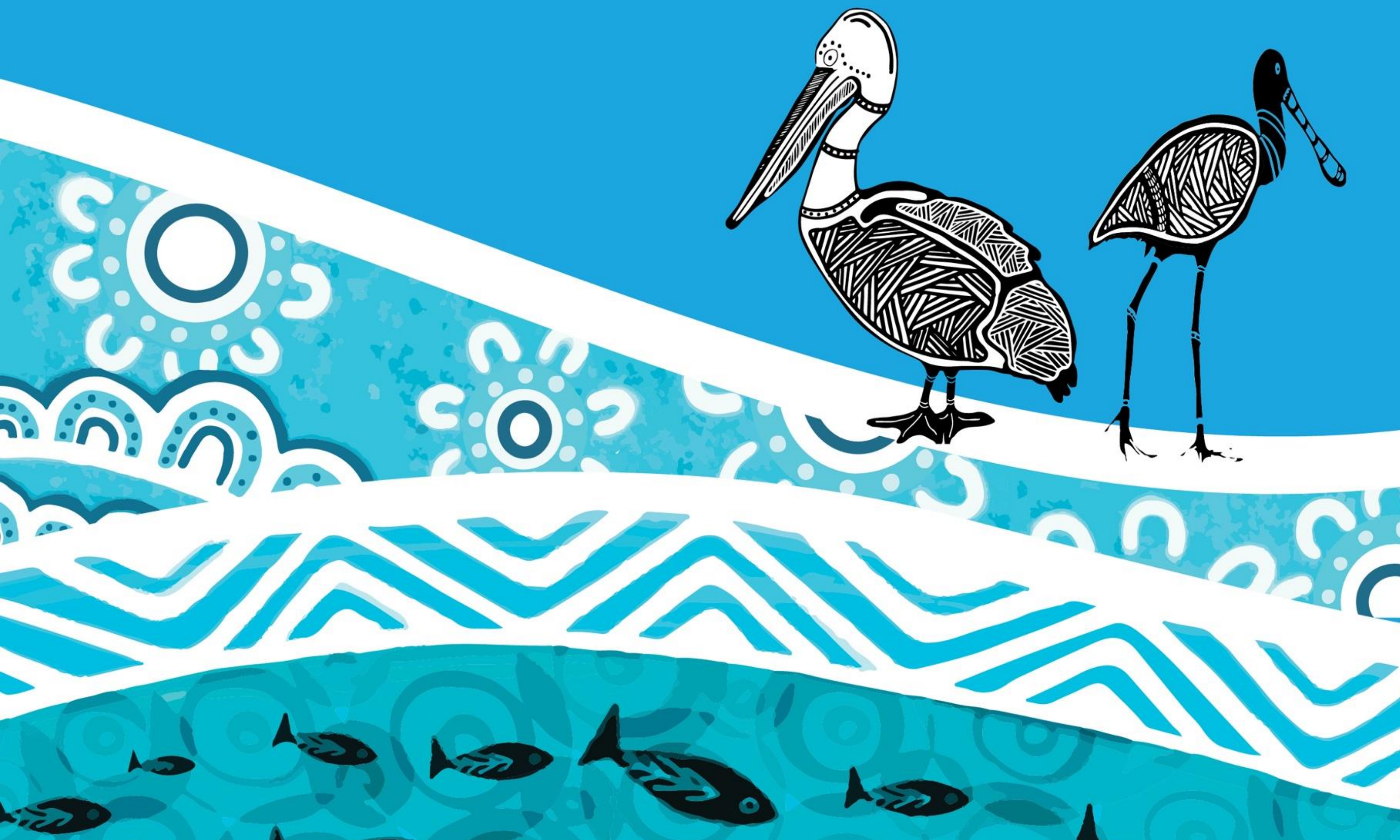
Gippsland Water

Annual Water Outlook

December 2025



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Acknowledgement

We acknowledge the Traditional Owners of the Gippsland Water area, the Gunaikurnai people and the Bunurong people and recognise their strong cultural connection to the land and waterways. We pay respect to their Elders past and present.

Cultural flow by Alice Pepper – Gunaikurnai Country

Water Connection by Lakeisha Clayton – Bunurong Country

Executive Summary

The 2025–26 Annual Water Outlook (AWO) confirms strong water security across all our water supply systems, with a rare (1-4%) to very rare (<1%) likelihood of customer restrictions under forecast conditions.

This document provides a forward-looking assessment of each system's water resource position, climate outlook, and operational readiness, aligned with our Urban Water Strategy (UWS) and Drought Preparedness Plan (DPP).

Comprehensive scenario modelling—covering median (50th percentile), dry (10th percentile), and worst-on-record conditions—has been applied to all systems. The results demonstrate that, even under adverse climate scenarios, documented DPP measures (e.g. water carting, bore activation, supplementary sources) ensure continued service reliability and mitigate the need for restrictions.

Key highlights include:

- Groundwater systems (e.g. Briagolong, Sale) remain well above restriction thresholds, supported by aquifer recharge and strategic licence management.
- Run-of-river systems (e.g. Mirboo North, Erica–Rawson, Seaspray) show resilience despite dry conditions, with contingency measures in place.
- Large storage systems (e.g. Latrobe, Tarago, Thomson–Macalister) benefit from interconnections and allocations, ensuring robust supply security
- Climate outlook indicates average rainfall and elevated temperatures, reinforcing the importance of proactive planning and demand management.
- UWS actions are progressing well, with key achievements in infrastructure upgrades, Traditional Owner partnerships, and system interconnectivity.
- We remain committed to transparent communication, strategic planning, and adaptive management to ensure water security for all customers across the region

Water Supply Challenges:
Rainfall across several areas of our service region has been significantly below average, with some locations recording deciles in the "very much below average" range and even the lowest on record. For the year ending September 2025, total rainfall reached only 60–80% of the long-term average, resulting in a substantial rainfall deficit across the region. Despite these challenging conditions, our water supply systems have continued to perform strongly. This resilience is the result of sustained investment over the past 15 years in infrastructure upgrades, diversification of supply sources, and enhanced operational strategies. These measures have enabled us to maintain service reliability and avoid the implementation of water restrictions, ensuring customers continue to receive a secure and dependable water supply even under prolonged dry conditions.

1. Annual Water Outlook Summary

Purpose of the Annual Water Outlook

The Annual Water Outlook (AWO) is a key water security monitoring tool that supports both our Urban Water Strategy (UWS) and Drought Preparedness Plan (DPP) the latter of which is included as Appendix A of the UWS. It provides a forward-looking assessment of each water supply system and evaluates the potential for water restrictions over the next 12 months.

The AWO delivers a 12-month outlook for all water supply systems. Regardless of system type, it applies scenario-based modelling to support consistent service levels and transparent communication with customers. Each system is assessed under the following climate scenarios:

- Median conditions (50th percentile)
- Dry conditions (10th percentile)
- Worst-on-record conditions

These scenarios are evaluated against restriction review points defined in the DPP. The likelihood of water restrictions is expressed using the following guideline scale:

- Very Rare (<1%)
- Rare (1–4%)
- Unlikely (5–19%)
- Possible (20–49%)
- Likely (50–79%)
- Almost Certain (80–100%)

This structured approach enables proactive planning and ensures we remain resilient and responsive to changing conditions.

In summary, the AWO:

- Monitors short-term water security under median, dry, and worst-on-record climate scenarios.
- Aligns with the UWS and DPP to ensure consistency in planning and operational response.
- Tracks observed demand to UWS scenarios.
- Tracks progress against UWS actions and identifies emerging risks.

1.1 System Status Overview

We operate eight distinct water supply systems, delivering essential water services to over 76,000 properties and supporting a range of major industries across the region. Figure 1 Water supply Systems and serviced towns illustrates the geographic distribution of these systems and the towns and localities they serve.

Table 1 Water supply system summary and water restriction outlook provides a summary of all systems, the towns supplied and the likelihood of restrictions for the 12-month outlook period.

Section 2, Water security context and current water resource position provides a consolidated overview of each system, including the localities supplied and the projected likelihood of water restrictions over the 12-month outlook period. This section includes tracking observed water demands against Urban Water Strategy (UWS) demand scenarios.

Observed demand trends vs. UWS demand scenarios

Tracking observed water demands against Urban Water Strategy (UWS) demand scenarios provides critical insight into system performance and future planning requirements. Analysis across all water supply systems shows a mixed pattern:

- **Alignment with UWS projections**: Several systems are tracking closely to the projected UWS demand scenarios, indicating that growth assumptions remain accurate for these areas. These include Erica-Rawson, Latrobe, Seaspray which are approaching UWS forecasts but still slightly below.

- **Below UWS projections**: Some systems are experiencing actual demands lower than forecast, which may reflect slower population growth, improved water efficiency, or changing consumption behaviors. These systems include Sale and the Thomson-Macalister system (Maffra, Stratford, Boisdale, Heyfield, Coongulla, and Glenmaggie).

- **Above or very close to UWS projections**: For systems where demand is trending very close to or above UWS projections such as Tarago, actions identified in the UWS to meet future demand are already in place and progressing as scheduled. These include supply diversification, and operational improvements. Collectively, these measures ensure that capacity will meet projected demand within the required planning horizon and therefore all actions are meeting observed trends without the need to “speed up” any actions.

This proactive approach provides confidence that even under higher-than-anticipated demand growth, our systems will continue to operate within sustainable limits. Ongoing monitoring will remain essential to validate assumptions and adjust actions as needed.

The 2025–26 AWO confirms strong water security across all systems, supported by mitigation measures such as water carting. Under forecast conditions, the likelihood of customer water restrictions remains low, ranging from **rare (1–4%)** to **very rare (<1%)**.

Comprehensive scenario modelling—encompassing median (50th percentile), dry (10th percentile), and worst-on-record conditions—has been applied to each water supply system. The results have been benchmarked against restriction curves defined in the Drought Preparedness Plan (DPP), ensuring a consistent and transparent assessment of potential water restrictions.

Key findings:

- Overall security: All systems are projected to remain above critical thresholds under median and dry scenarios.

- The likelihood of water restrictions across all systems for the next 12 months are very rare (<1%) to rare (1-4%), even under dry or worst-on-record scenarios.

- Risk hotspots: Merriman Creek and Seaspray Storage Basin present elevated risk under worst-on-record conditions, however, documented DPP measures (water carting) reduce the final likelihood of restrictions to rare (1-4%).

- Our other run-of-river systems: Erica-Rawson and Mirboo North remain in a strong position for both water security and water resources under all scenarios.

- Groundwater systems: both Sale and Briagolong groundwater bores remain well above Stage 2 review points, ensuring robust supply security.

- Grid-Connected Systems: Tarago Reservoir benefits from Melbourne system integration, providing additional resilience under extreme dry conditions**.**

- **Permanent Water Saving Rules remain in place** to encourage efficient water use. For more information, visit: [Saving water | Gippsland Water].

- Our systems are highly resilient, supported by investments over the past 15 years including:
    - Connection of Boolarra to the Latrobe system - 2012
    - Construction of a 30 ML storage for Seaspray - 2013
    - Increased share of Blue Rock Reservoir - 2014
    - Permanent carting to Thorpdale - 2015
    - Moe–Warragul interconnect (stage 2) - 2018-19
    - Connection of Coongulla to Heyfield - 2022
    - Bulk entitlement purchase in Greater Yarra–Thomson Pool - 2023
    - Drilling of a deep bore for Briagolong - 2025

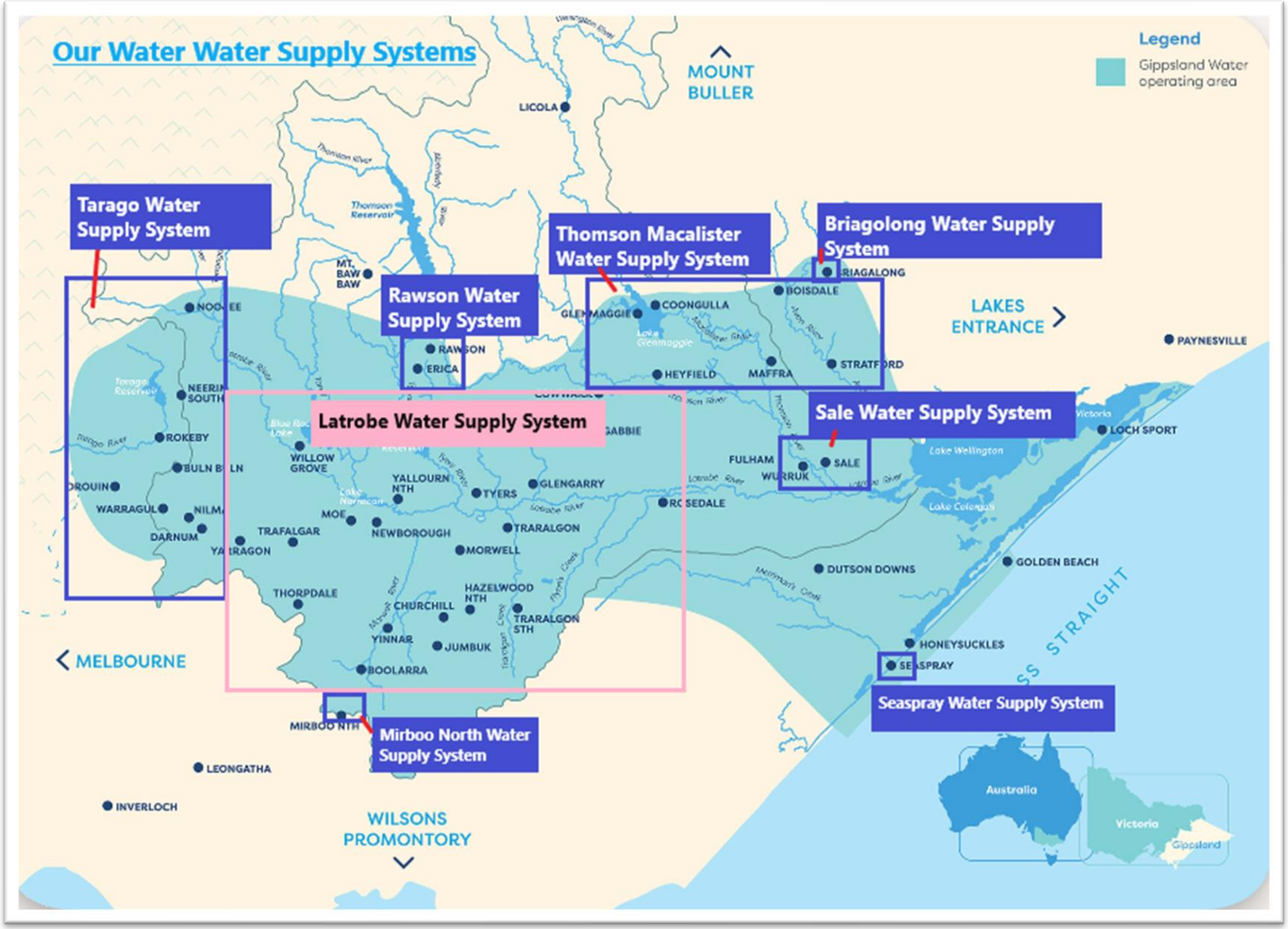


Figure 1 Water supply systems and serviced towns

Table 1 Water supply system summary and water restriction outlook.

Water system	Towns supplied.	Water source	Likelihood* of restrictions	Timeframe (Water restriction outlook period)	Comments
Briagolong	Briagolong.	Wa De Lock Aquifer	Very Rare <1%	12 months	Aquifer levels stabilised after October rainfall; system secure for next 12 months. External factors (e.g., third-party use) may affect future availability.
Rawson	Erica, Rawson.	Trigger Creek	Very Rare <1%	12 months	Run-of-river system; current flows and history indicate no restrictions expected.
Latrobe	Morwell, Churchill, Yinnar, Boolarra, Traralgon South, Jeeralang Junction, Traralgon, Tyers, Glengarry, Rosedale, Toongabbie, Cowwarr, Willow Grove Moe, Trafalgar, Yarragon, Darnum (north), Yallourn North, Thorpdale.	Moondarra Reservoir, Blue Rock Reservoir, Narracan Creek.	Very Rare <1%	12 months	Storages high; strong supply security. No restrictions anticipated under current forecast conditions
Mirboo North	Mirboo North	Little Morwell River (north arm)	Very Rare <1%	12 months	Run-of-river system with minimal storage. Based on historic performance and current streamflows, restrictions are very rare for next 12-month forecast.
Sale	Sale	Boisdale Aquifer	Very Rare <1%	12 months	Deep, confined aquifer. While subject to long-term decline, short-term trends are usage-driven and predictable.

Table 1 (cont.) Water Supply System Summary and Water Restriction Outlook.

Water system	Towns supplied	Water source	Likelihood of restrictions	Timeframe (Water restriction outlook period)	Comments
Seaspray	Seaspray	Merriman Creek	Rare 1-4%	12 months	Raw water basin full (≈9 months' supply). Algal risk mitigated. Creek may stop in summer; restriction rules maintain reserve.
Tarago	Buln Buln, Darnum (south), Drouin, Neerim South, Nilma, Noojee Rokeby, Warragul.	Tarago River, Tarago Reservoir	Very Rare <1%	12 Months	Current holdings from Greater Yarra–Thomson Pool 3.9 GL. Restrictions very rare for next 12 months.
Thomson Macalister	Boisdale, Coongulla, Glenmaggie, Heyfield, Maffra, Stratford.	Thomson River, Macalister River,	Very Rare <1%	12 Months	Full allocation received for 2025–26. Restrictions very rare for remainder of financial year.

Disclaimer: While we have considered relevant climate forecasts and taken care in presenting the information in this Annual Water Outlook, we cannot and do not guarantee any forecast outcome or event. There are many factors that could deliver a different outcome, and many are beyond our control. Examples include fires and floods that lead to dirty water sources that are untreatable or that can only be treated at reduced rates, requiring water restrictions. It is always possible that a drought could occur that is worse than any on the historic record. For instance, the 2017-19 east Gippsland drought that affected the northeast of our region including the Briagolong supply system six years ago, was 13% drier at the Giffard rain gauge than any previous lowest rainfall three-year period in over a century. We undertook modelling in the preparation of our 2022 UWS to determine the resilience of our systems to extreme drought, using a method that creates a test drought event worse than experienced. The results showed that none of our systems failed to meet demand during this test drought under stage four restrictions, meaning all systems were shown to be sufficiently robust to meet critical human needs. Furthermore, modelling we undertook during the development of the 2022 UWS showed all our systems to be highly resilient to a repeat of the Millennium Drought (1997-2009), with only minimal water restrictions necessary to balance supply and demand.

2. Water Security context and current water resource position

2.1 Briagolong

2.1.1 System introduction

a) Location and description

Briagolong is a small township situated at the northeastern boundary of our service area, approximately 14 km north of Stratford. The Briagolong water supply system is a small-scale, groundwater-dependent scheme that sources water from the Wa De Lock Aquifer—a shallow, unconfined aquifer hydraulically connected to Freestone Creek. Historically reliable, the system's vulnerability was exposed during the 2019 drought, prompting strategic investment in supplementary sources and infrastructure upgrades.

b) Sources of supply

Primary source: Wa De Lock Aquifer

Groundwater extracted via bore.

Supplementary source: Rosedale Aquifer

Developed in response to the 2019–20 drought.

Production bore drilled; water purchased and will be connected to the WTP providing up to 120 ML/year once operational.

c) System operation

Groundwater is pumped from the aquifer to the Briagolong water treatment plant, where it is treated to potable standards before distribution via the reticulation network. System monitoring includes aquifer levels, water quality, and demand patterns. Restrictions are implemented during periods of low aquifer levels.

d) Qualitative vulnerability assessment

Table 2 Briagolong Water System Qualitative Vulnerability Assessment outlines the qualitative vulnerability assessment for the Briagolong system based on system type, sensitivity to climate variability, restriction history as well as resilience measures for this system.

Table 2 Briagolong Water System Qualitative Vulnerability Assessment

Factor	Assessment
System Type	Groundwater-based system with small-scale treatment and distribution. No large surface storage.
Sensitivity to Climate Variability	Moderate to high. The Wa De Lock aquifer is shallow and unconfined, with short-term recharge volatility and exposure to competing uses (e.g. irrigation).
Restriction History	Stage 2 restrictions were imposed in January 2020 for a very brief period due to critically low aquifer levels however recovery was very quick after rainfall.
Resilience Measures	Development of deeper Rosedale Aquifer source - Planned water treatment plant upgrades - Community engagement and proactive planning

e) System Restriction Review Points

Table 3 Briagolong Restriction Review Points provides a summary of the restriction review points as specified in the DPP.

Table 3 Briagolong Restriction Review Points

Stage	Restriction review level (mAHD)	Purpose
Stage 2	50.8 (higher bore)	Minimum preferred level – initial restrictions
Stage 4	49.6 (lower bore)	2 m above pump – demand reduction and potential water carting

- Review points are reactive, addressing operational risks from low groundwater levels.
- Stage 2 restrictions have limited impact on drawdown due to other uses (e.g. irrigation, evapotranspiration).

f) Operational Indicators

Key indicators that inform the DPP restriction review points include.:

- Aquifer level monitoring: Monthly assessments of Wa De Lock Aquifer levels.
- Rainfall and recharge trends: Seasonal rainfall outlooks and recharge events.
- Resource management factors: External extraction and licensing constraints.

Restriction events

No water restrictions were imposed during the previous AWO period (December 2024 – November 2025).

g) Identified risks to water security

Between 2016 and 2019, East Gippsland experienced prolonged drought conditions, resulting in historically low levels in the Wa De Lock Aquifer. Temporary water restrictions were introduced during this period. In response, a new production bore was constructed into the deeper Rosedale Aquifer. Connection to the Briagolong water treatment plant is underway, which will significantly enhance long-term water security for the township.

For further information on our long term water supply system outlook please see our outlook section in our Urban Water Strategy 2022 interactive map as well as our DPP as part of our UWS.

2.1.2 Rainfall

Rainfall records for Briagolong date back to 1968. Data has been benchmarked against climate reference periods defined by DEECA:

- Post-1975 average: 635.4 mm.
- Post-1997 average: 611.2 mm
- Worst year (1972 drought year): 309.7 mm

(also included is 2019 (recent driest on record): 346.8)

Figure 2 Briagolong monthly cumulative rainfall against climate reference periods provides the 2025 monthly cumulative rainfall as well as historical average cumulative data for the recorded period from Briagolong rainfall station number 85168 (Bureau of Meteorology)

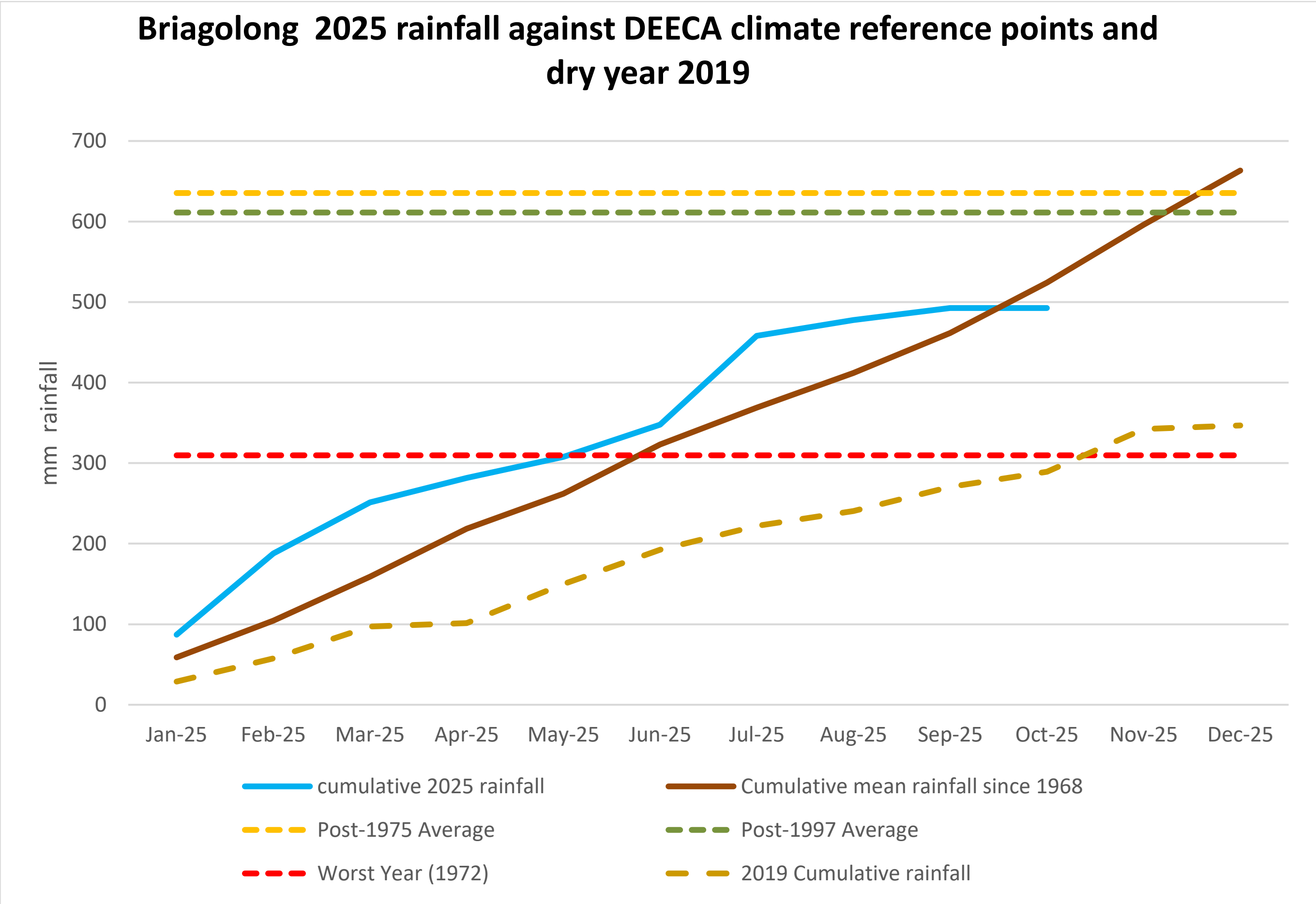


Figure 2 Briagolong monthly cumulative rainfall against climate reference periods

Rainfall this year at Briagolong exceeded cumulative mean rainfall since records began in 1968 and was above the 1972 drought benchmark as well as well above the 2019 rainfall (when restrictions came into place early 2020) by May. This significantly reduced the risk of early-season drought conditions. This trend was supported by consistent and above-average rainfall through to July, driven by several strong rainfall events across the region. These favourable conditions have contributed to high water security for 2025, with notable aquifer recharge and recovery observed across key groundwater systems. The sustained rainfall has enhanced catchment wetness and improved overall system resilience heading into the warmer months.

2.1.3 Consumption Data

i. Potable system demands with historic comparisons.

Figure 3 Briagolong potable system demand presents total potable system demand data for Briagolong, including historical comparisons over the past five years.

Key trends and observations:

- **Residential consumption** remained relatively stable across all reporting years, indicating consistent household demand.
- **Non-Residential** exhibited variability, with a marked increase in 2023–2024 followed by a subsequent decline.
- **Non-Revenue** water rose significantly in 2024–2025, suggesting increased system losses or unaccounted-for usage.
- **Average litres per person per day** is calculated based on annual residential potable water consumption.

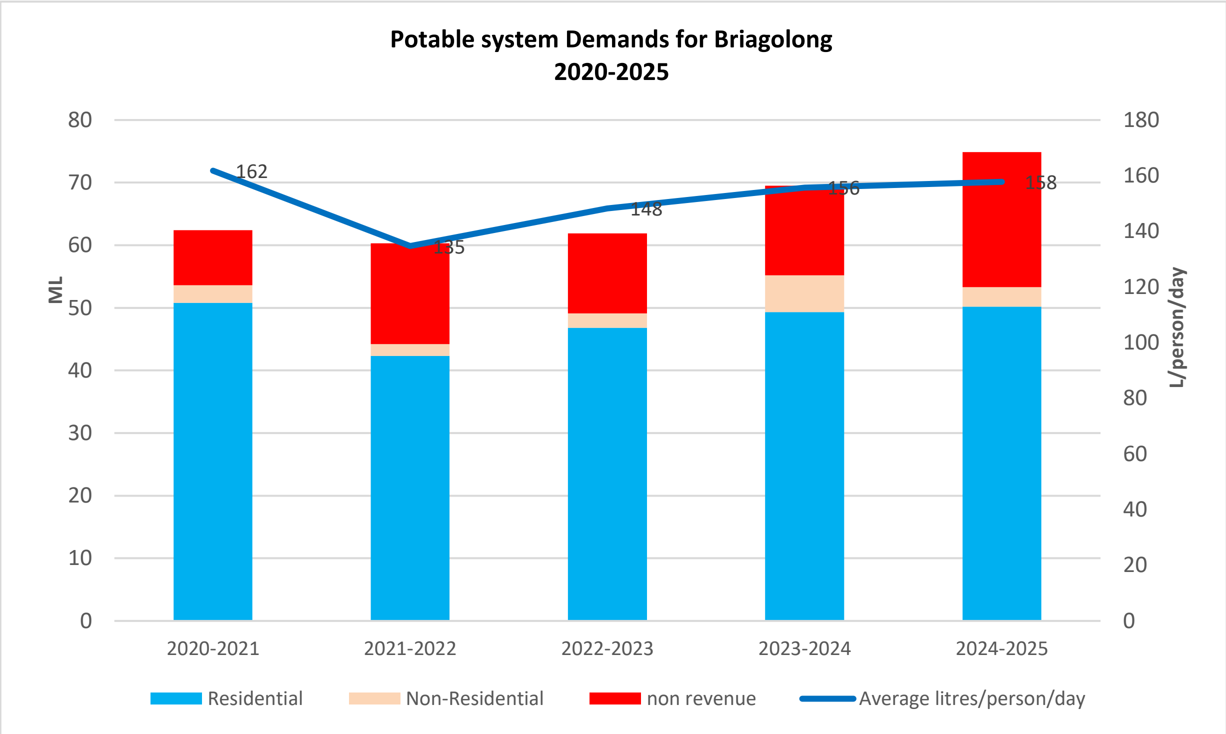


Figure 3 Briagolong potable system demand 2020-2025

ii. Annual total potable system demands against UWS demand projections.

Figure 4 Briagolong Annual Demands vs UWS Demand Projections compares actual annual potable water demand with Urban Water Strategy (UWS) projections. Historically, actual demand has remained below both the UWS base case and Price Submission 2023 projections, with a general downward trend over the past decade. However, recent data shows an upward shift:

- **2021–22:** 63.9 ML
- **2022–23:** 65.1 ML
- **2023–24:** 71.9 ML
- **2024–25:** 75.5 ML

While still below long-term projections, this increase reflects sensitivity to climatic conditions and seasonal variability.

Forecast scenarios:

- **Base case:** Gradual increase from ~70 ML/year to ~110 ML/year by 2065
- **Low water use scenario:** Ends near ~100 ML/year.
- **High climate change scenario:** Approaches ~120 ML/year by 2065

Although Briagolong is a small system with modest growth, its high climate sensitivity necessitates adaptive planning. The recent acquisition of a Take and Use licence for 120 ML/year from the Rosedale Aquifer provides a robust contingency for dry years, enhancing long-term supply reliability.

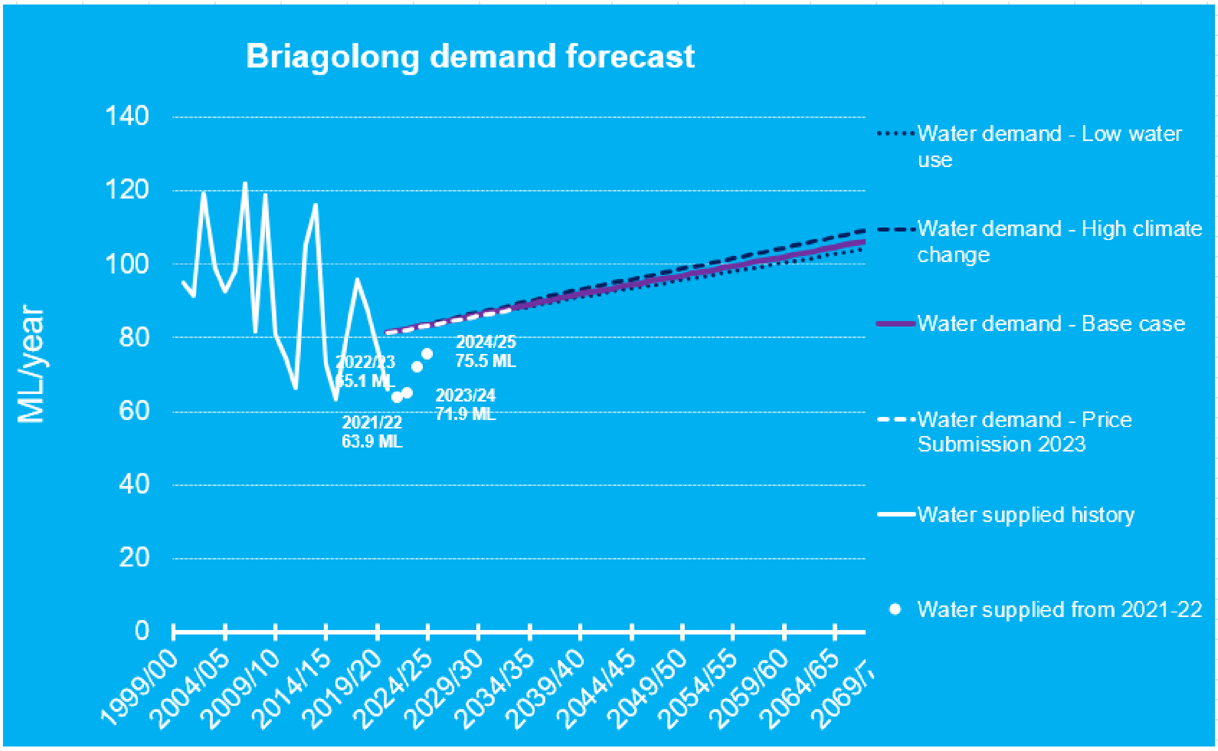


Figure 4 Briagolong Annual Demands vs UWS Demand Projections

2.1.4 Current water resources position

Table 4 Briagolong Current Water Resources Information summarises the current status of water resources for Briagolong, covering the financial year to date (1 July 2025 to 17 October 2025).

Table 4 Briagolong Current Water Resources Information

Towns supplied	Briagolong
No. of connections - residential	379
No. of connections - non residential	23
Major customers	none
Primary water source	Groundwater (Wa De Lock Aquifer).
Alternative water source	Groundwater (Rosedale Aquifer)
Connection to a system network	No connection to a network system
Current storage position	Excellent aquifer levels for summer; well above restriction review points.
Annual entitlement / Allocation ML	160 ML
Volume extracted to date ML	21 ML

System security

Figure 5 presents observed average monthly aquifer levels for the previous outlook period (December 2024 – October 2025), benchmarked against Stage 2 and Stage 4 restriction review points as defined in the Drought Preparedness Plan (DPP).

Aquifer levels at Briagolong remained consistently above critical thresholds, with a healthy buffer of 4–6 metres. Seasonal recharge is evident, and the system continues to demonstrate strong resilience. Current conditions support a very rare (<1%) likelihood of restrictions over the next 12 months.

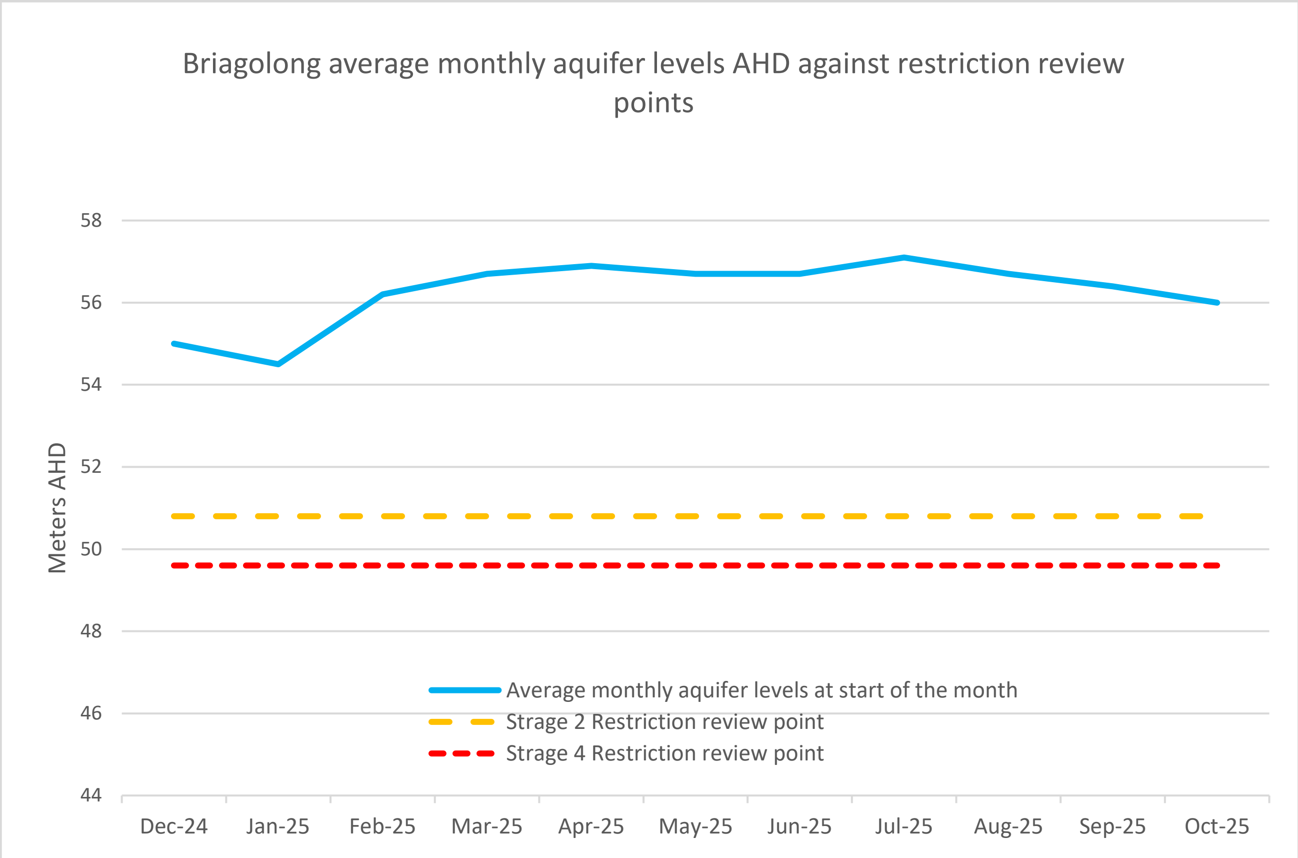


Figure 5 Average Monthly Aquifer Levels vs Restriction Review Points

2.2 Erica – Rawson

2.2.1 System introduction

a) Location and description

Erica and Rawson are small townships located in the foothills of Mount Baw Baw, at the northernmost extent of our service area, approximately 27 km northeast of Moe. The water supply system sources water from a weir on Trigger Creek, a tributary of the Tyers River (East Branch). Although the Trigger Creek catchment is relatively small, its location on the edge of the Baw Baw Plateau ensures reliable inflows. The upstream catchment is fully protected within the Baw Baw National Park, contributing to consistently high water quality.

b) Sources of supply

Primary source: Trigger Creek – Water is diverted via a weir and piped to a 6.3 ML raw water storage basin adjacent to the Rawson water treatment plant.

