



STATUTORY COMPLIANCE REGISTER

Soil Conservation Act 1938		An Act to make provision for the conservation of soil resources and farm water resources and for the mitigation of erosion; for these and other purposes to amend the <i>Crown Lands Consolidation Act 1913</i> and certain other Acts; and for purposes connected therewith.	Provisions relating to Council's obligation to conserve soil and farm water resources and the mitigation of erosion. Refer to s 4C.	EMOTS					x							Internal operating procedures
State Records Act 1998		An Act to make provision for the creation, management and protection of the records of public offices of the State and to provide for public access to those records, to establish the State Records Authority; and for other purposes.	Provisions relating to Council's responsibilities, as a public officer, to create, manage, protect and provide access to records.	EMCS		x	x									Records management; Code of Conduct; Public Access to Information
Training Guarantee (Administration) Act 1990 (Cth)		An Act relating to the establishment and administration of the Training Guarantee Scheme, and for other purposes.	Provisions relating to Council's obligation to increase and improve the quality of the employment related skills of employees with the view of increasing efficiency and international competitiveness of the Australian workforce	GM, EMCS			x									Workforce Strategic Plan; Training matrix; LGNSW Award
Water Act 2007	Water Regulation 2020	An Act to consolidate the Acts relating to Water Rights, Water and Drainage, Drainage Promotion, and Artesian Wells.	Provisions relating to Council's obligation with regards to water	GM, EMOTS, MWQ, MWN		x				x			x	x		Internal operations
Water Management Act 2000	Water Management (General) Regulation 2004	An Act to provide for the protection, conservation and ecologically sustainable development of the water sources of the State, and for other purposes.	Provisions relating to Council's duty for the protection, conservation and ecologically sustainable development of the water sources of the state. Refer to ss 13; 34; 36; 212; 260; 262; 264; 265; 266; 267; 268 and 318.	GM, EMOTS		x				x						Internal operations
Water Supply (Critical Needs) Act 2019		Designed to facilitate the delivery of emergency water supply; allows the Minister to authorise critical water infrastructure developments that are urgently needed to secure water supplies for regional towns during drought		GM, EMOTS		x				x						
Work Health and Safety Act 2011	Work Health and Safety Regulation 2011	The main object of this Act is to provide for a balanced and nationally consistent framework to secure the health and safety of workers and workplaces	Provisions relating to Council's obligation to protect workers in the workplace against risks to health or safety arising out of their work-related activities.	GM, EMCS, Managers, and Supervisors		x	x	x	x	x	x	x	x	x		Work Health & Safety; Risk Management; Safe Work Method Statements



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Workers Compensation Act 1987	Workers Compensation Regulation 2003	An Act to provide for the compensation and rehabilitation of workers in respect of work related injuries; to repeal the <i>Workers' Compensation Act 1926</i> and certain other Acts; and for other purposes.	Provisions relating to Council's obligation to provide for the compensation and rehabilitation of workers with respect to injuries sustained in the course of their work.	GM, EMCS	x	x							Work Health & Safety; Risk Management; Safe Work Method Statements
Workplace Injury Management and Workers Compensation Act 1998		An Act to provide for the effective management of work-related injuries and injury compensation for workers in respect of such injuries; and for other purposes.	Provisions relating Council's obligation to provide for the effective management of work-related injuries and injury compensation for workers in respect of such injuries.	GM, EMCS	x	x							Work Health & Safety; Incident reporting procedures
Workplace Surveillance Act 2005	Workplace Surveillance Regulation 2005	An Act to regulate surveillance of employees at work; and for other purposes.	Provisions relating to Council's rights and responsibilities with respect to workplace surveillance.	GM, Executive Managers, Managers, and Supervisors	x	x							Code of Conduct



Central Tablelands Water

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OF THE ORDINARY MEETING OF CENTRAL TABLELANDS WATER
HELD ON WEDNESDAY 26 AUGUST 2026

OPERATIONS & TECHNICAL SERVICES REPORTS

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Central Tablelands Water
Water Supply
Asset Management Plan 2027-2056

Version 1.0

Prepared by  **Asset Nexus**

Water Supply Asset Management Plan 2027-2056

Version History & Sign-off

Version	Reason for Change	Date of Approval	Approver
0.1	Initial Draft		
0.9	Draft for comment	05/08/2026	Nathan Skelly
1.0	Final for Council Approval		

DRAFT

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1 Executive Summary

Central Tablelands Water (Council) owns and operates \$195.21 million of water supply infrastructure. This comprises Lake Rowlands, two water treatment plants, 583 kilometres of trunk and reticulation mains, 43 reservoirs, 32 pump stations, and the bores, telemetry and ancillary assets required to deliver drinking water across the constituent council areas. This plan sets out what it costs to own that infrastructure over the 30 years to 2056, what Council has budgeted, and where the difference between the two sits.

1.1 The Cost of the Service

The forecast cost of owning and operating the asset base over the 30 year period is approximately \$303.86 million, an average of \$10.13 million each year across operations, maintenance, renewal and acquisition. Council's budget over the same period is \$280.17 million, leaving a funding gap averaging \$789,000 per annum.

That gap is not evenly distributed. Over the first 10 years the annual funding demand is \$19.76 million against a budget of \$16.67 million, a gap of \$3.09 million each year. The concentration reflects three factors: an opening renewal backlog of \$24.29 million, the replacement of Trunk Mains A and B within the decade, and the acquisitions required to address water security and treatment capacity. Beyond year 10 the renewal demand falls below the available budget and the backlog reduces consistently through to the end of the plan.

Indicator	10 year	30 year
Asset Renewal Funding Ratio	64.9%	97.4%
Lifecycle Funding Ratio	84.1%	92.2%

On this basis the plan is affordable over the long term. The renewal budget of \$3 million per annum from year 11 is sufficient to clear the backlog within the 30 year horizon and to hold it at zero thereafter, and this outcome is retained when renewal costs are increased by 73.9% to reflect the preliminary pricing received for Trunk Mains A, B and C.

1.2 Grant Funding is a Key Risk

The plan assumes \$85 million in grant funding across the first 10 years, which is 51% of total expenditure over that period. The \$66 million Lake Rowlands upgrade accounts for the majority of it. A further \$17.25 million of the renewal program is grant dependent.

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If that funding is not secured, the position changes materially.

Indicator	10 year	30 year
Asset Renewal Funding Ratio	43.9%	82.6%
Without grants	-21%	-14.8%
Lifecycle Funding Ratio	41.2%	64.2%
Without grants	-42.9%	-28%

The consequence is not only financial. Availability of water is already the largest gap between adopted and delivered levels of service, with Level 3 restrictions occurring every three years against a target of once every 10 years, and Level 6 restrictions every nine years against a target of once every 1,000 years. The Lake Rowlands upgrade is the key measure available to Council capable of closing a gap of that order. Demand management and reductions in network water loss contribute, but neither resolves it. Without grant funding, current restriction frequencies continue for the duration of the plan.

The same applies to treatment. If the Carcoar Water Treatment Plant upgrade is not funded, Council will need to assess the cost of extending the life of the Blayney Water Treatment Plant, or defer other works to fund the upgrade from its own revenue.

1.3 Growth is Planned, but Monitoring Required

Growth forecasts have been drawn from the constituent councils' own settlement and growth strategies rather than a uniform network rate. They indicate 1,151 additional dwellings in Blayney, 245 in Canowindra and 203 in Millthorpe over the planning period, alongside two approved industrial projects at Manildra and Grenfell. Asset growth from contributed and constructed assets has been forecast at 1.2% per annum.

Two qualifications attach to this. The Blayney forecast includes approximately 790 dwellings in south Blayney, which is contingent on the outcome of the Kings Plains Gold Mine and is the single largest uncertainty in the demand forecast.

Separately, the reticulation network analyses completed by NSW Public Works for Blayney, Millthorpe and Canowindra identify local capacity constraints that emerge as those towns grow. However, due to limited telemetry measurements available from Council, the accuracy of the modelled development impacts needs to be monitored and assessed with additional telemetry. Those constraints have

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not been costed within this plan and will be addressed through an update to the Development Servicing Plan.

At network level the position is clearer. Trunk Mains A, B and C are at or approaching capacity on the current peak day and are approaching end of life on age as well as capacity. Their replacement is programmed within the plan, with Trunk Mains B and C contingent on grant funding.

1.4 Data Limitations

The asset register is materially complete and holds a high standard of data on construction date and useful life. Condition data does not meet the same standard. Above ground assets have been subject to detailed condition assessment, but underground assets, which represent more than 55% of the asset base by value, are not directly assessed with 92% are recorded as being in good condition, contrasted against 43% of all other assets. This data set has been graded D, very uncertain, and it is highly material to the renewal forecast.

Renewal timing has therefore been modelled on age using a linear relationship between age and condition, with renewal triggered at condition 4.5. This is an indication of the trend of deterioration rather than a prediction of when an individual asset will fail. Failure and maintenance history is currently captured on a paper based system that does not consistently identify the asset worked on, which prevents the development of risk based useful lives for the pipe network. Establishing that history through work order management in Metrix is the highest value improvement action in this plan.

Replacement costs carry a similar qualification. Years 11 to 30 use gross replacement costs aligned with the NSW Reference Rates Manual, which appear optimistic for replacement within a brownfield site. The increased cost scenario tests this, and demonstrates that the long term funding position holds, though the backlog remains higher for longer. In that scenario an estimated 750 assets remain on the backlog for 10 years or more, and 200 for longer than 25 years, which would be managed through increased break rates or reduced pressure and flow.

1.5 Overall Confidence

Overall confidence in this plan is assessed as Grade C, uncertain. Asset quantities, hierarchy, replacement costs and useful lives are reliable. Condition, failure history and levels of service performance are not, and they are the inputs that determine renewal timing across the majority of the portfolio by value.

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The direction of the plan is sound and the long term funding position is supported by both the base case and the increased cost scenario. The precision of the timing within it is not. The improvement actions set out in this plan are directed at the specific data sets that constrain confidence, and the annual review process will incorporate that data as it is established.

2 Strategic Alignment

2.1 Business Activity Strategic Plan

As a County Council, Council has to consider its constituent council's Community Strategic Plans to develop its strategic priorities within a Business Activity Strategic Plan.

Council has adopted three strategic priorities in its Business Activity Strategic Plan 2022-2032:

Strategic Priority 1

Provide a high quality and reliable drinking water supply

- Service provision through fit for purpose infrastructure
- Ensure compliance with regulation
- Best practice asset management
- Mitigate environmental impacts of service delivery
- Efficient use of water

Strategic Priority 2

An efficient, sustainable and and customer focussed organisation

- Quality customer service
- Sound and sustainable financial management
- Continuous improvement whilst managing risk
- A capable and effective workforce

Strategic Priority 3

Regional leadership and collaboration

- Regional collaboration and partnerships
- Regional leadership in the water sector

This asset management plan will address components of all three strategic priorities. It will provide an in-depth assessment of Council's asset base, the finance required to maintain its assets to achieve its customers expectations and adopted levels of service.

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2.2 Asset Management Policy

Central Tablelands Water's Asset Management Policy was adopted in February 2026 and identifies the key expectations from Council to deliver assets in a cost effective manner.

- Delivering for our customers through reliable, safe, and resilient water services that meet current and future needs.
- Optimising cost, risk, and performance across the whole asset lifecycle using evidence-based and risk-aware decision-making.
- Supporting independence, sustainability, efficiency, and innovation in the way we plan, operate, maintain, and renew our assets.
- Building and empowering a skilled and capable workforce to ensure strong asset stewardship and consistent service excellence.
- Collaborating regionally and leading responsibly to enhance shared outcomes and contribute to broader community resilience.
- Ensuring compliance and continual improvement to align with legislation, regulatory requirements, and recognized best practice, including ISO 55000 principles.

This asset management plan has been developed to provide a detailed, evidence based assessment of the costs to maintain and operate Council's water reticulation network over a 30 year horizon.

2.3 Regulatory and Assurance Framework

As a water authority, Council must adhere to the Regulatory and Assurance Framework (RAF). The RAF provides 12 strategic planning outcomes that are expected to be met through Council's strategic document suite.

This asset management plan will demonstrate the following outcomes within the RAF:

- Understanding service needs
 - What are customers' needs, values, and preferences?
 - What current and future demands are placed on water supply and sewerage systems?
- Understanding water quality
 - How will the local water utility address current and future water quality risks in its supply systems?
 - How will the local water utility meet relevant regulatory standards, such as on drinking water quality management?
- Understanding other key risks and challenges
 - How has the local water utility considered climate risks?
 - How is the local water utility planning for drought?

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- How is the local water utility planning and preparing for incidents, emergencies, and extreme events and ensuring continuity of service?
- Understanding solutions to deliver services
 - How are options for delivering services and managing risks analysed?
 - How are supply and demand side options for water supply identified and evaluated?
 - How are assets managed over their life cycle to ensure service levels are met?
 - How are preparedness and resilience management during extreme events considered?
- Understanding resourcing needs
 - What resourcing is needed to deliver services and manage risks?
 - What are the life-cycle costs of managing assets?
 - What are the technical and operational skills needed to deliver services and manage risks?
- Make and implement sound strategic decisions
 - How does the local water utility ensure its long-term financial sustainability?
 - How does the utility implement service levels and monitor, and report on, performance to understand if it is meeting service levels and managing risks?

This plan has focused on the costs of delivering the service that is expected by customers. It has been developed in parallel with the Long Term Financial Plan, linking affordability directly to asset management planning.

This plan has undertaken a long term analysis of required renewals, expected demand increases due to growth, and how Council will fund these requirements.

It has considered the requirements for the coming 30 years, both from a capacity perspective and considering asset age and condition. There are key assets that are reaching the end of their useful life due to capacity constraints, with a large cohort of asbestos cement pipes that are constraining pressures within the network.

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3 Roles & Responsibilities

All internal stakeholders have a level of responsibility to ensure that Council meets its asset management targets to enable delivery of the water supply at the lowest reasonable cost.

Key Stakeholder	Role in Asset Management
Board	• Represent the needs of the community/constituent councils • Set the strategic objectives for the delivery of assets • Endorsement of the asset management policy, plans, and strategy • Allocation of financial resources to meet strategic objectives in providing services whilst managing risks • Ensure the service is sustainable
General Manager	• Allocate human resources to meet strategic objectives in providing services whilst managing risks • Ensure all staff are educated in asset management and the responsibilities associated with minimising lifecycle costs • Provide leadership and coordination to implement the outcomes of asset management planning • Raise awareness and provide education of asset management across Council
Executive Manager Operations & Technical Services	• To implement improvement activities identified within this plan • Ensure all asset data is kept up to date and inspections are undertaken in accordance with agreed levels of service • Develop a 10-year capital works plan and budget
Executive Management Accountant	• Incorporate the financial outcomes of the asset management plan into the LTFP and annual budgets • Undertake capitalisation process to ensure the asset register is up to date • Provide capacity to capture costs split to maintenance, operational, and capital
Council Staff	• Collect data on the size, location and condition of assets • Capture data on works completed on assets to provide and accurate asset register

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- Undertake capital works to meet the renewal requirements of the assets
 - Undertake operational and maintenance work to minimise the lifecycle cost and meet regulatory requirements
-

4 Current State of Asset Management

This section provides an overview of the current management frameworks and data systems used to support asset lifecycle planning. It outlines the existing methodologies for asset data capture, evaluates the current limitations within these systems, and describes the strategic initiatives underway to improve data accuracy and decision-making capabilities.

Central Tablelands Water utilises Metrix as its Asset Management Information System (AMIS). This system has comprehensive asset data included within it for articulating the number and value of assets that are under Central Tablelands Waters ownership.

However it is not the sole data source for the management of assets, both from a technical perspective, and from a financial perspective. Whilst it covers all water assets, it does not manage the asset finances for the building assets, and does not include any mobile plant within its register.

The hierarchy and subsequent componentisation of assets does not currently allow for detailed renewal or maintenance planning for the water treatment plants given their level of complexity.

Beyond the treatment plants, the asset register presents operational challenges across the broader network. In the legacy structure, pipes are separated entirely from the associated valves and fittings that are just as crucial to providing the service. This makes it difficult to consider the criticality of all assets, as it is not easily understood which valves are attached to the highest criticality trunk mains.

To address these issues, a revised asset classification structure has been developed in accordance with the International Infrastructure Management Manual (IIMM). The proposed hierarchy blends location and functional groupings to reflect how staff naturally refer to sites, minimising operational impact while ensuring assets are grouped by criticality. This updated structure will support work order management in Metrix, enable granular renewal planning, and improve financial reporting. Full implementation is planned for the 2026–2027 financial year to align with the upcoming

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revaluation, allowing assets to be captured and accurately valued at a maintenance-managed level.

The development and implementation of the work order management within Metrix will help with capturing detailed failure information over time. Currently this is captured on a paper based system which, whilst is filled out frequently, does not have consistent information on locations sufficient to identify exactly what asset was worked on. The completion of this information is currently inconsistent and does not enable easy capture of the data.

There is extensive corporate knowledge within the operations team at Council, this has been utilised to help identify key risk locations, whilst understanding how the management of the network is currently constrained by the reality of the current asset conditions.

4.1 Asset Overview

Asset Category	Dimension	Replacement Value
Bores	5	\$747,565.12
Filling Station	7	\$351,075.46
Filtration Site	2	\$17,559,770.30
Lakes	1	\$23,638,013.22
Pump Station	32	\$11,786,335.60
Reservoir	43	\$27,498,050.82
Reticulation	278.321km	\$39,003,229.96
Sealed Road	509m ²	\$70,995.46
Solar	2	\$352,070.62
Telemetry	36	\$728,527.35
Trunk	304.825km	\$73,429,899.28
Trunk Meter	1	\$44,424.41
Total		\$195,209,957.61

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Information on the condition of the assets is provided within Figure 1 and Figure 2 below. Figure 1 identifies asset condition by count, with the majority of assets not being condition assessed. When compared to asset condition by value, there is a singular asset that has a replacement cost assigned to it without a condition assessment. It is the non-depreciable earthwork for the 12ML reservoir constructed at Carcoar Water Treatment Plant.

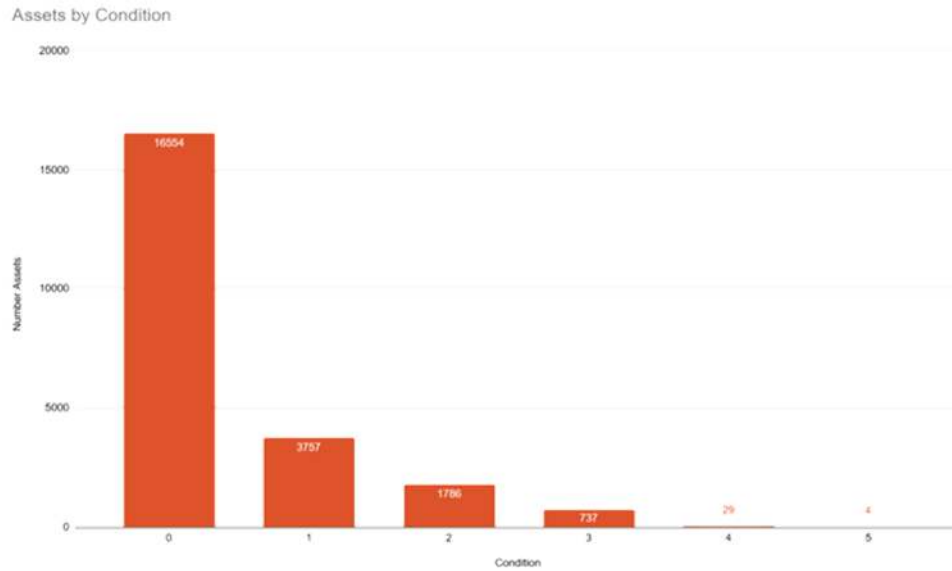
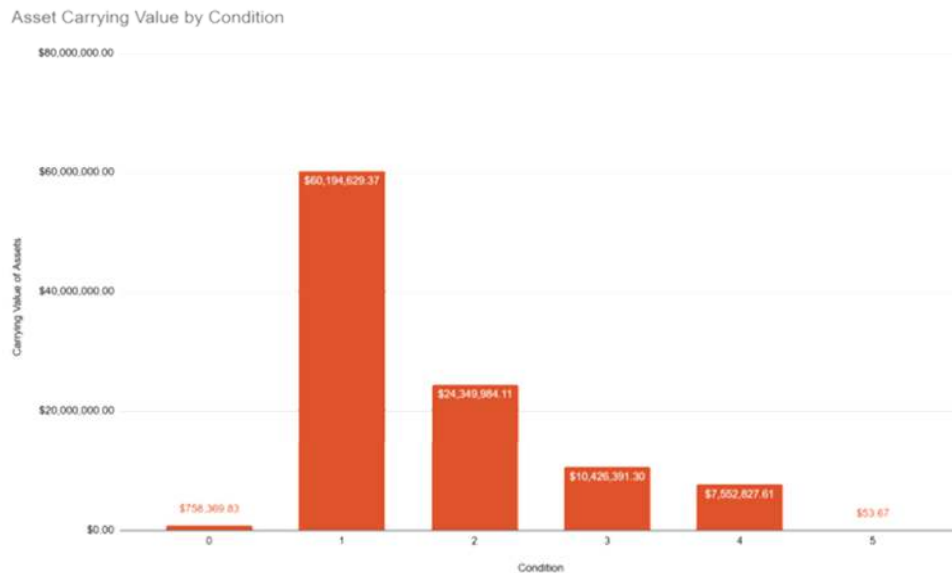


Figure 1: Condition by asset count



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Figure 2: Condition by asset values

5 Levels of Service

Levels of service describe what Council delivers to its customers and how well it delivers it. They connect the outcomes set out in the Business Activity Strategic Plan to the technical decisions made about individual assets, and they are the primary driver of the cost of the service.

Customer levels of service describe the service as the customer experiences it, considering the condition of the asset, whether it functions as expected, and whether its capacity matches use. Technical levels of service translate these into the standards staff work to, and into the intervention levels that trigger maintenance or renewal activity, with each technical standard traceable to either a customer expectation or a regulatory obligation.

5.1 Customer Expectations

Council's customer expectations are for the provision of a reliable water supply that is safe and resilient to drought. For the development of this plan, customer requests were reviewed, and interviews were conducted with Council staff who are also residents within the constituent councils.

From our constituent councils, there are clear values that are shared between them which Central Tablelands Water considers within these levels of service, and its broader strategic planning:

1. Provision of a high quality and reliable drinking water supply
2. Infrastructure is available for business activities
3. Mitigation of our impact on the environment
4. An efficient, sustainable and customer focused organisation

This plan will demonstrate the costs of meeting these expectations over a 30 year horizon, providing data to engage the community surrounding the costs of improving services and drought resilience.

5.2 Customer Levels of Service

Council has developed detailed Levels of Service across four customer types.

They are considered across three categories:

Condition	How good is the service?
Function	Does it meet expectations?
Capacity/Use	Is it under/over used?

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Customer levels of service are considered consistent across all customer types:

Objective	Service Standard	Performance Indicator	Target
Availability of water	We aim to provide enough water so that you can use sprinklers or watering systems for your garden (Level 1 & 2 restrictions) most of the time. Severe restrictions (Level 3+) that ban sprinklers are reserved for major droughts.	Number of complaints for no supply. Number of service interruptions Frequency of water restrictions	Restrictions banning sprinklers occur no more than once every 10 years on average.
Water is clear, and doesn't have taste or odour issues	Water appears clear, clean and meets aesthetic requirements	Number of complaints relating to water quality	Less than 26 complaints per year
Sufficient water flow at the meter	Non-rural customers: The flow from taps is sufficient for normal household use, such as showering and running appliances Rural customers: The flow provided will be sufficient to fill the 20kL tank in approximately 2-3 days	Number of complaints about low flow rate	Less than 3 complaints per year
Reliable water pressure at the meter (excluding rural customers)	The pressure from taps is sufficient for normal household use, such as showering, garden watering Rural customers pressure is dictated by their own pump	Number of complaints about low pressure	Less than 11 complaints per year

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5.2.1 Raw Water Access Levels of Service

Objective	Service Standard	Performance Indicator	Target
Minimise water resource dependant environmental and third-party impacts	100% compliance with the Water Sharing Plan requirements 100% compliance with the work approval conditions	Number of breaches of Water Sharing Plan and Work Approval Conditions	Nil breaches
Projected town water supply extraction is within the upper limit of the water extraction licence	Nil exceedances of licence limits	Annual volume of water extracted	Lake Rowlands – 3,150ML/a Gooloogong Bores – 400ML/a Quandialla Bores – 266ML/a Cudal Bore – 100ML/a Bangaroo Bores – 472ML/a Blayney Wells – 250ML/a

5.3 Technical Levels of Service

Council has developed technical levels of service for four distinct customer types. The Australian Drinking Water Guidelines are a key determining factor for the water quality obligations. These are detailed within the Drinking Water Management System.

The levels of service are fully defined within the adopted **Council Levels of Service**; the residential levels of service are replicated here as an example of the expectation. From data available, availability of water is the biggest gap in levels of service, with modelling showing that water security is an ongoing challenge for Council.

It is noted that due to the extent of the rural network, there are challenges in ensuring residual chlorine across all rural customers. Rural customers' supplies have been classified as non-potable. This plan does not consider improvements to the asset base to resolve this issue.

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5.3.1 Residential Levels of Service

Service Standard	Performance Indicator	Target	Current Performance
Availability of Water			
Level 1 (or worse) restrictions once every 5 years	Frequency of drought related Level 3 restrictions	Not more than once every 10 years on average	Level 1 (or worse) restrictions every 1.2 years
Level 3 (or worse) restrictions once every 10 years			Level 3 (or worse) restrictions every 3 years
Level 6 (or worse) restrictions once every 1,000 years			Level 6 (or worse) restrictions every 9 years
			From draft Sub-Regional Town Water Strategy Hydrology modelling
Fire fighting water available	% of Urban areas by sufficient flow and pressure for fire fighting purposes (defined as 11L/s for 4 hours from any individual hydrant on the network)	100%	Unknown, modelling required
Flow rates	Flow rate provided through to customers	>25L/minute for domestic customers, Note: dependent on distance from reservoir	Compliant
Pressure	Pressure provided through to customers	>20m head when delivering 15L/min Maximum head <60m static pressure Note: Dependent on distance from reservoir	Compliant

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Supply Interruption

Planned interruptions are notified	Notice time provided to customers	Domestic customers and those with meters <50mm diameter: Minimum 48 hours Customers with meters >50mm diameter: Minimum 7 days	New requirement
Unplanned interruptions are responded to promptly	Time taken to repair main breaks and restore service	Service interruption duration: <12 hours for >90% of interruptions	Not specifically measured, but evidence from staff shows compliance

Response time to customer requests

Response times to supply loss	Time taken to deploy team from the depot to address	During working hours: <1 hour Outside working hours: <2 hours	Not specifically measured, but evidence from staff shows compliance
Response times to customer complaints	Time taken to respond to customer complaints	<5 working days for >95% of complaints	Not specifically measured, but evidence from staff shows compliance
Supplied water meets health based requirements of the Australian Drinking Water Guidelines (ADWG)	Conformance with Drinking Water Management System (DWMS)	100% compliance with health based ADWG targets 100% compliance with DWMS with nil Critical Control Point exceedance Nil boil water alerts	100% compliance with ADWG 100% compliance with DWMS Nil CCP exceedances

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Nil boil water alerts

Protect public health

Supplied water meets requirements for fluoride concentration	Conformance with NSW <i>Fluoridation of Public Water Supplies Act 1957</i> and associated regulations	Plant and operational staff 100% compliance with Act and Regulations	100% compliance
		Nil Critical Control Point exceedances	Nil CCP exceedances
Water is aesthetically fit for purpose	Number of complaints about aesthetic parameters	<12 complaints per year	Not measured

6 Future Demand & Demand Management

Demand for the service changes over time which results in an impact to the asset base. Population growth, development activity, demographic change, regulatory change, and changing customer expectations all alter what is asked of Council's assets.

Forecasting that change determines where existing assets will reach capacity and require augmentation, and where new assets will be acquired, whether constructed by Council or contributed by third parties. Both carry a long term financial obligation, given they add to the operating, maintenance and renewal burden for the whole of their life. Declining demand does not reduce the asset base proportionately, as the infrastructure serving an area generally remains in place whilst the revenue base supporting it contracts.

Demand management options are considered before capital augmentation in every case, and where they are capable of deferring an upgrade, the extent of the deferral and its limits are stated so the timing of the eventual investment remains visible. Failure to forecast demand accurately will result in capital being committed ahead of need, or assets reaching capacity before the funding to augment them has been provided for.

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6.1 Demand Forecasts

The demand on services is projected to increase over the next 30 years as a result of population and industry growth aligned with constituent councils long term planning strategies.

Council has undertaken a number of studies over the years into the likely demand on their services into the future:

- 2013 - Joint Integrated Water Cycle Management Detailed Strategy Study
- 2021 - Drought Management Plan
- 2021 - Demand Management Plan
- 2021 - Developer Servicing Strategy
- 2025 - Sub Regional Town Water Strategy

All plans have forecasted growth over the next 30 years, with the Developer Servicing Strategy forecasting 30 equivalent tenements (ET) per year, and the balance expecting 0.7% growth per annum.

A review of the growth strategies for the constituent councils suggests that the growth in users will be focused in Blayney, Millthorpe, and Canowindra, all with expected growth rates greater than 1% per annum.

The Blayney Shire Settlement Strategy forecasts 560-640 dwellings over 15 years, or approximately 40 ET per year across the shire. Blayney and Millthorpe are expected to dominate the demand for this growth.

6.1.1 Blayney Growth

Blayney Shire Council are currently reviewing development options for south Blayney on land adjacent to Prices Lane and Hills Lane. This development has the potential for approximately 790 dwellings. Applying this along the base line forecasted growth results in an estimated 1,151 new dwellings (a 93% increase) for Blayney over the next 30 years. It is acknowledged that this is contingent on the outcome of the Kings Plains Gold Mine.

The capacity of the Blayney Water Treatment Plant is sufficient to manage this growth, however it is nearing the end of its useful life. To ensure future supply is available, there will be a need for a trunk main connecting from the Mid-Western Highway through to the reservoir at the treatment plant. It is proposed to dispose of the Blayney Water Treatment Plant in 2034 as it reaches its end of life, transitioning to the Carcoar Water Treatment Plant.

Analysis was completed by NSW Public Works on the Blayney reticulation network to understand its capacity to accommodate this growth. There are

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challenges on a number of trunk mains that require monitoring and potential upgrading as growth occurs.

6.1.2 Millthorpe Growth

Millthorpe is also experiencing high growth rates that do not appear contingent on any external factors. It is estimated that an additional 203 (a 70% increase) new dwellings are expected to be constructed over the next 30 years. To ensure supply to the development areas in North Millthorpe, additional mains will be required to ensure an adequate supply.

Millthorpe is not able to fully utilise its reservoir capacity due to the fragility of some of the old pipes within Millthorpe. This risk is being mitigated currently by maintaining the reservoir level at no higher than 70% capacity. This reduces redundancy in the system, increases the criticality of the Millthorpe reservoir, and means Council is underutilising this asset.

6.1.3 Canowindra Growth

Canowindra is experiencing moderate growth compared to Blayney and Millthorpe, but the growth is mostly occurring on the edge of town. An additional 245 (a 35% increase) new dwellings are expected to be constructed over the next 30 years.

This growth will place a strain on the capacity of Trunk Main C which runs from Mandurama through to Gooloogong, as the main spine of Councils network,

6.1.4 Industrial Growth

Council is aware of two approved industrial projects that are expected to increase water demand at Manildra and Grenfell. Both of these projects rely on flow through Trunk Mains A, B & C to supply water to them.

Trunk Main A provides raw water from Lake Rowlands to Carcoar Water Treatment plant, it is a gravity main so its capacity is contingent on the level of Lake Rowlands. Modelling indicates that it is unable to provide for the current peak day throughout the whole of Lake Rowlands capacity. This restriction has been offset by the use of the Gooloogong Bores during peak periods. Trunk Main A is approaching the end of its useful life from both an asset age perspective and a capacity perspective.

Trunk Mains B & C are the main spine that feeds the majority of Councils customers.

Similar to Trunk Main A, they are at or above capacity on the current peak day, again with Gooloogong Bore offsetting this restriction.

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This growth is estimated at 1.2% pa over the 30 year horizon, which has been used for forecasting acquired asset growth.

Previous strategic documents considered extending the reticulation network to provide service for new villages. Given recent analysis into available water yield, and this update to Council's asset management plan, it is not feasible for Council to extend the network into new villages. It would be cost prohibitive, and result in more frequent restrictions for customers.

6.2 Meeting Demand

6.2.1 Water Yield

A key risk identified in each of the long term demand forecasts is the future water yield available to Council is not able to meet the expected customer demand. This would result in more frequent water restrictions over time.

There are opportunities to reduce water loss across the distribution network which will give a gain towards meeting the demand. The Demand Management Plan may be able to provide additional reductions in demand, but it is not expected that it will resolve the issue.

To meet demand over the next 30 years will require capital investment in:

- Acquiring or improving additional water sources
- Increasing the storage capacity of Lake Rowlands
- Capital investment into regional water sharing across neighbouring councils

To this end, there are two projects currently underway; Belubula Water Security Project, and preparation of a Preliminary Business Case for the Central Tablelands Regional Water Supply Grid (CTRWS).

The Belubula Water Security Project recognises the water security challenges that faces the region, and is considering opportunities to strengthen the resilience and increase the yield across the Belubula Valley. Options currently being considered are:

- a new pipeline between Lake Rowlands Dam and Carcoar Dam to transfer up to 2 gigalitres of water per year, capturing spills and boosting supply.
- raising the Lake Rowlands Dam wall to increase storage from 4.5 gigalitres to 8 gigalitres.
- building a new dam 2.5 kilometres downstream of Lake Rowlands.

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- connecting the Belubula and Macquarie valleys through an interregional pipeline.

The CTRWS is considering better use and sharing of water resources between Council, Orange City Council and Cabonne Council through the interconnection of water sources. It is expected that, through the optimisation of the use of the various water sources across all three councils, improvements in yield will be realised.

6.2.2 Network Capacity

Given the age of the trunk and reticulation network, there are sections of the network that are approaching their capacity. An assessment of the two water treatment plants completed by City Water Technology confirms they are capable of meeting future demand with some key upgrades.

For Carcoar Water Treatment Plant the key constraints are construction of additional sludge drying beds, and an upgrade of the fluoride system to ensure it has sufficient capacity to meet the expected flow rates.

For Blayney Water Treatment Plant, its age and condition of key treatment processes is the primary factor determining its remaining useful life. This plan proposes to dispose of the Blayney Water Treatment Plant alongside an upgrade to Carcoar Water Treatment Plant in 2034 to ensure capacity into the future.

There are three key trunk mains that are approaching capacity; Trunk Main A feeding Carcoar Water Treatment Plant, Trunk Main B from the Carcoar Water Treatment Plant to Mandurama, into Trunk Main C that feeds through to Gooloogong, feeding the majority of the villages within the council area.

These trunk mains are a constraint on the volume of water that is able to be transported through the network on a peak day. Gooloogong Bore is used to mitigate this constraint, by reducing the demand on these trunk mains. However, with the proposed industrial growth in particular, Trunk Main A is expected to become the key constraint given the variability in its flow rate is dependent on the level of Lake Rowlands.

These three trunk mains are approaching their end of useful life from both an age and capacity view. The replacement of Trunk Main A is planned for renewal by 2030, with the replacement of Trunk Main B and Trunk Main C to Canowindra planned for renewal in 2036.

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Analysis was undertaken for the reticulation networks of Blayney, Canowindra, and Millthorpe by NSW Public Works to ascertain the impact of the expected growth on these high growth areas. There are constraints that will become apparent as these towns grow. These impacts have not been considered within this plan, but will be considered as part of an update to the Development Servicing Plan.

