

Victorian Annual Water Outlook

Covering the period December 2024 to November 2025



Energy,
Environment
and Climate Action

Acknowledgements

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it.

We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

DEECA is committed to genuinely partnering with Victorian Traditional Owners and Victoria's Aboriginal community to progress their aspirations.



DEECA kindly acknowledges the efforts of the urban and rural water corporations of Victoria.

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Cover photograph: Gunbower Creek at sunset
Credit: Darryl Whitaker

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Ministerial foreword

Despite many communities in Victoria's South-West experiencing dry conditions over the past 12–18 months, the State's water storages are in a strong position to meet urban and rural water demands in 2025. Wet conditions in recent years have provided a buffer against the below-average rainfall seen across most of the State in spring and winter, and water restrictions are not expected over the coming year.

As at 29 November 2024, storage levels in Melbourne remain high and are sitting at 88.4%, down 6.7% from the same time last year. In regional Victoria, major storages are averaging 78.7%, down 14.8% compared to the same time last year.

Looking ahead, the Bureau of Meteorology is predicting above average rainfall over summer for South-West Victoria with an increased chance of above average rainfall in central and eastern Victoria. At the same time, average temperatures across the State are expected to be warmer.

As we head into summer, we are continuing to monitor areas of the South-West that have experienced record low rainfall. Support is available for farming communities affected by the dry conditions. A \$13.53 million grants package was announced by the Victorian Government in late 2024 for on-farm improvements and water system upgrades to manage and prepare for dry conditions. I also want to acknowledge the role of Wannon Water and GWMWater in supporting their communities and planning for the potential for prolonged or worsening conditions.

Victoria is the fastest growing State in the country and, as our population grows, so does the demand for water. In Melbourne alone, the population grew by around 140,000 in 2024 – more than the entire city of Ballarat. To support this growth, the Victorian Government has set a target of 800,000 new homes over the next decade – homes that will need water for drinking, showers and toilet flushing.

We are working with metropolitan and regional water corporations to ensure we have enough water to meet this growth. This includes planning for new water supplies for the South-Central region, making better use of recycled water and stormwater, and greater support for people and businesses to use water responsibly. Programs such as household water audits and showerhead replacement grants can help people save water, energy and money.

This year I had the privilege of participating in the Yoorrook Justice Commission – the first of its kind in Australia – and heard about the profound and ongoing impact of historic land and water injustices on Traditional Owners in Victoria. The Victorian Government's Water is Life – Traditional Owner Access to Water Roadmap (2022) outlines our commitment to finding opportunities for Traditional Owners to access and manage water. I am proud of the work already completed but acknowledge there is much more work to be done.

Victoria's Annual Water Outlook reminds us of the challenges facing water management in our State and the need to prepare for growing water demand and an increasingly variable climate in the future. Collaboration is key and we will continue to work with the water sector, Traditional Owners and the community to ensure a reliable water supply is always available for our communities, agriculture, industries, environment and the many jobs that rely on it.



A blue ink handwritten signature of Harriet Shing.

The Hon. Harriet Shing MP
Minister for Water

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1. Introduction

The aim of the Victorian Annual Water Outlook (the Outlook) is to keep Victorians informed about the state’s water supplies for the coming year. It also outlines the contingency plans that water corporations have to manage any water shortages that may arise.

Each year, the Outlook synthesises the information provided in the annual water outlooks prepared by Victoria’s 18 urban and rural water corporations for the 12-month period from December through to the following November.

Due to the highly variable nature of Victoria’s climate, ‘average’, ‘dry’ and ‘worst on record’ climate scenario modelling is used to identify potential water security risks and understand the vulnerabilities of each system.

This information can become particularly valuable during ‘dry’ years, when annual rainfall and streamflow is generally lower and water restrictions are more likely than they are in average conditions.

The individual water corporations’ annual water outlooks present this information and report on the current condition of each water supply system, predict future water availability where possible, and outline strategies to meet customer demand. Each water corporation makes its annual water outlook available on its website.

The Outlook takes this information and provides a state-wide overview of:

- the water resource conditions that can be expected this coming year
- the seasonal rainfall and temperature conditions already experienced in 2024 and forecast for the beginning of 2025

- the expected long-term climate and streamflow trends
- progress made towards returning water to Traditional Owners; and
- environmental water availability across the state

This year, despite lower-than-average winter and spring rainfall across the state, our strong starting storage levels have kept most water storages in a healthy position. However, water levels can drop quickly. For example, Melbourne Water analysis shows that if we were to face another Millennium Drought starting today, storages could run low very quickly – even with full use of the desalination plant – potentially leading to severe water restrictions for Greater Melbourne and Geelong within just three years.

That’s why it’s so important to plan ahead and stay prepared. The Outlook helps us do just that by sharing vital information about water availability across the regions. It keeps the community informed, helps everyone understand the challenges we face, and supports households and businesses in planning for possible water restrictions.

Note: Data provided within this report was correct as at 1 December 2024 unless otherwise specified.





2. Snapshot

Overview



As at 29 November 2024 the Bureau of Meteorology's (BoM) climate driver update is expecting the **El Niño Southern-Oscillation (ENSO) and the Indian Ocean Dipole (IOD) climate drivers to remain within neutral thresholds through to February 2025.**



Most of Victoria's major water storages are in good condition, **with major storages being 80.1% full on average**, trending down 13.6% less than this time last year.



Victoria experienced a drier than average winter and spring water harvesting season, with statewide winter rainfall averaging the lowest recorded since 2006.



South-West Victoria has experienced extremely dry conditions over the past 12–18 months, however urban water restrictions are unlikely to be required.

Climate outlook

As at 29 November 2024 the BoM's December to February outlook indicates:



A likelihood of **warmer temperatures across all of Victoria** – maximum temperatures are very likely (60–80% chance) to be above average.



A likelihood of **above average rainfall for most of the state** – Victoria is likely (55–75% chance) to receive above average rainfall from December to February.

Greater Melbourne



Water restrictions in Melbourne are not expected this summer or autumn. **Melbourne's water storages are currently at 88.4% capacity**, trending 6.7% lower than this time last year.



The decline in available storage occurred despite inflows into Melbourne's four major storages reaching 507 billion litres, or 5% above the 30-year average. This demonstrates that even above-average inflows are insufficient to meet current annual water demand.



Although water supplies are secure in the short-term, **supply and demand will continue to be closely managed** to ensure effective adaptation to the changing climate and population growth.



In collaboration with water corporations, DEECA has been working to explore a **range of new water source options to boost supplies when needed in the longer term**. This includes work to identify preferred supply options for further investigation when required.



While storages are currently high across the region, **storages can drop rapidly during hot, dry periods**. Using water wisely now reduces the chances of needing to implement water restrictions in the future.

Regional urban



Urban water restrictions are unlikely for any regional city or town this summer and autumn.



Total storage levels across **regional Victoria's major water storages are 78.7% full**, trending down 14.8% compared to this time last year.



Some regional towns could see restrictions, in winter or spring in 2025 under 'average', 'dry' or 'worst on record' scenarios.



Restrictions are possible for some small towns in GWMWater, Wannon Water, South Gippsland Water and Goulburn Valley Water's supply areas before the end of 2025, if dry conditions persist.



Rural



Northern Victorian regulated systems have received a 100% seasonal determination to high-reliability water shares except for the Bullarook system which has received 0%. An allocation to low-reliability water shares of 44% has been made in the Campaspe system with all other systems currently having a 0% allocation for low-reliability water shares.



Rural water users in southern Victoria's regulated systems have access to 100% of their high-reliability entitlements for the 2024–25 season.



The allocation for Wimmera Mallee Pipeline entitlement is 15%.



Licence holders in some unregulated systems will be subject to restrictions if dry conditions eventuate this summer and autumn.



Licence holders in groundwater systems will not be subjected to restrictions this summer or autumn, except for those in the Deutgam Groundwater Management Area in Werribee South where licences are restricted to 50% and the Barnadown zone of the Lower Campaspe Water Supply Protection Area (WSPA) which are restricted to 75%.



Current catchment and water resource conditions indicate adverse water quality risks such as **blue green algal blooms and blackwater events are unlikely.**

Traditional Owners



Access to cultural water is vital for the wellbeing of Traditional Owners and their ability to care for Country.



Cultural water is "water entitlements controlled or held by Traditional Owner Nations to benefit a range of outcomes as determined by each Traditional Owner group."



Since 2021, Victoria has returned 6,605 ML of water entitlements to Traditional Owners across the state.

Environment



Water for the environment supports the health of rivers, wetlands and floodplains, with flow-on benefits for the physical and mental wellbeing of Victoria's communities.



Catchments in the state's east and central regions are expected to have high reserves of water for the environment in 2024–25. Environmental water reserves in northern and western Victoria are expected to be moderate.



Below average rainfall in winter and spring 2024 meant that natural flows were lower than expected and environmental water demands for winter/spring actions were higher.