Supplementary source: Water carting – Used as a temporary contingency measure during critical supply periods.

c) System operation

Water from the raw water basin is gravity-fed to the Rawson water treatment plant, where it undergoes aeration and filtration, followed by disinfection. Treated water is stored in a 1.0 ML clear water tank before distribution. The treatment plant has a daily capacity of 0.9 ML, which is sufficient to meet current demand.

The 6.3 ML raw water basin provides short-term operational flexibility and resilience. However, the system is reliant on a single source and is not connected to other supply networks, limiting redundancy. While water carting is available, it is costly and not sustainable for long-term use.

d) Qualitative vulnerability assessment

Table 5 Erica Rawson water supply qualitative vulnerability assessment outlines the qualitative vulnerability assessment for the Erica-Rawson system based on system type, sensitivity to climate variability, restriction history as well as resilience measures for this system.

Table 5 Erica Rawson water supply qualitative vulnerability assessment

Factor	Assessment
System Type	Small, isolated water supply system servicing ~365 people. Single source (Trigger Creek) with limited infrastructure redundancy. No major customers and minimal public open space demand.
Sensitivity to Climate Variability	Moderate. While the catchment receives reliable inflows due to its location on the Baw Baw plateau, long-term climate projections for this system indicate reduced streamflows under medium/high scenarios.
Restriction History	No specific restriction history noted, but reliance on a single source and lack of alternative supply options (except costly water carting) suggest potential vulnerability during extended dry periods.
Resilience Measures	Protected catchment within Baw Baw National Park ensures high water quality. A 6.3 ML raw water basin provides short-term buffer. Bulk Entitlement allows up to 340 ML/year, with no minimum passing flow required.

e) System restriction review points

Table 6 Erica Rawson restriction review points provides a summary of the restriction review points as specified in the DPP.

Table 6 Erica Rawson restriction review points

Stage	Basin Level	Purpose
Stage 1	2.7 ML	Initial alert – basin below 50% capacity. Increased monitoring and public awareness.
Stage 2	2.1 ML	Early restrictions – basin below ~37% capacity. Stage 2 restrictions targeting outdoor use.
Stage 3	1.6 ML	Advanced restrictions – basin below ~28% capacity. Tighter controls on residential use.
Stage 4	1.0 ML	Critical stage – basin below ~18% capacity. Emergency measures including water carting may be activated.

f) Operational Indicators

Table 7 Operational Indicators for Erica Rawson restriction review points outlines the key indicators that inform the DPP restriction review points.

Table 7 Operational indicators for Erica Rawson restriction review points

Stage	Basin Level ML	Operational Indictors	Aligned Action with DPP
Stage 1	2.7	Normal conditions; routine monitoring.	Permanent Water Saving Rules apply; public awareness maintained.
Stage 2	2.1	Noticeable decline in storage.	Stage 2 restrictions; increased monitoring; internal alerts; conservation messaging.
Stege 3	1.6	Moderate depletion.	Stage 3 restrictions; readiness for water carting; increased reporting and engagement.
Stage 4	1.0	Critical low storage.	Stage 4 restrictions; activate contingency supply; daily monitoring; regulatory escalation.

g) Restriction events

- Recent period (Dec 2024 – Nov 2025): No restriction events recorded.
- Historical: No restrictions noted since 2007.

h) Identified risks to water security:

- **Climate vulnerability:**
  Long-term projections indicate reduced streamflows due to climate change.

- **Single source dependency**:
  Sole reliance on Trigger Creek with no permanent alternative supply.
- **Limited storage capacity**:
  The 6.3 ML basin represents only ~8% of annual demand.

- **High water losses**:
  Potable water losses of 18% suggest system inefficiencies that could impact supply during dry periods.

For further information on our long term water supply system outlook please see our outlook section in our Urban Water Strategy 2022 interactive map as well as our DPP as part of our UWS.

2.2.2 Rainfall

Rainfall data for Erica has been recorded since 1961 and benchmarked against climate reference periods defined by DEECA:
- Post-1975 average: 1073.7 mm.
- Post-1997 average: 1006.8 mm
- Worst year on record (2019–20 drought year): 492.8 mm.

As of the end of September 2025, rainfall at Erica totalled 579.1 mm, currently below the worst year on record. These below-average conditions may place stress on water resources; however, we have not experienced stress on the water supply system to date even with the low rainfall this year.

Figure 6 provides rainfall against reference periods and monthly 2025 cumulative rainfall data as well as average cumulative data for the recorded period from rainfall station 85238 Parkers Corner, Erica.

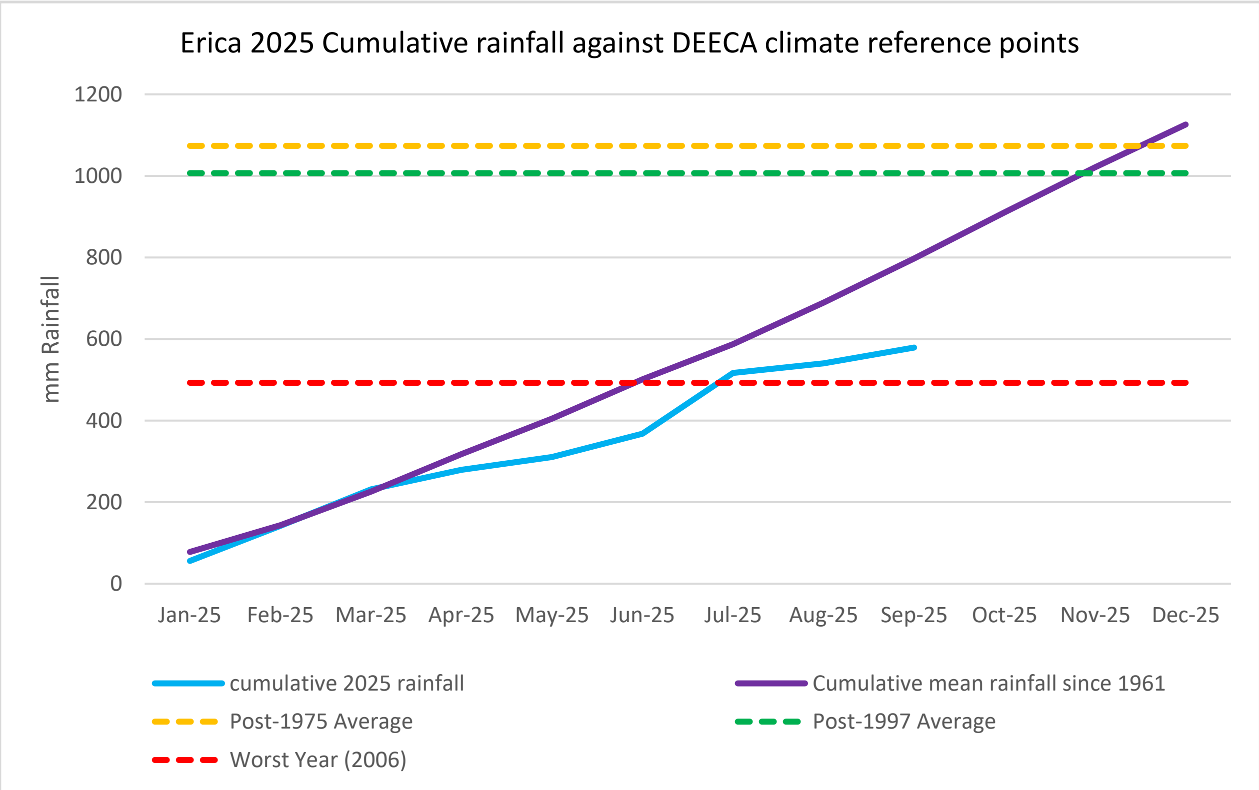


Figure 6 Erica monthly cumulative rainfall vs climate reference periods

2.2.3 Consumption data:

i. Potable system demands with historic comparisons

Figure 7 Erica Monthly shows the potable water demands for the Erica Rawson system. Erica Rawson's water consumption and operational performance over the past five years show notable fluctuations in residential and non-residential demand, rising non-revenue water, and changes in per capita usage.

Key trends and observations:

- **Residential consumption** has remained relatively stable, with the highest recorded usage in 2024–25 (40.1 ML), likely influenced by below-average rainfall.
- **Non-residential demand** increased steadily until 2023–24 but declined in 2024–25.
- **Non-revenue water** rose significantly in 2023–25, indicating potential system losses or unaccounted usage.
- **Average litres per person per day** increased notably in 2024–25, again likely linked to drier conditions.

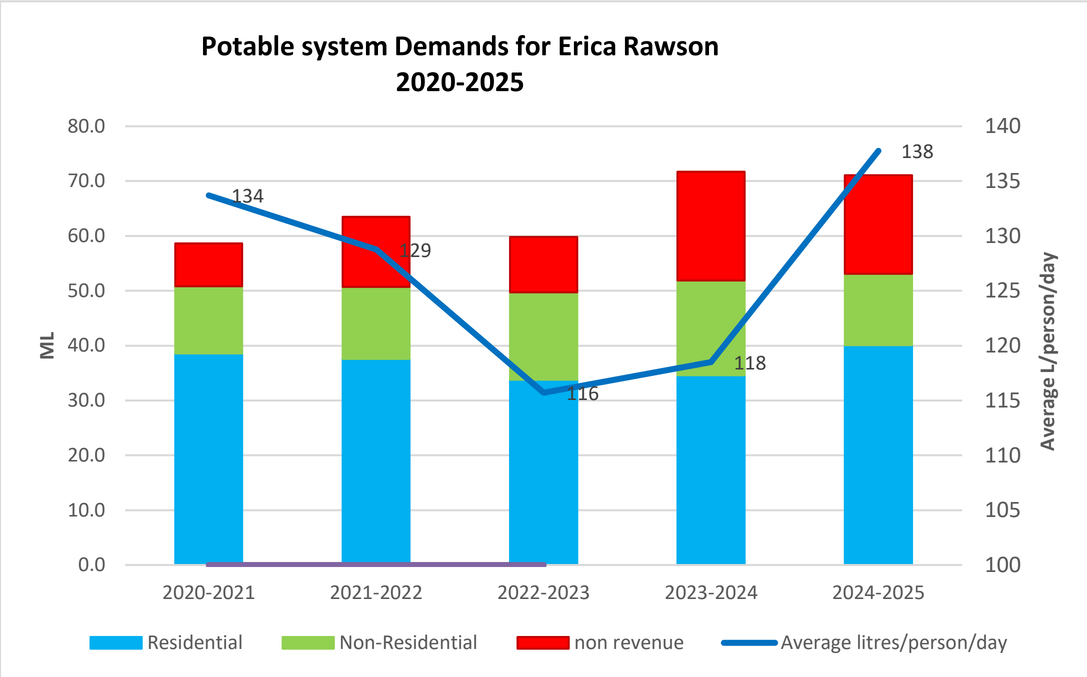


Figure 7 Erica monthly potable water demands 2020-2025

ii. Annual total potable system demands against UWS demand projections.

Figure 8 Erica Rawson Demands vs UWS Demand Projections illustrates Erica Rawson raw water demand forecast compared with UWS projections.

Recent demand figures:

- **2021–22:** 64.8 ML
- **2022–23:** 65.0 ML
- **2023–24:** 75.0 ML
- **2024–25:** 75.5 ML

The recent upward trend in demand reflects sensitivity to climatic conditions and seasonal variability. This reinforces the importance of continuous monitoring and adaptive planning to maintain supply resilience.

Forecast scenarios:

- **Base case:** Gradual increase from ~65 ML/year to ~80 ML/year by 2065
- **Low water use scenario:** Ends near ~75 ML/year.
- **High climate change scenario:** Approaches ~85 ML/year by 2065

While Erica Rawson is a small system, its climate sensitivity and reliance on a single source highlight the need for robust planning and operational flexibility.

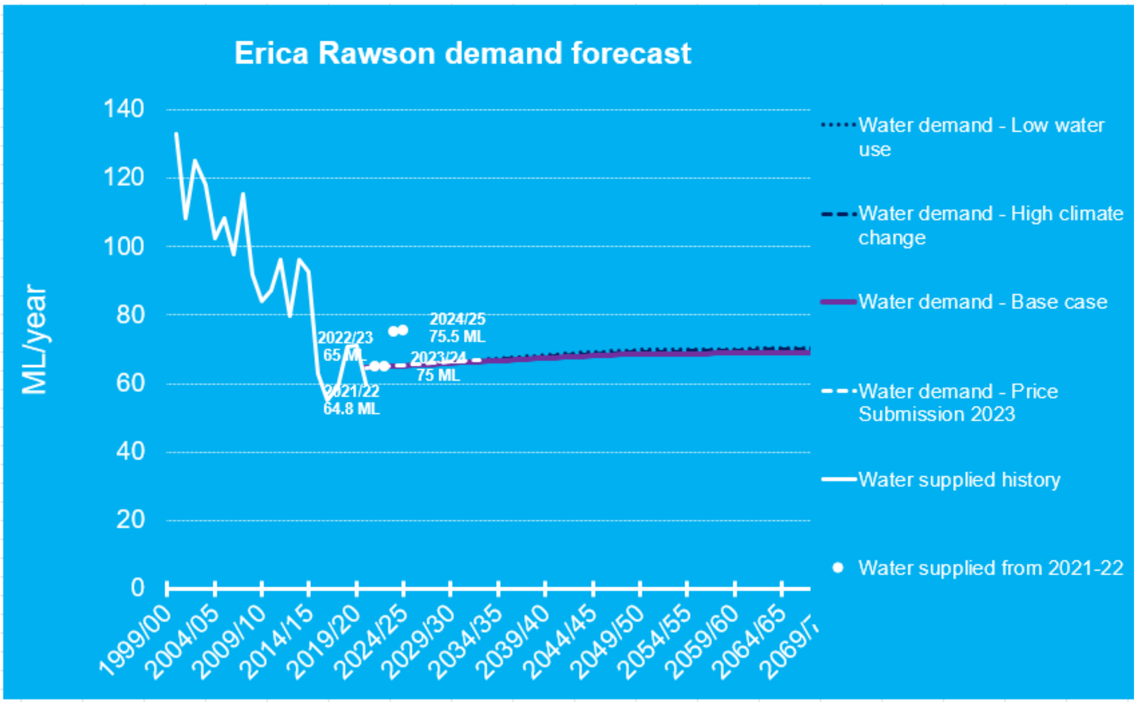


Figure 8 Erica Rawson demands vs UWS demand projections

2.2.4 Erica Rawson current water resources position

Table 8 Erica Rawson current water resources information summarises the current status of water resources for Erica and Rawson for the financial year to date (1 July 2025 to 17 October 2025).

Table 8 Erica Rawson current water resources information

Towns Supplied	Erica, Rawson
No. of connections - residential	319
No. of connections- non residential	46
Major customers	none
Primary water source	Trigger Creek
Alternative water source	Water carting if required
Connection to a system network	No connection to a network system
Current storage position	Storage is in strong position at 70%. Stream flow is secure for the next 12 months supply.
Annual entitlement / Allocation ML	270 ML per year
Volume extracted to date ML	40 ML

System security

Figure 9 Average levels in raw water basin vs system restriction review points. presents observed monthly levels in the Rawson raw water basin for the previous outlook period (December 2024 – October 2025), benchmarked against restriction review points (Stages 1–4) as defined in the Drought Preparedness Plan (DPP).

Throughout the monitoring period, the basin maintained strong storage levels, consistently ranging between 3.6 ML and 4.5 ML, well above the Stage 1 review point of 2.7 ML and the critical Stage 4 threshold of 1.0 ML. A temporary dip in May was quickly followed by recovery, with levels stabilising above 4.2 ML for the remainder of the period.

These observations confirm the system’s resilience, with storage remaining comfortably above critical thresholds. No risk of water restrictions was identified during this timeframe.

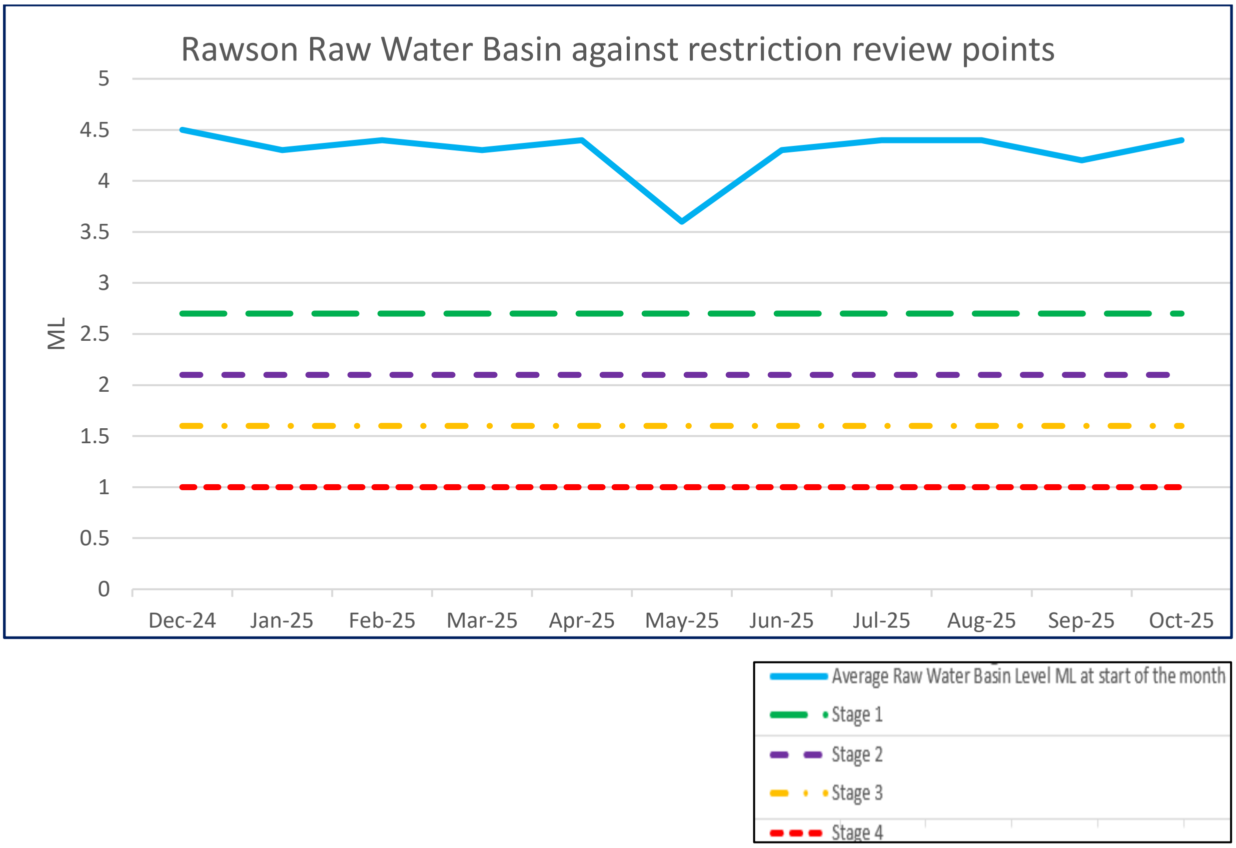


Figure 9 Average levels in raw water basin vs system restriction review points.

2.3 Latrobe System

2.3.1 System introduction

a) Location and description

The Latrobe Valley water supply system is the largest and most complex within our service area, supporting a wide range of residential communities and major industries. It serves as the primary source of catchment runoff for Central Gippsland and underpins regional water security.

Five water treatment plants operate within the Latrobe system:

- Moe
- Morwell
- Traralgon
- Tyers
- Willow Grove

The system is supplied by multiple tributaries of the Latrobe River, including:

- Tyers River
- Tanjil River
- Narracan Creek

These sources collectively support a diverse and interconnected network of towns and industries.

Figure 10 Latrobe Water Supply System and associated towns illustrates the geographic extent of the Latrobe system and the towns serviced.

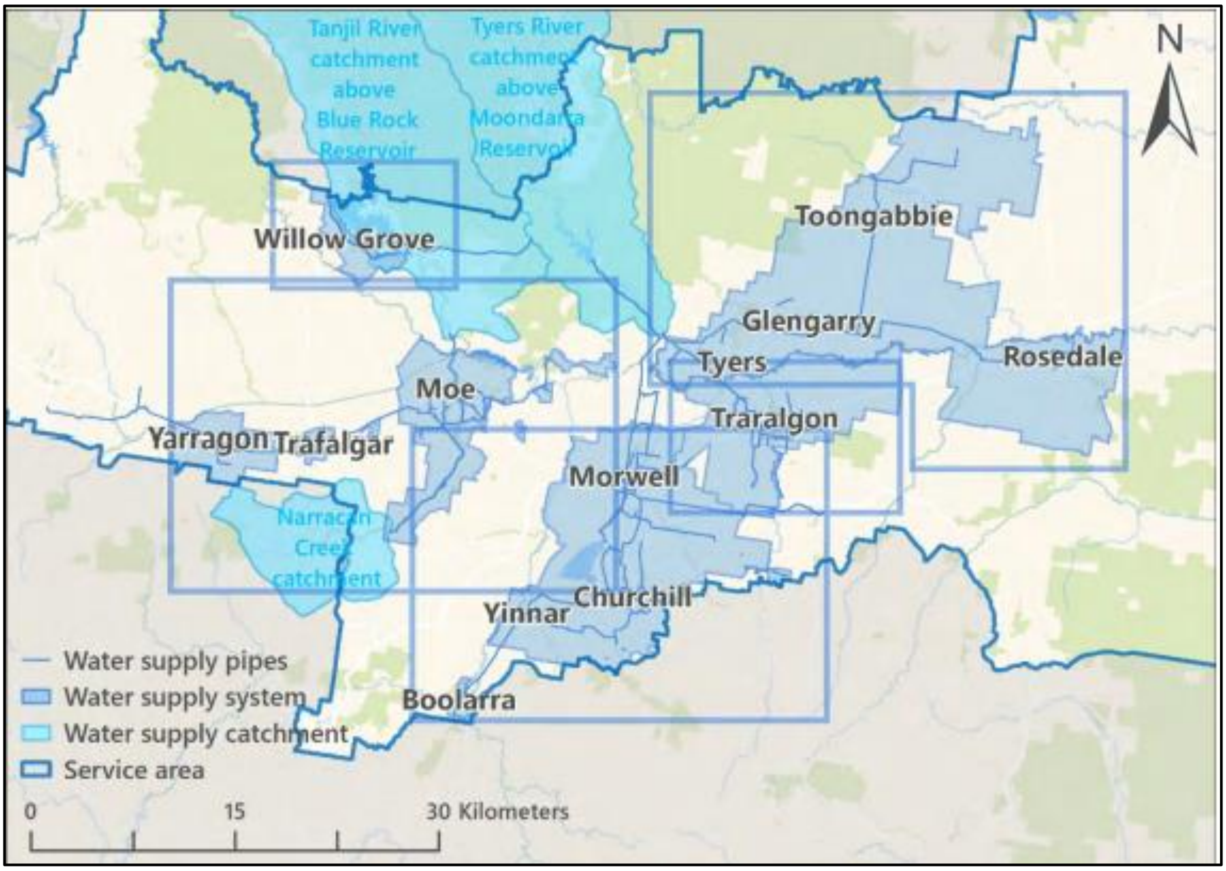


Figure 10 Latrobe Water Supply System and associated towns

b) Sources of supply

Primary source:

Moondarra Reservoir – Capacity of 29.9 GL, supplied by Tyers River and Jacobs Creek. Is the principal source for Gippsland Water's urban and industrial supply.

Supplementary source:

Blue Rock Reservoir – Capacity of 198.3 GL, located on the Tanjil River. Water is transferred to Moondarra Reservoir via pipeline, with Gippsland Water's share totaling 33.9 GL.

c) System operation

The Latrobe system comprises five water treatment plants that collectively supply potable water to towns and industries across the region. Key operational features include:

- Gravity-fed supply from Moondarra Reservoir to treatment plants including Morwell, Traralgon and Tyers. and Willow Grove.
- Pumping from Blue Rock Reservoir to Willow Grove water treatment plant and via Tanjil River and Narracan Creek to Moe water treatment plant.
- Backup pumping stations and storage basins for contingency.
- Multiple raw water sources and interconnected networks (e.g., Moe ↔ Warragul) to enhance system resilience.
- Continuous monitoring of reservoir levels, streamflows, and water quality via SCADA systems.
- Interconnected storages and transfer pipelines allow for balancing supply during dry periods or maintenance outages.
- Contingency measures include flexible ordering from Blue Rock Reservoir, demand management, and activation of drought response protocols.

<u>Latrobe system water treatment plants overview</u>

Moe water treatment plant

- **Sources:** Narracan Creek Weir, Tanjil River pump station
- **Process:** Solids separation → Filtration → Disinfection
- **Storage:** 24 ML clear water
- **Capacity:** 22.5 ML/day
- **Supply area:** Moe, Newborough, Yallourn North, Trafalgar, Yarragon, Darnum, Yallourn W Power Station
- **Resilience:** Dual raw water sources and interconnection with Warragul system

Morwell water treatment plant

- **Sources:** Moondarra Reservoir (gravity), Tyers River pump station, Buckleys Hill raw water basin
- **Process:** Solids separation → Filtration → Disinfection
- **Storage:** 3.4 ML clear water tank + 20.9 ML basin at Buckleys Hill
- **Capacity:** 18.5 ML/day
- **Supply area:** Morwell, Churchill, Yinnar, Boolarra, Hazelwood North, Traralgon South

Traralgon water treatment plant

- **Sources:** Moondarra Reservoir (gravity), Tyers River pump station
- **Process:** Solids separation → Filtration → Disinfection
- **Storage:** 1 ML clear water tank + 13.7 ML and 12 ML treated water basins
- **Capacity:** 22 ML/day

- **Supply area:** Traralgon.

Tyers water treatment plant

- **Sources:** Moondarra Reservoir (gravity), Tyers River pump station
- **Process:** Plant 1: Media filtration, Plant 2: Dissolved air flotation + membrane filtration
- **Storage:** 13.6 ML covered basin
- **Capacity:** 6.4 ML/day
- **Supply area:** Tyers, Glengarry, Toongabbie, Cowwarr, Rosedale
- **Resilience:** Water carting available (temporary, high cost) Willow Grove water treatment plant

Willow Grove water treatment plant

- **Source:** Blue Rock Reservoir (extraction at dam wall)
- **Process:** Solids separation → Filtration → Disinfection
- **Storage:** Small clear water tank
- **Capacity:** 1 ML/day
- **Supply area:** Willow Grove

d) Qualitative vulnerability assessment

Table 9 Latrobe system water supply qualitative vulnerability assessment outlines the qualitative vulnerability assessment for the Latrobe system based on system type, sensitivity to climate variability, restriction history as well as resilience measures for this system.

Table 9 Latrobe system water supply qualitative vulnerability assessment

Factor	Assessment
System type	Large, interconnected surface water system with major storages (Moondarra Reservoir, Blue Rock Reservoir) and regulated transfers. Serves urban and industrial.
Sensitivity to climate variability	High – Projected reductions in streamflow and increased variability under climate change scenarios. System depends on inflows to storages and is exposed to prolonged drought risk.
Restriction history	Historically low frequency of restrictions due to large storages.
Resilience measures	Interconnected storages and transfer pipelines provide operational flexibility. Established drought response protocols and contingency planning.

e) System restriction review points

The Latrobe system currently maintains a yield surplus under all climate scenarios, with only the high climate change scenario projected to pose future supply reliability challenges.
Restriction review points are designed to ensure 12 months of remaining supply when Stage 1 restrictions are triggered. These thresholds are based on the combined storage volumes of Moondarra Reservoir and Gippsland Water's share of Blue Rock Reservoir.

Table 10 Latrobe system restriction review points.

Month	Combined Blue Rock Reservoir (Gippsland Water share) and Moondarra Reservoir Storage Volume (ML)			
	Stage 1 review point	Stage 2 review point	Stage 3 review point	Stage 4 review point
July	11,120	7,086	6,711	6,336
August	14,979	12,663	7,088	6,329
September	17,205	16,365	11,029	6,263
October	19,796	18,899	14,524	8,587
November	19,274	18,373	15,963	10,317
December	19,414	18,539	17,721	12,403
January	18,416	16,916	16,216	11,993
February	16,458	14,958	13,458	11,414
March	15,437	13,937	12,437	10,937
April	14,190	12,690	11,190	9,690
May	13,310	11,810	9,810	7,810
June	12,076	10,922	8,922	6,922

Figure 11 graphically presents monthly thresholds used to monitor combined storage volumes. If actual storage falls below these levels, corresponding water restrictions (Stages 1–4) may be considered.

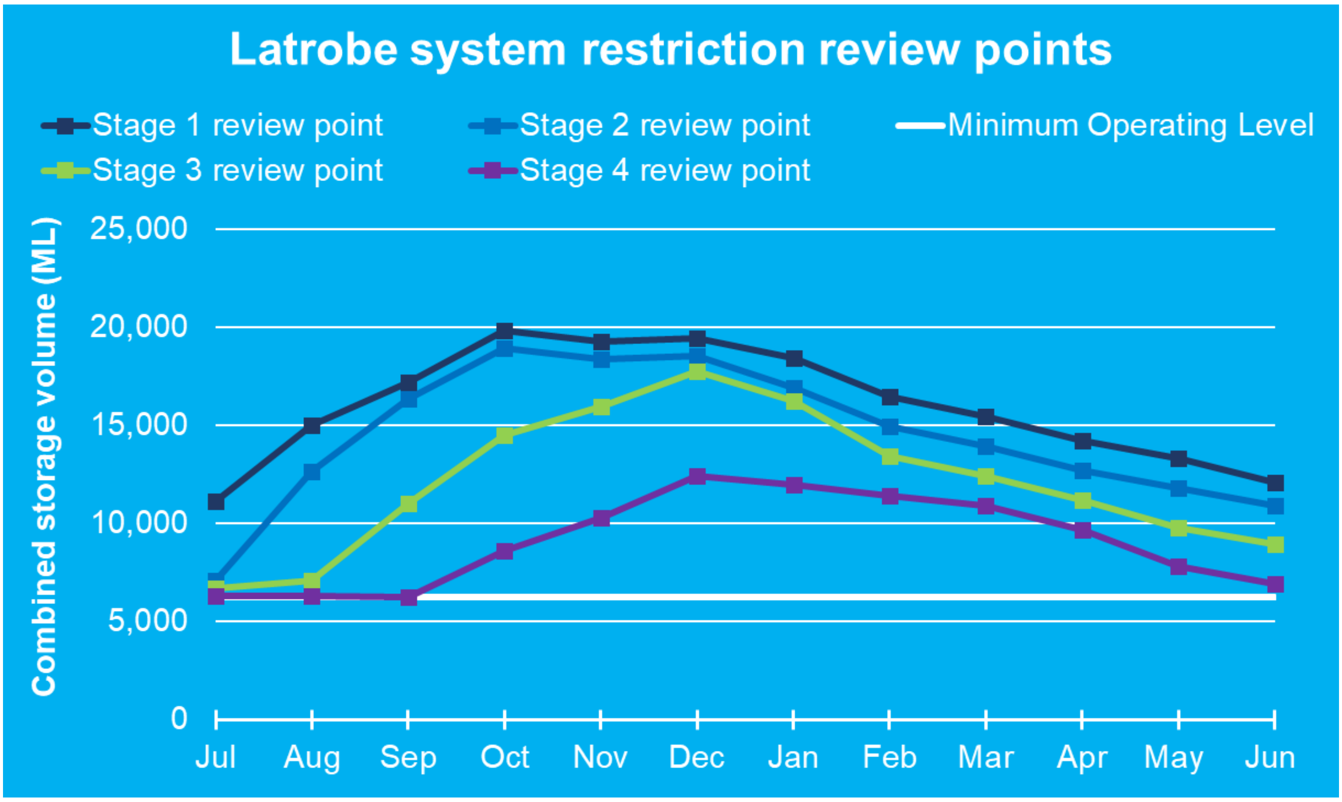


Figure 11 Latrobe system review points

f) Operational indicators

Table 11 outlines each month's thresholds and what operational action is required at each stage.

Table 11 Operational indicators for Latrobe restriction review points

Restriction stage	Indicator	Restriction condition	Operational action as aligned with DPP
Stage 1	Early warning	Storage falls below Stage 1 review point for current month	• Begin internal planning • Monitor trends closely • Prepare communication strategy
Stage 2	Moderate stress	Storage falls below Stage 2 review point	• Formal review of restriction implementation • Issue public advisories • Prepare for Stage 2 restrictions
Stege 3	High stress	Storage falls below Stage 3 review point	• Implement Stage 3 restrictions (e.g., significant outdoor water use limits) • Intensify conservation messaging
Stage 4	Critical stress	Storage falls below Stage 4 review point	• Severe restrictions (essential use only) • Emergency measures considered • Engage stakeholders for contingency planning

g) Restriction events

No restrictions were imposed during the last AWO period (December 2024 – November 2025).

Historical restriction events

Stage 1 restrictions were last considered during the 2007 drought. Since then, combined storage volumes have consistently remained above review thresholds.

h) Identified risks to water security:

- **Seasonal storage decline:**
  Storage typically peaks in spring and declines through summer and autumn. Extended dry periods may push volumes toward restriction thresholds.

- **Climate variability and drought**:
  Reduced rainfall and higher evaporation during heatwaves can accelerate depletion, increasing restriction risk.

- **High industrial demand**:
  The Latrobe Valley's power generation and manufacturing sectors require significant water volumes, creating competing demands.

- **Catchment and infrastructure vulnerabilities:**
  Bushfires, land degradation, or contamination can affect inflows and water quality. Pumping

and transfer constraints may limit operational flexibility.

For further information on our long term water supply system outlook please see our outlook section in our Urban Water Strategy 2022 interactive map as well as our DPP as part of our UWS.

2.3.2 Rainfall

Rainfall for the Latrobe system is monitored at Mount Baw Baw station no. 852291 (Bureau of Meteorology)), with records beginning in September 1998. While this limits comparison to DEECA's post-1975 and post-1997 climate reference periods, rainfall can be benchmarked against:

- Dry year (2006): 1429.6 mm
- Wet year (2021): 2283.6 mm
- Average annual rainfall: 1223.4 mm

Figure 12 Baw Baw cumulative rainfall against dry, wet and average rainfall totals shows rainfall variations against the cumulative rainfall for 2025 to date.

As of October 2025, cumulative rainfall is 1454.2 mm, exceeding the long-term average and the 2006 dry year benchmark, supporting strong water security heading into summer.

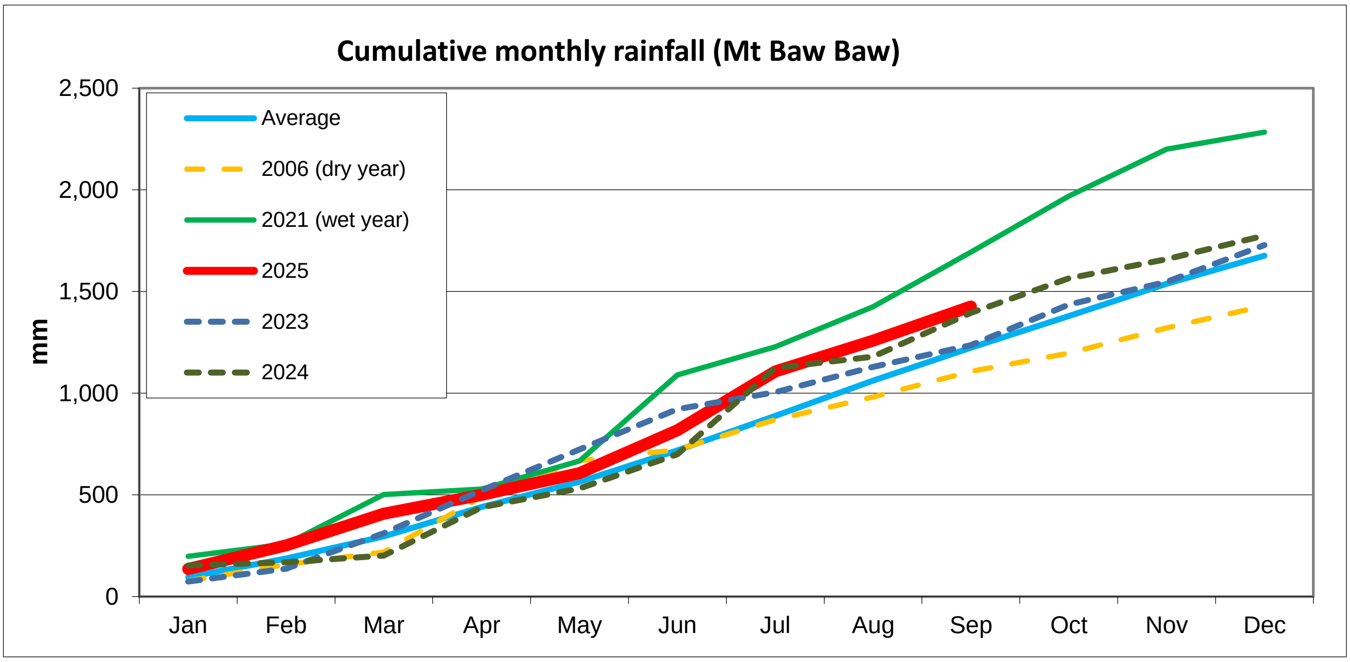


Figure 12 Baw Baw cumulative rainfall against dry, wet and average rainfall totals

2.3.3 Consumption data:

i) Potable system demands with historic comparisons.