7 Risk Management Plan

Within asset management planning, risk tolerance is a management tool available to change the required whole of life costs. A low risk tolerance for critical assets will increase whole of life costs through prioritising renewals earlier prior to failure. Where a higher risk tolerance would stretch the useful life prior to renewal, reducing whole of life costs.

Not all assets hold the same consequence of failure. It is important through asset management planning to identify those critical assets that would prevent, or materially reduce, Council's capacity to deliver its service. These assets should be prioritised for renewal and maintenance works to reduce the likelihood of a failure that may result in a loss or reduction in service, reputational impacts, or financial shock.

7.1 Risk Assessment Approach

The risks recorded in this plan are those that affect Council's capacity to deliver its adopted levels of service from its asset base, and those that affect the deliverability of the plan itself. They have been assessed using Council's adopted risk management framework, applying the same likelihood and consequence scales used across the organisation so that asset risk can be reported alongside all other business risk without translation.

Risk in this plan has three sources. The first is the assets themselves, where age, condition or capacity constrains the service that can be delivered. The second is the assumptions the plan rests on, where a change in grant funding, growth or input cost changes the affordability of the program. The third is the confidence in the data underpinning the forecast, addressed in the Confidence Assessment and carried into this register where it is material to a decision.

The following are not assessed in this plan and are recorded in the documents noted:

- Enterprise, operational and emergency risk, including incident response and business continuity, is assessed in Council's Risk Assessment and Business Continuity Plan.

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- Chlorine residual and water quality at the rural network extremities is carried in the adopted Levels of Service, which classifies rural supply as non-potable.
- Workforce capability and the resourcing required to deliver the capital program is assessed in Council's Workforce Plan.

Risk Matrix

Likelihood	Consequence					
		Insignificant	Minor	Moderate	Major	Catastrophic
	Almost Certain	MEDIUM	HIGH	HIGH	EXTREME	EXTREME
	Likely	MEDIUM	MEDIUM	HIGH	HIGH	EXTREME
	Possible	LOW	MEDIUM	HIGH	HIGH	HIGH
	Unlikely	LOW	LOW	MEDIUM	MEDIUM	HIGH
	Rare	LOW	LOW	MEDIUM	MEDIUM	HIGH

The detailed risk assessment is provided within Appendix A.

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7.1.1 Risk Assessment

Description	Consequences	Risk Rating	Treatment	Residual Risk Rating
Available yield is insufficient to meet the adopted availability of water level of service	Water restrictions are more frequent and severe over time	Extreme	Lake Rowlands dam wall raising Belubula Water Security project Central Tablelands Regional Water Supply Grid Project Barrangaroo Bore Upgrade Orange & Cowra interconnections	High
Grant funding assumed in this plan is not secured	Asset renewals and acquisitions will be unable to be completed within the expected schedule, potentially leading to reductions in service	High	Advocacy to government Participate in project developments	High
Trunk Mains A, B and C reach capacity on a peak day before replacement is delivered	Water supply becomes constrained, resulting in having to delay development, or restricting usage.	High	Seeking grant funding for Trunk Main A replacement Use of Gooloogong Bore to mitigate peak days Work with new developers to mitigate peak loads	Medium
Pipe network failures accelerate	Pipe failures result in increased spending and reduction in service levels	High	Renewal planning is kept flexible Manage reservoir levels and pump stations to manage pressure	Medium
Renewal timing is materially incorrect due to unreliable asset condition data of underground assets	Assets are replaced prior to the most efficient timing, resulting in an increase in whole of life costs	High	Capture better failure information to enable better targeting of renewals Undertake pressure and flow monitoring to better target growth areas	Medium

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Renewal costs exceed the gross replacement costs as applied in years 11-30 in the modelling	Costs increase above modelled funding, resulting in reduced renewal rates and increased failures	Extreme	Improve cost knowledge through first 10 years of program Review costs in future iterations of the AMP Modelled impacts of increased costs	Medium
Growth occurs at a rate or in locations the network cannot serve	Inability to service developments if they occur too fast, challenges in funding key infrastructure if development doesn't fund appropriate upgrades	High	Development Servicing Plan update to capture appropriate costs Liaison with constituent councils to ensure planning decisions are considered in budgeting	Medium
Failure of critical asset with no redundancy	Unable to deliver required levels of service, may have to cease sending water to the network from a treatment plant	High	For treatment plants - there is a level of redundancy between plants Ensure critical assets are monitored and maintained regularly Purchase of cold spares Alternative options for redundancy (e.g. chlorine tablets at Blayney WTP)	Medium
Climate change reduces the yield into Lake Rowlands impacting water security	Reduced inflows into Lake Rowlands resulting in more frequent, more severe water restrictions	Extreme	Lake Rowlands dam wall raising Belubula Water Security project Central Tablelands Regional Water Supply Grid Project Barrangaroo Bore Upgrade Orange & Cowra interconnections	Medium
Raw water quality in Lake Rowlands deteriorates, exceeding sludge handling capability at Carcoar and Blayney Water Treatment plants	Reduction in capacity to treat water, or increased costs for disposal of sludge	High	Investigate funding opportunities for improved sludge handling construction Undertake pumping of sludge lagoons	Medium
Asset data does not support lifecycle decision making	Renewals may be planned without appreciating the whole cost of the asset due to a lack of linkages between valves and mains.	High	Revised asset classification within Metrix to better demonstrate interconnections between assets	Medium

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Insufficient level of detail with water treatment plants makes it difficult to monitor age and condition of critical components

Bring buildings into Metrix and cease managing the finances of them separately
Implement work order management system within Metrix, replacing historic paper based system that didn't capture sufficient detail.

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7.2 Critical Assets

Critical assets are those that are essential for Council to provide potable water to its customers. It is common within the water sector to provide for redundancy in the design and construction of water assets, however it is not always possible, or affordable, to provide redundancy for all items.

It is common that there are individual assets providing services to customers with no redundancy. That does not mean they are inherently critical assets. An assessment has been undertaken to consider the criticality of assets across the network, looking at the probability of failure, the consequence of failure, and the ease of repair.

Council manages the following critical assets:

- Lake Rowlands
- Carcoar Water Treatment Plant
- All Trunk Mains
- Reservoirs without redundancy at
 - Manildra
 - Cudal
 - Cargo
 - Gooloogong
 - Eugowra
 - Millthorpe
 - Lyndhurst
 - Mandurama
 - Carcoar
 - Moorbel

Blayney Water Treatment Plant is not considered a critical asset due to the interconnectivity with Carcoar Water Treatment Plant. Whilst a failure at the Blayney Water Treatment Plant is a major concern, it would not prevent Council's capacity to deliver potable water, but it may result in some restrictions.

Lake Rowlands is a declared dam under the *Dams Safety Act 2015* so has legislated requirements on its management that directly impacts asset management planning. Council has implemented a robust framework to ensure compliance with this legislation, with actions translated through to asset management plans.

7.3 Climate Change

The impacts of climate change are expected to increase peak demand and evaporation due to an increase in days greater than 35°C, whilst decreasing annual yields through a 25% reduction in inflows.

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The National Climate Risk Assessment has identified potential impacts to raw water quality that may impact on the capacity for Council to adequately treat its water supply. This has been investigated through a detailed assessment completed by City Water Technology for both Blayney and Carcoar Water Treatment Plants.

Changes in raw water quality are not expected to impact the efficacy of the treatment plants in treating the water to the required standard, rather it will increase the sludge loading due to the requirement to remove more foreign material from the water. For Carcoar Water Treatment Plant in particular, this results in the need for additional sludge drying capacity.

There are also increased risks through interdependency failures of other critical infrastructure such as power. Extreme heat may overwhelm power networks, resulting in a loss of power on peak water consumption days that needs to be considered.

The changing rainfall patterns may also increase the challenges with dam safety at Lake Rowlands, with increased runoff from large events imposing increased loads on spillways and dam walls. An assessment is underway for the risk factors associated with the dam in accordance with the requirements of Dam Safety NSW.

7.4 Service Trade Offs

Given the age and fragility of the reticulation network, particularly with ageing asbestos cement pipes, Council has historically reduced the pressure of critical areas of the network. This helps to extend the useful life of the assets through reduction in the operating pressure resulting in fewer pipe breakages.

This is an effective management tool, but it does result in the following service trade offs:

- Reduced pressure for customers
- Reduced flow for customers
- Constraining growth through reduced flow
- Constraining growth due to a reduction in possible supply area through reduction in pressure
- Reduction in active storage within reservoirs reducing the available buffer

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8 Life Cycle Planning

This section sets out what it costs Council to own its assets over the 30 year planning period. That cost is incurred through five activities.

- Acquisition creates or purchases new assets, or upgrades existing assets to provide additional capacity or a higher level of service.
- Operations covers the activities required to run the asset and deliver the service
- Maintenance retains the asset in an operable condition for its expected life.
- Renewal restores an asset at the end of its life to its original service potential without increasing its capacity.
- Disposal covers decommissioning, demolition and remediation, and removes the asset from the ongoing operating and renewal forecast.

These activities interact, and the interaction is where the money is. Decisions made at acquisition determine the majority of the cost incurred across the remaining life of the asset, maintenance and renewal trade against each other, and deferring renewal beyond a certain point increases maintenance and failure costs faster than it saves capital.

Within this plan, renewals are planned and budgeted to meet the expected future demand. The distinction between this and acquisitions is that acquisitions provide for either an increase in service (greater pressure, reduction in restrictions) or are wholly new assets to service new or future customers.

Council will forecast each activity separately, then combine them into a total annual funding demand for comparison against the expenditure provided within the Long Term Financial Plan, quantifying any difference by year and expressing the consequence of a shortfall in terms of service, risk and backlog alongside the dollar figure.

8.1 Operations & Maintenance Plan

Operations expenditure are all activities required to utilise the assets to provide the service to customers. For Council providing potable water, it includes electricity costs, water licencing costs, chemical costs, compliance costs, groundskeeping, and asset inspection costs.

Maintenance expenditure are all activities required for retaining an asset as near as practicable to an operable service condition. Maintenance expenditure is undertaken to ensure that assets achieve their expected useful life whilst delivering the service. It includes repairing mains breaks, servicing pumps, or exercising hydrants and valves.

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Over the preceding three years, total expenditure on maintenance and operations has reduced marginally.

Financial Year	Operations Cost	Maintenance Cost	Total
2022-2023	\$1,315,113	\$1,386,422	\$2,701,535
2023-2024	\$1,386,191	\$1,441,837	\$2,828,028
2024-2025	\$1,170,275	\$1,253,464	\$2,423,739

Expenditure is reported against the following categories:

- Breakages & Leaks
- Hydrant/Stop Valves
- Locations
- Maintenance
- Restorations
- Services
- Air & Scour Valves
- Chemicals
- Flushing
- Operations

Analysis of the changes in costs demonstrates that repairs of breakages have remained relatively consistent across the three years, varying between \$136,000 and \$149,000.

Through the review of levels of service in 2025, it was determined that maintenance and operations targets have been met historically. Therefore current operational costs have been assessed as sufficient to meet the adopted levels of service.

Current maintenance and operations expenditure are both approximately at 0.6% of asset value. This figure has been used as a benchmark for the additional maintenance and operational costs expected through the duration of the plan. Given an estimated 1.2% growth per annum in assets, alongside distinct acquisitions to increase capacity, maintenance and operational costs are forecasted to increase from \$2,674,000 in 2027 to \$3,483,000 by 2057. This is shown below in Figure 3.

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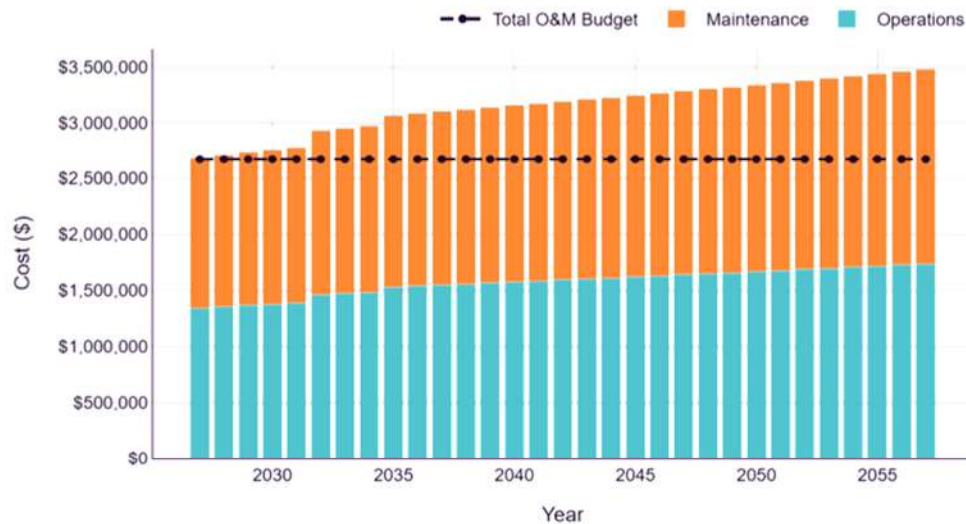


Figure 3: Forecasted Maintenance spend

Specific acquisitions as part of this plan have also had their impact on maintenance and operations considered based on their value and relative maintenance requirements. Lake Rowlands upgrade has been placed with a low additional impact on operations and maintenance, as there is a negligible change as a result of raising the wall.

8.2 Renewal Plan

Renewal expenditure is major work which aims to restore, rehabilitate or replace assets at the end of their useful life to return them to their original service potential. It does not include increases in service level, or coverage of new areas.

Detailed condition assessment has been completed on all aboveground infrastructure, with remaining useful lives developed for use on renewal planning.

Condition data for underground pipes is of questionable accuracy. 92% of pipes are shown as in good condition (condition 1 or 2) in comparison to 43% of the rest of the water assets. Given the age of the network, it is considered unlikely that the condition assessment is representative of the piped network.

For underground pipe infrastructure, which makes up >55% of assets by value, works have been prioritised based on the knowledge within Council staff around where their greatest risks are seen. An analysis of repairs has demonstrated that the majority of failures occur within the aging asbestos cement (AC) pipe network. With a total of 63.4km with less than 35 years remaining life, these pipes

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within the reticulation network have been prioritised for replacement through the initial 10 years of this plan.

Additional failure drivers have been identified and added to the data set to enable further analysis, however at this stage there is insufficient failure data to utilise to undertake a more detailed analysis.

Beyond the AC network, renewals have been planned for key risk trunk mains, with Trunk Mains A and B planned for replacement within the 10 year horizon, and key sections of Trunk Mains C and U planned for replacement.

Beyond the 10 year horizon, renewals have been planned purely on age, with a targeted renewal condition of 4.5 (where 1 is new, and 5 is failed)

Over the 30 year planning period, this results in an average renewal cost of \$3,756,000 per year, with the first 10 years of the plan averaging \$5,346,000. The budget is shown below in Figure 4.

The total demand line shown below is based on the age of the assets, where it is below the budget it is demonstrating assets coming off of the backlog, where it sits above the budget it is adding to the backlog. The backlog is discussed more later in this section.

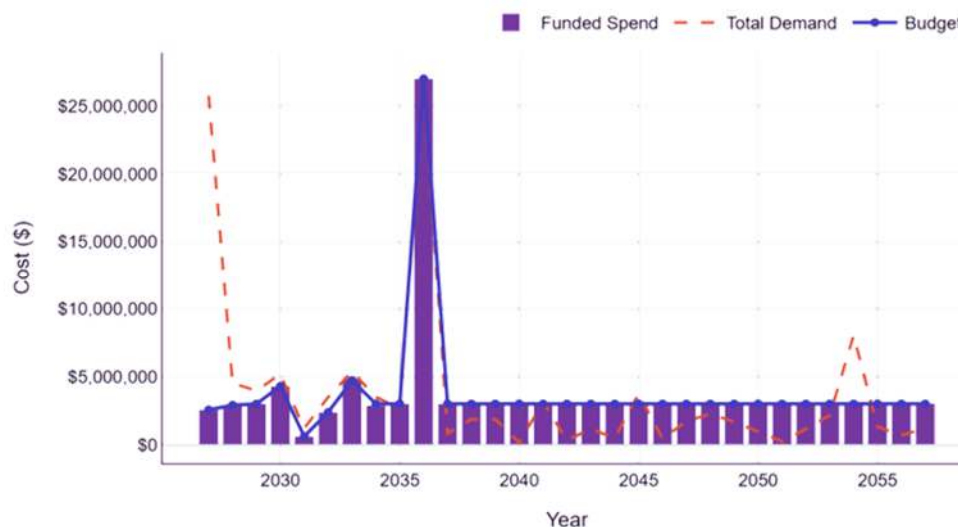


Figure 4: Renewal budget

In this assessment, the disposal of the Blayney Water Treatment Plant, and the upgrade to Lake Rowlands have been captured as acquisitions against the Carcoar Water Treatment Plant and Lake Rowlands respectively.

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Renewals have been planned to align with Council's budget long term, with assets tracked against the backlog. Assets enter the backlog through an age based condition estimate, entering the backlog at condition 4.5. This results in assets entering the backlog when they are 87.5% of the way through their useful life.

This level of funding, aligned with the current age of the assets, shows the backlog rising from \$24.29 million in 2027, up to \$32.21 million in 2033, before consistently reducing through to 2057. This indicates that the long term funding is sufficient for the renewal of assets over the 30 year horizon. This is shown in Figure 5

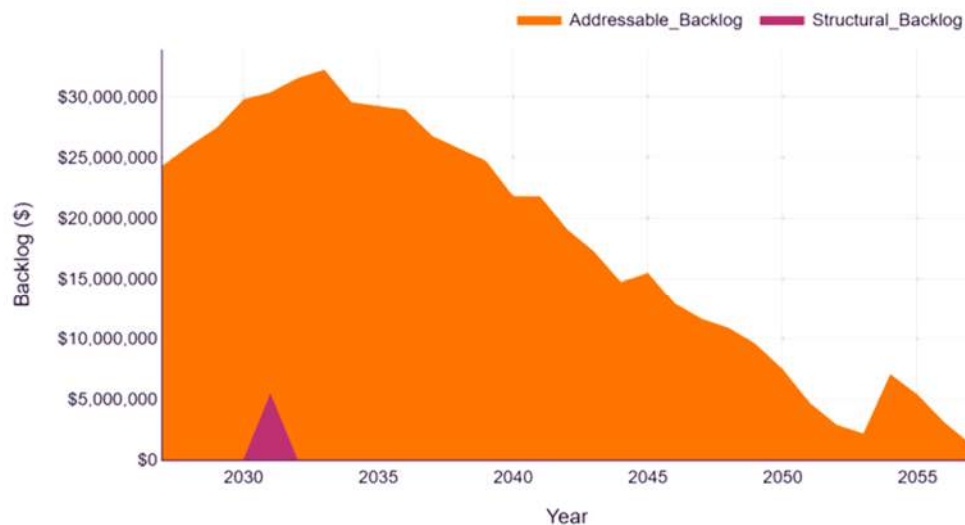


Figure 5: Asset backlog over time

The condition of assets changes over time throughout the plan as well, a forecast has been made using the same linear degradation model to predict condition over time. This is shown in Figure 6

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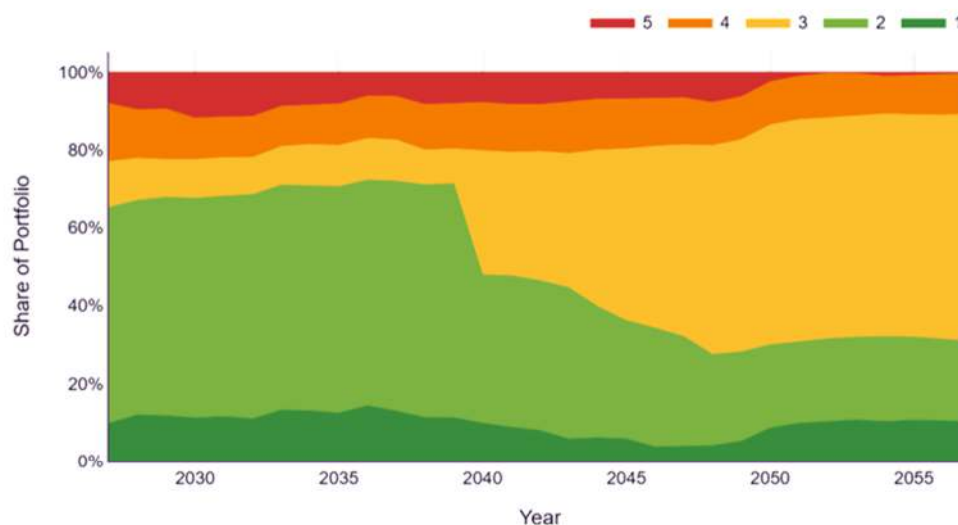


Figure 6: Condition over time

Note this is based solely on the age of the asset, which represents a linear degradation. With the data that is available, this should be considered as an indication of the trend of the deterioration, rather than an accurate predictor of exactly when an asset would move through the condition range.

This shows an increase in assets considered in condition 5 based on age in the early years of the plan, before reducing to near zero by the end of the 30 year period. This is commensurate with having sufficient renewal funding in the long term.

8.3 Acquisition and Upgrade Plan

Acquisitions are those assets that are proposed or required to be constructed to increase in the levels of service, or explicitly to service new developments.

Given the forecasted strong growth in Blayney, Millthorpe and Canowindra, alongside the climate impacts reducing expected secure water yields, there is extensive work required to expand or upgrade existing assets to ensure Council is able to deliver adequate services.

In addition to the work required to improve the yield and reliability of the system, there are works required to modernise Council's meter fleet and telemetry to enable better data collection and monitoring.

Ongoing maintenance and operational costs need to be considered into the longer term. The modelling in this plan considers the annual renewal

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requirement, and has adopted 0.6% of the capital cost as an increase in operational expenditure for growth assets donated from subdivisions., aligning with the current ratio of operational expenditure to asset value.

Extensive work has been undertaken on modelling:

- Water security
- Treatment plant capacity
- Network capacity

This has demonstrated that the following key items are required to ensure the capability of Council to deliver on its adopted Levels of Service.

Acquisition	Purpose	Forecast Year	Capital Cost	Useful Life
Lake Rowlands Expansion	Improve water security to meet Levels of Service targets	2030-2031	\$66,000,000	100
Telemetry Upgrades	Improve efficiency in management of network and to improve data capture	2027 - 2029	\$600,000	20
Trunk main to Blayney Reservoir	Enhance redundancy of trunk main network, and prepare for disposal of Blayney WTP	2031	\$1,000,000	80
Gooloogong Bore - New Bore	Improvement in redundancy	2031	\$1,180,000	30
Bangaroo Bore - Upgrade to operational	Improve water security to meet Levels of Service targets	2027	\$150,000	30
Upgrade to Carcoar WTP to increase capacity	Enable capacity for disposal of Blayney WTP	2034	\$15,300,000	60

Lake Rowlands, Gooloogong Bore, and the upgrade to Carcoar Water Treatment Plant are contingent on grant funding to enable their delivery within this plan.

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If grant funding is not achieved for these projects, water yield will continue to be a challenge, with water restrictions continuing to be in place in line with our current performance.

If grant funding is not available for the upgrading of the Carcoar Water Treatment Plant, an assessment will need to be made on the costs required to increase the life of the Blayney Water Treatment Plant, or other works will have to be deferred to enable this to be funded.

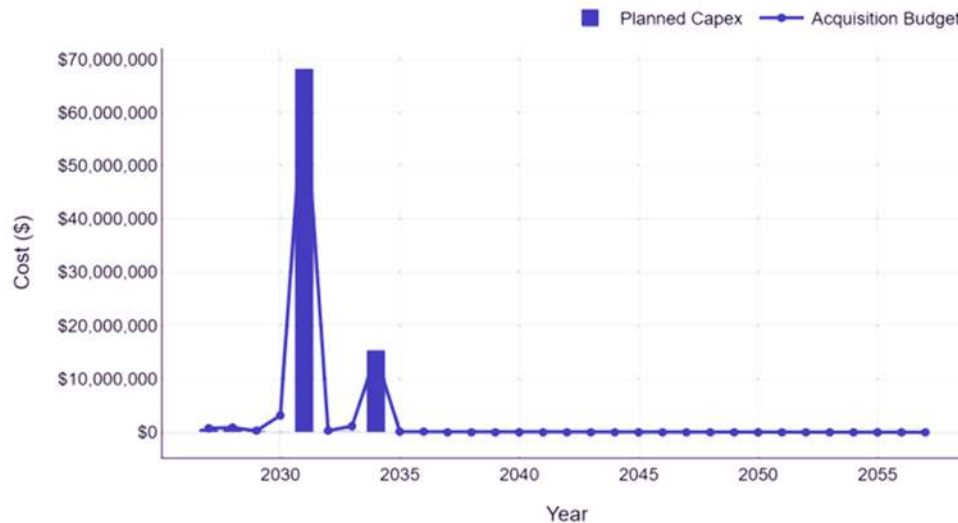


Figure 7: Acquisitions budget over time

8.4 Disposal Plan

Throughout the duration of this plan there is a key disposal required in the proposed retirement of the Blayney Water Treatment Plant to consolidate its production within the Carcoar Water Treatment Plant, scheduled for 2034.

Further to this, the disposal of multiple water filling stations is currently proposed throughout this plan. Analysis has demonstrated that on a whole, they are not recovering their costs, resulting in a cross subsidy that contravenes Council's revenue policy. It is proposed to maintain two of them over the duration of the plan, with the remaining four expected to be retired in 2040 and 2041 based on their 20 year life.

8.5 Lifecycle Asset Costs

Affordability of this plan is considered using two key indicators:

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- Asset Renewal Funding Ratio (ARFR) - the ratio of funded renewals versus the modelled demand for renewals over the 10 year, and 30 year plan
- Lifecycle funding ratio - the ratio of total budget versus the modelled budget over the 10 year and 30 year plan.

The estimated average annual funding demand for the next 10 years is \$19.76 million per annum contrasted against an annual budget of \$16.67 million, this results in a funding gap averaging \$3.09 million per annum.

Over the 30 year horizon the situation is improved, the estimated average annual funding demand over 30 years is \$9.74 million contrasted against a budget of \$9.22 million per annum. This results in a funding gap averaging \$521,000 per annum.

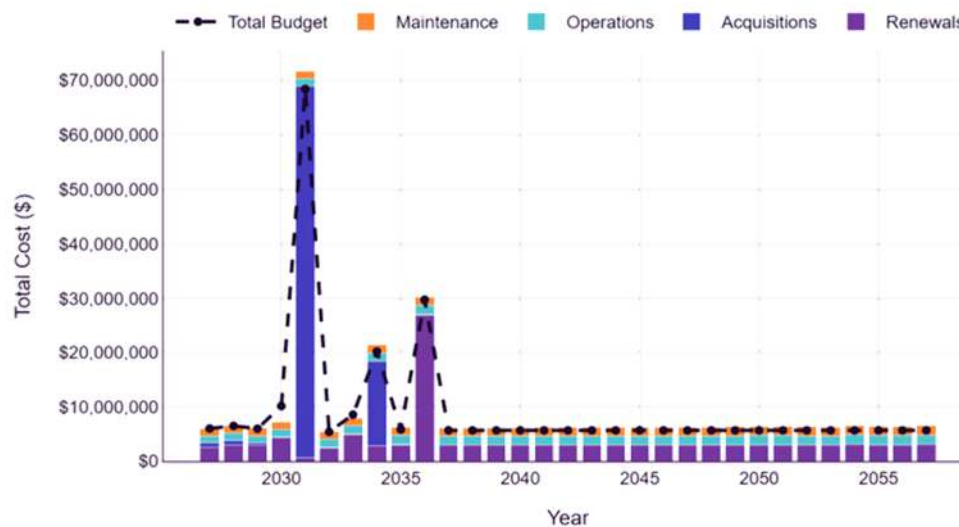


Figure 8: Total annual forecast

Between year 11 and 30, the gap is closing, as shown in Figure 9 below, showing the cumulative gap in renewal expenditure.

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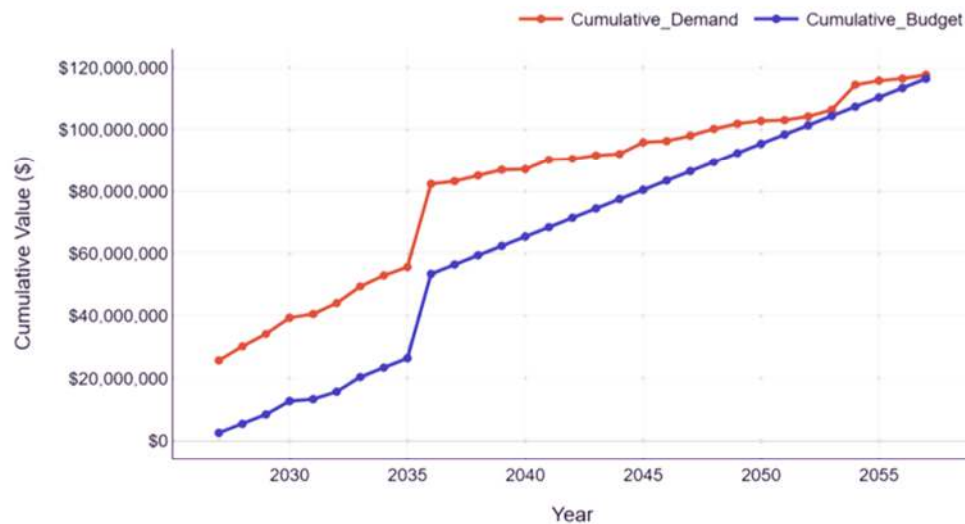


Figure 9: Annual gap in renewals over time

8.5.1 Asset Renewal Funding Ratio

This plan demonstrates an improvement in the ARFR over the period of the plan. The initial 10 year assessment is impacted by the initial backlog of \$24.29 million of past due renewals.

This backlog is proposed to be addressed over the longer 30 year period of the plan, with renewals the ratio improving to near 100% at the end of the 30 year period, whilst still trending towards 100%.

Over 10 years the renewal budget is \$53.46 million, and \$113.46 million over 30 years.

10 year ARFR = 64.9%

30 year ARFR = 97.4%

A key risk within this is \$24.4 million of renewals are planned to be funded through grants in part with \$17.25 million in grants in the first 10 years of the plan. Failure to achieve grants for these items results in the following performance:

10 year ARFR = 43.9%

30 year ARFR = 82.6%

The trend of improvement still continues into the long term, but the results within this plan's timeframe are worse.

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Figure 10 shows the outcome of loss of grant funding.

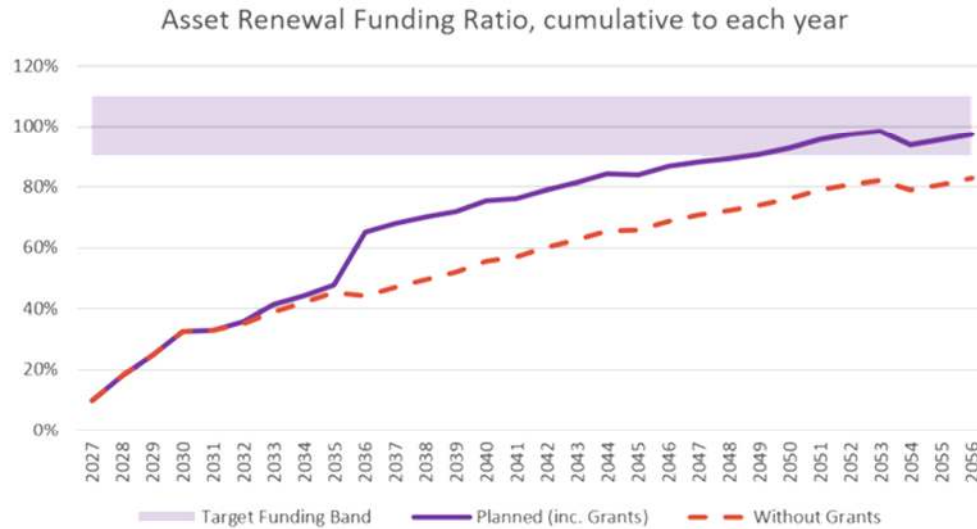


Figure 10: ARFR by year over the duration of the plan

8.5.2 Lifecycle Funding Ratio

This plan forecasts expenditure across the entire lifecycle of assets, adding the cost of acquisitions, operations and maintenance costs across the plan horizon.

Over 10 years the lifecycle budget is \$166.69 million, and \$280.17 million over 30 years.

10 year LFR = 84.1%

30 year LFR = 92.2%

Building on the grant risk from the asset renewals, the lifecycle budget considers \$85 million in grants in the first 10 years of the plan (this is inclusive of the \$17.25 million in renewal grants). This has a material impact on the affordability of the plan:

10 year LFR = 41.2%

30 year LFR = 64.2%

The trend is moving towards sustainability, but the \$85 million in grants is 51% of the total 10 year expenditure. The impact of this is substantial to the affordability of the plan (Figure 11). The key acquisition and grant that dominates this is the \$60 million grant for Lake Rowlands upgrade and strengthening.

Water Supply Asset Management Plan 2027-2056

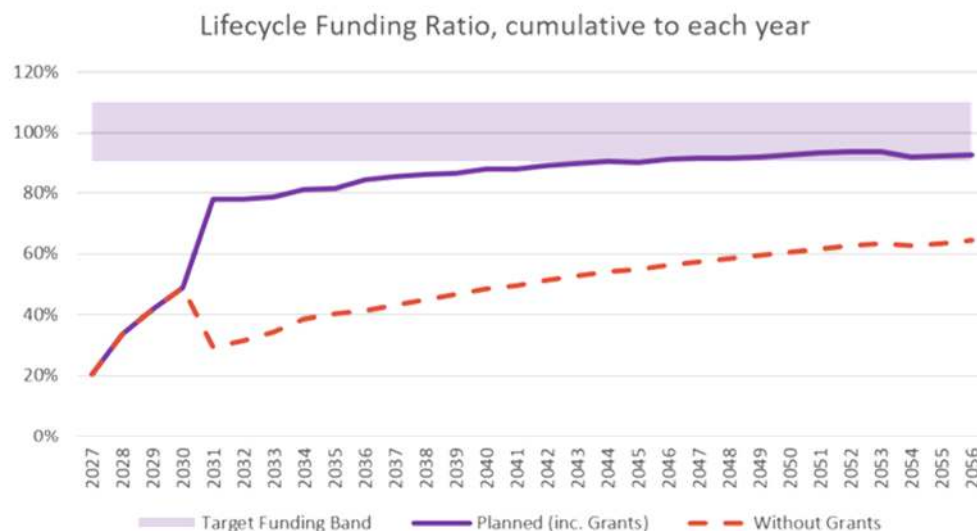


Figure 11: LFR by year over the duration of the plan

This demonstrates that funding for Lake Rowlands is a critical risk to the sustainability of this plan, and poses a substantial risk to Council if it is unable to achieve grant funding for this crucial piece of infrastructure.

8.6 Sensitivity Analysis

Further to this adopted analysis, additional analyses were completed out to a 50-year horizon using this data set, alongside a secondary 30-year analysis where the costs of renewals is increased above the NSW Reference Rates Manual: Valuation of Water Supply, Sewerage and Stormwater Assets - Published by NSW Office of Water.

8.6.1 50 Year Forecast

The modelling within this plan was extended to 50 years to identify any potential trends beyond the 30-year horizon. It is recognised that forecasts out this far can only provide an indication of directional changes and should not be utilised as a budget.

Figure 12 below shows that renewal demand continues the 30-year trend, staying below the \$3 million a year renewal budget that is available over the long term.