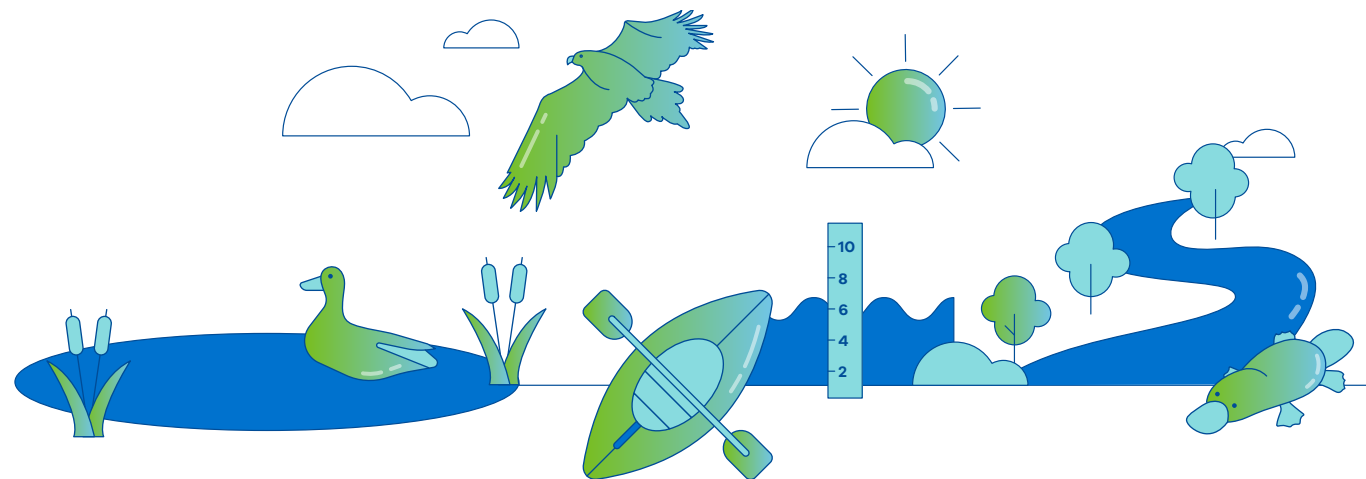
Drier conditions mean more wetland sites require environmental water during winter and spring than last year. Many wetlands are expected to receive top-ups in autumn 2025 to refill sites that draw down or dry over summer. This watering will provide foraging habitat for waterbirds and encourage wetland vegetation to grow and flourish. Other wetlands will be allowed to draw down naturally to enable important receding and dry-phase ecological processes.



In many river systems, the focus will be on delivering low flows and freshes to maintain habitat (including water quality) for native fish populations, supporting native fish dispersal and breeding where relevant and protecting bank vegetation at sites where that vegetation has been damaged by unnatural flow regimes



More information on how the VEWB is delivering water to where it is needed most can be found in the VEWB's [Seasonal Watering Plan 2024–2025](#).





3. Climatic conditions

Temperature and rainfall influence water use. We use more water in summer when it is hotter and drier (for example for gardens and pools), than in winter when it is wetter and colder. Water corporations are continually monitoring storage conditions. They forecast demand using the BoM's seasonal climate outlooks, which are updated weekly.

Recent conditions

Autumn 2024

- Victoria's autumn rainfall total, averaged across the state, was 46.6% below the 1961–1990 average. Rainfall was very much below average in the South-West and parts of the North-East.
- Victoria's autumn mean maximum temperature, averaged across the state, was 1.15 °C above the 1961–1990 average. Areas of the North-East ranges experienced their highest autumn average daily maximum temperature on record.

Winter 2024

- Victoria's winter rainfall total, averaged across the state, was 30.2% below the 1961–1990 average, the lowest since 2006. However, Mallacoota in East Gippsland and Edi Upper in the North-East had their highest winter daily rainfall on record.
- Victoria's winter mean maximum temperature, averaged across the state, was 1.31 °C above the 1961–1990 average. Areas in the South-West, North-West and some parts in the North-East had their highest winter average daily maximum temperature on record.

Spring 2024

- Victoria's October rainfall total, averaged across the state, was 32.8% below the 1961–1990 average. Rainfall was very much below average (lowest 10% of all Octobers since 1900) in the South-West.
- Victoria's October mean maximum temperature, averaged across the state, was 2.01 °C above the 1961–1990 average.
- Quambatook South, Woomelang and Mount Baw Baw had their highest October daily rainfall on record, as a deep low-pressure system, with a warm and humid airmass ahead of it, produced widespread severe weather and heavy rainfall.



Current state of Victoria's water storages

Rainfall across Victoria was above average over 2021–2023, meaning that even with a drier year in 2024 and a 13.6% decline, storages across most of the state are still in a relatively strong position.

Table 1. The change in Victorian major storages as at 29 November 2024 compared to the same time last year.




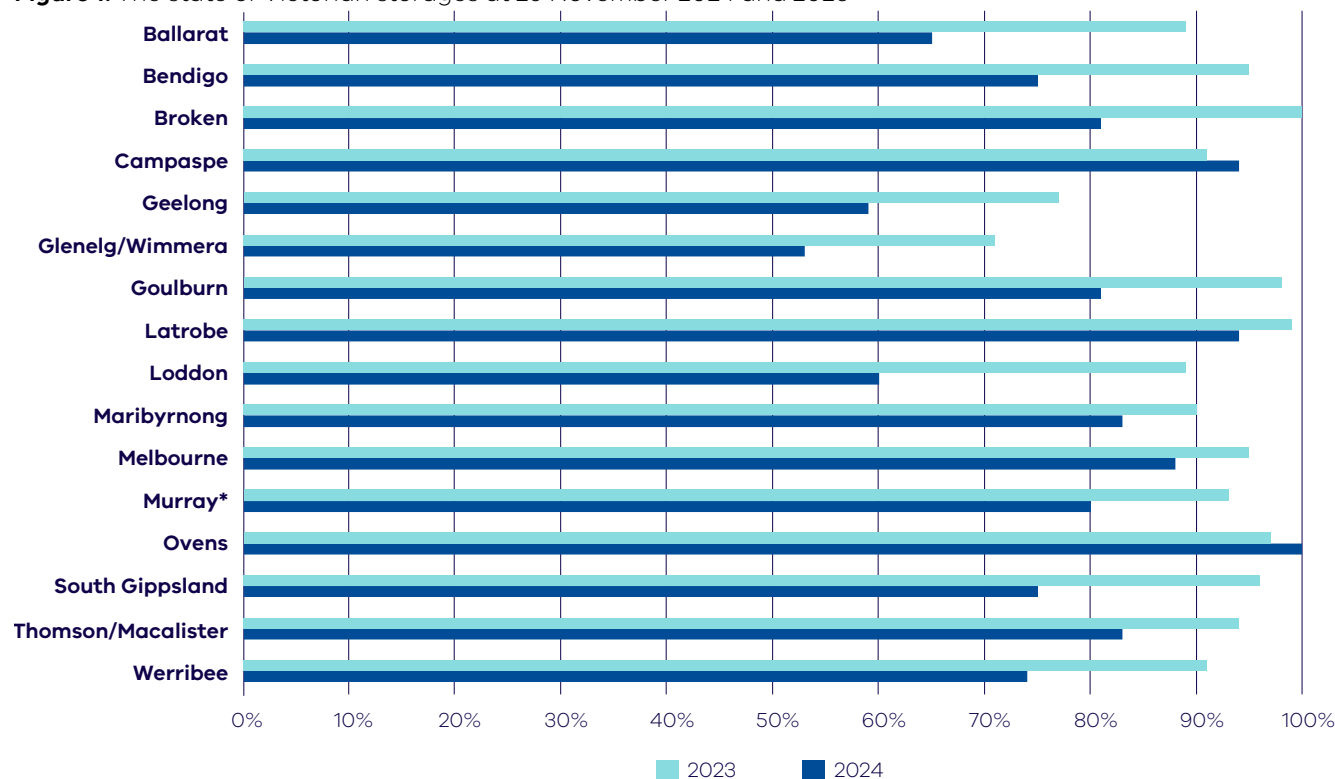
	2024	2023	% change
Victoria's major storages 	80.1%	93.7%	-13.6%
Melbourne storages 	88.4%	95.1%	-6.7%
Victoria's regional storages 	78.7%	93.5%	-14.8%

Figure 1. The state of Victorian storages at 29 November 2024 and 2023

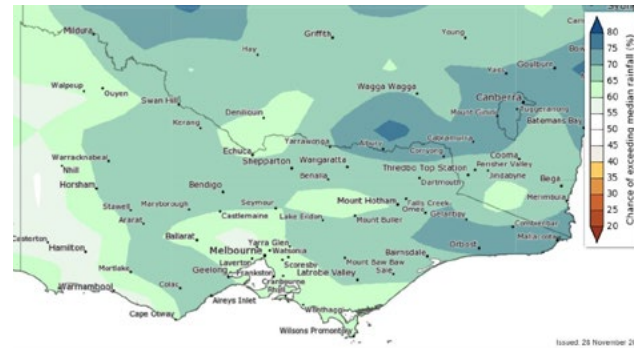


* The Victorian share of the Murray storages are updated monthly. Volumes for Murray storages are from 31 October.



December to February outlook

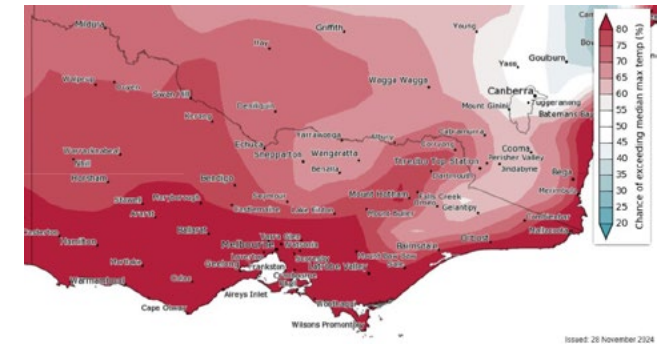
Figure 2. Chance of exceeding median rainfall for December to February 2025



Rainfall is likely to be above average for most Victoria from December to February 2025

As at 29 November 2024 the BoM seasonal outlook indicates that large parts of the state are likely (55–75%) to receive average to above average rainfall from December to February (Figure 2).