Figure 13 Latrobe potable water demands 2020-2025 presents total potable water demand across five years, showing steady growth in residential, non-residential, and major customer usage.

Key trends and observations:

- **Residential use:** Increased from approximately 6,400 ML in 2020–21 to 6,700 ML in 2024–25 (+5%).
- **Non-residential use:** Rose from about 800 ML to 950 ML (+19%).
- **Major customers:** Grew from roughly 2,000 ML to 2,200 ML (+10%).
- **Non-revenue water:** Increased significantly in 2024–25, reaching around 1,300 ML,

indicating potential system inefficiencies.

- **Per capita use:** Declined steadily from 196 L/person/day in 2020–21 to 188 L/person/day in 2023–24, then rebounded sharply to 207 L/person/day in 2024–25**.**

Note: The Latrobe system also supplies significant volumes of raw water to industry.

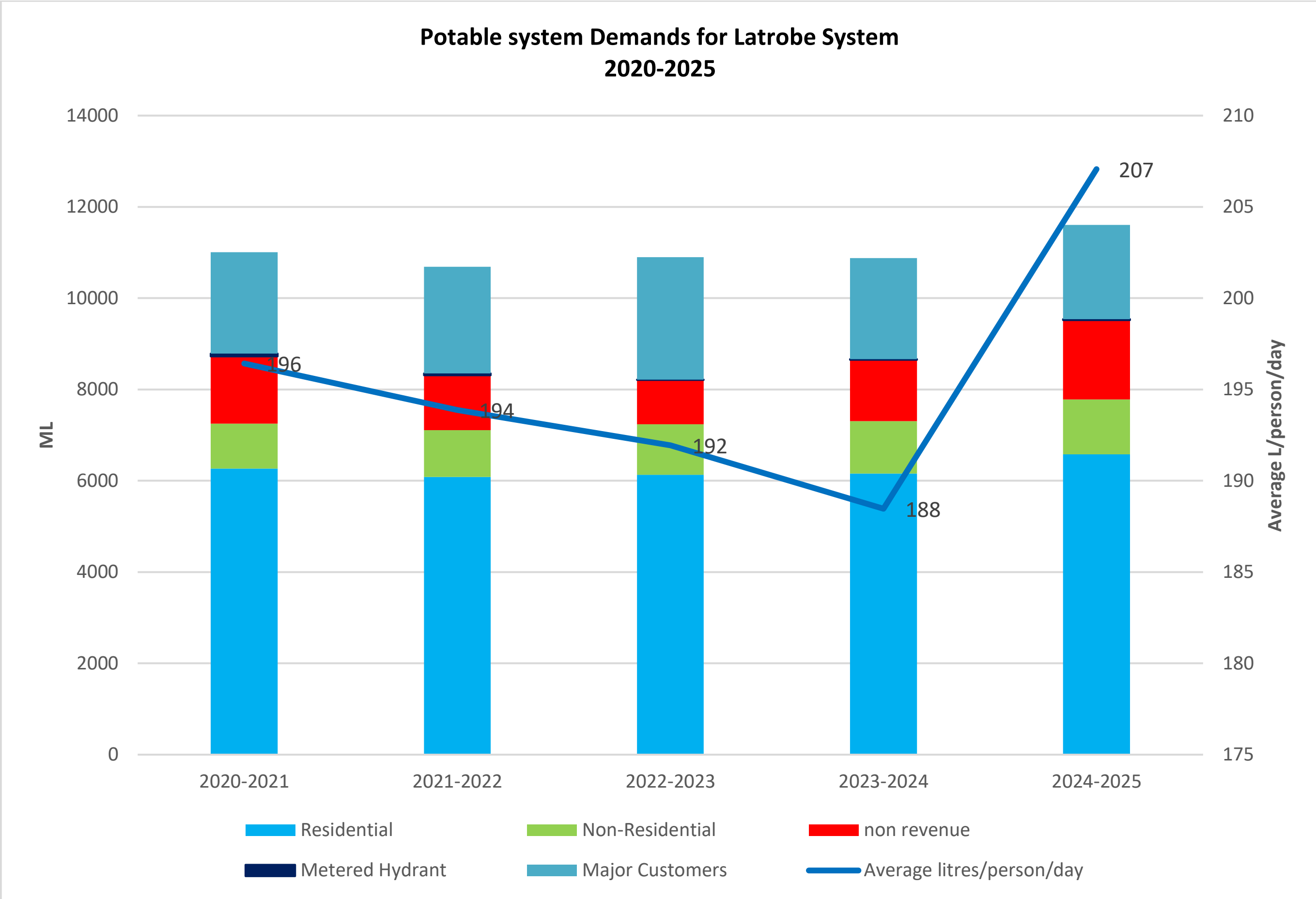


Figure 13 Latrobe potable water demands 2020-2025

ii) Annual total potable system demands against UWS demand projections.

Figure 14 Latrobe demand forecast vs UWS demand projections illustrates Latrobe raw water demand forecast compared with UWS projections.

Recent demand figures:

- **2021–22:** 53,439.8 ML
- **2022–23:** 56,608.7 ML
- **2023–24:** 52,856.3 ML
- **2024–25:** 53,452.5 ML

This variability reflects sensitivity to population growth, industrial activity, and climate conditions.

Forecast Scenarios:

- **Base case:** Demand stabilises around 40,000 ML/year.
- **High climate change scenario:** Demand approaches 60,000 ML/year
- **Low water use scenario:** Demand trends lower due to conservation and economic shifts
- **Price Submission 2023 scenario:** Intermediate demand influenced by pricing and customer behaviour.

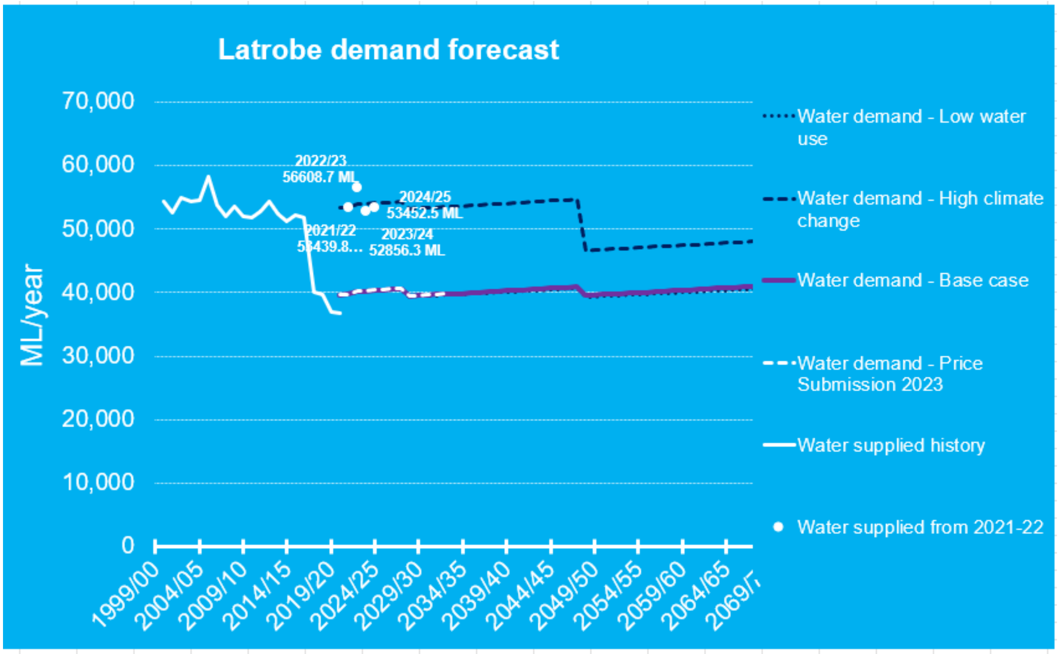


Figure 14 Latrobe demand forecast vs UWS demand projections

2.3.4 Latrobe current water resources position

Table 12 summarises the current status of water resources for Latrobe for the financial year to date (1 July 2025 to 17 October 2025).

Table 12 Latrobe current water resources information

Towns Supplied	Morwell, Churchill, Yinnar, Boolarra, Traralgon South, Jeeralang Junction, Traralgon, Tyers, Glengarry, Rosedale, Toongabbie, Cowwarr, Willow Grove, Moe, Trafalgar, Yarragon, Darnum (north), Yallourn North, Thorpdale.
No. of connections - residential	27,764
No. of connections - non residential	2,559
Major customers	AGL Loy Yang A, Alinta Loy Yang B, Australian Char, Bega, Energy Aust. Yallourn W, Engie, Hazelwood mine, Fonterra, IXOM, Omnia, Opal Aust. Paper, Jelfor Timber, Latrobe Regional Hospital
Primary water source	Tyers River and Jacobs Creek supplying Moondarra Reservoir. Narracan Creek and Tanjil River (from Blue Rock Reservoir) supplies the Moe water treatment plant
Alternative water source	Blue Rock Reservoir – Tanjil River. Blue Rock drought reserve. Tarago system through the Moe-Warragul Interconnect
Connection to a system network	Moe water treatment plant can be supplied from the Tarago system through the Moe-Warragul Interconnect
Current storage position	Moondarra reservoir is currently at capacity 29,853 (100%) with 28,544 ML (84%) of share in Blue Rock Reservoir
Annual entitlement / Allocation ML	**Moondarra Reservoir**: Up to 124,000 ML over any two-year period **Blue Rock Reservoir**: 60,000 ML over any three-year period with a 17.08 % share of total storage capacity of Blue Rock Reservoir
Volume extracted to date ML	10,740 ML

System security

Figure 15 Latrobe system storage volumes against restriction review points. presents monthly storage levels for the Latrobe system (Moondarra and Gippsland Water's share of Blue Rock) for the previous outlook period (December 2024 – October 2025), benchmarked against restriction review points (Stages 1–4) as defined in the DPP.

Throughout the monitoring period, combined storage volumes ranged from approximately 62,000 ML in December 2024 to a low of ~50,000 ML in July 2025, before recovering to ~60,000 ML by October 2025. The mid-year decline was attributed to reduced inflows during winter, but strong spring rainfall supported rapid recovery.

At all times, storage levels remained well above the Stage 1 restriction threshold (~18,000 ML), indicating no risk of water restrictions during this period. This performance reflects the system's strong resilience and capacity to buffer against drought and demand fluctuations, supported by robust infrastructure and favourable seasonal inflows.

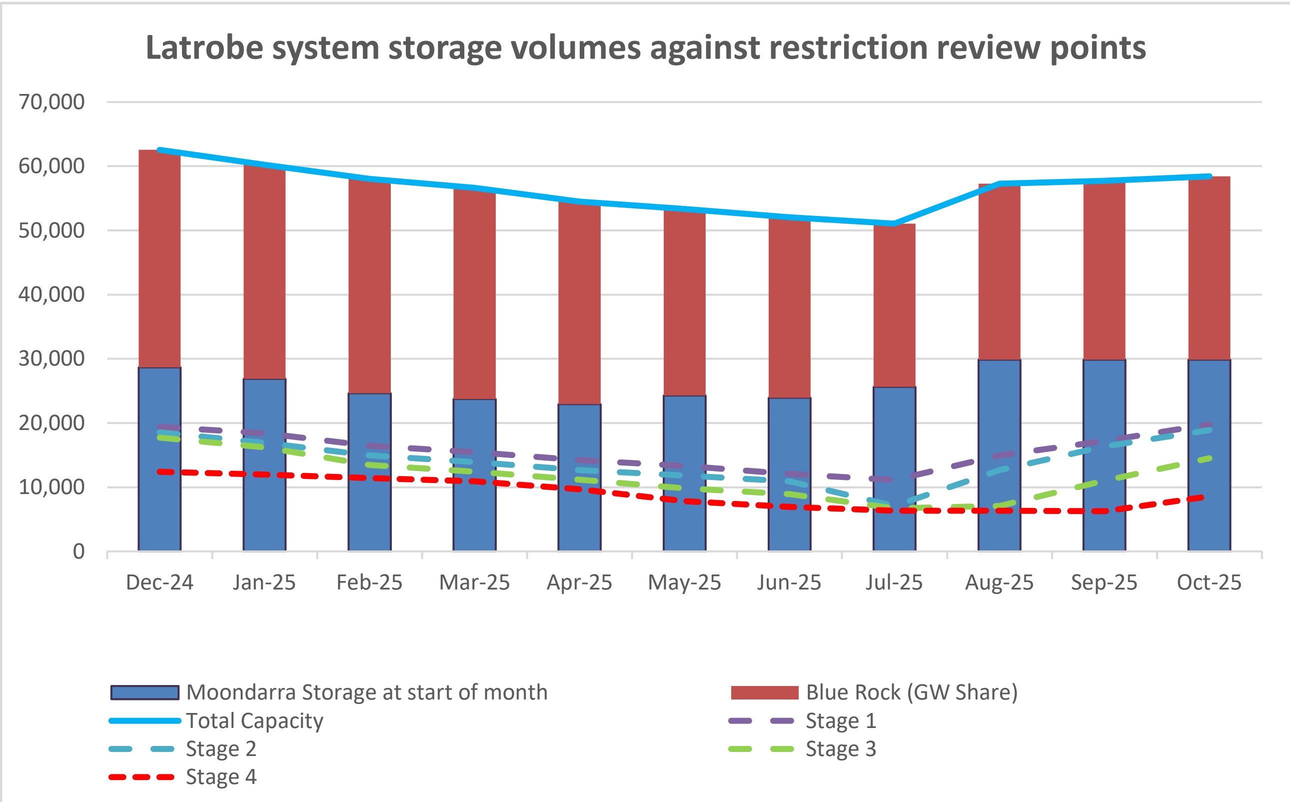


Figure 15 Latrobe system storage volumes against restriction review points.

2.4 Mirboo North

2.4.1 System introduction

a) Location and description

Mirboo North is a small township located atop the Strzelecki Ranges and is serviced by a small, run-of-river water supply system. Water is sourced from a weir on the north branch of the Little Morwell River, which diverts streamflow via a pumping station and pipeline to the Mirboo North water treatment plant.

b) Sources of supply

Primary source:
Little Morwell River (North Branch) – A weir diverts streamflow to the treatment plant.
Supplementary source:
Water carting – Available as a contingency during critical supply periods, though not viable for long-term use.

c) System operation

Raw water is pumped to the Mirboo North water treatment plant, where it undergoes solids separation, filtration, and disinfection. Treated water is stored in a 1.9 ML clear water tank, with the plant capable of processing 2.0 ML/day.

This is a run-of-river system, dependent on a single spring-fed source and lacking interconnection with other networks. Despite limited redundancy, the system has historically performed well during drought conditions due to reliable baseflows.

d) Qualitative vulnerability assessment

Table 13 Mirboo North water supply qualitative vulnerability assessment outlines the qualitative vulnerability assessment for the Mirboo North system based on system type, sensitivity to climate variability, restriction history as well as resilience measures for this system.

Table 13 Mirboo North water supply qualitative vulnerability assessment

Factor	Assessment
System type	Run-of-river system with no major storage; reliant on spring-fed flows from the Little Morwell River.
Sensitivity to climate variability	Moderate to high. Historically resilient due to spring-fed baseflows.
Restriction history	Minimal historical restrictions. Restrictions are prompted by streamflow levels rather than storage volume, making them less frequent but harder to buffer.
Resilience measures	Limited physical buffering. However, the system benefits from reliable baseflows, and water carting is a feasible contingency. Ongoing catchment monitoring and adaptive planning are in place.

e) System restriction review points

As a run-of-river system, Mirboo North relies directly on streamflow. Restriction thresholds are based on 14-day available water volumes at the diversion weir on the Little Morwell River.

Table 14 Mirboo North Restriction Review Points

Stage	14-Day Available Water (ML)
Stage 1	< 15 ML
Stage 2	< 12 ML
Stage 3	< 10 ML
Stage 4	< 8 ML

A 20% operational safety margin is applied to these thresholds to prevent premature depletion. This approach reflects the system's sensitivity to short-term rainfall and inflow variability.

f) Operational indicators

Mirboo North has minimal buffering capacity, relying on its 1.9 ML treated water storage. Community feedback suggests low-level restrictions are acceptable more frequently than the current 95% reliability target, which informs the review point thresholds.
Table 15 Operational Indicators for Mirboo North restriction review points outlines the operational indicators for each review point.

Table 15 Operational Indicators for Mirboo North restriction review points

Stage	Review point	Operational Indictors	Aligned Action with DPP
Stage 1	< 15 ML (14-day volume)	Streamflow trending downward	Initiate daily monitoring; raise internal alert; confirm communication templates; review contingency options
Stage 2	< 12 ML	Noticeable decline in streamflow	Activate customer communication plan; engage stakeholders; assess readiness for water carting
Stege 3	< 10 ML	Significant depletion of available water	Deploy demand management; confirm emergency logistics; escalate internal drought response
Stage 4	< 8 ML	Critical low streamflow	Notify regulators; issue public drought alerts; initiate daily monitoring

g) Restriction events:

No water restrictions were imposed during the previous AWO period (December 2024 – November 2025).

Historical restriction events

Mirboo North has experienced limited and low-level restrictions historically, largely due to the reliability of its spring-fed source.

Permanent Water Saving Rules (PWSR*)* were introduced on 6 August 2007 and are still in effect. PWSR are in place across the state every day of the year. The rules are:

- Always water your garden using a leak-free hose with a trigger nozzle.

- Sprinklers and drippers can only be used before 10am and after 6pm.
- Don't hose concrete, paths or driveways - use a broom instead.
- Fountains and water features must recirculate water.

- These are baseline conservation measures, not drought-triggered restrictions. For more information, visit: Saving water | Gippsland Water.

h) Identified risks to water security

Despite its historical reliability, the Mirboo North system faces several risks:

- **Source reliability:**
  The Little Morwell River is spring-fed and historically dependable but may be vulnerable to streamflow reductions under high climate change scenarios.

- **Catchment contamination:**
  The catchment includes agricultural and forestry land, increasing the risk of contamination from suspended solids, microbiological agents, pesticides, and herbicides following rainfall.

- **Limited storage capacity:**
  With no raw water storage and only 1.9 ML of treated water storage, the system has limited buffering capacity during supply disruptions.

- **Climate change impacts:**
  Under high climate change scenarios, restriction frequency is projected to increase, with severe restrictions potentially required once every 10 years by 2065.

- **No minimum passing flow requirement:**
  While this allows full diversion flexibility, it may pose ecological risks downstream during low-flow periods.

- **Operational flexibility:**
  Water carting is feasible but not sustainable for long-term resilience. The system lacks redundancy and alternative sources.

For further information on our long term water supply system outlook please see our outlook section in our Urban Water Strategy 2022 interactive map as well as our DPP as part of our UWS.

2.4.2 Rainfall

Rainfall data for Mirboo North station number 85282 ([Bureau of Meteorology]) has been recorded since 1937, and benchmarked against DEECA's climate reference periods:

- Post-1975 average**:** 1032.3 mm
- Post-1997 average**:** 1009.2 mm
- Worst year on record: (1997) 760.2 mm**,**

Note: 2025 is tracking to be the Worst Year on Record with 583.6 mm (to end of September). This is tracking well under the 1972 rainfall figure)

Figure 16 Mirboo North cumulative rainfall against climate reference periods illustrates the record-low rainfall observed in 2025, marking the driest year to date. Despite these conditions, hydrological monitoring at the Little Morwell River weir showed a minimum flow of 3.1 ML/day, compared to the full ratable flow of 5.23 ML/day, demonstrating the reliability of baseflows.

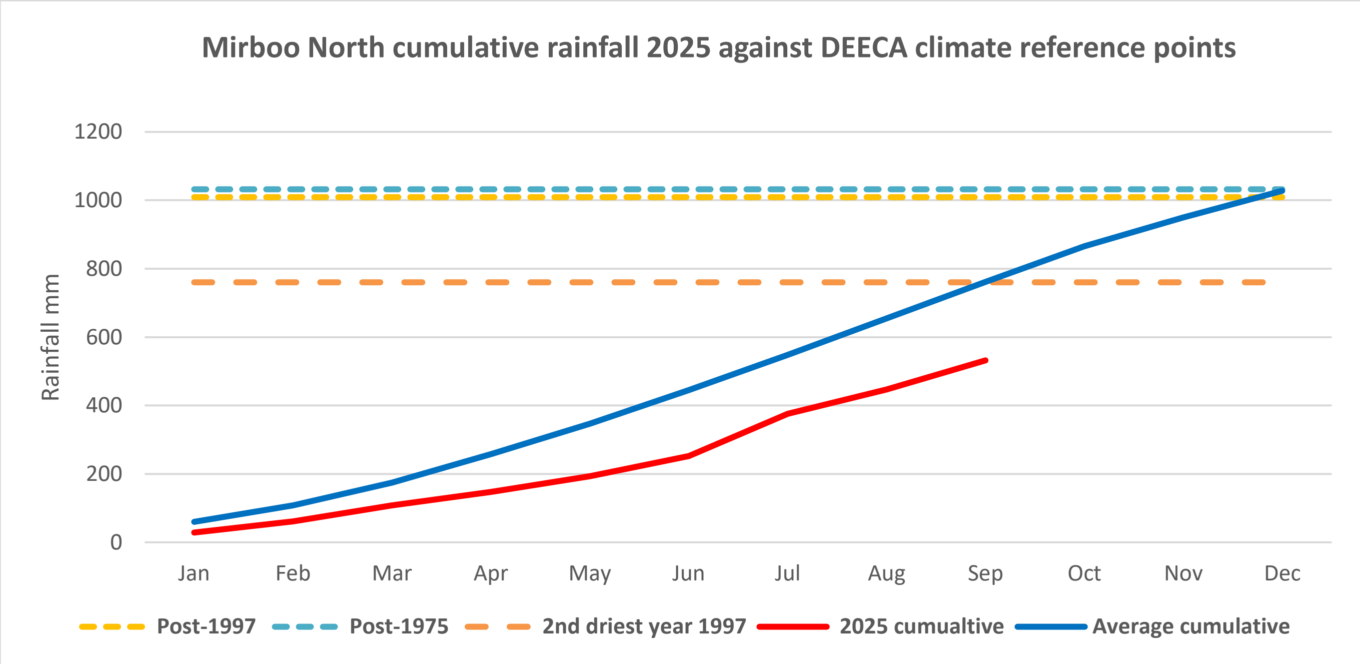


Figure 16 Mirboo North cumulative rainfall against climate reference periods

2.4.3 Consumption data

i) Potable system demands with historic comparisons

Figure 17 Mirboo North potable water demands 2020-2025 presents total potable water demand over the past five years.

Key trends and observations:

- **Residential consumption:** Stable between 102–110 ML from 2020–21 to 2023–24, rising to 115.5 ML in 2024–25, likely due to dry conditions.
- **Non-residential Consumption:** Declined from 31 ML in 2021–22 to 25.2 ML in 2023–24, then rebounded to 30.9 ML in 2024–25, possibly reflecting increased irrigation or commercial demand.
- **Non-revenue water:** Consistent at 30–36 ML over four years but rose sharply to 57.3 ML in 2024–25, indicating potential leakage or operational losses.
- **Average litres per person per day:** Improved from 170 L/day in 2021–22 to 158 L/day in

2023–24, then increased to 177 L/day in 2024–25, consistent with elevated demand during dry conditions.

These trends align with record-low rainfall in 2025, highlighting system vulnerability during extreme dry conditions.

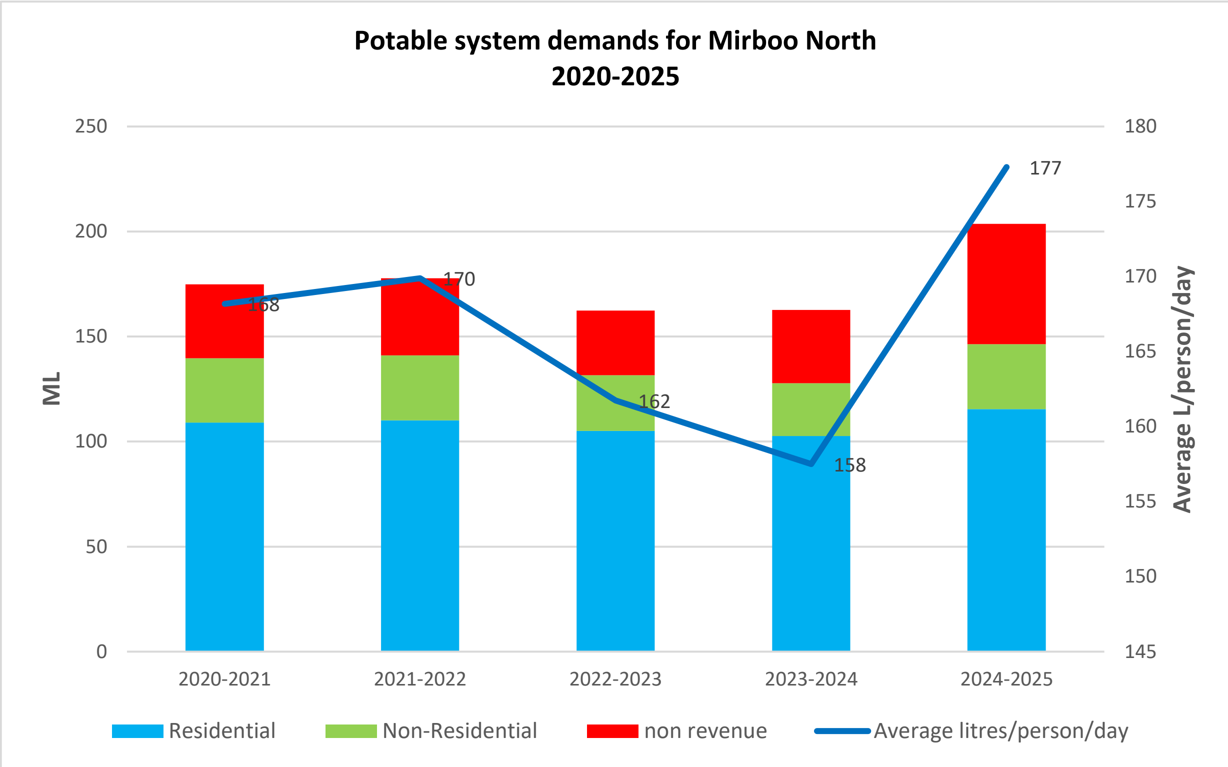


Figure 17 Mirboo North potable water demands 2020-2025

ii) Annual total potable system demands against UWS demand projections

Figure 18 Mirboo North Demands vs UWS Demand Projections illustrates the Mirboo North raw water demand forecast compared with UWS projections. Historically, actual potable water demand was below the UWS base case and Price Submission 2023 projections, with some variability over recent years.

Demand was 165.2 ML in 2021–22, increased to 181.6 ML in 2022–23, then declined to 173.6 ML in 2023–24. However, a significant rise to 207.9 ML recorded for 2024–25, exceeding both the base case and Price Submission projections. This sharp increase highlights the sensitivity of demand to extreme dry conditions in 2025, demonstrating how climatic variability can drive short-term demand spikes beyond long-term planning assumptions

The sharp increase in 2024–25 exceeds both the UWS base case and Price Submission 2023 projections, demonstrating sensitivity to climatic variability.

Forecast scenarios:

- **Base case:** Gradual increase from ~200 ML/year to ~250 ML/year by 2065
- **Low water use scenario:** Ends near ~230 ML/year.
- **High climate change scenario:** Approaches ~260 ML/year by 2065

The spike in demand during 2025 reinforces the importance of drought response planning and highlights the need for adaptive management under changing climate conditions.

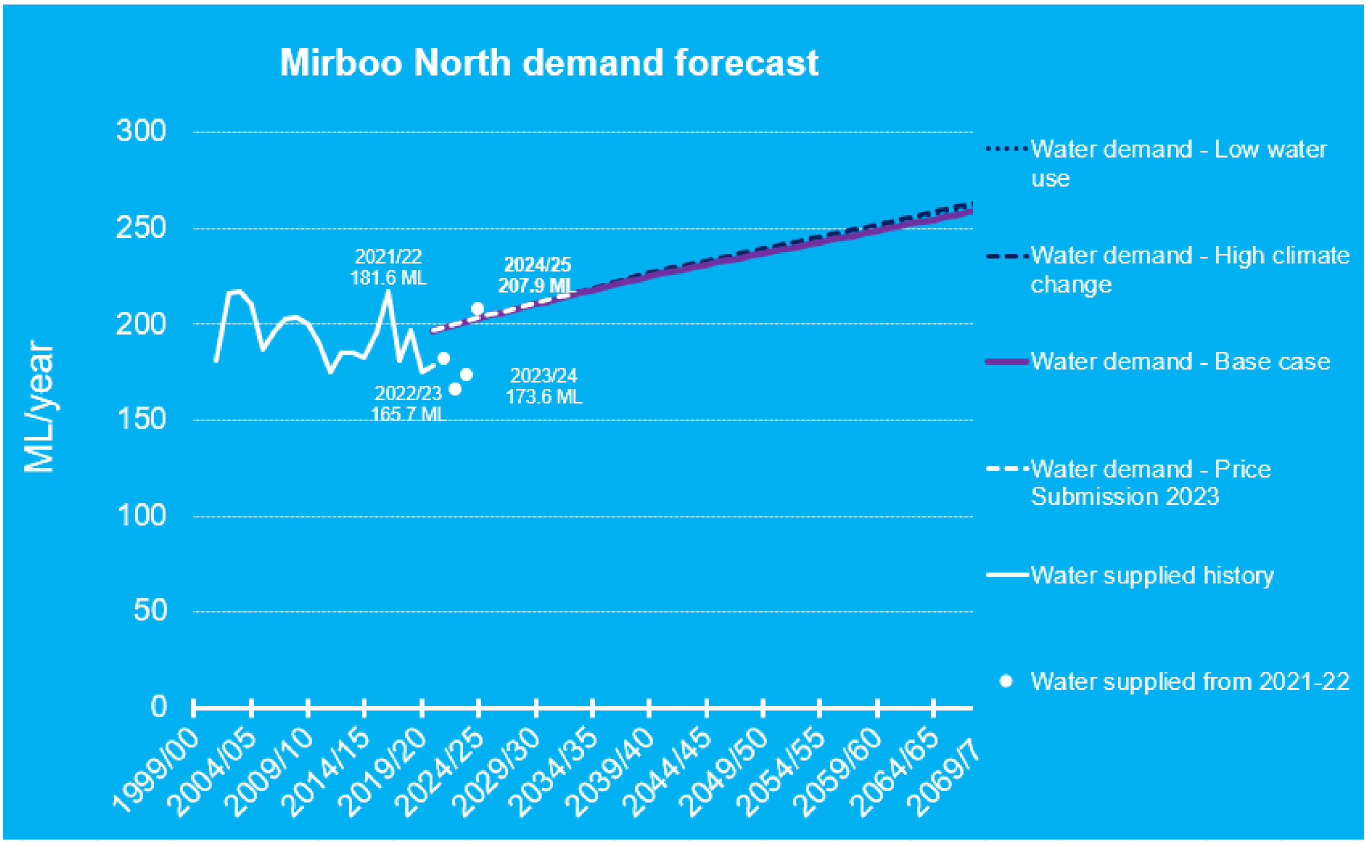


Figure 18 Mirboo North Demands vs UWS demand projections

2.4.4 Mirboo North current water resources position

Table 16 Mirboo North current water resources information summarises the current status of water resources for Mirboo North for the financial year to date (1 July 2025 to 17 October 2025).

Table 16 Mirboo North current water resources information

Towns supplied	Mirboo North
No. of connections - residential	776
No. of connections - non residential	115
Major customers	none
Primary water source	Little Morwell River
Alternative water source	Water carting if required
Connection to a system network	No connection to a network system
Current storage position	Little Morwell River flows are well above diversion thresholds indicating a secure supply for the next three months.
Annual entitlement / Allocation ML	270 ML
Annual volume	44 ML

System security

Figure 19 Average streamflow in Little Morwell River Vs system restriction review points.presents observed streamflow at the diversion weir for the previous outlook period (December 2024 – October 2025), benchmarked against restriction review points (Stages 1–4) as defined in the DPP.

Despite 2025 being the driest year on record for Mirboo North, streamflows remained consistently above all restriction thresholds. The lowest recorded flow was approximately 55 ML in February 2025, more than three times higher than the Stage 1 threshold of 15 ML/fortnight.

Seasonal variability was evident, with flows declining during late summer (January–March) and recovering to peak levels in winter (July). The system demonstrated strong hydrological resilience, and no restrictions were required during the review period.
This performance highlights the reliability of the spring-fed Little Morwell River and the system's ability to maintain supply security even under extreme climatic conditions.

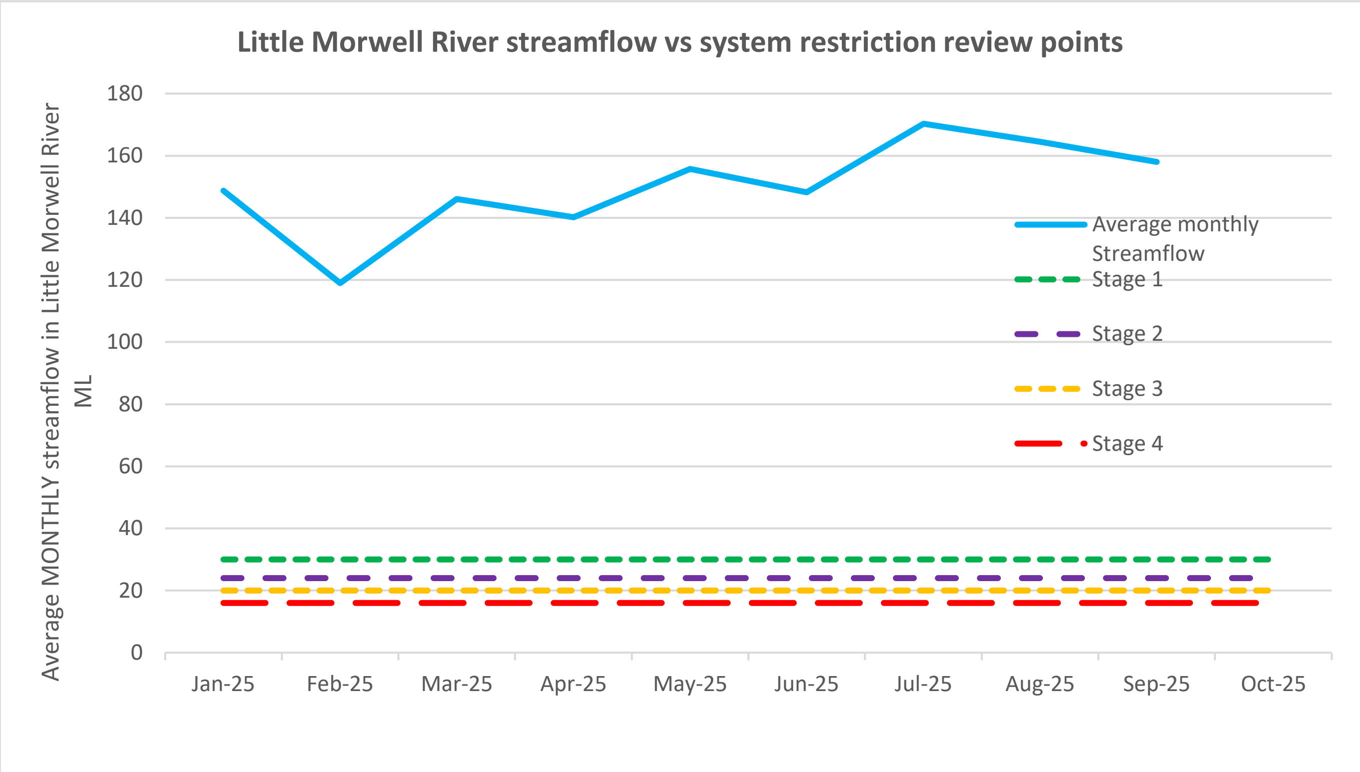
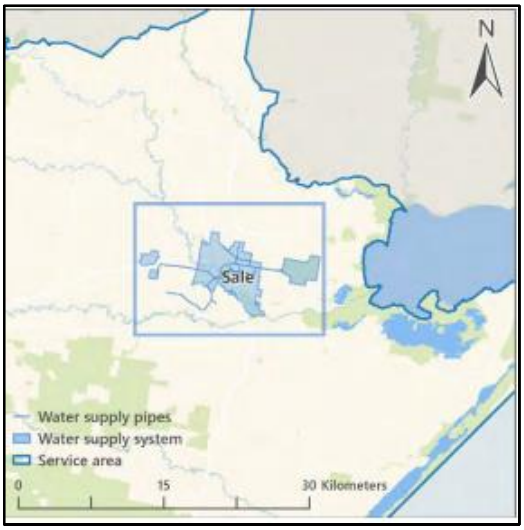


Figure 19 Average streamflow in Little Morwell River Vs system restriction review points.

2.5 Sale

2.5.1 System introduction

a) Description



The Sale water supply system services the townships of Sale and Wurruk, sourcing water from four production bores located in the Boisdale Aquifer on the western side of Sale. Raw water is pumped directly to the Sale water treatment plant for treatment and distribution.

b) Sources of supply

Primary Source:
Boisdale Groundwater Aquifer – accessed via four licensed bores.