Water Supply Asset Management Plan 2027-2056

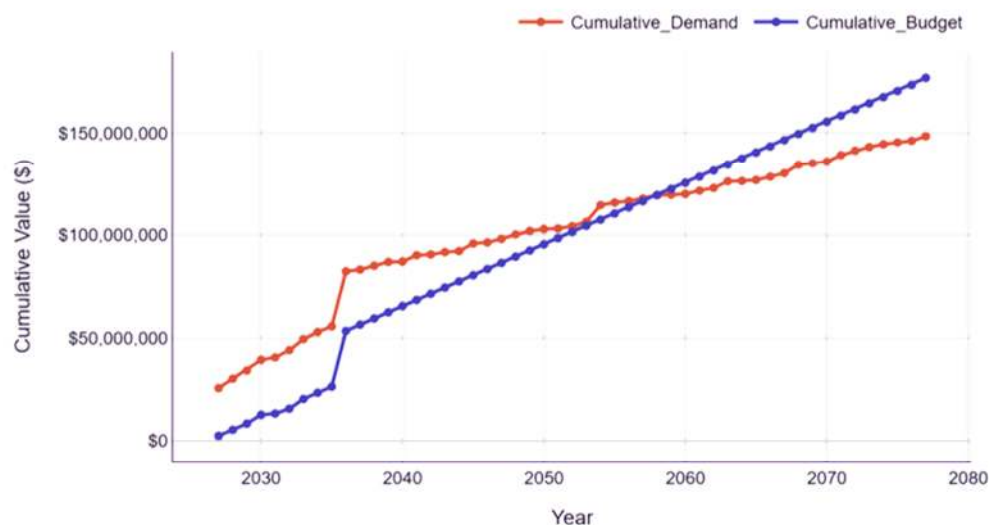


Figure 12: 50 year capital expenditure gap

This is further reflected in the ongoing backlog, with no assets forecasted to be within the backlog over the longer term as shown in Figure 13 below.

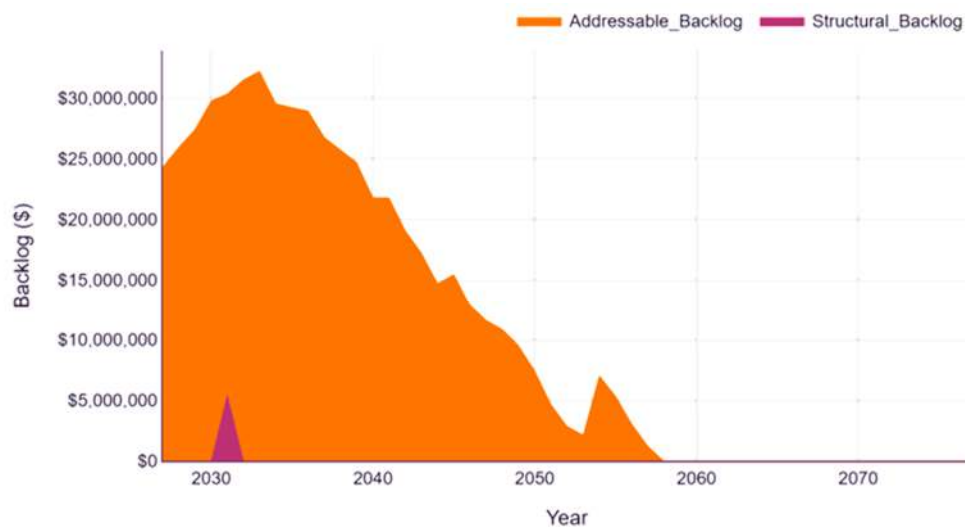


Figure 13: Backlog estimate over 50 years

8.6.2 Increased Cost Scenario

A scenario was also completed assuming higher costs for delivery on the basis of the preliminary information received for Trunk Mains A, B and C. Costs for this method vary dependent on the exact pipe diameter, and how the

Water Supply Asset Management Plan 2027-2056

replacement costs have historically been determined within the asset register, but overall, the value of pipe renewals increased by 73.9%. This was also run over a 30 year and 50-year horizon, the 50 year analysis is presented here.

The increase in renewal costs impacts the value of the backlog both from a greater value being overdue at the start of the period, and a reduction in renewals throughout the period. The backlog starts at \$36.84 million in 2027, rising to \$45.06 million by 2033. From there, the backlog reduces over the duration of the 50 years, reaching zero at year 2074.

In comparison to the base case, the backlog commences \$12.55 million higher, and peaks \$12.85 million higher than the base case. This is shown in Figure 14

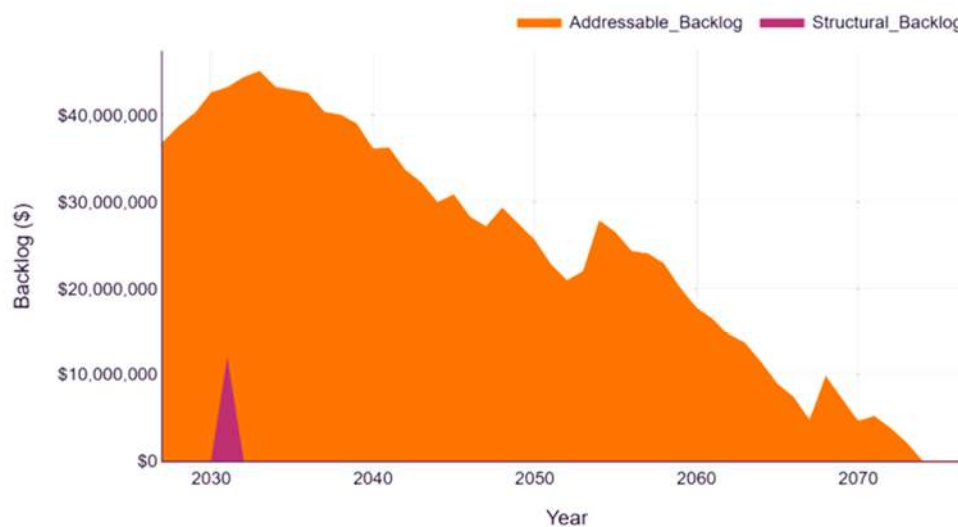


Figure 14: Backlog with increased renewal costs over 50 years

The funding gap shows a similar story, with the gap closing over the 50 years, before a divergence in the final year, shown in Figure 15.

Water Supply Asset Management Plan 2027-2056

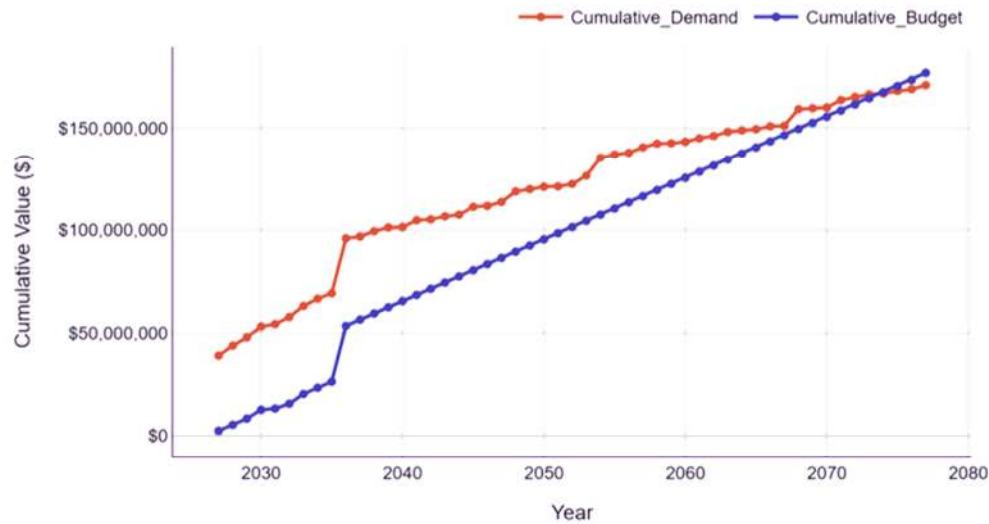


Figure 15: Funding gap

With the increased costs for renewal, the backlog stays higher for longer, increasing the risk over the duration compared to the base case, but demonstrates that a renewal budget of \$3 million per annum is considered sufficient over the long term with higher input costs.

The risk of this outcome is a number of assets will have to be managed past the end of their useful lives. An estimated 750 assets would remain on the backlog for 10 years or longer, and of that, some 200 assets would be on the backlog for longer than 25 years. For pipes, this may be achievable but would result in increases in breaks or reduction in pressure or flow to preserve the pipe, impacting customer service delivery.

9 Data Sources

9.1 Asset Management Data Source

The asset register used for this plan comes from Metrix which is Council's asset management information system. The asset register is considered materially complete. It has a high level of data for construction date and useful lives.

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9.2 Financial Data Source

Financial data has come from an analysis of expenditure with Council's financial account platform, Synergy Soft. Synergy Soft is utilised for tracking of all costs associated with asset management, and is considered the source of truth for Council's finances.

10 Assumptions

Every forecast within this plan requires assumptions, and those assumptions can carry more influence over the outputs than the modelling method does. All efforts are made to remove assumptions from the modelling, however it is a reality of many councils that data is scarce. Confidence in the underlying data varies by asset class and is assessed against the confidence scale below.

Whilst there can be changes in expected useful life or the cost to build an asset, they both can influence the overall costs in the same manner. Within this plan the first 10 years budget has been set on preliminary investigations completed into the cost of the various projects identified for renewal. In years 11 to 30 the gross replacement cost within Metrix has been used. These costs are aligned with the NSW Reference Rates Manual: Valuation of Water Supply, Sewerage and Stormwater Assets - Published by NSW Office of Water, but they appear optimistic for replacing assets within a brownfield site.

Within the modelling for this plan, the following assumptions were made:

- Asset renewals will be completed at condition 4.5
- Age and condition of assets has a linear relationship
- \$3 million per annum is the upper limit budget for renewals from year 11 through 50
- That the growth constituent councils are targeting will occur in line with their predictions
- That current asset values reflects their replacement value for renewal cost planning

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10.1 Data Confidence

Grade Rating		Basis	Indicative Accuracy
A	Highly Reliable	Data based on sound records, procedures, investigations and analysis, properly documented and recognised as the best method of assessment. The data set is complete.	± 2%
B	Reliable	Data based on sound records, procedures, investigations and analysis, with minor shortcomings. Some data may be old, some documentation missing, or some reliance placed on unconfirmed reports.	± 10%
C	Uncertain	Data based on sound records, procedures, investigations and analysis that is incomplete or unsupported, or extrapolated from a limited sample.	± 25%
D	Very uncertain	Data based on unconfirmed verbal reports, cursory inspection, or professional estimate in the absence of records.	± 40%
E	Unknown	No data held, or data held is not capable of assessment.	Unable to be estimated

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10.2 Confidence Assessment

Data set	Grade	Basis for grading	Materiality to forecast	Improvement Action
Asset quantities and dimensions	A	Register has geolocated assets able to be measured	High	Nil
Asset hierarchy and componentisation	B	Componentisation is completed, but in some instances is at a high level, not down to the maintenance managed item	Medium	Nil
Replacement cost and unit rates	B	Methodology well accepted in the industry, but not validated against actual costs due to limited work completed recently	Medium	1
Condition data	D	Above ground assets are verifiable and suitable, underground assets are uncertain with 92% shown as in good condition	High	2
Useful lives and remaining life	B	Remaining useful life is based on construction date and asset life.	Medium	2
Failure and maintenance history	C	Limited failure and maintenance history available at an asset level. High level of corporate knowledge used in this plan	Medium	2
Operations and maintenance costs	C	Breakdown of costs is limited to broad categories.	Low	3

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Demand and growth forecasts	C	Growth forecasting is a combination of backwards looking and aspirational. Asset age was the key factor for renewals	Low	4
Renewal program costs	B	There are indicative estimates for years 1 through 10, defaulting to reference rates for years 11 to 30	Medium	2
Levels of service performance data	C	There are some data points recorded on number of complaints, but response times are broadly anecdotal	Low	5

Water Supply Asset Management Plan 2027-2056

11 Continuous Improvement

11.1 Improvement Plan

It is important to recognise opportunities for improvement in asset management practices to ensure better outcomes through the planning practice. The improvement plan for this is shown below in Table X

No.	Task	Responsibility	Resources Required	Timeline
1	Review and develop cost estimates to apply throughout asset management planning process	EMOTS		
2	Develop bespoke risk based useful lives for pipe network based on historic failure data	EMOTS		
3	Improve capture of maintenance and operations cost to enable better tracking of whole of life costs	Water Network Manager & Water Quality Manager		
4	Undertake monitoring of pressure and flows within the network to validate upgrades for capacity	Engineering Coordinator		
5	Capture improved data on customer requests and response times for level of service reporting.	Water Network Manager & Water Quality Manager		

11.2 Monitoring and Review Procedures

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

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

The AM Plan has a maximum life of 4 years and is due for complete revision and updating within 12 months of each constituent council's election.

Water Supply Asset Management Plan 2027-2056

12 Appendix A - Risk Assessment

DRAFT



Central Tablelands Water Strategic Business Plan

Version 0.9

DRAFT

Prepared by  Asset Nexus

Version History & Sign-off

Version	Reason for Change	Date of Approval	Approver
0.1	Initial Draft		
0.9	Draft for Council consideration		

ACKNOWLEDGEMENT OF COUNTRY

Central Tablelands Water acknowledges the Traditional Custodians of the lands on which we live and work. We recognise the Wiradjuri people as the Traditional Owners and Custodians of this region and pay our respects to their Elders past, present and emerging.

We acknowledge the deep and continuing connection Aboriginal and Torres Strait Islander peoples have to land, water and community. We recognise that water is a vital and shared resource, and that First Nations peoples have cared for and managed these water systems for thousands of years.

Central Tablelands Water is committed to respecting this ongoing connection and to working in a way that honours the cultural significance of land and water, while supporting strong relationships with Aboriginal communities across our region.

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Glossary of Terms

This glossary explains the abbreviations, technical terms and concepts used in this Strategic Business Plan. Definitions describe how each term is used in this Plan and in the Central Tablelands Water context; they are not intended as formal legal or scientific definitions.

Abbreviations and Acronyms

Term	Definition
ADWG	Australian Drinking Water Guidelines. The national guidelines, published by the NHMRC and NRMCC, setting health-based and aesthetic values for drinking water quality that Council's supply must meet.
AMP	Asset Management Plan. The plan setting out the works, renewal and expenditure program for a class of assets over its life cycle.
AMS	Asset Management Strategy. The strategy that sets Council's asset management direction, objectives and improvement priorities, sitting above the individual Asset Management Plans.
BASP	Business Activity Strategic Plan. The strategic plan a county council prepares in place of a Community Strategic Plan, informed by the Community Strategic Plans of its constituent councils.
CNSWJO	Central NSW Joint Organisation. The regional joint organisation of councils of which Council is an associate member, and whose regional priorities inform this Plan.
CSP	Community Strategic Plan. The highest level plan under the IP&R framework; prepared by each constituent council and given due regard by Council.
COUNCIL	Central Tablelands Water. The county council that is the subject of this Plan.
DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water. The department that administers the Regulatory and Assurance Framework and collects local water utility performance data.
DMP	Drought Management Plan. Council's plan setting out drought restriction levels, triggers, and supply- and demand-side drought responses.
DP	Delivery Program. The medium-term (four-year) plan under the IP&R framework.
DSP	Development (Developer) Servicing Plan. The plan under which Council levies developer charges so that growth contributes to the cost of the infrastructure it requires.
DWMS	Drinking Water Management System. Council's drinking water quality assurance program, structured around the twelve elements of the ADWG framework and required under the Public Health Act 2010 (NSW).
ET	Equivalent Tenement. A standard unit of demand used for developer-charge and growth calculations, representing the demand of a typical residential connection.
IP&R	Integrated Planning and Reporting. The NSW local government planning framework, administered by the Office of Local Government, within which this Plan sits.
ISO 55001	The international standard for asset management systems, against which Council assesses its asset management maturity.
IWCM	Integrated Water Cycle Management. The integrated approach to planning water supply, and (where applicable) sewerage and stormwater, promoted under the RAF.
KPI	Key Performance Indicator. A measure used to track performance against Council's objectives and levels of service.
KRA	Key Result Area. A defined area of activity under each Strategic Priority, against which performance is tracked.

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LOS	Level(s) of Service. See Levels of Service in the Terms section.
LRV	Log Reduction Value. A logarithmic measure of how effectively a treatment process reduces pathogen concentrations; the plants show a protozoa LRV shortfall against health-based targets.
LTFP	Long Term Financial Plan. Council's ten year financial plan (2027–2036) under the IP&R framework, against which strategic decisions are tested.
ML	Megalitre. One million litres; the standard unit for water volume and yield in this Plan (e.g. Lake Rowlands has a capacity of 4,500 ML).
MWH	Consultancy (MWH) that prepared the 2009 CENTROC Water Security Study.
NARCIIM	NSW and Australian Regional Climate Modelling. The regional climate projection dataset used for the drying-climate scenario in the water security assessment.
NPR	National Performance Report. The national benchmarking report for water and wastewater service providers, used to compare Council against its peer group.
OP	Operational Plan. The annual (2026/27) plan under the IP&R framework.
RAF	Regulatory and Assurance Framework for Local Water Utilities (DCCEEW, 2022). The NSW framework of twelve strategic planning outcomes that this Plan is Council's primary response to; it replaced the 2007 Best Practice Management Guidelines.
SBP	Strategic Business Plan. This document - Council's long term strategic plan for its water supply services and its primary response to the RAF.
SRTWS	Sub Regional Town Water Strategy (2025). The strategy assessing water security across the Orange, Molong and Council systems, and the principal evidence base for the Plan's water security findings.
UV	Ultraviolet (disinfection). The additional treatment step proposed at Blayney and Carcoar to close the protozoa log-reduction shortfall.
WMS	Workforce Management Strategy (Plan). Council's workforce planning document under the IP&R Resourcing Strategy.
WTP	Water Treatment Plant. Council operates two: the Blayney WTP and the Carcoar WTP.

Executive Summary

Central Tablelands Water supplies safe drinking water to around 15,000 people across 14 towns and villages in the Blayney, Cabonne and Weddin local government areas. As a water only county council, delivering a secure, safe and affordable water supply is its single core purpose. This Strategic Business Plan sets out how Council will meet that purpose over the coming decades, and demonstrates, against the twelve Strategic Planning Outcomes of the NSW Government's Regulatory and Assurance Framework (RAF), that its services are planned on sound, evidence based foundations and managed in the long term interests of its communities. It succeeds Council's 2015 Strategic Business Plan and re-establishes Council's integrated water cycle planning under the RAF.

Water security is Council's defining long term challenge. Council depends on a single primary source, Lake Rowlands, a 4,500 ML surface storage with low climate resilience and no climate independent alternative in the network. Its reliable, climate adjusted yield of about 1,900 ML/year already sits below current demand of around 1,993 ML/year, and three pressures are compounding that gap: growth concentrated in Blayney, Millthorpe and Canowindra, running ahead of adopted forecasts; climate driven reductions in inflow; and a raw water inlet constraint (Trunk Main A) that limits supply to the Carcoar treatment plant. The most severe (Level 6) restrictions are currently modelled to recur about once every 11 years, leaving a gap against Council's adopted level of service target. Demand management saves around 53 ML/year and provides valuable headroom, but cannot close the gap; supply side augmentation is essential.

Beyond water security, Council faces an intensifying renewal task and tightening standards. Its \$199 million asset base is on average about a third through its useful life, with major infrastructure from the mid twentieth century and a renewal program of around \$43 million to 2036 concentrated in the 2030-2035 window which is the same period as the major security and treatment investments. Council currently achieves full compliance with Australian Drinking Water Guidelines. However, with changes in regulation and the transition to new Health Based Targets future treatment upgrades, including ultraviolet disinfection at Blayney and Carcoar and a move to multiple barrier treatment will be necessary when any future augmentation is undertaken and is anticipated by 2035. Non revenue water remains well above the state median and is treated as a genuine efficiency priority, and a small, specialised workforce in a tight regional labour market is itself a delivery risk Council is actively managing.

Affordability and reliance on external funding shape every major decision. Council serves a small, dispersed customer base of about nine connected properties for every kilometre of main, roughly a third of the peer median, so the cost of a large network falls on comparatively few customers. With a typical residential bill already around \$1,176 against the median weighted average of \$851.70 for NSW. Affordability sets a practical ceiling on how much of the required investment can be recovered through pricing. The consequence is a heavy dependence on government grants: Council's Long Term Financial Plan is explicit that, without substantial

external funding, the capital program cannot be delivered without placing significant cost on customers.

This Plan demonstrates that Council meets the RAF's expectations. Its analysis and decisions are traceable to the evidence across the twelve outcomes. The Plan also identifies areas for development for Council's consideration:

- Community engagement and willingness to pay testing on service levels, which would inform both the water security decision and the price path;
- Formalising a risk management framework and business continuity plan and;
- Establishing a consolidated register of critical and vulnerable customers.

These, together with the major strategic and capital actions, are set out for consideration in the Future Actions and Implementation Plan.

The decade ahead is decisive. The Belubula Water Project funding decision, the concentration of renewals toward 2035, and the conversation Council must have with its communities about the link between service levels, risk and price will together shape the region's water supply for a generation. Council's commitment is constant: to keep delivering safe, secure and affordable water, sustainably and in the long term best interests of the communities it serves.

RAF strategic Planning Outcomes - Concordance and Gap Tracker

Maps each of the 12 RAF outcomes to where it is addressed in this Strategic Business Plan and in other Council documents.

Concordance and Gap Tracker

#	RAF outcome	Addressed in this document	Addressed in other documents	Status	Notes / action
1	Understanding service needs	Levels of Service & KPIs; Population Assessment and Projections; Water Usage Projection	SRTWS 2025 (demand modelling); BASP and DP/OP (KRA service measures); NPR benchmarking dashboard; customer engagement / WTP study (to develop)	Documented	Customer engagement & WTP evidence still to develop
2	Understanding water security	Water Security	SRTWS 2025; Lachlan River Regional Water Strategy; NSW Water Strategy; LTFF (Lake Rowlands timing); Drought Management Plan	Documented	Confirmed — Council sits within the Lachlan River Regional Water Strategy area
3	Understanding water quality	Water Quality	Drinking Water Management System / ADWG compliance; NSW Health requirements; Fluoridation Act records; annual performance reporting	Documented	
4	Understanding environmental impacts	Environmental Impacts	EPA licences (none currently held — Blayney, Carcoar & Grenfell surrendered); dam / foreshore management; Environment Protection Plan (2015 SBP)	Scope-limited	State water-only scope explicitly — no sewerage function
5	Understanding system capacity, capability & efficiency	Water Supply Schemes Capacity & Capability; Asset Management Planning	Asset Management Plan; hydraulic / yield modelling; water-loss (NRW) project — DP Activity 1.5.2	Documented	

Strategic Business Plan *Central Tablelands Water*

6	Understanding other key risks & challenges	Risk Assessment; Disaster Preparedness	Risk Management Framework; Business Continuity Plan; Drought Management Plan; dam safety program; cyber strategy (DP 2.3.1.4); ARIC / internal audit	Documented	
7	Understanding solutions to deliver services	Asset Management Planning (with explicit cross-references to Water Security and Strategic Decision Making for options / cost-benefit analysis)	SRTWS options assessment; IWCM evaluation / strategy; Demand Management Plan; options cost-benefit analysis (to consolidate)	Documented	AMP is the designated home, with explicit cross-references to Water Security & Strategic Decision Making for options analysis
8	Understanding resourcing needs	Resourcing	Workforce Management Plan; Asset Management Plan (lifecycle costs); LTFP; BASP	Documented	
9	Understanding revenue sources	Water Pricing (incl. Revenue Sources); Financial Management; WTP addressed under 'Customer Engagement and willingness to pay'	LTFP; Development Servicing Plan (developer charges); Revenue Policy; IPART pricing; WTP study (to develop)	Documented	Revenue Sources subsection and WTP discussion now in draft; undertaking WTP engagement remains a future action
10	Make & implement sound strategic decisions	Strategic Objectives; Strategic Decision Making; Summary of Key Issues; Future Actions & Implementation	DP/OP (IP&R delivery framework); LTFP; BASP; performance reporting	Documented	
11	Implement sound pricing & prudent financial management	Water Pricing; Financial Management	LTFP / 30-year financial model; Revenue Policy; DSP; IPART pricing principles; fees & charges; ring-fencing & best-practice pricing compliance	Documented	

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1	Promote integrated water cycle management	Integrated Water Cycle Management	Joint IWCM Detailed Strategy Study (HydroScience 2013 — now largely superseded); SRTWS; Lachlan River Regional Water Strategy	Documented	Resolved — draft states the 2013 study is largely overtaken and re-establishes IWCM planning under the RAF
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Status summary

Documented	11	Covered — section drafted to a reasonable standard
Part	0	Partly covered — needs strengthening
Gap	0	No clear home — must add
Scope limited	1	Deliberate exclusion — state scope explicitly

Actions from 2015 Plan

Table: Council Strategic Priorities – Status

#	Item	Notes	Completed?
1	Urgency of replacement of Trunk Main K – Grenfell supply	AMP records Trunk Main K (transfers from Trunk Main C to Grenfell North Reservoir) as renewed and upgraded 2016–2020	Completed
2	Upgrade and modernisation of the Blayney Water Filtration Plant	Recent reviews have resulted in a change in approach, seeking to move all treatment to Carcoar instead	Superseded
3	Upgrade of Lake Rowlands Dam to meet current NSW dam safety requirements	Declared dam (Dams Safety Act 2015), built 1949–54, does not meet current standards. Addressed within the dam-raising if the Belubula project funds it; otherwise standalone works ~\$26m, potentially ~2030/31.	Outstanding
4	Impact of additional water usage from major developments (e.g. proposed Blayney goat abattoir)	The goat abattoir did not proceed, there are other industrial developments currently under consideration	Ongoing
5	Council/OCC joint project: new Orange-Millthorpe pipeline, plus upgrade of Millthorpe–Blayney and Blayney–Carcoar WFP infrastructure	Aligns with the Central Tablelands Water Grid (SRTWS Stage 2), integrating Council, Orange and Molong. Unused as of July 2026	Completed
6	Provision of potable water supply to the villages of Caragabal, Neville, Newbridge and Barry over a 10–20 year period		To confirm
7	Long term Lake Rowlands enlargement (new dam 2.5 km downstream) or takeover of the State owned Carcoar Dam for regional water security	The new downstream dam is not being progressed in the Belubula Final Business Case, the shortlist is raising the wall, a Lake Rowlands - Carcoar pipeline, or both. The broader multi council and mining regional grid	Superseded / ongoing

Strategic Business Plan *Central Tablelands Water*

		remains a long term direction only.	
8	Local Government reform – advocacy for water and sewerage assets to remain under Local Government (county council model)	Continuing advocacy position. Cited strengths of the county council model: • Legislative basis and accountability under the Local Government Act; • Regional collaboration and coordination of regionally significant initiatives; • Enhanced strategic and operational capacity by optimising resources across areas; • Flexible shared service funding framework benefiting all constituent councils; • Stronger prospects for grant funding and leverage in procurement.	Ongoing
9	5% annual charge increase from 2015	The 5% path remains current — the 2026/27 budget applies a 5% increase to water consumption charges (\$4.33/kl) and across most fees.	Ongoing

1 Purpose of Plan

Central Tablelands Water (Council) has prepared this Strategic Business Plan (SBP) in response to the Regulatory and Assurance Framework (RAF) for Local Water Utilities, published by the then NSW Department of Planning and Environment in 2022, replacing the 2007 Best Practice Management of Water Supply and Sewerage Guidelines. The RAF is now administered by the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW), and requires local water utilities to undertake effective, evidence based strategic planning that demonstrates the achievement of twelve strategic planning outcomes to a reasonable standard. This Plan is Council's primary response to that requirement: it sets the long term strategic direction for Council's water supply services and supports Council's annual performance reporting to the DCCEEW.

As a county council, Council is a water supply authority constituted under NSW local government legislation. In place of a Community Strategic Plan, Council prepares a Business Activity Strategic Plan (BASP), developed in consultation with, and informed by, the Community Strategic Plans of its constituent councils: Blayney Shire Council, Cabonne Council and Weddin Shire Council.

This SBP has been developed considering the planning outcomes of Council's constituent councils and takes into account the regional priorities of the Central NSW Joint Organisation (CNSWJO), of which Council is an associate member.

This SBP addresses Council's single core business activity: the provision of safe, reliable and affordable potable water to the community. It takes a long term view, examining the operating environment over a minimum thirty year horizon to 2056, while the Delivery Program (2026 - 2030), Operational Plan (2026/27) and Long Term Financial Plan (2027 - 2036) address the shorter term operational and financial planning periods required under the IP&R framework.

In doing so, this Plan communicates Council's strategic direction to customers, constituent councils, the community and other stakeholders, and demonstrates that water supply services are being managed effectively, sustainably, and in the long term best interests of the communities Council serves.

1.1 Meeting the Regulatory and Assurance Framework

The RAFs twelve Strategic Planning Outcomes are below, mapped to this document's response:

RAF Strategic Planning Outcomes - In This Plan

#	RAF Strategic Planning Outcome	Where addressed in this Plan
1	Understanding service needs	Levels of Service and KPIs
2	Understanding water security	Water Security
3	Understanding water quality	Water Quality

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4	Understanding environmental impacts	Environmental Impacts
5	Understanding system capacity, capability and efficiency	Water Supply Schemes Capacity & Capability
6	Understanding other key risks and challenges	Risk Assessment; Disaster Preparedness
7	Understanding solutions to deliver services	Asset Management Planning
8	Understanding resourcing needs	Resourcing
9	Understanding revenue sources	Water Pricing; Financial Management
10	Make and implement sound strategic decisions	Strategic Decision Making
11	Implement sound pricing and prudent financial management	Water Pricing; Financial Management
12	Promote integrated water cycle management	Integrated Water Cycle Management

2 Strategic Objectives

Council's strategic priorities and key result areas are established in its Business Activity Strategic Plan (BASP) 2022 - 2032, which provides the organisational framework within which this plan operates. The priorities set out in this section are Council's own objectives for its water supply business.

This document is the vehicle through which Council demonstrates, through evidence based planning, that whilst delivering its objectives that it satisfies the twelve strategic planning outcomes of the Regulatory and Assurance Framework for Local Water Utilities (DCCEEW, 2022). The Framework is the external assurance standard Council is expected to achieve, while these objectives are the direction Council is working towards; the plan as a whole carries both.

The Council's Strategic Priorities as listed in the BASP are:

Council's three Strategic Priorities and their Key Result Areas, as set out in the BASP 2022-2032 (reviewed 2026, p9).

Strategic Priority One

Provide a high quality and reliable drinking water supply

- 1.1 Service provision through fit-for-purpose infrastructure
- 1.2 Ensure compliance with regulation
- 1.3 Best practice asset management
- 1.4 Mitigate environmental impacts of service delivery
- 1.5 Efficient use of water

Strategic Priority Two

An efficient, sustainable and customer focussed organisation

- 2.1 Quality customer service
- 2.2 Sound and sustainable financial management
- 2.3 Continuous improvement whilst managing risk
- 2.4 A capable and effective workforce
- 2.5 A compliant organisation

Strategic Priority Three

Regional leadership and collaboration

- 3.1 Regional collaboration and partnerships
- 3.2 Regional leadership in the water sector
- 3.3 Regional water security

These strategic priorities have been set by Council to reflect the priorities of the constituent councils.

2.1 Council's mission, vision and values:

Council's mission, vision and values provide the foundation for this SBP. Over the thirty year planning horizon, Council's operating environment will be shaped by significant challenges including population growth across the service area, aging infrastructure requiring renewal and upgrading, and increasing climate variability.

This plan takes Council's vision of regional leadership and excellence through that long term lens, translating organisational values into; priorities, investment decisions and service commitments that are relevant now and into the future.

CTWs Mission, Visions and Values

Mission	To supply quality, affordable drinking water to our customers across our region, in collaboration with our constituent councils.
Vision	As a regional leader and provider, to achieve excellence in water supply, now and into the future.
Values	Central Tablelands Water values our customers, our workforce, and our regional partners. We provide our water supply valuing sustainability, quality, efficiency, equity, and innovation.

2.2 Social justice and sustainability principles.

2.2.1 Social Justice Principles

The delivery of an essential public service across a dispersed regional area carries inherent social responsibility. Council's commitment to social justice - through equity, access, participation and rights - shapes how water supply services are planned, delivered and managed across the thirty year horizon of this plan. The social justice principles inform Council's approach to pricing, infrastructure investment and community engagement, ensuring that decisions are made to serve the full breadth of the communities in the Council area.

Equity is reflected directly in the way Council sets its prices. Council applies a two part tariff - an availability charge based on meter size, together with a consumption based usage charge - and its Revenue Policy provides that there are no non residential cross subsidies (Council 2026d); that is, non residential customers neither subsidise, nor are subsidised by, residential customers. Prices are therefore structured so that the cost of the service is recovered on a fair, cost reflective basis across customer types, with each class bearing its own share. This underpins transparency and fairness in pricing while keeping the regime financially sustainable across the region.

Equity	To ensure fairness in decision making, prioritising and allocation of resources.
Access	All people should have access to services, resources and opportunities to maintain and improve their quality of life.
Participation	Everyone should have the opportunity to genuinely participate in decisions that affect their lives.
Rights	Equal rights should be established and promoted, with opportunities provided for people from diverse linguistic, cultural and religious backgrounds to participate in community life.

2.2.2 Sustainability principles

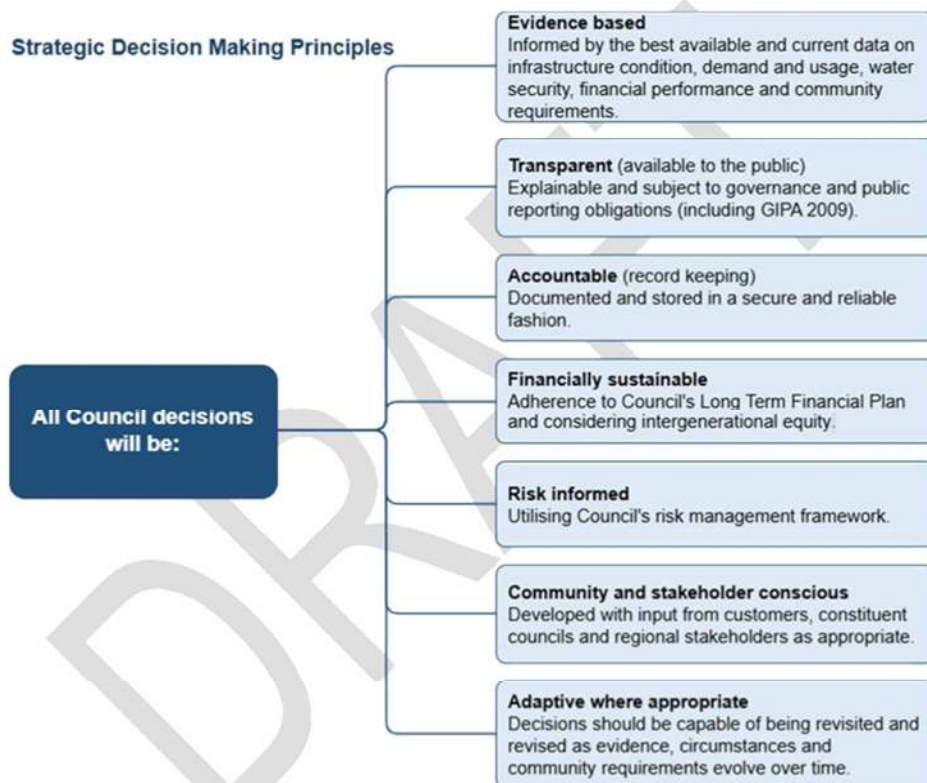
Long term planning for water utilities requires that decisions made today do not compromise the capacity of future communities to enjoy the same standard of service. Therefore, this plan is designed through the lens of Council's sustainability principles. Transparent decision making, underpinned by financial viability, is essential to protecting environmental values, building organisational capabilities, and supporting the social fabric of the communities that Council serves.

Social	Improve quality of life, access and wellbeing to create an inclusive society.
Economic	Increase productivity, the economy and enable equitable access to economic growth opportunities, whilst using financial resources efficiently and responsibly.
Environmental	Protect environmental outcomes by reducing pollution, balancing resource consumption, conserving natural ecosystems and resources, and supporting climate mitigation and adaption.
Governance	Continue to build trust and strengthen governance through transparent, accountable, and inclusive decision making.