Figure 3. Chance of exceeding median maximum temperature for December to February 2025



Temperatures will be above average across Victoria between December and February 2025

As at 29 November 2024 the BoM seasonal outlook for December to February 2025 indicates that maximum temperatures are very likely (60–80%) to be above average for most of Victoria (Figure 3).

Victorian climate and streamflow over coming decades and the longer-term future



Victoria's climate and streamflow is highly variable, but within this variability we have experienced a warming and drying trend over recent decades.

Over recent decades we have experienced trends toward:

- higher temperatures and more hot days;
- reductions in rainfall during the cooler months;
- in some locations, increases in extreme, short-duration rainfall events; and
- in some catchments, particularly in western Victoria, a shift in the streamflow response to rainfall with typically less streamflow generated for a given amount of rain.

Some of the rainfall declines in the cooler months can be attributed to increases in greenhouse gas concentrations in the atmosphere. During the cooler months, we have been getting less rainfall from low-pressure and frontal systems.

Over future decades we can expect:

- the rainfall reductions during the cooler months to persist;
- increases in extreme rainfall events;
- increases in potential evapotranspiration due to higher temperature and lower relative humidity;
- reductions in streamflow because of less rainfall and higher potential evapotranspiration; and
- the streamflow response to rainfall to no longer remain the same, and generally decline.

Victoria's climate will continue to be variable with wet years and dry years, against a background drying trend. With a warmer future and projections of declining water availability, we can expect more frequent and severe droughts in coming decades and increases in extreme rainfall events.

The Victorian Government is investing in further research to better understand how Victoria's climate is changing and the water resource implications, through the Victorian Water and Climate Initiative. More information on the observed changes and longer-term future climate and water projections can be found at:

<https://www.water.vic.gov.au/our-programs/climate-change-and-victorias-water-sector/hydrology-and-climate-science-research/victorian-water-and-climate-initiative>





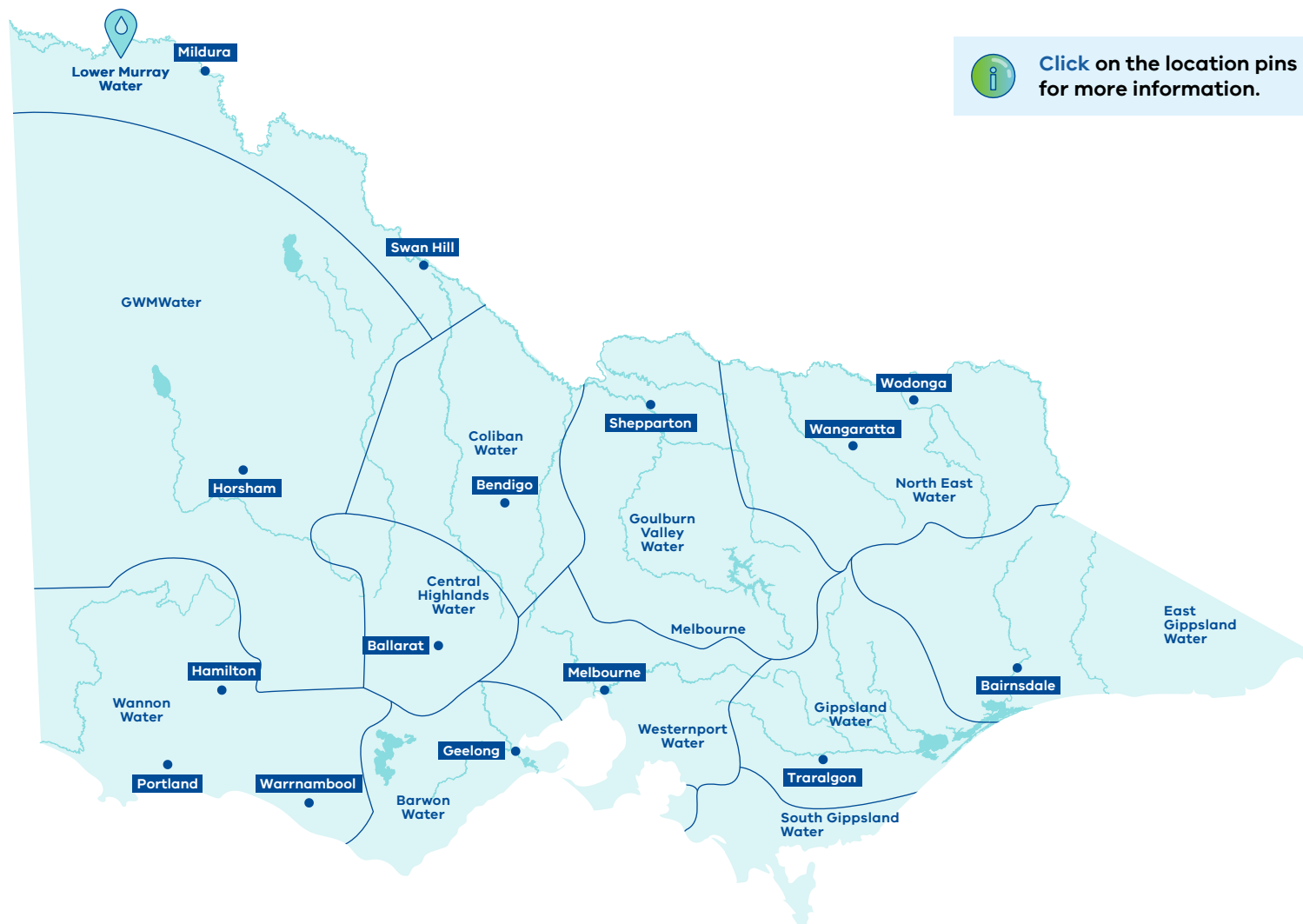
4. Urban water

Key messages

Despite below average rainfall during winter and spring, particularly in the South-West, strong starting storage levels, ongoing water efficiency programs and the added security provided by the desalination plant, means that water restrictions are not expected in any city or town for the December 2024 to May 2025 period. However, some regional towns could see restrictions if conditions become exceptionally dry over summer and autumn or later in 2025 under 'average' (two towns), 'dry' or 'worst on record' scenarios.

The interactive map on this page illustrates the water restrictions expected across the state under a range of climate scenarios. The restriction projections shown were based on the latest information available from water corporations in November 2024, except where otherwise denoted. These projections are generally for the 12-month period from 1 December 2024 to 30 November 2025, except for some smaller run-of-the river systems.

- No restrictions in any system under any event.
- Some systems could experience restrictions within 12 months under an average, dry or worst on record scenario.
- Some systems could experience restrictions within 3 months under dry or a worst on record climate scenario.



Urban water supplies, the year ahead

Each urban water corporation assesses water supplies on a system-by-system basis, to determine the best way to manage supply and demand to ensure a secure supply for cities and towns. Implementation of water restrictions is only one of a range of possible responses that water corporations may use to help cope with potential water shortages. Specific to each system, other responses may include behaviour change campaigns, use of standby water sources, water carting and water trading.

For the 12-month outlook period from December 2024 – November 2025:



Under an average climate scenario, **water restrictions could be applied to 2 towns** (Pyalong and Glenthompson).



Under a dry climate scenario¹, **water restrictions could be applied to 31 towns.**



Under a worst on record climate scenario², **water restrictions could be applied to 75 towns.**

Table 2 contains details for these towns, their outlook for summer and autumn and the short-term measures available to help affected communities and improve supply security.

Water systems across the state are diverse and many factors influence why some are more vulnerable to drought than others. Factors include:

- **Climatic conditions**
- **Physical characteristics of water systems themselves, including reservoir capacity and availability of water for irrigation**
- **Whether there is a drought reserve**
- **Flexibility of local demand, including pressure by large industrial or commercial water customers**
- **Whether there is the option for additional or alternative supplies**


Some parts of the state may be reliant on smaller water systems with smaller storages that either have less than 12 months' supply or a supply direct from a river or stream. These parts of the state are more susceptible to drought and dry conditions.

1 Based on the driest tenth per centile (ten per cent) of climate experienced since 1975.

2 A worst on record scenario would happen if conditions are similar to the extremely dry conditions that occurred during the peak of the Millennium Drought in 2006–07. This scenario is not expected in the Outlook period of November 2024 to December 2025.

Climate scenarios explained

The climate scenarios considered for the annual water outlooks are plausible representations of climate conditions over the outlook period.

 **Average:** based on average climate experienced since 1975.

 **Dry:** based on the driest tenth percentile (10%) of climate experienced since 1975.
































 **Worst:** similar to the extremely dry conditions experienced during the peak of the Millennium Drought in 2006–07.

Table 2. Victorian towns that may have water restrictions applied in the outlook period.