Supplementary Source:
None – the system is entirely dependent on groundwater.

c) System operation

Water is extracted from the aquifer and pumped to the treatment plant, which has a daily capacity of 17 ML and is supported by 22.6 ML of treated water storage. The combined licence allocation allows for up to 3,480 ML/year, significantly exceeding the average annual demand of 1,870 ML over the past five years.

d) Qualitative vulnerability assessment

Table 17 Sale water supply qualitative vulnerability assessment outlines the qualitative vulnerability assessment for the Sale system based on system type, sensitivity to climate variability, restriction history as well as resilience measures for this system.

Table 17 Sale water supply qualitative vulnerability assessment

Factor	Assessment
System Type	Groundwater-based supply system drawing from the Boisdale Aquifer via four licensed bores.
Sensitivity to Climate Variability	Low to Moderate – Groundwater systems are generally less sensitive to short-term climate variability compared to surface water systems. However, long-term aquifer decline poses a sustainability risk.
Restriction History	No recent history of water restrictions for Sale, as current licence allocation (3,480 ML/year) significantly exceeds current demand 1,865 ML 2024-25year).
Resilience Measures	Licence provides ample capacity; treatment plant has 17 ML/day capacity with storage basins (22.6 ML total). However, long-term resilience depends on aquifer sustainability and regulatory review.

e) System restriction review points

Restriction review points for Sale are based on:

- SCADA-monitored bore levels
- Groundwater allocation percentages set by Southern Rural Water (SRW)

Table 18 Sale restriction review points shows the restriction review points for the Sale system. These indicators align with the DPP and support proactive, staged management.

Table 18 Sale restriction review points

Stage	SCADA Bore Level (mAHD)	Groundwater Allocation (%)
Stage 1	N/A	< 60%
Stage 2	-20.0	< 55%
Stage 3	-25.0	< 50%
Stage 4	-27.0	< 45%

*Note: Minimum drawdown level in Sale production bores.
^Note: seasonal groundwater licence allocation set by SRW

f) Operational indicators

Table 19 Operational indicators for Sale restriction review points shows the operational indicators for the Sale system restriction review points.

Table 19 Operational indicators for Sale restriction review points

Restriction Stage	SCADA Bore Level (mAHD)	Groundwater Allocation (%)	Operational Action as aligned with DPP
Stage 1	N/A	< 60%	Increase SCADA monitoring; initiate internal readiness; launch voluntary conservation messaging.
Stage 2	-20.0	< 55%	Review restriction implementation; optimise pumping schedules; liaise with SRW
Stage 3	-25.0	< 50%	Enforce restrictions; intensify conservation messaging; reduce non-essential use; prepare contingency
Stage 4	-27.0	< 45%	Apply strict restrictions; activate emergency measures if required

g) Restriction events

No restrictions were imposed during the last AWO period (December 2024 – November 2025).

Historical restriction events

No restrictions have been recorded since 2007.

h) Identified risks to water security

The Boisdale Aquifer has shown a gradual decline over two decades, likely linked to excessive irrigation and possible hydraulic connection to the Latrobe Aquifer, which is impacted by mining activities.

- **Over-allocation:**
  The Sale Water Supply Protection Area (WSPA) has a **Permissible Consumptive Volume of 21,238 ML/year**, but the aquifer is considered over-allocated. Sustainable yield may be significantly lower.

- **Regulatory gaps:**
  The WSPA lacks a statutory management plan. The existing Local Management Plan does not address over-allocation or aquifer decline, increasing uncertainty for long-term planning.

- **Single source dependency:**
  Sale relies solely on the Boisdale Aquifer, making it vulnerable to licence changes, allocation reductions, or aquifer stress.

- **Climate change impacts:**
  While groundwater systems are less sensitive to short-term rainfall variability, prolonged drought and climate change could exacerbate aquifer decline and increase demand.

For further information on our long term water supply system outlook please see our outlook section in our Urban Water Strategy 2022 interactive map as well as our DPP as part of our UWS.

2.5.2 Rainfall

Rainfall data for Sale has been recorded since 1943 and benchmarked against DEECA's climate reference periods:
- Post-1975 average: 600.1 mm.
- Post-1997 average: 521.7 mm
- Worst year on record (2006) 301.6 mm

Figure 20 Sale Monthly cumulative rainfall against climate reference presents cumulative rainfall for 2025, based on data from East Sale Rainfall Station No. 85072 (Bureau of Meteorology).

While rainfall has limited direct influence on the Sale water supply system—due to its reliance on groundwater from the Boisdale Aquifer, it remains relevant for aquifer recharge and demand patterns. Groundwater systems respond slowly to rainfall, with recharge occurring over extended periods. However, prolonged dry conditions and reduced recharge can contribute to long-term aquifer decline, especially when combined with high extraction by other users.

This underscores the importance of ongoing aquifer monitoring and collaboration with Southern Rural Water to manage sustainable use. Rainfall also affects seasonal water demand, particularly for outdoor use.

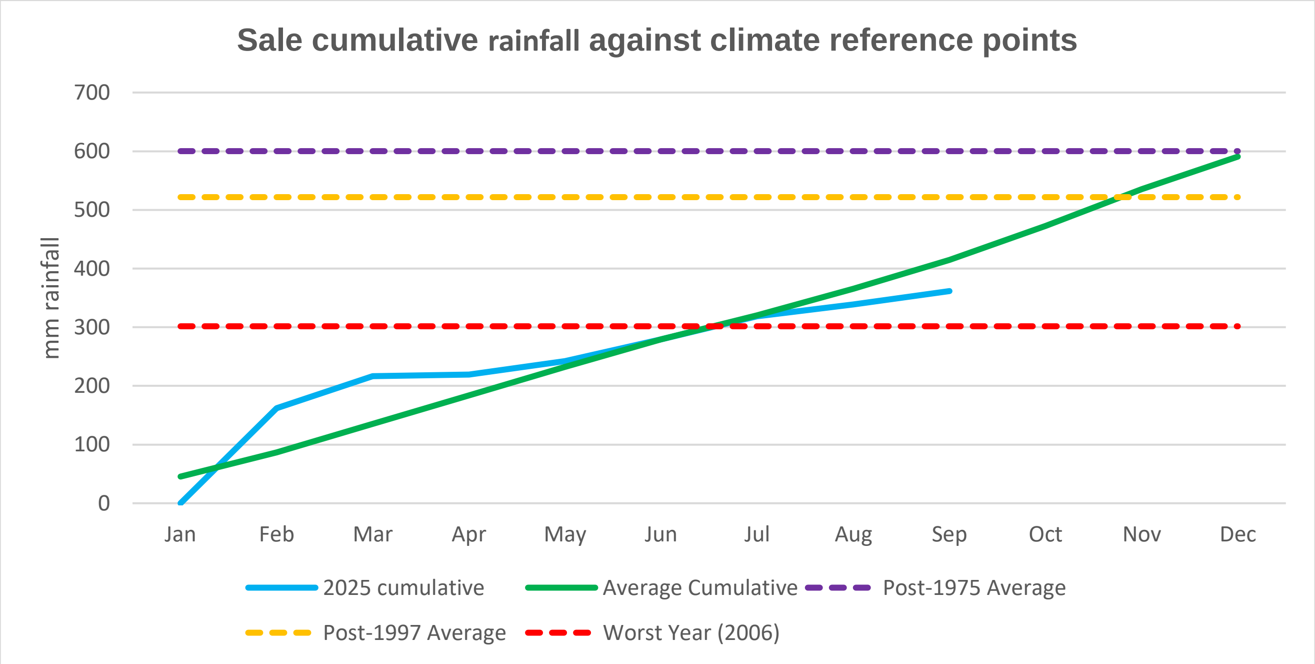


Figure 20 Sale Monthly cumulative rainfall against climate reference periods.

2.5.3 Consumption data

i) Potable system demands with historic comparisons

Figure 21 Sale Potable Water Demands (2020-2025) presents total potable water demand over the past five years.

Key trends and observations:

- **Residential consumption:** Stable between 1,127 ML and 1,213 ML.
  - Highest: 1,212.6 ML (2020–21)
  - Lowest: 1,127.2 ML (2021–22)
  - 2024–25: 1,155.3 ML – near average
- **Non-Residential consumption:**
  - Peaked at 307.7 ML (2022–23)
  - Declined to 282.4 ML (2024–25) – possibly reflecting economic or operational shifts.
- **Non-Revenue water:**
  - High variability: 275.6 ML (2022–23), 102.6 ML (2023–24), 201 ML (2024–25)
  - Indicates potential leakage or metering issues; corrective actions appear to have had temporary impact.
- **Major customer demand:**
  - Increased from 167.9 ML (2020–21) to 235.9 ML (2023–24), then declined to 192.5 ML (2024–25)
  - Reflects operational variability among industrial and institutional users.
- **Average litres per person per day:**
  - Declined from 194 L (2020–21) to 178 L (2021–22)
  - Stabilised between 179–181 L in recent years – indicating improved water use efficiency.

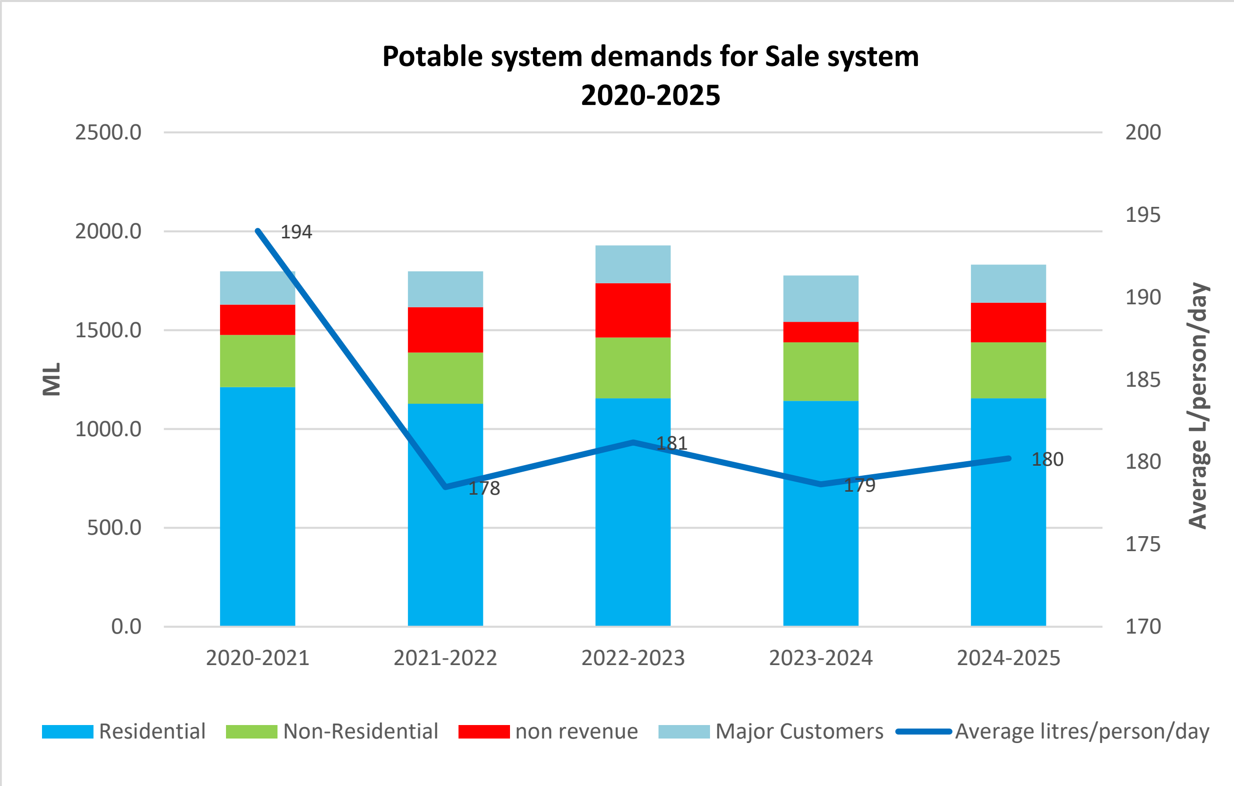


Figure 21 Sale potable water demands (2020-2025)

ii) Annual total potable system demands against UWS demand projections

Figure 22 illustrates the Sale raw water demand forecast compared with UWS projections. Recent years show actual potable water demand was below the UWS base case and Price Submission 2023 projections.

Recent demand figures:

- **2021–22:** 1,807.6 ML
- **2022–23:** 1,951.4 ML
- **2023–24:** 1,862.6 ML
- **2024–25:** 1,865 ML

Actual demand remains below UWS base case and Price Submission 2023 projections, though a gradual upward trend is emerging.

Factors influencing variance:

- **Population and development:** Growth in Sale has been more moderate than projected.
- **Water efficiency measures:** Adoption of water-saving appliances and conservation efforts.
- **Climate variability:** Wetter years may reduce outdoor use; projections assume average or dry conditions.
- **Economic activity:** Industrial and commercial demand may fluctuate with local economic conditions.

While demand remains below projections, the recent trend suggests gradual alignment. Long-term planning assumptions remain valid, but ongoing monitoring is essential to manage variability and ensure supply security.

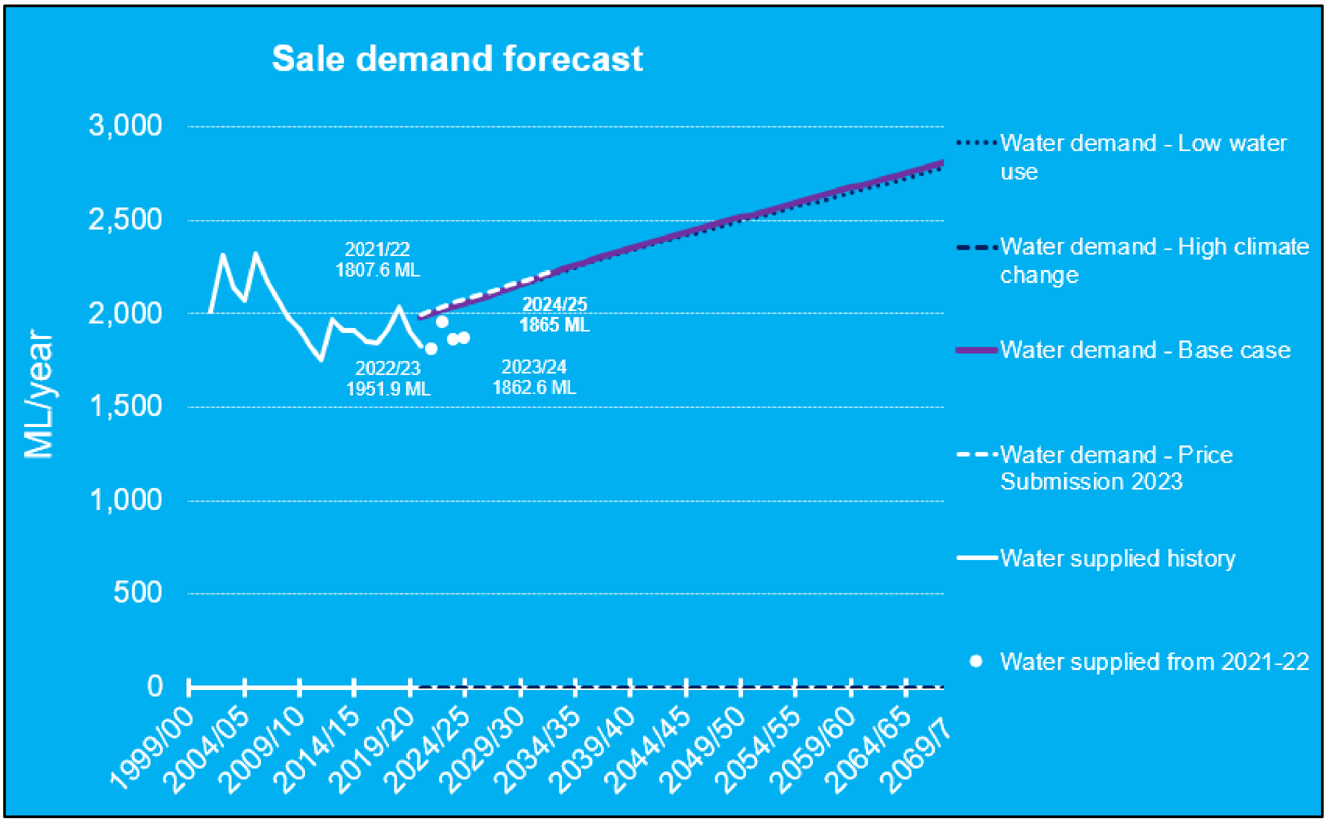


Figure 22 Sale annual total system demands vs UWS demand projections

2.5.4 Sale current water resources position

Table 20 Sale current water resources information summarises the current status of water resources for Sale and Wurruk for the financial year to date (1 July 2025 to 17 October 2025).

Table 20 Sale current water resources information

Towns supplied	Sale, Wurruk
No. of connections - residential	7636
No. of connections - non residential	1155
Major customers	Sale Hospital, RAAF Base, Livestock Exchange, Geo Group Australia (formerly Fulham Correctional Centre.
Primary water source	Boisdale groundwater aquifer
Alternative water source	Our current groundwater licence conditions provide ample water to meet forecast demand over the coming 50 years.
Connection to a system network	No connection to a network system
Current storage position	Current aquifer conditions are robust, well above restriction review points. Our current groundwater licence conditions provide ample water to meet forecast demand over the coming 12 months.
Annual entitlement / Allocation ML	3480 ML
Volume extracted to date ML	348 ML

System security

Figure 23 presents observed drawdown levels in the Sale production bores for the previous outlook period (December 2024 – October 2025), benchmarked against restriction thresholds defined in the DPP.

Aquifer drawdown levels remained consistently above critical thresholds throughout the monitoring period, with a healthy buffer of 4–6 metres. Seasonal recharge was evident, particularly in winter (July), following a temporary decline during late summer and autumn.

- Lowest drawdown observed: ~–15 m AHD (during active pumping)
- Highest level: +1 m AHD (when bore was not in use)
- Restriction thresholds:
  - Stage 2: –20 m AHD
  - Stage 3: –25 m AHD
  - Stage 4: –27 m AHD

These thresholds were not approached during the review period, indicating minimal risk of supply restrictions and confirming the system's resilience.

Note:

There is no Stage 1 restriction threshold for Sale. Restrictions would be considered in collaboration with Southern Rural Water (SRW) to ensure equitable management of the shared groundwater resource.

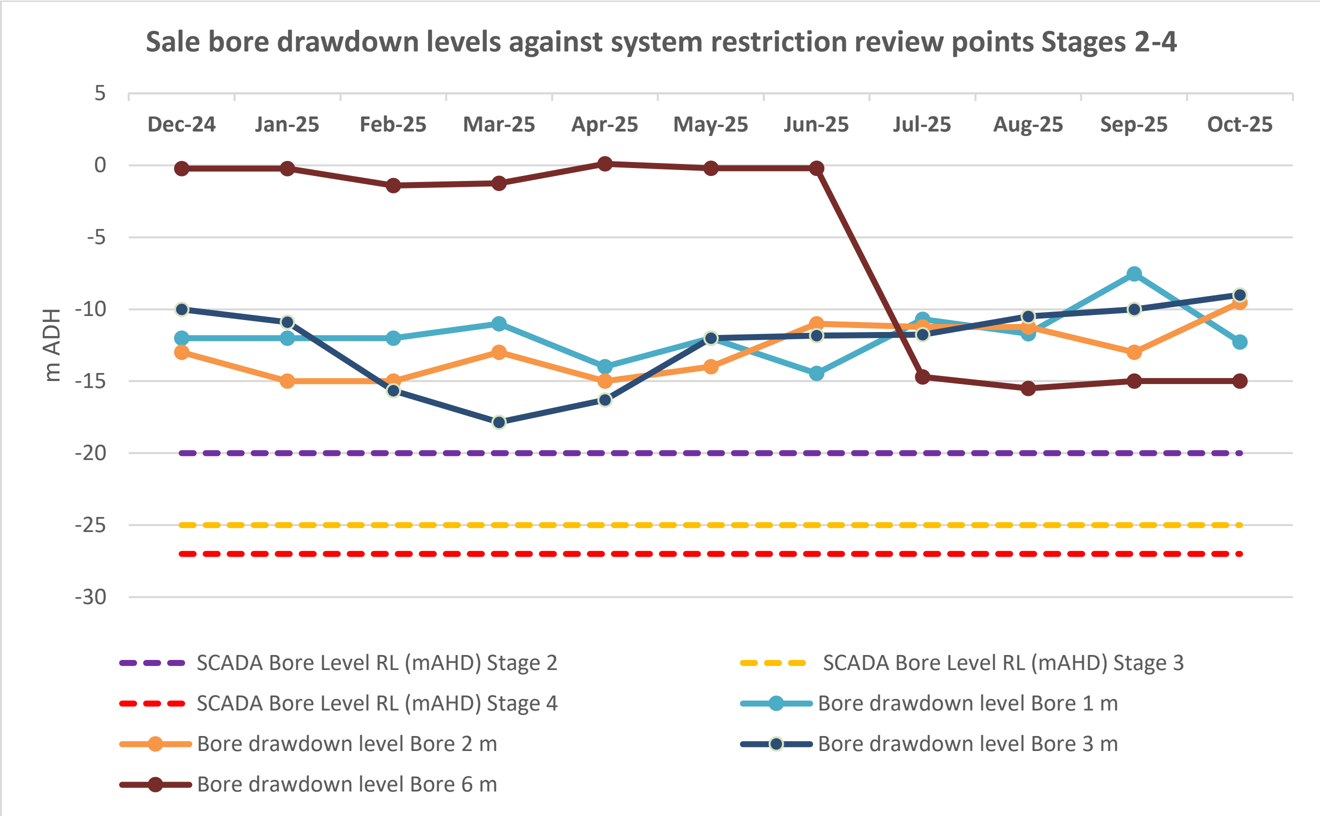


Figure 23 Average monthly aquifer drawdown levels vs restriction review points.

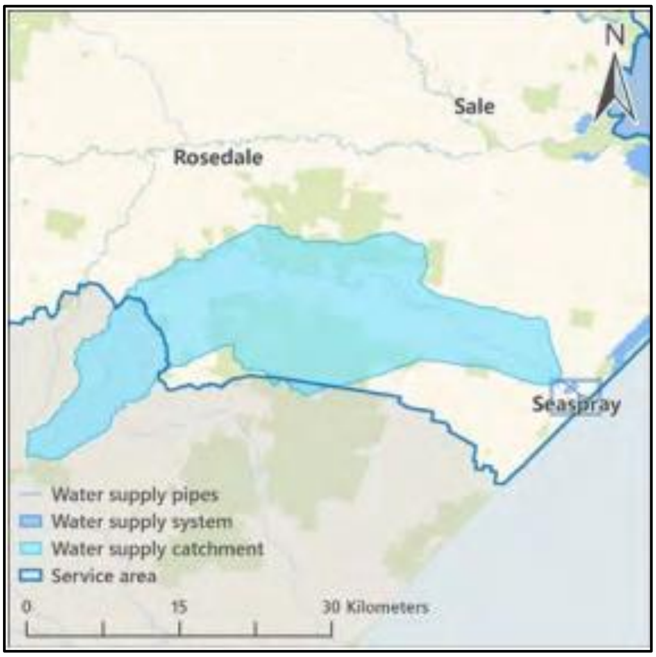
(Note that there is no Stage 1 restriction point, and that restriction are also based on Southern Rural Water's use of the resource. Restrictions would have to be undertaken collaboratively with SRW in order for it to be fair and equitable.)

2.6 Seaspray

2.6.1 System introduction

a) Location and description

Seaspray is a small coastal township located on 90 Mile Beach, approximately 30 km southeast of Sale. The town sources its water from Merriman Creek, via a diversion weir that pumps water to a 30 ML raw water basin. This basin provides approximately nine months of supply and is critical for maintaining resilience during dry periods. Treated water is stored in a 3.7 ML treated water basin, with the treatment plant capable of processing 1.5 ML/day.



b) Sources of supply

Primary source: Merriman Creek
Supplementary source: Water carting – available as a contingency during extreme dry periods.

c) System operation

Water for Seaspray is sourced from Merriman Creek via a diversion weir. Diverted water is pumped into a 30 ML raw water basin, which provides approximately nine months of supply and serves as a critical buffer during dry periods. From the basin, water is transferred to the Seaspray water treatment plant, where it undergoes treatment. Treated water is then stored in a 3.7 ML treated water basin before being distributed to the community. The treatment plant has a daily capacity of 1.5 ML, sufficient to meet peak demand during seasonal population increases**.**

d) Qualitative vulnerability assessment

Table 21 Seaspray water supply qualitative vulnerability assessment outlines the qualitative vulnerability assessment for Seaspray based on system type, sensitivity to climate variability, restriction history as well as resilience measures for this system.

Table 21 Seaspray water supply qualitative vulnerability assessment

Factor	Assessment
System Type	Run-of-river system with raw water basin (30 ML) – highly dependent on Merriman Creek inflows; limited storage buffer.
Sensitivity to Climate Variability	High – Catchment subject to rain shadow effect; reduced winter inflows under climate change scenarios; vulnerable to prolonged dry periods.
Restriction History	Moderate – No formal restrictions in recent years, but basin dropped below review points during 2018–19 drought; risk managed through carting and flexible operations.
Resilience Measures	Medium – 30 ML raw water basin provides short-term buffer; contingency for water carting; treatment plant capacity adequate; proposed action to review flow-sharing rules under Bulk Entitlement (Action 13).

e) System restriction review points

Restrictions are based on maintaining sufficient raw water storage to support both summer and winter drawdown periods without falling below the minimum operating level. Review points are defined monthly and presented below.

Table 22 Seaspray restriction review points

	Storage Volume (ML)											
month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Stage 1	21	21	19	18	16	26	25	22	22	22	22	22
Stage 2	20	19	18	16	14	24	23	20	20	20	20	20
Stage 3	18	18	16	14	12	22	21	19	19	18	18	18
Stage 4	16	16	14	13	11	20	20	17	17	17	17	17
Minimum Operating Level	9	9	9	9	9	9	9	9	9	9	9	9

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Figure 24 Seaspray restriction review points illustrates the monthly thresholds used to guide restriction decisions. The framework prioritises summer restrictions, when savings are more impactful, to preserve basin levels for winter supply in case diversions are limited under Bulk Entitlement rules.

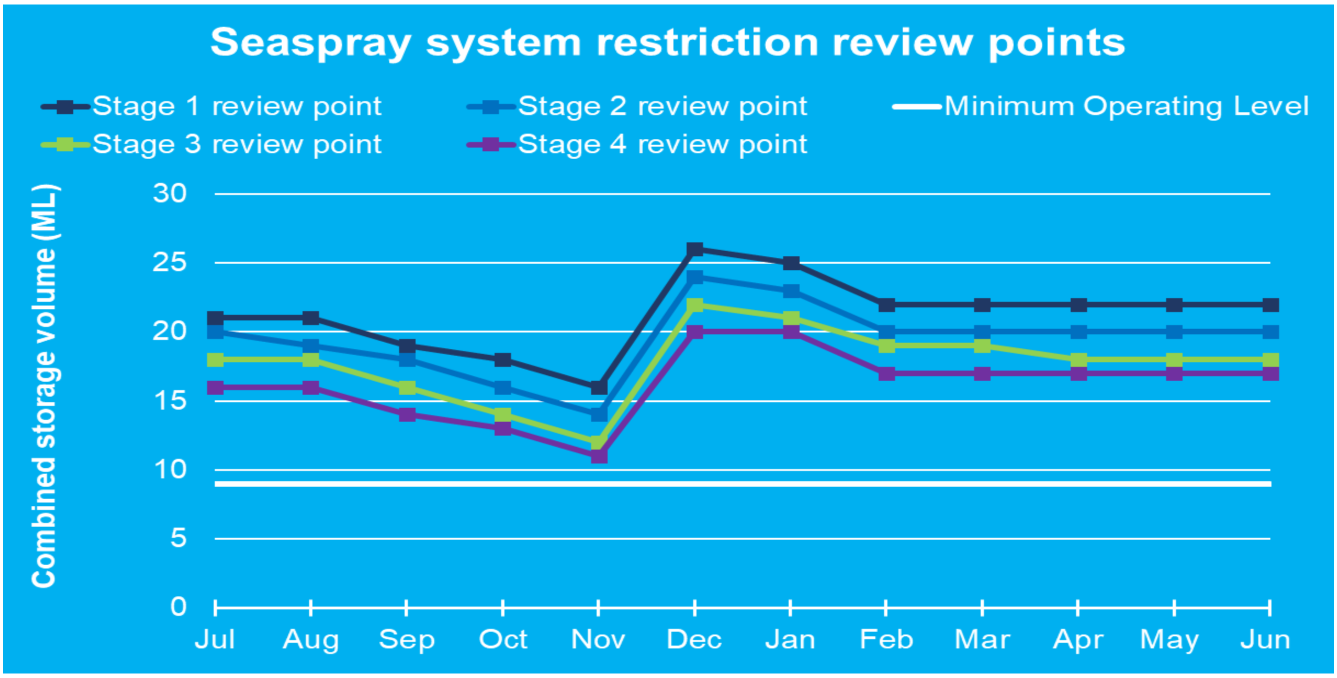


Figure 24 Seaspray restriction review points

f) Operational indicators

Key indicators used to manage the Seaspray system include:

- **Raw water basin level (ML):** Primary indicator for restriction staging.
- **Streamflow in Merriman Creek:** Determines diversion eligibility under Bulk Entitlement (e.g., ≥39.6 ML/day for high-flow diversions July–October).
- **Treatment plant output capacity:** 1.5 ML/day; monitored to ensure peak demand can be met.

- **Pump station performance:** Flow rate and sediment buildup monitored; desilting required periodically (~every 5 years).
- **Raw water basin sediment levels:** Affects storage capacity and pumping efficiency.
- **Water quality parameters:** Turbidity, microbial risk, and organic loading monitored to ensure compliance.
- **Contingency activation:** Water carting considered when basin levels approach Stage 3–4 thresholds under dry scenarios.

g) Restriction events

No water restrictions were imposed during the previous AWO period (December 2024 – November 2025).

Historical restriction events

Recent History:
During the 2018–19 East Gippsland drought, basin levels dropped below DPP review points. No customer restrictions were applied; risk was managed through operational flexibility and contingency planning.

Earlier events:
Stage 4 restrictions were applied during the Millennium Drought (1997–2009). Since then, infrastructure improvements—particularly the addition of the 30 ML basin—have enhanced system resilience.

h) Identified risks to water security:

- **Catchment vulnerability:**
  Rain shadow effects reduce winter inflows; agricultural land use increases organic and microbial risks.
- **Limited storage capacity:**
  The 30 ML basin provides ~9 months of supply but remains dependent on consistent inflows.
- **Flow-Sharing rules:**
  Bulk Entitlement limits diversions during July–October, reducing refill opportunities before summer.
- **Climate change impacts:**
  Projected reductions in winter streamflows and increased variability under medium/high scenarios.
- **Operational constraints:**
  Sediment buildup at the offtake restricts pumping; seasonal population spikes increase demand.
- **Water quality risks:**
  Elevated turbidity and organic matter during storm events; potential taste and odour issues.
- **Contingency limitations:**
  Water carting is available but costly and logistically challenging during extended droughts.

2.6.2 Rainfall

Rainfall in 2024–25 for Seaspray Station Number 85073 (Bureau of Meteorology).has been compared against key climate reference periods defined by DEECA with the following data:
- Post-1975 average: 657.22 mm.
- Post-1997 average: 549.79 mm
- Worst year on record post 1975 is 2018: 324.2 mm

Figure 25 provides the 2025 monthly cumulative rainfall data and monthly average cumulative rainfall post 1975.

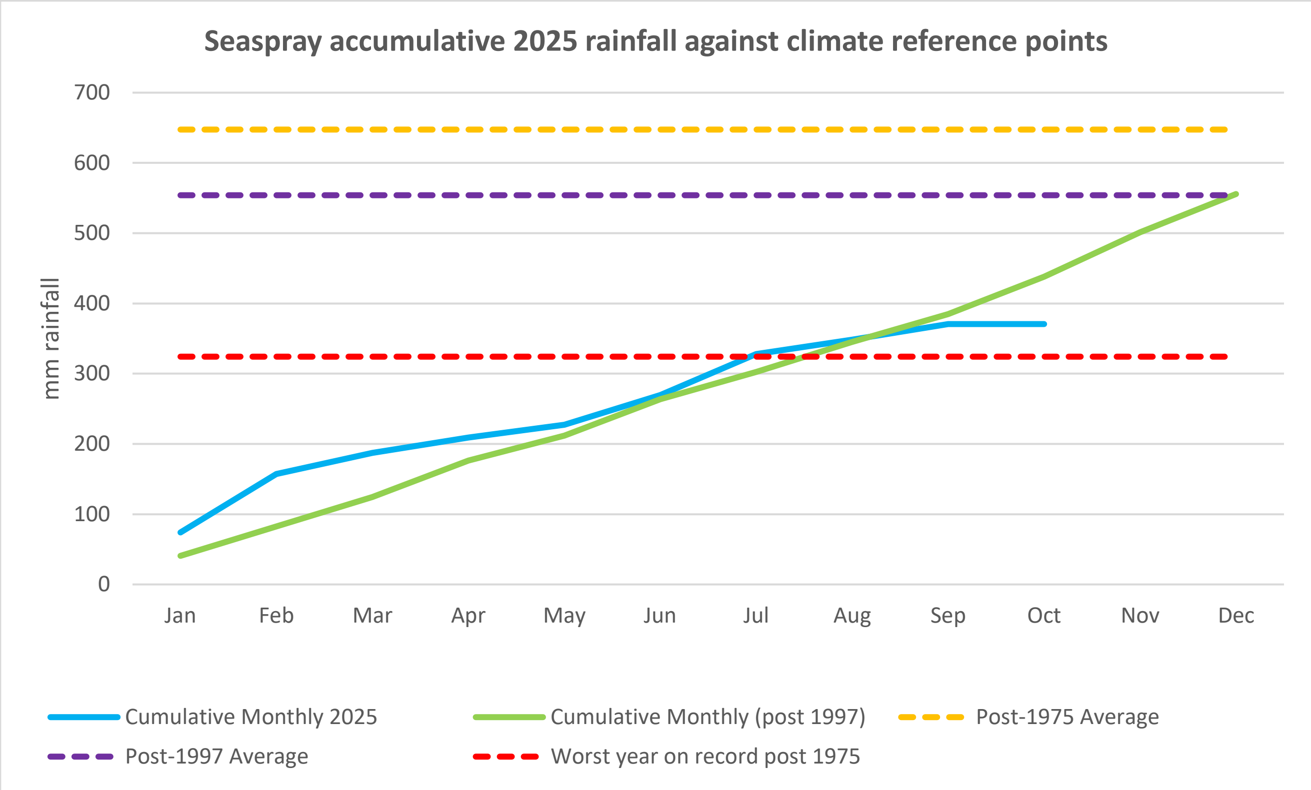


Figure 25 Seaspray monthly cumulative rainfall against climate reference periods

Rainfall in 2025 began strongly, tracking close to the post-1997 average until mid-year, but flattened after August, indicating dry spring conditions. While 2025 has exceeded the worst year on record, it remains below long-term averages, reinforcing the trend of declining rainfall.

Despite these conditions, water security remained strong, with the 30 ML raw water basin maintained above 80% capacity throughout the year, and currently at 98% heading into the summer period.

2.6.3 Consumption data

i. Potable system demands with historic comparisons.

Figure 26 Seaspray potable water demands across last five years 2020-2025 presents total potable water demand over the past five years.

Key trends and observations:

- **Residential consumption:** Dominant and stable component of demand.
- **Non-residential consumption:** Minor but consistent.
- **Per capita usage:** Declined from 77 L/person/day to 67 L/person/day, reflecting successful demand management and behavioural changes.

This downward trend enhances system resilience, particularly given the run-of-river configuration and limited storage capacity. However, seasonal peaks and climate variability continue to pose operational challenges.

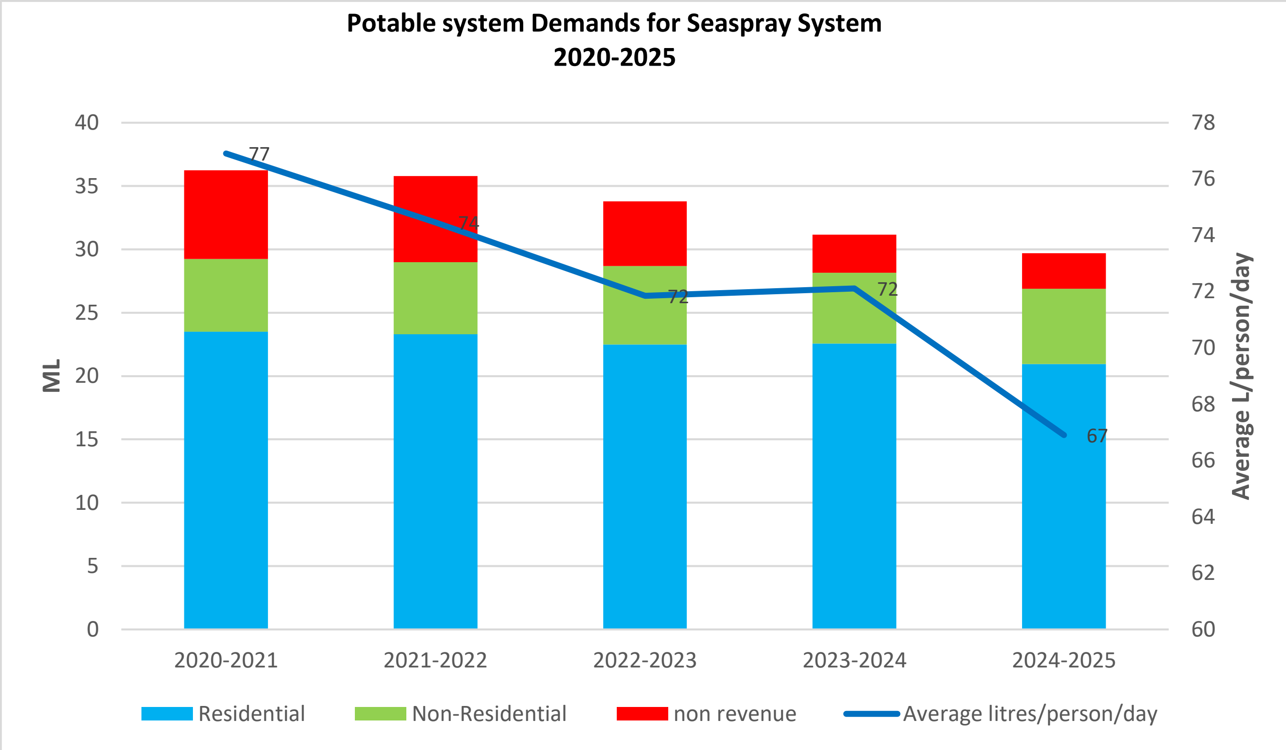


Figure 26 Seaspray potable water demands across last five years 2020-2025

ii) Annual total potable system demands against UWS demand projections.