3 Strategic Decision Making

Over the lifetime of this SBP, Council will face decisions of varying complexity and scale. While some decisions will be routine, others will be transformational, affecting many, if not all customers and stakeholders. A consistent, evidence based approach to decision making is essential to delivering on the mission and values that Council adhere to and that guide this plan.

Council's approach to strategic decision making is grounded in the values, social justice principles and sustainability principles established in this plan.

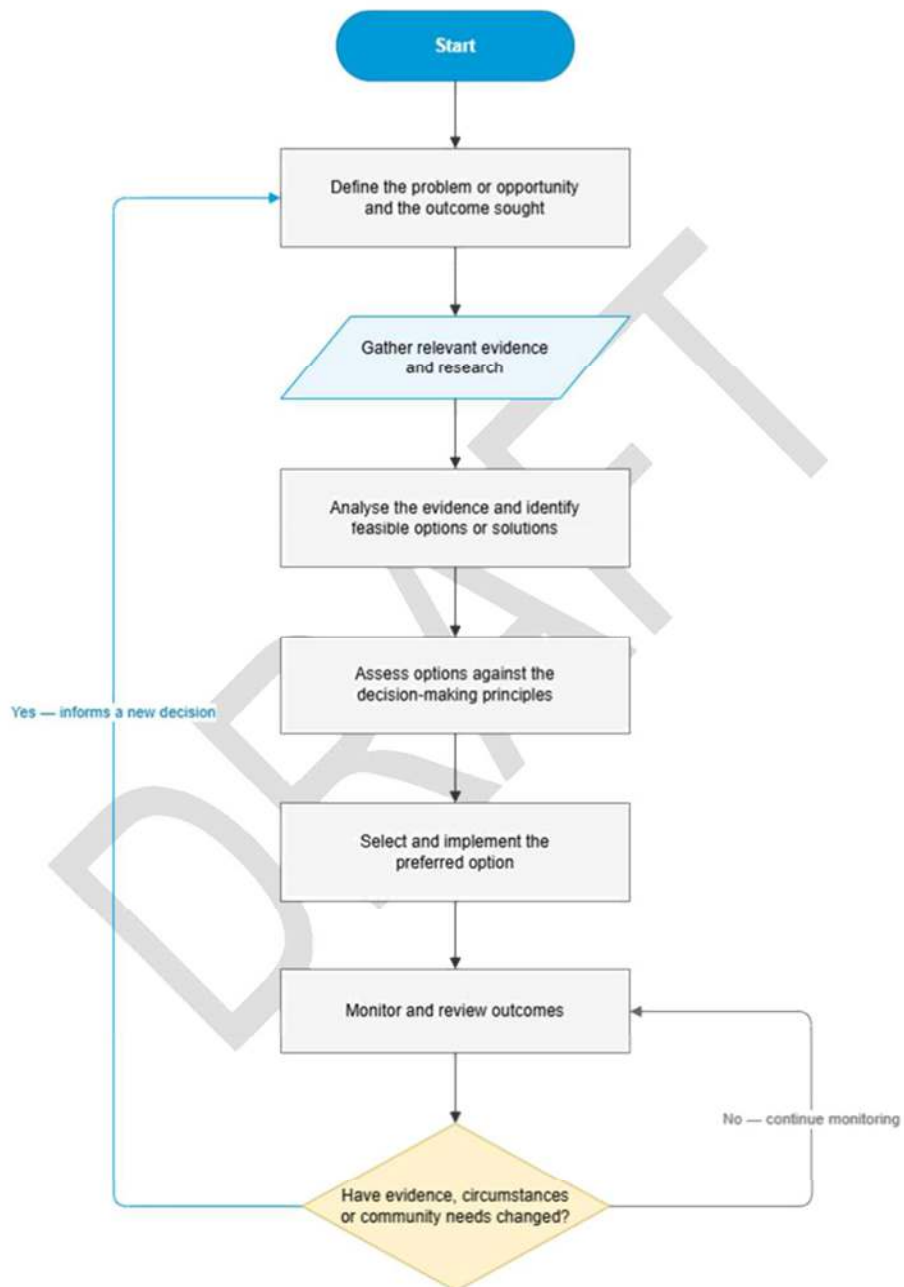


(This decision making principle diagram is adapted from: Evidence based RAF 10, transparent RAF, Financially Accountable RAF, Risk Informed RAF Accountable, Community and stakeholder conscious and Adaptive is interpreted from principles)

3.1 The Decision Making Framework

Council decisions are approached through a consistent, evidence based process that scales to the significance, set out below. Because evidence, circumstances and community needs change over time, decision making is treated as an ongoing, cyclic process in which review informs future decisions rather than concluding them,

particularly for strategic decisions whose consequences play out over a planning horizon of a decade or more.

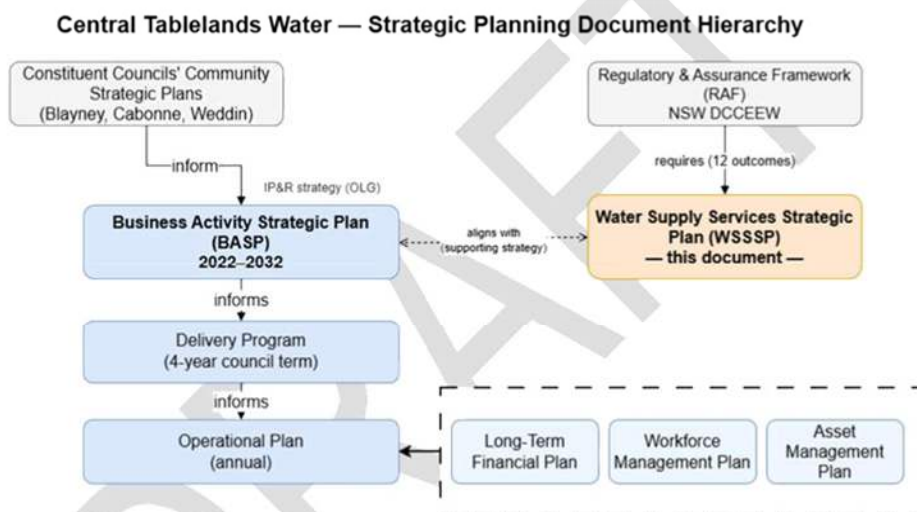


Decisions relating to Council's assets, including renewal, maintenance, augmentation and disposal, should additionally follow the decision pathway set out in Council's Asset Management Strategy (AMS 2026), which provides the more detailed basis for balancing levels of service, cost and risk in asset investment.

3.2 Planning Hierarchy and Integration

Strategic decisions do not exist in isolation. While they must adhere to this plan, they also sit within and must be consistent with Council's broader integrated planning and reporting framework. The relationship between Council's planning instruments is hierarchical.

Chart - Planning Document Hierarchy.



This SBP sits within, and complements, Council's broader planning and reporting suite. All councils, including county councils, are required to undertake integrated strategic planning under the Integrated Planning and Reporting (IP&R) framework administered by the NSW Office of Local Government (OLG). Under that framework, councils prepare an interconnected suite of plans comprising a Delivery Program, an annual Operational Plan and a Resourcing Strategy, which includes a Long Term Financial Plan, a Workforce Management Plan and an Asset Management Plan, together with a Community Strategic Plan (or, for county councils, a Business Activity Strategic Plan).

3.3 The RAF as a decision making standard

Council's strategic planning is subject to assessment and overview by the DCCEEW under the Regulatory and Assurance Framework for Local Water Utilities (2022). The RAF requires that effective, evidence based planning must achieve the twelve planning outcomes to a reasonable standard. DCCEEW assess whether the planning is

- *sufficient* - supported by evidence that justifies the conclusions reached,
- *appropriate* - consistent with relevant departmental guidance and industry standard methods, and
- *robust* - drawing on credible sources and addressing alternative interpretations of the evidence (DCCEEW 2022).

These three considerations inform how Council approaches major strategic decisions.

3.4 Stakeholder and Constituent Council Involvement

Council's governance structure means that constituent council engagement is embedded in its decision making model. The board of Central Tablelands Water comprises six elected delegates, two each from Blayney, Cabonne and Weddin Shire Councils, all serving a four year term. This design ensures that each of the three constituencies are equally represented.

The Community Strategic Plans of the constituent councils must be given due regard by Council in decisions and planning relating to water supply. The strategic priorities of the Blayney, Cabonne and Weddin councils are identified in the Council's BASP document and inform the planning hierarchy described in this document.

Community and stakeholder engagement should be undertaken in accordance with the requirements of the IP&R framework and meet the RAF expectations that customers are engaged and informed of choices between service levels, risks and costs (NSW Govt 1993, Office of Local Govt 2021). While Council does undertake stakeholder consultation, there is currently no formal Community Engagement Strategy. This is included as a recommended action in the Future Actions section of this report.

3.5 The Long Term Financial Plan and Financial Constraints

All strategic decisions are tested against Council's Long Term Financial Plan (LTFP) to ensure they can be accommodated within a sustainable price path and meet CTWs' risk appetite. Consistent with the RAFs expectation that utilities avoid substantial or socially destabilising revenue adjustments (DCCEEW 2022, p22), proposed service levels, capital works or operational changes that fall outside the modelled scenarios require the LTFP to be reviewed before adoption. The financial implications of strategic decisions are addressed in detail in the section Financial Management.

3.6 Monitoring, Evaluation and Review

This SBP is a living document. It remains current and relevant across the thirty year planning horizon. Scheduled reviews occur at two levels. At the operational level, performance against the SBP's objectives is reported through Council's Annual Report and State of the Region reporting, and the BASP, which is subject to formal

review each Council Election. Council is expected to monitor changes to its key assumptions, objectives or context that may require strategic planning to be updated.

The RAF identifies three key triggers for review: Whether the key assumptions and information and underpinning strategic planning remain current and appropriate; whether new strategic or operational events require investigation or major change; and whether new or strategic directions have been set by Council (DCCEEW 2022 p29). A review should be undertaken within twelve months of a new council/s in order to meet these expectations.

The LTFP adds a financial dimension to this. It notes that significant growth in consumption, major industry development or changes to the capital program outside already modelled scenarios would impact future pricing decisions and may require the plan to be revisited (Council LTFP 2025, p5).

Additionally, the following scenarios may require a triggered review of this plan:

- Material changes to water security, including prolonged drought or significant changes to water access licences.
- Planned, approved or completed major capital projects that substantially alter the operating environment.
- Significant changes to the regulatory framework, including updates to the RAF, Regional Water Strategies, the NSW Water strategy or associated Acts and regulations.

4 Water Supply Schemes Capacity & Capability

Council is a water supply county council with no sewerage function. The sewerage related expectations of the DCCEEW guidance for this outcome, covering the capacity and capability of systems to collect and treat sewage do not apply. This section addresses the capacity, capability and efficiency of Council's water supply systems only.

4.1 Knowledge of Assets

Council manages an asset portfolio with a replacement value of approximately \$199 million across almost 19,000 assets, recorded in its asset management information system and revalued and condition assessed on a five year cycle (Asset Management Strategy (AMS), 2026). About 88% of assets by value are in condition 3 or better, which is considered acceptable condition (AMS 2026). Above ground assets have been subject to detailed condition assessment, but underground assets, which represent more than 55% of the asset base by value, are not directly assessed with 92% are recorded as being in good condition, contrasted against 43% of all other assets. Within the Asset Management Plan this data set has been graded D, very uncertain, and it is highly material to the renewal forecast.

The network is extensive for the number of customers they serve: Council maintains approximately 585 km of water mains¹, comprising around 280 km of reticulation main and 305 km of trunk main (AMS, 2026). This is a large network relative to the population and number of connections served, reflecting the dispersed rural towns and villages across the Blayney, Cabonne and Weddin areas, and it is a significant cost and renewal driver compared with more compact utilities.

Water mains make up around 55% of the asset base by value and cannot be reliably condition assessed, so the recorded condition profile likely understates the challenge, with mains tending to fail suddenly rather than degrade visibly (AMS 2026). In addition to this, the asset base as a whole is ageing. The asbestos cement mains are the clearest example, with roughly 63 km (about \$8.6 million) installed at least 65 years ago, including around 28 km now some 75 years old worth \$4 million, all in the final quarter of their service life (Council Asset Register 2026). The depth and currency of asset knowledge is documented through Council's ISO 55001 maturity self assessment, which identifies asset register completeness, condition monitoring and demand forecasting as areas that need to be lifted from the current condition of 'basic' to a 'core standard' (AMS 2026, Appendix A).

Taken together, this gives Council an understanding of its asset base and, importantly, the gaps in that understanding, particularly for water mains. There is a structured program under way to reduce those gaps. This is commensurate with the

¹ CTW's Asset Register records 585km of mains. However, CTW report 659km of mains to NPR, and record 561km in their 2021 Demand Management Plan. This is a discrepancy that should be addressed, however in this document, unless otherwise stated, the 585km figure is used.

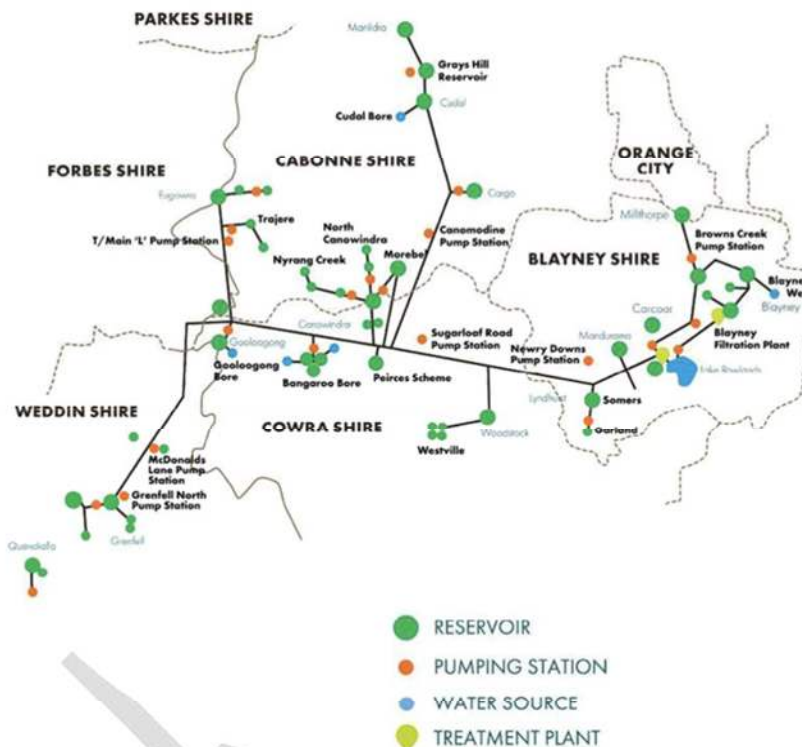
criticality of the assets and satisfies the RAF's expectations for understanding solutions to deliver services.

4.2 System structure and per scheme capability

Council operates three drinking water supply systems (DWMS 2025). The Carcoar system draws from Lake Rowlands, is treated at the Carcoar Water Treatment Plant, and has the Gooloogong bores as backup. The Blayney system also draws from Lake Rowlands and is treated at the Blayney Water Treatment Plant. The Quandialla system is a standalone scheme supplied from the Quandialla bores with disinfection only. The Cudal and Bangaroo bores and the Blayney Well and Blue Hole are held as standby or emergency sources. Licensed entitlements total 4,638 ML per year, comprising Lake Rowlands (3,150), Bangaroo (472), Gooloogong (400), Quandialla (266), Blayney Wells (250) and Cudal (100).

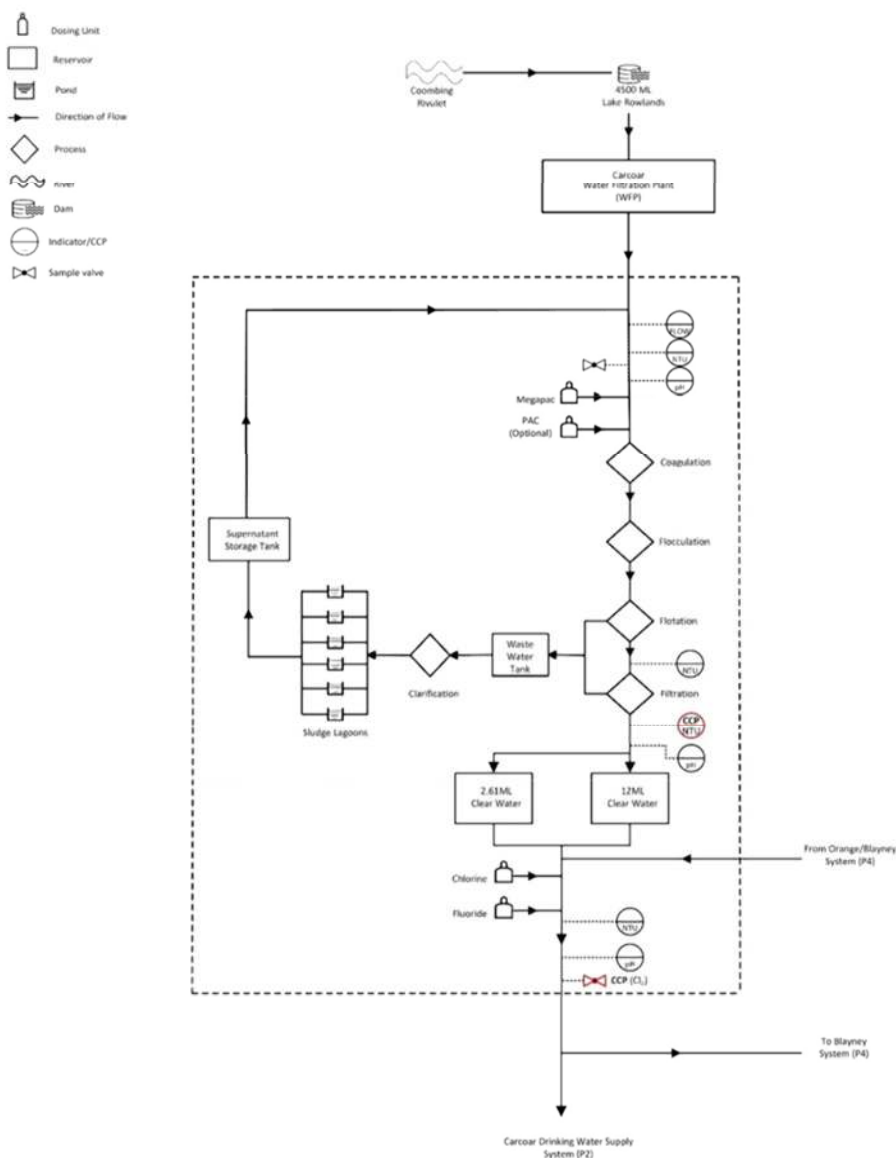
Source yields, drawdown behaviour and drought and climate risk for each source are tabulated in the water sources risk table and summarised in the Water Security section; entitlement figures are licensed shares rather than reliable drought yields. A key redundancy in the network is the interconnection between the Blayney and Carcoar systems, which allows the Carcoar plant to support supply if the Blayney plant is unavailable.

Council's water supply network (Picture from the BASP to act as a placeholder - obtain original file or similar for the final doc)

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4.3 Treatment Capability and Constraints

Both major plants provide conventional treatment. Carcoar uses coagulation with aluminium chlorohydrate, flocculation, dissolved air flotation, media filtration, powdered activated carbon dosing for taste, odour and organics, chlorination and fluoridation. Blayney uses coagulation, flocculation, sedimentation, media filtration, chlorination and fluoridation. Blayney also has a powdered activated carbon dosing system with limited capacity and capability that is used when algal counts in Lake Rowlands are high.

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Filtration at both plants is a critical control point with a turbidity target below 0.20 NTU and a critical limit of 0.5 NTU, monitored through individual filter online analysers, set for effective *Cryptosporidium* removal. Against an assumed Category 4 classification for Lake Rowlands, the indicative validated log reduction for protozoa at both plants is currently 3, short of the target of 5, an indicative two log protozoan shortfall (DWMS 2025). The DWMS identifies additional treatment, such as ultraviolet disinfection, as the response, and notes that the source classification itself

(Category 4 versus Category 3) is to be confirmed through further catchment characterisation.

The associated pathogen risk is addressed in the Water Quality section, and the timing and cost of any treatment upgrade sit in the Asset Management Planning and Financial Management sections. At the Blayney plant, the clarifier has been identified as a key physical constraint to achieving appropriate filtration rates, requiring further investigation into whether operational changes or maintenance can achieve the required throughput (CWT 2026). More broadly, Council notes that its treatment processes were designed for earlier water quality targets and may not meet their design capacity, or may require augmenting, under the higher health based targets described here.

The Blayney and Carcoar plants have nameplate treatment capacities of approximately 6 ML/day and 9 ML/day respectively.

Process level assessment shows that overall throughput at Carcoar is constrained not by the treatment process but by Trunk Main A, which has variable capacity depending on the level of Lake Rowlands. Trunk Main A is unable to supply both current peak day demand of around 8 ML/day and the projected growth requirement of about 10 ML/day across all Lake Rowlands storage levels, making it the critical bottleneck for the scheme (CWT 2026).

At Blayney, the treatment processes are adequate for projected demand, though the raw water inlet lacks full standby pump redundancy and clarifier performance (assessed at 1.8 m/h against a 1.7 m/h requirement) is an unpredictable constraint owing to sludge accumulation (CWT 2026).

On chemical contaminants, PFAS has been monitored across the systems, with the Gooloogong result below the limit of detection in October 2024 and the Blayney, Carcoar and Quandialla results meeting the proposed revised guideline values in November 2024, so no PFAS specific treatment response is currently required.

4.4 Criticality

Council evaluates and documents the criticality of its assets on the basis of consequence of failure. Its critical assets, and the basis on which each is classified, are set out below.

Asset	Function	Critical?	Basis / note
Lake Rowlands	Raw water source	Yes	Declared dam (Dams Safety Act 2015); managed under a dam safety risk framework that feeds into asset planning
Carcoar WTP	Treatment	Yes	No redundancy
All trunk mains	Distribution	Yes	Difficult or uneconomic to duplicate

Reservoirs at Manildra, Cudal, Cargo, Gooloogong, Eugowra, Millthorpe, Lyndhurst, Mandurama and Carcoar	Storage	Yes	No redundancy
Blayney WTP	Treatment	No	Carcoar interconnection provides redundancy. Failure would still be a major concern and could lead to restrictions.

Criticality basis: an asset is critical where failure would (1) impair the capacity to deliver potable water and (2) the asset is difficult or uneconomic to duplicate (AMS 2026).

4.5 Future Capability and Capacity for Growth

Blayney and Cabonne are planning for continued residential growth, concentrated in the priority towns of Blayney, Millthorpe and Canowindra, where recent development activity is running ahead of the adopted DPIE forecasts used in earlier studies (Council 2025). The SRTWS demand modelling projects average year extraction across the Council system rising from 1,993 ML/year in 2023 to 2,132 ML/year by 2053, with dry year extraction reaching 2,562 ML/year (Premise 2025).

The capability of the treatment plants and reticulation network to service this growth is understood and discussed in Water Usage Projection, with source and drought security addressed in Water Security, and any required upgrades expected to be cooperatively funded through the Developer Servicing Plan so that growth contributes to the cost of the infrastructure it requires. Future capability is also shaped by the progressive transition of disinfection only sources to multiple barrier treatment to align with the health based targets (HBTs), and by climate pressure on catchment yield. The augmentation options that respond to these pressures, including raising Lake Rowlands and enhanced treatment, are evaluated in the Water Security section, with timing and costing in the Financial Management section.

4.6 Performance Monitoring

Council monitors the performance of its systems through critical control point monitoring at the treatment plants via SCADA, NSW Health point of supply verification monitoring, and asset performance data captured in its asset management information system.

Council's asset data objectives include maintaining a history of at least three condition assessments and recording failure information for more than 95% of mains breaks, supporting predictive renewal modelling over time.

4.7 Efficiency

Non revenue water is a recognised weakness for Council . Analysis undertaken for the Sub Regional Town Water Strategy (SRTWS) estimates that approximately 27% of water (reported elsewhere by Council as 28.6%) is unaccounted for, which is high by industry standards, and reducing it is identified as a demand management priority (AMS 2026, SRTWS 2025). The relevant efficiency measures (infrastructure leakage index, real losses and volume of non revenue water) are those reported through the NSW local water utility performance monitoring and national performance reporting, to which Council contributes.

5 Levels of Service and KPIs

5.1 What levels of service are and why they matter.

Council's Levels of Service framework defines the standards customers can expect across the network. Council's levels of service fall into two categories, consistent with DCCEEWs RAF.

Non discretionary levels are those required to meet a regulatory obligation; minimum standards Council must achieve, not subject to local discretion, many of which are related to health and are described below.

Discretionary levels are those Council sets having regard to their needs, values and preferences of its customers and community, including their willingness to pay, where the regulatory framework allows that choice.

These include

- **Water Quality:** 100% compliance with the Australian Drinking Water Guidelines health targets, nil Critical Control Point exceedances, and compliance with the NSW Fluoridation Act, with aesthetic quality targets of greater than 95% compliance.
- **Service Reliability:** Minimum flow rates and pressure maintained for all urban and rural customers with 90% of unplanned interruptions restored within twelve hours and rural interruptions within forty eight hours.
- **Water Security:** Current modelling indicates the target for water security as designated by DCCEEW cannot be met. This is discussed further in the section Water Security.
- **Customer Service:** Minimum forty eight hours notice for planned interruptions and greater than 95% of complaints resolved within five days.
- **Asset performance:** Firefighting capacity maintained at all hydrants, with operational responses to supply failures within one hour during business hours and within two to four hours, outside of business hours in remote locations.
- **Financial sustainability:** Service levels are set with explicit regard to affordability and cost recovery, and will be integrated into strategic planning to enable detailed cost analysis of infrastructure options and transparent community engagement about the relationship between service standards, investment and pricing.

5.2 Non-discretionary levels of service

Drinking water quality is regulated by NSW Health under the Public Health Act 2010 (NSW), which requires Council to maintain a drinking water quality assurance program (Drinking Water Management System, DWMS) and to supply water consistent with the Australian Drinking Water Guidelines (ADWG). Fluoridation is governed by the Fluoridation of Public Water Supplies Act 1957 (NSW), administered by NSW Health. Firefighting capability is assessed against AS 2419.1. Environmental obligations are regulated by the NSW EPA; for Council as a water supply only utility these are limited, and the absence of sewerage functions is

addressed in the Environmental Compliance section. Pricing and cost recovery are set under the NSW Government's Best Practice Management of Water Supply and Sewerage Framework and the Local Government Act 1993.

5.3 Vulnerable and critical health needs customers.

Council recognises that some customers depend on continuity of supply for critical health or care needs, and that others experience vulnerability affecting their access to services or their capacity to pay. This is addressed principally through Council's drought and emergency arrangements and its Debt Recovery and Financial Hardship Policy and Dialysis Rebate Policy as well as its pricing guidance. The Drought Management Plan identifies customer groups with distinct needs during water shortages, for example hospitals and schools, and provides that in severe emergencies critical human needs receive priority, with restrictions instead directed to lower priority uses.

Supply failures are prioritised by their impact on critical uses: an interruption to a critical use at a critical time attracts a response within one to two hours, and a critical use at a non critical time within three to four hours.

Under the most severe restriction levels, critical facilities such as hospitals, hospices, nursing homes, rehabilitation centres and childcare facilities may continue essential water use provided they prepare and comply with a Water Savings Action Plan, and exemptions are available to aged care and nursing home facilities. Through its pricing policy, Council also recognises its community service obligations, including pensioner rebates on water charges.

Council's current arrangements identify and protect critical customers during drought and emergencies, through the priority and exemption provisions set out in its Drought Management Plan, and recognise vulnerability through its pricing policy and pensioner rebates. These protections are presently centred on drought and emergency conditions rather than operating as a single year round framework, and a consolidated register of critical health needs customers, with an associated process for identifying vulnerable customers and providing priority notification of interruptions at all times, is not yet in place. This pattern is consistent across the region, with the constituent councils' land use planning documents similarly noting that data and awareness of vulnerable groups' needs could be strengthened. The Regulatory and Assurance Framework expects utilities to understand the critical health needs and vulnerable customers within their customer base and to reflect those needs in their service levels and engagement.

5.4 Customer Engagement and willingness to pay

Council's current levels of service are informed primarily by its regulatory obligations and established operational practice rather than by structured customer engagement. The Regulatory and Assurance Framework expects utilities to shape their discretionary service levels through periodic customer engagement, undertaken at least once every four years and reaching at least the 'involve' level of the IAP2 spectrum, and to take account of customers' willingness to pay for service above the

regulated minimum. Council has not undertaken customer engagement of this kind to date.

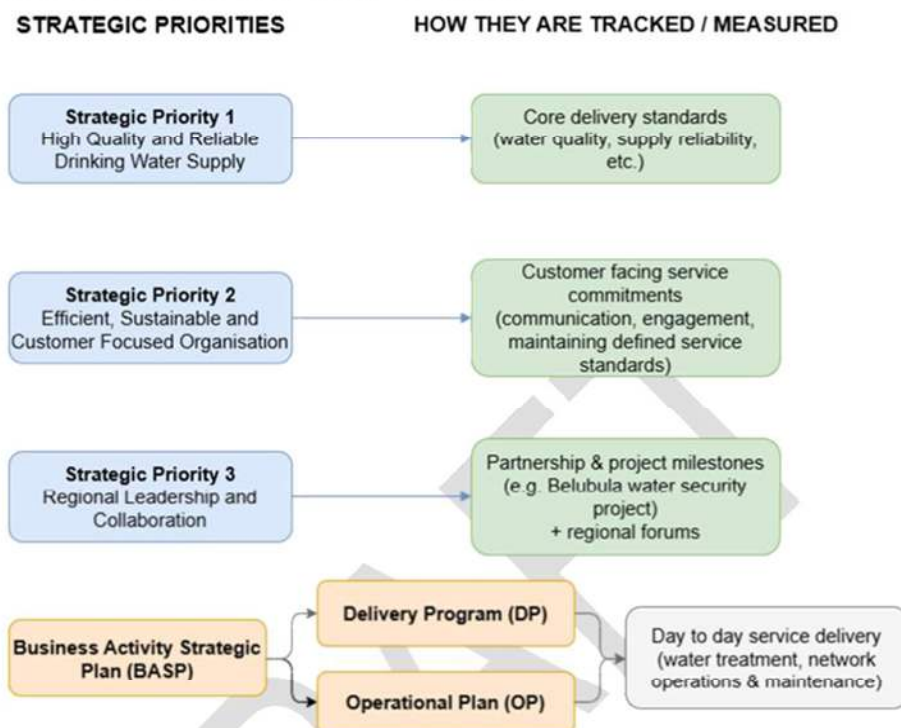
Council needs to understand what water security will cost before it can have a real conversation with customers about price and willingness to pay. Willingness to pay cannot be tested in the abstract. Customers can only give a considered view when they can see what the service levels will cost, and what that means for the typical residential bill. So, costing Council's discretionary service levels is not just an input to its own planning and investment decisions. It is also the foundation for an open conversation with customers about the link between service standards, investment and price. This is the kind of engagement the Regulatory and Assurance Framework expects.

5.5 Levels of Service and Current performance

Council manages its levels of service and performance within the NSW integrated Planning and Reporting (IP&R) framework. Rather than a single consolidated KPI list, performance is tracked through specific activity measures aligned to each Key Result Area (KRA), spanning Council's three strategic Priorities. Figure 5.4 shows how each priority is tracked and where it is reported. Each action is accounted for in Levels of service span across Council's three strategic priorities.

The specific reporting route for each is set out in the relevant section of this Plan. Figure X is intended to show that each priority is tracked and reported, not to set out every reporting pathway in full.

Figure 5.4 Council's Three Strategic Priorities



5.6 Benchmarking

To support benchmarking against other NSW water utilities, the Performance Summary table below consolidated the relevant indicators from the Bureau of Meteorology's National Performance Report, Water and Wastewater Service Providers (NPR), alongside Council's local levels of service targets. This consolidation responds directly to the RAF's performance monitoring requirements, which call for strategic plans to be assessed against the NPR indicator set along with NSW specific levels of service, pricing, financial and workforce data (RAF, 2022 - section 3.3 and 8.2, p55).

Each indicator is mapped to its corresponding Strategic Priority and KRA, showing where it sits within Council's planning structure, to whom it is reported (where possible, DCCEEW draws on data already reported rather than duplicating reporting requirements), and the broader framework it forms part of. For example, indicators for water main breaks and interruption response sit under KRA 1.1 (Service Provision Through Fit-for-Purpose Infrastructure), while workforce indicators sit under KRA 2.4 (A Capable and Effective Workforce).

The table does not replace Council's existing activity based reporting through the DP, OP and BASP. It provides the consolidated, benchmarkable view the RAF requires, sitting alongside Council's existing levels of service monitoring, and

demonstrates that the RAF indicator set and Council's IP&R reporting are aligned rather than separate or competing systems.

This table is a physical representation of the way that the RAF indicator set can be read in collaboration with IP&R reporting, and also demonstrates that the two are aligned, rather than separate or competing reporting systems.

The full set of indicators collected and published by the Department of Climate Change, Energy, the Environment and Water (DCCEEW), including detailed definitions and statewide benchmarking data, is available via the performance monitoring dashboard and annual reports on the DCCEEW website. .

5.7 Performance summary

Council's performance against a set of benchmarked indicators, compared with the median for its peer group. A full set of indicators, benchmarks and methodology is provided at Appendix 5.

Performance Summary Table

Indicator	Unit	Council	Peer median	Performance
Water resources				
Volume sourced (surface water and groundwater)	ML	2,082	1,123	— Structural
Average residential water use per property	kL/property	144.8	233.2	▲ Favourable
Assets				
Length of water mains	km	659 ²	170	— Structural
Properties served per km of main	properties/km	9.3	25.5	— Structural
Water main breaks per 100 km	breaks/100 km	7.7	15.6	▲ Favourable
Non-revenue water	% of water sourced	28.6	10.9	▼ For attention
Customers				
Water quality complaints per 1,000 properties	per 1,000	2.4	2.0	— Comparable
Water service complaints per 1,000 properties	per 1,000	5.9	3.5	▼ For attention
Average duration of unplanned interruption	minutes	—	—	— To be reported
Unplanned interruptions per 1,000 properties	per 1,000	8.3	4.1	▼ For attention
Public health				

² CTW report 659km of mains to NPR, however CTW's asset register records 585km of mains.

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Population with microbiological compliance	%	—	—	— To be reported
Pricing				
Typical residential bill	\$	929	776	▼ For attention
Finance				
Operating cost per property	\$/property	—	—	— To be reported
Economic real rate of return	ratio	—	—	— To be reported
Capital expenditure per property	\$/property	136	225	— Comparable
Workforce				
Workforce capability and development	qualitative	In development	n/a	— In development
Council local levels of service (no peer benchmark)				
Fire-fighting compliance (% urban area, AS 2419.1)	%	Under assessment	n/a	— Local target
Minimum / maximum delivery pressure	m head	20–60	n/a	— Local target
Response time to supply failure (by criticality)	hours	P1 1–2; P2 3–4	n/a	— Local target

▲ better than peer median
reported / local

— comparable / structural

▼ area for attention

— to be

Benchmark = median of the NSW very small peer group (fewer than 10,000 connected properties), NPR 2024–25; peer counts vary by indicator. Local levels of service are CTW-set standards without a peer benchmark. Full indicator detail, sources and methodology are at Appendix 5.

Note on the current typical bill, this figure is NPR 2024/25 benchmark and is a standardised prior year indicator: this is separate and different to the current typical residential bill reported elsewhere in this document, which is based on 2026/27 figures.

Taken together, the indicators in this table present a broadly positive performance picture for Council, with some areas identified for continued focus. Council performs well against NSW peers on key infrastructure and efficiency indicators; water main breaks per 100km (7.72 against a median of 15.55) and capital expenditure per property (136.18 against a peer median of 224.96).