 No water restrictions  Water restrictions could be applied

Water Corporation	System and Towns supplied	Climate scenarios			Mitigation actions
		Average	Dry	Worst on record	
Barwon Water	Apollo Bay – Apollo Bay, Skenes Creek, Marengo				Water restrictions may be required to slow storages drawing down if we see a dry winter and spring limiting opportunity to harvest and store enough water, minimal rainfall events to 'top-up' the system during the summer and autumn, or if demand is much greater than expected than what we have seen historically.
	Lorne				
Central Highlands Water	Amphitheatre				In the event that the Amphitheatre system receives insufficient inflow again during the winter/spring of 2025 or if water quality deteriorates significantly, groundwater use or water carting may be required.
	Lexton				For Lexton, Central Highlands Water can transfer licence volume from its other bores, purchase additional groundwater from other groundwater users or undertake water carting to ensure adequate supply is maintained.
East Gippsland Water	Mitchell – Bairnsdale (including Wy Yung and Lucknow), Lindenow, Paynesville, Raymond Island, Metung, Tambo Bluff, Lakes Entrance (including Lake Tyers, Lake Tyers Beach and Kalimna), Nowa Nowa, Nicholson, Johnsonville, Swan Reach, Bruthen, Sarsfield				Under the expected conditions it is unlikely that water restrictions will be required in any of East Gippsland Water's drinking water supply systems. East Gippsland Water remain vigilant to climatic conditions and potential reductions to stream flows, and have initiated a number of mitigation strategies as well as maintaining water storages at near capacity as the hotter months approach.
	Orbost – Orbost, Marlo, Newmerella				
	Omeo				
	Swifts Creek				
	Buchan				
	Cann River				

Water Corporation	System and Towns supplied	Climate scenarios			Mitigation actions
		Average	Dry	Worst on record	
Gippsland Water	Briagolong	●	●	●	<p>Access to a deeper groundwater resource is underway for Briagolong.</p> <p>Water can be carted into Seaspray if required.</p> <p>A worst on record year may result in restrictions but more likely after prolonged dry period.</p>
	Rawson – Erica, Rawson	●	●	●	
	Mirboo North	●	●	●	
	Seaspray	●	●	●	
GWMWater	Seven Creeks – Euroa, Violet Town	●	●	●	<p>Anticipated to be for a short period of a month if it occurs. Water carting would be implemented if stream flows decline to where there is insufficient supply.</p>
	Seven Creeks (Strathbogie) – Strathbogie	●	●	●	
	Upper Delatite – Sawmill Settlement, Merrijig	●	●	●	
	Brewery Creek – Woods Point	●	●	●	
	Mollison Creek – Pyalong	●	●	●	
Grampians Wimmera Mallee Water	Eastern Grampians – Lake Bolac, Moyston, Wickliffe, Willaura	●	●	●	<p>Once completed, the East Grampians Rural Pipeline Project will bolster water security for these towns by providing access to supplementary water from the Grampians reservoir system.</p> <p>Prior to any restrictions being implemented GWMWater will explore all viable water carting options and strengthen communications to customers around appropriate use / permanent water restrictions.</p>

Water Corporation	System and Towns supplied	Climate scenarios			Mitigation actions
		Average	Dry	Worst on record	
Lower Murray Water	Mildura – Mildura, Merbein	●	●	●	To ensure continuity of service delivery, LMW has several initiatives which include 'Operational Summer Readiness Programs' to ensure that all critical assets are capable of delivering their function during peak summer demand periods.
	Red Cliffs	●	●	●	
	Robinvale	●	●	●	
	Piangil	●	●	●	
	Swan Hill – Swan Hill, Nyah, Nyah West, Lake Boga, Woorinen South	●	●	●	
	Kerang	●	●	●	
	Koondrook	●	●	●	
	Murrabit	●	●	●	
North East Water	Beechworth	●	●	●	North East Water is investigating the feasibility of a permanent pumping system to access dead storage in the Nill Gully storage and loss reduction programs to reduce water losses in the system.
	Benalla	●	●	●	
	Bright – Bright, Porepunkah, Wandiligong	●	●	●	
	Myrtleford	●	●	●	
	Corryong – Corryong, Cudgewa	●	●	●	
South Gippsland Water	Fish Creek	●	●	●	South Gippsland Water is further developing options to enhance water security such as using digital meters to better identify and reduce water losses in these systems.
	Agnes River – Toora, Welshpool, Port Welshpool, Port Franklin, Barry Beach	●	●	●	
Wannon Water	Glenthompson	●	●	●	Wannon Water will continue to closely monitor this system and take action as required to avoid town restrictions.

Securing our urban water supplies

Urban water security planning

Each urban water corporation produces an urban water strategy every five years. These strategies forecast projected water supply and demand for cities and towns. Where a potential future supply risk is identified, the strategy must identify the best mix of measures to maintain the level of water security expected by their customers. These strategies include drought preparedness plans that set out how the water corporation will respond to water shortages if they arise.

All urban water corporations released an urban water strategy in 2022 (or early 2023). The next round of urban water strategies are due in 2027.

Implementation of the strategies requires water corporations to continue to engage with councils and other public open space managers to identify and assess which important liveability assets might require water to be made available during periods of water shortages (either under a water use plan, exemption or supplied by non-potable water sources, such as recycled water). Examples could include sporting facilities, public gardens and street trees. Urban water corporations also consult with customers regarding important community assets that might require water to be made available during water shortages.

The Victorian Water Grid

Victoria's water grid works much like the state's road network, connecting water sources to urban, rural, environmental, recreational and cultural uses, via infrastructure including pipes and pumps, and natural elements like rivers. The water grid includes the following elements:

- Capture, production and storage infrastructure (including dams, reservoirs, weirs, irrigation districts, groundwater extraction locations and the Victorian Desalination Project)
- Delivery infrastructure (including channels, pipes, pumps and the natural waterways used to deliver water)
- Arrangements by which water can be purchased and sold through the water markets and allocated through the water entitlement framework.

When each urban water corporation does their urban water strategy, they identify whether additional supply is needed, including whether augmentation to the water grid is required. The Victorian Government supports investment in the water grid to maintain water security for cities and towns.

The *Central and Gippsland Region Sustainable Water Strategy (2022)* outlines a new proactive readiness approach to water grid augmentation planning, so that new regionally significant supplies are available in time. A continuous program of planning, readiness and acting before a crisis arises means future key water supply decisions occur based on the best value options rather than those that can deliver water the quickest. Failure to plan and deliver new water supplies in time puts us at risk of extended and severe water restrictions. Severe restrictions can have a significant and lasting impact on our everyday lives, economy and jobs, and the environment.

Despite below average winter and spring rainfall across the state, the strong starting levels of our storages have ensured that most remain in a healthy position. But, storage levels can drop quickly. For instance, Melbourne Water analysis has found that if the Millennium Drought were to reoccur starting today, storages would decline rapidly – even with full use of the desalination plant – potentially leading to severe water restrictions within three years.

This analysis demonstrates the importance of both early readiness work, and continuous monitoring of water security positions, so that proactive steps can be taken before a crisis occurs.

To offset declining inflows into our dams, we will continue to support gains in water efficiency in homes and businesses and make better use of all water sources. We also need to investigate options to expand our use of seawater desalination – a source of water that does not rely on rainfall.





Victorian Desalination Project

The Victorian Desalination Project is an integral part of our drinking water supplies for Melbourne and surrounding regions. The water grid connects the desalination plant to many regional towns, including Geelong, Sunbury, Melton, Cowes, Wonthaggi, Warragul, Korumburra, Poowong, Loch and Nyora.

In an average year, demand already outstrips supply from our rainfall-dependent water sources for the Greater Melbourne area. Melburnians currently use at least 50 GL more water per year than what flows into our storages in an average year, and the desalination plant has supplied 455 GL (equivalent of 25.1% of storage capacity) since being turned on in 2016–17. Amid a changing climate the Government is preparing now so Victoria's communities, farmers, industry and tourism can have confidence in the state's future water supply.

On 1 April 2024, the Minister for Water announced that no water delivery was needed from the desalination plant during 2024–25 based on advice provided by Melbourne Water. As at 29 November 2024, without the use of the Victorian desalination plant from 2016–17, it is estimated that Melbourne's storages would be at 63.3%. When a large water order is needed, the desalination plant can contribute around 33% of Melbourne's total annual water use. In a severe drought, storage levels can drop by 20% in as little as a year – which is why our water supply must be responsibly managed to avoid challenging water restrictions like those in place during the Millennium Drought.

How you can help to secure our water supplies

The Smart Water Advice website delivers practical advice on how to save water at home, in the garden and across different businesses and industries – <https://smartwateradvice.org/>

DID YOU KNOW



Permanent Water Saving Rules are always in place throughout the state to ensure we use water wisely outdoors, even when water restrictions do not apply.

The simple rules cover how and when to use water for lawns, gardens, fountains and hard surfaces such as driveways. For more information visit <https://www.water.vic.gov.au/for-households/water-restrictions-and-rules>.

The urban water corporations and DEECA are working together to deliver water saving initiatives for residential and non-residential customers, including:

- **Target 150** water efficiency program encouraging Melbournians to limit their use to 150 litres of water per person per day or less – <https://www.water.vic.gov.au/for-households/target-150-saving-water-in-our-cities>
- **Target Your Water Use** regional water efficiency program focusing on efficient water use for each region – <https://www.water.vic.gov.au/for-households/target-your-water-use-in-regional-areas>

- **Community Rebate and Housing Program** helping customers in vulnerable and hardship situations and not-for-profit housing organisations save money and water by fixing leaks and replacing and installing more efficient products such as taps, showerheads and toilets – <https://www.water.vic.gov.au/our-programs/community-rebate-program>
- **Schools Water Efficiency Program** saving schools water and money by using digital monitoring to track water usage and help identify leaks, faulty appliances and inefficient water use. It also provides water wise education materials for students to use in class and at home – Schools Water Efficiency Program <https://www.water.vic.gov.au/our-programs/schools-water-education-program>
- **WaterSmart** providing businesses, councils and other organisations with digital water use monitoring and water efficiency audits to help find leaks, inefficient equipment and opportunities to reduce or substitute potable water use where appropriate – WaterSmart <https://www.water.vic.gov.au/for-households/ways-to-save-water/watersmart>





5. Traditional Owners

For tens of thousands of years, Traditional Owners have lived their law and lore, observed customs, spoken languages, and nurtured Country through their spiritual, cultural, material and economic connections to land, water and resources. They have managed land and water sustainably over thousands of generations on Country, and these connections deserve respect and recognition.