Figure 27 compares actual annual potable water demand with Urban Water Strategy (UWS) projections. Historically, actual demand has remained below both the UWS base case and Price Submission 2023 projections with the exception of 2021-22.

Recent demand figures:

- **2021–22:** 37.5 ML
- **2022–23:** 30.0 ML
- **2023–24:** 27.3 ML
- **2024–25:** 35.4 ML

Demand has fluctuated due to seasonal population changes, climate variability, and slower-than-expected growth. The recent rebound highlights the system's sensitivity to tourism and weather conditions.

Forecast scenarios:

- **Base case:** Increase from ~30 ML/year to ~50 ML/year by 2065.
- **Low water use scenario:** Ends near ~45 ML/year.
- **High climate change scenario:** Approaches ~55 ML/year by 2065

Seasonal demand variability and tourism sensitivity require flexible operational strategies and contingency planning for peak periods.

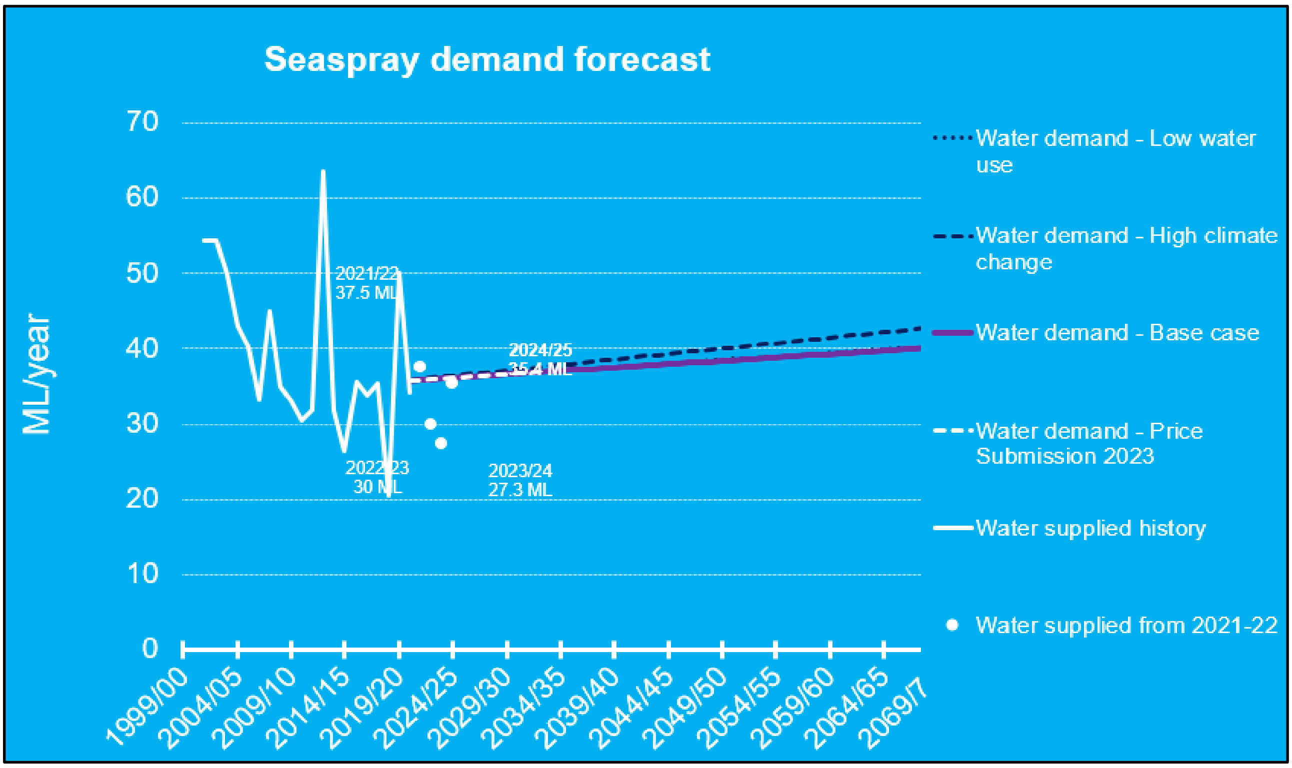


Figure 27 Seaspray annual total system demands vs UWS demand projections

2.6.4 Current water resources position

Table 23 Seaspray current water resources information summarises the current status of water resources for Seaspray for the financial year to date (1 July 2025 to 17 October 2025).

Table 23 Seaspray current water resources information

Towns supplied	Seaspray
No. of connections - residential	373
No. of connections - non residential	21
Major customers	none
Primary water source	Merriman Creek
Alternative water source	Water carting is available
Connection to a system network	No connection to a network system
Current storage position	Raw water basin currently is at 98% capacity providing close to 9 months' demand under average conditions. While storage is adequate for 9 month demands, the run-of-river nature and flow-sharing constraints mean vulnerability persists during extended dry periods.
Annual entitlement / Allocation ML	133 ML Extraction rates are subject to different flow sharing rules depending on the time of the year. From July to October, our entitlement allows us to extract flows up to 2.4 ML per day from the creek when flow past our offtake point is 39.6 ML per day or greater. From November to June, extraction up to 0.78 ML per day is permitted at any time.
Volume extracted to date ML	8.9 ML

System security

Figure 28 presents monthly water levels in the Seaspray raw water basin for the previous outlook period (December 2024 – October 2025), benchmarked against restriction thresholds defined in the DPP.

Despite low rainfall, storage levels remained above all restriction review points, maintaining short-term resilience. This performance reflects effective system management and the importance of the raw water basin in buffering against climatic variability.

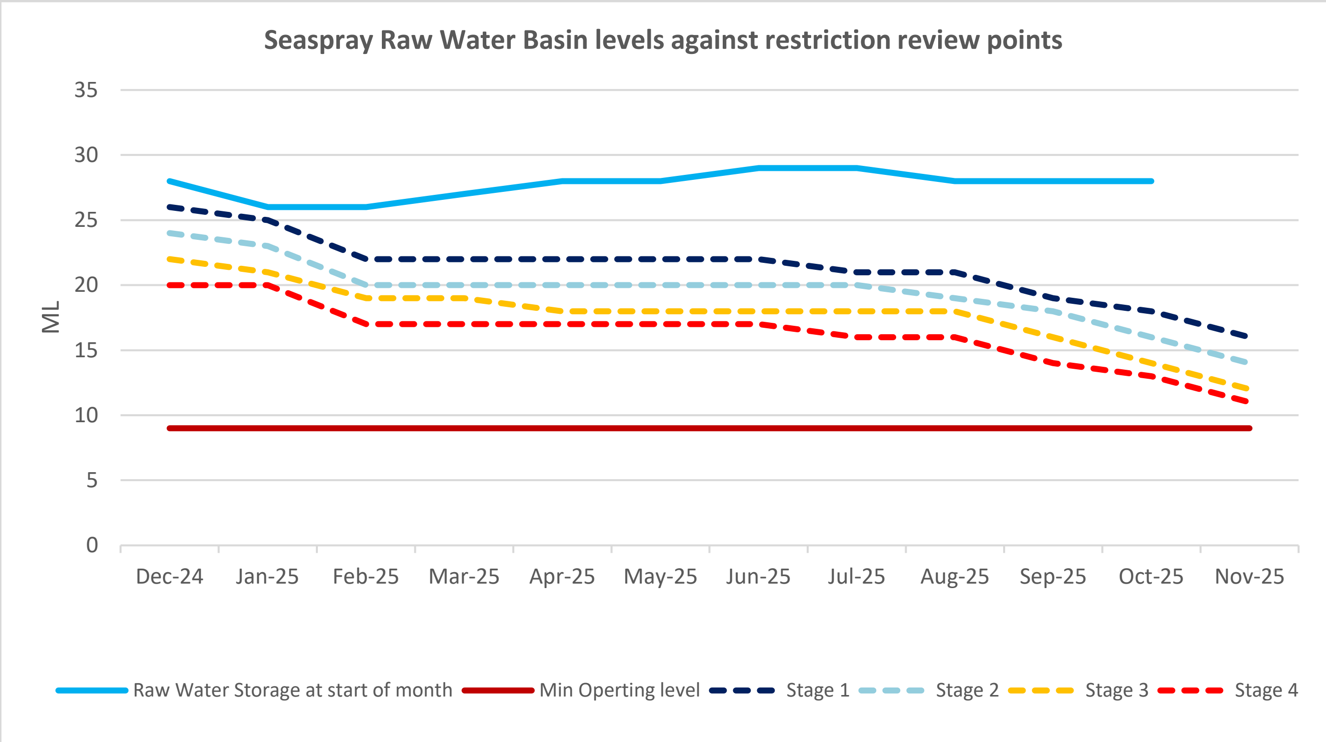


Figure 28 Raw water levels vs restriction review points (Stages 2-4).

2.7 Tarago System

2.7.1 System introduction

a) Location and description

The Tarago water supply system services the townships of Warragul, Drouin, Buln Buln, Rokeby, Darnum, Nilma, Neerim South, and Noojee.

It is a multi-source system drawing water from three key locations:

- Pederson Weir on the West Branch of the Tarago River (upstream of Tarago Reservoir)
- Rokeby pump station on the Westernport pipeline (downstream of Tarago Reservoir)
- Tarago Reservoir, which directly supplies the Neerim South water treatment plant

Water from Pederson Weir and Rokeby pump station is supplied to the Warragul water treatment plant, while Neerim South is supplied directly from Tarago Reservoir.

The system is also interconnected with the Moe water supply system, enhancing resilience during peak demand or low-flow conditions.

b) Sources of Supply

Primary sources:

- Pederson Weir (Tarago River west branch)
- Tarago Reservoir (Melbourne Water)
- Rokeby Pump Station (Westernport Pipeline)

Supplementary source:

- A 3.3 GL share entitlement of the Greater Yarra System – Thomson River Pool.
- Interconnected with the Moe water supply system.

c) System operation

- Warragul water treatment plant receives water from Pederson Weir and Rokeby pump station. Treated water is stored in a 37.5 ML clear water basin before distribution.
- The Rokeby pump station plays a critical role during low-flow periods, transferring water from Melbourne Water's Westernport Pipeline into the Pederson Supply Main.
- Neerim South water treatment plant is supplied directly from Tarago Reservoir.
- The Moe system interconnection provides additional flexibility and backup capacity.

d) Qualitative vulnerability assessment

Table 24 Tarago water system qualitative vulnerability assessment outlines the qualitative vulnerability assessment for the Tarago system based on system type, sensitivity to climate variability, restriction history as well as resilience measures for this system.

Table 24 Tarago water system qualitative vulnerability assessment

Factor	Assessment
System type	Surface water system with limited local storage; relies on Pederson Weir, Tarago Reservoir, and Rokeby pump station. As a supplementary water supply the allocation from the Greater Yarra-Thomson River Pool is utilised.
Sensitivity to climate variability	High – inflows from Tarago River and Reservoir are vulnerable to reduced rainfall and streamflow under dry and worst-on-record scenarios. However back up is provided by the security of the Greater Yarra-Thomson River pool bulk entitlement.
Restriction history	Historically rare.
Resilience measures	Interconnection with Moe system. Supplementary 3.3 GL Bulk Entitlement in Greater Yarra –Thomson Pool.

e) Restriction review points

The restriction review framework is currently being recalibrated to incorporate the 3.3 GL Bulk Entitlement from the Greater Yarra System – Thomson River Pool. This entitlement significantly enhances system security and is now integrated into operational planning to mitigate restriction risk under median, dry, and worst-on-record conditions.

f) Operational indicators

The revised operational framework will transition from local storage thresholds to a combined monitoring approach, including:

- Pederson Weir flows
- Entitlement allocation status
- Cumulative usage against the 3.3 GL entitlement
- Interconnection capacity with Moe system

These indicators support proactive restriction planning and ensure compliance with Level of Service targets.

g) Restriction events

No restrictions were imposed during the last AWO period (December 2024 – November 2025).

Historical restriction events

The Tarago system has a history of high reliability, with restrictions being rare. Severe restrictions have not occurred in recent decades, except during the Millennium Drought (1997–2009).

Recorded events:

- **Millennium drought (1997–2009):**
  Stage 3 restrictions were intermittently applied in 2007 across Gippsland systems, including Tarago.

- **Post-2009:**
  No significant restrictions, supported by system interconnection and supplementary allocations.

h) Identified risks to water security:

- **Climate variability:**

Reduced inflows and increased drought frequency may impact streamflow reliability.

- **Population growth:**
  Rapid growth in Warragul and Drouin (projected 50% increase in dwellings by 2036) will drive demand increases.

- **Limited local storage:**
  Reliance on Pederson Weir and Rokeby pump station; Melbourne Water allocations are critical to system security.

- **Infrastructure constraints:**
  Capacity limitations at Rokeby pump station and Pederson Main may affect peak period supply; Moe interconnection provides backup.

- **Water quality risks:**
  Catchment land use and potential algal blooms in Tarago Reservoir increase treatment complexity during low-flow or high-temperature periods.

Our Urban Water Strategy 2022 interactive map as well as our DPP as part of our UWS.

2.7.2 Rainfall

Rainfall in 2024–25 has been compared against key climate reference periods defined by DEECA:
- Post-1975 average: 1154 mm.
- Post-1997 average: 1043 mm
- Worst year: 657mm

Figure 29 Warragul (Jindivick) Monthly cumulative rainfall against climate reference periods presents cumulative rainfall data for 2025 from Jindivick rainfall station no. 85042 (Bureau of Meteorology).

Rainfall in 2025 has totaled 657 mm, making it the driest year on record since 1975, with monthly totals consistently below historical averages. Winter and spring (May–October) were particularly dry, with annual rainfall approximately 40% below recent averages. While not as extreme as the 1925 record low of 119.6 mm, the 2025 figures reinforce the system’s exposure to climate variability

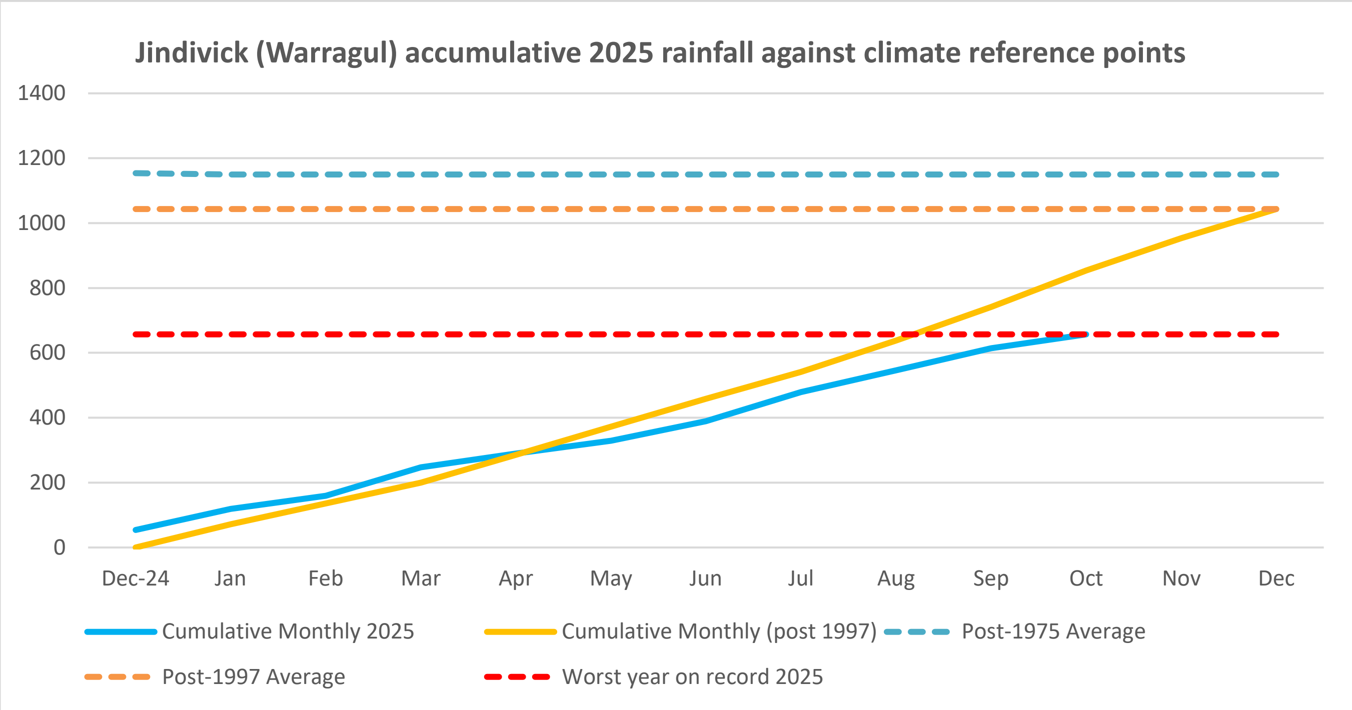


Figure 29 Warragul (Jindivick) monthly cumulative rainfall against climate reference periods

2.7.3 Consumption Data

i) Potable system demands with historic comparisons

Figure 30 Tarago Potable Water demands (2020-2025 presents total potable water demand for the Tarago system over the past five years.

Key trends and observations:

- **Residential use:** Increased steadily from approximately 2,500 ML in 2020–21 to approximately 3,000 ML in 2024–25 (+20%).
- **Non-Residential use:** Grew from around 400 ML to around 500 ML (+25%).
- **Major customers:** Rose slightly from approximately 150 ML to approximately 200 ML (+33%).
- **Non-Revenue Water:** reached its peak in 2022–23 at approximately 1,000 ML. In response to this elevated figure, a dedicated leak detection program was implemented, with a specialist contractor engaged to focus on the Warragul water supply network. The initiative successfully identified multiple leaks, which were promptly repaired, resulting in improved system efficiency and reduced water losses**.**
- **Average litres per person per day:** Consumption declined to 181 L/day in 2023–24, reflecting a period of relatively efficient use. However, it rebounded sharply to 201 L/day in 2024–25, most likely attributable to drier conditions during this period, which increased outdoor water use for gardens, cooling, and other household purposes

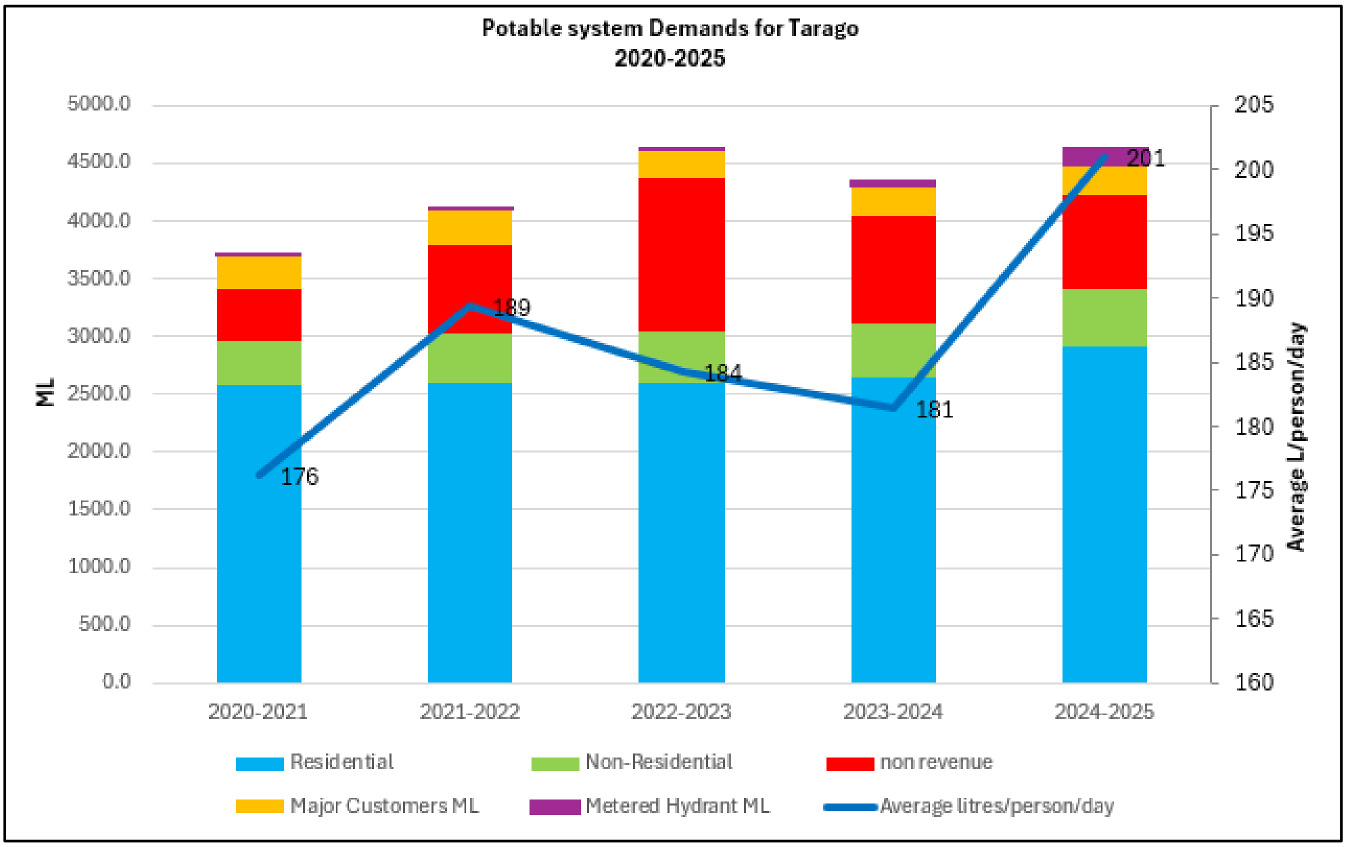


Figure 30 Tarago potable water demands (2020-2025

ii) Annual total potable system demands against UWS demand projections

Figure 31 Tarago Demands vs UWS Demand Projections shows the following:

Recent demand figures:

- **2021–22:** 4,189.3 ML
- **2022–23:** 4,730.3 ML
- **2023–24:** 4,514.7 ML
- **2024–25:** 4,750.7 ML

While earlier years showed slower growth, recent figures are converging with UWS projections, reflecting population growth and climate variability. Current trends suggest that long-term planning assumptions remain valid.

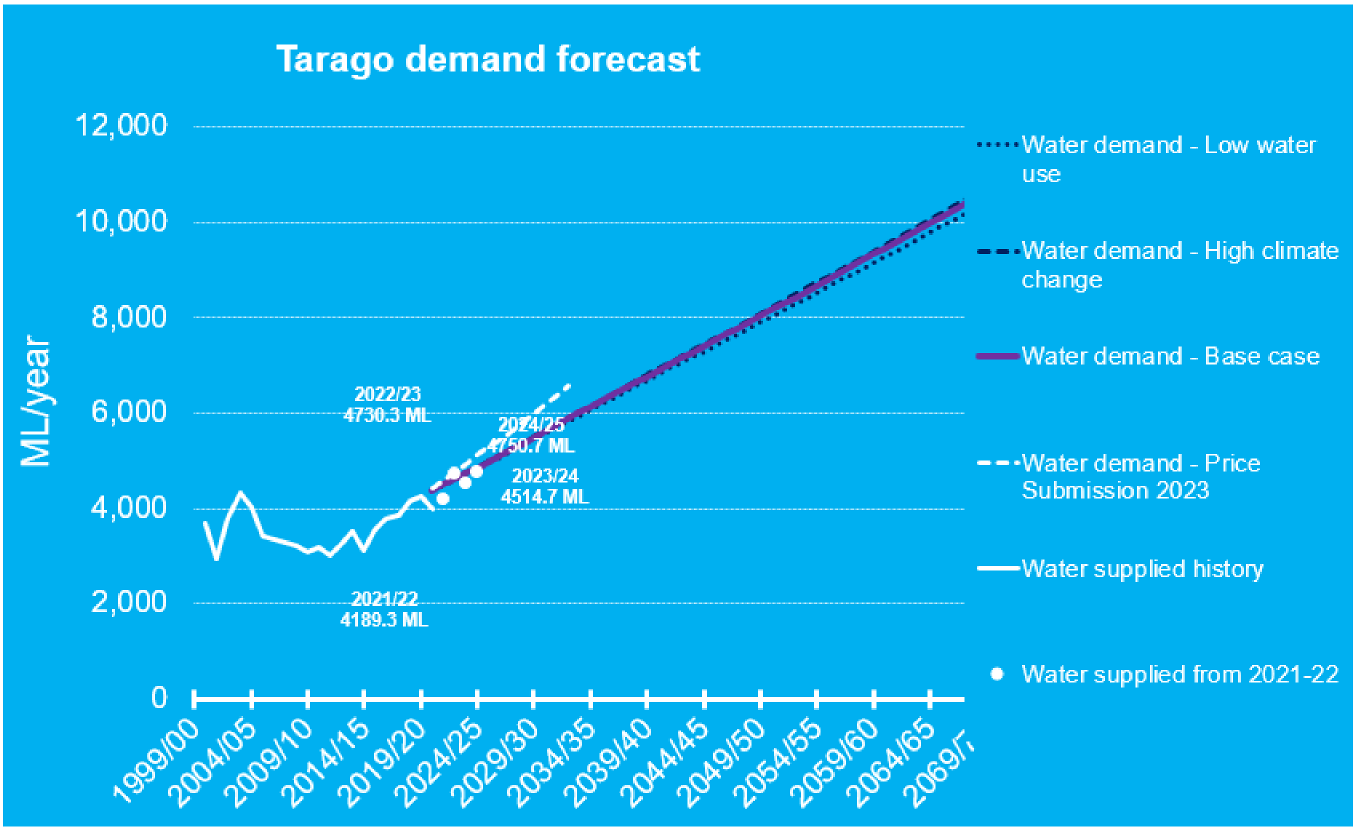


Figure 31 Tarago demands vs UWS demand projections

2.7.4 Tarago current water resources position

The Tarago system is significantly supported by a 3.3 GL Bulk Entitlement from the Greater Yarra System – Thomson River Pool, accessed via the Tarago Westernport Pipeline interface point (Rokeby Pump Station). As of October 2025, Gippsland Water holds a net carryover balance of 3.9 GL, ensuring a secure 12-month outlook. Table 25 outlines the current water resources information for the Tarago system.

Table 25 Tarago current water resources information

Towns supplied	Buln Buln, Drouin, Nilma, Neerim South Rokeby, Warragul.
No. of connections - residential	18,268
No. of connections - non residential	2,906
Major customers	Park Avenue Laundry, Pureharvest, Warragul Linen, Warragul Sale Yards, Warragul Hospital
Primary water source	Pederson Weir on the Tarago River. Tarago Reservoir Rokeby pump station
Alternative water source	Greater Yarra System – Thomson River pool
Connection to a system network	Moe-Warragul Interconnect
Current storage position	The Tarago water supply has very healthy water security with a current allocation of 3.9 GL from the Greater Yarra-Thomson Pool securing Warragul and Drouin's future water needs for the forecast period. We also have an interconnection from Warragul with our Moe water system providing another avenue of securing supplies for the future
Annual entitlement / Allocation ML	1. 275 ML/year from the Tarago Reservoir extraction point for Neerim South water treatment plant 2. A five-year rolling average extraction of 4,070 ML/year from Pederson Weir or the Tarago Westernport Pipeline interface point (Rokeby pump station). 3. Current holding of 3.9 GL from the Greater Yarra System – Thomson River Pool.
Volume extracted to date ML	1232 ML*

*Note that this volume is from the following: *Tarago Reservoir extraction point for Neerim South water treatment plant- 30 ML; Pederson Weir or the Tarago Westernport Pipeline interface point (Rokeby pump station). - 1168 ML; Greater Yarra System – Thomson River Pool - 30 ML*

System security

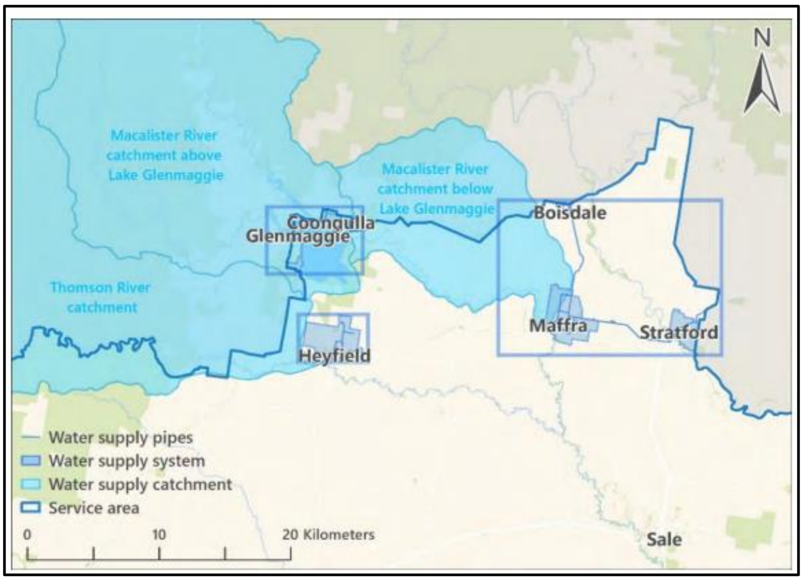
Gippsland Water's 3.3 GL/year Bulk Entitlement from the Greater Yarra System – Thomson River Pool, managed by Melbourne Water, provides access to a large, integrated supply network including Thomson Reservoir, Upper Yarra, and associated infrastructure.

This entitlement has replaced the previous 400 ML/year Bulk Water Supply Agreement from Tarago Reservoir, offering a more robust framework for long-term reliability. Restriction review points will be updated in the 2027 Urban Water Strategy to reflect current climate and demand assumptions.

The 3.3 GL allocation exceeds projected future demand, even under high climate change scenarios, ensuring flexibility to manage drought, population growth, and operational contingencies without imposing severe restrictions.

2.8 Thomson-Macalister System

2.8.1 System introduction



a) Location and description

The Thomson–Macalister water supply system sources water from the Thomson River and Macalister River catchments, supported by two major storages:

- **Thomson Reservoir** (managed by Melbourne Water)
- **Lake Glenmaggie** (managed by Southern Rural Water)

These storages provide high reliability and flexibility, supporting urban water supply for the townships of Maffra, Stratford, Boisdale, Heyfield, Coongulla, and Glenmaggie. The system is designed to meet demand under varying climate conditions and industrial requirements.

b) Sources of supply

Primary sources- Thomson River, Macalister River

Major storages - Thomson Reservoir and Lake Glenmaggie

c) System Operation –

Water is treated at two plants:

- **Maffra water treatment plant**
  - Supplied by a pump station on the Macalister River, downstream of Lake Glenmaggie
  - Treatment includes screening, coagulation, filtration, and chlorination.
  - Supplies Maffra, Stratford, and Boisdale

- **Heyfield water treatment plant**
  - Supplied by a pump station on the Thomson River, downstream of Thomson Reservoir
  - Treatment process mirrors Maffra's
  - Supplies Heyfield, Coongulla, and surrounding areas

Local storage tanks support pressure management and distribution

d) Qualitative vulnerability assessment

Table 24 Tarago water system qualitative vulnerability assessment outlines the qualitative vulnerability assessment for the Tarago system based on system type, sensitivity to climate variability, restriction history as well as resilience measures for this system

Table 26 Thomson-Macalister water supply qualitative vulnerability assessment

Factor	Assessment
System type	Surface water system drawing from two major regulated rivers – Thomson River and Macalister River. Sources are supported by large storages (Thomson Reservoir and Lake Glenmaggie) managed by Melbourne Water and Southern Rural Water.
Sensitivity to climate variability	**Low to Moderate.** Large storages provide strong buffering capacity, but allocations are linked to irrigation rules and seasonal inflows. Under high climate change scenarios, reliability could decline by 2040.
Restriction history	**Very rare.** Restrictions are governed by allocation rules tied to irrigation allocations. Since 2000, full-year restrictions occurred only once (2006/07) during extreme drought.
Resilience measures	Bulk Entitlement of 2,335 ML/year with allocation scaling rules.

e) Restriction review points

Restrictions are governed by Southern Rural Water's irrigation allocations, which begin conservatively and are adjusted upward as inflows are confirmed. Allocations cannot be reduced mid-year, so monthly adjustment of restriction review points ensures flexibility while maintaining supply reliability.

The adopted restriction review points are detailed in Table 27 below and illustrated in Figure 32 Thomson-Macalister restriction review points

Table 27 Thomson Macalister Water allocation and restriction review points

	Gippsland Water Allocation (%)			
Month	**Stage 1**	**Stage 2**	**Stage 3**	**Stage 4**
July	PWSR	PWSR	PWSR	PWSR
August	PWSR	PWSR	PWSR	PWSR
September	PWSR	PWSR	PWSR	PWSR
October	60	PWSR	PWSR	PWSR
November	65	60	PWSR	PWSR
December	70	65	60	PWSR
January	75	70	65	60
February	80	75	70	65
March	85	80	75	70
April	85	80	75	70
May	85	80	75	70
June	85	80	75	70

Figure 32 Thomson-Macalister restriction review points illustrates the monthly allocation thresholds that trigger restriction stages.

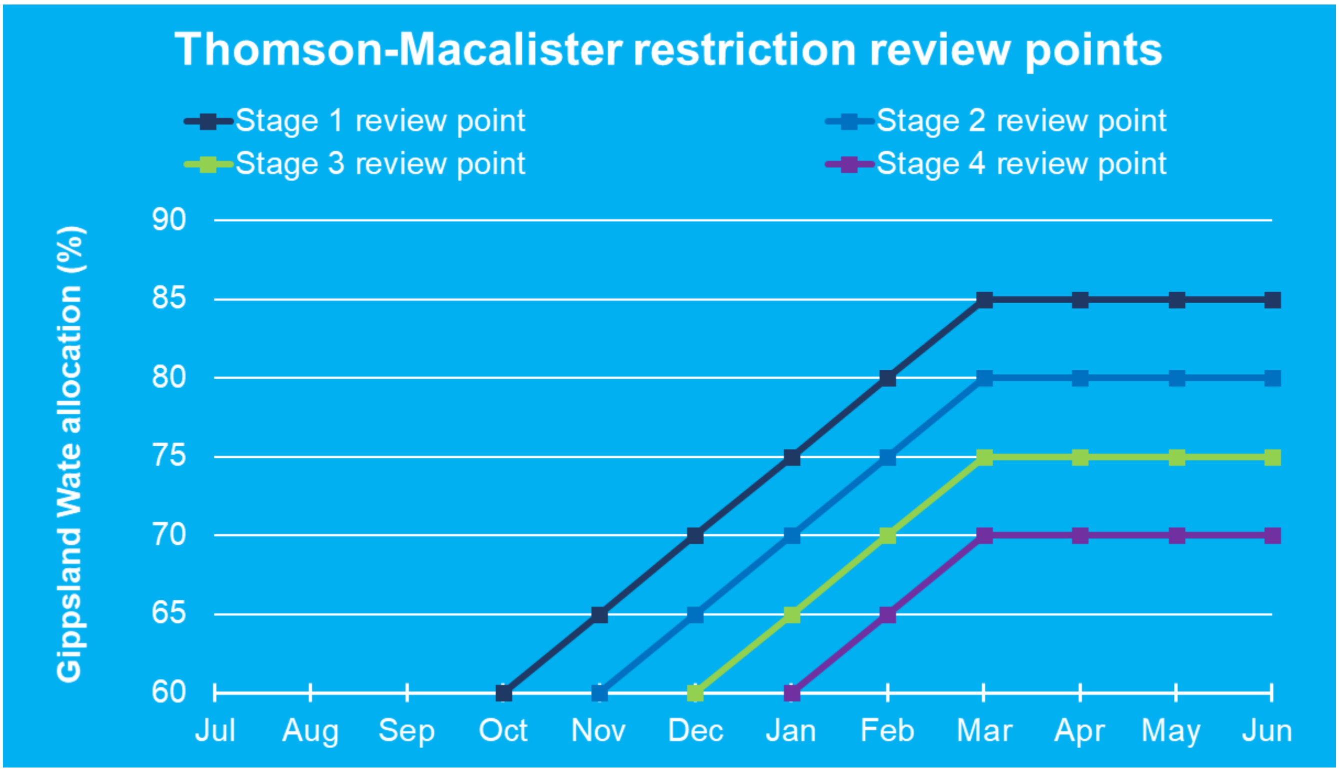


Figure 32 Thomson-Macalister restriction review points

f) Operational indicators

- **Allocation basis:** Restrictions are linked to seasonal high-reliability water share allocations.

- **Bulk Entitlement scaling:**
  - ≥80% allocation → 100% entitlement (2,335 ML)
  - 70% → 90%
  - 60% → 80%
  - 50% → 70%
  - ≤40% → 60%

Reliability context

- Current reliability:
  - **Stage 1:** 96.9%
  - **Stage 3:** 98.5%
- Under high climate change scenarios, reliability may fall below the 95% target by 2040.

g) Restriction events:

No water restrictions were imposed during the previous AWO period (December 2024 – November 2025).

Historical restriction events

Last significant restrictions occurred during the Millennium Drought (2006–07).

h) Identified risks to water security:

Maffra water supply area

Catchment risks:

- Agriculture and forestry in the Macalister and Thomson River catchments increase suspended solids runoff, leading to turbidity and treatment challenges.
- Algal blooms in Lake Glenmaggie during low inflow periods and warm weather.
- Wastewater contamination risks from nearby caravan parks (e.g., inadequate wastewater systems, runoff into Lake Glenmaggie).
- Microbiological risks: Historical risk from septic tank overflow and leakage in Coongulla township (now reduced due to sewer scheme completion).

Extreme events:

- Bushfires and floods have severely impacted Macalister River water quality over the past 20 years.

Infrastructure vulnerability**:**

- Increased rainfall intensity can cause soil erosion, sedimentation in reservoirs, and reduced storage capacity.
- Potential flooding of water intake and treatment facilities, causing contamination and damage.

Heyfield water supply area

Catchment risks: Heyfield relies on Thomson River, which faces bank erosion, invasive flora/fauna, and flow stress as identified in the West Gippsland Waterway Strategy.

Extreme events: Vulnerability to bushfires and floods, impacting raw water quality and increasing treatment complexity.

2.8.2 Rainfall

Rainfall data for the Thomson–Macalister system is sourced from Glenmaggie Weir, station number 85034 (Bureau of Meteorology) with records dating back to 1938.

Climate Reference Periods

- Post-1975 average: 597 mm.
- Post-1997 average: 577 mm
- Worst year on record (2018): 297.3 mm

Figure 33 shows that cumulative rainfall in 2025 reached 440.2 mm, with a sharp rise in January–February (190 mm total, including 150.4 mm in February). After July, rainfall flattened but remained above the worst year on record. However, totals are still below long-term averages, reinforcing the need for ongoing monitoring.

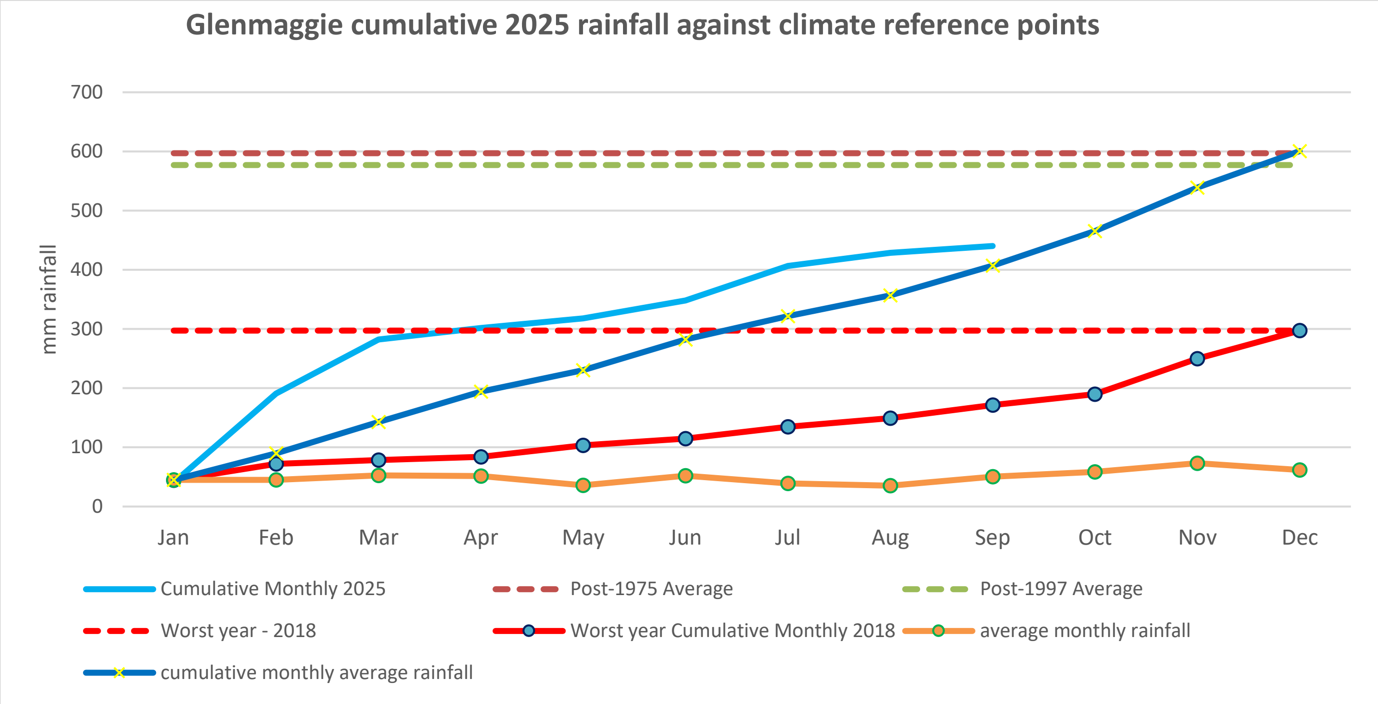


Figure 33 Glenmaggie Weir cumulative rainfall 2025 against climate reference points

2.8.3 Consumption data

i) Potable system demands with historic comparisons

Figure 33 Thomson-Macalister Potable Water Demands 2020-2025 presents total potable demand over five years. Despite fluctuations, overall demand remains stable, driven by consistent residential use. Non-revenue water and industrial variability highlight the need for continued system audits and engagement with major users.

Key trends and observations:

- **Residential demand:** Stable at ~700–750 ML/year
- **Major customers:** Sharp decline post-2022–23 due to reduced operations at Saputo milk factory
- **Non-residential demand:** Stable
- **Non-Revenue water:** Peaked at ~200 ML in 2022–23, then declined.
- **Average litres per person per day:** Declined from 176 L/day (2020–21) to 169 L/day (2024–25).

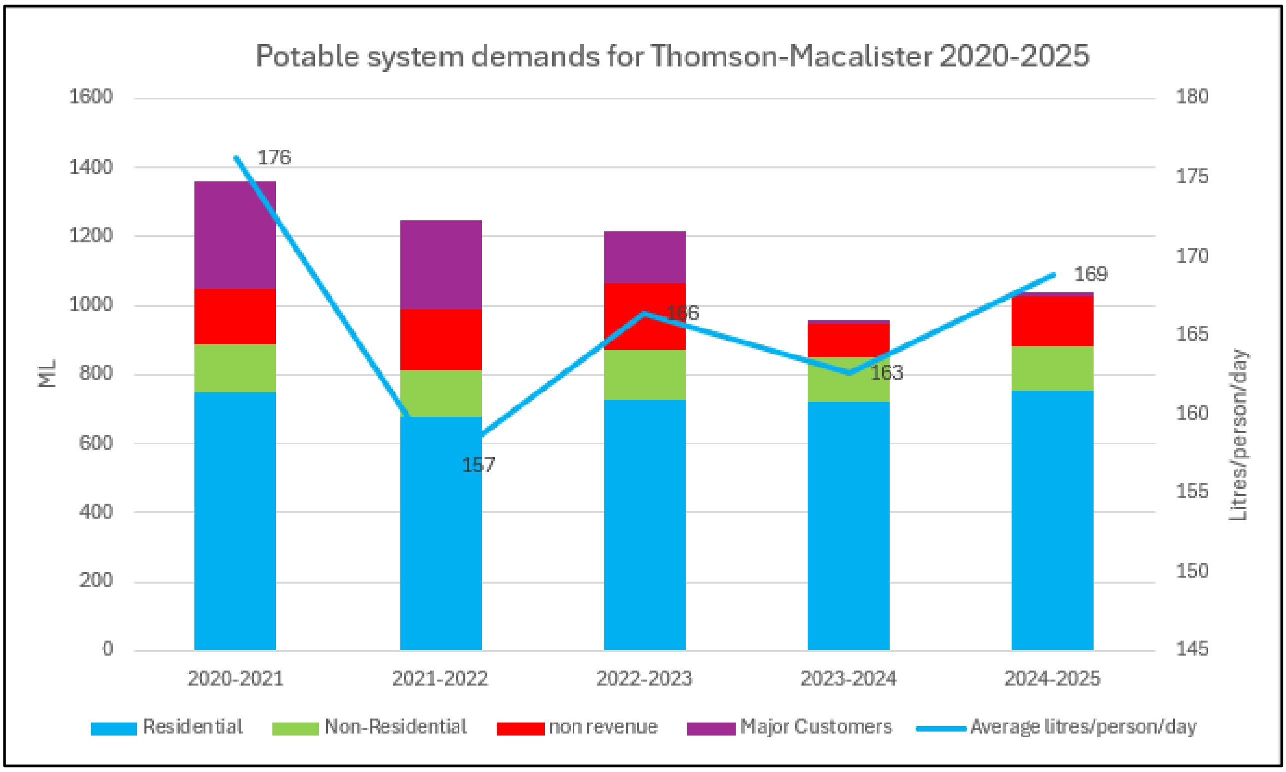


Figure 33 Thomson-Macalister potable water demands 2020-2025

ii) Annual total potable system demands against UWS demand projections.

Figure 34 Thomson-Macalister demands vs UWS demand projections compares actual annual potable water demand with Urban Water Strategy (UWS) projections. Demand remains below UWS base case and Price Submission 2023 projections, reflecting reduced industrial activity and climate variability. Forecast scenarios indicate gradual growth toward 1,800 ML/year by 2065.

The recent demand figures:

- **2021–22**: 1,333.7 ML,
- **2022–23**: 1,280.6 ML,
- **2023–24:** 1,020.4 ML,
- **2024–25:** 1,081.7 ML.

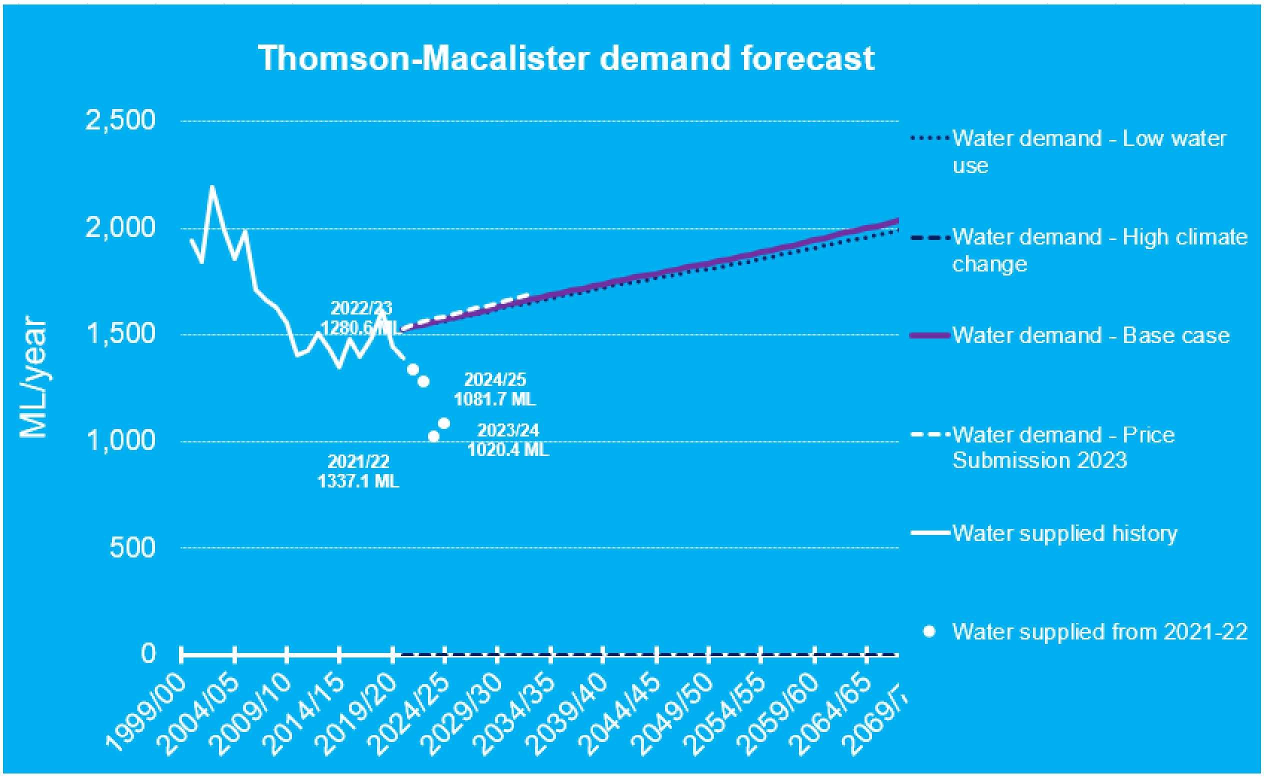


Figure 34 Thomson-Macalister demands vs UWS demand projections

2.8.4. Thomson -Macalister current water resources position

Table 28 Thomson-Macalister current water resources information summarises the current status of water resources for the Thomson–Macalister system for the financial year to date (1 July 2025 to 17 October 2025).

Table 28 Thomson-Macalister current water resources information

Towns supplied	Maffra, Stratford, Boisdale, Heyfield, Coongulla, Glenmaggie.
No. of connections - residential	5,066
No. of connections - non residential	751
Major customers	Saputo Dairy Australia P/L (still listed as a major customer although they are not currently in operation), Bega Cheese Ltd
Primary water source	Glenmaggie Lake (Macalister River) Thomson River
Alternative water source	Not required
Connection to a system network	Not connected to a system network
Current storage position	Having our full allocation for the 2025-2026 water year provides very secure water supply for the Thomson Macalister system townships. Supply will exceed demand in all scenarios for this water outlook.
Annual entitlement / Allocation ML	2,335 ML (100% seasonal allocation of high reliability)
Volume extracted to date ML	309 ML

Figure 35 presents monthly allocation levels for the previous outlook period (December 2024 – October 2025), benchmarked against restriction thresholds defined in the Drought Preparedness Plan (DPP). Throughout the period, Gippsland Water's allocation remained at 100%, indicating full entitlement availability for urban supply. All restriction review points (Stages 1–4) were well below the allocation line, confirming no risk of formal restrictions during this period.

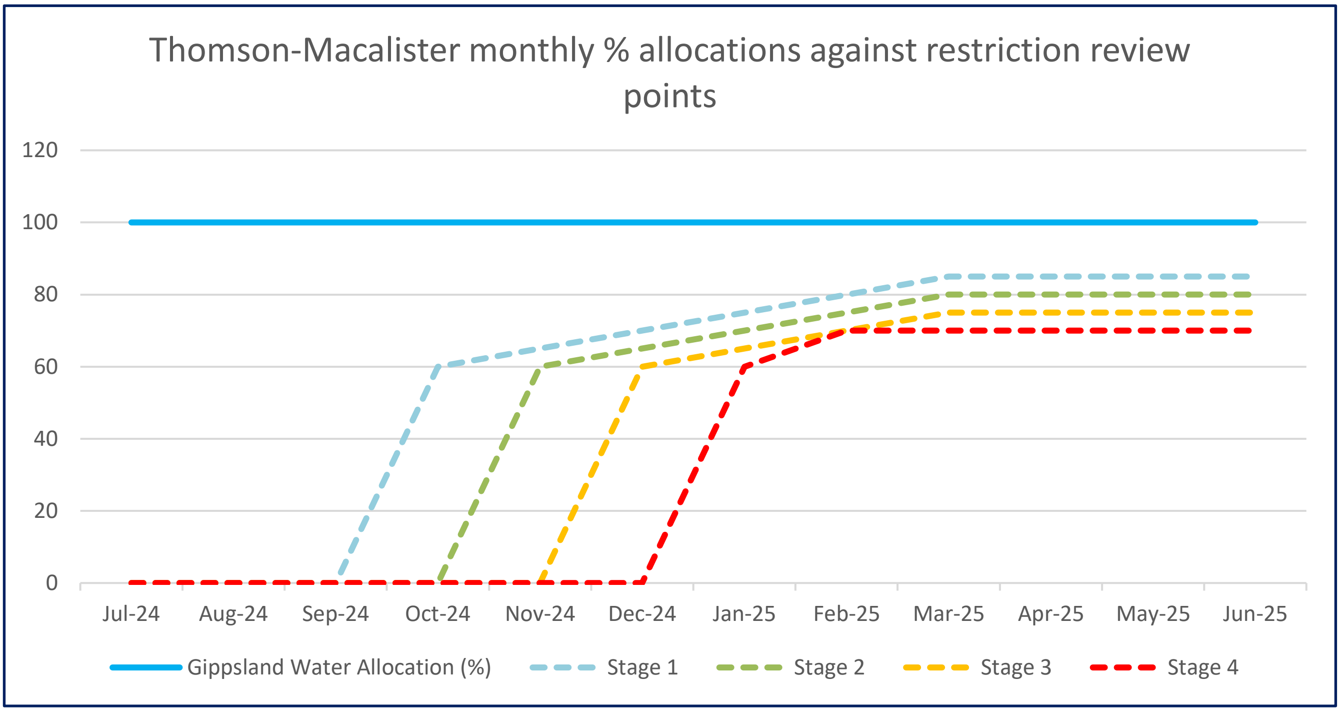


Figure 35 Thomson-Macalister monthly allocations vs restriction review points

Notes on Figure 35:

- *Monthly Allocation (%): Percentage of water allocated each month.*
- *Restriction Review Points: Thresholds for assessing restriction needs.*
  - *Stage 1: Begins at 60% in October*
  - *Stage 2: Begins at 60% in November*
  - *Stage 3: Begins at 60% in December*
  - *Stage 4: Begins at 60% in January*
- *Permanent Water Saving Rules (PWSR): Represented by flat curves along the zero line, indicating months governed by baseline conservation rules.*
- *Curves Above Zero: Indicate months where allocation levels are compared against restriction thresholds.*

3. Climate Outlook

3.1 Rainfall, Streamflows and Soil Moisture (2024-2025)

3.1.1 Rainfall summary

Figure 36 Twelve monthly rainfall percentages for Victoria to end of September 2025 shows the twelve-month rainfall as a percentage of the long-term mean (1961–1990) for the period 1 October 2024 to 30 September 2025 based on Bureau of Meteorology data (AGCD v2). The Gippsland region (marked in red box) for the year to 1 October 2024 to 30 September 2025 is shaded in light orange, indicating 60–80% of the long-term average rainfall across most of the region confirming that Gippsland experienced below-average rainfall for the year, particularly in the western area and southern area of our region.

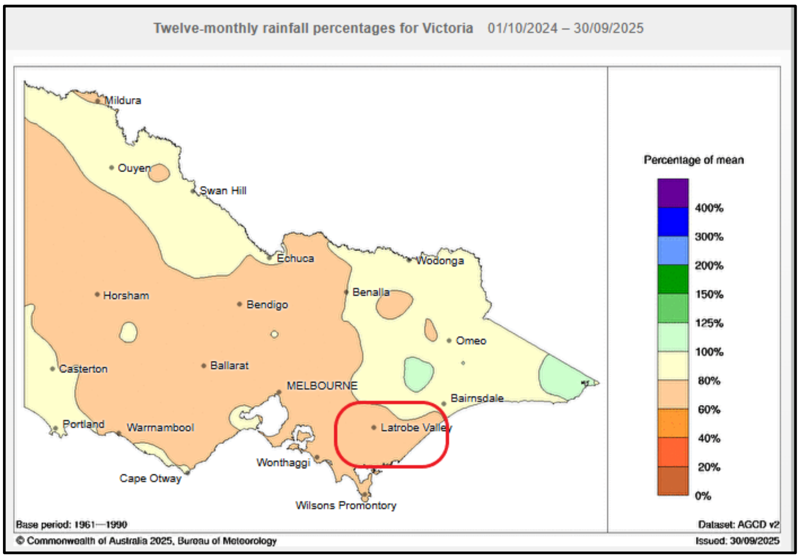


Figure 36 Twelve monthly rainfall percentages for Victoria to end of September 2025

Figure 37 Twelve monthly rainfall deciles for Victoria to end of September 2025 shows twelve-month rainfall deciles for Victoria (1 Oct 2024 – 30 Sep 2025), comparing observed rainfall to historical records (1900–Sep 2025). This map shows that western and southern area of the Gippsland region is shaded in dark red, indicating "Lowest on record", the central area shaded to indicate very much below average rainfall and the eastern area showing below average rainfall.

These maps show that there has been high drought stress especially for western and southern water supply systems such as Warragul and Mirboo North.

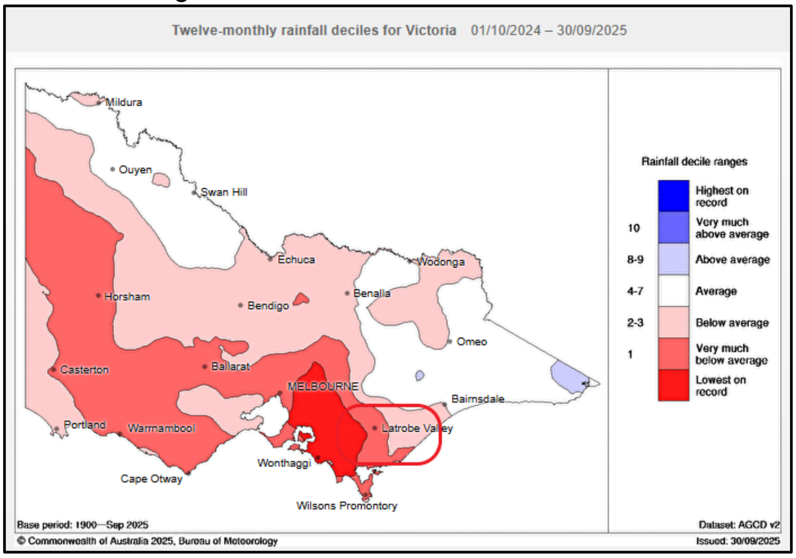


Figure 37 twelve monthly rainfall deciles for Victoria to end of September 2025

3.1.2 Soil moisture conditions

Figure 38 Lower layer soil moisture (10 cm -100 cm) in the Gippsland Water region October 2025 shows root zone soil moisture percentile ranks (at 10cm to 1m depth), relative to long term average percentiles as of October 2025. Soil moisture percentages represent the relative available water capacity of the lower soil layer and is an important parameter in the hydrological cycle driving factors such as runoff, plant growth and groundwater storage. The timing of rainfall is also important in ensuring catchments are kept damp during the “cool season” months when evaporation is lower, so that a greater proportion of rainfall converts to runoff during the typical reservoir fill times.

Most of the Gippsland Water region is shaded in orange to light orange, indicating below average to very much below average soil moisture meaning the topsoil and subsoil layers are significantly drier than normal for this time of year.

Implications for water resources:

- Our run-of-river systems (Erica-Rawson, Mirboo North, Seaspray): Reduced soil moisture may limit baseflows and stream recharge, increasing summer supply risk.

- Groundwater systems (Sale, Briagolong): Limited infiltration means aquifer recharge remains low.

- Major storages (Latrobe, Tarago**)**: While large storages provide buffer, inflows from dry catchments may remain constrained.

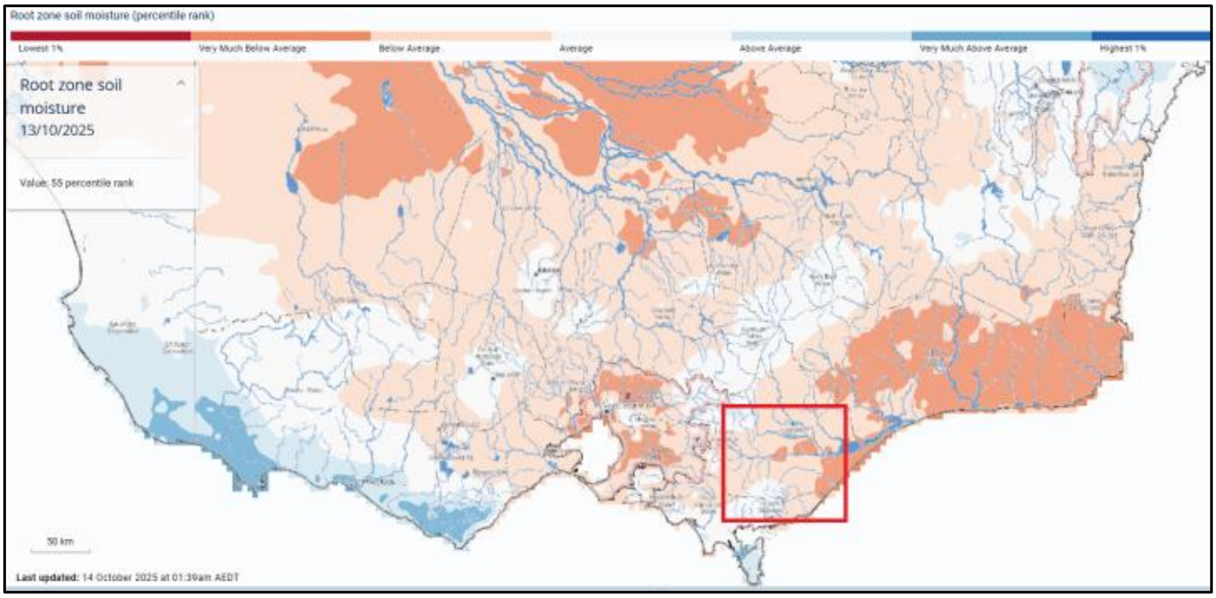


Figure 38 Lower layer soil moisture in the Gippsland Water region October 2025.
**Gippsland Water region is indicated by red boxed area.*

Figures 37 to 39 above illustrate a significant rainfall deficit across the region, with totals reaching only 60–80% of the long-term average for the year ending September 2025. Parts of the region recorded the lowest rainfall on record, confirming that the past 12 months rank among the driest in the historical dataset.

Soil moisture conditions were also well below average, with many areas classified as very much below average. These dry catchments, combined with low rainfall, resulted in minimal runoff and limited natural recharge.
Despite these challenging conditions, all water supply systems remained secure and capable of meeting customer demand throughout the period.

3.2 Climate outlook for our region

Victoria's climate is trending toward warmer and drier conditions, with Gippsland experiencing persistent reductions in cool-season rainfall and increased temperature extremes. The Department of Energy Environment and Climate Action (DEECA) *Guidelines for Assessing the Impact of Climate Change on Water Availability in Victoria (2020)*—and the forthcoming 2025 update—highlight that streamflow responses to rainfall have weakened since the Millennium Drought, meaning less runoff for the same rainfall. These changes, combined with higher evaporation rates and declining soil moisture, increase the frequency and severity of droughts and amplify demand pressures. It is required by DEECA that water corporations should apply scenario-based planning that considers these shifts, including modelling beyond historic records, to maintain resilience under future climate variability.

Implications for Gippsland

DEECA's climate science guidance confirms that Gippsland faces increasing water security challenges due to long-term climate trends. Key implications for our systems include:

- Run-of-River systems (Erica–Rawson, Mirboo North, Seaspray):
  Highly sensitive to short-term rainfall variability and streamflow reductions. Declining cool-season rainfall and drier soils reduce baseflows, increasing summer supply risk. Contingency measures such as water carting remain critical for resilience.

- Groundwater systems (Sale, Briagolong):
  While groundwater offers buffering against seasonal variability, recharge rates are slowing under reduced rainfall and higher evapotranspiration. Long-term aquifer decline and competing uses amplify sustainability risks, requiring ongoing collaboration with Southern Rural Water and adaptive licence management.

- Large storage systems (Latrobe, Tarago, Thomson–Macalister):
  Major storages provide strong resilience; however, reduced inflows and higher evaporation during hotter summers will erode storage recovery margins. Interconnections and bulk entitlements (e.g., Greater Yarra–Thomson Pool) remain essential to maintain reliability under high climate change scenarios.

Demand pressures:

Higher temperatures and prolonged dry periods will drive increased outdoor water use, compounding supply challenges. Demand management programs and permanent water saving rules will be critical to offset these pressures.

3.2.1 Rainfall outlook (Summer 2025–26)

Figure 39 Chance of above median rainfall November to January (issued 9 October 2025) shows the chance of exceeding median rainfall for the period November 2025 to January 2026 across southeastern Australia, with our Gippsland region marked by the red outline.

The map shows that most of our region is shaded in light to medium green, indicating a 55–65% chance of above-median rainfall for the 2025 to January 2026 period. Western Gippsland and Latrobe Valley are in the 55–60% range, suggesting a moderate likelihood of wetter-than-average conditions.

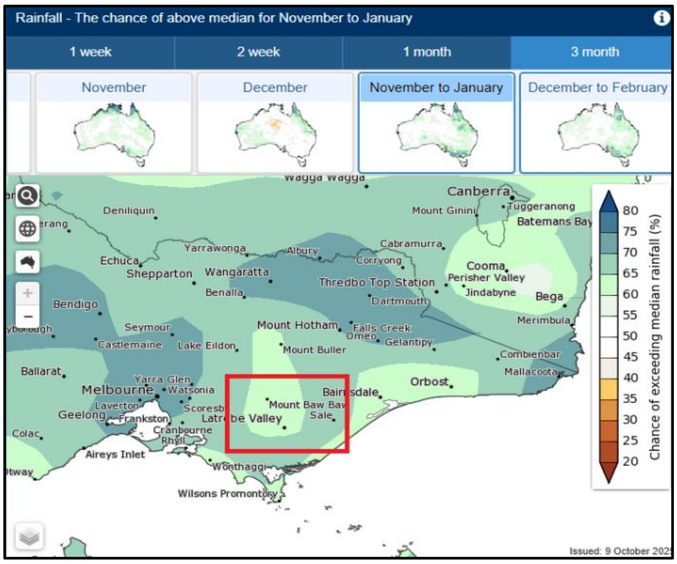


Figure 39 Chance of above median rainfall November to January (issued 9 October 2025)

Figure 40 Chance of above median rainfall December to February (issued 9 October 2025) shows the chance of exceeding median rainfall for the period December 2025 to February 2026 across southeastern Australia, with our Gippsland region marked by the red outline.

Most of our region is shaded in light to medium green, indicating a 55–65% probability of above-median rainfall during summer. These probabilities suggest a moderate likelihood of wetter-than-average conditions, but not a guarantee.

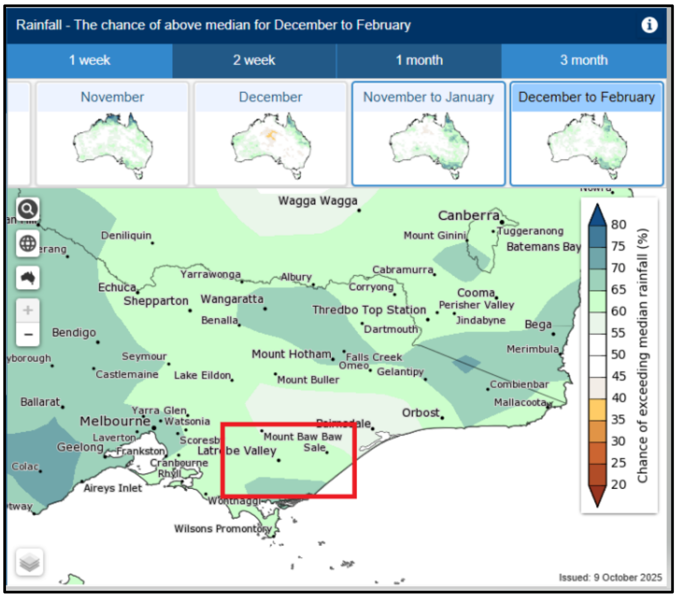


Figure 40 Chance of above median rainfall December to February (issued 9 October 2025)

3.2.2 Temperature outlook

Figure 41 Chance of above median maximum temperatures December to February illustrates the probability of exceeding median maximum temperatures across southeastern Australia for the summer period (December 2024 to February 2025). It provides a seasonal climate outlook based on historical patterns and current climate drivers. The forecast map is provided by the Bureau of Meteorology issued 9 October 2025.

Key observations are that our region (marked by the yellow box) is shaded in dark red, indicating a 70–80% chance of above-median maximum temperatures indicating a very high likelihood of hotter-than-average conditions throughout summer.

The implication of this forecast is that higher evaporation rates will accelerate depletion of storages and reduce streamflows, even if rainfall improves.

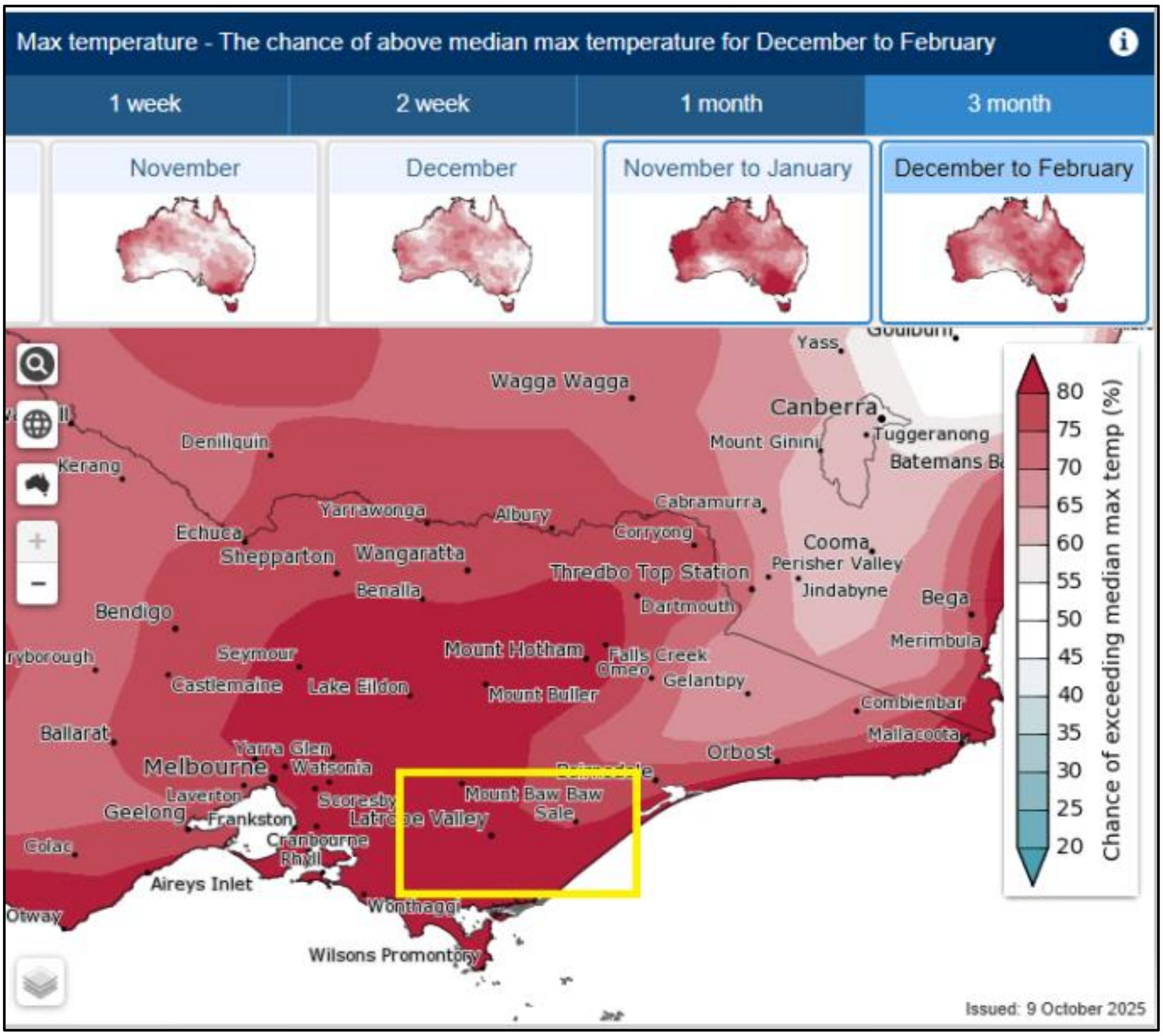


Figure 41 Chance of above median maximum temperatures December to February

Key Summary:
Summer (Dec 2025–Feb 2026): Persistent heat expected, with 70–80% chance of above-median maximum temperatures. This will increase evaporation rates and water demand during the peak season.

3.3.3 Streamflow outlooks

Figures 42 and 43 show the Bureau of Meteorology's outlook forecast for streamflows of two major rivers in our region these being the Latrobe River at Willow Grove and the Tanjil River at Tanjil Junction. While not a source of water for our systems, we believe the Latrobe River outlook to be indicative of likely streamflows in other nearby catchments upon which we rely. This is because some of these other catchments are in relatively close proximity to the Latrobe catchment.

The Bureau of Meteorology's seasonal streamflow forecast indicates a high likelihood of low flows in the Latrobe River at Willow Grove for the remainder of 2025: with the following flow probabilities:

October 2025:	October–November 2025:	October–December 2025:
• Low flow: 59% probability • Near-median flow: 35% probability • High flow: 6% probability • Expected volume: ~14 GL	• Low flow: 46% probability • Near-median flow: 41% probability • High flow: 13% probability • Expected volume: ~26 GL	• Low flow: 41% probability • Near-median flow: 44% probability • High flow: 16% probability • Expected volume: ~37 GL.

The outlook suggests below-average inflows are most likely, consistent with recent rainfall deficits and dry catchment conditions. While the probability of near-median flows improves slightly toward December, high flows remain unlikely.

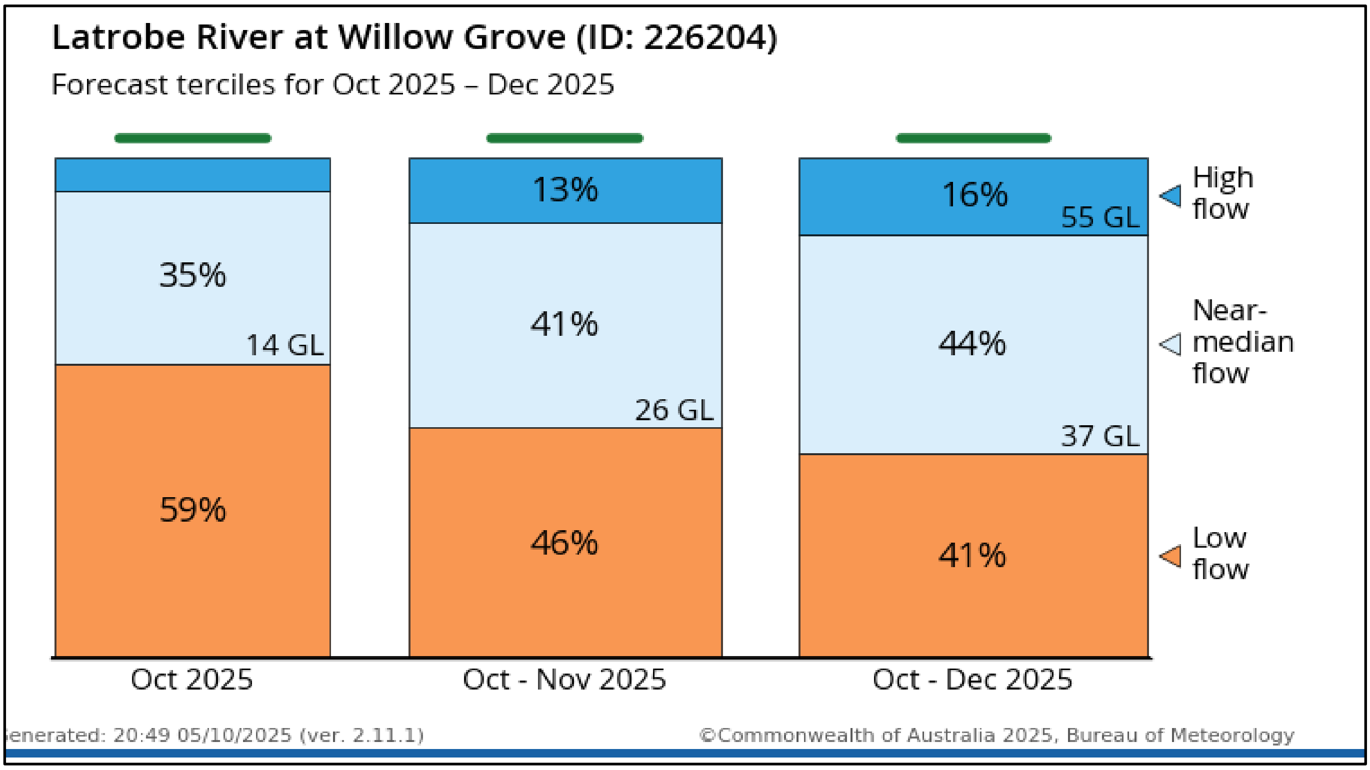


Figure 42 Latrobe River at Willow Grove forecast terciles for October 2025 to December 2025

The outlook suggests below-average inflows are most likely, consistent with recent rainfall deficits and dry catchment conditions. While near-median flows remain possible, high flows are unlikely, limiting opportunities for significant storage recovery.

Figure 43 Tanjil River at Tanjil Junction forecast terciles for October 2025 to December 2025 shows the forecast terciles for the Tanjil River at Tanjil River Junction. The Tanjil River is the source of water for Blue

Rock Reservoir. The Bureau of Meteorology's seasonal streamflow forecast indicates a high likelihood of low flows for the Tanjil River over the summer period with the flow probabilities outlined below:

October 2025:	**October–November 2025:**	**October–December 2025:**
• Low flow: 45% probability • Near-median flow: 39% probability • High flow: 16% probability • Expected volume: ~16 GL	• Low flow: 42% probability • Near-median flow: 43% probability • High flow: 15% probability • Expected volume: ~28 GL	• Low flow: 47% probability • Near-median flow: 36% probability • High flow: 17% probability • Expected volume: ~35 GL

The outlook suggests below-average inflows are most likely, consistent with recent rainfall deficits and dry catchment conditions. While near-median flows remain possible, high flows are unlikely, limiting opportunities for significant storage recovery.

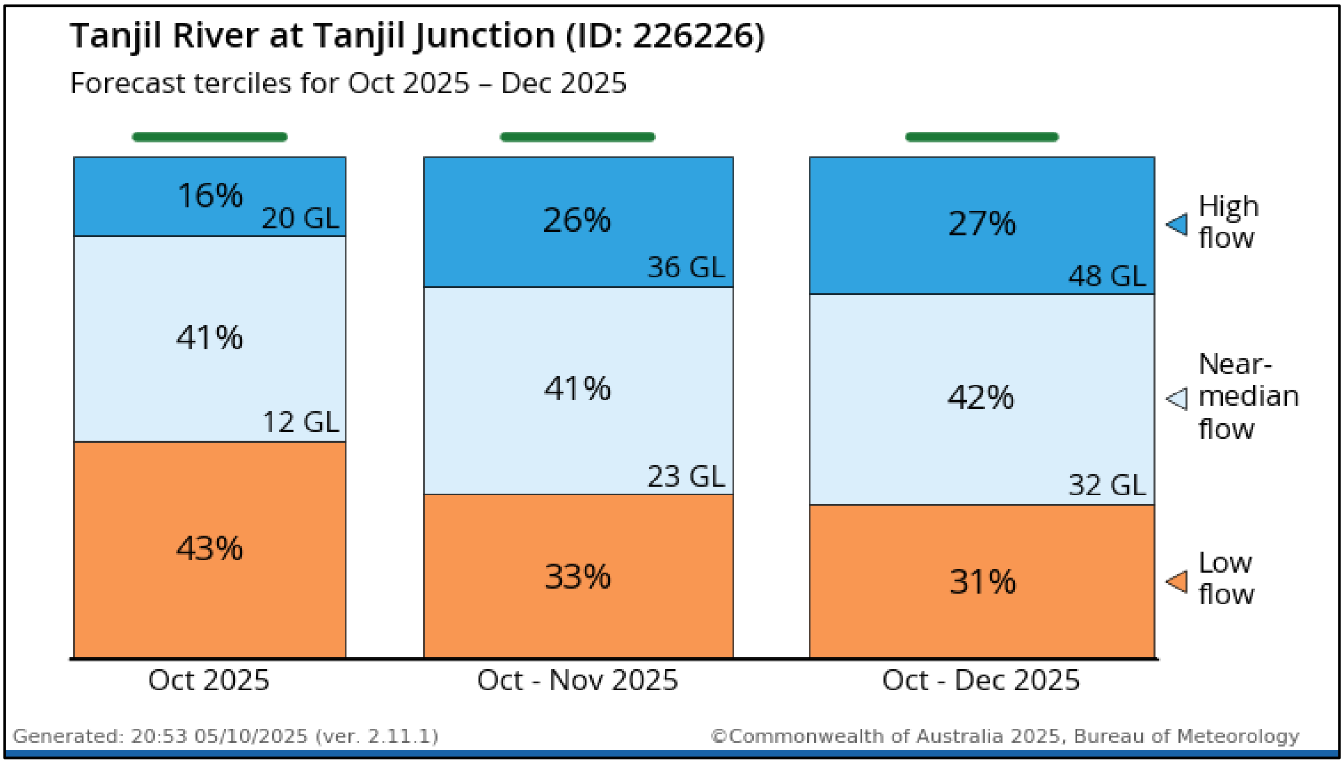


Figure 43 Tanjil River at Tanjil Junction forecast terciles for October 2025 to December 2025

Climate and streamflow outlook summary (Nov 2025 – Feb 2026)

A summary of climate forecast conditions is outlined below:

Rainfall

- Seasonal forecasts indicate a 55–65% chance of above-median rainfall for Gippsland during summer (December 2025 –February 2026).
- While this offers some potential relief, catchment recovery will be slow due to very dry soils and a 12-month rainfall deficit of 60–80% of the long-term average, with parts of the region recording the lowest on record.

Temperature

- Maximum temperature outlooks show a 70–80% probability of above-median temperatures for summer, with November 2025 already forecast at 75–80% above-median likelihood.
- Persistent heat will increase evaporation rates, reduce the benefit of any rainfall, and drive higher water demand.

Soil moisture

- Root zone soil moisture remains below average to very much below average, meaning initial rainfall will replenish soil before contributing to runoff or storage recovery.

Streamflows

Latrobe River at Willow Grove (Oct–Dec 2025):
- Low flow likelihood: 41–59%
- High flows remain unlikely (≤16%)

Tanjil River at Tanjil Junction (Nov–Jan 2025):
- Low flow likelihood: 42–47%
- High flows remain unlikely (≤17%)
- These forecasts confirm below-average inflows are most likely, consistent with dry catchments and climate outlooks.

Despite moderate chances of above-median rainfall, a likelihood of high temperatures and dry soils mean drought stress will persist. Permanent Water Savings Rules are being emphasized for all water supply catchment areas throughout our region.

3.3 Comment on Longer-Term Climate Change Impacts for Gippsland

(Based on DEECA Hydrology and Climate Science)

Victoria's climate is undergoing a sustained warming and drying trend, and the Gippsland region is not exempt from these broader shifts. Analysis of rainfall, temperature, and soil moisture data in the AWO 2025, supported by DEECA's hydrology and climate science insights, highlights several key implications for long-term water resource planning in Gippsland.

Rainfall and streamflow trends

Year to date rainfall across Gippsland in 2025 was significantly below historical averages, with some areas recording the lowest annual totals on record. This aligns with DEECA's findings that cool-season rainfall has declined across Victoria, particularly due to reduced contributions from low-pressure and frontal systems. Importantly, streamflow responses to rainfall are weakening, meaning that even when rainfall occurs, it is generating less runoff than in previous decades.

Rainfall trends across Gippsland during 2024–25 was significantly below historical averages, with cumulative totals estimated to be 60–80% lower than long-term norms. Several locations recorded lowest-on-record rainfall, particularly when benchmarked against DEECA's post-1975 and post-1997 climate reference periods.

Temperature and evapotranspiration

The region is experiencing higher average temperatures and more frequent hot days, contributing to increased potential evapotranspiration. This intensifies water loss from soils and vegetation, further reducing the effectiveness of rainfall and increasing pressure on water supplies.

Temperature outlook to December has maximum temperature forecasts indicating a 70–80% probability of above-median temperatures for summer 2025–26, with November 2025 already showing elevated temperature likelihoods. Persistent heat is expected to increase evaporation rates, diminish the effectiveness of rainfall, and drive higher water demand, compounding stress on water systems.

Soil moisture and catchment recovery

Soil moisture levels remain below average to very much below average across Gippsland, delaying catchment recovery and reducing the likelihood of meaningful streamflow generation. This condition exacerbates drought risk and limits the resilience of surface water systems.

The combination of reduced rainfall, elevated temperatures, and declining streamflow efficiency presents a clear challenge for long-term water security in Gippsland with persistent cool-season rainfall reductions and increased frequency and severity of droughts with higher demand and lower yield from existing sources.

Scenario outcomes for each water supply system

Table 29 Water Supply Scenario outcomes describes scenario outcomes for each water supply system reflecting the impacts of the climate outlook

Scenario outcomes for water supply systems are presented in table 29 below.

Table 29 Water supply scenario outcomes

System name	Restriction likelihood	Climate impact summary	Key resilience measures
Briagolong	Very rare (<1%)	Early spring rainfall recharged Wa De Lock Aquifer; levels above restriction thresholds.	Deep bore into Rosedale Aquifer (120 ML/year).
Erica–Rawson	Very rare (<1%)	Protected Trigger Creek catchment maintained more than adequate inflows despite below-average rainfall.	Emergency water carting available.
Latrobe	Very rare (<1%)	Large storages buffered against dry conditions; streamflows below average.	Interconnection with Warragul water supply system. Supplementary orders from Blue Rock Reservoir.
Mirboo North	Very rare (<1%)	Streamflows in Little Morwell River remained well above restriction thresholds despite driest year on record.	Spring-fed baseflows; Contingency water carting.
Sale	Very rare (<1%)	Boisdale Aquifer showed robust levels; rainfall had minimal short-term impact.	High licence allocation. Bore monitoring.
Seaspray	Rare (1–4%)	Below-average rainfall; raw water basin remained at 98% capacity.	Water carting available if basin approaches Stage 2 restriction review point.
Tarago	Very rare (<1%)	Dry conditions offset by 3.3 GL Bulk Entitlement from Greater Yarra System.	Interconnection with Moe system. Greater Yarra – Thomson Pool allocation
Thomson–Macalister	Very rare (<1%)	Full allocations maintained; large storages buffered against rainfall deficits.	Full allocation

4. Forward outlook for water supply systems

Where possible, a 12-month forward outlook has been developed for each water supply system, integrating historical hydrological data, current system conditions, and climate-informed scenario modelling. This approach supports transparent risk assessment and proactive operational planning. For systems such as run-of-river (Erica-Rawson, Mirboo North, Seaspray and Tarago) and groundwater systems (Briagolong and Sale), where a full 12-month outlook cannot be provided due to inherent variability, we have included an outlook based on historical modelling and 2025 year-to-date demand data. These systems rely on short-term rainfall and streamflow variability, so the outlook focuses on relative monthly performance rather than precise dates. These charts display only the month on the x-axis because they are designed to illustrate seasonal trends rather than specific calendar years. This approach emphasizes relative monthly performance, which is critical for systems highly dependent on short-term rainfall and streamflow variability.

This provides a clear indication of how each system has tracked throughout the year and offers insight into expected performance through the remaining months of summer.

Scenario modelling approach

System-specific forecasting models were used to generate scenario traces, incorporating streamflow, groundwater levels, storage volumes, and demand projections. These traces were assessed against restriction curves defined in the Demand and DPP to identify potential breaches under each scenario.

Three primary inflow and recharge scenarios were considered:

- **Median (50th percentile):** Represents typical conditions based on post-1975 climate data, reflecting current climate norms.
- **Dry (10th percentile):** Simulates low inflow or recharge conditions associated with extended dry periods.
- **Worst on Record:** Models the most severe historical drought conditions observed for each system.

Percentiles are calculated independently for each month using historical inflow or recharge datasets. This means monthly values are not cumulative, which can result in occasional crossover between percentile traces.

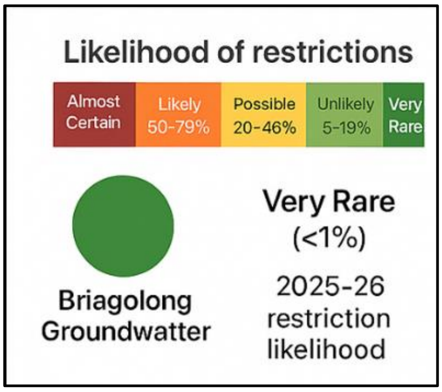
In some cases, the 10th percentile (dry) scenario may appear above the 50th percentile (median) for certain months. This occurs due to monthly percentile calculations, data smoothing, and contingency measures applied in dry scenarios. These variations do not indicate that dry conditions are more secure overall; they reflect differences in monthly patterns and modelling assumptions. Appendix A Data Methodology outlines how the charts were calculated

Restriction risk assessment

For each supply system, the likelihood of water restrictions was evaluated by comparing projected supply against demand and restriction thresholds. Where applicable, the analysis includes the security benefits of alternate or supplementary sources, identifying:

- When these sources would be activated.
- Their expected impact on system performance and reliability.

4.1 Briagolong Groundwater System (Year to date outlook)



Current status:
Groundwater levels in the Briagolong bore remain well above the Stage 2 restriction review point, indicating a very low likelihood of restrictions (<1%) under all modelled scenarios. Although a full 12-month outlook cannot be provided for this groundwater system, year-to-date monitoring shows aquifer levels tracking well above the restriction review points. Combined with the forecast for average rainfall over the summer period, this provides strong confidence that groundwater supplies will continue to meet demand throughout the remaining months of the season.

- Groundwater level (October 2025): ~55.0 mAHD
- Stage 2 restriction review point: 50.5 mAHD
- Current trajectory remains above both historical median and dry scenario traces.

12-Month scenario

- Median (50th percentile): Stable between 54–56 mAHD, well above restriction thresholds.
- Dry (10th percentile): Slight decline, remaining above 52 mAHD.
- Worst on Record: Approaches 51 mAHD, still above the Stage 2 review point but close. This scenario is considered highly unlikely given current conditions**.**

Restriction curve overlay: Stage 2 restriction review point remains at 50.5 mAHD.

Contingency measures:
Gippsland Water now has access to 120 ML from the Rosedale Aquifer, which can be activated to support the Briagolong Water Treatment Plant if required.

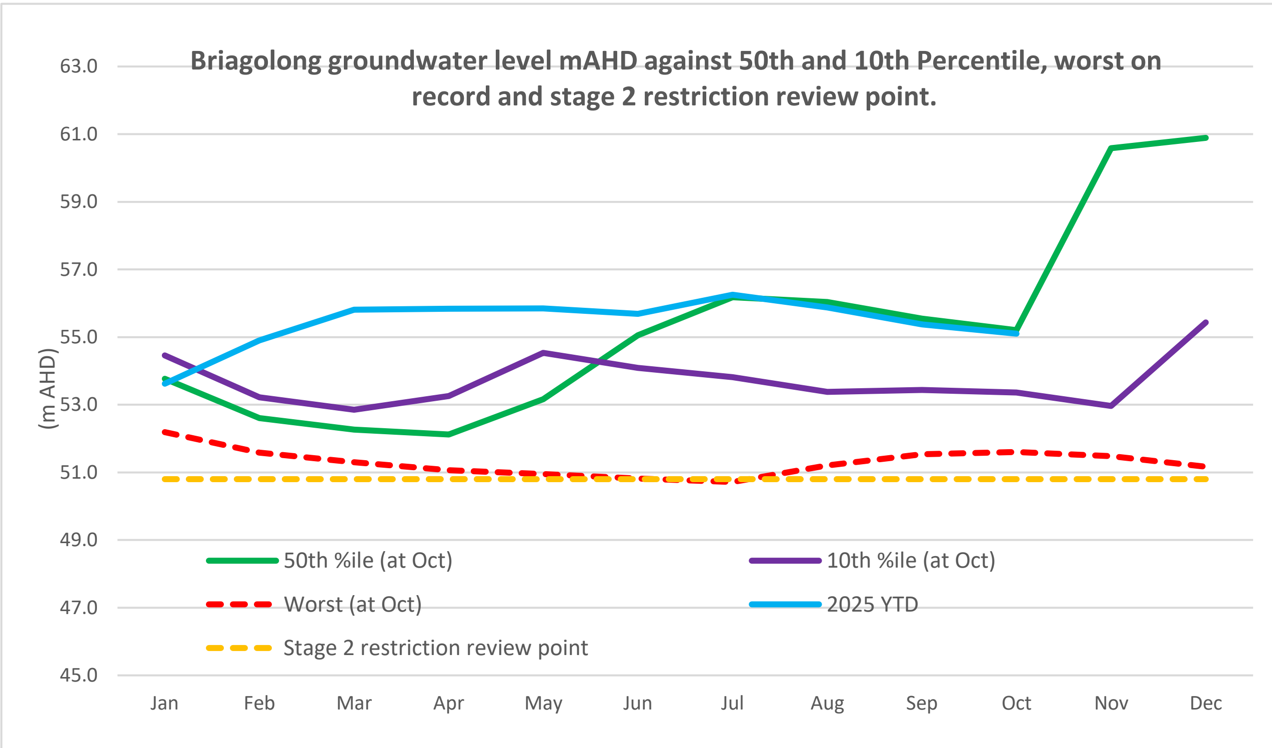
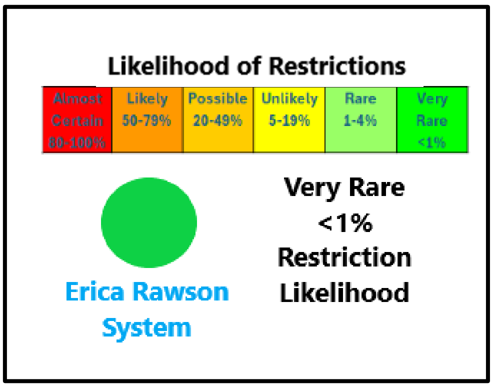


Figure 44 Briagolong groundwater level historical performance.

4.2 Erica-Rawson System Forward Outlook



Current status:
The Erica–Rawson system is a run-of-river supply that relies on streamflows from Trigger Creek, supported by a small raw water basin (5.7 ML). Its yield is highly dependent on short-term rainfall and catchment conditions, which can fluctuate significantly throughout the year. As shown in the chart, streamflows exhibit strong seasonal variability, with peaks during winter and declines in summer. This variability, combined with limited storage capacity, makes it difficult to provide a reliable 12-month forecast. Instead, we present a year-to-date assessment and short-term outlook based on historical patterns and current flows. These indicate that streamflows remain comfortably above restriction review points, and the raw water basin maintains sufficient buffer, providing confidence that supply will meet demand through the remaining months of summer. The system demonstrates a very low likelihood of restrictions (<1%) over the next 12 months. Even under worst-on-record conditions, streamflows exceed demand and the raw water basin maintains sufficient buffer to ensure supply security.

Accessing alternative supplies is not applicable for this system, given its secure and highly reliable water source. Current monitoring confirms that supply capacity exceeds projected demand under all scenarios, eliminating the need for supplementary sources or contingency measures during the outlook period.

- Streamflow (October 2025): ~100 ML/month
- Demand remains low, with supply security primarily dependent on streamflow availability.

12-Month scenario:

- Median (50th percentile): Peaks mid-year, consistently above demand.
- Dry (10th percentile): Remains well above demand.
- Worst on Record: Supply continues to exceed demand.

Restriction curve: Restrictions are based on raw water basin levels remain secure under all scenarios showing that assessing alternative water supplies.

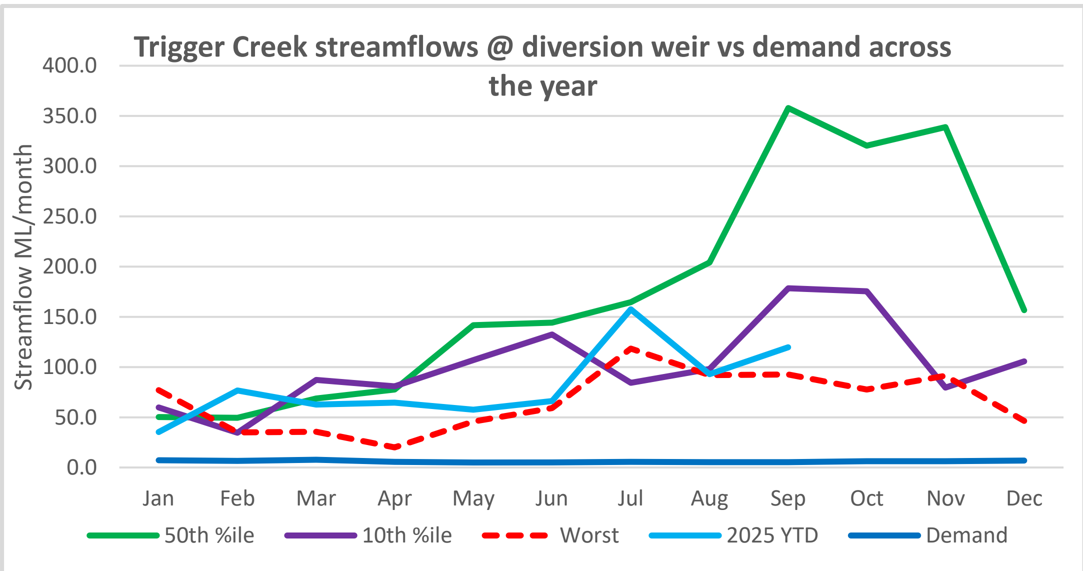
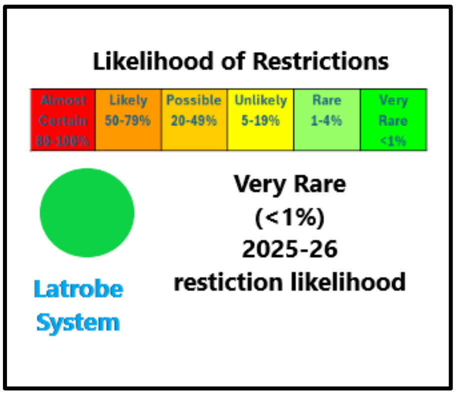


Figure 45 Trigger Creek supply and demand scenarios trace

4.3 Latrobe System Forward Outlook (12-month outlook)



Current status:
Combined storage volumes in Moondarra and Blue Rock Reservoirs remain well above the Stage 1 restriction review point (~19,000 ML) throughout the outlook period. The system benefits from interconnection and operational flexibility, resulting in a very low likelihood of restrictions (<1%). Accessing alternative supplies is not applicable for this system, given its secure and highly reliable water source. Current monitoring confirms that supply capacity exceeds projected demand under all scenarios, eliminating the need for supplementary sources or contingency measures during the outlook period.

12-Month scenario outlook:

- **Median (50th percentile):** Storage increases from ~59,000 ML (Nov 2025) to ~63,000 ML (late winter).
- **Dry (10th percentile):** Declines to ~46,000 ML by June 2026, recovering to ~50,000 ML by spring.
- **Worst on Record:** Dips to ~44,000 ML mid-year, still maintaining a substantial buffer above restriction thresholds.

Additional considerations:
Scenario traces include the impact of maximum Hazelwood fire protection demand, which slightly increases drawdown but does not materially affect system security.

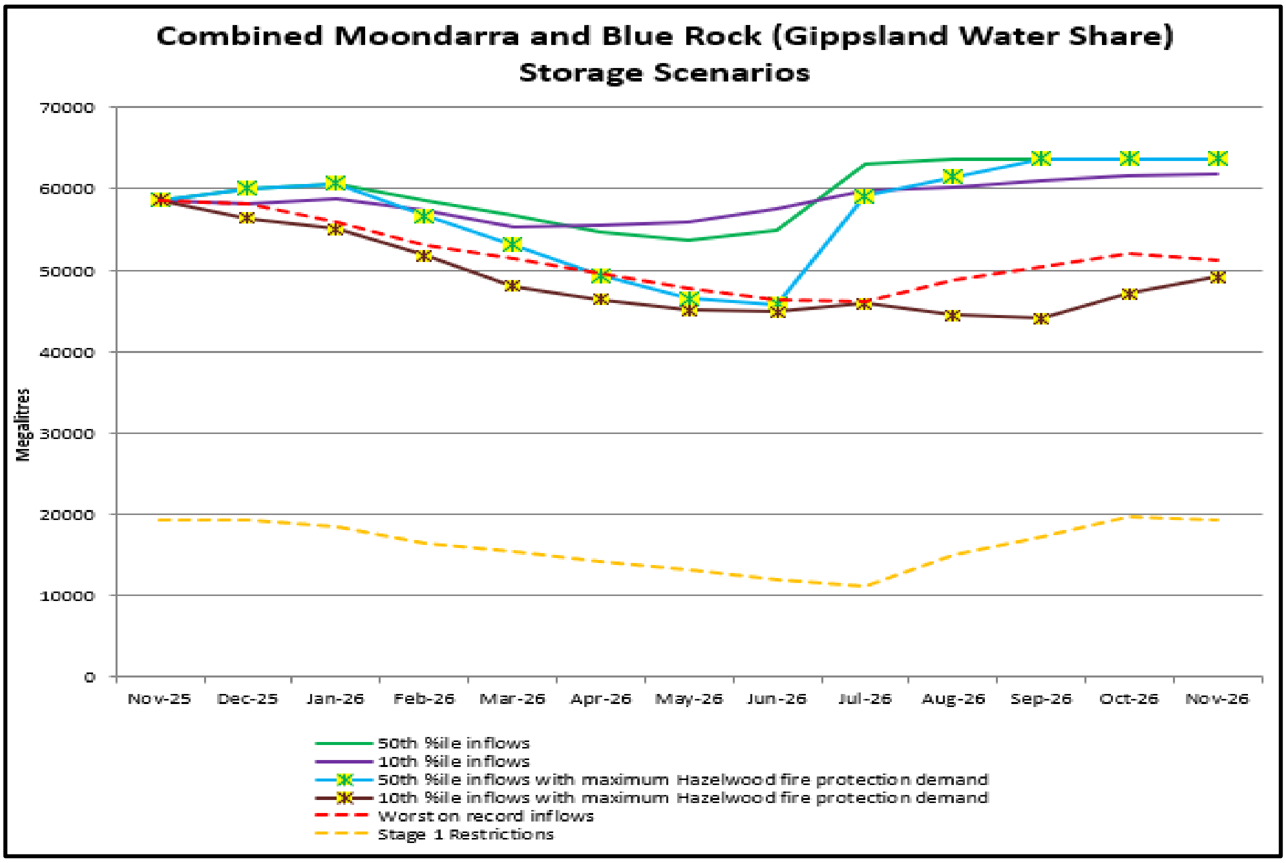
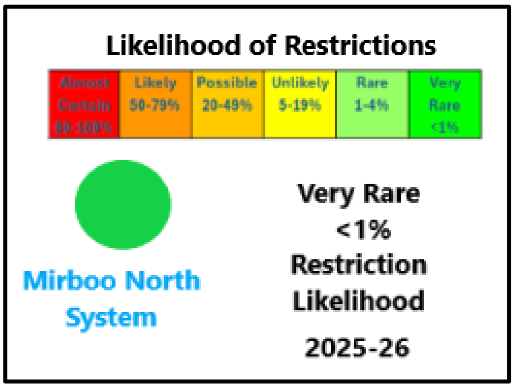


Figure 46 Latrobe system scenario traces of restriction likelihood

4.4 Mirboo North Forward Outlook (run of river)

Current status:

The Mirboo North system is a small run-of-river supply that relies on streamflows from the Little Morwell River (north branch), with no significant raw water storage. Its yield is highly dependent on short-term rainfall and catchment conditions, making long-range forecasting inherently uncertain. As shown in the chart, streamflows fluctuate considerably throughout the year, with sharp peaks during winter and declines in summer. This variability, combined with the absence of large storage buffers, limits the ability to provide a reliable 12-month outlook. Instead, we present a year-to-date assessment and short-term projections based on historical patterns and current flows, which remain well above restriction review points even during the driest year on record.



Accessing alternative supplies is not applicable for this system, given its secure and highly reliable water source. Current monitoring confirms that supply capacity exceeds projected demand under all scenarios, eliminating the need for supplementary sources or contingency measures during the outlook period.

- October 2025 streamflow: ~150 ML/month
- Stage 1 restriction review point: ~50 ML/month
- Year-to-date flows have consistently exceeded the historical median.

12-Month scenario outlook:

- Median (50th percentile): Well above restriction threshold.
- Dry (10th percentile): Remains above Stage 1 review point.
- Worst on Record: Similar to dry scenario; still above threshold.

Restriction curve:

Stage 1 review point (~50 ML/month) is well below all scenario traces, confirming no anticipated restrictions in the year ahead.

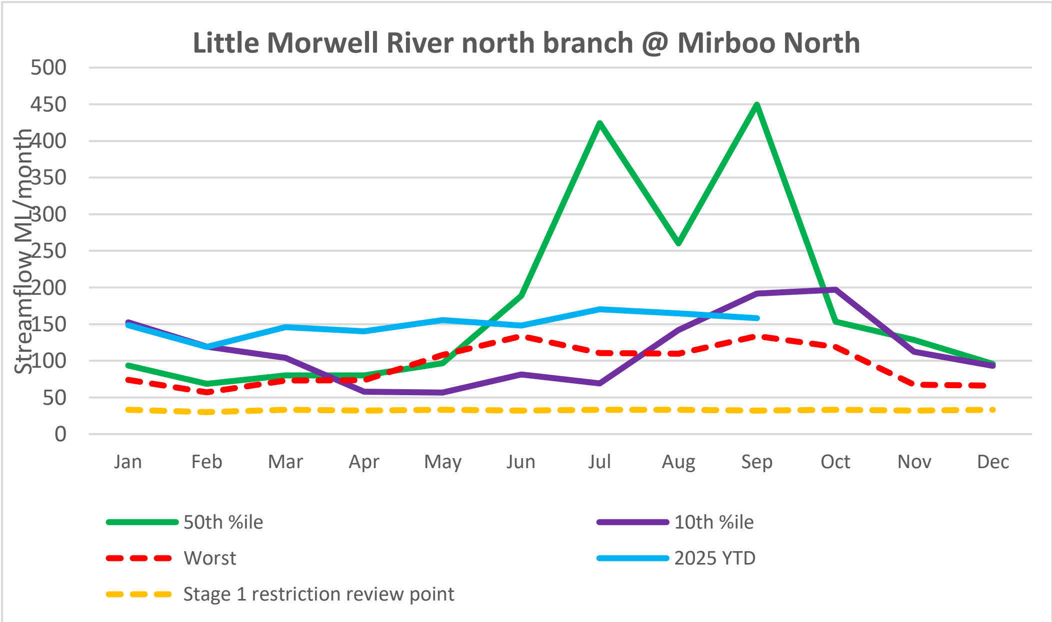
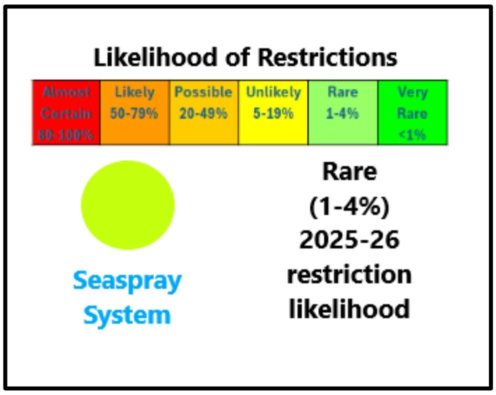


Figure 47 Little Morwell River (Mirboo North water supply system-

4.5 Seaspray Forward Outlook (12-month outlook)



Current status:
The Seaspray system is a small run-of-river supply that relies on Merriman Creek inflows, supported by a 30 ML raw water basin. Unlike large storage, its yield is highly dependent on short-term rainfall and streamflow variability. As shown in the chart, streamflows fluctuate significantly throughout the year, with peaks during winter and sharp declines in summer and autumn. This variability, combined with flow-sharing rules under the Bulk Entitlement, limits the ability to forecast supply beyond a few months with confidence. Consequently, a full 12-month outlook is not feasible; instead, we provide a year-to-date assessment and short-term projections based on historical patterns and current conditions. The Seaspray system has a rare (1–4%) likelihood of restrictions prior to DPP intervention. With water carting included in contingency planning, the final restriction likelihood is very rare.

Merriman Creek @ Seaspray pump station

- October 2025 streamflow: ~2,000 ML/month
- Minimum diversion requirement: ~1,000 ML/month
- Peak flows reached ~3,500 ML/month in July.

12-Month scenario outlook:

- Median: Flows remain above diversion threshold.
- Dry: Flows may drop below threshold during winterfill period.
- Worst: Extended periods of no diversion.

Bulk entitlement diversion rule:
Minimum diversion requirement (~1,000 ML/month) shown for reference.

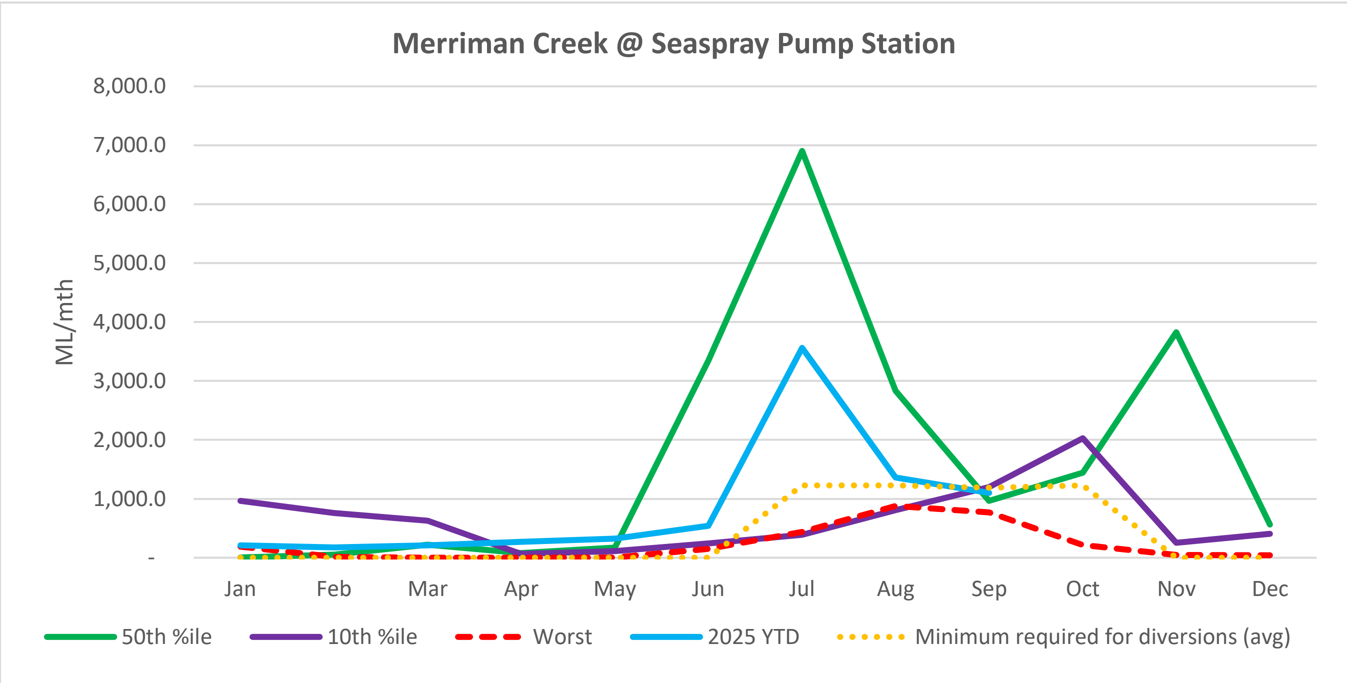


Figure 48 Merriman Creek @ Seaspray pump station scenario traces.

Seaspray Storage Basin

Current status

- October 2025 storage level: ~98% (29 ML of 30 ML capacity)
- Worst-case scenario: Drops to ~11 ML by May 2026.
-

12-Month scenario outlook

- Median: Stable near full capacity.
- Dry: Remains near 30 ML.
- Worst: Drops below Stage 1 threshold (~30 ML) in autumn.

Restriction curve

- Stage 1 restriction is variable across the forecast period.

Restriction likelihood:

- **Median & Dry:** Very rare (<1%)
- **Worst:** Possible (20–49%) before DPP measures; **final rating rare (1–4%)** after mitigation.

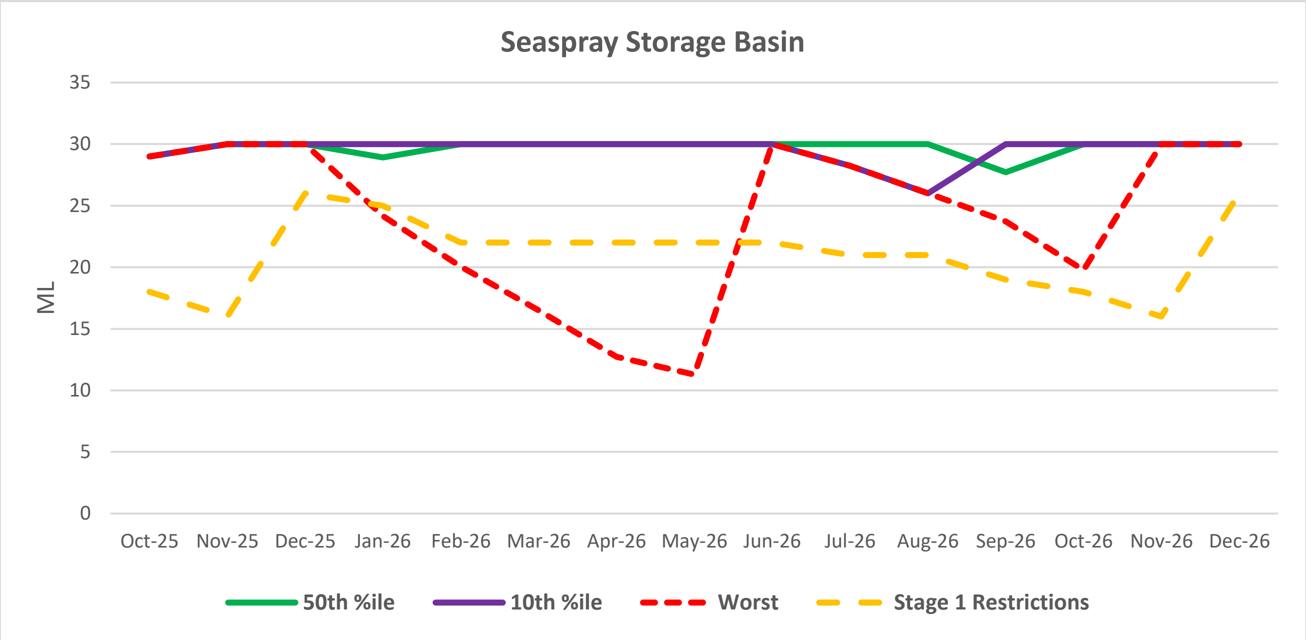
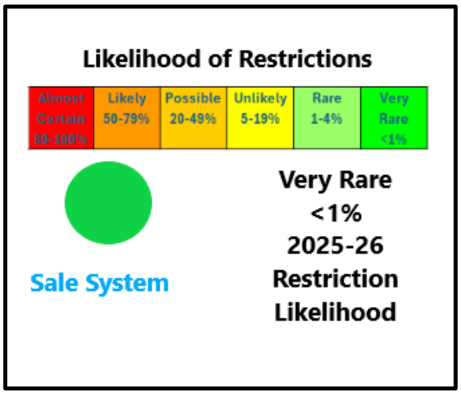


Figure 49 Seaspray storage basin supply and demand scenario traces.

4.6 Sale Forward Outlook (12-month outlook)



Current status:
Although a full twelve-month outlook cannot be provided for this groundwater system, historical and year-to-date monitoring shows bore drawdown levels consistently well above the Stage 2 restriction review point (-20 m AHD). This strong performance, combined with stable licence allocations and the inherent buffering capacity of groundwater, provides confidence that supply will continue to meet demand throughout the remaining months of summer. The chart below shows that aquifer drawdown levels across all bores remain well above the Stage 2 restriction review point (-20 mAHD). Historical trends show strong recovery and stability, with Southern Rural Water maintaining full licence allocations.

Accessing alternative supplies is not applicable for this system, given its secure and highly reliable water source. Current monitoring confirms that supply capacity exceeds projected demand under all scenarios, eliminating the need for supplementary sources or contingency measures during the outlook period.

- 2024/25 drawdown levels: ~-14 to -16 mAHD
- Stage 2 restriction review point: -20 mAHD
- Licence volume: 3,840 ML
- 2024–25 demand**:** ~1,865 ML

12-Month scenario outlook:

- All bores expected to remain above -18 mAHD.
- No allocation reductions have been applied by Southern Rural Water.

Operational flexibility:
Capacity to alternate pumping between bores ensures resilience if any bore approaches restriction thresholds.

Restriction likelihood:
Very rare (<1%) for the 12-month outlook

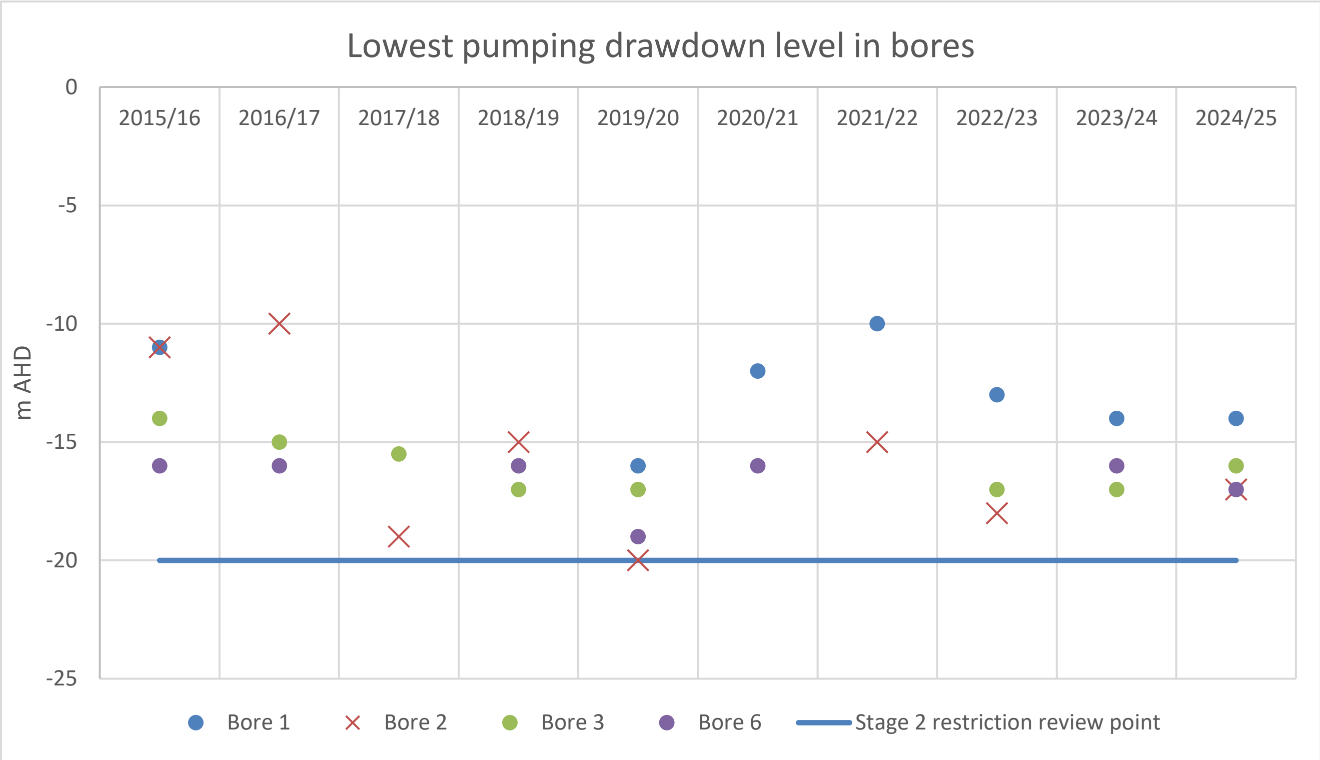
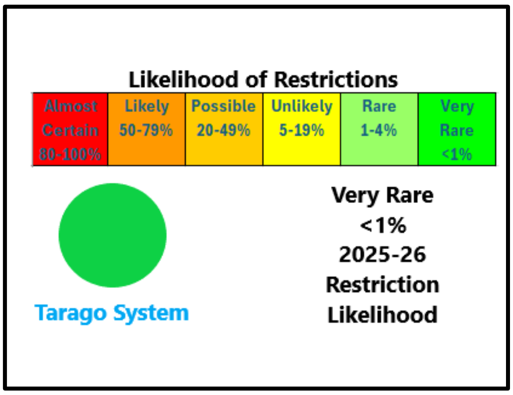


Figure 50 Sale aquifer bore drawdown levels

4.7 Tarago Forward Outlook (12-month outlook)



Current status:
The Tarago system relies on inflows to Tarago Reservoir, which are highly variable and influenced by short-term rainfall and catchment conditions. As shown in the chart, inflows fluctuate significantly throughout the year, with sharp peaks during winter and spring and lower volumes in summer. This variability, combined with operational factors such as entitlement management and interconnection with the Moe system, makes it difficult to produce a reliable 12-month forecast based solely on inflow data. Instead, we provide a year-to-date assessment and short-term outlook supported by historical patterns and current storage conditions. These indicate strong supply security, further reinforced by the 3.3 GL bulk entitlement from the Greater Yarra–Thomson Pool, ensuring a very low likelihood of restrictions (<1%) even under worst-on-record conditions.

Accessing alternative supplies is not applicable for this system, given its secure and highly reliable water source. Current monitoring confirms that supply capacity exceeds projected demand under all scenarios, eliminating the need for supplementary sources or contingency measures during the outlook period.

Tarago reservoir inflows

- October 2025 inflows: ~2,000 ML/month
- Year-to-date peak**:** ~2,000 ML/month in September

Greater Yarra–Thomson Pool Allocation

- Current volume held**:** 3.8 GL.
- Projected to remain above 3,800 ML through summer.

Scenario outlook:

- Even under fifth percentile dry conditions, storage remains well above critical thresholds.

Restriction likelihood:
Very rare (<1%) after mitigation.

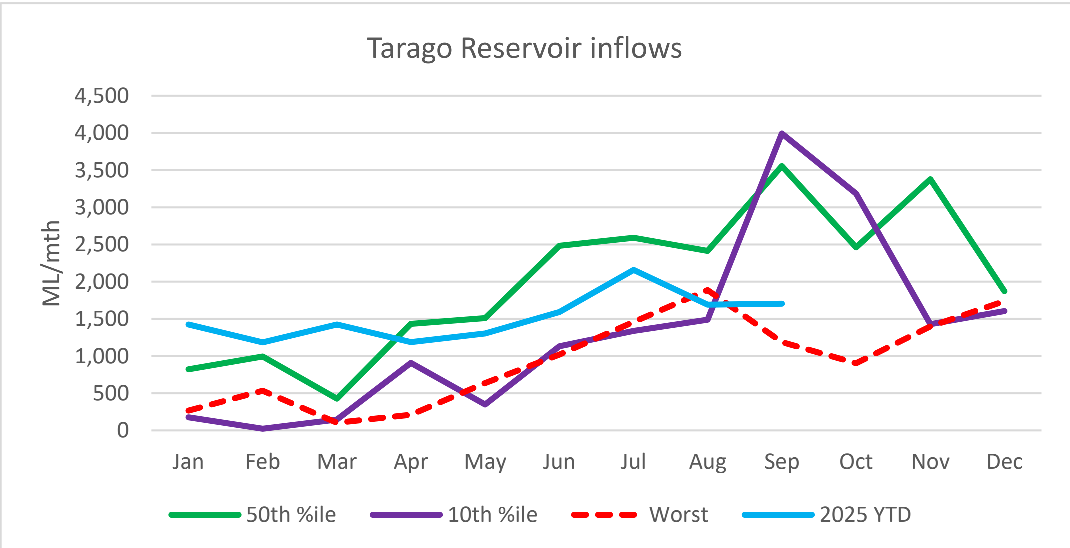


Figure 51 Tarago Reservoir inflow scenario traces.

Figure 52 below shows the supplementary supply for the Tarago Water Supply system. This chart indicates that our storage volumes remain secure under dry-year conditions, with very rare <1%) likelihood of restrictions for our Greater Yarra-Thomson River Pool allocation.

The chart demonstrates that for the 12 month scenario, even under fifth percentile dry conditions, storage remains well above critical thresholds.

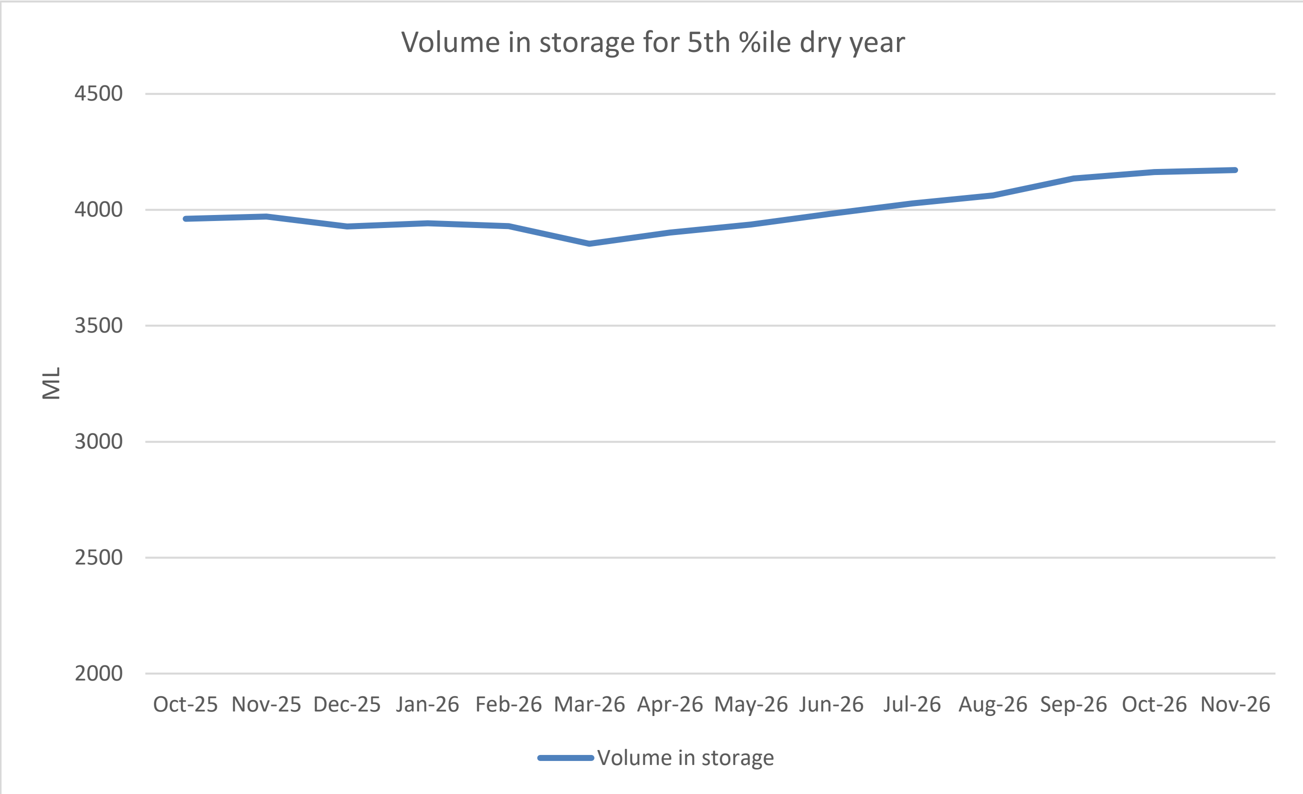
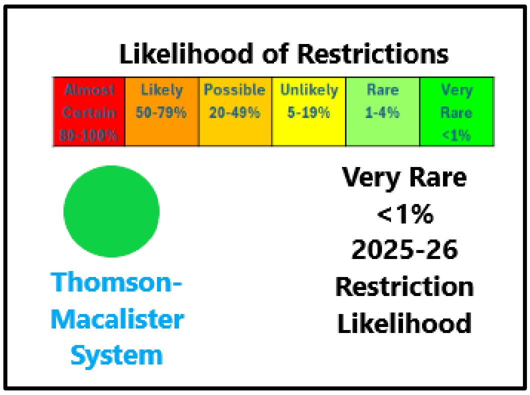


Figure 52 Volume in storage Greater Yarra-Thomson River Pool account.

4.8 Thomson-Macalister Forward Outlook (12-month outlook)

Current status:

The 12-month outlook for the Thomson–Macalister system indicates strong supply security. Current allocations for 2025–26 remain at 2,335 ML (100% high-reliability entitlement) throughout the year, well above cumulative demand projections supported by regulated storages and high reliability.



Accessing alternative supplies is not applicable for this system, given its secure and highly reliable water source. Current monitoring confirms that supply capacity exceeds projected demand under all scenarios, eliminating the need for supplementary sources or contingency measures during the outlook period.

- 2025/26 allocation: ~2,300 ML
- Stage 1 restriction review point: Below current allocation
- Demand trajectory: Remains below allocation throughout the year.

12-Month scenario outlook:

- Median: Stable at ~2,300 ML
- Worst**:** Drops to ~1,900 ML, still above demand

Restriction likelihood:

Very rare (<1%) across all scenarios.

Restriction curve

- Stage 1 review point shown; allocations remain above this threshold.

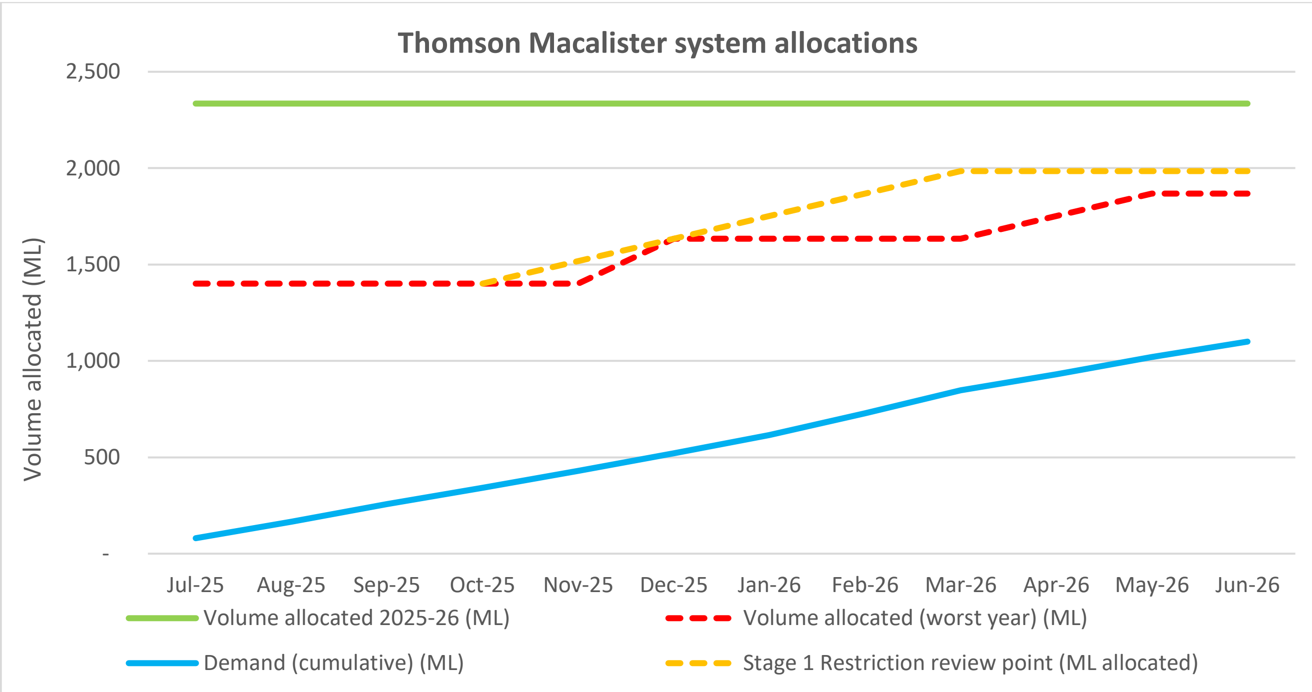


Figure 53 Thomson Macalister system allocation scenario traces outlook.

5. Urban Water Security Actions

Our UWS 2022 set eighteen actions for the 2023-28 price submission period. Progress against these is shown in the table below.

<table>
<tr><th colspan="2">Supply System: Moondarra</th></tr>
<tr><td>Action and Description</td><td>Action 1: Partnering with Traditional Owners
Develop and implement a Moondarra On-Country Plan, which focuses on Traditional Owner access to land and water, increasing opportunities to realise objectives for cultural values and uses, building the cultural awareness of our staff and the community.</td></tr>
<tr><td>Timing</td><td>To be progressed during the 2022-27 UWS period</td></tr>
<tr><td>Status</td><td>Ongoing</td></tr>
<tr><td>Comments</td><td>We continue to strengthen partnerships with Traditional Owners Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) and Bunurong Land Council Aboriginal Corporation recognising their deep cultural connection to the land and waterways where our operational services are provided. ‘

We continue to support cultural values and uses of land and water progressing the development and realization of On-Country activities at Moondarra. These initiatives include:
Continuing the access agreement with Federation Universities Aboriginal Education Centre for self-determined cultural activities,
Further acknowledging Traditional Owners through signage and cultures elements at the Moondarra recreational area and applying local Aboriginal art to the Stratford Water Tower,
Integrating traditional land management practices into site planning and operational activities at Moondarra as well as across other operational sites.
These initiatives reflect our commitment to reconciliation, cultural inclusion and shared stewardship of Country, while supporting an alignment with the Multiple Benefits of Ownership and Management by Traditional Owner Framework and supporting broader objectives of the Central and Gippsland Regional sustainable Water Strategy.

Fire pit and yarning place at Moondarra Reservoir recreational area.</td></tr>
</table>

Supply System: Thomson-Macalister	
Action and Description	**Action 2: Partnering with Traditional Owners** Provision of reticulated water to Knob Reserve, a significant meeting place for the Gunaikurnai Community. Reticulated water will support cultural events at the site and support sustainable use of water and health outcomes for community.
Timing	This action was completed 2024
Status	**Action complete**
Comments	Drinking water is now available on Country at Knob Reserve in Stratford following completion of a joint project between GLaWAC and Gippsland Water. The project was jointly funded by Gippsland Water, GLaWAC and the Victorian Government's Integrated Water Management Program and was launched by the Minister for Water Harriet Shing.  *Harriet Shing, former Minister for Water launching drinking taps at Knob Reserve.*

Supply System: All systems	
Action and Description	**Action 3: Partnering with Traditional Owners** Pilot the application of the '*Multiple Benefits of Ownership and Management of Water by Traditional Owners Framewor*k' on key projects.
Timing	To continue during the 2022-27 UWS period
Status	Progressing throughout the 2022-27 UWS period
Comments	The framework was co-developed by the Traditional Owner Partnership—including the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC), Bunurong Land Council Aboriginal Corporation, and other Traditional Owner groups as part of the Central and Gippsland Region Sustainable Water Strategy (CGRSWS).The framework is intended to support Traditional Owners and others to articulate benefits and demonstrate how management by Traditional Owners can deliver cultural, environmental, social, and economic benefits. We continue piloting the framework on selected projects, focusing on Cultural water access planning at Moondarra and incorporating Traditional Owner values into waterway and land management decisions, exploring co-management opportunities for water infrastructure and natural assets. We have also had internal teams receiving training and guidance on applying the framework principles, including quadruple bottom line assessments that integrate cultural outcomes. We continue our engagement with Traditional Owners focusing on identifying priority projects where the framework can be meaningfully applied, with early stage planning underway. This action is a transformative commitment to equity, reconciliation, and sustainable water management that honours the deep connection Traditional Owners have with Country. 

Supply System: All systems	
Action and Description	**Action 4: Partnering with Traditional Owners** Integrate the '*Multiple Benefits of Ownership and Management of Water by Traditional Owners Framework'* into our planning frameworks to ensure quadruple bottom line assessments are integrated into business decisions.
Timing	To continue during the 2022-27 UWS period
	Progressing throughout the 2022-27 UWS period
Comments	This action builds on the foundational work of the Traditional Owner Partnership who developed the framework in collaboration with GLaWAC and other Traditional Owner groups. The framework identifies and communicates the multiple benefits including cultural, environmental, social, and economic that arise when Traditional Owners are empowered to manage and own water resources. These benefits are structured around three key dimensions: Healthy Country, Healthy Mob, and Sovereignty and Self-determination. By committing to integrate this framework into its planning processes, we align with a quadruple bottom line approach, considering not just financial outcomes, but also social, environmental, and cultural impacts. This is a meaningful shift from traditional utility planning, which has historically underrepresented Indigenous perspectives and values. The integration of this framework into business decisions ensures that cultural values actively inform water planning, that Traditional Owner participation becomes a core part of governance and project design and that benefits to broader society such as improved environmental stewardship and stronger community relationships are recognised and valued.  ***Indigenous artwork on the Stratford Water Tower***

Supply System: All systems/General	
Action and Description	**Action 5: Engaging with stakeholders.** Build on our existing close relationship with West Gippsland Catchment Management Authority (WGCMA) to better identify opportunities to collaboratively achieve outcomes that benefit each other's objectives and values, and to foster an enhanced mutual understanding of our respective challenges.
Timing	Ongoing
Status	Progressing throughout the 2022-27 UWS period
Comments	This year we have continued to work closely with West Gippsland Catchment Management Authority (WGCMA) on a range of projects. Our regular inter-agency quarterly management meetings have helped to understand each other's current and future priorities and concerns and have guided our collaborative work. Specific projects that we've progressed collaboratively include: • UWS Action 13 – Exploring alternative flow sharing arrangements for the Merriman Creek bulk entitlement. • Central and Gippsland Region Sustainable Water Strategy Action 4-15 - Developing a vision and plan for the water future of the Latrobe Valley; and • WGCMA's Regional Waterway Strategy including hosting regional workshops and contributing to development of the vision and regional priorities.

Supply System: All systems/General	
Action and Description	**Action 6: Engaging with stakeholders.** Continue to work with local councils and government to embed better water conservation planning for greenfield development.
Timing	To continue during the 2022-27 UWS period
Status	Ongoing
Comments	The Central and Gippsland Region Sustainable Water Strategy, put in place Policy 3-4 *Embed IWM in land use and infrastructure planning* and Action 3-9 *Strengthen IWM in land use and infrastructure planning,* committing the Victorian Government to putting in place the regulatory frameworks to move to delivering IWM at the greenfield stage of development. This approach delivers the benefits of IWM much more cost effectively and ensures costs are more equitably shared including through Development Contribution Plans. During 2025 DEECA developed a guideline on embedding IWM in urban planning. The Gippsland IWM Forum has endorsed the application of the guidelines to the current development of the Stratford structure plan.

Supply System: All systems/General	
Action and Description	**Action 7: Water Efficiency and Conservation** Continue to deliver our Non-revenue Water Action Plan
Timing	Ongoing
Status	Progressing throughout the 2022-27 UWS period
Comments	Our NRW Action Plan sets out a range of actions to improve our performance in the following categories: • Non-revenue water reporting • Accounting for water • Bulk metering • Leakage direct intervention This year we have achieved the following: • We have progressed planning for our digital metering trial for Briagolong including awarding the meter supply contract. • We have utilised our service contract for acoustic leak detection to undertake a full proactive survey of Warragul and Drouin, as well as reactive leak detection to address concerns at Mirboo North and Sale. Over 450km of water mains were surveyed with over 130 leaks identified for repair. We continue to monitor and progress our NRW Action Plan under the guidance of a quarterly business wide working group.

Supply System: All systems/General	
Action and Description	**Action 8: Water Efficiency and Conservation** Expand our activities that support the government's Target Your Water Use program including continuing with the Schools Water Efficiency Program, facilitating any applicable grant schemes for water efficiency improvements in homes and businesses, and expanding our community education programs.
Timing	Continued during the 2022-27 UWS period
Status	Progressing throughout the 2022-27 UWS period
Comments	We have continued to support the Target Your Water Use program through a range of community education and engagement initiatives. Our dedicated water conservation campaign, 'Reduce Your Use', is delivered across multiple platforms and channels throughout the year. We maintain strong engagement with local schools to promote water efficiency. 27 schools across our region are currently participating in the Schools Water Efficiency Program (SWEP).  As part of our broader water efficiency efforts, we have enrolled 53 sites in Stage 1 of the Water Smart Program. These sites are primarily associated with local councils and state government departments, including facilities operated by CFA and Ambulance Victoria.

Supply System: All systems / General	
Action and Description	**Action 9: Engaging with Stakeholders** Continue to work closely with our Gippsland Integrated Water Management (IWM) Forum partners to identify and deliver feasible IWM initiatives that benefit the security of our water resources, the liveability of our urban landscapes and the health of our waterways and the broader environment.
Timing	To continue during the 2022-27 UWS period
Status	Progressing throughout the 2022-27 UWS period
Comments	We have continued to play a leading role in the Gippsland IWM Forum during 2025. We hosted the IWM Coordinator within our business on behalf of the Forum for much of the year. We have also assisted the new Gippsland IWM Forum Chair following the Minister's appointment of the position in early 2025. We've continued to work collaboratively with our Forum partners on several projects which have been endorsed for progression pending government funding: • Baw Baw Shire IWM Plan Review. • IWM Planning for Stratford feasibility study. • Investigation of potable water alternatives for Seaspray. • Downs Reserve Traralgon waterway renaturalisation. • Stormwater quality offset scheme investigation. • Stormwater management at Willow Grove stage 2.

Supply System: Briagolong	
Action and Description	**Action 10: Briagolong Water** Drill a production bore in the deeper aquifer at Briagolong, buy a water licence and upgrade the water treatment process at our Briagolong water treatment plant.
Timing	For completion 2027
Status	The groundwater bore has been completed and developed. A 120 ML licence has been acquired. Work is underway to connect the bore to the water treatment plant and undertake upgrade works as required.
Comments	 A new production bore has been drilled into a deeper aquifer (Rosedale aquifer) to access a more secure groundwater source. This follows community consultation in 2019–20, where residents supported the deeper bore option as the preferred long-term solution. We have secured a 120 ML groundwater entitlement through commercial acquisition. This entitlement will support urban supply needs and reduce reliance on our shallow groundwater during dry periods. In parallel to this work, design work is also underway to upgrade the Briagolong Water Treatment Plant to accommodate the new groundwater source and meet drinking water quality standards. The upgrade will improve treatment reliability and operational efficiency. ***Drilling the production bore at Briagolong Water Treatment Plant***

Supply System: Latrobe	
Action and Description	**Action 11 Latrobe Water** Continue working with the Department of Energy, Environment and Climate Action (DEECA) and other agencies to plan and deliver on directions for the Latrobe basin set by the Central and Gippsland Region Sustainable Water Strategy (CGRSWS) and the Latrobe Valley Regional Rehabilitation Strategy.
Timing	Ongoing – subject to regulatory timeframes
Status	Ongoing
Comments	We have continued in 2025 to work closely with DEECA and regional partners to progress strategic planning for the Latrobe basin. This work is progressing under Action 4-15 of the CGRSWS, *Developing a vision and plan for the water future of the Latrobe Valley* and is guided by an Executive Governance Group consisting of senior executives from DEECA, Southern Rural Water, Gunaikurnai Land and Waters Aboriginal Corporation, West Gippsland Catchment Management Authority and Gippsland Water. Progress during the year includes: • water resource modelling of a range of future scenarios of water availability and potential water needs to support social, environmental, Traditional Owner cultural, and economic values of the region; and • executive endorsement of key issue summaries.

Traralgon Creek and Latrobe Valley industry

Supply system: Sale	
Action and Description	**Action 12 Sale Water and the Boisdale Aquifer** Continue to work with Southern Rural Water (SRW) and DELWP to better understand the Boisdale aquifer and its future sustainable use.
Timing	Ongoing – subject to regulatory timeframes
Status	Ongoing
Comments	Shortly after our 2022 UWS was completed, the Central and Gippsland Region Sustainable Water Strategy put in place the Groundwater Management 2030 program (GM2030). GM2030 is a statement of priorities for the period up to 2030 for the regulators of groundwater. In our region that is DEECA and Southern Rural Water. GM2030 has three focus areas: • improved, shared understanding of groundwater and its uses for evidence-based management • modern tools in the state-wide framework for flexible and cost-effective groundwater management • streamlined and effective licensing, trade rules and controls on groundwater use that support changing water uses. The first focus area aligns with this UWS action and the most recent GM2030 update from October 2024 committed to finalising groundwater assessments, research, and data collation in 2025. We look forward to the outcomes of this work and continuing to work with our regulators on any management outcomes that may be necessary for the sustainability of the Boisdale Aquifer.

Supply system: Seaspray	
Action and Description	**Action 13 Seaspray Water** Explore alternative flow sharing arrangements for the Merriman Creek Bulk Entitlement.
Timing	Mid 2027
Status	Ongoing
Comments	We've brought in an environmental ecologist to help us better understand the ecological impacts of potential changes to how water is shared from Merriman Creek. We are also collaborating closely with our partners—Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC), West Gippsland Catchment Management Authority (WGCMA), and Southern Rural Water (SRW)—to find a solution that supports the environment and meets the needs of everyone involved. Together, we are aiming to develop a recommendation for the Minister for Water that reflects shared values and long-term sustainability.

Supply system: Tarago	
Action and Description	**Action 14 Tarago Water** Acquire a 2 GL yield Bulk Entitlement to the Yarra-Thomson Pool to secure Warragul and Drouin's future water.
Timing	2023
Status	Complete
Comments	On 1 July 2023 we purchased a 3.33 GL/y bulk entitlement in the Greater Yarra System – Thomson River pool, completing this action.

Tarago Reservoir

Action 15 Heyfield Wastewater	
Action and Description	**Action 15 Heyfield Wastewater** Develop an augmentation strategy for servicing future growth at the Heyfield sewage treatment plant.
Timing	On Track - 2026/27
Status	On Track - 2026/27
Comments	The augmentation strategy for Heyfield is scheduled for delivery during the 2026–27 planning period which will assess current system capacity, forecast future demand, and identify infrastructure upgrades needed to maintain service reliability.

Action 16 Mirboo North Wastewater	
Action and Description	**Action 16 Mirboo North Wastewater** Deliver project for additional irrigation capacity at the Mirboo North sewage treatment plant site to allow greater re-use by our agribusiness operation.
Timing	2025
Status	Complete
Comments	The increased irrigation capacity at the Mirboo North Wastewater Treatment plant has enabled greater reuse of treated water for agricultural purposes reducing discharge to waterways and enhancing water efficiency.

Action 17 Neerim South Wastewater	
Action and Description	**Action 17 Neerim South Wastewater** Develop an augmentation strategy for servicing future growth at the Neerim South sewage treatment plant.
Timing	2026/27
Status	On Track
Comments	Several upgrades have been implemented at the Neerim South Sewerage Treatment Plant, aimed at improving both energy efficiency and stormwater management, including the installation of storm attenuation tanks. These tanks help manage inflow variability, especially in small regional plants like Neerim South, where stormwater infiltration into the sewer network can be significant.

Supply System Tarago (Warragul)	
Description	**Action 18 Warragul Wastewater** Plan and deliver augmentations to increase Warragul sewage treatment plant capacity.
Timeframe	First stage by 2026/27
Status	Ongoing
Comments	Gippsland Water is undertaking a multi-stage augmentation plan to increase the capacity of the Warragul Wastewater Treatment Plant, ensuring it can meet the town's growing needs through to 2060. A business case was Board approved in October 2023 with Infrastructure capacity doubling from 2028 and a $7 million upgrade underway to install a new 1.5 km sewer main from Warragul's north-east to the treatment plant. We are on track for delivery as scheduled.  *Warragul Waste Water Treatment Plant*

Appendix A

Forward Outlook Scenario Modelling Methodology

Purpose of Scenario Modelling

Scenario modelling is used to assess water supply security under a range of plausible climate and demand conditions. It provides a structured approach to evaluate system resilience and identify potential risks before they occur.

Scenario Definitions

Three primary scenarios are applied across all water supply systems:

- **Median (50th percentile):** Represents typical conditions based on historical climate and inflow data.
- **Dry (10th percentile):** Simulates low inflow or recharge conditions associated with extended dry periods.
- **Worst-on-record:** Models the most severe historical drought conditions observed for each system.

Percentiles are calculated annually with monthly data using historical inflow or recharge datasets. This means monthly values are not cumulative, which can result in occasional crossover between percentile traces.

Key Inputs

- **Historical Hydrological Data:** Streamflows, reservoir inflows, and groundwater levels benchmarked against climate reference periods.
- **Current System Conditions:** Storage volumes, aquifer levels, and raw water basin status.
- **Demand Forecasts:** Based on Urban Water Strategy projections and year-to-date consumption trends.
- **Climate Outlook:** Seasonal rainfall and temperature forecasts from the Bureau of Meteorology.

Modelling Approach

- Scenario traces are generated using percentile-based inflow distributions and applied to system-specific supply models.
- Operational assumptions (e.g., activation of contingency measures under dry scenarios) are incorporated to reflect realistic management responses.
- Restriction review points from the Drought Preparedness Plan are overlaid to assess likelihood of restrictions.

Important Considerations

- Percentile traces may not always plot in strict order across all months due to independent monthly calculations and smoothing.
- These variations do not indicate greater overall security under dry conditions; they reflect differences in monthly patterns and modelling assumptions.

PO Box 348
55 Hazelwood Road
Traralgon VIC 3844

General enquiries 1800 050 500
Faults and emergencies 1800 057 057

contactus@gippswater.com.au
www.gippswater.com.au

ABN 75 830 750 413