Several indicators in this table are best read as structural characteristics of Council's operating environment rather than as measures of good or poor performance. The clearest is network extent. Council maintains around 659 km of water mains, nearly four times the peer group median of 170 km, while serving only about 9 properties per kilometre of main, roughly a third of the peer median of 25. In other words, Council spreads a comparatively small customer base across a very large network, a direct consequence of supplying 14 towns and villages dispersed across the Blayney, Cabonne and Weddin local government areas rather than a single concentrated town.

This geography drives much of the table. A long, sparsely loaded network means more infrastructure to maintain and renew per customer, which flows through to higher capital and operating costs per property and, ultimately, to a typical residential bill in the upper quartile of the peer group. It also places Council's larger volume sourced and lower properties per km figures in context: these reflect the scale and

spread of the service area, not inefficiency. Against that backdrop, Council's performance on water main breaks (7.7 per 100 km against a peer median of 15.6) is notable, indicating that the extensive network is being managed well relative to its size.

On the demand side, average residential water supplied per property (144.83kL against a peer median of 233.18kL) indicates efficient end use by customers. However, non revenue water at 28.60%; which sits well above the peer median of 10.9%, indicates that system side water losses represent a significant efficiency challenge, and is a primary driver of the gap between strong customer side demand efficiency and overall network efficiency. This is acknowledged by Council and is directly addressed through the planned water loss management project committed to in the 2027-2032 Delivery Program (Activity 1.5.1.2).

Customer complaint rates for both water quality and service sit in the middle range of the peer group, while unplanned interruptions per 1000 properties (8.31) are above the peer median (4.06) but below the group mean (9.88). Pricing reflects Council's position as a geographically dispersed stand alone utility, with the typical residential bill \$928.80 sitting in the upper quartile of the peer group.

Several indicators, including microbiological compliance, fire fighting compliance and workforce capability metrics, are either pending data availability or under active assessment and are flagged for updating as that information becomes available.

Collectively, the table demonstrates that Council's strategic planning is aligned with the RAFs performance monitoring requirements, and that its IP&R reporting structure provides a sound and coherent framework for tracking performance against both NPR indicators and Council's own levels of service.

It is also worth noting that while Council's customers demonstrate comparatively efficient water use, with average residential consumption well below the NSW peer group median, forward planning will require a conversation with the community about the long term sustainability of water supply. The 2025 Sub Regional Town Water Strategy (SRTWS) identifies that Council's existing network is already unable to provide the required yield to meet (then) current 2023 demands if adopted levels of service targets are to be achieved, when operating as a standalone system.

Climate modelling under the NARCLiM drying scenario projects a very significant decrease in groundwater recharge - up to 25% - across the Molong, Cudal, Gooloogong and Quandialla systems, driven by the combined effect of decreased rainfall and increased temperature (Premise 2025, Appendix D; see also main report Section 4.5). Surface water security is similarly affected: simulated restriction frequencies for the Orange, Molong and Council systems under this scenario approach those otherwise projected for 2053 demands under baseline climate assumptions, indicating that stress levels expected decades from now are already emerging under a drying climate (Premise 2025, Section 4.4.3).

Demand modelling in the SRTWS projects average year extraction increasing from 1,993 ML/year in 2023 to 2,132 ML/year by 2053, with dry year (99th percentile) extraction reaching 2,562 ML/year (Premise 2025)³.

The SRTWS conclusion that a standalone Lake Rowlands cannot meet adopted levels of service, and the augmentation options that respond to it, are set out in the Water Security section

Council is committed to engaging transparently with its communities on these challenges, recognising that customers who already use water efficiently deserve honest information about the supply pressures ahead and the role demand management will play in the interim.

³ The SRTWS demand model adopts a CTW population base of 8,678 (2023) rising to 9,867 (2053). This differs from the current serviced population of approximately 15,000 reported elsewhere (Central Tablelands Water 2026), as the two figures are defined on different bases, the SRTWS population reflects the specific demand modelling boundary used in the hydrological model, rather than CTW's full serviced population. The extraction projections above should be read on that basis.

6 Operating Environment

Council's strategic planning is shaped by and must align with the broader policy and regulatory environment in which the utility operates. At the state level, the NSW Water Strategy sets the overarching objective of improving the security, reliability, and quality of the state's water resources for future generations. This is applied regionally through the Lachlan Regional Water strategy, which aims to improve water security, water quality and flood management for regional towns, improve water access reliability and support the health of environmental systems.

Council's planning is also informed by the Central NSW Joint Organisation regional priorities, particularly those related to regional water security, productive water and climate change adaptations.

Since the 2015 Strategic Business Plan, the regulatory landscape has evolved substantially, most notably with the DCCEEW's RAF, which formalised the departments approach to performance monitoring, strategic planning and benchmarking against the NPR indicators.

Alongside external policy drivers, Council's internal operating environment is shaped by pressures that have become more pronounced since the last strategic plan was released in 2015. The utilities water and supply assets are aging, with key infrastructure reaching the end of its useful life. Storage and reservoirs date from the 1930's and very few new assets have been built in the last three decades, the result of this is that infrastructure pressures are growing, with extensive expenditure expected in the coming years.

At the same time, the towns and villages serviced by Council continue to experience population change, which has implications for both demand and infrastructure planning. Climate variability and drought are placing growing pressure on the region's water supply systems. Each of these pressure is examined in details in the sections that follow:

- Demographic trends in the Population Assessment and Projections section,
- Asset condition and renewal in Asset Management Planning section,
- Demand implications in the Water Usage Projections section,
- Supply reliability under climate stress in the Water Security section.

7 Population Assessment and Projections

Population and dwelling growth across Council's service area is shaped by a combination of local trends across the Cabonne, Blayney and Weddin LGAs, together with town level development activity in the priority growth centres. These trends inform Council's network wide planning assumptions used for demand and infrastructure planning.

Council currently provides water supply services to approximately 15,000 customers across about 6,100 connected properties in 14 towns and villages (Council 2021a, Council 2025), and population trends vary considerably by location. For long term financial and network planning, Council applies a network wide population growth assumption of 0.7% per annum. This rate originates in the 2015 SBP, which applied 0.70% per annum on a consistent basis to both the 5,974 water supply assessments recorded in 2013/14 and to service population, projecting population from about 9,665 in 2014 to approximately 11,915 by 2044 (Council 2015). The 0.7% figure is a whole of network financial modelling assumption and should not be read as a uniform growth rate, as there is significant variation in projected growth between LGAs and between individual towns.

Council's Development Servicing Plan adopts a separate growth assumption for developer charge purposes. Rather than applying the 0.7% rate, the DSP is built on observed developer charge take up over 2013 to 2018, which averaged about 30 new dwellings per year, and projects this flat at 30 new ET per year with no non residential growth (Council 2021). The 0.7% financial rate and the 30 ET DSP assumption therefore rest on different bases and serve different purposes, and neither is derived from the other, both will be discussed below.

7.1 Variation Across the Service Area

Growth is expected to concentrate in the Orange commuter zone, particularly Blayney, Millthorpe and Cargo, where annual growth rates exceed 1% in some Council estimates, reflecting strong inward migration and continued residential attractiveness of the region.

Cabonne Shire is projected to grow between 0.55% and 0.6% per year to 2041, though within the shire Molong and Cargo are growing while Eugowra and Cumnock are likely to decline (Cabonne Council 2021a, Cabonne Council 2021b).

Blayney Shire, which includes the fast growing township of Millthorpe, had a population of 7259 in 2016 and is projected to reach approximately 8000 by 2036, with around 30% of its 2016 population having moved there since 2011 (Blayney Shire Council 2021). This indicates sustained inward migration is a key growth driver alongside natural increase.

Weddin Shire, which Council services through Grenfell, presents a different picture. The shire has experienced population decline over the past thirty to fifty years and state projections anticipate a further fall from 3664 in 2016 to approximately 3050 by

2036 (Weddin Shire Council 2021), although the local council is actively working to stabilise and grow the Grenfell population.

Orange city, while not serviced by Council, is a significant regional growth driver, projected to grow from 41210 in 2016 to up to 65000 by 2053 under high growth scenarios (Cabonne Council 2025), which has implications for regional water demand and the viability of the Central Tablelands Water Grid as a long term supply solution.

7.2 Divergence between adopted forecasts and observed growth.

Town level development activity is now running ahead of the adopted Department of Planning and Environment forecast used in past studies. The 2024 SRTWS adopted DPE rates of 0.35% per annum for Blayney and Millthorpe and 0.5% per annum for Canowindra, and observed dwelling growth in these towns has exceeded those rates. For example, DPE forecast 31 additional occupied dwellings in Millthorpe by 2053, yet Blayney Shire Council is in discussions with developers over subdivisions seeking to create 91 new lots, a gap of about 60 dwellings or roughly 32% above the forecast (Council 2025). Because growth is concentrated in Blayney, Millthorpe and Canowindra and exceeds the earlier forecasts, demand and infrastructure planning for these towns now relies on dwelling based growth scenarios provided by the constituent councils rather than DPE percentages.

The 0.7% per annum network growth assumption, established in the 2015 SBP, remains the financial planning tool applied across the whole network. Applied to the service population, it corresponds to of the order of 100 additional people per year. It was designed for network revenue and expenditure modelling, not for town level infrastructure planning.

The dwelling based projections used for Blayney, Millthorpe and Canowindra operate at a different scale and for a different purpose. Under baseline council settlement strategy rates these are 12 dwellings per year in Blayney, 4 in Millthorpe and 7 in Canowindra, with large lot developments modelled as separate scenarios. They are drawn from the councils' own land use strategies and adopted for hydraulic modelling (Council 2025).

These figures are not inconsistent with the network rate. The three priority towns together account for about 23 dwellings per year on baseline rates alone, which is the large majority of the DSP's network assumption of 30 new ET per year, before the separately modelled large lot developments are added. The demand modelling proceeds from the premise that observed activity in these towns has already outpaced what either the 0.7% network rate or the earlier DPE rate (0.35%) would predict at the town level, which is why town specific dwelling counts were prepared rather than a uniform average.

At a network level, connected properties grew from 5,779 in 2018/19 to approximately 6,139 in 2024/25 (Council DSP 2021; DCCEEW 2025), an average of about 60 per year. This is approximately double the 30 new ET per year adopted in

the DSP, reinforcing that recent growth has run ahead of the network planning assumptions.

What makes this divergence in models important is its effect on the planning basis. The percentage rates that underpinned earlier studies no longer describe conditions in the towns where growth is actually occurring, so continuing to size and stage town infrastructure against them would risk under provisioning capacity and mistiming augmentation in Blayney, Millthorpe and Canowindra. Retaining the 0.7% network rate for revenue and expenditure modelling while adopting the CTWs' dwelling based projections for hydraulic planning is a deliberate matching of each tool to its purpose and scale, not an inconsistency to be resolved.

The two models converge where it counts: the priority towns alone account for the large majority of the DSP's assumed growth before large lot developments are added, and observed connection growth has already reached about double that assumption. The cost of getting this wrong falls in both directions, under built infrastructure in the growth towns or contribution settings that undercharge the development driving the demand, which is why the servicing decisions for these towns are now anchored to committed dwelling activity rather than an averaged rate.

7.3 Translating Growth into Demand

For infrastructure planning, projected new dwellings are converted to demand using the town level average year demand per active residential assessment, which is 157 kL per assessment per year in Blayney, 189 kL in Canowindra and 161 kL in Millthorpe (Council 2025, NSWPW 2024). A further allowance of 78 litres per dwelling per day is added for system losses, and 0.2 ET is added per new dwelling to account for non residential demand as each town grows. These conversion assumptions bridge the dwelling projections described here and the peak day demand and hydraulic modelling presented in the following sections.

8 Asset Management Planning

This section addresses how Council manages its assets over their life cycle to ensure service levels are met. The RAF guidance on asset management also expects formal options analysis, including cost benefit and multi criteria analysis of supply and augmentation options. That analysis belongs to Council's major investment decisions, so it is covered in the Water Security section and the Strategic Decision Making material rather than repeated here.

8.1 Asset Management System and Framework

Council's asset management is governed by a documented system aligned with ISO 55000 (an international standard for asset management) principles. Council has adopted an Asset Management Policy committing to whole of lifecycle, evidence based and risk aware decision making (AMS 2026), and supports it with an Asset Management Strategy that sets the direction and objectives, individual Asset Management Plans that set out the works, and an asset management information system (Metrix) into which it is consolidating its asset register, condition data and renewal modelling (AMS 2026).

There are currently some gaps in data coverage through this system, with formalised maintenance management not being recorded against assets. A legacy paper based system is currently being used, but a random assessment of completed works identified challenges in aligning works completed to the assets the work was completed against. A key improvement identified within the Asset Management Plan is to transition works orders to Metrix to enable capture of maintenance works against the specific assets.

8.2 Major Works

The detailed Asset Management Plan sets out an identified renewal and works program of approximately \$43 million over the period to 2036, with the largest single year being a concentration of renewals around 2035 (Draft AMP). This near to medium term program sits within a 30 year planning horizon, over which Council notes that large renewals are required because the asset base is on average about a third of the way through its useful life (AMS 2026). Council's stated asset renewal objective is to maintain an asset backlog ratio below 2% and to fund renewals so that assets are renewed no later than two years after their target date (AMS 2026).

How this program is funded, and its place in the long term financial plan and price path, are addressed in the Financial Management and Water Pricing sections.

8.3 Growth and Upgrade Works

Beyond renewals, Council faces growth driven investment, with planning for around 1,300 additional dwellings in Blayney Shire and 245 in Cabonne, estimated to lift annual demand by about 36% (AMS 2026). Council is investigating the capacity of

the treatment plants and reticulation network to identify growth constraints, and will explore recovery of costs through the Developer Servicing Plan so that growth contributes to the servicing cost it generates (AMS 2026). Under Section 64 of the *Local Government Act 1993* and Section 306 of the *Water Management Act 2000*, Council levies developer charges on new connections.

Treatment driven upgrades, including the response to the protozoa log reduction shortfall and the transition of disinfection only sources to multiple barrier treatment by 2035 (AMS 2026), are described as capability matters in the Capacity and Capability and Water Security sections and feed into the same investment program.

8.4 Capability, Performance Monitoring and Improvement

Council takes a deliberate approach to building the capability needed to deliver this strategy, combining its core staff with targeted external expertise and regional collaboration through the CNSWJO to access the full breadth of skills asset management requires (AMS 2026). It monitors the effectiveness of its asset management through its asset data objectives, which include holding a history of at least three condition assessments and recording failure information for more than 95% of mains breaks in Metrix, supporting the predictive renewal modelling the guidance expects (AsMS 2026). Council has assessed its asset management maturity against ISO 55001 across four components and identified seven improvement priorities, including capturing failure records, improving demand and yield forecasting, and building organisational skill and systems, with demand forecasting and the strategic asset management plan flagged as the higher priority gaps (AMS 2026). This positions asset management improvement as an ongoing cycle rather than a fixed endpoint.

9 Water Usage Projection

9.1 Supply context

Council's network draws from three sources. Lake Rowlands, a 4,500 ML reservoir on Coombing Creek near Blayney, is the principal source and feeds two treatment plants. The Blayney WTP (6 ML/day design capacity) operates under normal conditions as a standalone system serving Blayney township. The Carcoar WTP (9 ML/day design capacity) supplies the wider interconnected network, including Millthorpe and Canowindra via trunk mains, with a backup connection to Blayney through the Plumb Street reservoir and booster pump station. The Gooloogong groundwater bores serve a supplementary role, supporting Gooloogong, Grenfell and Eugowra, and feed the Moorbel Reservoir to supplement Canowindra when Carcoar WTP supply is constrained. Quandialla operates independently on its own groundwater bore scheme (draft AMP 2026).

9.2 Carcoar WTP

While the Carcoar WTP has a design capacity of 9 ML/day, recent capacity assessment has identified a critical bottleneck that limits its actual operational capacity well below this figure. The raw water inlet pipeline can currently supply a maximum of 6.7 ML/day, meaning the plant is already unable to meet current peak day demand of about 8 ML/day, let alone the projected future requirement of 10.04 ML/day for its core treatment processes (CWT 2026). However, the capacity to supply the maximum of 6.7 ML is dependent on the storage level of Lake Rowlands and as storage levels drop, so does the supply through the inlet, affecting capacity during dry periods meaning the plant is already unable to meet current peak day demand of about 8 ML/day, let alone projected future requirements (CWT 2026).

The capacity of the other treatment processes is higher, with flotation handling up to 9.6 ML/day and coagulation, flocculation and filtration up to 10.1 ML/day, but these are constrained in practice by the inlet limit. The plant is supported by a 12 ML onsite service reservoir.

Council manages the resulting peak shortfall of about 1.3 ML/day through three measures. First, because the 8 ML/day figure is a short term peak rather than a continuous baseline, the shortfall is primarily absorbed by drawing down the network's clear water reservoirs, including the 12 ML Carcoar reservoir, the 1.14 ML Moorbel Reservoir in Canowindra and the 1.36 ML Millthorpe reservoir, an approach confirmed in network capacity assessment and hydraulic modelling (CWT 2026). It is important to note however that these reservoirs are not intended to buffer peak day demand. Their design purpose is to attenuate flow and maintain pressure across the network. Using their storage to absorb peak shortfalls is a workaround solution, rather than a designed response to the peak.

Second, the Gooloogong bores supplement the western part of the system, including Grenfell, Gooloogong and Eugowra, through a direct feed from the Gooloogong bore site when Carcoar WTP is strained. This additional water is provided to the extremities of the network on peak days.

Third, Level 1 water restrictions have been permanently in place across the whole Council supply area since July 2007, prohibiting sprinkler use between 9:00 am and 6:00 pm in summer, which suppresses peak demand. The Blayney WTP does not contribute to bridging this gap, as the interconnection is configured so that Carcoar acts as backup for Blayney and not the reverse (CWT 2026; Council AMP 2026)

The capacity assessment sets the future raw water inlet requirement at 10.04 ML/day, the volume needed to deliver 9.1 ML/day of treated water to the network (CWT 2026). Against this, the inlet's current 6.7 ML/day is the binding constraint, short of both present peak usage of about 8 ML/day and the future requirement.

9.3 Current water demand (2023) baseline

In 2023, aggregated residential average year demand across the three priority growth towns was 179 ML/year in Blayney, 131 ML/year in Canowindra and 51 ML/year in Millthorpe (NSWPW 2024). These are residential figures; in a predominantly rural service area, non-residential demand (rural, commercial, industrial and institutional users) can form a substantial additional share; in Canowindra, for example, non-residential classes account for roughly 43% of total zone demand (NSWPW 2024, Table 4-10), and is carried through separately in the demand projections.

The per-assessment demand figures used for forward planning are climate normalised values rather than raw 2023 consumption, so are different from these earlier figures and are shown below in Table X. These were calibrated on 10 quarterly billing periods from January 2021 to April 2023, the window representative of normal unrestricted demand under permanent Level 1 measures, with the January 2019 to January 2021 period excluded because Level 2 to Level 5 drought restrictions applied. The calibrated model was then hindcast over a 130 year record of historical temperature, rainfall and evaporation to isolate climate dependent use such as outdoor lawn irrigation and evaporative cooling. (NSWPW 2024).

Unit demand per active residential assessment table

	Avg Yr Demand kL/asmt/yr	Dry Year Demand kL/asmt/yr	Average day L/asmt/d	Peak Day L/asmt/d	Climate independent (internal) demand L/asmt/d	Baseline internal demand per person L/person/d [a]
Blayney	157	165	430	814	391	163
Carcoar	148	172	405	830	331	207
Canowindra	189	229	519	1,331	320	168
Manildra	157	182	429	868	319	133
Moorbel	181	245	497	4,568	323	141
Grenfell	168	184	459	1,126	338	169
Eugowra	190	222	520	1,084	326	171

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Cudal	190	212	520	912	377	171
Millthorpe	161	175	440	1,110	390	170
Lyndhurst	154	176	420	839	323	154
Mandurama	139	162	0.381	Climate independent		
Cargo	178	204	486	929	370	142

Source: NSW Public Works (2024), Table 4-11.

These figures rest on different sources and serve different purposes, and are not directly comparable. The normalised average year demand of 157 kL to 189 kL per assessment is a climate corrected measured value; it describes a different quantity from the Developer Servicing Plan's 2019 actual unit demand of about 178 kL/ET/year, which is a planning input for developer charges, and from the Demand Management Plan's 226 kL per connection per year, which is a management ceiling rather than a measured average. (The SRTWS itself treats "assessments" and "connections" as effectively equivalent, one billing assessment per connected property; the distinction between these figures is therefore one of source and purpose rather than of unit.)

Peak day demand for Blayney in 2023 was 2.30 ML/day (2,305 kL/day) against an average day of 1,053 kL/day, a peak to average ratio of approximately 2.2 (NSWPW 2024, Table 4-10). This figure represents whole of zone demand across all user classes - residential, industrial, commercial, public parks and rural - rather than town residential demand alone. New dwellings are converted to demand using the relevant town per-assessment average year figure, plus a losses allowance of 78 L/day per dwelling, and non-residential growth at 0.2 equivalent tenements per new dwelling (NSWPW 2024).

9.4 Dry Year Demand

The SRTWS also reports a dry year demand: 165 kL per assessment in Blayney, 229 kL in Canowindra and 175 kL in Millthorpe (NSWPW 2024, Table 4-11), defined as the 99th percentile (1 in 100 year) unrestricted demand drawn from the same 130 year climate record.

These rest on the same Level 1 basis as the average year figures. The SRTWS adopts the permanent Level 1 condition as Council's normal baseline because usable unrestricted data is scarce: only two billing periods in early 2019 reflected genuinely unrestricted demand, with the January 2019 to January 2021 record lost to Level 2 to Level 5 restrictions. It justifies this by analogy to permanent water savings schemes now used by some NSW utilities to reduce extraction.

9.5 Network Losses and Unaccounted for water.

Network losses represent a material component of total demand and a significant priority in the Council network. Non revenue water has increased substantially over time. It rose from 9.3% of sourced water in 2013/14 (Council 2015) to 14% by

2017/18. Of that, actual leakage accounted for an estimated 12% of total sourced water in that year. Expressed in the per connection terms used to compare utilities, the 2017/18 loss equated to about 160 litres per service connection per day. The state wide median is 92 litres. Council's losses were therefore well above typical performance (Council DMP 2021).

The deteriorating trend has continued. Council reported network losses of 28.6% to DCCEEW for 2024/25, more than three times the 2013/14 figure. The 2021 DMP assumes around 50% of these losses are avoidable. The remainder is attributable to necessary unbilled activities such as mains flushing and firefighting. The NSW Public Works demand analysis and water quality risk assessment (NSWPW 2024) identified an Infrastructure Leakage Index of 8.2 for the Blayney system in 2024/25. This means leakage runs at 8.2 times the unavoidable minimum, a "very high" leakage category. Together these measures underscore that active leakage management is one of the most immediate opportunities to reduce effective demand without supply side augmentation (NSWPW 2024).

9.6 Projected Water demand to 2055

Under the growth scenarios adopted from council settlement strategies, peak day demand is forecast to reach 4.9ML/day in Blayney, 2.62ML/day in Canowindra and 0.81ML/day in Millthorpe by 2055 against a total network peak day of 14.0ML/day (Council 2025). Against this trajectory, the inlet constraint for Carcoar WTP described above makes infrastructure augmentation an operational necessity.

The network wide planning growth rate of 0.7% per annum, adopted in the 2015 Strategic Business Plan, is a separate measure from the Developer Servicing Plan's assumption of approximately 30 equivalent tenements (ET) per year. Recent localised development proposals in Blayney, Millthorpe and Canowindra are expected to generate 40 ET or more per year in those towns alone, accelerating growth above the network average in those locations (Council 2025).

Climate change is projected to compound the pressure from both supply and demand side. Modelling using the CSIRO and Bureau of Meteorology Climate Change in Australia tool under a high emissions scenario anticipates mean surface temperature increases of 0.5 to 1.5°C, with moderate consensus that winter rainfall will decline by 5 to 15% (AMP 2026). A 2014 NSW Office of Environment and Heritage regional snapshot for the Central West and Orana region forecast a 10-20% decrease in spring rainfall (Council DMP 2021).

On the supply side, climate change impacts are expected to reduce inflows by 15% to 25% into Lake Rowlands over the next 30 years, translating to an estimated reduction in dam yield of up to 17.6ML per year (SMEC 2010). Demand is expected to increase concurrently as high temperatures drive greater peak consumption and evaporation. Raw water quality is also expected to deteriorate, with larger storm events imposing high pollutant loads on treatment infrastructure, and extreme heat events posing risks to power supply at treatment and pumping facilities on peak demand days (AMP 2026, Council DMP 2021).

9.7 Demand Management

Council's current demand management plan (Council 2021) outlines initiatives over a four year period aimed at maintaining efficient water use and supporting supply security. The plan targets residential consumption of 226kL per connection per year and an overall daily use of 254 litres per person per day.

Key measures include:

- permanent water restrictions applying baseline controls to all customers,
- routine monitoring, and maintenance across 561km⁴ of water mains,
- investigation of drone based visual inspection of 294km of remote transfer main,
- community education on water saving practices and,
- key user audits for high volume commercial and industrial customers during Level 3 of higher restrictions.

Estimated annual water savings from these measures are 35 ML/year from permanent restrictions, 13 ML/year from community education, 5 ML/year from water loss management and 0.22 ML/year from key user audits (Council 2021)

However, demand management alone will not be sufficient to meet projected future requirements (AMP 2026, Council 2021). Even with full implementation, the combination of growth driven demand increases, climate driven reductions in supply, the Carcoar WTP inlet constraint and the approaching limits of network reservoir storage means that significant supply side infrastructure augmentation is needed, which is discussed in the next section.

⁴ CTW's Demand Management Plan states this figure. It is different to both the 585km of mains recorded in the Asset Register and the self reported figure of 651km submitted to the NPR.

10 Water Security

Council's water security is underpinned by a single primary source, Lake Rowlands, a 4,500 ML reservoir on the Coombing Creek, a tributary of the Belubula River, completed in 1953 with a catchment of approximately 197 km² (Council DMP 2021). While the network also draws on groundwater bores and benefits from regional pipeline connections, system security is fundamentally tied to the storage and yield of Lake Rowlands. As a surface water source dependent on catchment rainfall, Lake Rowlands has a low level of climate resilience, and Council's supplementary groundwater offers only limited rainfall independence. The network does not currently include a climate independent source. A combination of existing infrastructure constraints, projected demand growth and climate driven reductions in inflows means water security represents Council's most significant long term challenge. Demand projections and source descriptions are set out in the Water Usage Projection section, and raw water quality and treatment in the Water Quality section.

10.1 Existing supply constraints.

The most immediate supply side constraint is the Carcoar WTP raw water inlet, which limits raw water delivery to 6.7 ML/day against a peak day demand at Carcoar of approximately 8 ML/day, with future requirements increasing further (CWT 2026). This is discussed in more depth in Water Usage Projections.

Beyond the inlet constraint, the primary storage is under growing pressure. Lake Rowlands has an annual extraction entitlement of 3,150 ML, which is a licence limit rather than a measure of reliable yield. The reliable yield sits well below this. The November 2010 safe yield review (SYR) estimated an unadjusted safe yield of approximately 2,050 ML/year, reducing to approximately 1,900 ML/year once climate change was factored in (SMEC 2010). The climate adjustment is based on CSIRO estimates of up to a 10% rainfall reduction in south east Australia by 2030, which the SYR modelled as a 15 to 25% reduction in inflows, with the safe yield calculated at the upper end of that range. Applied across a 30 year horizon, this same reduction equates to a progressive decline in yield of about 17.6 ML/year (SMEC 2010) (note: this is the same climate reduction expressed year on year, not an additional loss on top of the 1,900 ML figure). The dead storage level is 900 ML, below which no further water can be extracted under normal operations (Council 2021). Historical storage data from 1983 to 2019 shows significant drawdown during the Federation, Millennium (2001-2010) and 2017-2020 droughts, with storage approaching or entering lower restriction bands on multiple occasions (Council 2021).

10.2 Water security assessment

Council's water security has been assessed in the 2025 Sub Regional Town Water Strategy (SRTWS) using a level of service framework, which measures the frequency, duration and magnitude of restriction events rather than a single yield volume (SRTWS 2025). The surface water assessment (OD Hydrology 2023) modelled Lake Rowlands against 130 years of historical climate data, a 10,000 year paleo-stochastic record, and a NARClIM drying climate scenario, consistent with DCCEE's expectations for water security analysis.

The assessment found that Lake Rowlands operating as a stand alone system does not meet the adopted level of service targets. Level 3 restrictions are triggered far more often than the 1-in-10-year target under both current and 2053 demand:

Lake Rowlands as a stand alone system - modelled restriction frequency

Trigger event	Adopted target	Current demand	2053 demand	Drying climate
Level 3 restrictions	≤ 1 in 10 yrs	1 in 4 yrs	1 in 3 yrs	—
Level 6 restrictions	—	1 in 11 yrs	1 in 9 yrs	1 in 4.1 yrs
Supply shortfall	—	none	1 in 825 yrs	—

Source: OD Hydrology 2023; SRTWS 2025

10.2.1

10.2.2 Council assessment compared to the Yass Valley assessment

The 'Town Water Supply Security Using NSW Regional Water Strategy Climate Data' - Yass Valley case study (HARC 2025) is provided as an example of water security assessment for the Regulatory and Assurance Framework. It shares the same foundation as the SRTWS assessment, the Regional Water Strategy climate datasets and a level of service framework, but differs in two essentials. First, the Yass study models demand as climate varying, rising in dry years and falling in wet years, whereas the SRTWS assessment held demand constant. Second, the two were built for different purposes: the SRTWS assessment tests whether the existing system passes or fails its targets under set demand scenarios, while the Yass method is a yield optimisation approach designed to find a system's maximum sustainable yield.

The level of service assessment is fit for purpose at the strategic planning stage, and Council may apply a dynamic, yield optimisation method of the Yass kind in the Belubula Water Security Project business case, where sizing and comparing options is the relevant task. The difference does not weaken Council's conclusion: because holding demand constant understates drought stress rather than overstating it, a climate varying method would show equal or greater stress, so the finding that augmentation is required is robust.

10.3 Lake Rowlands

Council holds a current local water utility water access licence with a share component of 3,150 ML for town water supply purposes, in the Belubula Tributaries Below Carcoar Dam Water Source, under the Lachlan Unregulated River Water Sources water sharing plan. The associated works approval is 70CA614138. As an unregulated source, take is account based and subject to an annual available water determination. Consistent with the priority the water sharing plan affords town water supply, Council's licence is exempt from the cease to take and pool protection rules that apply to general licence holders (NSW Government 2026), and neither the access licence nor works approval 70CA614138 carries any environmental flow, passing flow or cease to pump condition.

10.4 Groundwater sources and drought resilience

Council's groundwater bores provide supplementary and standby supply, but their reliability in drought varies significantly by source. A 2024 hydrogeological assessment (C.M. Jewell and Associates 2024) evaluated four Council groundwater supplies: Cudal, Bangaroo, Gooloogong and Quandialla.

The (two) Gooloogong bores are the most resilient. Drawing on the Upper Lachlan alluvial aquifer, which is recharged by riverbed leakage and overbank flooding from the regulated Lachlan River, the borefield retains high drought resilience in all but the most extreme droughts. It has a combined capacity of about 5 ML/day and has sustainably pumped its full licensed 400 ML/year, with scope for more if required and permitted (C.M. Jewell and Associates 2024).

The Bangaroo bores draw on the same alluvial system and are similarly not climate vulnerable. If refurbished, they could provide an emergency supply of approximately 5 ML/day. That availability is constrained, however: the assessment found that extraction by neighbouring irrigation properties is unsustainable and has created a significant cone of depression, with drawdown now exceeding 40% of the pre-development total available drawdown, the point the assessment treats as a management threshold for potential long term aquifer damage. Council's licensed share is only about 12% of the surrounding irrigation entitlement (a 472 ML/year share component), so any additional extraction by Council in a drought would worsen the drawdown unless adjacent pumping is curtailed (C.M. Jewell and Associates 2024).

By contrast, the Cudal and Quandialla bores are rainfall dependent and rated as significantly vulnerable under a drying climate. Cudal is expected to provide reasonable drought resilience under current conditions, but under a high emissions scenario reduced recharge makes supply failure likely in longer, more frequent droughts. Its water is of generally acceptable quality, slightly hard with manganese marginally above aesthetic guidelines, with broadscale agricultural chemicals the main ongoing contamination risk (C.M. Jewell and Associates 2024).

Quandialla, which supplies its township as a standalone scheme, sits on the Bland Creek alluvial aquifer, which receives no river recharge and has very low rainfall recharge. Water levels have fallen approximately 12 metres since the 1990s, and confidence in its drought resilience is low given limited understanding of the local hydrogeology (C.M. Jewell and Associates 2024).

The Blayney Well and Blayney Blue Hole, identified in the Drought Management Plan as standby options, were not assessed by C.M. Jewell and Associates. The SRTWS notes a potential combined capacity of approximately 188 ML/year and an inherent microbial risk rating of low, conditional on bore caps and casings remaining intact to prevent surface water ingress (SRTWS 2025).

Taken together, the groundwater sources most resilient to drought (Gooloogong and Bangaroo) draw on the regulated Lachlan alluvium, while the source closest to the core network as standby drought supply (Cudal) and the standalone Quandialla scheme are the most climate vulnerable. Groundwater therefore provides valuable

but uneven drought support, and does not substitute for securing the primary surface water supply.

Council Water Sources Overview Table

Source	Licensed entitlement (ML/yr)	Capacity / yield	Drawdown	Risk
Lake Rowlands (surface, primary)	3,150	Safe yield approx. 1,900 ML/yr (climate-adjusted) (Entitlement = 3150ML/yr)		High
Gooloogong Bore 2	400 (combined with Bore 2)	approx. 3.8 ML/day		Low
Gooloogong Bore 3		approx. 3.8 ML/day		Low
Bangaroo BH 1	472 (combined share)	approx. 5 ML/day combined (if refurbished)	>40% TAD	Moderate-high
Bangaroo BH 2			>40% TAD	Moderate-high
Cudal bore	100	0.35 ML/day installed		High
Quandialla Bore 1	266 (combined)	approx. 2.6 ML/day achievable	approx. 12 m decline since 1990s	High
Quandialla Bore 2		approx. 2.6 ML/day achievable	approx. 12 m decline since 1990s	High
Blayney Well / Blue Hole (standby)		approx. 188 ML/yr potential		Not rated

Sources: SMEC 2010; OD Hydrology 2023; SRTWS 2025; C.M. Jewell and Associates 2024; Council DMP 2021. Entitlements are licensed shares, not reliable drought yields. Full detail in Appendix 1.

The following balance consolidates Council's licensed sources against projected demand, and illustrates why licensed entitlement overstates the security the system can actually rely on.

Table : Urban water balance - summary

Component	ML/year	Basis
Supply - licensed entitlement		
Lake Rowlands	3,150	WAL 31512 share component
Quandialla bores (standalone township scheme - regularly sourced)	266	Licensed share

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Other bores (standby / potential, not regularly sourced): Gooloogong 400, Bangaroo 472, Cudal 100	972	Licensed shares
Total licensed entitlement	4,388	Sum of above
Blayney Well / Blue Hole (standby, unlicensed potential)	~188	SRTWS potential capacity
Supply - reliable yield		
Lake Rowlands safe yield (climate adjusted)	~1,900	SMEC 2010 (unadjusted ~2,050)
Demand - what the system needs		
Average year extraction, 2023	1,993	SRTWS 2025
Average year extraction, 2053	2,132	SRTWS 2025
Dry year extraction (99th percentile)	2,562	SRTWS 2025
Losses & offsets		
Non revenue water (≈28.6% of extraction) ¹	≈570	Derived (see note)
Interim demand management savings	≈53	DMP 2021

Entitlements are licensed shares, not reliable drought yields. Lake Rowlands' climate adjusted safe yield (~1,900 ML/yr) already sits below current extraction (1,993 ML/yr), which is why supply side augmentation is required (see Water Security).

¹ Non revenue water volume is indicative, derived as 28.6% of 2023 average year extraction (1,993 ML/yr); it is not a separately reported figure.

Sources: SMEC 2010; OD Hydrology 2023; SRTWS 2025 (Premise); C.M. Jewell & Associates 2024; Council DMP 2021.

10.5 Drought Management Framework

Council's response to drought risk is outlined in the Drought Management Plan (Council DMP 2021), structured around the NSW Government's Prevention, Preparedness, Response and Recovery framework. It gives the Council General Manager, in consultation with the Chairman, authority to declare drought and implement staged response actions. Drought triggers are tied directly to Lake Rowlands storage levels, with six escalating restriction levels. Level 1 restrictions have been permanently in place across the entire supply area since July 2007.

Council Drought Restriction Trigger Levels Table

Council Drought Restriction Trigger Levels

Triggers are based on Lake Rowlands storage levels. Level 1 restrictions have been permanently in place across the entire Council supply area since July 2007.

Restriction level	Lake Rowlands trigger	Residential target (L/person/day)
Level 1 — low	100% — 4,500 ML	260 L/person/day
Level 2 — moderate	60% — 2,700 ML	240 L/person/day
Level 3 — high	50% — 2,250 ML	220 L/person/day
Level 4 — very high	40% — 1,800 ML	200 L/person/day
Level 5 — extreme	35% — 1,575 ML	160 L/person/day
Level 6 — critical	30% — 1,350 ML	120 L/person/day
Dead storage	20% — 900 ML — absolute minimum, emergency access only	

Source: Council Drought Management Plan 2021 (Council, 2021)

Note: OD Hydrology's modelling applied a Level 1 storage trigger of 3,150 ML; Council's operational Level 1 is permanent at full supply, so the modelling triggers and the operational triggers differ at Level 1 only.

Modelling of a no inflow scenario from an initial dam level of 80% confirms that progressive restrictions can extend longevity significantly, with the network able to sustain supply through escalating restriction levels before reaching dead storage, though the precise duration is highly sensitive to actual demand and inflow conditions (Council 2021b).

10.6 Supply side drought response

The DMP identifies a staged supply side action plan to complement demand restrictions during drought. At lower restriction levels (1-2), Council monitors all bore capacities and Lake Rowland storage, and investigates delivery options from other sources. At levels 3-4 Council reviews alternative groundwater supply options, designs engineering projects including pipelines and bores and comments construction of long lead time projects. At level 5, infrastructure for accessing Lake Rowlands dead storage is trialled and construction of short lead time projects is completed. At Level 6, access to dead storage is activated as an emergency only measure (Council 2021b).

Additional supply side options identified in the DMP include standby and unused bores that can be brought online subject to water quality investigation; specifically, Cudal Bore, Bangaroo Bore No. 1 and No. 2, Blayney Well, and Blayney Blue Hole. Water carting is explicitly assessed and ruled out as impractical and expensive (Council 2021b).

10.7 Regional Water Sharing

Two regional pipeline connections provide potential supplementary supply options during drought.

The Orange to Carcoar bi-directional pipeline was commissioned in April 2019, providing a physical link between the Council network and Orange City Council and connecting the Lachlan and the Macquarie catchments. The pipeline was installed to provide bulk water supply from Orange City Council and to support regional water sustainability. However no water transfer has yet occurred through this infrastructure, and formal water sharing rules between the catchments are yet to be developed with key stakeholders (Council 2021b, AMP 2026).

A second bi-directional pipeline between Council and Cowra Shire Council via Woodstock was commissioned in 2021, providing a further potential water source in drought (Council 2021b). However, these pipelines are bi-directional, and in a drought event, Orange City Council and Cowra Shire Council may experience increased demand on their own water supplies, which may negate the beneficial effect at a time of greatest constraint (Council 2021b).

The vulnerability of Council's supply to drought is well established by historical record, alongside observed rainfall decline. This context confirms that water security represents a structural planning challenge for Council, and that demand management and existing operational responses alone cannot address the challenge. Therefore, any future strategies require a supply side augmentation, which is currently being pursued and explored by Council.

10.8 Proposed Augmentation Strategies

10.8.1 Water Security Augmentation - the Belubula Water Security Project

Demand management and operational drought responses cannot address the compound risk of demand growth, the Carcoar inlet constraint and climate driven yield reduction. Council is therefore pursuing supply side augmentation through the Belubula Water Security Project, jointly delivered by Water Infrastructure NSW with Council and WaterNSW. A Final Business Case is being prepared and assessed by the NSW Government, with \$7.7 million jointly funded by the Australian Government (through the National Water Grid Fund) and the NSW Government to develop it.

Three options have been shortlisted for detailed investigation: a pipeline transferring up to 2 GL/year between Lake Rowlands and Carcoar Dam; raising the Lake Rowlands dam wall to increase storage from 4,500 ML to 8,000 ML; and a combination of both. Two options considered earlier - a new dam downstream of Lake Rowlands and an interregional Belubula-Macquarie pipeline - are not being progressed in the business case.

Preliminary SRTWS modelling indicates that raising Lake Rowlands to 8,000 ML would substantially improve Council's level of service, lifting the Level 6 restriction recurrence interval from about 11 years to approximately 990 years at current

demand and 198 years at 2053 demand. Beyond the Belubula project, the SRTWS identifies longer term, sub-regional security through integrating the Orange, Molong and Council schemes into a Central Tablelands Water Grid, which it estimates would raise combined sub-regional yield from 5,806 to 9,000 ML/year (2023 terms). This remains a long term direction with funding received from the National Water Grid Authority to undertake a preliminary business case to consider the viability of this integration of water schemes.

The dam wall raising also resolves an obligation Council carries regardless of the project: Lake Rowlands does not meet current dam safety standards. If the raising is funded, those safety works are addressed within the project; if the pipeline is selected or no option proceeds, Council faces standalone dam safety works estimated at approximately \$26 million (see Disaster Preparedness).

The total capital cost of the augmentation will be established by the Final Business Case (expected 2026) and will depend on the option selected; as the works are delivered externally, they do not appear as a construction cost in Council's own program. Council's forecast contribution is \$6 million ["Lake Rowlands Enabling"], of which \$3 million is loan-funded from 2030/31 - see Financial Management and Water Pricing. The Long Term Financial Plan indicates the raising may commence as early as 2029.

The level of service targets above were adopted through the SRTWS technical process. Council has not yet undertaken customer and community engagement on the water security level of service or on willingness to pay for increased security, which the DCCEEW RAF guidance expects; this is discussed further in the Water Pricing section.

11 Water Quality

Council's water quality management is governed by the Australian Drinking Water Guidelines (ADWG), which set health based and aesthetic standards for drinking water, and by the Public Health Act 2010 and Public Health Regulation 2022, under which Council operates a Drinking Water Management System (DWMS).

Water Quality Table

Council's adopted levels of service for water quality reflect its obligations under the ADWG, the Public Health Act 2010 and Public Health Regulation 2022:

Water quality aspect	Adopted target
Health-based parameters	100% compliance
DWMS requirements	100% compliance, zero Critical Control Point (CCP) exceedances
Physical & aesthetic parameters	> 95% compliance
Water quality complaints	Fewer than 26 per year (network-wide)

Source: Council 2015; Council LOS 2026

11.1 Managing Water Quality Through the DWMS

Council manages drinking water quality through its DWMS (Council DWMS 2025), which provides a systematic framework for identifying and managing risks from catchment to tap, structured around the twelve elements of the ADWG Framework for Management of Drinking Water Quality. The DWMS documents Council's risk assessments, preventive measures, critical control points, verification monitoring and incident response, and is supported by a documented Water Quality Management Policy for the Supply of Public Drinking Water (Council 2024), staff training, and community communication delivered through Council and its constituent councils (Council DWMS 2025).

11.2 Review, Implementation and Audit

The DWMS is reviewed annually. The Water Quality Manager conducts an annual review of DWMS implementation, documented in a DWMS Annual Report, supported by monthly water quality meetings with senior executive involvement, and a comprehensive review and update every four years in line with the Strategic Business Plan (Council DWMS 2025). Improvement actions are captured in Council's Drinking Water Quality Management Improvement Plan, which is documented within the DWMS and updated with the findings of internal and external review (Council DWMS 2025).

Council conducts internal reviews of the DWMS, and external inspections of the physical system are regularly carried out by DCCEEW water inspectors. A DWMS audit readiness review was conducted in November 2024 through the Central NSW

Joint Organisation, which identified recommendations and opportunities for improvement (Council DWMS 2025). The DWMS responded to those findings and was finalised in 2025, and at this stage no regular external DWMS audit cycle has been scheduled. Council has noted that the frequency of external DWMS audits is to be determined in liaison with NSW Health.

11.3 Source Water Quality: Lake Rowlands

Lake Rowlands is Council's primary raw water source, and its quality is significantly influenced by seasonal thermal stratification and catchment conditions. During summer, temperature differences cause the lake to stratify into a thin continuously mixing surface layer and a thick, relatively stagnant bottom layer. The stagnant bottom layer develops high concentrations of iron and manganese. In winter, as temperatures equalise, the warmer bottom layer rises to the surface in a process known as turnover, which can mix poor quality mineral heavy water throughout the lake and potentially render the entire water body unfit as a raw water source (Council 2015)

To manage this, Council operates an artificial recirculation and destratification program, pumping compressed air through perforated hoses at the base of the dam. The aeration causes iron and manganese to settle out before the water reaches the treatment plant, functioning effectively as a pre-treatment step. Council has recently standardised the operation of this destratification system and adapted its water quality monitoring program to better identify and respond to manganese events (Council LOS 2026).

A Health Based Targets (HBT) risk assessment conducted as part of the 2025 Sub Regional Town Water Strategy (SRTWS) assigned Lake Rowlands surface water an inherent microbial risk rating of medium for both chlorine sensitive and chlorine resistant pathogens. The primary contamination threat is free range livestock grazing within both the inner catchment (within approximately 1km of the dam) and the broader outer catchment. A minor risk also exists from a small number of unserved properties in the outer catchment relying on onsite sewage management systems. Partially offsetting these risks, the large storage volume of Lake Rowlands relative to the volume extracted allows for significant natural settlement within the dam, which naturally reduces pathogen concentrations before water reaches the treatment plants (NSW Public Works 2024).

To protect and monitor the raw water catchment, Council has implemented ongoing measures including the removal of willow trees from the Lake Rowlands foreshore and the progressive revegetation of approximately 10,000 native plants on council owned land within the catchment (Council 2015). Ongoing source water monitoring, mandated under the Council Drought Management Plan, includes daily testing for pH and algae, monthly testing for electrical conductivity, total dissolved solids, alkalinity and general chemical analysis, and investigation of any taste or odour complaints (Council DMP 2021).

11.4 Source Water Quality: Groundwater Sources

Council's supplementary and standby supplies are groundwater: the Gooloogong bores (supplemental to the Carcoar system), the standalone Quandialla scheme, the Cudal and Bangaroo standby bores, and the Blayney Well and Blue Hole standby.

Groundwater is generally less exposed than surface water to the microbial pathways affecting Lake Rowlands, and is chlorinated before supply, with disinfection set as a critical control point for the Gooloogong bores and the Quandialla system (Council DWMS 2025). The 2025 SRTWS Health Based Targets Source Assessment rated the Blayney standby groundwater as low inherent microbial risk, but did not assign a rating to the Gooloogong, Bangaroo, Cudal or Quandialla sources, a limitation the SRTWS itself notes (SRTWS 2025).

Where source chemistry has been assessed, groundwater quality is generally suitable for supply. The Cudal bore is slightly hard, with total dissolved solids and manganese marginally above ADWG aesthetic guidelines, while all health based parameters remain within guidelines (C.M. Jewell 2024). Natural water quality data was not available for the Gooloogong, Bangaroo or Quandialla bores, with road spills and agricultural chemicals identified as the main potential contamination pathways. PFAS sampling at the Gooloogong bore returned results below the detection limit (Council DWMS 2025). Routine monitoring shows that Manganese is marginal at Gooloogong bores and it is expected that any tightening of the ADWG requirements would create a need for additional treatment.

11.5 Treatment Capability and Known Gaps

Council operates two water treatment plants; the Blayney WTP and the Carcoar WTP, which together treat all water sourced from Lake Rowland before distribution to the network. Both plants employ conventional treatment processes including coagulation, flocculation, clarification, pH correction, chlorination and fluoridation, with the Carcoar WTP using a Dissolved Air Flotation (DAF) process for clarification.

Recent capacity and capability assessments of both plants have identified specific treatment deficiencies that require strategic attention.

Both the Blayney and Carcoar WTPs have a deficiency in Log Reduction Values (LRV) for protozoa, with a gap of 1.0 to 2.0 LRV against health based targets. LRV is the measure of how effectively a treatment process reduces pathogen concentrations, a gap of this magnitude means the current treatment trains are insufficient to meet the required level of protozoa removal. Both plants are recommended to install an additional treatment step, with UV disinfection identified as the appropriate solution (CWT 2026, NSW Public Works 2024).

Both plants are also not well equipped to manage per and polyfluoroalkyl substances (PFAS). Existing Powdered Activated Carbon (PAC) dosing systems at both plants may provide some level of PFAS removal, however, this is not a reliable or confirmed treatment pathway for PFAS under current configurations. At the Carcoar WTP, the PAC dosing system is entirely manual and the chemical injection point does not allow for sufficient contact time to achieve optimal treatment outcomes (draft AMP, NSW Public Works 2024). If PFAS becomes a challenge into the future,

further investigation and augmentation will be required to enable adequate treatment.

11.6 Current Compliance Performance

Council currently achieves 100% compliance with health based ADWG targets across its residential, rural and Quandialla networks, 100% compliance with its DWMS obligations, zero CCP exceedances, and no boil water alerts have been issued (Council LOS 2026). Compliance with physical and aesthetic parameters currently sits above 95%, including total dissolved solids, total hardness and fluoride ratio (Council LOS 2026).

Ongoing monitoring of Critical Control Point data at the Blayney WTP between January 2016 and 2022 identified several instances where filtered water turbidity exceeded the 0.5 NTU critical limit, including a sustained exceedance period in January 2022 lasting two weeks. Two instances of free chlorine levels exceeding critical limits were also recorded during that period (NSW Public Works 2024). These findings have informed the treatment capability assessments described above and reinforce the case for the infrastructure upgrades currently under consideration. No incidences have exceeded the critical limit in the current reporting period.

11.7 Distribution system water quality

Water quality risks are not limited to storage and treatment plants. Within the reticulation network, two distribution related issues warrant ongoing management.

The first is chlorine residual decay at rural dead ends. Because of low water usage and long detention times at the extremities of the rural network, it is highly likely that free chlorine residuals in these locations fall below the ADWG recommended 0.2mg/L. Without adequate chlorine residual, there is an increased risk of enteric pathogens or *Naegleria fowleri* surviving in the water in the event of a breach in the pipe or a backflow of contaminated water, or a biofilm buildup within the pipes. Proposed mitigations include the installation of backflow prevention devices and routine flushing programs for dead end mains (AMP 2026).

The second is turbidity and dirty water events associated with burst water mains in the reticulation network. Pipe bursts disrupt supply and temporarily introduce sediment into the network, requiring flushing before normal supply can be restored.

11.8 Customer perception of water

In 2024–25, water quality complaints were recorded at 2.44 per 1,000 properties, marginally above the 'very small' peer group median of 1.99, while water service complaints were higher again at 5.86 per 1,000 properties (peer median 3.46) (DCCEEW 2025). Both sit in the middle range of the peer group. Water quality is therefore a real but secondary driver of customer contact relative to service issues, and Council's adopted level of service targets fewer than 26 water quality complaints per year across the network (Council LOS, 2026). This complaint profile is broadly

consistent with the distribution related aesthetic issues noted above, principally occasional dirty water events following main bursts.

11.9 Future Risks

Climate change and changing rainfall patterns, specifically an increase in intense storm events, will drive higher runoff volumes and greater pollutant loads into the catchment and storage. This is expected to increase raw water turbidity, raise chemical dosing requirements at both WTP's and place further stress on treatment infrastructure. These risks reinforce the importance of treatment capability upgrades identified here and in other documents, including the UV disinfection installations recommended for protozoa LRV compliance.

11.9.1 Water quality of future and changed sources

Drinking water quality is a standard consideration in Council's planning for future assets and source changes. Council's augmentation pathway, including raising Lake Rowlands, a potential Carcoar Dam transfer and bringing standby groundwater bores online, involves source and supply changes with drinking water quality implications. Council assesses water quality risks as part of the planning and design of these future assets, consistent with the risk based approach in its DWMS, so that any new or changed source is brought into drinking water quality management before it enters supply.

11.10 Fluoridation and regulatory standards

Council meets its drinking water quality obligations for fluoridation, supplying fluoridated water in accordance with the Fluoridation of Public Water Supplies Act 1957, the Fluoridation of Public Water Supplies Regulation 2022 and the NSW Code of Practice for Fluoridation of Public Water Supplies, alongside its broader obligations under the Public Health Act 2010 and Public Health Regulation 2022.

Council's planned treatment upgrades affect the order of its treatment process. The proposed UV disinfection step will be installed upstream of fluoridation, so that water passes through UV disinfection before it is dosed with fluoride. Because installing the new UV step alters the existing fluoridation plants, and the Fluoridation Regulation 2022 (section 7) requires the approval of the Secretary of NSW Health for any alteration to a fluoridation plant, Council will obtain the necessary fluoridation plant approvals as part of delivering the upgrades. This approval is separate from, and additional to, the approval that may be required for the treatment works under section 60(b) of the Local Government Act 1993.

12 Water Pricing

12.1 Pricing Framework and Regulatory Setting

Central Tablelands Water provides water supply services only, and sets its own prices. As a local water utility it is not price regulated by IPART; prices are self determined under the Local Government Act 1993 and the NSW best practice management framework, with IPART providing an advisory role only. Council adopts its Fees and Charges and its Long Term Financial Plan annually, and maintains a 30 year financial model to inform the budget (DP/OP 2026/27, KRA 2.2). Revenue from water supply charges is ring fenced under section 409(3) of the Local Government Act 1993 and applied exclusively to the water supply business.

Pricing is set to recover the full efficient cost of providing water supply services, at least at the lower bound defined by the NSW pricing framework (operating, maintenance and administrative costs, tax equivalents where applied, interest and a provision for asset renewal), consistent with the Statement of Revenue Policy 2026/27.

Under the NSW competitive neutrality framework, a council's significant business activities should not gain a net competitive advantage simply from being government owned; the council is expected to price them as a private operator would, including the notional costs a private business carries, among them a tax equivalent regime (TER) standing in for the company income tax a comparable private firm would pay. The Regulatory and Assurance Framework raises this question directly, though it bears more on utilities running combined water and sewerage business models than on a water supply only provider like Council. Council is a Category 1 business activity (gross operating turnover of more than \$2m) under the NSW competitive neutrality framework. Council does not apply a tax equivalent regime to its water supply business; its pricing documents and budgeted income statement record no tax equivalent payments.

12.2 Community Service Obligation and Concessions

Council recovers its full efficient cost of providing water supply services through prices and does not rely on a structural community service obligation to do so. Council provides pensioner rebates on water charges, processed in accordance with the Local Government Act 1993, as stated in the Statement of Revenue Policy 2026/27.

12.3 Revenue Sources

Council's pricing is set under a Statement of Revenue Policy adopted annually with fees and charges, built on principles of full cost recovery across direct and indirect costs and operating surplus before capital, and applying the RAF to the setting of fees and charges (Council 2026d). Revenue is built on a two part tariff: a fixed annual availability charge that scales with connection size and a volumetric usage charge, applied uniformly across residential, rural, non residential and industrial customers, with lower rates for non potable water and bulk water (Council 2026c). In

budget terms, these streams produce roughly one third fixed and two thirds volumetric revenue (Council 2026d), a usage weighted structure consistent with best practice cost reflective pricing. The full schedule is reviewed annually and placed on public exhibition before adoption.

12.4 Revenue Adequacy and Cost Recovery

Council's Long Term Financial Plan models the water business as financially sustainable across a ten year planning horizon under the base case adopted for 2026/27 to 2035/36. The net operating result before capital grants and contributions remains positive in every year of the plan, from \$81,002 in 2026/27 to \$147,199 in 2035/36 (Council 2026e). On that basis the plan meets all four of the Office of Local Government (OLG) financial sustainability benchmarks:

- the operating performance ratio, (share of operating revenue left over after operating costs, above 0%)
- the debt service ratio (proportion of income servicing debt, below 20%),
- the own source revenue ratio share of income Council raises itself rather than from grants, above 60%) and
- the unrestricted current ratio (liquid assets available to cover short-term liabilities, at least 1.5 times) .

A positive operating result before capital grants is significant because it is struck after depreciation, which rises across the plan from \$3.50m a year. Covering depreciation from revenue means Council is funding the gradual consumption of its assets rather than allowing them to run down, which is the central test of cost recovery for a water utility.

12.5 Funding Model and Reserves

Council funds its program primarily from revenue and accumulated reserves, supplemented by grants and modest borrowing. In June 2025 Council held capital reserves of \$10m, including an infrastructure renewal reserve, and the plan maintains healthy reserve and liquidity positions across the horizon, with interest on those balances contributing to income.

Under the base case - the central financial scenario the LTFP recommends for adoption - Council stays largely debt free until 2030/31, when it takes on a limited amount of borrowing. This includes a \$3 million loan that covers half of Council's \$6 million contribution to the raising of the Lake Rowlands dam wall, the region's major water security project, with the other \$3 million drawn from cash reserves. Even with this borrowing, the share of Council's operating income needed to service its debt (interest and principal) stays within the Office of Local Government (OLG) benchmark of below 20% across the life of the plan, meaning the debt remains affordable on OLG's own measure. The LTFP is nonetheless explicit that this outlook rests on a heavy reliance on grant funding for major capital projects: if the expected grants do not eventuate, Council's financial performance, and the water charges paid by customers, would be significantly affected (Council 2026e)

12.6 Developer Charges

Under section 64 of the Local Government Act 1993, Council levies the developer charges through its Development Servicing Plan to recover part of the cost of servicing growth, with equivalent tenements calculated under the NSW Water Directorates Section 64 Equivalent Tenement (ET) guidelines. On the main Lake Rowlands supply system the same per ET rate applies both as a developer charge for new development and as a capital contribution for infill. A separate, lower charge applied in the Quandialla scheme, where the funds are set aside for renewal and augmentation of the Quandialla network (Council 2026f). The DSP is reviewed and updated with constituent councils. (Council 2026d).

13 Resourcing

Resourcing is the means by which Council turns its adopted levels of service into delivered services. Understanding what those means are, and what they cost to acquire, deploy and sustain, is what allows Council to develop and evaluate servicing options, estimate its revenue requirements, and make sound strategic decisions (DCCEEW 2022).

Two frameworks shape how this task is planned and demonstrated, and they work together rather than as separate systems. The Integrated Planning and Reporting (IP&R) framework, established under the Local Government Act 1993 and administered by the NSW Office of Local Government, is the planning *architecture* - the suite of linked documents every council must prepare. Within that suite, resourcing is dealt with by the Resourcing Strategy, comprising the Long Term Financial Plan, the Workforce Management Strategy and the Asset Management Plan. The Regulatory and Assurance Framework (RAF), issued by DCCEEW as the state water regulator, is the *standard* against which that planning is assessed; it does not create a separate set of plans, but sets out what a local water utility's planning must demonstrate. For resourcing (RAF Outcome 8), it frames the task as four questions:

- what resourcing is needed to deliver services and manage risks;
- what the life cycle costs of managing assets are;
- what technical and operational skills are needed to deliver services and manage risks; and
- how Council undertakes workforce planning (DCCEEW 2022).

Council meets both sets of obligations through the same documents: the RAF's four questions are answered across the components of Council's IP&R Resourcing Strategy - the Long Term Financial Plan, the Workforce Management Strategy and the Asset Management Plan. This section draws those threads together and assesses them against the four questions above. To avoid duplication, it cross references rather than repeats the detailed material held elsewhere: the levels of service that drive resourcing needs are set out in the Levels of Service section, the cost and funding profile of the works program in the Financial Management and Water Pricing sections, and the asset program itself in Asset Management Planning. The labour and skills dimension - the one part of Council's resourcing not developed in another section - is carried in full here.

13.1 Resourcing needs to deliver services and manage risks

Council's resourcing needs to enable the delivery of the levels of service it sets and the solutions it adopts to achieve them, and span the three resource types the guidance identifies: land, labour and capital. For a small water supply only utility these needs are shaped by a few dominant drivers. The first is an ageing asset base, on average about a third of the way through its useful life (AMS 2026), which sustains a long term renewal requirement identified in the Asset Management Plan as a works program of approximately \$43 million to 2036 (Draft AMP). The second is

the water security gap and the Belubula Water Security Project, the raising of the Lake Rowlands dam wall, which is the dominant capital driver over the planning period and is addressed in the Water Security section. The third is demand growth, with planning for around 1,300 additional dwellings in Blayney Shire and 245 in Cabonne expected to lift annual demand by about 36% (AMS 2026), together with the treatment upgrades required to close the protozoan log reduction shortfall and move disinfection only sources to multiple barrier treatment by 2035 (AMS 2026). High non revenue water, at about 28.6%, is a further driver of operational resourcing and is discussed under Water Usage.

The renewal task intensifies toward the end of the decade, with a concentration of renewals around 2030 to 2035 (AMP 2026), and the growth and treatment investments fall within the same window, so Council's resourcing requirement; capital, labour, and the skills to deliver both, rises over the medium term rather than remaining level. Understanding this profile is what allows Council to translate resourcing needs into revenue requirements and prices, which is done in the Financial Management and Water Pricing sections, and to weigh service outcomes against resource and funding constraints, which is the subject of the Strategic Decision Making section.

13.2 Life cycle costs of managing assets.

The RAF expects Council to understand the full cost of acquiring, operating, maintaining, renewing and ultimately disposing of its assets, so that servicing options can be compared on a like for like basis and resourcing needs identified over the long term (DCCEEW 2022). Council's understanding of these costs is built progressively rather than held in a single analysis. Its foundation is the condition based renewal modelling maintained in the Metrix asset information system. That modelling relies on two asset data standards set out in the Asset Management Strategy: holding a history of at least three condition assessments for each asset, and recording failure information for more than 95% of mains breaks (AMS 2026). Council does not yet hold data to this standard, and work is underway to close the gap. This drives the renewal program and its timing set out in the Asset Management Planning section.

(The long term cost and funding profile of that program is carried in the Financial Management section and the Long Term Financial Plan (LTFP 2026), and the formal options level comparison, including net present value analysis of supply and augmentation alternatives, attaches to the major investment decisions and is addressed in the Water Security and Strategic Decision Making material rather than repeated here).

The resourcing implication is straightforward: an ageing asset base and a renewals task that intensifies toward 2035 commit Council to sustained capital expenditure and to retaining or accessing the skills needed to deliver it, as set out in the Financial Management section and the Long Term Financial Plan. The guidance cautions that deferring this work tends to raise its whole of life cost rather than reduce it (DCCEEW 2022). Consistent with the guidance that life cycle cost effort should be proportionate to asset value (DCCEEW 2022), a detailed standalone life cycle cost model has not been prepared for every asset class.

13.3 Technical and operational skills needed.

The department's guidance sets out the range of skills a water utility typically requires, spanning front line operations and treatment, asset management, regulatory and water quality compliance, customer service, and leadership and governance (DCCEEW 2022). Council's needs span this range. It meets this breadth by combining its core staff with targeted external expertise and regional collaboration through the CNSWJO (AMS 2026). Its current capacity and capability, including its asset management maturity, are described in the Capacity and Capability section; this section focuses on the skills dimension of resourcing and how Council plans to secure it. Council intends to formalise its view of current and required skills through an internal on the job skills matrix, which is a deliverable under its Workforce Management Strategy (WMS 2026).

Two features of CTWs situation make these skills harder to secure than the list suggests. The first is the concentration of critical operational knowledge in a small number of long tenured employees, which the Workforce Management Strategy identifies as both a knowledge loss risk and a thin succession pipeline in critical technical roles (WMS 2026). The second is the regional labour market: Council competes for specialist and technical staff in a tight market where these skills are in high demand and availability is limited, and it rates the risk of being unable to replace specialised roles as high and ongoing (WMS 2026). This is a recognised feature of the operating environment for regional utilities. The RAF notes that skills shortages are particularly acute in regional towns and that there can be long lead times to train network operators and engineers (DCCEEW 2022). Council's response draws on several of the approaches the guidance endorses for this situation, including traineeships and entry level pathways, school based engagement to build a local pipeline, and resource sharing through the CNSWJO (WMS 2026; AMS 2026).

Looking forward, the most significant change in Council's skill requirements is digital. The replacement of core systems including the Synergy platform, for which vendor support ceases by 2030, together with greater use of automation and the prospect of artificial intelligence to reduce manual and duplicated work, is expected to make digital capability a core requirement across all roles rather than a specialist one, with position descriptions and recruitment criteria to be updated to reflect technology proficiency, digital literacy and adaptability to change (WMS 2026). This sits alongside the operational and asset management technology council already depends on, including the Metrix asset information system (AMS 2026), and a growing need to manage cyber security and data integrity as operational risks (WMS 2026). Building organisational skill and systems is also one of the improvement priorities Council identified in its ISO 55001 asset management maturity assessment (AMS 2026), which positions capability building as an ongoing task rather than a one off.

How much of this capability Council should hold in house and how much it should access through contractors and partners, is a target operating model question the guidance expects utilities to consider, particularly for capital delivery, where the choice between client led, contractor led and alliance style models carries different skill and resourcing implications (DCCEEW 2022). The delivery and resourcing model

for the major augmentation works, principally the Belubula Water Security Project, is a larger decision that sits beyond workforce resourcing.

Its influence on workforce planning is nonetheless real and runs in two directions. During delivery, the joint arrangement with Water Infrastructure NSW and WaterNSW means Council may not need to carry the full project workforce, but the client side role of contract management, technical oversight and assurance still demands capability that Council must either hold or buy in, and the delivery model adopted in the Final Business Case will set how much. Beyond commissioning, a raised dam or new transfer main adds long term operating, maintenance and dam safety obligations to the standing workforce, so the augmentation option chosen also reshapes the in house skill base Council must sustain over the life of the asset. Because the business case falls in 2026/27 with construction potentially from 2029, these decisions land in the same window as the renewal peak and the digital transition, concentrating the resourcing task rather than spreading it.

13.4 How Council does workforce planning.

Council undertakes workforce planning through its Workforce Management Strategy, the workforce component of its resourcing strategy and a requirement under the Integrated Planning and Reporting framework (WMS 2026). It is a four year strategy that identifies the people, skills and organisational capability required to deliver services effectively, safely and sustainably, and it has been developed through a structured, evidence based and consultative approach drawing on leadership engagement, workforce data analysis, an assessment of workforce supply and demand, employee engagement survey outcomes, industry and labour market trends, and identification of organisational risks (WMS 2026). It has been prepared having regard to the applicable legislation and industrial instruments, including the Local Government Act 1993, the Industrial Relations Act 1996, the Local Government (State) Award 2023, the Work Health and Safety Act 2011 and the Government Sector Employment Act 2013 (WMS 2026).

The approach is consistent with the strategic workforce planning process the DCCEEWs guidance adapts from the NSW Public Service Commission framework setting direction, finding gaps, defining strategy, implementing and reviewing (DCCEEW 2022), and Council's workforce planning can be read against those steps.

Setting direction. The Workforce Management Strategy is anchored to Council's mission to supply quality, affordable drinking water in collaboration with its constituent councils, its vision to achieve excellence in water supply now and into the future, and its stated values (WMS 2026). It sets out strategic workforce objectives under four pillars; Strategic Leadership; People, Culture and Well-Being; Organisation Performance and Productivity; and Future Fit and Optimised, each with associated initiatives and deliverables (WMS 2026).

Finding the gaps. Council's analysis of its current workforce identifies a material sustainability risk. Its age and engagement profile (below) shows an ageing workforce alongside a strong culture but weaker strategy-execution capability. Compounding this, tenure is concentrated in the early (1–5 years) and long (20+ years) bands with little in between — a structural gap in experience and succession

capability. Without targeted intervention, Council notes this profile risks loss of corporate knowledge, capability gaps in critical roles, greater recruitment and training pressure, and increased financial liability through accrued leave in the older cohort (WMS 2026).

Workforce sustainability indicators

Indicator	Value
Workforce aged 50 and over	~50%
Projected aged 60 and over (within the strategy period)	~25%
STAR Workplace survey — overall	67%
— organisational culture	79%
— strategy execution capability	56%

Source: WMS 2026

Defining the strategy. Council consolidates its workforce risks into a succession risk register (below), with retirement, knowledge loss and recruitment rated as the highest priorities.

Succession planning and workforce continuity — risk register

Risk area	Risk level	Description	Impact	Timeframe
Retirement Risk	High	25% of workforce aged 60+	Potential multiple exits in a short period	1–4 years
Knowledge Loss	High	Long-tenured employees hold critical knowledge	Loss of operational continuity	Immediate–4 years
Capability Gap	Medium–High	Limited mid-tier workforce (5–10 years' experience)	Weak succession pipeline	2–4 years
Service Delivery Risk	Medium–High	Key roles impacted by departures	Reduced responsiveness and delays	1–3 years
Recruitment Risk	High	Regional labour-market constraints	Difficulty replacing specialised roles	Ongoing
Financial Risk (Leave Liability)	Medium	High accrued leave balances in longer-serving cohort	Increased payout exposure	Immediate
Workforce Stability	Medium	Gradual attrition expected	Manageable with planning	2–4 years

Source: WMS 2026

Implementing and reviewing. The strategy treats workforce planning as an ongoing process of review and adjustment rather than a one-off exercise, and provides for quarterly strategy reviews with measurable outputs under its Strategic Leadership pillar (WMS 2026). It is intended to complement, not replace, Council's day to day People and Culture processes across the employee lifecycle (WMS 2026)

14 Financial Management

Outcome 11 of the RAF - Implement Sound Pricing and Prudent Financial Management, expects a water utility to recover its efficient costs through cost reflective, reasonably stable and equitable prices, and to manage its finances prudently over the medium to long term. The pricing side elements (tariff structure, cost recovery, developer charges, tax equivalents and dividends, and reserves) are addressed in the water pricing section above. This section addresses the prudent financial management elements: long term financial planning, financial strategy, scenario testing, performance monitoring, borrowing and intergenerational; equity and ring fencing of the water business fund.

14.1 Financial Strategy and Objectives.

The LTFP adopts a strategy first approach, allocating financial resources in direct support of the BASP strategic priorities. It is built around six strategic financial objectives over the ten year horizon:

- Sustainable operating performance,
- Long term financial capacity and stability,
- Continuity of service delivery,
- Prudent and purposeful use of borrowings,
- Adequate and ongoing asset renewal funded to at least match depreciation, and
- Stewardship and intergenerational responsibility.

14.2 Scenario testing and sensitivity analysis.

The RAF expects planning to remain resilient under a range of plausible conditions. The LTFP models four scenarios (Base Case, Unfunded Dam Safety Works, Escalated Capital renewals, and Trunk Main Augmentation) and tests single variable sensitivities for population, consumption, CPI, wages and interest rates against lower, base and higher assumptions, as summarised in the key assumptions table in the LTFP 2026/27-2035/36 (LTFP 2026 p20).

14.3 Performance Monitoring against benchmarks

The LTFP reports performance against four OLG financial benchmarks, each met under the base case:

- the operating performance ratio (above 0%),
- the debt service ratio (below 20%),
- own-source revenue (above 60%, except in capital-grant-funded years), and
- the unrestricted current ratio (at least 1.5 times).

The net operating result before capital grants is positive in every year of the base case, at \$81,002 in 2026/27, and \$147,199 in 2035/36.

14.4 Prudent borrowing and intergenerational equity.

The RAF and LTFP both treat borrowings as a means of aligning the cost of long life assets with the generations that benefit from them. The base case introduces limited debt from 2030/31, including a \$3m loan towards Council \$6m contribution to the externally delivered dam wall augmentation, with further loan funding from the Carcoar water treatment plant augmentation (\$5.15m) and the renewal of Trunk Mains B and C (\$6m). The funding splits are itemised in the Scenario 1 key drivers (LTFP p26 and the debt timing and balances in the Scenario 1 financial statements (LTFP p27-29).

14.5 Ring fencing of the water business fund

Council is required to ring fence its water supply business funds from any general purpose fund under section 409(3) of the Local Government Act 1993, and all revenue raised from water supply charges must be used exclusively for the provision of water supply services. As a water supply only county council, Council's entire operation is the water supply business and is not commingled with a multi purpose general fund.

14.6 Affordability and a stable price path

The pricing mechanics sit in the Water Pricing section above. From a financial management perspective, the LTFP recognises affordability as a constraint on cost recovery and sets out the base case price path, including availability charge increases and other fees and charges moving in line with CPI. As an indicative measure, a typical residential bill based on the base case consumption of 155kL at 2026/27 rates is approximately \$1,095.15 (Council 2026d). The LTFP notes these settings are preliminary and subject to re-forecasting as major projects are tendered and scheduled.

14.7 Governance of financial decisions

The LTFP is used to inform decision making and prioritisation and it states that sensitivity factors are monitored through the progression of the plan with mitigating changes recommended through the annual budgeting process or a quarterly budget review statement.

15 Risk Assessment

Risk Assessment maps to the RAF strategic planning outcome *Understanding other key risks and challenges*, the sixth outcome listed in section 3.2 of the Framework. Unlike pricing or environmental impacts, risk does not sit neatly under a single outcome: the RAF treats it as cross cutting and expects risks to be managed alongside related outcomes such as water security and water quality. This section therefore addresses the dedicated risk outcome and cross references the water security, water quality and financial material rather than repeating it. The RAF's core expectation is twofold: that Council has a sound understanding of its operating environment and can identify the key risks and challenges to service delivery, and that it has an appropriate, good practice process (consistent with AS ISO 31000) for managing those risks, integrated with its strategic planning.

15.1 Risk identification and operating context.

Council maintains a Risk Register (reviewed May 2026) built around its own operating context. It is structured across three domains; Corporate, Operations and Water. Each covers defined areas of the business and captures the context-specific exposures most relevant to a county council water utility. Table 15.1 sets out the three domains, the areas each covers, and the principal context specific risks captured under each.

Risk Domains Table

Domain	Areas covered	Key context specific exposures
Corporate	People and culture, systems and IT, financial, governance, environmental, and communication and reputation	Cyber security; capital project cost escalation; and the structural risk to a county council water utility
Operations	Assets and capital works delivery	Carcoar and Blayney treatment plants; Gooloogong and Quandialla bores; trunk main and reticulation failure; capital project delivery; and growth and demand
Water	Drinking water quality and water licence compliance	Lake Rowlands source quality; and PFAS

Together these domains give Council a documented, wide scope view of the nature and level of its risks. The LTFP External Influences and Strategic Risks section (pages 8 to 13) provides the strategic and financial expression of the most material of these risks and is a companion to the register.

15.1.1 Risk management process and framework.

Risks are managed through a defined Risk Management Framework, named in the Council Delivery Program and Operational Plan 2026/27 as the mechanism for mitigating risk (KRA 2.3.1).

The framework assigns accountability for each risk to a named owner, sets risk appetite with Councillors through a scheduled risk appetite workshop, and is itself periodically reviewed to incorporate that appetite. The register and its controls are reviewed by staff and reported to Council and the Audit, Risk and Improvement Committee (ARIC) annually, and ARIC oversees an Internal Audit Plan.

Together, the consequence and likelihood assessment, the assigned ownership, the appetite set at Councillor level, and the rolling review cycle give Council a good practice process consistent with AS ISO 31000, with defined responsibility, integration into decision making, and continual improvement.

15.1.2 Integration with strategic planning.

The RAF expects risk to be managed in an integrated way across the business and consistently with water quality and water security, rather than in isolation. Council's risk register evidences this: the Water domain carries a barrier by barrier drinking water quality assessment, while the Operations and Corporate domains cover asset, financial, governance and IT exposures, and several entries (for example supply, revenue and level of service under drought) cut across domains.

15.1.3 Regulatory standards.

Council's register and plans evidence awareness of the regulatory standards relevant to its services and controls for the key standards, including

- the Australian Drinking Water Guidelines and Public Health obligations,
- water access licence conditions under the Water Management Act,
- the Work Health and Safety Act,
- State records obligations, and
- the dam safety obligations carried in the LTFP.

15.1.4 Climate risks.

Climate is recognised as a strategic priority through the DP/OP's alignment to CNSWJO Priority Seven (climate change adaptation and mitigation, disaster risk reduction, and betterment of infrastructure to improve resilience), appears in the register (emissions and energy and the climate and drought), is addressed in the LTFP's Climate Change discussion, and is supported by a Renewable Energy Action Plan referenced in the DP/OP.

15.1.5 Drought

Council maintains a Drought Management Plan and a Demand Management Plan, programmed for review in the DP/OP (tasks 1.5.1.3), and the register captures drought as a service, revenue and level of service risk (WQ06). The LTFP addresses

the holistic consequences, including the revenue impact of up to \$2m in a 2018 to 2020 style drought, the restriction frequency benefit of the Belubula Water Security Project, and the supply demand dynamic. Tactical drought planning is treated as a component of water security planning, and community engagement on drought responses is provided for through these plans.

15.1.6 Incidents, emergencies and continuity of service.

Council holds coverage across the prevention, preparedness, response and recovery elements of continuity planning. The Water domain of the register functions as a hazard and failure mode analysis across source, treatment, disinfection and reticulation barriers, with controls and treatments, supported by a Drinking Water Quality Management System, SCADA alarming and out of hours response. A Business Continuity Plan is in place, with a review and a desktop scenario exercise programmed in the DP/OP (tasks 2.3.2.1 to 2.3.2.3) and reported to ARIC. The consolidation of a dedicated business-continuity water sub plan and a documented recovery plan, and alignment of the documented approach with AIIMS, are to be confirmed against current internal documentation.

16 Disaster Preparedness

Council's disaster preparedness arrangements are set out here to address the part of the Regulatory and Assurance Framework outcome *Understanding other key risks and challenges* that concerns incidents, emergencies and continuity of service.

Consistent with the Framework guidance, they are structured around the Prevention, Preparedness, Response and Recovery (PPRR) model adopted across NSW and Australian emergency management (DCCEEW 2022). Council already applies the PPRR model in practice through its Drought Management Plan (Council DMP 2021), and the same approach extends to the non drought disruptions addressed here.

16.1 System resilience and critical infrastructure

A sound understanding of which assets are critical to supply, and of the consequence of their failure, underpins effective emergency planning. The NSW Critical Infrastructure Resilience Strategy frames infrastructure resilience through

- resistance (physical protection),
- reliability (maintaining operation across a range of conditions),
- redundancy (coping with the loss of individual components) and
- enhancing response and recovery

(Resilience NSW 2021, in DCCEEW 2022).

Critical Assets Table

Asset category	Critical asset(s)	Basis for criticality
Raw water storage	Lake Rowlands	Consequence of failure
Treatment	Carcoar Water Treatment Plant	Consequence of failure
Distribution	All trunk mains	Consequence of failure
Reservoirs (no redundancy)	Manildra, Cudal, Cargo, Gooloogong, Eugowra, Millthorpe, Lyndhurst, Mandurama and Carcoar	No backup supply if the reservoir fails

The principal redundancy is the interconnection between the Blayney and Carcoar systems, which allows the Carcoar plant to support supply if the Blayney plant is unavailable, and is the reason the Blayney WTP is not itself classed as critical (Asset Management Strategy).

Conversely, the reliance of the network on a single primary source, Lake Rowlands, and the absence of a climate independent source, are structural resilience limitations. The supplementary groundwater sources provide valuable but uneven

standby capacity, with the Gooloogong and Bangaroo bores the most drought resilient and the standalone Quandialla scheme the most vulnerable.

A documented system resilience assessment should identify Council's critical infrastructure and organisational processes, the events that could disrupt continuity of service, and the consequence of failure, in enough detail to inform emergency and incident planning, covering water supply, power, IT, communications, procurement supply chains and delegated authorities. The substance of this already exists across Council's risk register, the criticality work in its Asset Management Strategy and its Business Continuity Plan, but is not yet consolidated into a single document. Consolidating these into one such assessment is to be confirmed.

16.2 Emergency management arrangements and the Local Emergency Management Committees

Council operates within the broader NSW emergency management arrangements established under the State Emergency and Rescue Management Act 1989. Council's assets and service area span the Blayney, Cabonne and Weddin local government areas, and emergency management for those areas is coordinated through the respective Local Emergency Management Committees (LEMCs) and their Local Emergency Management Plans (EMPLANs).

The Blayney Shire EMPLAN identifies Lake Rowlands and Council's water supply infrastructure as community assets and recognises "Utilities Failure - Water" as a hazard for the area, while a major failure of water supply is also a consequence pathway for several other hazards in the plan (Blayney Shire Council 2019).

Council's drinking water supply is therefore both a service it must keep running during an emergency and a piece of community infrastructure whose disruption is itself an emergency management concern.

Internally, Council's incident and emergency response is built on its Drinking Water Management System, which documents incident response procedures, critical control point protocols and escalation, supported by SCADA alarming and an out of hours response capability (Council 2025). Council maintains a Business Continuity Plan, with a review, a desktop scenario exercise and ongoing management programmed in the Delivery Program and Operational Plan (tasks 2.3.2.1 to 2.3.2.3) and reported to the Audit, Risk and Improvement Committee (Council DP/OP 2026).

The RAF guidance sets out a minimum suite of plans for a local water utility; risk identification and resilience assessments, a business continuity plan with a water sub plan, incident and emergency communication protocols, emergency response plans for critical infrastructure including an escalation framework, and recovery plans, and expects these to be consistent with the Australasian Inter Service Incident Management System (AIIMS); and to be in place, current and exercised (DCCEEW 2022). Council's existing DWMS, Drought Management Plan and Business Continuity Plan cover much of this; the consolidation of a dedicated business continuity water sub-plan and a documented recovery plan, and the alignment of the documented approach with AIIMS, are to be confirmed against current internal documentation.

Critical and vulnerable customers are protected within these arrangements. Council's Drought Management Plan prioritises critical human needs and identifies critical facilities:

- hospitals,
- hospices,
- nursing homes,
- rehabilitation centres
- childcare facilities,
- for priority of supply and exemption during severe restrictions.

Supply failures are prioritised by their impact on critical uses, with a critical use at a critical time attracting a response within one to two hours (Council DMP 2021).

These provisions, and the present absence of a consolidated year round critical customer register, are described in full in the Levels of Service section.

16.3 Dam safety

Lake Rowlands is a declared dam under the Dams Safety Act 2015 and is managed within a dam safety risk management framework that feeds directly into asset management planning (Asset Management Strategy 2026). As the owner of a declared dam, Council is subject to the compliance requirements administered by Dams Safety NSW, including the maintenance of a dam emergency plan consistent with the Dams Safety NSW guideline on emergency plans (DCCEEW 2022).

The dam, constructed in the early 1950s, does not meet current dam safety standards (LTFP 2026), and remediation is required regardless of the outcome of the Belubula Water Security Project: if the project's preferred option to raise the dam wall is funded, the dam safety requirements are addressed as part of that work; if it is not, Council faces standalone dam safety works estimated at a minimum of approximately \$26 million (LTFP 2026). The water security and investment implications are set out in the Water Security and Financial Management sections; from a preparedness perspective, the significance is that Council's single most critical asset is a declared dam carrying a recognised safety obligation, and that its dam emergency planning is a core component of Council's disaster preparedness

16.4 Power supply and other interdependencies

The continuity of Council's water supply depends on infrastructure and services beyond its own water assets. The RAF guidance specifically directs utilities to consider power supply, IT systems, communications infrastructure and procurement supply chains in assessing resilience (DCCEEW 2022).

Electricity supply is the most significant of these interdependencies: Council's treatment plants and pumping stations rely on grid power, and the plan's climate analysis already identifies extreme heat events as posing risks to power supply at treatment and pumping facilities on peak demand days, precisely when demand on the network is highest (Draft AMP; Council DMP 2021). The extent of back up power

provision; standby generation or alternative supply arrangements, at Council's critical treatment and pumping sites is a key determinant of how long supply can be maintained through a power outage, and is to be confirmed and documented as part of Council's resilience picture. Comparable consideration applies to the SCADA and systems on which network monitoring and control depend, to communications, and to the procurement supply chains for treatment chemicals. Addressing these interdependencies, alongside the dam safety obligation and the LEMC arrangements above, completes Council's preparedness for the disruptions that could affect continuity of service.

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17 Environmental Impacts

As a water supply county council, Council has no sewerage function. It does not operate sewage treatment plants, effluent disposal or reuse schemes, biosolids handling, sewer collection systems or liquid trade waste management. The sewerage related expectations that form the substance of the DCCEEW guidance for this outcome, including sewage load growth, treatment plant capacity, collection system integrity, effluent and biosolids management, trade waste regulation and environment protection licensing of sewage treatment, therefore do not apply to this document.

Council's environmental responsibilities arise instead from its water extraction, storage and treatment activities, governed principally by the Water Management Act 2000 and the relevant water sharing plan, with works and land use matters assessed under the Environmental Planning and Assessment Act 1979 and obligations under the Local Government Act 1993.

17.1 Environmental impacts of water extraction

Council's primary environmental interaction is the extraction of water from Lake Rowlands and its groundwater sources. Surface water taken from Lake Rowlands is licensed under the Water Management Act 2000 and shared under the Water Sharing Plan for the Lachlan Unregulated River Water Sources ('the Plan')(2026). Council holds a single local water utility access licence (WAL 31512) with a share component of 3,150 ML/year in the Belubula Tributaries below Carcoar Dam Water Source.

The Plan's risk assessment rates this water source as having low in stream environmental value, while identifying the risk from extraction as high during zero flow, base flow and low flow periods. For general licence holders, the Plan manages this risk through cease to take rules when there is no visible flow and through pool protection rules. Council's town water supply licence is exempt from these cease to take and pool access rules (plan section 35(2)(e) and Schedule 2, Table B), reflecting the priority the Plan affords to town water supply.

Environmental water in the water source is committed at the catchment scale rather than through a site specific release from Council. Under the plan's extraction limit framework, water above the long term average annual extraction limit is reserved for the environment. Consistent with this, Council's water supply works approval (70CA614138) and access licence carry no environmental flow, passing flow or cease to pump condition; the works approval records standard take, metering, record keeping, breach reporting and decommissioning conditions, with other conditions listed as nil. Groundwater extraction is similarly licensed and managed through account based entitlements under the same Act.

17.2 Environmental approvals for future works

Council's longer term water security options, including the proposed raising of Lake Rowlands, a potential transfer from Carcoar Dam and pipeline connections, would

involve new or amended water supply works. These would require assessment and approval under the Water Management Act 2000 and, where relevant, under the Environmental Planning and Assessment Act 1979. The water sharing plan supports town water supply in two relevant respects: it provides an exemption allowing in-river dams to be considered for town water supply purposes, where such dams are otherwise prohibited on third or higher order streams in this water source (plan section 37), and it introduces stronger wetland protections that restrict new or amended works within, or within 3 kilometres upstream of, Ramsar wetlands and within prescribed wetlands unless no more than minimal harm can be demonstrated (plan section 38). Any application for a new or amended works approval remains subject to a stringent, case by case assessment.

17.3 Meeting environmental regulatory standards

The environmental regulator for pollution is the NSW Environment Protection Authority, which licenses scheduled activities under the Protection of the Environment Operations Act 1997. These activities are principally larger sewage treatment works, which Council does not operate. Council holds no current Environment Protection Licence. The licences formerly held for its Blayney, Carcoar and Grenfell premises were surrendered, consistent with Council's activities no longer being scheduled activities requiring licensing under that Act.

Water treatment plant residuals, principally clarifier sludge and filter backwash, are the main residual environmental consideration arising from Council's treatment activities. These residuals are understood to be disposed of to landfill in a manner compliant with all regulatory requirements. As the holder of the relevant Environment Protection Licence is the landfill operator rather than the generator, this disposal does not require Council to hold an Environment Protection Licence.

Catchment and source protection measures, including willow removal, revegetation of the Lake Rowlands foreshore and ongoing source water monitoring, contribute to environmental outcomes in the catchment and are described in the Water Quality section. This section gives effect to Council's Business Activity Strategic Plan priority to mitigate the environmental impacts of service delivery (BASP 1.4).

18 Integrated Water Cycle Management

Integrated water cycle management (IWCM) is the twelfth strategic planning outcome in the Regulatory and Assurance Framework: the integrated management of urban water to achieve the full suite of water security, public health, environmental and amenity outcomes a community seeks, across all urban water regardless of source, scale or ownership (DCCEEW 2022)

Council has undertaken integrated planning with Weddin, Blayney and Cabonne Shire Councils and has a Joint IWCM Detailed Strategy Study (HydroScience Consulting 2013). That study assessed water supply, sewerage and stormwater across the four utilities together, governed by a Project Reference Group, evaluated options on a triple bottom line basis (social, environmental, economic) and tested each scenario against the typical residential bill (HydroScience Consulting 2013). Integrated cross council options, such as substituting Blayney Shire effluent reuse for part of Council's potable supply, were assessed and set aside as not feasible, and single utility scenarios adopted (HydroScience Consulting 2013).

The 2013 study is now largely overtaken: its Council water security scenario, a Blayney Blue Hole offtake, is superseded by the Belubula Water Security Project and the 2025 Sub Regional Town Water Strategy, with Blayney Blue Hole retained only as a standby source; its water sharing watching brief has resolved into the current Lachlan Unregulated River water sharing plan and Council's licence and its demand measures carry into the 2021 Demand Management Plan, as set out in the Water Security, Environmental Impacts and Water Usage sections. The six year IWCM cycle lapsed and the framework changed to the RAF; this document re-establishes Council's integrated planning under it.

18.1 Council's place in the urban water cycle

Council's direct role spans the supply side: the source and catchment (Lake Rowlands and the groundwater bores, per the Water Security section), treatment at the Blayney and Carcoar plants and the standalone Quandialla scheme, and distribution (Water Usage Projection section), with drinking water quality managed catchment to tap through the Drinking Water Management System (Water Quality section). Council operates no other part of the cycle. It has no sewerage function, so the sewerage related expectations of this outcome do not apply, as set out in the Environmental Impacts section. Stormwater, flooding, land use and waterway management sit with the general purpose councils; Council's only stormwater interest is as a potential supply source, flagged in its Demand Management Plan for investigation at Blayney industrial sites but not currently operated.

For Council, IWCM is principally a coordination task: aligning its supply planning with the councils that hold the land use, stormwater and sewerage levers, and with the regional bodies now pursuing water security.

18.1.1 Outcomes and community values

The outcomes Council's customers value most are secure, safe and affordable supply, addressed in the Levels of Service, Water Security and Water Quality sections. Broader liveability outcomes such as urban cooling, green space and waterway amenity are largely matters for the constituents councils' land use and open space planning, though Council's catchment protection at Lake Rowlands contributes to environmental and amenity values. The 2013 study valued options partly on community amenity within its triple bottom line assessment (HydroScience Consulting 2013). The RAF expects utilities to identify these outcomes through periodic, structured community engagement and to test willingness to pay for service above the regulated minimum (DCCEEW 2022).

18.1.2 Integration with land use and growth

Council's constituent council structure is its standing mechanism for integrating water with land use planning: its Board comprises two delegates from each of Blayney, Cabonne and Weddin, embedding the three land use authorities in Council's decision making, as set out in the Strategic Decision Making section. Council's growth planning draws on the councils' settlement strategies, local strategic planning statements and housing strategies, which underpin the dwelling based projections in the Population Assessment and Projections section. Those projections, around 1,300 additional dwellings in Blayney Shire and 245 in Cabonne lifting demand by about 36% (AMS 2026), drive the servicing and treatment investment in the Asset Management Planning and Water Supply Schemes Capacity and Capability sections. Cost recovery from growth is through the Development Servicing Plan, which levies a developer charge of \$7,623 per equivalent tenement on the Lake Rowlands system under section 64 of the Local Government Act 1993 (Council 2026d).

18.1.3 Regional and catchment integration

The 2025 SRTWS with Cabonne Council and Orange City Council is governed by a formal memorandum of understanding, a Working Party for project collaboration, and a Steering Committee of the councils' Mayors and General Managers (SRTWS 2025). It aligns Council's planning with catchment scale boundaries through the Lake Rowlands and Belubula systems and the Orange/Carcoar and Cowra/Woodstock pipeline interconnections. Council is also an associate member of the Central NSW Joint Organisation, a regional forum for water security, infrastructure and planning. For day to day catchment protection, Council relies on the General Manager's ongoing liaison with Blayney Shire Council on development control in the Lake Rowlands catchment rather than a formal agreement (BASP).

18.1.4 Collaborative governance and stormwater

Beyond these project arrangements, Council has no standalone memorandum of understanding or standing forum dedicated to stormwater, flood or catchment land use with its councils; the Board is the continuing governance mechanism, supported by project specific bodies such as the 2013 Project Reference Group and the

SRTWS Steering Committee (HydroScience Consulting 2013; SRTWS 2025). The RAF identifies stormwater integration as a core element of IWCM and, for county councils, looks for collaborative arrangements across the responsible councils (DCCEEW 2022). Council's water supply role gives it limited direct stormwater interest, confined to the potential for stormwater as a supply source flagged in its Demand Management Plan (Council DMP 2021); waterway, flood and diffuse source management sit with the councils.

18.1.5 Corporate tools and information

Council's planning is supported by its Metrix asset information system, its Drinking Water Management System, and the performance data it reports annually to the department, the Bureau of Meteorology and the Australian Bureau of Statistics, as described in the Asset Management Planning, Water Quality and Levels of Service sections (AMS 2026; Council DWMS 2025).

18.1.6 Funding and cost recovery

Council funds its water supply business mainly from water charges, which are ring fenced to that business under section 409(3) of the Local Government Act 1993 and cannot be used for other purposes, as set out in the Water Pricing section.

Growth contributes to the cost of the infrastructure it requires through section 64 developer charges, levied under the Development Servicing Plan (Council DSP 2021). Major capital works can also attract NSW Government grants, principally the Safe and Secure Water Program; access to that program requires RAF compliant strategic planning, which this document provides.

Some IWCM outcomes benefit a council function, such as stormwater or open space, more than they benefit water supply. Where that occurs, the RAF's funding principles, that costs fall to those who cause them or benefit from them, and that council and utility accounts stay separate, would govern how any shared cost is split (DCCEEW 2022).

The 2013 joint study applied this logic, costing options by their social, environmental and economic impact and their effect on the typical residential bill (HydroScience Consulting 2013).

18.1.7 Resource efficiency and recovery

Pumping and treatment are energy intensive, so efficiency and recovery bear directly on Council's operating costs and emissions (DCCEEW 2022).

Council operates the telemetry at most of its 40 plus reservoirs on solar power, and its asset portfolio includes solar generation at two sites (Council AMP 2025). Its 2015 Strategic Business Plan identified further renewable options for investigation, including expanded solar at the water filtration plants and pump stations, mini-hydro harnessing excess network pressure, and green power at contestable sites (Council SBP 2015), however the status o

Council's main waste stream is treatment residuals. It has optimised backwash recycling so no water is wasted on site, with sludge and backwash disposed off site as described in the Environmental Impacts section. The sewage based resource recovery the guidance discusses, including biosolids, co-digestion and effluent reuse, is a sewerage function and does not apply to Council, though effluent reuse was among the integrated options evaluated in the 2013 joint study (HydroScience Consulting 2013).

18.1.8 Water literacy and efficiency

Council supports water literacy through community education on water saving and restriction levels, delivered via its website and social media and a member subscription to Smart Approved WaterMark, the Water Conservancy's certification program, funded within an annual community education budget of about \$2,000 (Council DMP 2021). The RAF expects efficiency measures to be evaluated on an equal basis with supply and demand options and points to the NSW Water Efficiency Framework as best practice (DCCEEW 2022).

One of Council's principal efficiency priorities is non revenue water, which at 28.6% is well above the state median. Demand management, permanent Level 1 restrictions and the supporting savings estimates are set out in the Water Usage Projection section, and efficiency is weighed against supply augmentation in the Water Security section (Council DMP 2021).

18.1.9 Maturity and forward direction

On the urban water transitions framework the department references, Council sits towards the water supply end, with a strong and necessary focus on supply security, and IWCM is a direction of travel rather than an achieved state (DCCEEW 2022). Its position meets the proportionate standard applied to small utilities: a documented IWCM history, active regional collaboration through the SRTWS, and integration with land use through its council structure, with several elements still to develop.

19 Summary of Key Issues & Challenges

This section draws together the material issues identified across this Plan. It is a summary rather than a fresh analysis: each issue is examined in full in the section noted, and the purpose here is to set out, in one place, the challenges that shape Council's strategic direction over the planning horizon. The issues fall into two groups; the substantive challenges to delivering safe, secure and affordable water, and the planning and assurance priorities Council must progress to meet the expectations of the Regulatory and Assurance Framework (RAF).

Water security is Council's most significant long term challenge. Council depends on a single primary source, Lake Rowlands, a 4,500 ML surface storage with low climate resilience and no climate independent alternative in the network. On its own this concentrates risk. Three compounding pressures make it acute: demand growth of around 36% (roughly 1,300 new dwellings in Blayney Shire and 245 in Cabonne), climate-driven reductions in inflow, and the Trunk Main A constraint that limits transfer to the Carcoar Water Treatment Plant. Together these leave the system unable to meet future requirements without intervention.

At present the recurrence interval for the most severe (Level 6) restrictions is only about 11 years, well short of an acceptable level of service. Demand management, projected to save around 53 ML/year, provides valuable headroom but cannot close the gap on its own. Supply side augmentation is therefore essential, and Council is pursuing it through the Belubula Water Security Project, with raising Lake Rowlands to 8,000 ML and longer term integration into a sub-regional grid as the leading options. The full analysis is set out in the Water Security section.

The safety of the Lake Rowlands dam wall is a mandatory and costly obligation. Lake Rowlands is a declared dam under the Dams Safety Act 2015, was constructed between 1949 and 1954, and does not meet current dam safety standards.

Bringing it up to standard is estimated at approximately \$26 million which is expenditure that delivers no additional storage or service, yet cannot be deferred indefinitely. If it is not funded through the Belubula project it falls to Council to finance, an outcome the Long Term Financial Plan shows would place the utility under severe financial stress. The dam safety obligation is therefore both a regulatory requirement and Council's single largest financial exposure.

Council's assets are ageing and the renewal task intensifies through the next decade. Council manages an asset portfolio of approximately \$199 million across nearly 19,000 assets, on average about a third of the way through its useful life, with major storages dating from the mid twentieth century and little new infrastructure built in the past three decades. The renewal program is valued at around \$43 million to 2036 and is concentrated in the 2030–2035 window, coinciding with the major water security and treatment investments. Limited condition data on buried assets means some may escalate to failure faster than planned, and a discrepancy between the mains length recorded in the asset register and that reported for performance monitoring is one data quality issue to reconcile. This is examined in the Water Supply Schemes Capacity & Capability and Asset Management Planning sections.

Treatment capability must be lifted to keep pace with tightening health-based targets. Council currently achieves full compliance with health based drinking water targets and has issued no boil water alerts. The challenge here is forward looking: recent assessments identify a protozoan log reduction shortfall at both the Blayney and Carcoar plants, to be addressed by adding ultraviolet disinfection; physical constraints such as the Blayney clarifier and limited standby redundancy; chlorine residual decay at the extremities of the rural network; and a plan to move disinfection only sources to multiple barrier treatment by 2035. Emerging contaminants such as PFAS remain within current guideline values but warrant ongoing monitoring given the plants' limited treatment capability. Maintaining today's compliance as targets rise will be an ongoing issue. Detail is provided in the Water Quality section.

Affordability and reliance on grant funding constrain every major decision. Council serves a small, dispersed customer base of about 9 connected properties per kilometre of main, against a NSW median of 32.69; so the cost of infrastructure and operations is spread across comparatively few customers. With a typical residential bill already around \$1,095 (2026/2027), affordability sets a practical limit on how much of the required investment can be recovered through pricing. The consequence is a heavy dependence on external grant funding for major capital works; the Long Term Financial Plan is explicit that if expected grants do not eventuate, Council's financial position and the charges paid by customers would be significantly affected. Financial sustainability is addressed in the Financial Management and Water Pricing sections.

Non-revenue water is high, representing both lost security and lost revenue. At approximately 28.6%, Council's non revenue water is well above the state median. Reducing it is an efficiency priority the RAF expects to be weighed on equal terms with supply and demand options, and it carries a double benefit: water not lost to leakage is water available to the system, and revenue retained. Council's water loss management activity is set out under Water Usage.

A small, specialised workforce is itself a delivery risk. Council delivers its services with a team of around 26 employees. Critical operational knowledge is concentrated in a small number of long tenured staff, the succession pipeline for technical roles is thin, and the regional labour market for specialist skills is tight which is a combination Council rates as a high and ongoing risk.

A significant shift toward digital capability is also approaching, with core systems requiring replacement before vendor support lapses and cyber security becoming an operational concern. Council's response, including traineeships, local pipeline development and regional resource sharing, is set out in the Resourcing section.

Alongside these challenges, Council has a number of planning and assurance priorities to progress in order to fully meet the RAF's expectations.

Community engagement and willingness to pay testing. The RAF expects utilities to engage their communities at least once every four years, to at least the 'involve' level of the IAP2 spectrum, and to take account of customers' willingness to pay for service above the regulated minimum. Council has not yet undertaken

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engagement of this kind, and doing so is a priority because it underpins both the water security level of service and the price path.

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20 Future Actions & Implementation Plan

This section translates the issues identified in this Plan into a trackable set of actions. It records, for each action, the driver and reference, an indicative priority and timeframe, the responsible area and current status, so that progress can be monitored and reviewed and the actions can flow into Council's Delivery Program and Operational Plan. Timeframes, responsibilities and priorities marked "[to confirm]" are to be completed by Council, and the table is structured so that further actions can be added.

Future Actions Table

Action	Rationale & reference	Priority	Indicative timeframe	Responsibility	Status / notes
Water security & supply augmentation					
Progress the Belubula Water Security Project to a funded outcome — complete and support assessment of the Final Business Case	Council's most significant long-term challenge; stand-alone Lake Rowlands does not meet adopted level-of-service targets. Three options shortlisted (dam raising; a Lake Rowlands–Carcoar pipeline up to 2 GL/yr; or both); raising to 8,000 ML lifts the Level 6 recurrence interval from 11 to ~990 years at current demand. \$7.7m secured for the FBC. Ref: Water Security.	High	FBC 2026/27; dam raising potentially from 2029	[to confirm]	FBC in preparation / assessment
Resolve the Carcoar WTP raw-water inlet constraint (Trunk Main A)	Inlet limits raw-water delivery to 6.7 ML/day against ~8 ML/day peak demand and cannot be resolved by operational measures alone. Ref: Water Security; Capacity & Capability.	High	[to confirm]	[to confirm]	Managed on interim basis
Advance the longer-term Central Tablelands Regional Water Supply Grid (SRTWS Stage 2)	Sub-regional integration of Council, Orange and Molong, estimated to raise combined sub-regional yield from 5,806 to 9,000 ML/yr; sets the long-term intergenerational security direction. Ref: Water Security; IWCM.	High	Short-term	[to confirm]	Strategy development
Continue interim demand-management measures	Permanent low-level restrictions, water-loss management and community education save ~53 ML/yr, providing headroom while augmentation is planned; not sufficient alone. Ref: Water Usage.	Ongoing	Ongoing	[to confirm]	In progress
Dam safety					

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Deliver dam safety upgrade works at Lake Rowlands to meet current standards	Declared dam (Dams Safety Act 2015), constructed 1949–54, does not meet current standards; required regardless of the Belubula option. If dam raising is funded these works are addressed within that project; otherwise standalone works are estimated at \$26m. Ref: Water Security; Risk Assessment.	High	Aligned to Belubula outcome; ~2030/31 if standalone	[to confirm]	Dependent on Belubula funding decision
Water quality & treatment					
Upgrade treatment to address the protozoan log-reduction shortfall at Blayney and Carcoar (UV disinfection)	Maintains health-based compliance as targets tighten; current compliance is 100%. Ref: Water Quality.	High	[to confirm]	[to confirm]	Assessment complete; upgrade to program
Progressively move disinfection-only sources to multiple-barrier treatment; continue PFAS and emerging-contaminant monitoring	Aligns with contemporary drinking-water risk management; PFAS results are within current guideline values but treatment capability is limited. Ref: Water Quality.	Medium	By 2035	[to confirm]	To program
Asset renewal & data management					
Deliver the water main and infrastructure renewal program	1950s-era mains are reaching the end of the first asset cycle; an estimated ~\$43m minimum capital is required over ten years, heavily grant-dependent. Ref: Asset Management Planning; Financial Management.	High	Concentrated 2030–2035	[to confirm]	To program
Improve condition assessment of buried assets	Limited condition data on buried mains risks rapid escalation to critical failure; investigate inspection methods (e.g. drone survey of transfer mains). Ref: Asset Management Planning.	Medium	[to confirm]	[to confirm]	To develop
Reconcile the asset register with Council records and NPR reporting, beginning with water mains	Register records 585 km of mains while 659 km is reported to the NPR, and 561km in the 2021 DMP; discrepancy affects asset management and performance reporting. Ref: Asset Management Planning.	Medium	[to confirm]	[to confirm]	Discrepancy identified
Efficiency					
Implement a non-revenue water reduction program	Non-revenue water at 28.6% is well above the state median; an RAF efficiency priority to be weighed against augmentation, reducing losses, cost and pressure on supply. Ref: Water Usage; Water Security.	Medium–High	[to confirm]	[to confirm]	To develop
Resourcing & digital capability					

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Implement workforce and succession measures	Small team with critical knowledge concentrated in a few roles, thin succession and a tight regional labour market. Traineeships, local pipeline development and regional resource sharing. Ref: Resourcing.	Medium	Ongoing	[to confirm]	In progress
Replace core corporate systems and strengthen cyber security	Vendor support for the current core system (Synergy) ends in 2030, requiring replacement; cyber security is an emerging operational concern. Ref: Resourcing.	Medium–High	Systems before 2030	[to confirm]	To plan
Funding					
Pursue external grant and co-funding for the capital program	Approximately \$70m in grants is needed over ten years to maintain service levels; the capital program is not deliverable through pricing alone within affordability limits. Ref: Financial Management.	High	Ongoing	[to confirm]	Ongoing
Customer & community engagement					
Develop and adopt a Community Engagement Strategy	No formal strategy currently exists; required under IP&R and supports RAF customer-engagement expectations. Ref: Strategic Decision Making.	High	[to confirm]	[to confirm]	Not yet in place
Engage the community on levels of service and test willingness to pay, particularly for water security	RAF expects engagement at least every four years to the IAP2 'involve' level and testing of willingness to pay for service above the regulated minimum; underpins the water-security level of service and price path. Not undertaken to date. Ref: RAF – Understanding service needs.	High	[to confirm]	[to confirm]	Not yet undertaken
Risk & business continuity					
	Risk register exists (reviewed May 2026) but no documented framework; RAF expects risk management integrated with strategic planning. Ref: Risk Assessment.	High	[to confirm]	[to confirm]	To develop
Confirm / establish a Business Continuity Plan	Supports robust emergency and incident management under the RAF; current status to be confirmed. Ref: Disaster Preparedness.	Medium–High	[to confirm]	[to confirm]	To confirm
Customers with critical & vulnerable needs					
Establish a consolidated register of critical and vulnerable customers, with a priority-notification process for supply interruptions	Not yet in place; strengthens awareness of vulnerable groups' needs and supports priority notification during interruptions. Ref: Understanding service needs; Disaster Preparedness.	Medium	[to confirm]	[to confirm]	Not yet in place

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Catchment & source protection					
Continue catchment and source-water protection at Lake Rowlands	Ongoing foreshore willow removal, progressive revegetation (~10,000 native plants on Council land) and source-water monitoring protect raw-water quality and catchment health (Council 2015). Ref: Water Quality; Environmental Impacts.	Ongoing	Ongoing	[to confirm]	In progress
Further actions (to be added)					

Note: priorities and timeframes are indicative and to be confirmed by Council. Figures are drawn from the relevant sections of this Plan and its supporting documents.

21 References

21.1.1 Note on ACTs and Legislation

The development of this Plan has been guided by the following legislative and policy frameworks:

- NSW Public Health Act 2010
- Public Health Regulation 2022
- Australian Drinking Water Guidelines (NHMRC / NRMCC)
- Local Government Act 1993
- Water Management Act 2000
- Regulatory and Assurance Framework for Local Water Utilities (NSW Department of Planning and Environment, 2022)
- NSW Water Strategy (2021)
- Lachlan Regional Water Strategy and Macquarie-Castlereagh Regional Water Strategy
- State Infrastructure Strategy 2022-2042
- Central NSW Joint Organisation Statement of Strategic Regional Priorities

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Appendix 1 Council water sources: licence volumes, capacity and drought/climate risk

Groundwater ratings summarise the C.M. Jewell and Associates (2024) findings; Lake Rowlands reflects the SRTWS 2025 / OD Hydrology 2023 level-of-service finding and the SMEC 2010 yield review. Bracketed items are to be confirmed.

Source	Licensed entitlement (ML/yr)	Capacity / yield	Drawdown and sustainability	Climate / drought risk rating	Source
Lake Rowlands (surface water, primary source)	3,150 (extraction entitlement / licence limit)	Safe yield approx. 2,050; approx. 1,900 climate-adjusted	Dead storage 900 ML. Stand-alone supply does not meet adopted SRTWS level-of-service targets; storage drawn into lower restriction bands in past major droughts.	High (security) [low climate resilience: rainfall-dependent surface water]	SMEC 2010; SRTWS 2025; OD Hydrology 2023; Council DMP 2021
<i>Lake Rowlands — licence and sharing detail</i>	<i>[WAL no. — confirm]</i>	<i>[—]</i>	<i>Lachlan Unregulated River Water Sources - licence number - 70CA614138. No cease to pump or environmental flow conditions apply</i>	<i>[—]</i>	<i>[to confirm]</i>
Gooloogong bores (Bores 2 & 3)	400	Approx. 5 ML/day combined (each approx. 3.8 ML/day, 43 L/s)	High drought resilience. Upper Lachlan alluvial aquifer recharged by riverbed leakage and overbank flooding from the regulated Lachlan River; sustains full licensed take, with scope for more if permitted.	Low	C.M. Jewell 2024
Bangaroo bores (BH 1 & BH 2)	472 (share component)	Approx. 5 ML/day emergency supply if refurbished	Bore itself not climate-vulnerable (alluvial, episodic river recharge). However neighbouring irrigation extraction is unsustainable and has created a significant cone of depression, drawdown exceeding 40% of pre-development total available drawdown. Council share approx. 12% of surrounding irrigation entitlement; Council drought extraction would worsen drawdown unless adjacent pumping curtailed.	Moderate to high [low climate risk; high local over-extraction risk; availability conditional]	C.M. Jewell 2024
Cudal bore	100	Installed pump 4 L/s (unlikely to be sustained); accessible	Reasonable drought resilience under current conditions (deep basalt fracturing, interflow gravels). Under high-emissions climate, reduced recharge makes supply failure likely in longer, more frequent droughts. Water	High (significant climate vulnerability)	C.M. Jewell 2024

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Source	Licensed entitlement (ML/yr)	Capacity / yield	Drawdown and sustainability	Climate / drought risk rating	Source
		recharge approx. 200 ML/yr	slightly hard; manganese marginally above aesthetic guideline.		
Quandialla bores (Bores 1 & 2, standalone scheme)	266	Approx. 30 L/s achievable with appropriate pump	Bland Creek alluvial aquifer; no river recharge and very low rainfall recharge (approx. 4 mm/yr). Water levels down approx. 12 m since 1990s. Reasonable drawdown buffer from aquifer depth, but low confidence in drought resilience given limited hydrogeological understanding.	High (significant climate vulnerability)	C.M. Jewell 2024
Blayney Well / Blayney Blue Hole (standby)	[—]	Approx. 188 ML/yr potential combined capacity	Not assessed by C.M. Jewell 2024. SRTWS assigns an inherent microbial risk rating of low, conditional on bore caps and casings remaining intact to prevent surface water ingress.	Not rated [confirm]	SRTWS 2025; Council DMP 2021

Risk legend

Low	Moderate	High / significant	Not rated
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Notes: Entitlement figures are licensed shares, not a measure of reliable drought yield. Ratings are a planning summary of the cited assessments, not a substitute for them. Lake Rowlands risk reflects water security (the source does not meet adopted level-of-service targets stand-alone), distinct from its climate resilience, which is low as a rainfall-dependent surface source.

Appendix 2 Risk Matrix

Risk Matrix

Likelihood	Consequence					
		Insignificant	Minor	Moderate	Major	Catastrophic
	Almost Certain	MEDIUM	HIGH	HIGH	EXTREME	EXTREME
	Likely	MEDIUM	MEDIUM	HIGH	HIGH	EXTREME
	Possible	LOW	MEDIUM	HIGH	HIGH	HIGH
	Unlikely	LOW	LOW	MEDIUM	MEDIUM	HIGH
	Rare	LOW	LOW	MEDIUM	MEDIUM	HIGH

Risk Response

Rating	Required Response
EXTREME	Do not proceed with any activities where the risk is in this category without specialist assistance to further treat/reduce risk including the development of contingency plans and/or transference strategies. This level of risk requires immediate, General Manager level attention. Solutions need to be developed and actioned immediately; action plans may require close attention by the General Manager until the risk is managed to the desired level. Only the General Manager can authorize work to be undertaken at this level of risk.
HIGH	Activities with the risk in this category require immediate attention of appropriate Manager. Do not proceed with any treatment option without clear and timely action plans identified to reduce the risk. Action plans must be approved by appropriate Manager. Only the relevant Manager can authorize work to be undertaken at this level of risk.
MEDIUM	Activities with the risk in this category require attention with a degree of priority. Remedial action should be identified, and implementation commenced with appropriate priority. Only the relevant Coordinator/Engineer can authorize work to be undertaken at this level of risk.
LOW	LOW While control issues may exist at this level, their impact is deemed low. All staff are expected to review the assessment and controls; and, where controls are not satisfactory remedial action should be identified and implemented where practical.

Likelihood Descriptors

Probability Factor	Descriptor	Probability of Occurrence
Almost Certain	There is a >90% chance that the event will occur once in the next 12 months. Frequent past history.	Within 6 months
Likely	There is a 65% - 90% chance that the event will occur once in the next 12 months. Some past history.	next 12 months.
Possible	There is a 35% - 65% chance that the event will occur once in the next 12 months. Some past warning signs or previous events.	Within 3 -5 years
Unlikely	There is a 10% - 35% chance that the event will occur in the next 12 months.	Within 10 – 20 years
Rare	There is a <10% chance that the event will occur once in the next 12 months. No known past history or event.	More than 20 years

Appendix 3 Central Tablelands Water - RAF strategic Planning Outcomes - Concordance and Gap Tracker

Central Tablelands Water — RAF strategic planning outcomes: concordance & gap tracker

Maps each of the 12 RAF outcomes to where it is addressed in this Strategic Business Plan and in other Council documents.

Concordance and Gap Tracker

#	RAF outcome	Addressed in this document	Addressed in other documents	Status	Notes / action
1	Understanding service needs	Levels of Service & KPIs; Population Assessment and Projections; Water Usage Projection	SRTWS 2025 (demand modelling); BASP and DP/OP (KRA service measures); NPR benchmarking dashboard; customer engagement / WTP study (to develop)	Documented	Customer engagement & WTP evidence still to develop
2	Understanding water security	Water Security	SRTWS 2025; Lachlan River Regional Water Strategy; NSW Water Strategy; LTFP (Lake Rowlands timing); Drought Management Plan	Documented	Confirmed — Council sits within the Lachlan River Regional Water Strategy area
3	Understanding water quality	Water Quality	Drinking Water Management System / ADWG compliance; NSW Health requirements; Fluoridation Act records; annual performance reporting	Documented	
4	Understanding environmental impacts	Environmental Impacts	EPA licences (none currently held — Blayney, Carcoar & Grenfell surrendered); dam / foreshore management; Environment Protection Plan (2015 SBP)	Scope-limited	State water-only scope explicitly — no sewerage function
5	Understanding system capacity, capability & efficiency	Water Supply Schemes Capacity & Capability; Asset Management Planning	Asset Management Plan; hydraulic / yield modelling; water-loss (NRW) project — DP Activity 1.5.2	Documented	

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6	Understanding other key risks & challenges	Risk Assessment; Disaster Preparedness	Risk Management Framework; Business Continuity Plan; Drought Management Plan; dam safety program; cyber strategy (DP 2.3.1.4); ARIC / internal audit	Documented	
7	Understanding solutions to deliver services	Asset Management Planning (with explicit cross-references to Water Security and Strategic Decision Making for options / cost-benefit analysis)	SRTWS options assessment; IWCM evaluation / strategy; Demand Management Plan; options cost-benefit analysis (to consolidate)	Documented	Resolved — AMP is the designated home, with explicit cross-references to Water Security & Strategic Decision Making for options analysis
8	Understanding resourcing needs	Resourcing	Workforce Management Plan; Asset Management Plan (lifecycle costs); LTFP; BASP	Documented	
9	Understanding revenue sources	Water Pricing (incl. Revenue Sources); Financial Management; WTP addressed under 'Customer Engagement and willingness to pay'	LTFP; Development Servicing Plan (developer charges); Revenue Policy; IPART pricing; WTP study (to develop)	Documented	Revenue Sources subsection and WTP discussion now in draft; undertaking WTP engagement remains a future action
10	Make & implement sound strategic decisions	Strategic Objectives; Strategic Decision Making; Summary of Key Issues; Future Actions & Implementation	DP/OP (IP&R delivery framework); LTFP; BASP; performance reporting	Documented	
11	Implement sound pricing & prudent financial management	Water Pricing; Financial Management	LTFP / 30-year financial model; Revenue Policy; DSP; IPART pricing principles; fees & charges; ring-fencing & best-practice pricing compliance	Documented	
12	Promote integrated water cycle management	Integrated Water Cycle Management	Joint IWCM Detailed Strategy Study (HydroScience 2013 — now largely superseded); SRTWS; Lachlan River Regional Water Strategy	Documented	Resolved — draft states the 2013 study is largely overtaken and re-establishes IWCM planning under the RAF

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Status summary

Documented	11	Covered — section drafted to a reasonable standard
Part	0	Partly covered — needs strengthening
Gap	0	No clear home — must add
Scope-limited	1	Deliberate exclusion — state scope explicitly

Appendix 4 Central Tablelands Water Related Documents & Evidence Register

This register lists the supporting documents that evidence each RAF strategic planning outcome, with a status flag for each. It is the companion to the RAF concordance and doubles as a follow-up list: anything not marked 'Current' needs action before the Strategy is assessment-ready. Dates and versions for internal Council documents should be confirmed against the source.

Related Document and Evidence Register

Document	Date / version	Status	Notes
Framework & governance (cross-cutting)			
Regulatory and Assurance Framework for Local Water Utilities	DCCEEW, 2022	Current	The assessment framework this register maps to
Integrated Planning & Reporting Guidelines for Local Councils in NSW	OLG, 2021	Current	Underpins the IP&R basis and outcome 10
Local Government Act 1993 (NSW)	1993 (as amended)	Current	Statutory basis, incl. dividend / assurance provisions
Strategic Business Plan 2015	Council, adopted Oct 2015	Superseded – baseline	Source for 'Actions from 2015 Plan'; superseded by this Strategy
1 — Understanding service needs			
Levels of Service & KPIs	This Strategy	In draft	Primary statement of service levels
Council network — customer & service data	Council, 2025	Current	Customer characterisation / profiling
Growth scenarios — Blayney, Millthorpe, Canowindra	Asset Nexus, 2024	Current	Internal growth / population input
Council-25-01 Growth Scenarios — Blayney, Millthorpe, Canowindra	Council, 2024	Current	Growth input
Orange City growth projections (regional water planning)	Cabonne, 2025	Current	Cross-boundary growth input
SRTWS — water demand & water quality risk assessment	NSW Public Works, 2024	Current	Demand forecasting basis
SRTWS Stage 1 Summary Report	Cabonne, 2025	Current	Service-needs / demand evidence
Climate statistics: average evaporation	BoM, 2019 / 2020	Current	Climate-normalisation inputs
Blayney Shire Settlement Strategy	Blayney, 2021	Current	Land-use consistency check
Blayney Shire Local Strategic Planning Statement	Blayney, 2021	Current	Land-use consistency check
Cabonne Settlement Strategy 2021–2041 (LPIP)	Cabonne, 2021	Current	Land-use consistency check
Cabonne Settlement Strategy 2021–2041 (Options Paper)	Cabonne, 2021	Current	Land-use consistency check
Cabonne Local Strategic Planning Statement	Cabonne, 2021	Current	Land-use consistency check
Cabonne Local Housing Strategy	Cabonne, 2021	Current	Dwelling / household input

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Document	Date / version	Status	Notes
Weddin Shire LSPS 2020–2040	Weddin, 2020	Current	Land-use consistency check
LWU performance reporting 2024–25	DCCEEW, 2025	Current	NPR benchmarking
LWU performance monitoring data & reports	DPIE, 2018	Dated – review	Older benchmarking baseline
Stakeholder / customer engagement policy	—	Gap – to develop	No current policy — to be developed
Willingness-to-pay / capacity-to-pay study	—	Gap – to develop	None — to be developed (also feeds outcome 9)
2 — Understanding water security			
SRTWS Stage 1 Summary Report	Cabonne, 2025	Current	Security assessment
SRTWS — demand & water quality risk assessment	NSW Public Works, 2024	Current	Security / yield basis
CENTROC Water Security Study	MWH, 2009	Dated – review	Legacy regional study
Drought Management Plan	Council (Atom Consulting), 13 Oct 2021	Current	Restrictions / drought response
Lake Rowlands augmentation — final business case (media release)	Council, 2024	Current	Augmentation option
Lake Rowlands project history / Belubula background	Council, 2025	Current	Project context
Belubula Water Security Project	Water Infrastructure NSW, 2025	Current	Long-term security solution
Central West & Orana climate change snapshot	OEI, 2014	Dated – review	Climate-risk input
Murray Basin Cluster Report	Timbal et al. / CSIRO & BoM, 2015	Current	Climate projections
3 — Understanding water quality			
Drinking Water Management Plan	Council, 2025	Current	DWMS 2025 — cited throughout the Strategy (Council DWMS 2025)
SRTWS — water quality risk assessment	NSW Public Works, 2024	Current	Quality-risk basis
Draft Carcoar WTP capacity assessment	NSW Public Works, 2024	Draft	Treatment capacity / quality
NSW Health requirements / Fluoridation Act records	—	Confirm	Framework cited (Public Health Act 2010; Fluoridation Act 1957; NSW Health point-of-supply monitoring); RAF 3.2 external DWMS audit record still to obtain
4 — Understanding environmental impacts			
EPA licence / Environment Protection Licence	—	Confirmed	None apply — Council holds no EPL; former Blayney/Carcoar/Grenfell licences surrendered (water-only utility)
Scope statement — water-only, no sewerage function	This Strategy	Draft	
5 — Understanding system capacity, capability & efficiency			

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Document	Date / version	Status	Notes
Draft Asset Management Plan	Council, 2025	Draft	Capacity / condition basis
Draft Carcoar WTP capacity assessment	NSW Public Works, 2025	Complete	Treatment capacity
Water-loss (NRW) project	DP Activity 1.5.2, 2026	Current	Efficiency / non-revenue water
LWU performance monitoring	DCCEEW / DPIE	Current	Efficiency benchmarking
6 — Understanding other key risks & challenges			
Drought Management Plan	Council, 2021	Current	Drought risk
Risk Management Plan / Framework	Register, May 2026	Gap – to develop	Risk register exists (reviewed May 2026); documented framework (AS ISO 31000) still to develop
Business Continuity Plan	Council (per DP/OP 2026)	Current	In place — review & desktop exercise programmed in DP/OP tasks 2.3.2.1–2.3.2.3. Water sub-plan/recovery plan & AIMS alignment still to consolidate
7 — Understanding solutions to deliver services			
SRTWS options assessment	Cabonne 2025 / NSW Public Works 2024	Current	Supply / demand options analysis
Lake Rowlands business case & Belubula project	Council 2024 / WINSW 2025	Current	Supply-side options
Demand Management Plan	Council, 13 Oct 2021	Current	Demand-side options
CENTROC Water Security Study	MWH, 2009	Dated – review	Legacy options
No dedicated section in Strategy	This Strategy	Gap – structure	Evidence exists — add a home / explicit pointers
8 — Understanding resourcing needs			
Draft Asset Management Plan (lifecycle costs)	Council, 2025	Draft	Lifecycle resourcing
Long Term Financial Plan 2025/26–2034/35	Council, 2025	Current	Financial resourcing
Business Activity Strategic Plan 2022–2032	Council, reviewed 2026	Current	Organisational / resourcing
Workforce Management Strategy	Council, 2026	Current	
9 — Understanding revenue sources			
Long Term Financial Plan	Council, 2025	Current	Revenue forecasts
Water Supply Development Servicing Plan / Strategy	Council, 2021	Current	Developer charges / revenue
Demand Management Plan	Council, 2021	Current	Demand / revenue interaction
Revenue Policy	Council, 2026/27	Current	Statement of Revenue Policy 2026/27 (adopted annually)
Willingness-to-pay / capacity-to-pay study	—	Gap – to develop	None — to be developed
10 — Make & implement sound strategic decisions			
Delivery Program 2026–2030 & Operational Plan 2026/27	Council, 2026	Current	IP&R delivery framework

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Document	Date / version	Status	Notes
Long Term Financial Plan	Council, 2025	Current	Financial decision basis
Business Activity Strategic Plan	Council, reviewed 2025	Current	Strategic actions
IP&R Guidelines	OLG, 2021	Current	Decision framework
11 — Implement sound pricing & prudent financial management			
Long Term Financial Plan / 30-year model	Council, 2025	Current	Pricing & financial sustainability
Water Supply Development Servicing Plan 2021	Council, 2021	Current	Developer charges
Revenue Policy	Council, 2026/27	Current	Statement of Revenue Policy 2026/27 (adopted annually)
IPART pricing material	—	Confirmed	N/A — Council not price-regulated by IPART; prices self-determined under LG Act 1993 & NSW best-practice framework (IPART advisory only)
12 — Promote integrated water cycle management			
IWCM Strategy	HydroScience, 2013	Superseded	2013 Joint IWCM Detailed Strategy Study: superseded by Belubula project & 2025 SRTWS — IWCM re-established under RAF via this Strategy
SRTWS	Cabonne 2025 / NSW Public Works 2024	Current	
Regional Water Strategy (Macquarie–Castlereagh / Lachlan)	NSW DCCEEW	Confirmed	Lachlan RWS is primary (source & licence in Lachlan Unregulated River); Macquarie–Castlereagh relevant via Orange–Carcoar interconnection

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Appendix 5 Central Tablelands Water - Strategic Plan KPI Table FULL

Strategic Plan KPI Table - Extended Version

Central Tablelands Water — Strategic Plan KPI Table							
Category	Indicator	Unit	Council Current	NSW / National Bench mark	Currently Reported To	Framework / Indicator Set	Strategic Priority / KRA
							Year
Water Resources	Volume sourced (surface water / groundwater)	ML	2082	1123	DCCEEW (water licensing / extraction reporting)	NPR – Water Resources (W1, W2)	SP1 – KRA 1.5 Efficient Use of Water
	Average residential water supplied per property	ML/property	144.83kL	233.18kL	DCCEEW (Performance Monitoring database)	NPR – Water Resources (W12, derived)	SP1 – KRA 1.5 Efficient Use of Water
Assets	Length of water mains	km	659	170	DCCEEW (Performance Monitoring database)	NPR – Assets (A2)	SP1 – KRA 1.1 Service Provision Through Fit-for-Purpose Infrastructure
	Properties served per km of water main	properties/km	9.32	25.48	DCCEEW (Performance Monitoring database)	NPR – Assets (A3, derived)	SP1 – KRA 1.1 Service Provision Through Fit-for-Purpose Infrastructure
	Water main breaks per 100 km	breaks/100km	7.72	15.55	DCCEEW (Performance Monitoring database)	NPR – Assets (A8, derived)	SP1 – KRA 1.1 Service Provision Through Fit-for-Purpose Infrastructure

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				Monitoring database)	Infrastructure	
	Non revenue water (% of total water sourced)	%	28.60%	10.9 DCCEEW (Performance Monitoring database)	NPR – Water Resources (W10.1, W1, W2 - locally derived ratio)	SP1 – KRA 1.5 Efficient Use of Water
						2024-25
Customers	Water quality complaints per 1,000 properties	complaints/1000	2.44	1.99 DCCEEW (Performance Monitoring database)	NPR – Customers (C9, derived)	SP2 – KRA 2.1 Quality Customer Service
						2024-25
	Water service complaints per 1,000 properties	complaints/1000	5.86	3.46 DCCEEW (Performance Monitoring database)	NPR – Customers (C10, derived)	SP2 – KRA 2.1 Quality Customer Service
						2024-25
	Average duration of unplanned interruption	minutes		DCCEEW (Performance Monitoring database)	NPR – Customers (C15)	SP1 – KRA 1.1 Service Provision Through Fit-for-Purpose Infrastructure
	Unplanned interruptions per 1,000 properties	interruptions/1000	8.31	4.06 DCCEEW (Performance Monitoring database)	NPR – Customers (C17, derived)	SP1 – KRA 1.1 Service Provision Through Fit-for-Purpose Infrastructure
						2024-25
Public Health	% population with microbiological compliance	%		NSW Health; DCCEEW (Performance Monitoring database)	NPR – Public Health (H3)	SP1 – KRA 1.1 Service Provision Through Fit-for-Purpose Infrastructure
Pricing	Typical residential bill	\$	928.8	776 DCCEEW (Performance Monitoring database)	NPR – Pricing (P3)	SP2 – KRA 2.2 Sound & Sustainable Financial Management
						2024-25

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					Monitoring database);			
Finance	Operating cost per property	\$/property			Office of Local Government (financial statements); DCCEEW	NPR – Finance (F11, derived)	SP2 – KRA 2.2 Sound & Sustainable Financial Management	
	Economic real rate of return	ratio			Office of Local Government (financial statements); DCCEEW	NPR – Finance (F17)	SP2 – KRA 2.2 Sound & Sustainable Financial Management	
	Capital expenditure per property	\$/property	136.18	224.96	Office of Local Government (financial statements); DCCEEW	NPR – Finance (F28, derived)	SP2 – KRA 2.2 Sound & Sustainable Financial Management	2024-25
Workforce	Workforce capability and development	Qualitative/programme based	Workforce Management Strategy in development	N/A	None	NSW-specific (RAF s.8.2 — workforce data)	SP2 – KRA 2.4 A Capable and Effective Workforce	
Council Local LOS	Fire-fighting compliance (% urban area meeting AS 2419.1)	%	Under assessment	n/a (local)	None	Council Strategic Business Plan 2025-26 (Levels of Service)	SP1 – KRA 1.1 Service Provision Through Fit-for-Purpose Infrastructure	N/A
	Minimum / maximum delivery pressure	m head	Min- 20m head, Max 60m head	n/a (local)	None	Council Strategic Business Plan 2025-26 (Levels of Service)	SP1 – KRA 1.1 Service Provision Through Fit-for-Purpose Infrastructure	

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	Peak day consumption per tenement	L/tenement/day		n/a (local)	None	Council Strategic Business Plan 2025-26 (Levels of Service)	SP1 – KRA 1.5 Efficient Use of Water	
	Response time to supply failure (by customer criticality)	hours	Priority 1 (critical use, critical time): 1–2 hrs; Priority 2 (critical use, non-critical time): 3–4 hrs	n/a (local)	None	Council Drought Management Plan 2021; Council Levels of Service	SP1 – KRA 1.1 Service Provision Through Fit-for-Purpose Infrastructure	current

Appendix 6 Notes for Each KPI

WATER RESOURCES

1. KPI calculated as the sum of NPR indicators W1 (volume of water self-sourced from climate-dependent surface water sources) and W2 (volume of water self-sourced from groundwater sources), reported for Council in the NPR 2024-25 dataset. The benchmark value shown is the median combined W1+W2 volume across NSW service providers in the "Very small – less than 10,000 connected properties" category (n=36), selected as a more representative comparator than the mean, which is skewed upward by a small number of higher-volume providers in this group. For reference, the group mean combined volume is 1,537.23 ML, compared to the median of 1,123.00 ML used as the benchmark.
2. KPI sourced directly from NPR indicator W12 (average volume of residential water supplied per property), as reported by Council in the NPR 2024-25 dataset. The benchmark value shown is the median W12 value across NSW service providers in the "Very small – less than 10,000 connected properties" category (n=30), selected as the more representative comparator given the wide spread of values in this peer group (ranging from 94.29 to 2,121.57 kL/property). For reference, the group mean is 357.15 kL/property, compared to the median of 233.18 kL/property used as the benchmark. Council's result of 144.83 kL/property places it in the lowest quartile of the peer group, indicating comparatively efficient residential water use.

ASSETS

3. KPI sourced directly from NPR indicator A2 (length of water supply mains), as reported by Council in the NPR 2024-25 dataset. The benchmark value shown is the median A2 value across NSW service providers in the "Very small – less than 10,000 connected properties" category (n=41), selected as the more representative comparator given the wide spread of values in this peer group (ranging from 0 to 659 km). For reference, the group mean is 203.42 km, compared to the median of 170.00 km used as the benchmark. Council's network of 659 km is the longest in the peer group, reflecting its unique operating structure as a single utility serving 14 towns and villages across a large geographic area via an interconnected trunk main network, rather than a single concentrated town network. This extended network relative to Council's 6,139 connected properties results in a significantly higher per-property asset maintenance and renewal burden compared to most NSW peers.
4. KPI sourced directly from NPR indicator A3 (number of connected properties served per km of water main), as reported by Council in the NPR 2024-25 dataset. The benchmark value shown is the median A3 value across NSW service providers in the "Very small – less than 10,000 connected properties" category (n=37). For reference, the group mean is 25.48 properties/km, compared to the median of 23.59 properties/km used as the benchmark. Council's result of 9.32 properties/km is among the lowest in the peer group,

directly reflecting its unique operating structure of a dispersed multi-town network connected by long trunk mains – a finding consistent with Council's A2 result of 659 km, the longest water main network in the peer group.

5. KPI sourced directly from NPR indicator A8 (number of water main breaks per 100 km of water mains), as reported by Council in the NPR 2024-25 dataset. The benchmark value shown is the median A8 value across NSW service providers in the "Very small – less than 10,000 connected properties" category (n=37), selected as the more representative comparator given the wide spread of values in this peer group (ranging from 1.44 to 155.96 breaks/100 km). For reference, the group mean is 31.66 breaks/100 km, compared to the median of 15.55 breaks/100 km used as the benchmark. Council's result of 7.74 breaks/100 km sits in the lowest quartile of the peer group, indicating relatively good network condition despite the scale and age of Council's asset base.
6. KPI calculated as the volume of non-revenue water (NPR indicator W10.1) expressed as a percentage of total water self-sourced (W1 + W2), derived from data reported by Council in the NPR 2024-25 dataset. This indicator has been selected instead of NPR indicators A9 (Infrastructure Leakage Index) and A10 (real losses per service connection), which are reported as "not applicable" by Council and the majority of NSW "Very small" providers, as these derived leakage metrics require pressure and flow monitoring data typically only available to larger utilities. The benchmark value shown is the median non-revenue water percentage across NSW "Very small – less than 10,000 connected properties" providers for whom sufficient data exists to calculate this ratio (n=32), selected as the more representative comparator given significant outliers at both ends of the peer group (including providers reporting 0%, likely reflecting incomplete data, and one provider at 418%). For reference, the group mean is 30.73%, compared to the median of 10.93% used as the benchmark. Council's result of 28.63% sits above the median, indicating water loss as an area for ongoing improvement – consistent with the water loss management project (installation of electronic flow meters and telemetry) included in Council's Delivery Plan 2026-30.

CUSTOMERS

7. KPI sourced directly from NPR indicator C9 (number of drinking water quality complaints per 1,000 properties), as reported by Council in the NPR 2024-25 dataset. The benchmark value shown is the median C9 value across NSW service providers in the "Very small – less than 10,000 connected properties" category (n=36), selected as the more representative comparator given the wide spread of values in this peer group (ranging from 0.00 to 17.91 complaints/1,000 properties). For reference, the group mean is 3.67 complaints/1,000 properties, compared to the median of 1.99 used as the benchmark. Council's result of 2.44 complaints/1,000 properties places it in the middle of the peer group (approximately the 58th percentile), indicating a complaints rate slightly above the median but well below the group mean.
8. KPI sourced directly from NPR indicator C10 (number of drinking water service complaints per 1,000 properties), as reported by Council in the NPR 2024-25 dataset. The benchmark value shown is the median C10 value across NSW service providers in the "Very small – less than 10,000

connected properties" category (n=36), selected as the more representative comparator given the wide spread of values in this peer group (ranging from 0.00 to 106.47 complaints/1,000 properties). For reference, the group mean is 14.43 complaints/1,000 properties, compared to the median of 3.46 used as the benchmark. Council's result of 5.86 complaints/1,000 properties places it slightly above the median (approximately the 61st percentile), though well below the group mean, indicating a service complaints rate in the middle range of the peer group.

9. KPI sourced from NPR indicator C15 (average duration of an unplanned interruption: drinking water supply). Not currently populated for Council in the NPR 2024-25 dataset; flagged as "to be reported" once the underlying interruption-duration data is available. Benchmark to be added at that time.
10. KPI sourced directly from NPR indicator C17 (number of unplanned interruptions per 1,000 properties: drinking water supply), as reported by Council in the NPR 2024-25 dataset. The benchmark value shown is the median C17 value across NSW service providers in the "Very small – less than 10,000 connected properties" category (n=37), selected as the more representative comparator given the wide spread of values in this peer group (ranging from 0.00 to 95.79 interruptions/1,000 properties). For reference, the group mean is 9.88 interruptions/1,000 properties, compared to the median of 4.06 used as the benchmark. Council's result of 8.31 interruptions/1,000 properties places it in the upper third of the peer group (approximately the 70th percentile), indicating an interruption rate above the median but below the group mean.

PUBLIC HEALTH

11. KPI sourced from NPR indicator H3 (percentage of population with microbiological compliance). Not currently populated for Council; flagged as "to be reported" pending NSW Health / DCCEEW verification data. Benchmark to be added at that time.

PRICING

12. KPI sourced directly from NPR indicator P3 (typical residential customer bill: drinking water supply), as reported by Council in the NPR 2024-25 dataset. The benchmark value shown is the median P3 value across NSW service providers in the "Very small – less than 10,000 connected properties" category (n=23), selected as the more representative comparator given the spread of values in this peer group (ranging from \$181.00 to \$996.00). For reference, the group mean is \$716.92, compared to the median of \$776.00 used as the benchmark. Council's typical residential bill of \$928.80 places it in the upper quartile of the peer group (approximately the 87th percentile), indicating a bill above most peers. This reflects Council's cost structure as a standalone rural water utility and should be considered alongside operating cost and service delivery context. (Note: this is the NPR 2024-25 standardised prior-year benchmark figure, distinct from the current 2026/27 typical residential bill reported elsewhere in this Plan.)

FINANCE

13. KPI sourced from NPR indicator F11 (operating cost per property: water supply), derived from Office of Local Government financial statements and DCCEEW. Not currently populated for Council; flagged as "to be reported." Benchmark to be added at that time.
14. KPI sourced from NPR indicator F17 (economic real rate of return: water supply), derived from Office of Local Government financial statements and DCCEEW. Not currently populated for Council; flagged as "to be reported." Benchmark to be added at that time.
15. KPI sourced directly from NPR indicator F28 (capital expenditure per property: water supply), as reported by Council in the NPR 2024-25 dataset. The benchmark value shown is the median F28 value across NSW service providers in the "Very small – less than 10,000 connected properties" category (n=24), selected as the more representative comparator given the wide spread of values in this peer group (ranging from \$28.41 to \$646.69 per property). For reference, the group mean is \$248.05 per property, compared to the median of \$224.96 used as the benchmark. Council's capital expenditure of \$136.18 per property places it in the lowest quartile of the peer group (approximately the 25th percentile), indicating comparatively low capital investment relative to peers in 2024-25. This result should be considered in the context of Council's capital program timing and whether this reflects a trough year between major works.

WORKFORCE

16. Council's workforce data is reported to DCCEEW under RAF Section 8.2. Specific quantitative indicators for staff FTE per 1,000 properties and training hours per FTE are not currently reported – a finding consistent with the NPR Indicator Review, which concluded that nationally consistent staff capacity metrics were not feasible due to the absence of a unified accreditation framework. Council addresses workforce capability through its Delivery Program (KRA 2.4), which commits to implementing a Workforce Management Strategy and providing ongoing professional development.

Council LOCAL LOS

17. Council's current fire-fighting compliance against AS 2419.1 (classifications 2, 3, 4 & 9, floor area less than 1,000 m²) is under assessment. The 2015 Strategic Business Plan recorded compliance at 100% of the urban service area; however, Council has identified that verification of current network performance requires hydraulic modelling before this figure can be confirmed. Hydraulic modelling for the Millthorpe, Blayney and Canowindra networks is included as a planned activity in Council's Delivery Program 2026-30 (Activity 1.1.2). The target remains 100% of the urban reticulated service area. This KPI will be updated following completion of modelling.
18. Council's delivery pressure levels of service are defined by a minimum of 20 metres head when delivering 15 L/min at any connection point, and a maximum static pressure of 60 metres head. Current performance is recorded as compliant with both standards, as confirmed in Council's draft Levels of Service document. These are distinct from the fire-fighting compliance indicator (AS 2419.1) reported separately in this table: the pressure standards measure everyday operating pressure at property connections under normal

conditions, whereas the fire-fighting standard measures the network's capacity to sustain 11 L/s for 4 hours from any single hydrant – a significantly higher demand event testing bulk hydraulic capacity under emergency conditions. A network can be compliant with everyday pressure standards while unable to confirm fire-fighting flow capacity, which is why hydraulic modelling (Delivery Program Activity 1.1.2) is required to verify the fire-fighting metric separately.

19. Council's current peak day consumption per tenement is sourced from internal operational data not yet published in a current public document. The most recent published figure appears in Council's 2015 Strategic Business Plan, which recorded a current peak day availability of 1,600 L/tenement/day against a design target of 1,400 L/tenement/day. Actual measured consumption data by customer category (residential, commercial, rural, industrial) is available in Council's Demand Management Plan (based on 2017/18 data) and the draft Levels of Service document, both held internally. The current LOS target of 1,400 L/tenement/day is also confirmed in the draft Levels of Service document. For the most current verified figure, this KPI should be sourced directly from Council's Demand Management Plan or the Sub-Regional Town Water Strategy, which contains the system's hydrology modelling and usage analysis.
20. Council categorises supply failures by their impact on critical uses. A Priority 1 failure (a critical use at a critical time) requires a response within 1–2 hours; a Priority 2 failure (a critical use at a non-critical time) within 3–4 hours, as defined in the Drought Management Plan (2021). This criticality-based prioritisation also evidences Council's consideration of critical-needs customers (hospitals, schools and similar) in its service standards. Council's draft Levels of Service separately records a general operational response to supply failures within 1 hour during business hours and 2–4 hours after-hours in remote locations; the two framings (criticality-based vs time/location-based) should be reconciled into a single consistent standard before adoption. Performance against these response targets is not currently measured or reported – establishing this measure is flagged as a forward action.