Access to cultural water is vital for the wellbeing of Traditional Owners and their ability to care for Country. Cultural water is “water entitlements controlled or held by Traditional Owner Nations to benefit a range of outcomes as determined by each Traditional Owner group.”

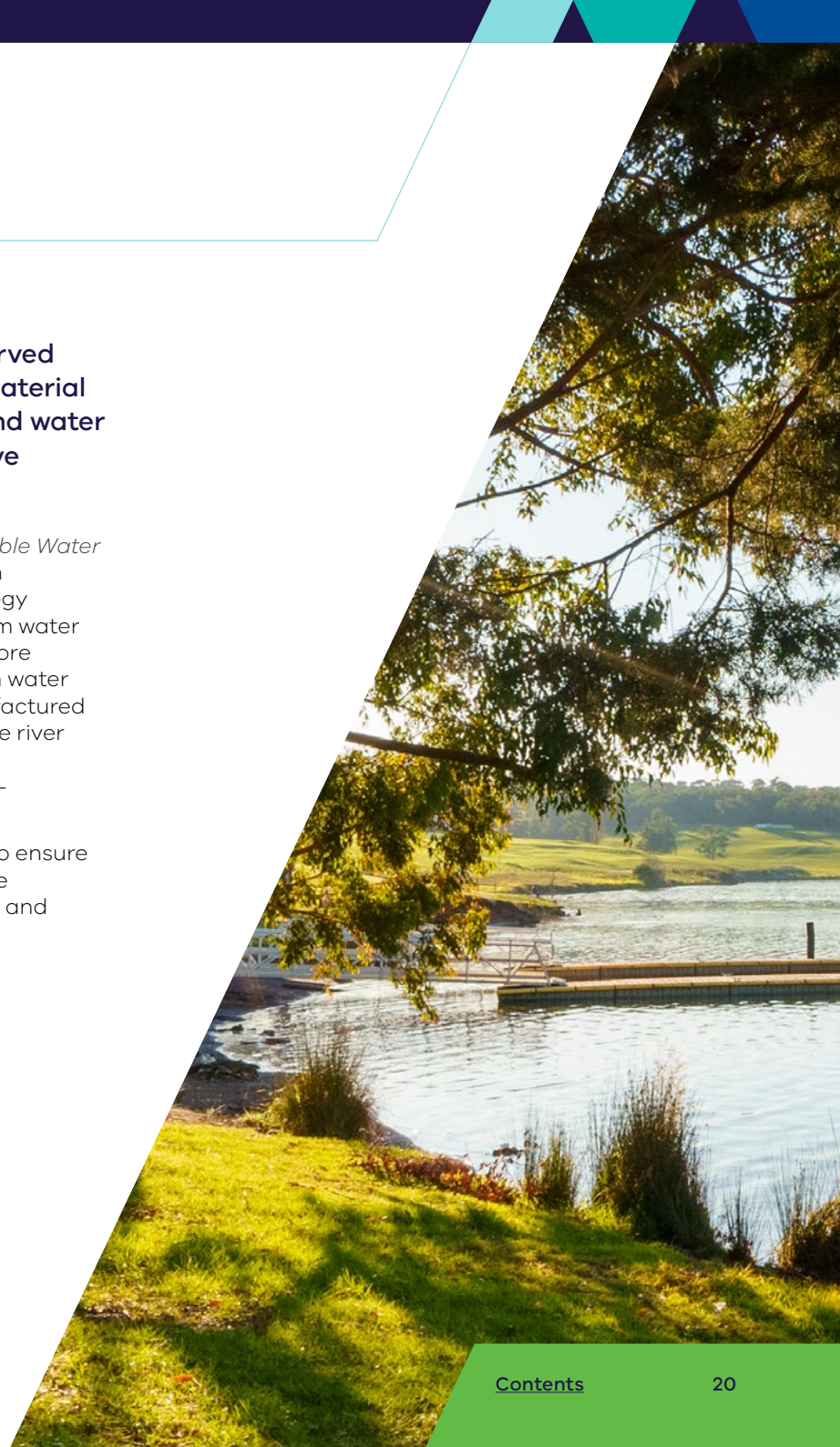
Since 2021, Victoria has returned 6,605 ML of water entitlements to Traditional Owners across the state.

The majority of water entitlements held by Traditional Owner organisations are in unregulated rivers, streams and creeks. Information about the year ahead for these systems is provided in Section 6.

Water is Life: Traditional Owner Access to Water Roadmap (2022) proposes a series of actions the government will take in partnership with Traditional Owners, the water sector and existing water users to increase Traditional Owners’ participation in planning and decision-making in the management of water landscapes; and increase water entitlements held by Traditional Owners for their self-determined use.

The *Central and Gippsland Region Sustainable Water Strategy (2022)* also commits to water return outcomes for Traditional Owners. The Strategy outlines priorities for short and medium-term water returns and into the future by investing in more manufactured water supplies to meet urban water needs. By transitioning to using more manufactured water for urban supplies, it will allow for some river water to be freed up to be returned to the environment and Traditional Owners for self-determined use.

Intergenerational returns will be important to ensure that Traditional Owners can manage climate variability and risk according to their Nation and community’s needs.





6. Rural water

Key messages



Click on the location pins for more information.



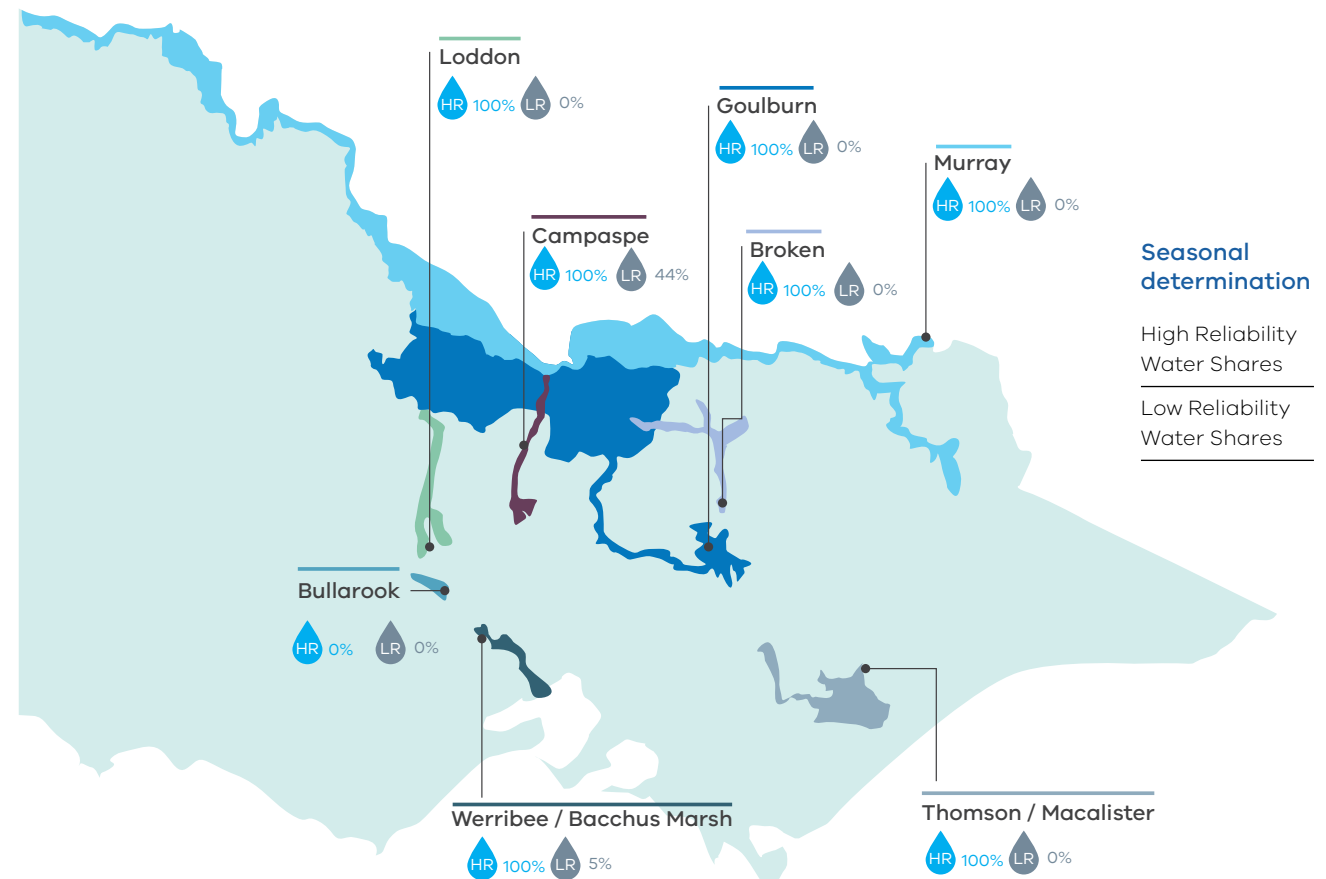
WATER SHARES EXPLAINED

A water share is an ongoing entitlement to a share of water available in a water system. The volume of a water share is defined as the maximum amount of allocation that can be made against it each year.

Water shares are classed by their reliability, which is defined by how often full season allocations are expected to be available. In Victoria there are two types, high-reliability water shares (HRWS) and low-reliability water share (LRWS).

Allocations are made to HRWS before LRWS. When HRWS have reached 100% allocation and existing commitments are satisfied, only then will allocation for LRWS be considered.

Figure 4. Seasonal determinations in Victorian declared systems as at 2 December 2024



- 1 Water year – 1 July to 30 June
- 2 Water shares can be high or low-reliability. Seasonal determinations are made to high-reliability water shares before low-reliability shares.

Rural water supplies, the year ahead



Northern Victoria

Regulated systems

As at 2 December the Murray, Goulburn, Campaspe, Broken and Loddon systems have received seasonal determinations of 100% allocation to HRWS, and Bullarook has 0%. The Campaspe system has a 44% allocation to LRWS and all other systems have 0% to LRWS.

Rainfall over the 2023/24 was average to below average across most of northern Victoria, with the North-East region experiencing a very much below average year. Inflows were below the long-term average at many storages, particularly the western storages in the Loddon system, which recorded inflows below 50% of their annual average.

In 2023/24 inflows into Lake Eppalock and Lake Eildon were 76% and 93% of the average annual volume respectively. Inflows to Lake Nillahcootie, Goulburn Weir, Dartmouth Reservoir, Lake Hume, Lake Buffalo and Lake William Hovell were between 60% and 100% of the long-term average.

The Campaspe system was the only system to open with a seasonal determination of 100% of HRWS for the 2024/25 water year. The Goulburn and Loddon systems opened the year with 69% HRWS and the Murray system opened with 63% HRWS. The Broken system opened at 5% and the Bullarook system seasonal determination was 0% HRWS on 1 July 2024.

Water availability in northern Victoria early in 2024/25 was supported by the opening seasonal determinations plus the volume carried over from 2023/24.

In the Broken system, rainfall in late November allowed seasonal determinations to reach 100% HRWS by early December. For the Bullarook system, inflows close to the long-term average are required to reach 100% HRWS by mid-February 2025.

Early season reserve volume has been set aside for the Murray and Goulburn for 2025/26. For the Broken and Bullarook systems, further resource improvements in 2024/25 will be directed towards increasing HRWS seasonal determinations before reserves for 2025/26 are established. With LRWS available in the Campaspe system, water is available to support HRWS seasonal determinations in 2025/26.

The Broken, Bullarook and Ovens are annual systems so water availability in 2025–26 will depend on seasonal conditions and inflows closer to the start of next season.

On 11 November a low risk of spill declaration was made for the Murray, Goulburn and Campaspe systems. This means that these water shares holders have access to the water held in the spillable water accounts.

Unregulated rivers, streams and creeks

Licence holders on unregulated waterways only have access to licenced water when streamflows reach the minimum flow requirements specified in management plans. In northern Victoria, these are managed and monitored by GMW.

Following below average rainfall this year restrictions for unregulated waterways are likely in smaller creeks and tributaries to the main rivers. Upper reaches of the Ovens, Campaspe and Loddon rivers are likely to experience restrictions however other northern Victoria rivers are unlikely to experience restrictions over summer.

Current water quality test results do not suggest blue-green algae is likely, although it is very unpredictable. Hypoxic blackwater events remain a possibility throughout summer but are highly dependent on the location and intensity of rainfall events. While these events are unlikely to impact customer supplies, they would impact aquatic life and recreational uses.

Groundwater

Groundwater licence holders have access to 100% of their entitlement with the exception of licence holders in the Barnadown zone of the Lower Campaspe Water Supply Protection Area (WSPA) which are restricted to 75%.

LOWER MURRAY DELIVERY RISKS

There is a possibility that flows in the River Murray System downstream of Barmah could be insufficient to meet demands for water entitled to be used where and when it is needed.

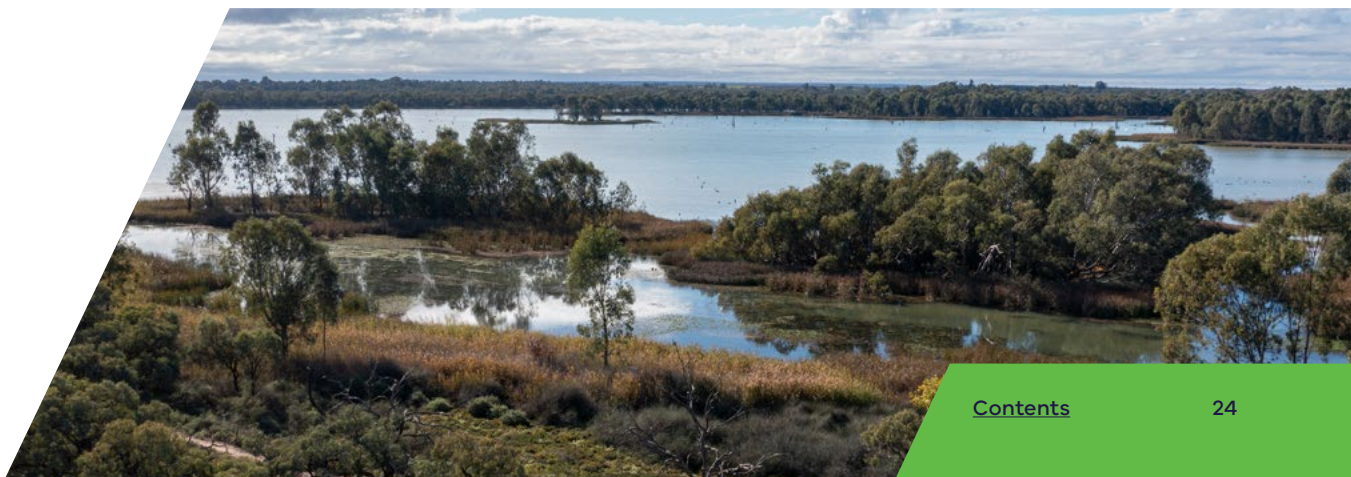
This can occur either when the physical capacity of the river system limits the amount of water that can be delivered (a system shortfall), or when demand spikes and there is not enough time to release more water from dams (a delivery shortfall). The Murray-Darling Basin Authority (MDBA) operates the river on behalf of the River Murray states (Victoria, New South Wales and South Australia) and actively manages the system to avoid shortfalls. However, significant changes over the past 10–20 years in both supply and demand are making it increasingly difficult to deliver water when and where it is needed. If the MDBA advises that there will be a shortfall in delivering water in the lower Murray, then states must ration demands between water users in the affected reach.

The risk of a delivery shortfall exists every year and is more likely during an extended heatwave. This is because it takes about three weeks for water released from Hume Dam to get to Sunraysia, so releases are made well before a heatwave is forecast or water users decide to increase their take. River operators have a good understanding about typical water use in the Murray, and draw on mid-river storages and weir pools where they can to meet spikes in demand and mitigate delivery shortfalls.

The risk of a Murray shortfall is monitored by the MDBA throughout the year. The MDBA's *River Murray System Annual Operating Outlook for 2024–25* sets out how the system will be operated, including to avoid a shortfall, under a range of different inflow conditions.

The MDBA have advised that the risk of shortfall this year is low, due to high storage volumes and inter-valley trade availability; however, the risk of delivery shortfall can never be managed to zero.

During summer and autumn, the MDBA report on emerging system and delivery shortfall risk in an updated *River Murray System Annual Operating Outlook 2024–25* (<https://www.mdba.gov.au/publications-and-data/publications/river-murray-system-annual-operating-outlook>), and in its River Murray Weekly Report.





Wimmera-Mallee

Regulated systems

Inflows to Wimmera-Glenelg System reservoirs for the 2024–25 season so far are tracking well below average. Despite this, the reservoirs are holding reasonable volumes due to significantly above-average inflows in 2022–23. The total volume in storage is 304,620 ML. At the same time last year the total volume in storage was 408,580 ML.

Entitlement holders in the Wimmera-Glenelg system receive allocations in line with the rules in their entitlement. As at 8 November, Wimmera-Mallee Pipeline Product entitlement holders have received 15% allocation against their entitlement for the 2024–25 season, with no allocation to the other entitlements (Glenelg Compensation Flow, Recreation, Wetlands and Commonwealth entitlements).

Unregulated rivers, streams and creeks

Well below average rainfall and limited streamflow throughout 2024 has meant that, irrigation triggers have not been satisfied for the Wimmera River or Avoca River, and irrigation diverters are not currently permitted to take water.

Groundwater

Groundwater licence holders in the West Wimmera GMA and Murrayville GMA will have access to 100% of their entitlement, except for Neaurpur Zone 1 of the West Wimmera GMA. Licence holders in the Neaurpur Zone 1 continue to be restricted to 80% of entitlement as part of a long-term management plan.



South-western Victoria

Regulated systems

There are two irrigation districts in South-West Victoria – Werribee and Bacchus Marsh – both of which are supplied from the Werribee and Lerderderg catchments via the Werribee system. At the opening of the irrigation season, Pykes Creek Reservoir was at 86% of capacity and Melton Reservoir was at 54% of capacity. Recent rainfall in the catchment has resulted in the allocation reaching 100% HRWS on 6 November. As of 4th December the LRWS is at 20%. Water users carried over approximately 9 GL of allocation equivalent to about 58% of the total entitlement. As water share holders cannot hold more than 100% of their entitlement (including carryover), spills from Melton Reservoir and Pykes Creek Reservoir do not lead to a deduction from carried over allocation.

At the beginning of the irrigation season Rosslynne Reservoir, in the neighbouring Maribyrnong catchment was at 83% capacity, compared to 95% at the same time last year and as of 12 November remained at 83%. Restrictions on irrigation or urban supply are not expected for the Maribyrnong system.

Unregulated rivers, streams and creeks

Rainfall in western Victoria has been below average resulting in reduced flows in the major streams (Barwon River, Leigh River, Glenelg River, Wannon River, Hopkins River and Mount Emu Creek). Overbank flows have been scarce compared to previous years.

Rainfall across the region has been average for late winter and spring in Geelong and eastern zones.

The Otway Basin has experienced lower rainfall compared to the last season and the Gellibrand and Curdies rivers are experiencing much reduced flows from this time last year.

If catchment dam levels are low from the dry season, winter-fill licence-holders may not have been able to use their full allocations and fill off-stream storages. Stock water dams in the far west are well below capacity.

Rosters and restrictions for all river basin systems are likely to be normal with any increase from Stage 1 to be made just prior in December 2024.

Groundwater

Groundwater licence holders in South-West Victoria have access to 100% of their entitlement. Carryover of up to 30% is available to most licence holders on the Nullawarre, Yangery and Heywood Groundwater Management Areas.

A 50% allocation was announced on 1 July 2024 for the Deutgam Groundwater Management Area in Werribee South. Restrictions were last in place in the 2021–2022 season.



Gippsland

Conditions across Gippsland have been highly variable over the past 12 months. Rainfall has been at or below average for much of Gippsland, with a few exceptions. Rainfall to September 2024 this year across eastern Gippsland was 400 to 450mm, and 550 to 650mm in western and southern Gippsland. Higher rainfall was isolated to some areas.

The outlook for late spring and early summer broadly indicates that average rainfall is likely, with the chance of some wetter conditions forming.

Regulated systems

The Thomson and Macalister irrigation districts are situated in central Gippsland, and their primary source of water is Lake Glenmaggie, supplemented by water held in a 'drought reserve' in the Thomson Reservoir, which provides additional allocation in years with low rainfall. Lower inflows through early winter resulted in an opening seasonal allocation announcement of 60% of HRWS on 1 July 2024. Recent and consistent rain events led to 100% HRWS allocation for customers in the Macalister Irrigation District and 29,000 ML of irrigation water has been delivered for the season so far. Irrigation deliveries have been operating close to capacity leading to supply delays, and with expected warm weather and limited rainfall high demand is likely to continue.

'Spill entitlement' has not been made available so far this season but may become available for water share holders prior to the end of the potential spill period on 15 December.

There will be no further allocation announcements until after 15 December 2024 (at the end of the potential spill period). At that time, SRW will assess storage levels, inflows, customer usage and Thomson

Reserve volume to provide an outlook on when allocation of low reliability water shares will be issued.

As at 12 November 2024, Blue Rock Reservoir (in the Latrobe system) is 99% full and restrictions on licence holders are not expected over the summer months. If dry conditions occur over the summer months storage levels may decline, however usually refills with winter/autumn rains. Blue Rock Reservoir has filled in nine of the last ten years.

Unregulated rivers, streams and creeks

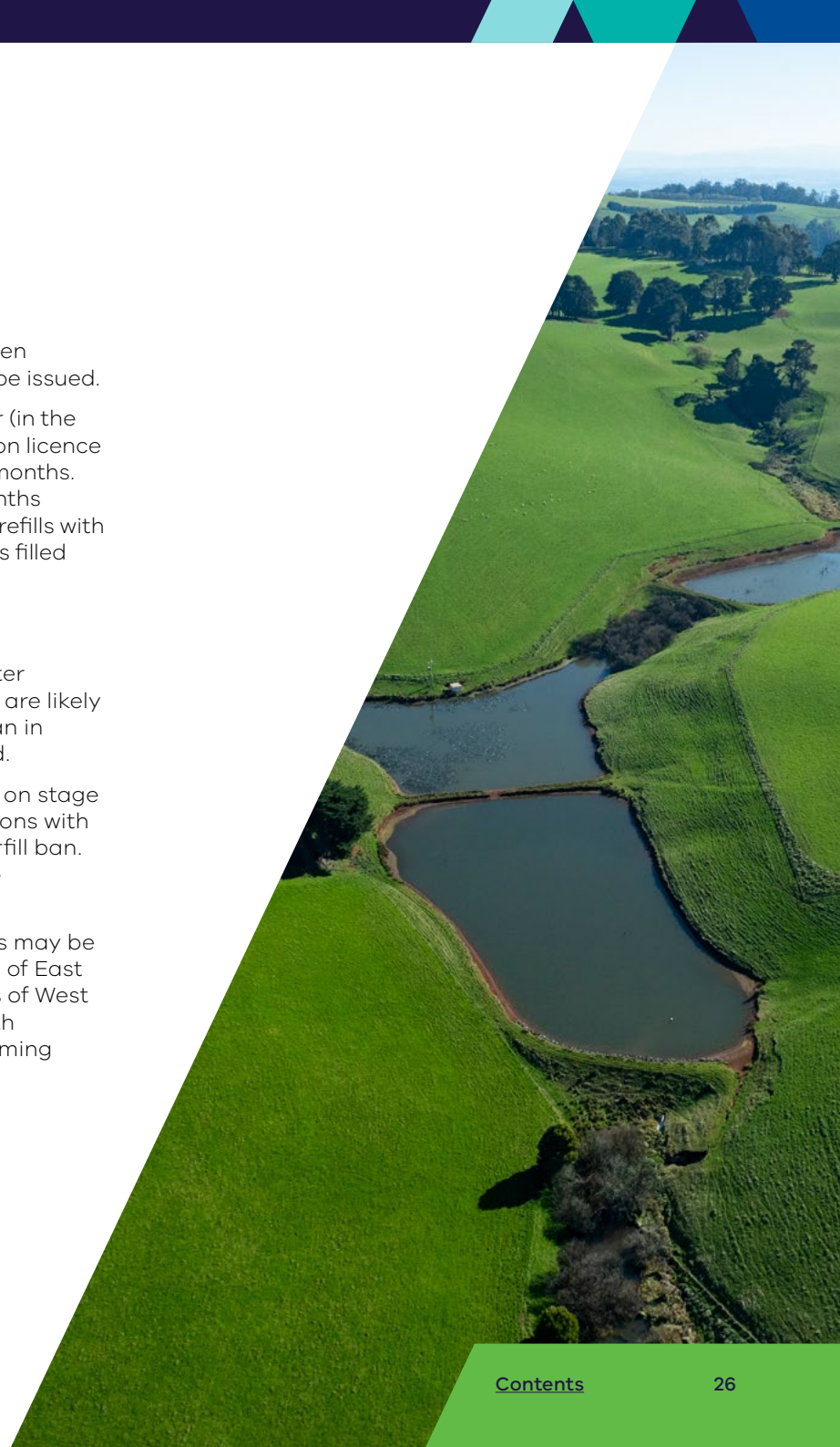
Drier conditions in unregulated surface water systems have meant that some restrictions are likely to be implemented earlier in the season than in previous years southern areas of Gippsland.

In eastern regions, the Avon River has been on stage one and two of the irrigation roster restrictions with the Mitchell River at times being on a winterfill ban. Streams in West and South Gippsland have maintained good flows leading into spring.

Stream flows suggest that some restrictions may be implemented earlier in the season for parts of East Gippsland, and mid to late season for parts of West and South Gippsland. The Tarra River (South Gippsland) may be on restrictions in the coming weeks if sufficient rainfall is not received.

Groundwater

No seasonal allocations will be applied to groundwater licence holders.





South-Central Victoria

Unregulated rivers, streams and creeks

The central region has experienced average rainfall this year, and stream flows have remained consistent with long-term averages. However, forecasts predict below-average rainfall for the period November 2024 to January 2025. This may result in drier than normal conditions with restrictions imposed on licensed users. All central region catchments will be monitored closely over summer and any restrictions will be imposed in line with relevant operating rules.

Inflows in the Yarra River basin between October and December 2024 have been lower compared to the same time last year. Inflow into Graceburn Creek is very likely to be below streamflow volumes up to 1.0 GL, where all volumes are below the historical average.

Winter and spring rainfall across the Dandenong Creek catchment has been consistent with long-term averages against wetter conditions observed last year. Average flows have been observed in Mile Creek, Monbulk Creek and Eumemmerring Creek systems.

The Werribee and Maribyrnong catchments had above average rainfall for the first nine months of 2024. The Turitable Creek and Willimigongong Creek are often subject to a total ban or restrictions in the summer months though neither system has had bans imposed in the past two years. With predicted rainfall, these systems may avoid bans again this year, however, these systems can be quick to change and are monitored closely.

Securing our rural water supplies

Rural water infrastructure is vital to support agriculture and its future growth. Successive governments have invested in modernising irrigation districts with a focus on reducing the amount of water required to operate the irrigation systems and increase the value of agricultural production. Governments have also partnered with communities to build modern stock and domestic supply systems in drier parts of the state that traditionally rely on rainfall or groundwater.

The Victorian Government, the Commonwealth Government, water corporations, Local Government and local communities have invested in a number of important water infrastructure projects that increase water security and improve drought resilience for our regional communities. Between 2020 and 2024, 8 of these projects have been completed. A significant achievement from these works was the Connections Project, the largest irrigation modernisation project in Australian history, which has now completed works to achieve 433 GL of water savings to be shared between the environment, irrigators, the Melbourne water retailers and Traditional Owners. This world-leading delivery system will support the sustainable future of productive agriculture in the Goulburn-Murray Irrigation District (GMID) for generations to come.

The other 7 projects which reached practical completion includes the Goulburn Murray Water – Water Efficiency Project, Lower Murray Water – Sunraysia Water Efficiency Project, Lindenow Valley Water Security Scheme, Mitiamo and District Reticulated Water Supply Project, Macalister Irrigation District Phase 1B project, Werribee Irrigation District Modernisation Project (Stages 1–3) and Bacchus Marsh Irrigation District Modernisation Project (Stages 1–4). These projects will improve water security, boost productivity, and provide significant regional community benefit.

Between 2021 and 2024, seven feasibility and business case projects were completed, including the Coliban Regional Rural Modernisation Preliminary Business Case, which has now progressed to a detailed business case with co-investment from the Australian Government. In addition, the Western Port Recycled Water Scheme Detailed Business Case has been completed and successfully received \$46.6 million from the 2024–25 Federal Budget towards the \$113.2 million infrastructure project.

At current, Victoria is overseeing over \$800 million of infrastructure projects including capital infrastructure projects, and feasibility and business cases.

There are 16 water infrastructure projects currently underway. This includes the \$62.60 million Macalister Irrigation District Phase 2 Project which will further modernise irrigation systems across the district, delivering up to 10.3GL of water savings, increasing system delivery efficiency and agricultural productivity, boosting the regional economy, and improving the health of the Gippsland Lakes by reducing nutrient run-off.

Victoria continues to take advantage of the funding opportunities on offer from the Commonwealth Government, with a range of projects recently securing funding under the National Water Grid Fund, Off-Farm Efficiency Program and the Resilient Rivers Water Infrastructure Program.

Under the National Water Grid Fund (NWGF), Victoria currently has 12 water infrastructure projects underway, including the Recycled Water on the Bellarine Project which will provide high quality, fit-for-purpose recycled water for high value agriculture and horticulture on the Bellarine Peninsula, the \$21 million Werribee Irrigation District Modernisation Project (Stages 4 & 5) which will largely complete the replacement of a manual, dilapidated, and inefficient channel-based irrigation network with a modern, automated pipeline across the Werribee Irrigation District.



In addition, 9 small-scale construction projects across Victoria are being delivered under the Victorian Connections Pathway Package. With these projects expected to collectively deliver up to 100 jobs during construction and secure over 125 ongoing jobs, provide 900 ML in additional water storage capacity, 1700 ML per annum increased water availability and an increase of an estimated 664 hectares of additional irrigable land. An additional 9 business case projects have been funded across the State.

In 2024, Victoria secured additional funding for 11 projects through the NWGF, with \$77.9 million committed funding from the NWGF towards \$180 million in projects.

Under the Off-Farm Efficiency Program, Victoria has completed both projects with the \$177.5 million GMW Water Efficiency Project, and the \$37.9 million Lower Murray Water (LMW) Sunraysia Water Efficiency Project now complete. These projects modernised and rationalised existing irrigation infrastructure and improved metering to provide a more secure and efficient rural water delivery network in both the Goulburn Murray Irrigation District and the Sunraysia Irrigation District respectively. The GMW Water Efficiency Project, completed in April 2024, had modernised/rationalised 254 km of channel, 1,021 outlets and recovered 15.9 GL in water savings for the environment.

The LMW Sunraysia Water Efficiency Project is on track to recover 1.8 GL of water for the environment from system losses such as leaks and evaporation by modernising over 27km of irrigation supply channels and replacing or decommissioning up to 700 stock, domestic and dethridge meters, providing a more secure water supply to nearly 5,000 irrigators in the LMW irrigation district and supporting an estimated 110 local construction and project delivery jobs. Construction on the project was completed in

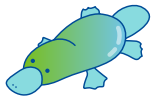
October 2024, and the State is on track to issue the cumulative 1.8 GL in water recovery to the environment by June 2026 subject to audit as per the State's protocols. Traditional Owners and urban water customers will also benefit from these works by receiving a share of any additional water recovery.

Victoria continues to progress its Sustainable Diversion Limit Adjustment Mechanism (SDLAM) projects to deliver environmental benefits agreed under the Murray Darling Basin Plan. This includes the \$124.99 million Victorian Murray Floodplain Restoration Project and the \$10.4 million Victorian Constraints Measures Program (Stage 1A).

Victoria continues to seek investment into projects which deliver broader benefits, not only to the environment, but also Traditional Owners, and to integrated water management including the fit for purpose use of recycled water for mixed uses including irrigation. Current recycled water projects include the \$113.2 million Western Port Recycled Water Scheme, which will supply 4000ML of Class A recycled water to between 40 and 60 farms in Cardinia Shire each year, as well as the \$116.3 million Western Irrigation Network, which will provide a climate resilient supply of water for the Parwan-Balliang agricultural district to the west of Melbourne.

The feasibility of developing irrigated agriculture in central Gippsland was explored through a SRW-led Southern Victoria Irrigation Development Feasibility Study which determined prospective locations for development and informed the *Central and Gippsland Region Sustainable Water Strategy (2022)*. As per Action 7-2 of the CGRSWS, further investigations are underway separately for the Macalister/Avon and Latrobe Catchments for future irrigation development and infrastructure options.





7. Environmental water

Key messages

Each year the Victorian Environmental Water Holder (VEWH) works closely with nine catchment management authorities and Melbourne Water to develop a seasonal watering plan. Victoria’s environmental watering program adjusts to current climatic conditions and seasonal variability. The VEWH and program partners plan for different climate scenarios, water availability and impacts of system operations, then make decisions as events unfold. The VEWH’s program continues to work closely with people on the ground to learn how systems operate differently in the cycle of ‘boom and bust’.

Environmental watering in some systems aims to build on the positive ecological outcomes achieved in recent years from planned environmental watering and natural flood events.

In other systems environmental water will be used to support recovery from flood impacts like loss of native fish from hypoxic blackwater and loss of plants on the water’s edge of rivers, creeks and wetlands from bank erosion.

Coming into 2024–25 many storage dams in eastern and central Victoria remain high, and some natural wetlands continue to draw down following record floods in 2022–23. Northern rivers are experiencing high irrigation demands due to recent warm and dry conditions.

This map does not include all the possible environmental watering that may occur over the outlook period. For more information on other activities across Victoria, please visit www.vevh.vic.gov.au



Environmental water supplies, the year ahead

WHAT IS WATER FOR THE ENVIRONMENT?



Water for the environment is water allocated and managed to protect and improve the health of rivers, wetlands, creeks and floodplains and the native plants and animals that depend on them. It aims to build resilience and halt declines in species as the climate changes. Each year environmental watering actions are managed in response to seasonal conditions, including responding to natural events such as the 2022 floods.

Waterway managers plan with Traditional Owners, stakeholders and communities to add to shared benefits when environmental flows are delivered, including for Traditional Owner cultural values, recreation and social values and community wellbeing.

The VEWH holds water entitlements and receives water allocations to use in the environmental watering program for the health of rivers and wetlands and provide outcomes such as:

- cueing fish migration and breeding
- improving water quality
- improving the condition of floodplain trees
- triggering the growth of wetland plants
- providing food and nesting habitats for waterbirds.

The VEWH and partner waterway managers identify and plan watering actions in waterways across Victoria under different climate and water availability scenarios, as published in the [*Seasonal Watering Plan 2024–25*](#).

In northern Victoria, the VEWH works with the Commonwealth Environmental Water Holder, Murray-Darling Basin Authority and other environmental water holder partners in New South Wales and South Australia so that combined environmental water holdings can deliver the highest priority watering actions in a well-co-ordinated way across the southern-connected Murray-Darling Basin.

Climate conditions across Victoria were dry at the start of 2024–25. Northern Victoria had below average rainfall and a mixed allocation outlook to supply users, including the environment. Central and most of East Victoria began the water year with full/near-full storages and a moderate allocation outlook. Western Victoria has had a drier than average start to the year and allocations are expected to be low. However, carryover volumes from last year and additional allocations during the year will allow a range of environmental watering actions to be delivered in the Wimmera and Glenelg systems during 2024–25.





ENVIRONMENTAL WATERING ACTIONS SO FAR IN 2024–25

Dry winter-spring conditions, combined with relatively high water availability in carryover has meant that larger than normal volumes of environmental water have been used to deliver winter and spring freshes and in some cases spring low flows which help maintain environmental values. River systems where larger than normal volumes of environmental water have been delivered so far in 2024–25 include the Goulburn, Wimmera and Macalister.

Many wetlands across the state are still holding water from natural floods in 2022–23 and 2023–24, but others are drawing down or have dried. Environmental water is being used to support a mosaic of wetland habitats across the landscape at different stages of their wetting and drying cycles to through managed drawdowns, top-ups and filling at a mix of sites. Maintaining water levels in some permanent wetlands is always a high priority to protect threatened native fish such as Murray Hardyhead, provide foraging habitat for some waterbird species and maintain key aquatic vegetation communities.

Any significant rainfall has the potential to cause near-full storages to spill and this could cause high flows and floods in some rivers. These natural events support important ecological processes and are critical to the health and persistence of many native plants and animals. Water for the environment may be used to supplement natural high flow events, like extending wetland inundation to help nesting waterbirds successfully raise their chicks or be saved for later use. Unused environmental water can also be carried over to support environmental flows in subsequent years, depending on the entitlement's conditions. This ability to carry water over between years is critical for sustaining waterway health in drier periods.

DOES THE VEWH BUY OR SELL WATER?

The VEWH may consider buying or selling water for the environment where it is important for meeting an environmental objective. The VEWH's annual [Water Allocation Trading Strategy](#) describes the trading activity the VEWH may carry out during 2024–25. On 26 June 2024 the VEWH announced that it may sell up to 45,000 ML across the Murray and Goulburn systems in 2024–25. As of 31 October 2024 it has sold 15,000 ML for the year. A full description of trades conducted during each year is presented in our [annual reports](#).

Further information

More information about sustainable water management and how we manage in dry conditions can be found at:

- Department of Energy, Environment and Climate Action – www.water.vic.gov.au

More information about your local conditions and how water corporations manage in dry conditions can be found at:

- Barwon Water – www.barwonwater.vic.gov.au
- Central Highlands Water – www.chw.net.au
- Coliban Water – www.coliban.com.au
- East Gippsland Water – www.egwater.vic.gov.au
- Gippsland Water – www.gippswater.com.au
- Goulburn-Murray Water – www.g-mwater.com.au
- