deliver the Levels of Service (LoS**)** outlined in this Strategy, Council must allocate funding for maintenance, operations, and asset renewal across the asset class.

7.1 Renewal Forecast

To keep Council's assets in good condition and maintain a healthy Infrastructure Backlog Ratio, assets must be renewed when they reach the end of their useful lives. Renewal involves disposing of the old asset and replacing it with a Modern Engineering Equivalent Replacement Asset (MEERA).

Relying solely on useful life expiry or condition data to plan renewals causes large fluctuations in annual renewal budgets. This makes long-term planning and resource allocation more difficult. Instead, Council uses an averaged renewal forecast to spread the investment more evenly over time.

Over the 10-year planning period, the required renewal investment for wastewater infrastructure is forecast at $101M.

Council's adopted LTFP – Scenario 1 cannot accommodate this with only $83M allocated for asset renewal.

Figure 12 (below) shows the annual depreciation wastewater assets compared with the forecast renewal expenditure.

Renewal investment is significantly higher than depreciation over the first four years of the plan due to major capital works at Council's Sewage Treatment Plants (STPs).

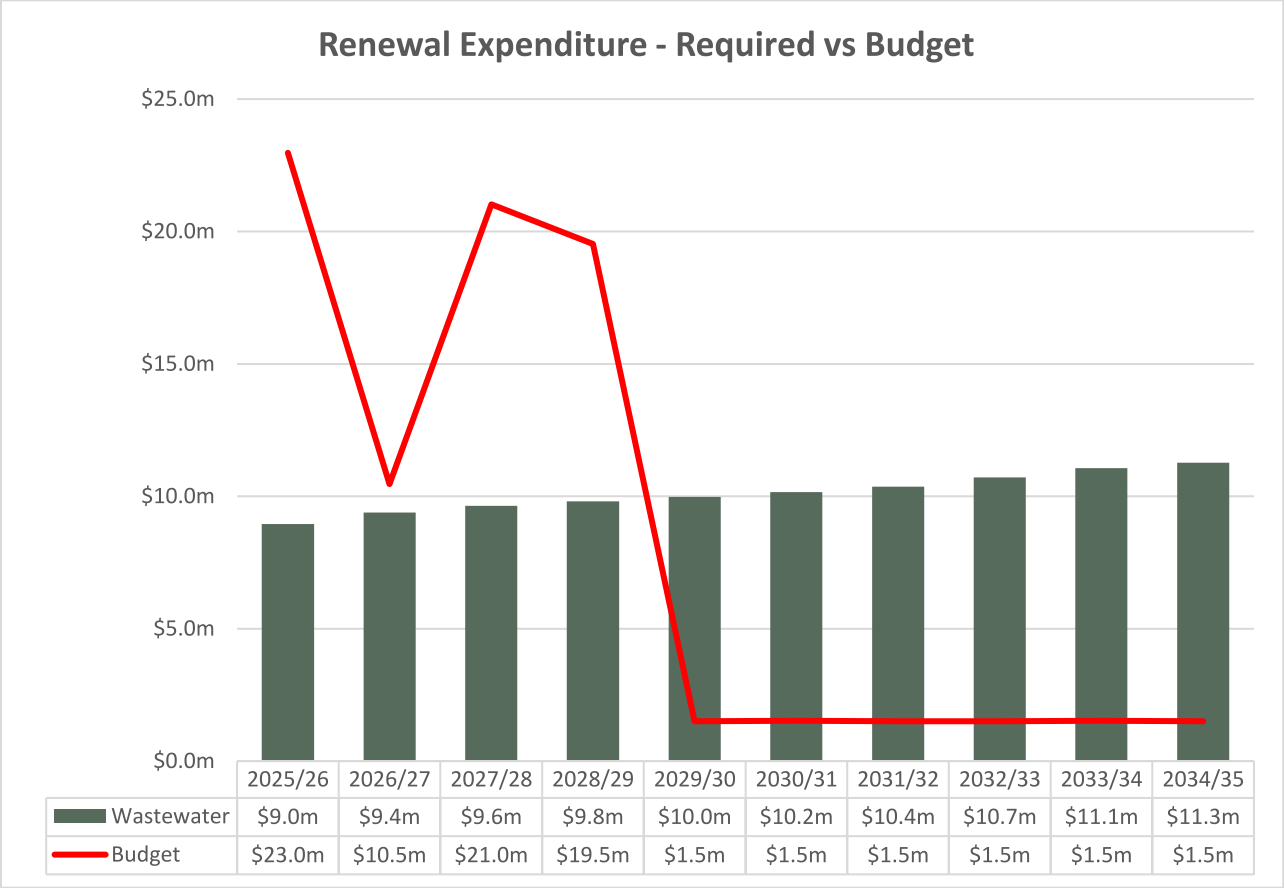
Although these projects are primarily designed to increase treatment capacity and improve environmental performance, a substantial proportion of the project cost is considered renewal because it replaces and upgrades existing infrastructure.

To estimate the renewal component of these projects, the following assumptions have been applied:

- 50% of STP upgrade costs are considered renewal

However from 2029/30 onwards the rate of renewal rests well below that of annual depreciation. This is in accordance with the Sewer Fund financial model that was adopted in the 2018 Integrated Water Cycle Management Plan, however it will create an inevitable future renewal burden with renewals eventually needing to be delivered above the value of annual depreciation – which is fundamentally not a sustainable approach.

As identified within the Improvement Program, Council will be reviewing the Sewer Fund model such that structural deficiencies in the underlying parameters can be addressed and financial sustainability assured.



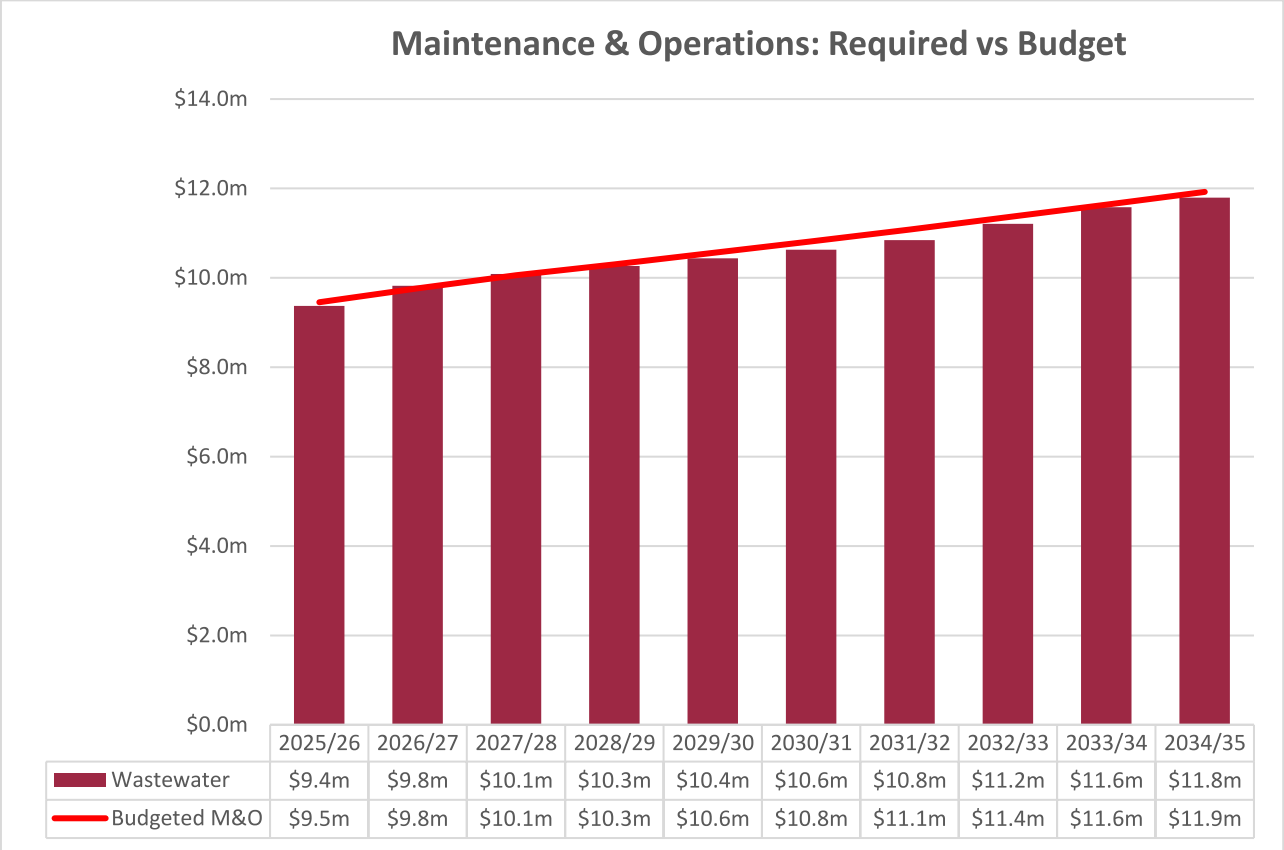
	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Wastewater	$9.0m	$9.4m	$9.6m	$9.8m	$10.0m	$10.2m	$10.4m	$10.7m	$11.1m	$11.3m
Budget	$23.0m	$10.5m	$21.0m	$19.5m	$1.5m	$1.5m	$1.5m	$1.5m	$1.5m	$1.5m

Figure 16: Recommended Renewal Expenditure, measured in millions of dollars.

7.2 Maintenance & Operations Forecast

To sustain the current Maintenance and Operations Level of Service whilst accommodating a growing asset base, annual maintenance & operations budget increases are required. The required maintenance and operations expenditure across the 10-year period is therefore forecast to be $106M.

The Long Term Financial Plan is able to accommodate the forecast required maintenance and operations budget required to ensure service levels can be maintained across the growing asset base.



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Wastewater	$9.4m	$9.8m	$10.1m	$10.3m	$10.4m	$10.6m	$10.8m	$11.2m	$11.6m	$11.8m
Budgeted M&O	$9.5m	$9.8m	$10.1m	$10.3m	$10.6m	$10.8m	$11.1m	$11.4m	$11.6m	$11.9m

Figure 17 Recommended Maintenance & Operations.

8 Improvement Plan

Asset Planning is a journey of continuous improvement with there always being opportunities to further improve the accuracy of asset data, better understand community needs and expectations and more efficiently meet the service needs of the Shire.

To this end, an Asset Management Improvement Plan has been prepared to guide this journey of continuous improvement.

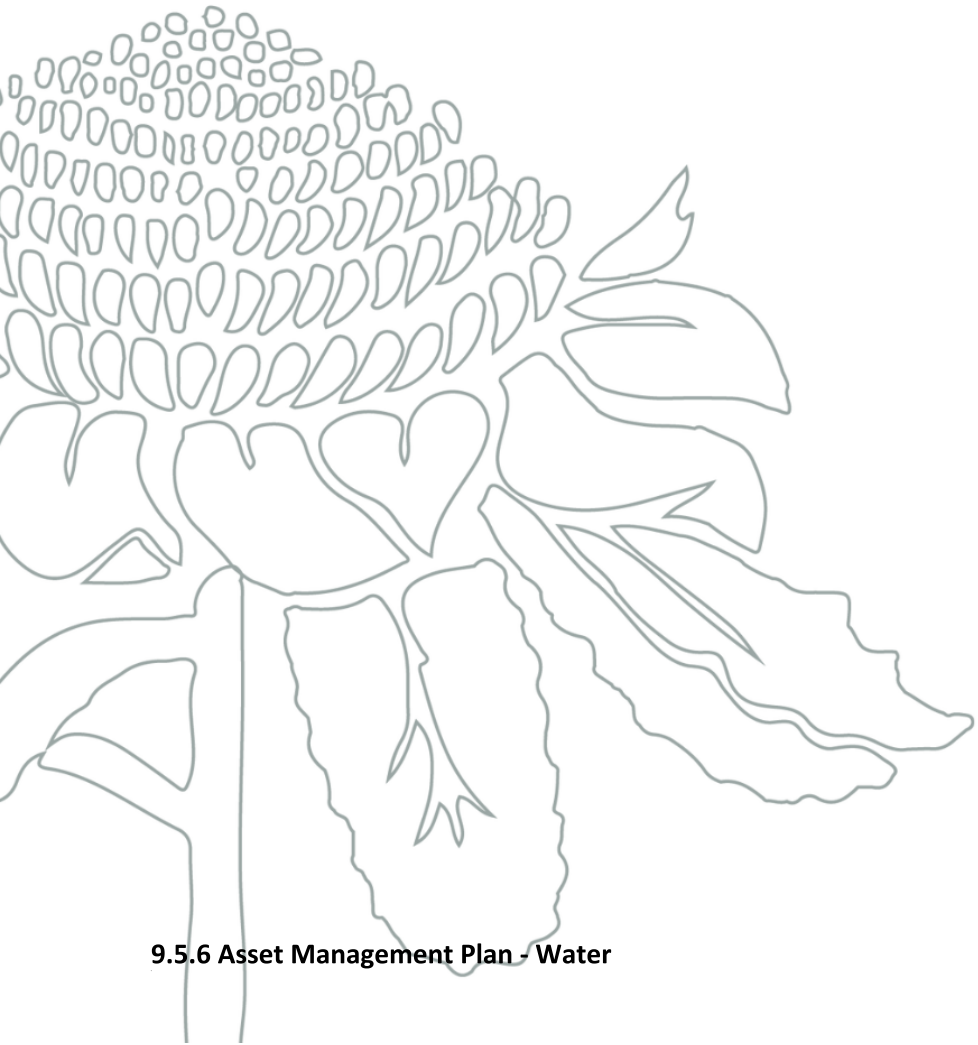
The below items are specific improvements that can be made to this document as well as the asset management maturity of Council.

No	Task	Responsibility	Timeline
1	Implementation of Technology One Assets, Strategic Assets and Works Management modules	Assets	2025/26
2	Creation of Defects Register – to be populated from scheduled and reactive inspections	Assets	2025/26
3	Review and update Sewer Fund model	Assets	2025/26
4	Robertson Wastewater Reticulation Masterplan	Assets	2025/26
5	Mittagong Wastewater Reticulation Masterplan	Assets	2025/26
6	Inflow/Infiltration analysis and implementation - Bowral catchment	Assets	2025/26
7	Inflow/Infiltration analysis and implementation - Mittagong catchment	Assets	2026/27
8	Comprehensive Valuation	Assets	2026/27
9	Inflow/Infiltration analysis and implementation - Moss Vale catchment	Assets	2026/27

Table 14: Improvement Plan

Wingecarribee
SHIRE COUNCIL

Asset Management Plan – Water



WINGECARRIBEE SHIRE COUNCIL

We're with you

Document Name	Asset Management Plan - Water
Version No.	1
Council File Reference	Document Set ID 5484382
Adoption Date	26 June 2024
Resolution Number	MN 2024/201
Document Owner	Manager Assets
Responsible Branch	Assets
Responsible Business Unit	Assets Water and Wastewater
Review Schedule	Annually
Review Date	26 June 2025

Version	Adoption Date	Notes
1	26 June 2024	First version of Asset Management Plan - Water

Contents

1 Executive Summary

This Asset Management Plan (AMP) is part of a suite of Portfolio AMPs, which together sit under the Asset Management Strategy (AMS). It is to be read in conjunction with the AMS and Four Year Capital Works Program.

This AMP provides an overarching document of Council's management of, and investment in, the Water Asset Class over a 10-year planning period.

Council manages a water asset class of over 715km of water mains and 20,000 meters, plus other assets across a broad range of asset categories, worth a combined $473.6M. The average condition of these structures is defined as being in 'good' condition.

The level of service that Council provides through this asset class can be described within the three categories of: Provision, Renewal, and Maintenance and Operations. What Council delivers through these levels of service are driven by consideration of: Risk Management, Community Satisfaction and Strategies and Masterplans. But is constrained by funding and availability of resourcing.

Review of the 2024 Community Satisfaction Survey shows that community satisfaction for the quality and reliability of the water supply network has consistently been valued of high importance and high satisfaction by the community.

In accordance with these results, the Provision Level of Service details how the focus is to therefore to continue ensuring the resilience, performance and sustainability of the existing water supply network.

In order to provide an analysis of financial investment required across the planning period, calculation of forecast asset base growth must be completed. Asset base growth is calculated through consideration of the value of the asset class growing as result of new and upgrade projects, assets contributed through development, development contributions plans and indexation, as well as subtracting any known asset disposals.

It is forecast that across the planning period the asset base will grow by $186M.

Recommended financial investment for the Renewal Level of Service and Maintenance and Operations Level of Service is calculated at $82M and $104M respectively. These have been calculated through aligning renewals with annual depreciation, and ensuring maintenance and operational budgets increase in step with asset base growth.

The Long-Term Financial Plan is unfortunately not able to accommodate the entirety of this desired financial investment, largely as result of the funding model for the Water Fund not being structured such that asset renewal aligns with asset depreciation, and maintenance and operations funding not increasing in line with asset base growth.

This will therefore result in a lowering of levels of service and will prevent assets from reaching their desired useful life - which in turn increases renewal expenditure requirements. Future iterations of the Asset Management Plan will further investigate and identify potential solutions to this difficult situation.

Asset management is a journey of continuous improvement, and so the AMP concludes with a concise Improvement Plan detailing the asset management maturity tasks programmed for the years ahead.

2 Asset Systems & Structures

2.1 Asset Planning Framework

Council's Asset Management Planning Framework is a critical part of the wider Integrated Planning and Reporting (IP&R) Framework used across all NSW local governments. It provides a structured and consistent approach to planning, delivering, maintaining and renewing Council's infrastructure assets.

The Framework ensures Council can make informed decisions and perform the key functions of asset management — including planning, coordinating, operating, maintaining, monitoring and improving the infrastructure services our community relies on every day. The structure of Council's Asset Management Framework is shown in Figure 1.

Council's Asset Management Framework consists of three key components:

1. Asset Management (AM) Policy:

The Asset Management Policy sets Council's overarching commitment and objectives for how we manage infrastructure. It outlines the principles that guide decision-making and establishes our focus on responsible, sustainable and risk-aware asset stewardship.

2. Asset Management Strategy (AMS):

This Strategy provides the roadmap for achieving the goals outlined in the Asset Management Policy. It aligns with the Long-Term Financial Plan 2025–2035 and the Delivery Program 2025–2029 to ensure our asset investments and service levels are sustainable and community-informed.

The Strategy is reviewed regularly to remain relevant and responsive. Specific works and activities arising from this Strategy are included in Council's Operational Plan and Annual Budget.

3. Asset Management Plans (AMP):

Asset Management Plans translate the strategic direction of this Strategy into detailed actions for each major asset class. These plans provide a deeper analysis of:

- Asset condition and inventory
- Levels of service
- Risks and renewal priorities
- Financial sustainability over the asset lifecycle

AMP's are developed for both community assets and business unit assets, grouped by the type of function the assets serve:

a) Community assets
   i) Transport (roads, bridges, footpaths)
   ii) Stormwater
   iii) Buildings and Aquatic facilities
   iv) Open Space and Recreation
   v) Water

vi) Wastewater

b) Business units

i) Cemeteries

ii) Resource Recovery Centre (RRC)

iii) Southern Regional Livestock Exchange (SRLX)

AMP's are regularly reviewed to ensure they continue to meet the service needs of the community and reflect changing conditions. These reviews are informed by community consultation and engagement. AMP's also act as core inputs into Council's Long-Term Financial Plan, helping to shape future budgets and investment decisions.

All adopted AMPs are available on Council's Asset Management Planning page at https://www.wsc.nsw.gov.au/Residents/Asset-Management-Planning

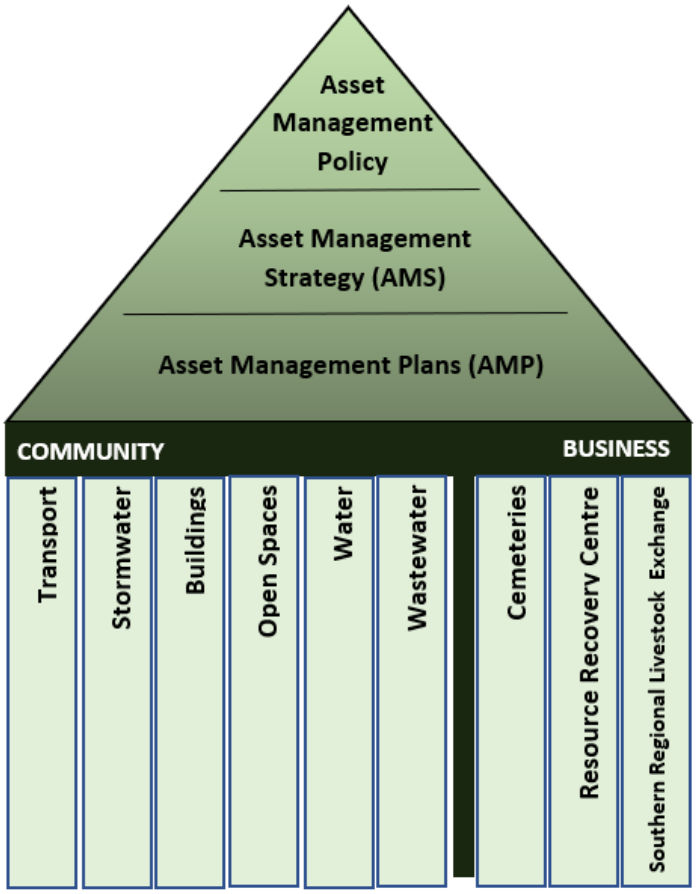


Figure 1: Asset management Planning Framework

2.2 Asset Planning Systems

Effective asset planning relies on accurate, integrated and up-to-date data. Council uses several systems and databases to support asset management planning, service delivery and reporting. These tools enable staff to maintain reliable asset information, assess risks, model future scenarios and plan capital investment.

Table 1 summarises the core systems currently use across Council for asset planning and management:

System	Description
Conquest	Asset register – inventory, condition and attribute data
ArcGIS	Geographic Information System – maps and spatial asset data
Technology One – Finance	Manages budgets, purchase orders and expenditure
Technology One – Enterprise Content Management (ECM)	Enterprise Content Management – document and record keeping
Technology One – Customer Request Management (CRM)	Customer Request Management – workflows for customer enquiries and requests
Pulse – Project Management	Project management – scoping, planning and delivery of capital projects
Infoworks WS Pro and ICM	Water and wastewater network modelling software

Table 1: Asset Planning Systems

As part of Council's ongoing digital transformation, several new Technology One modules are being implemented to streamline workflows, improve integration across teams, and reduce manual processes.

During 2025–2026, the following upgrades will be rolled out:

- Asset Register: This module will replace Conquest and become Council's single source of truth for asset inventory, condition and attribute data. It will integrate with Finance through the creation of Asset Books, eliminating the need for manual reconciliation
- Strategic Assets: An advanced modelling tool that connects with the Asset Register. It enables future condition forecasting based on varying levels of investment and supports long-term scenario planning
- Works Management: This module will support field-based delivery teams by enabling integrated work orders. It will fully align with the Asset Register and Finance systems to provide seamless job tracking and cost control

These improvements will help Council make better-informed decisions, plan more proactively, and improve the efficiency of asset lifecycle management.

2.3 Organisational Structure

Wingecarribee Shire Council uses a collaborative, whole-of-organisation approach to asset management.

Asset planning and network-level planning functions are centralised within Council's Asset Branch, which sits under the Service and Project Delivery Directorate. This structure ensures a coordinated and strategic approach to infrastructure planning and lifecycle decision-making.

Meanwhile, the day-to-day operations, maintenance and capital project delivery functions are primarily managed through three key teams:

1) Shire Presentation
2) Water Services
3) Project Delivery

These assets are used to support a wide range of services across the community — from libraries and aquatics to depots and the visitor information centre. Each of these services is overseen by a Service Manager, who is accountable for delivering the function to the community.

To ensure services meet the needs and expectations of our community, Council integrates asset planning and delivery with service design. This is achieved through close collaboration between the Asset Branch, Project Delivery teams and each relevant Service Manager.

Together, these teams work to ensure that infrastructure is planned, funded and maintained in ways that:

- Deliver on service objectives
- Maximise asset performance and lifespan
- Respond to community priorities and satisfaction

Service Manager	Asset / Facility
Manager Community Life and Libraries	Libraries
Manager Waste and Resource Recovery	Resource Recovery Centre
Manager Business and Property	Southern Regional Livestock Exchange
	Southern Highlands Visitor Information Centre
	Bowral Memorial Hall
	Aquatics Portfolio
Manager Water Services	Mittagong Works Depot
Manager Shire Presentation	Moss Vale Works Depot

Table 2 - Service Managers

The below figures detail the organisational structure relationship between Assets and the Delivery branches within the Project Delivery Directorate, as well as that of the Water and Wastewater Team.

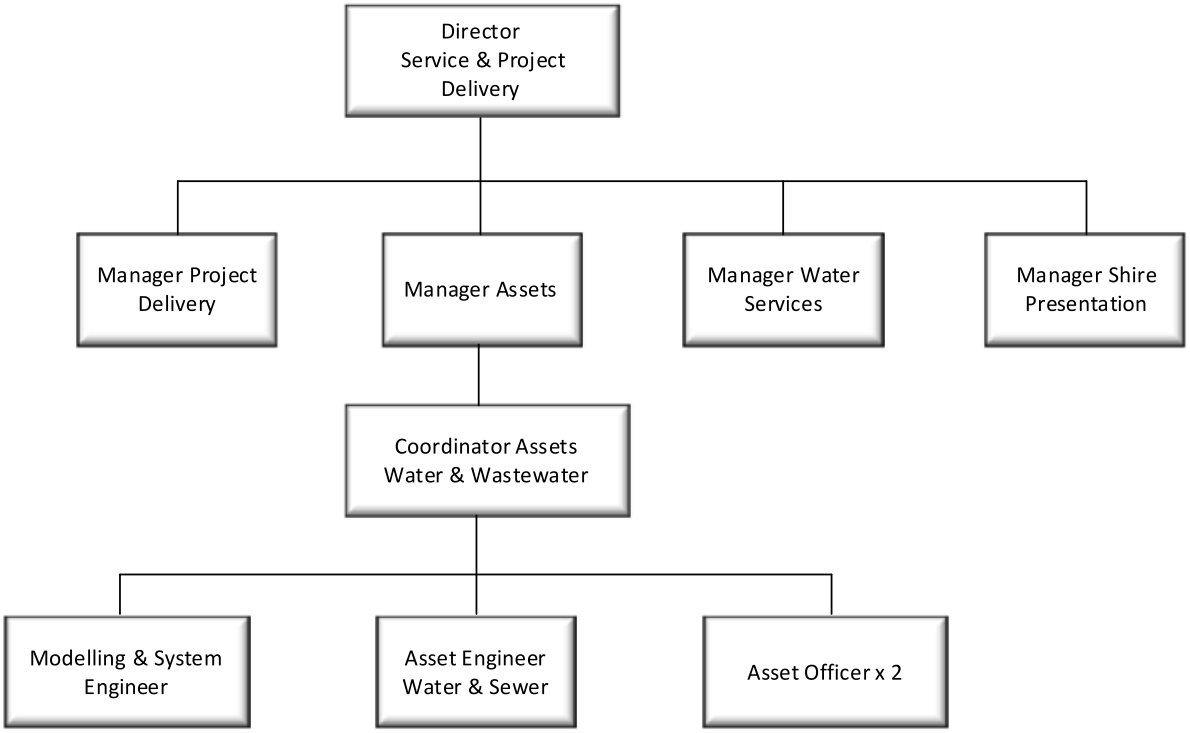


Figure 2: Service & Project Delivery Directorate

3 Our Assets

3.1 Overall Inventory

The water infrastructure assets included in this plan have a total replacement value of $473,628,276 and include the following major asset category:

Asset Category	Quantity/Length (Km)	Replacement Value ($)
Water Source Dams	2	$25,755,217
Water Hydrants	8,229	$35,021,452
Water Meters	20,296	$8,899,278
Water Mains	715.5 km	$227,146,608
Water Pump Stations	17	$11,230,538
Water Reservoir	31	$52,197,503
Water Services	21,003	$49,151,228
Water Treatment Plants	2	$37,520,594
Water Filling Station	8	$624,837
Water Valves	5,161	$24,476,614
Telemetry		$223,110
Others		$1,381,298
Total Replacement Cost		**$473,628,276**

Table 3 - Asset Category Inventory. ***Note:*** *Water meter assets include 52-number of Bulk meters.*

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

Asset Category	Asset Purpose
Water Bulk Meters	Demand management and active leakage control
Water Source Dams	Water supply
Water Hydrants	Access for firefighting and operational activities
Water Mains	Conveyance of water for bulk transfers and supply to water service lines
Water Meters	Usage monitoring of consumption for billing and modelling
Water Pump Stations	Bulk transfers and pressure management
Water Reservoirs	Storage of water for customers and fire fighting
Water Service Lines	Connecting water mains to individual property meters
Water Treatment Plants	Treatment of water to protect public health

Water Filling Stations	Commercial supply point for bulk water purchases
Water Valves	Operational control of the network

Table 4 - Asset Category Description

We maintain our asset register through a combination of proactive inspections, project-related updates and external contributions.

Key processes include:

- Newly constructed assets: Assets are added to the register following delivery by Council capital works or dedication through subdivision development.
- Ad-hoc inspections: Triggered by internal requests, customer feedback or during project scoping phases.
- Scheduled inspections: All assets are included in a structured inspection schedule. Inspection frequency is based on the asset's rate of deterioration, cost to inspect, and potential consequences of failure.

All assets are valued in line with Australian Accounting Standards, with a comprehensive revaluation undertaken for each asset class at least every five years.

In years where a full revaluation is not scheduled, Council conducts an annual fair value assessment across all asset classes. If a material change in value is detected, the relevant classes are indexed using industry-recognised methods.

A comprehensive valuation for water was performed in the financial year 2021/22. Next comprehensive valuation was scheduled for 2026/27.

Figure 3 (below) shows the current estimated value of the asset class, broken down by asset category.

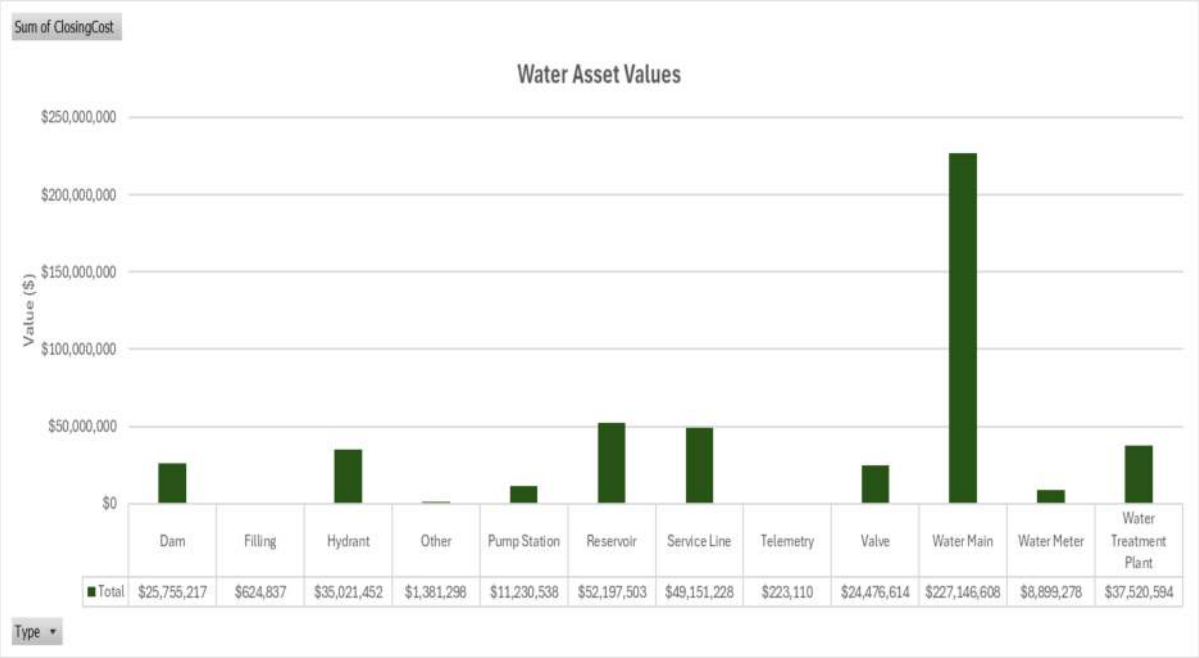


Figure 3 - Asset Category Value

3.2 Overall Condition

Council regularly assesses the condition of its assets to help plan maintenance, renewal and capital works programs. These assessments form part of a rolling inspection schedule across the entire asset network.

Condition assessments are undertaken in line with industry standards, using guidelines developed by the Institute of Public Works Engineering Australasia (IPWEA). These assessments are used to:

- Track asset performance over time
- Identify assets approaching failure
- Inform risk management and lifecycle planning
- Support annual budgeting and long-term financial modelling

Council uses a standardised 5-point rating system:

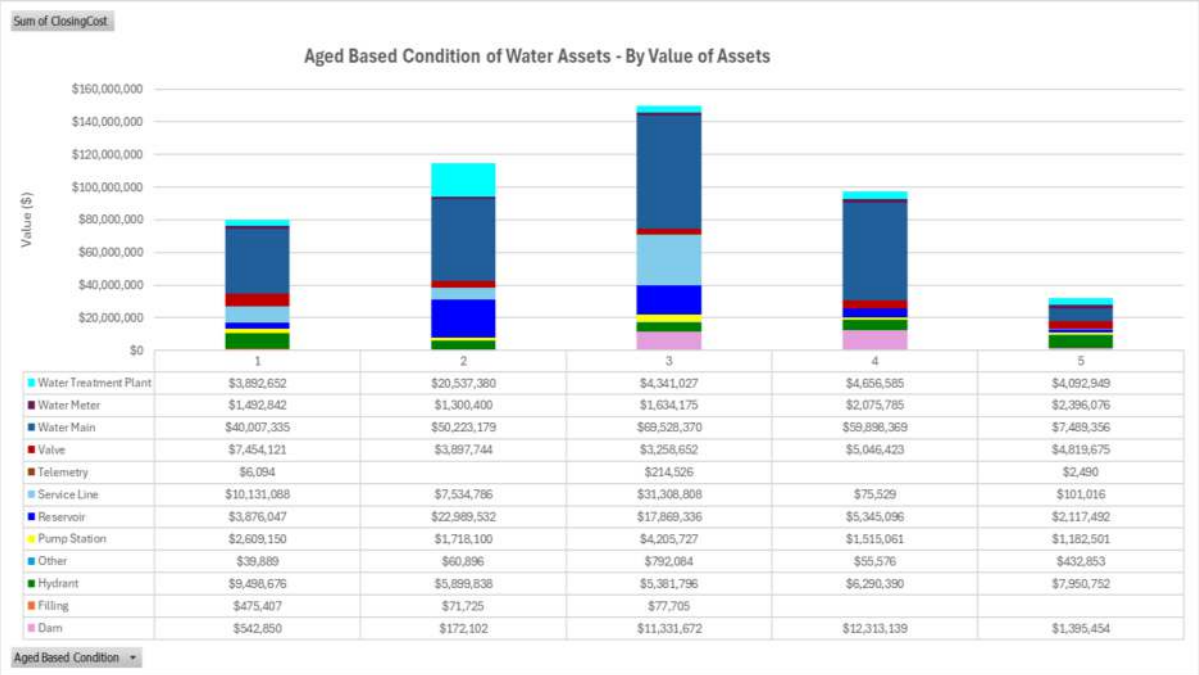
1. As new / Excellent
2. Good / Satisfactory
3. Fair / Tolerable
4. Poor / Intolerable
5. Very Poor / Reconstruction required

With a vast network of underground water assets, obtaining good condition data is often difficult and expensive.

The Council makes use of ad-hoc condition assessments of its underground assets during works that expose those assets. For example, during routine maintenance, excavating for new service connections or during emergency repairs, information such as pipe diameter, condition, wall thickness, consequence of failure and location should be recorded and entered the asset register for future reference.

Desktop method of condition assessments is carried out by analysing the asset inventory data such as age, material, useful life, burst history, risk and criticality.

The overall average condition of Council's water assets is good / satisfactory.



	1	2	3	4	5
Water Treatment Plant	$3,892,652	$20,537,380	$4,341,027	$4,656,585	$4,092,949
Water Meter	$1,492,842	$1,300,400	$1,634,175	$2,075,785	$2,396,076
Water Main	$40,007,335	$50,223,179	$69,528,370	$59,898,369	$7,489,356
Valve	$7,454,121	$3,897,744	$3,258,652	$5,046,423	$4,819,675
Telemetry	$6,094		$214,526		$2,490
Service Line	$10,131,088	$7,534,786	$31,308,808	$75,529	$101,016
Reservoir	$3,876,047	$22,989,532	$17,869,336	$5,345,096	$2,117,492
Pump Station	$2,609,150	$1,718,100	$4,205,727	$1,515,061	$1,182,501
Other	$39,889	$60,896	$792,084	$55,576	$432,853
Hydrant	$9,498,676	$5,899,838	$5,381,796	$6,290,390	$7,950,752
Filling	$475,407	$71,725	$77,705		
Dam	$542,850	$172,102	$11,331,672	$12,313,139	$1,395,454

Figure 4: Condition by Value of Water Assets

3.3 Asset Category Inventory

3.3.1 Water mains

Council manages a water pipe network 715 kilometres. This network of water pipes is comprised of many different material types with, as result of the construction years of the water schemes, asbestos cement pipes comprising 51% of the network.

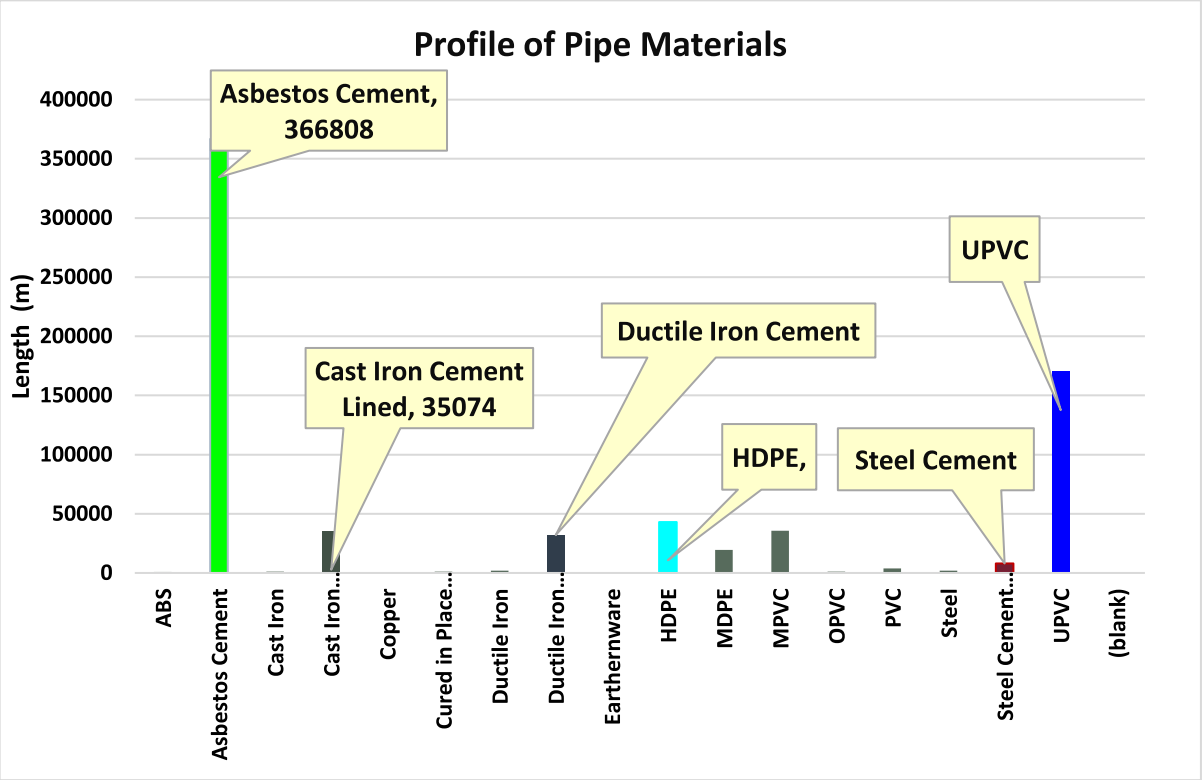


Figure 5 - Water Main Material

It is acknowledged that Council has limited detailed condition data on these underground pipes, beyond burst history where mains have been reported as Soft AC or severely corroded cast iron.

At network level, condition ratings are therefore estimated based upon construction age, useful life and straight line deterioration, using an age-based condition calculation of:

- If remaining useful life is between 100% and 80%, then Condition is 1
- If remaining useful life is between 80% and 60%, then Condition is 2
- If remaining useful life is between 60% and 40%, then Condition is 3
- If remaining useful life is between 40% and 20%, then Condition is 4
- If remaining useful life is between 20% and 0%, then Condition is 5

The following figures display the range of construction years for water mains and the resulting spread of condition scores.

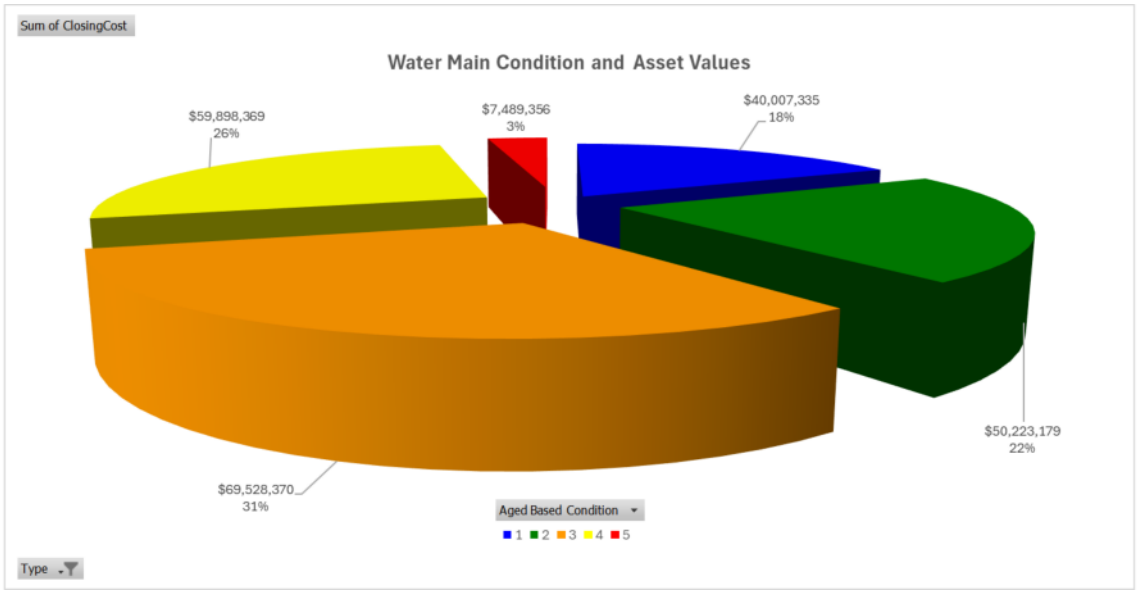


Figure 6 - Water Main Condition

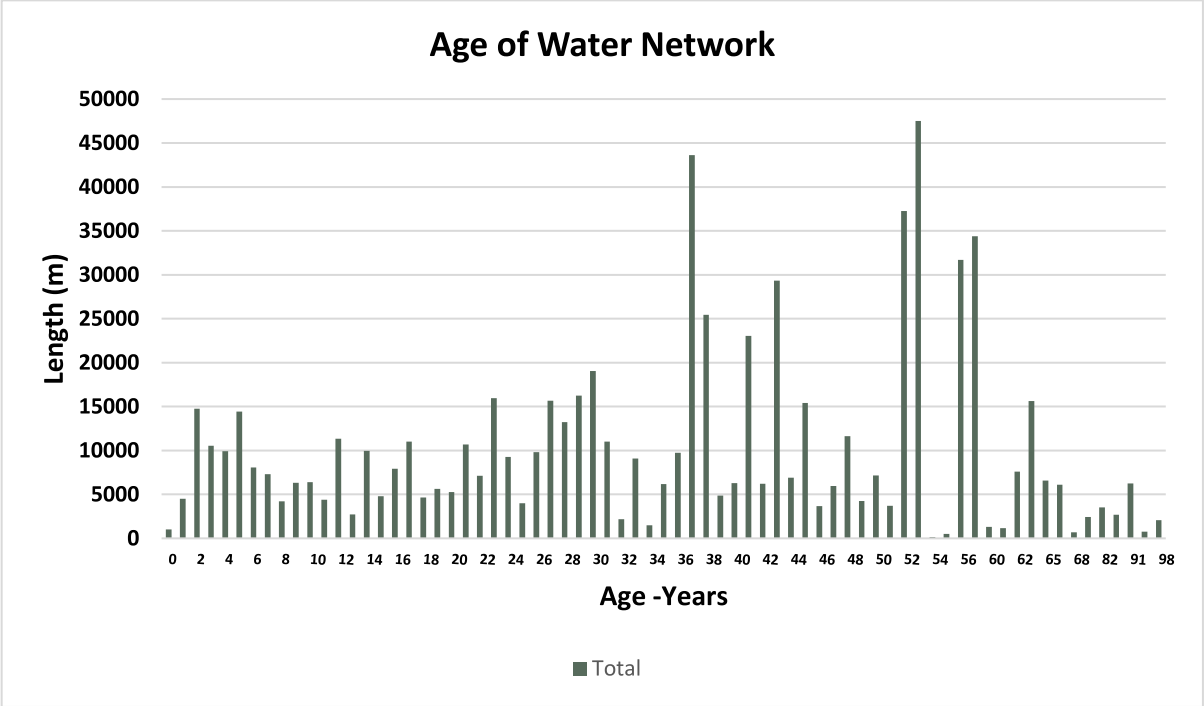


Figure 7 - Water Main Age

3.3.2 Water Reservoirs

The water supply network of the Wingecarribee Shire is supported by 29 water reservoirs.

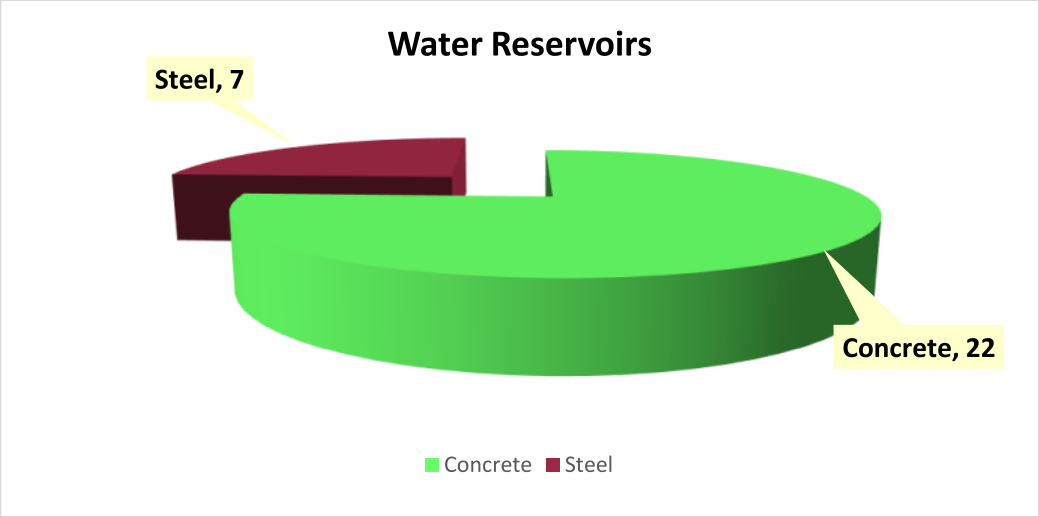


Figure 8 - Reservoir Material

3.3.3 Bulk Water Meters

Council has a network of 52 bulk water meters distributed across the water supply network to assist with demand management and active leakage control. These meters range in size from 100mm to 750mm.

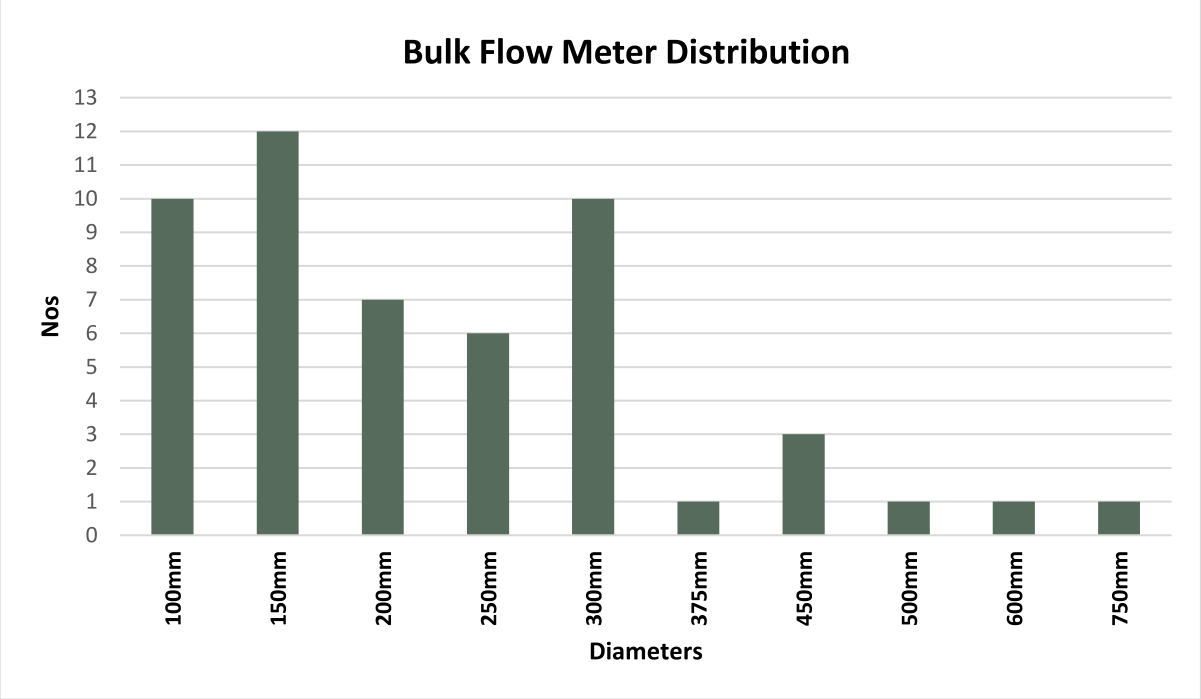


Figure 9 - Bulk Water Meter Sizes

4 Drivers of Level of Service

Council's Levels of Service (LoS) define the standard at which assets are provided, maintained, renewed and operated. These levels determine how often assets are inspected, how quickly they are repaired, and how long they are expected to last.

While Levels of Service are shaped by available funding and staff resources, they are primarily driven by three key factors:

- Risk Management
- Community Satisfaction
- Strategies and Masterplans

4.1 Risk Management

Risk is the potential impact of uncertainty on Council's ability to meet its objectives. Council uses a structured approach to identify, monitor and respond to risks across its asset portfolio.

The risk assessment will identify potential hazards and select a treatment option to be implemented to control the generated risk. The resultant treatments will primarily fall within the categories of ensuring compliance with regulations and standards, adhering to a regime of systemic inspections, committing to a program of upgrades and ensuring proactive and reactive maintenance is completed.

A Risk Assessment has been completed for the asset class, covering generic hazards that are typical across the entire asset network and consideration of Critical Assets.

4.1.1 Critical Assets

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

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Water dams and storages	Loss of supply due to drought, water quality or other Structural failure of dams	Loss of supply, health
Water treatment plants at Wingecarribee and Bundanoon	Power supply, process (water quality), mechanical or electrical	Loss of supply, health (e.g. algal toxins, insufficient disinfection)
Reservoirs	Leak, overflow, water quality, structural failure	Loss of supply, damage to property, reputation

Pumping stations	Power failure, pump electrical or mechanical failure	Loss of supply
Trunk water mains	Main break	Loss of supply, water loss (NRW), reputation
Control valves	Power failure, communications failure	Overflow, pressure and flow increase/decrease, damage to property

Table 5: Critical Assets

4.1.2 Risk Assessment Framework

The below risk matrix categories the risk that Council is exposed to, depending on the consequence, and the likelihood the risk.

Risk (R) Matrix		**Consequence (C)**				
		Severe	**Major**	**Moderate**	**Minor**	**Insignificant**
Likelihood (L)	**Almost Certain**	Extreme	Extreme	High	High	Moderate
	Likely	Extreme	Extreme	High	Moderate	Moderate
	Possible	Extreme	High	Moderate	Moderate	Low
	Unlikely	High	High	Moderate	Low	Insignificant
	Rare	High	Moderate	Low	Insignificant	Insignificant

Table 6 - Risk Assessment Framework

4.1.3 Risk Assessment

Hazard	Risk	Inherent Risk			Treatment	Residual Risk			Implementation Status	Responsibility	Level of Service
		C	L	R		C	L	R			
Loss of Electricity Power Supply	Wingecarribee Water Treatment Plant stops operation	MAJ	POS	H	Power generators installed at WTP	MIN	POS	M	Current	Assets	Provision
	Water Pump Stations stop operating				Reservoirs should have at least 12 hours reserve MDD storage at their lowest operating range under normal conditions. Fixed generators are installed at critical pump stations: Evans Lane and Oldbury Road. Remaining pump stations have generator connection points for trailer mounted generators				Current	Assets	Operations
Poor condition, asset life and performance data availability.	Poor results as result of non-evidence based decision making	MOD	LIK	H	Adopt approach of continuous improvement, with progressive implementation of Improvement Program (see Section 8)	INS	POS	L	Current	Assets	Operations
Water supply shortage as result of drought conditions	Water supply services compromised	MOD	POS	M	Implement Drought Management Policy (ie water restrictions)	MIN	POS	M	Current	Water Services	Operations
					Review and update Drought Management Policy in collaboration with Water NSW				Future	Assets	Operations
Disruption of water supply due to catastrophic failure of Wingecarribee Dam	Water supply services compromised	SEV	ULIK	H	Prepare Water Supply Resilience Plan to identify a suitable 'Plan B'	MOD	POS	M	Future	Assets	Provision

Hazard	Risk	Inherent Risk			Treatment	Residual Risk			Implementation Status	Responsibility	Level of Service
		C	L	R		C	L	R			
Wingecarribee Water Treatment Plant requires manual operation/intervention for critical components of treatment process. (Requires manual intervention to adjust chemical dosing for any changes in raw water quality, which can often be 24 hours after the change occurred)	Critical steps of treatment process are not completed in accordance with requirements.	**MAJ**	**POS**	**H**	WWTP Upgrade Project. Treatment process will be updated to current standards, including increased automation and flow-based dosing. Treatment capacity increased to 60ML/day to cater for population growth. - 23/24: Options Study - 24/25: Concept Design - 25/26: Detailed Design - 26/27 & 27/28: Construction	**MIN**	**POS**	**M**	Current	Assets	Provision / Renewal
Disruption of water supply due to catastrophic failure of Wingecarribee Water Treatment Plant	Water supply services compromised										
Demand for water supply exceeds treatment capacity	Water supply services compromised										
Residual chlorine exceeding public health guidelines	Public health	**MOD**	**LIK**	**H**	Develop and implement Water Quality Improvement Plan	**MIN**	**POS**	**M**	Current	Assets	Operations
					Undertake water quality modelling				Current	Water Services	Operations
					Install data loggers and on-line monitoring at reservoirs				Future	Assets	Provision
Deferred maintenance (i.e. works that are identified for maintenance activities but unable to be completed due to available resources)	Asset and/or treatment process failure	**MOD**	**LIK**	**H**	Review Water Fund Model and allocation of financial and workforce resources to scheduled maintenance.	**MOD**	**LIK**	**H**	Future	Assets	Maintenance

Hazard	Risk	Inherent Risk			Treatment	Residual Risk			Implementation Status	Responsibility	Level of Service
		C	L	R		C	L	R			
Aging and poor condition critical water mains	High number of critical mains ageing and increased occurrence of breaks – which halts operation of the water supply network	MOD	LIK	H	Update age based condition ratings of water mains	MOD	UNL	M	Future	Assets	Operations
					Implement rolling program of detailed condition assessment on critical water mains				Future	Assets	Operations
					Align investment in asset renewal with annual depreciation.				Future	Assets	Renewal

Table 7: Risk Assessment

4.2 Community Satisfaction

Council's community satisfaction survey is undertaken biennially and tracks Council's performance in service delivery, identifies priority areas and evaluates community attitudes towards customer services, communication and Council as an organisation.

The objectives of the community satisfaction survey process are to:

- Measure the importance of, and satisfaction with, services and facilities provided by Council
- Compare levels of satisfaction for Council's services and facilities with similar councils
- Assist Council in identifying service priorities for the community
- Evaluate Council's customer services and communication

The survey covers facilities and services provided by Council identifying both importance and satisfaction on a 5-point scale, with 1 = low and 5 = high.

The most recent community survey was conducted in 2024, with the results of the prior years also provided for comparison.

The following table contains the items relevant to this asset management plan.

	Importance				Satisfaction				2024 Performance gap
	2019	2021	2022	2024	2019	2021	2022	2024	
Town drinking water quality (taste, smell and colour)	4.73	4.72	4.64	4.74	3.79	4.07	3.91	3.91	17%
Reliability of town water	4.68	4.72	4.70	4.76	4.19	4.26	4.18	4.31	9%

Table 8: Comparison of Importance and Satisfaction over 2019, 2021,2022 and 2024.

In the table above, the 2024 Performance Gap is the difference between community importance and community satisfaction.

Quality and reliability of the water supply network has consistently been valued of high importance by the community. The 2024 survey results indicate that satisfaction levels are both high and consistent.

The focus is therefore primarily on maintaining existing service provision.

4.3 Strategies & Masterplans

The third key driver of service levels is Council's suite of adopted strategies and masterplans.

These documents help ensure that Council's planning, delivery and maintenance of infrastructure is strategic, coordinated, and responsive to community needs. They are developed in consultation with the community and provide clear direction for how specific asset types — or assets in specific locations — should be managed.

Each strategy or masterplan directly informs one or more Levels of Service by:

- Setting future directions or standards for service provision
- Prioritising improvements in specific locations
- Aligning asset management with broader community goals and legislative requirements

A list of strategies and masterplans that impact the levels of service for the Wastewater asset class is provided in the table below.

Strategies /Masterplans	Asset Category	Level of Service Influenced	
Integrated Water Cycle Management (IWCM) Strategy	Water dams and storages Water treatment plants at Wingecarribee and Bundanoon	Provision	Planning for Water Treatment Plant and network capacity improvements to meet future demands. Planning for the extension of water services for new developments and subdivisions
Water Supply Master Plan	Water dams and storages Water treatment plants at Wingecarribee and Bundanoon Reservoirs Pumping stations Water mains Valves & Hydrants	Provision	Planning for Water Treatment Plant Capacity Improvement to meet future demands. Planning for the extension of water services for new developments and subdivisions
Dam Safety Management Plans	Water dams and storages	Maintenance & Operations	Managing the risk of dam failure
Drinking Water Quality Management (DWQM)	Water dams and storages Water treatment plants at Wingecarribee and Bundanoon Reservoirs	Maintenance & Operations	Implementing a proactive and reactive maintenance program to operate the water supply system, ensuring the supply of safe drinking water in compliance with ADWG (Australian Drinking Water Guidelines)
Asbestos Management Plan	Water mains	Renewals	Ensuring a healthy and safe environment for the community in handling asbestos in water assets
2023 Water Supply Economic Review	Water treatment plants at Wingecarribee and Bundanoon Pumping stations Water mains	Provisional /Renewals	Planning Water Treatment Plant Capacity Improvement to meet the 2031 demand targets set in IWCM and ensuring a water supply of 60 ML/DAY to support growth beyond 2051.

Table 9: Strategic plans and Masterplans driving the Level of Service.

5 Levels of Service

Council defines its Levels of Service (LoS) across three key components:

- Provision – What assets Council provides, where, and how much
- Renewal – How frequently assets are replaced at the end of their useful life
- Maintenance and Operations – How assets are maintained to ensure safety, function and longevity

These components are interdependent — changing one may impact the others. For example, delaying renewal may increase maintenance needs, while expanding asset provision will create additional operational costs

5.1 Provision Level of Service (LoS)

Provision LoS refers to the number, type and location of assets Council provides across the Shire.

Council's current provision of Water assets is worth a combined $462.5M and provides services for 20,151 dwellings.

5.1.1 Extent of Water Supply Scheme

In accordance with the resolution of Ordinary Council Meeting 17 May 2023, Council will not pursue an extension of the water supply network to areas currently not serviced.

The focus is to therefore continue ensuring the resilience, performance and sustainability of the existing water supply network.

5.1.2 Raw Water Supply

To this end at Ordinary Council Meeting 19 April 2023, Council resolved the following deliverables, which relate to the provision level of service, for the water supply network:

1. *Implementation of Wingecarribee Water Supply Augmentations continue unchanged.*
2. *Operation and maintenance of the Bundanoon water supply system, minor upgrades and renewals at the Bundanoon Water Treatment Plant (WTP) and Werai Water Pump Station (WPS) are continued to be undertaken until such time that the following projects are completed:*
    a. *Wingecarribee WTP Process Improvement and 2031 Augmentation;*
    b. *Wingecarribee WTP to Moss Vale pipeline;*
    c. *Moss Vale Reservoir Duplication; and*
    a. *Renewal of transfer pipeline Moss Vale to Exeter.*
3. *Upon completion of the above projects the Bundanoon raw water supply, treatment plant and Werai WPS are decommissioned.*
4. *A qualified and experienced consultant is engaged to prepare a contingency plan in the unlikely event of total failure of Wingecarribee Dam.*

5.1.3 Water Supply in New Developments

The Provision LoS for new subdivisions & development is that which is stipulated in the documents which govern it, namely Council's:

- Local Environmental Plan
- Local Housing Strategy
- Local Strategic Planning Statement

- Development Control Plans
- Engineering Design and Construction Specifications
- Developer Contribution & Servicing Plans
- Water and wastewater Modelling Design Standards

5.1.4 Performance of Water Supply Scheme

Council has adopted the performance standards for the Water Supply network as detailed within the Modelling Design Standards – which are available on the Council website.

These standards provide a design criteria for:

- Demand factor to used within models
- Operating Pressures
- Minimum Pipe Diameters
- Fire Flow
- Flow velocity and head loss
- Reservoir Storage

Properties for which Council cannot meet these operating pressures, a 50% rebate on the water access charge is available.

5.2 Renewal Level of Service

Renewal LoS defines how often assets are replaced with a Modern Engineering Equivalent Replacement Asset (MEERA) — typically at the end of their useful life.

The useful life of an asset is the period over which it provides value. It is a key factor in both depreciation calculations and long-term renewal planning. Ideally, Council's annual capital renewal investment should match the value of annual depreciation, averaged over time.

If renewal falls below this level for extended periods, Council may face a backlog of ageing infrastructure and rising maintenance costs. Conversely, shortening useful lives can reduce maintenance needs but increase renewal costs.

The relationship between useful life, depreciation, and maintenance is carefully balanced to ensure sustainable asset management.

The below table includes the asset renewal lives for assets in the water Asset Class. These useful lives are currently stored in the Conquest Asset Management System

Asset Category	Useful life (Years)
Water Bulk Meters	15
Water Source Dams	3-80
Water Hydrants	60
Water Mains - AC	80
Water Mains - DI	100
Water Mains - CI	60
Water Mains - PVC	100
Water Meters	15
Water Pump Stations	20

Water Reservoirs	3-80
Water Service Lines	60
Water Treatment Plants	3-80
Water Filling Stations	20-70
Water Valves	50-60

Table 10: Water Asset Useful Lives.

The intent is therefore that water assets will be renewed prior to exceeding their designated useful life.

However, renewal works will also be based on asset condition. When an asset is found to be of Condition 4 or 5 it will then be programmed for renewal within the Capital Works program.

The following charts provide a comparison of asset category and their respective useful life.

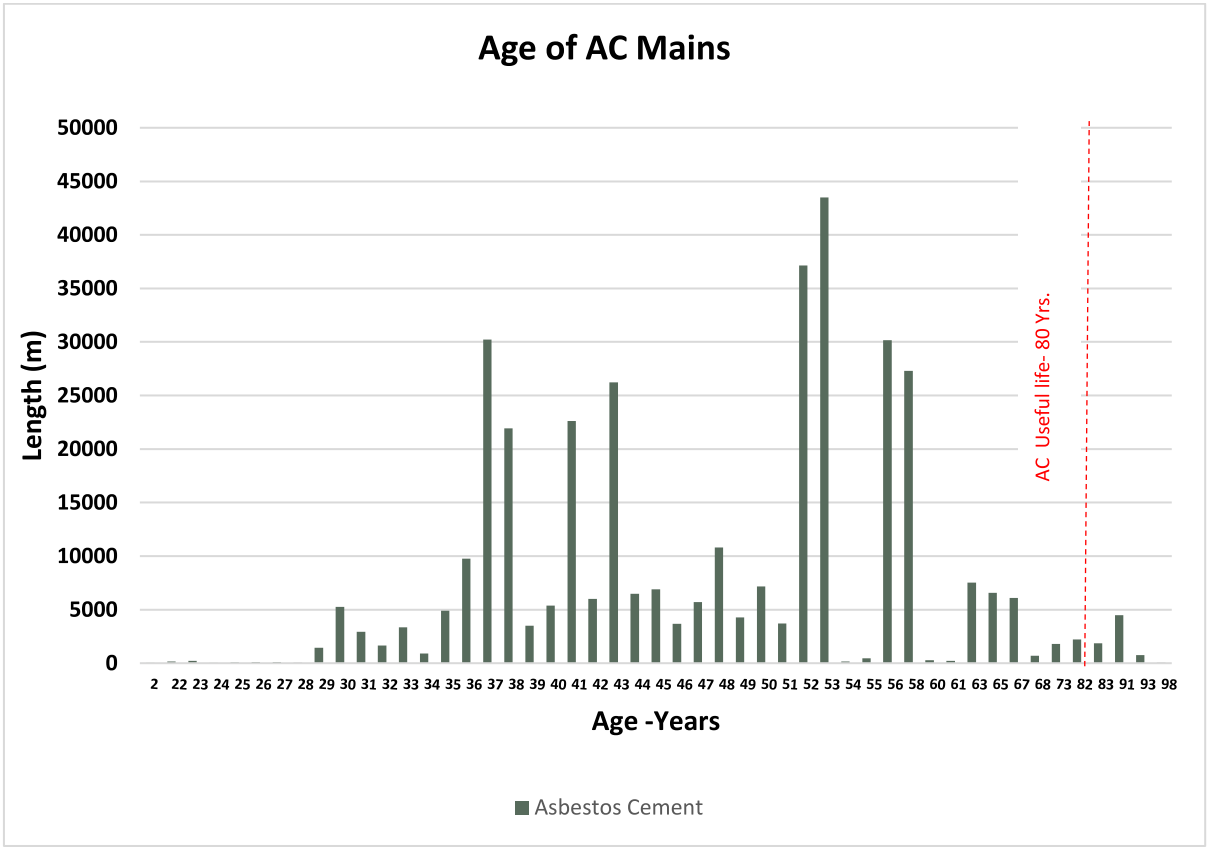


Figure 10 - Analysis of AC Main Useful Life

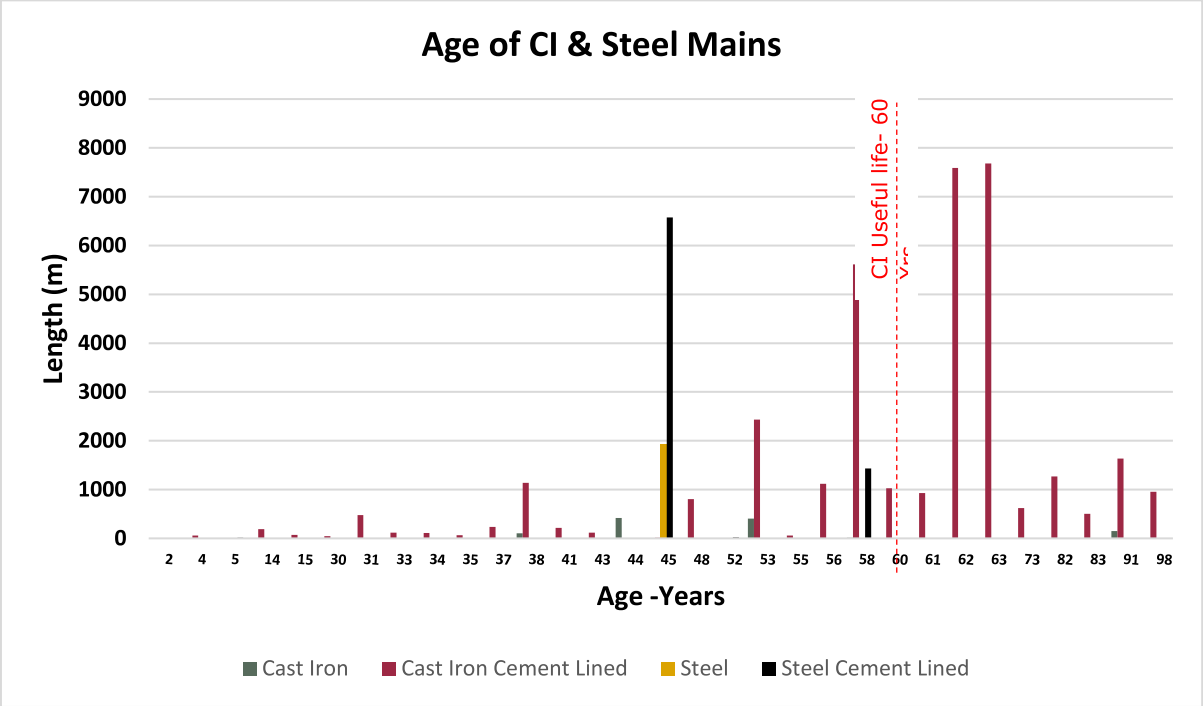


Figure 11 - Analysis of Steel Main Useful Life

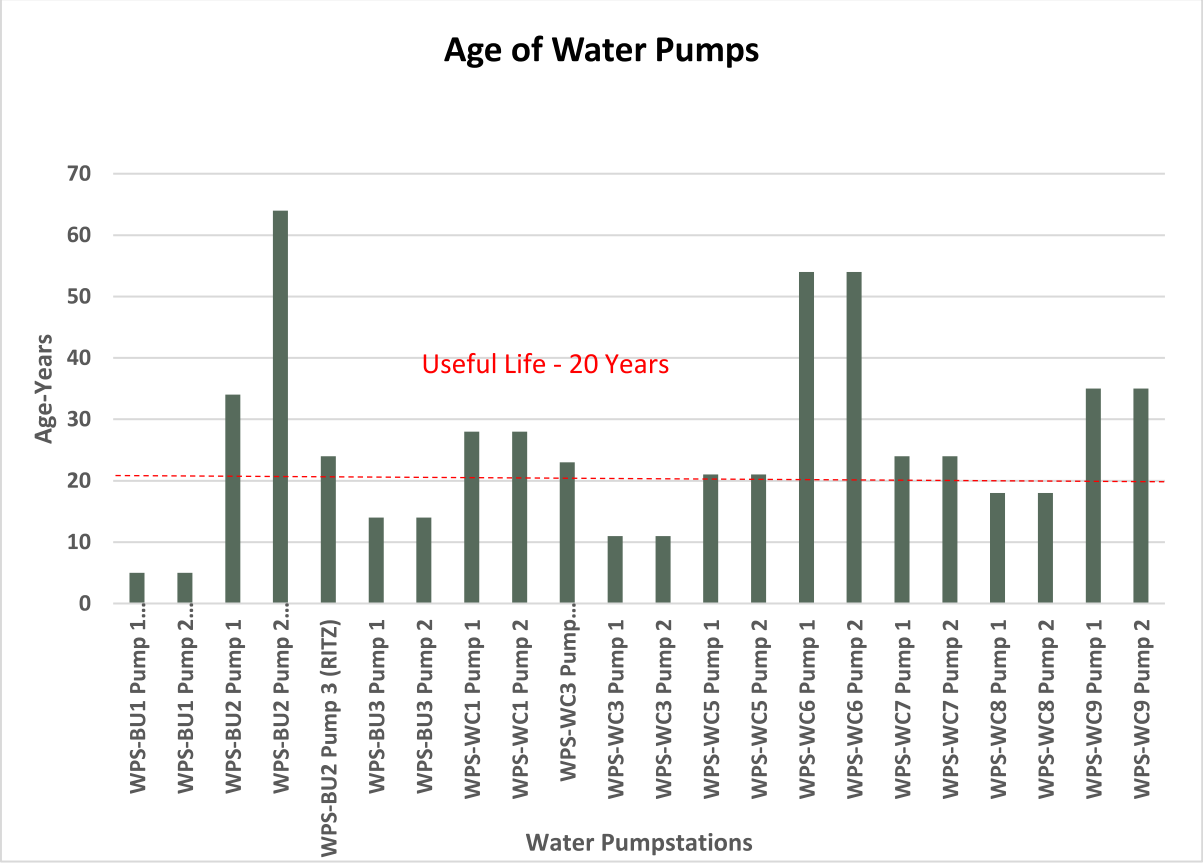


Figure 12 - Analysis of Water Pump Useful Life

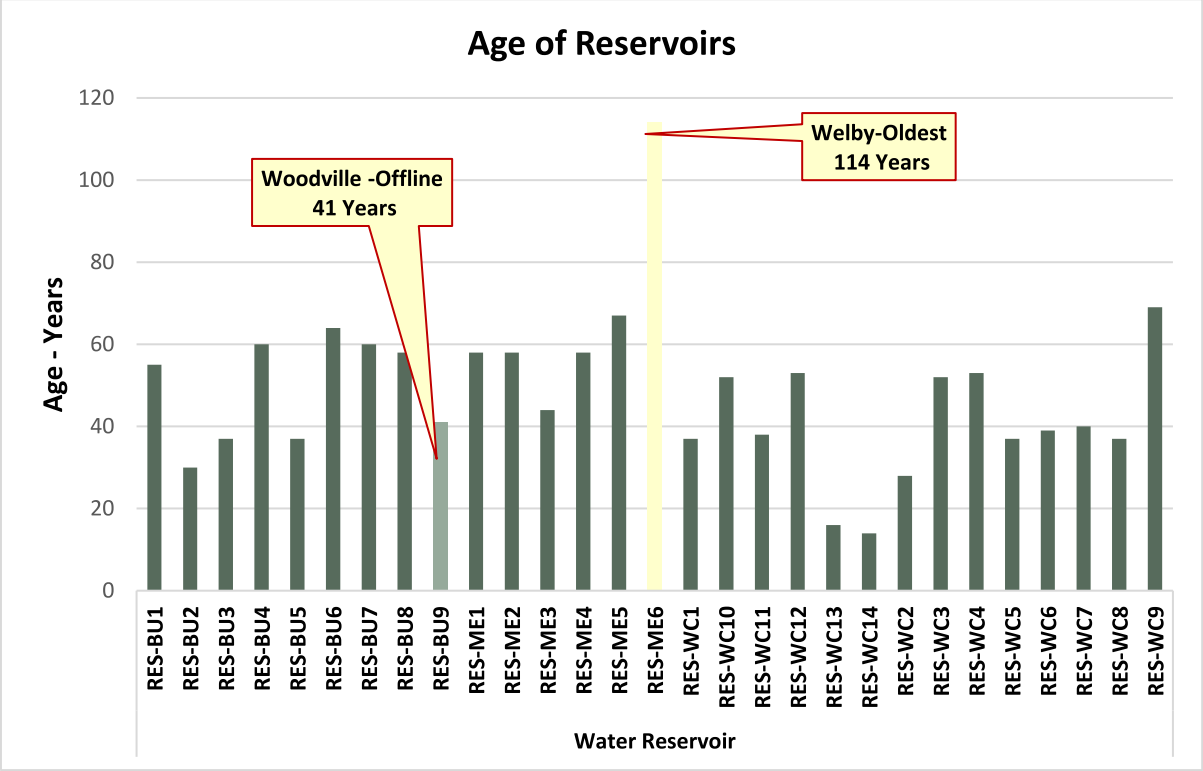


Figure 13 - Analysis of Water Reservoir Useful Life

5.3 Maintenance & Operations Level of Service

Maintenance and operational activities are essential for ensuring that Council's assets remain safe, functional and fit for purpose. These activities are delivered through a mix of proactive scheduling and reactive response across the entire asset network.

- Operational activities (such as inspections, servicing or compliance tasks) are generally well suited to structured scheduling and can often be delivered in a controlled and timely manner
- Maintenance activities (such as repairing damage, replacing worn components or responding to faults) are more difficult to schedule reliably and require mature systems, consistent data and adequate resourcing

Maintenance and operations level of service will be provided under two categories: inspections and maintenance.

5.3.1 Inspections

Asset condition assessments involve periodically monitoring assets and utilizing the collected inspection data to determine their condition align with Council's Condition Assessment Strategy – April 2020. Appendix-A. Analysis of this data may reveal the need for preventative maintenance to ensure that assets meet their expected useful life or require replacement if they have reached the end of their lifespan.

- **Dams**

  Council-owned dams are managed in compliance with the Dam Safety Regulations 2019. All periodic inspections and condition assessments are conducted in accordance

with the Council's Dam Safety Management System (DSMS), which is adopted by Dam Safety NSW.

- **Reservoirs**
  All reservoirs are inspected in every 4 years. This includes identifying maintenance, structural intervention and safety and security priorities in accordance with the Council's Drinking Water Management System (DWQMS).
- **Bundanoon WTP**

Asset System	12 M	3 M	3M	6 M	6M	9 M	Reactive	Grand Total
Backwash System	8	12		7				27
Chemical Dosing	11	31		13		1	4	60
Clear Water Processing		2		2			1	5
Compressed Air		11		7			1	19
DAF System	6	8	3	5	2			24
Filter	2	2		5				9
Laboratory		1					13	14
Pump Station - WPS BU4 Clear Water	6	12		5			1	24
Raw Water Headwork's	1	10	1	7				19
Site	1	2		5			5	13
Sludge Lagoon	1	8		1				10
Structures	1							1
Telemetry Unit	3			3				6
Treatment Plant Controls	12						6	18
WPS-BU3 Bundanoon #3, Green Hills Rd Raw Water	9	13		6			1	29
WTP Power Lines, WPS-BU3 Bundanoon #3, Green Hills Rd Raw Water	1							1
WTP Transformers, WPS-BU3 Bundanoon #3, Green Hills Rd Raw Water	3							3
Grand Total	**65**	**112**	**4**	**66**	**2**	**1**	**32**	**282**

Figure 14 - Bundanoon WTP Inspection Schedule

- **Wingecarribee WTP**

Asset System	1 M	12 M	3 M	6 M	9 M	Reactive	Grand Total
All Systems						1	1
Backwash System		10	7	25			42
Chemical Dosing		5	18	55	1	2	81
Clear Water Processing		1	2	1		2	6
Compressed Air		6	3	19			28
DAF System		6	6	24			36
Drying Beds			11				11
Filter		2	4	5		1	12
Laboratory		4	1			9	14
Raw Water Headwork's		1	1	19			21
Site	1	2	2	12		2	19
Sludge Lagoon		2	8	2			12
Telemetry Unit		2		3		1	6
Treatment Plant Controls		10				4	14
WPS-WC10 Clear Water		5	6	15			26
WPS-WC9 Wingecarribee #9, Treatment Plant Raw Water		8	8	14		2	32
Grand Total	**1**	**64**	**77**	**194**	**1**	**24**	**361**

Figure 15 - Wingecarribee WTP Inspection Schedule

- **Water Pumpstations**

Water Pumpstat	12M	Grand Total
Bundanoon Network	1	1
Medway Network	1	1
WPS-BU1	1	1
WPS-BU2	1	1
WPS-BU3	1	1
WPS-BU4	1	1
WPS-ME1	1	1
WPS-WC1	1	1
WPS-WC10	1	1
WPS-WC11	1	1
WPS-WC2	1	1
WPS-WC3	1	1
WPS-WC4	1	1
WPS-WC5	1	1
WPS-WC6	1	1
WPS-WC7	1	1
WPS-WC8	1	1
WPS-WC9	1	1
Grand Total	**18**	**18**

Figure 16 - Pump Stations Inspection Schedule

- **Mains**
  Critical water mains are reviewed annually, with programming of condition assessment determined by the number of pipe failures in recent years, including pipe breaks and leaks at joints. These inspections involve field tests on the pipeline to assess its condition and identify known features and anomalies, such as blockages, air pockets, and wall thickness deterioration.
- **Valves**
  Valves are currently inspected on a reactive basis due to a lack of resources, but plans are underway to establish a proactive inspection regime for critical valves on a priority basis.
- **Hydrants**
  Currently, inspections and flushing are carried out on a reactive basis due to a lack of resources, but plans are underway to establish a proactive inspection and flushing regime for critical hydrants.

The condition assessment of other aboveground water treatment plant and pump station assets is carried out every 5 years during the asset revaluation process. The condition of underground assets such as water mains, valves, and hydrants are assessed annually based on age during asset valuation.

5.3.2 Maintenance

Maintenance concerning the essential activities required to keep existing assets functioning to their design capacity and performance. This LoS will combine activities which are either proactive (i.e. scheduled, cyclical activities) that are carried out before service delivery is compromised, or reactive which are carried out after service delivery is compromised due to wear, malfunction or breakage.

Operational works attend to the day-to-day activities that are required to ensure the asset is kept in a functional state so that it can provide its service delivery to community. Operational activities are often active processes of utilising an asset which will consume resources such as manpower, energy, chemicals and materials.

Activities are completed in both a proactive and reactive fashion across the asset network. Many operational activities by their nature are more readily able to be scheduled and completed in a timely & controlled way. Maintenance activities are more difficult to deliver in scheduled fashion, with mature systems and full resourcing required to do so.

Asset Class	Annual Maintenance & Operations Budget
Pumping Stations	$300,839
Reservoirs	$186,846
Reticulation Network	$4,557,003
Treatment	$45,044
Treatment - Bundanoon Dam	$387,951
Treatment - Medway Dam	$78,929
Treatment - Wingecarribee Dam	$2,423,864
Total	*$7,980,476*
Annual Maintenance as % of Asset Value	*1.7%*

Table 11 - Asset Class Maintenance

6 Asset Base Growth

Over the next 10 years, Council's asset base will continue to grow as a result of:

- New and upgraded assets delivered through Council and grant-funded capital projects
- Assets contributed by developers as conditions of consent or because of a Planning Agreement
- Infrastructure delivered through Developer Contributions and Servicing Plans

Council's current forecasts do not include any significant asset disposals during this period. Future updates may consider this as part of the ongoing development of Council's Property Strategy.

6.1 New & Upgraded Assets and Developer Contribution

The new and upgrade asset projects category covers those projects resourced by Council or grant funding that involve existing assets being enhanced or new assets being constructed.

An important funding source for new infrastructure are Development Contributions collected under Section 64. These contributions fund a significant proportion, though not all, of the infrastructure required by new development.

Council currently primarily levies contributions through the following Plans:

- Southern Highlands Innovation Park (SHIP) Plan
- Water & Sewer Development Servicing Plan

The Integrated Water Cycle Management Plan (IWCM) provides guidance as to the expenditure of the overall Water Fund and Section 64 contributions and forms the starting point for the 2025/26 to 2028/29 Capital Works Program.

The following table provides a summary of the new/upgrade components of projects within the 2025/26 to 2028/29 Capital Works Program and the works program within the IWCM has been used for the remaining years of the planning period.

Financial Year	Project Name	New/ Upgrade Component
2025/26	Water private works - new meters and connections	$100,000
2025/26	Wingecarribee WTP augmentation 60ML	$125,000
2025/26	East Bowral PMA inlet and elec actuated control valve upgrade	$300,000
2025/26	Moss Vale Hill Road Reservoir Duplication	$3,000,000
2025/26	Water reticulation improvements	$50,000
2025/26	Moss Vale Trunk Main Duplication (Master Plan)	$500,000
2025/26	Water Main Duplication - Yerrinbool	$300,000
2026/27	Water private works - new meters and connections	$100,000
2026/27	Wingecarribee WTP augmentation 60ML	$125,000
2026/27	East Bowral PMA inlet and elec actuated control valve upgrade	$1,000,000
2026/27	Moss Vale Trunk Main Duplication (Master Plan)	$5,000,000
2026/27	Northern Villages Distribution Main Duplication - Stage 3	$1,398,481
2026/27	Water Main Duplication - Yerrinbool	$4,124,612
2027/28	Water private works - new meters and connections	$100,000

2027/28	Wingecarribee WTP augmentation 60ML *	$5,000,000
2027/28	Moss Vale Trunk Main Duplication (Master Plan)	$5,000,000
2027/28	Northern Villages Distribution Main Duplication - Stage 1B	$2,756,000
2027/28	Water Main Duplication - Hill Top	$300,000
2028/29	Water private works - new meters and connections	$100,000
2028/29	Wingecarribee WTP augmentation 60ML	$15,000,000
2029/30	IWCM	$3,193,750
2030/31	IWCM	$16,793,750
2031/32	IWCM	$16,793,750
2032/33	IWCM	$1,193,750
2033/34	IWCM	$1,833,750
2034/35	IWCM	$1,193,750

Table 12:New and Upgraded Assets

*Note: Delivery of Wingecarribee WTP augmentation project is contingent upon receipt of grant funding support.

6.2 Assets Contributed by Development through Conditions of Consent

As development continues, new infrastructure is delivered directly by developers under Conditions of Consent or a Planning Agreement and subsequently transferred to Council.

Council's Local Housing Strategy targets a 50:50 balance between infill development and greenfield development. Since only greenfield development typically leads to new asset contributions, it is estimated that 50% of population growth results in asset base growth.

Historical analysis shows that for every 1% increase in population from greenfield development, the asset base increases by approximately 0.3%. This reflects the fact that most contributed assets are minor in scale — such as pipes or footpaths, not major facilities like treatment plants.

Financial Year	Population Forecast	Population Growth	Forecast Asset Base Growth
2025/26	54,776	1.1%	0.16%
2026/27	55,357	1.1%	0.16%
2027/28	55,975	1.1%	0.17%
2028/29	56,593	1.1%	0.17%
2029/30	57,212	1.1%	0.16%
2030/31	57,830	1.1%	0.16%
2031/32	58,448	1.1%	0.16%
2032/33	59,138	1.2%	0.18%
2033/34	59,828	1.2%	0.18%
2034/35	60,527	1.2%	0.18%

Table 13 - Forecast.ID Population Growth

6.3 Asset Disposals

No significant disposals are currently committed. Asset disposals — where an asset is removed and not replaced — may be considered in future revisions pending community engagement outcomes and the adoption of Council's Property Policy.

6.4 Asset Indexation

To ensure lifecycle costs remain comparable year-to-year, this Strategy adopts the same indexation assumptions as Council's LTFP:

- 3.0% annually for 2025/26 and 2026/27
- 2.5% annually from 2027/28 onward

6.5 Efficiencies

In line with the adopted LTFP, Council anticipates achieving 1% annual efficiency improvements. These will result from:

- New digital systems
- Workforce optimisation
- Strengthened business processes

These ongoing improvements will support Council's ability to deliver services effectively while managing the impacts of asset growth.

6.6 Asset Base Growth

The total growth of the Water asset class over the next 10 years is projected at approximately $186M. This growth is influenced by a range of factors, including:

- New and upgraded assets
- Assets contributed by development through conditions of consent
- Infrastructure funded through Development Contributions
- Asset disposals (none currently forecast)
- Annual indexation
- Efficiency gains

While each of these elements contributes to asset base growth, indexation can be considered the primary source of the total increase in asset value over the 10-year forecast period.

The following graphs illustrate the resultant annual and cumulative asset base growth.

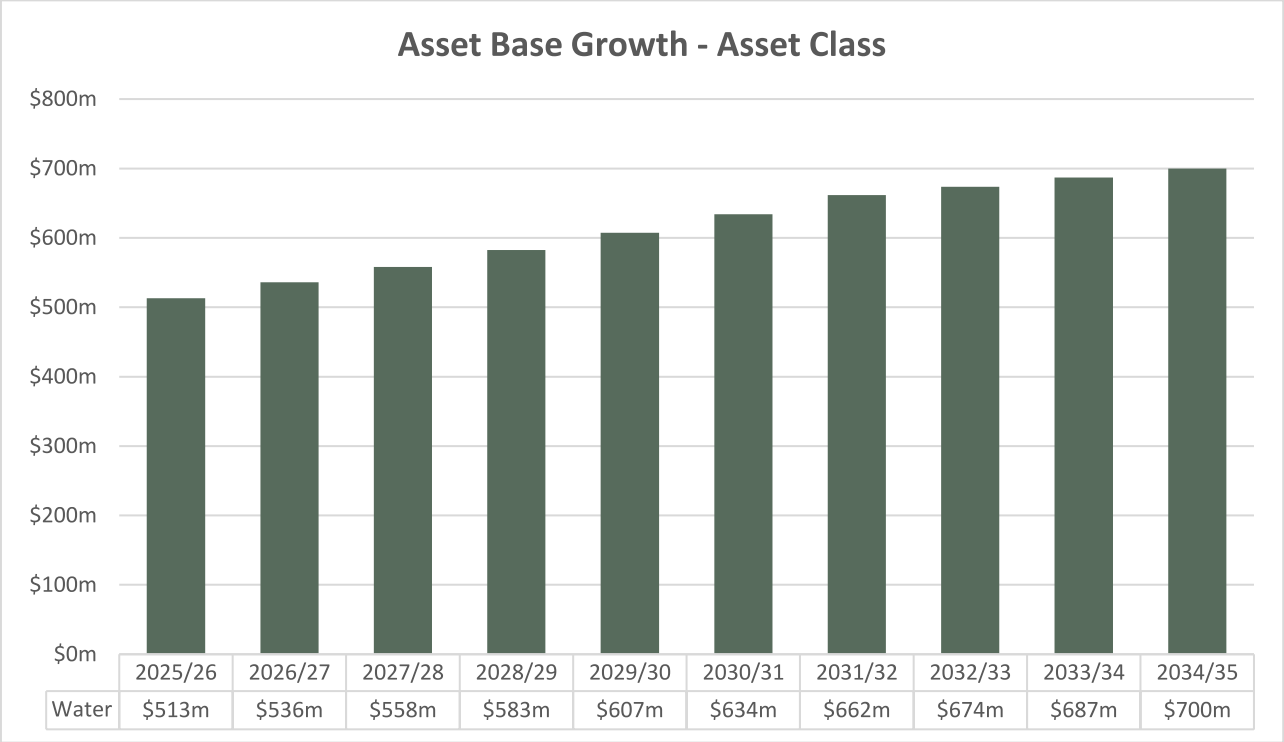


Figure 17: Cumulative Asset Base Growth

7 Financial Lifecycle Forecast

To deliver the Levels of Service (LoS**)** outlined in this Strategy, Council must allocate funding for maintenance, operations, and asset renewal across the asset class.

7.1 Renewal Forecast

To keep Council's assets in good condition and maintain a healthy Infrastructure Backlog Ratio, assets must be renewed when they reach the end of their useful lives. Renewal involves disposing of the old asset and replacing it with a Modern Engineering Equivalent Replacement Asset (MEERA).

Relying solely on useful life expiry or condition data to plan renewals causes large fluctuations in annual renewal budgets. This makes long-term planning and resource allocation more difficult. Instead, Council uses an averaged renewal forecast to spread the investment more evenly over time.

Over the 10-year planning period, the required renewal investment for wastewater infrastructure is forecast at $82M.

Council's adopted LTFP – Scenario 1 cannot accommodate this with only $53M allocated for asset renewal.

Figure 12 (below) shows the annual depreciation water assets compared with the forecast renewal expenditure.

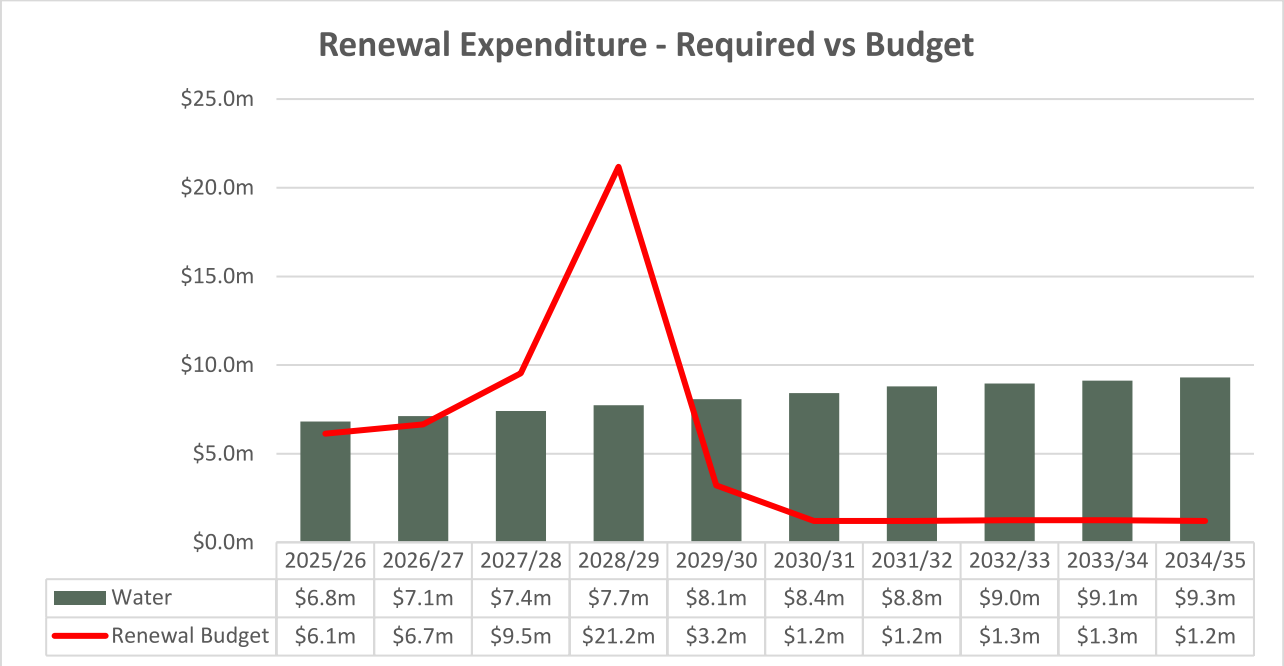
Renewal investment is significantly higher across 2027/28 and 2028/29 due to major capital works at Council's Wingecarribee Water Treatment Plant.

Although these projects are primarily designed to increase treatment capacity and improve environmental performance, a substantial proportion of the project cost is considered renewal because it replaces and upgrades existing infrastructure.

To estimate the renewal component of these projects, the following assumptions have been applied:

- 25% of STP upgrade costs are considered renewal

However outside of this the rate of renewal rests well below that of annual depreciation. This is in accordance with the Water Fund financial model that was adopted in the 2018 Integrated Water Cycle Management Plan, however it will create an inevitable future renewal burden with renewals eventually needing to be delivered above the value of annual depreciation – which is fundamentally not a sustainable approach.



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Water	$6.8m	$7.1m	$7.4m	$7.7m	$8.1m	$8.4m	$8.8m	$9.0m	$9.1m	$9.3m
Renewal Budget	$6.1m	$6.7m	$9.5m	$21.2m	$3.2m	$1.2m	$1.2m	$1.3m	$1.3m	$1.2m

Figure 18: Recommended Renewal Expenditure, measured in millions of dollars.

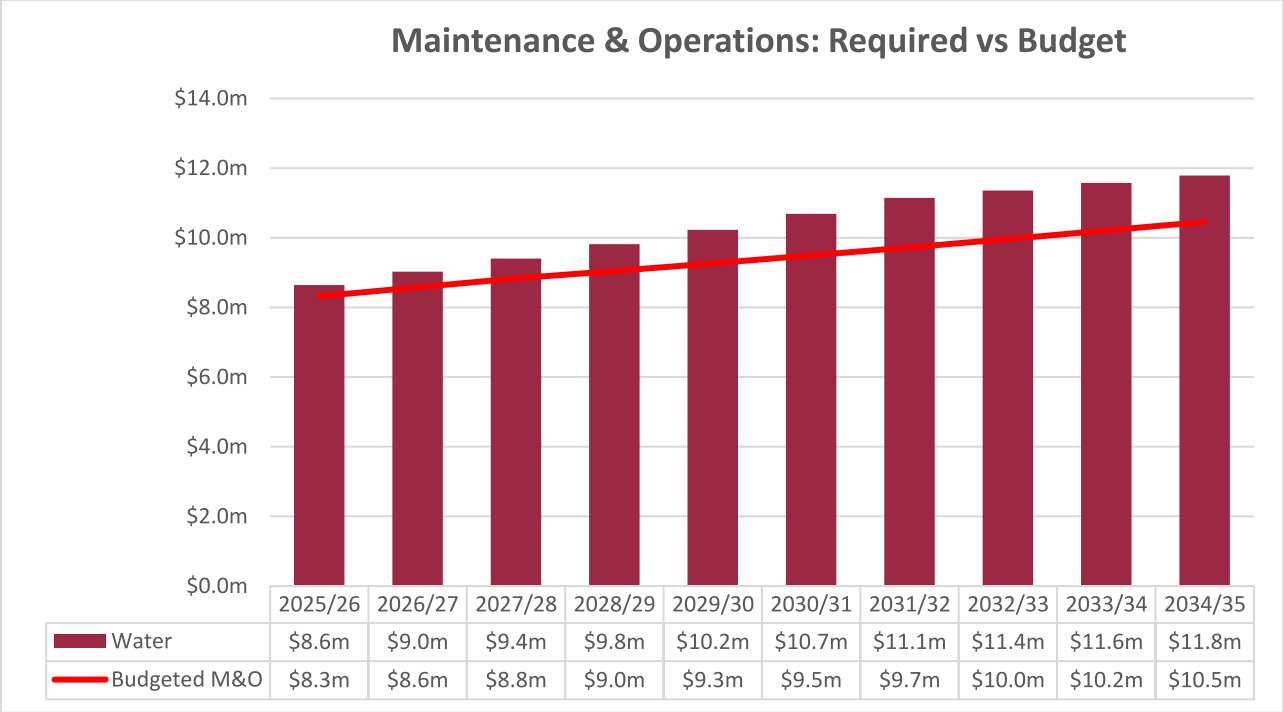
7.2 Maintenance & Operations Forecast

To sustain the current Maintenance and Operations Level of Service whilst accommodating a growing asset base, annual maintenance & operations budget increases are required. The required maintenance and operations expenditure across the 10-year period is therefore forecast to be $104M.

The Long Term Financial Plan is unfortunately not able to accommodate the entirety of this desired maintenance and operations budget, with current resourcing set at $94M across the life of the plan. This is largely as result of the funding model for the Water Fund not being

structured such that maintenance and operations funding increases in line with asset base growth.

This will therefore be another key parameter included within the update of the Water Fund model.



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Water	$8.6m	$9.0m	$9.4m	$9.8m	$10.2m	$10.7m	$11.1m	$11.4m	$11.6m	$11.8m
Budgeted M&O	$8.3m	$8.6m	$8.8m	$9.0m	$9.3m	$9.5m	$9.7m	$10.0m	$10.2m	$10.5m

8 Improvement Plan

Asset Planning is a journey of continuous improvement with there always being opportunities to further improve the accuracy of asset data, better understand community needs and expectations and more efficiently meet the service needs of the Shire.

To this end, an Asset Management Improvement Plan has been prepared to guide this journey of continuous improvement.

The below items are specific improvements that can be made to this document as well as the asset management maturity of Council.

No	Task	Responsibility	Timeline
1	Creation of Defects Register – to be populated from scheduled and reactive inspections	Assets	2025/26
2	Review and update Sewer Fund model	Assets	2025/26
3	Review and update Water Fund model	Assets	2025/26
4	Database linking with ODASA system	Assets	2025/26
5	Develop and implement program for inspection and audit of bulk meters for detecting water loss.	Assets	2026/27
6	Undertaking water system audit including water meter testing (bucket testing) and calibration.	Assets	2026/27
7	Comprehensive Valuation	Assets	2026/27
8	Analyse and identify risks and opportunities for water quality performance to ensure licence conditions are met.	Assets	2026/27
9	Review and update Shirewide Water Masterplan	Assets	2026/27
10	Database automation with FME	Assets	2027/28

Table 14: Improvement Plan

Road Maintenance Policy

PLACES

WE HAVE SAFE, MAINTAINED AND EFFECTIVE ASSETS AND INFRASTRUCTURE

Adoption Date:	11 December 2019
Council Reference:	MN569/19
Policy Owner:	Manager Assets
Next review date:	11 December 2023
File Reference:	7810/30
Related Policies/Legislation:	*Local Government Act 1993* *Local Government (General) Regulation 2005* *Roads Act 1993* *Civil Liability Act 2002*
Related Documents:	Road Maintenance Procedure
Superseded Policy/GM Practice Note:	Unmaintained Road Policy No 3.51

OBJECTIVES

The objectives of this Policy are to:

- ensure a framework for the risk management of Council's road network is developed;
- reduce exposure to potential public liability claims relating to the condition of roads, including claims against Council and the community it represents;
- establish a criteria and hierarchy of roads;
- ensure a defined level of service and treatment options for roads based on their hierarchy and condition is developed;
- ensure a systematic approach is established for the inspection, prioritisation and response to risks;
- promote awareness of legislative requirements with respect to acceptance by the community and the Court, of the shared duty of care for road users to take reasonable care for their own safety when using the road network;
- facilitate safer local and regional roads.

POLICY STATEMENT

Wingecarribee Shire Council, as the roads authority under the *Roads Act 1993*, must take reasonable steps to protect the public from any foreseeable dangers on its road network, as resources allow, to adequately address risks of which it is aware.

Road Maintenance Policy

The *Civil Liability Act 2002* (the Act) provides special nonfeasance protection for roads authorities such as Council. Section 45 of the Act stipulates that a roads authority is not liable for harm arising from a failure to act in respect of maintenance of its roads, unless at the time of the alleged failure the authority had actual knowledge of the particular risk which resulted in the harm. The importance of this defence is that a roads authority, such as Council, can in some circumstances avoid liability for injuries or damage related to the state of repair or maintenance of its roads.

Section 42 of the Act also makes allowance for Council's ability to carry out its duty of care as being limited by the financial and other resources which are reasonably available to exercise its functions. To rely on this defence, Council is required to show evidence of its compliance with the general procedures and applicable standards for the exercise of its functions, such as risk management of its road network.

SCOPE

This Policy considers all residents and guests in the Shire, who utilise the roads as a means of transportation. This includes motorists, cyclists and pedestrians.

The Road Maintenance Policy provides Council the ability to undertake works on all Council roads and strengthens Council's defence against civil liability claims ultimately reducing risks to Council and the community. The Policy applies to all Council-managed road infrastructure within the Shire. The Policy excludes Crown Roads and Roads and Maritime Services-managed roads.

Management System and Risk Assessments

All Council roads are to be managed according to the Policy and Council develops and implements a systematic and documented approach for reducing risks associated with maintenance of sealed and unsealed roads.

The Management System includes:

- Maintaining the roads maintenance category and roads functional hierarchy,
- Assessing the condition of roads through routine, planned and reactive condition inspections,
- Identifying and evaluating risks associated with the condition of road,
- Risk assessments associated with lower order roads will be safety and access-focused, not ride quality,
- Prioritising and scheduling maintenance works within available resources,
- Implementing suitable treatments to rectify defects and minimise risks,
- Development and implementation of a long-term capital works program,
- Reference to relevant standards and specifications.

The Management System does not intend to, nor is it reasonable to expect that it will, result in removal of all potential risks to road users from the road network. Rather, it provides a

Road Maintenance Policy

basis for identifying and managing long-term plans within the limited resources available to the Council and a mechanism to prioritise and improve levels of service.

DEFINITIONS

Maintained Road	A road that is included in Council's Road Register and maintained by Council.
Lower order Roads	A road that does not have gravel paving, but which is formed using a grader so that storm water will drain off laterally and/or a road with no geometry that has been cleared and open to use by the public.
Maintenance	Physical works to maintain the asset without increase in the service potential.
Routine Maintenance	Maintenance which occurs based on a scheduled time period or date. The difference in routine maintenance periods occur based on road functional hierarchy.
Road Functional Hierarchy	A class or division of roads which have been grouped together based on their traffic, current use, requirement and location. The categories are placed into a hierarchy from one to eight and define the maintenance required for each road type.
Management System	A systematic and documented approach for reducing risks associated with road infrastructure.
Road Maintenance Category	Road maintenance category lists the applicable road maintenance treatment for every road, or section of road, to which this policy applies.
Reactive Maintenance	Reactive maintenance is the response to work requests or identified need usually through operations or customer requests.

RESPONSIBILITIES

Responsibilities for implementing this Policy are shared between Councillors, Executive and staff as follows:

Position	Responsibility
Mayor/ Councillors	To lead Councillors in their understanding of, and compliance with, this Policy.
Executive	To implement this Policy and related procedures; To lead staff in their understanding of, and compliance with this Policy.
Responsible Officer	Managers at all levels are responsible for the implementation and maintenance of the policy.
All Council Staff	To comply with this Policy and related procedures.

PERFORMANCE MEASURES

The success of this Policy will be measured by:

- Reduction in number of complaints associated with road condition
- Reduction in public liability claims associated with road condition

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BREACHES OF THE POLICY

Breaches of this Policy should be reported to the Manager Assets.

The Manager Assets will investigate alleged breaches and determine the appropriate course of action to resolve the matter.

APPROVED BY:

WINGECARRIBEE SHIRE COUNCIL

11 December 2019

ATTACHMENTS

No attachments

Approved By:

WINGECARRIBEE SHIRE COUNCIL

11 December 2019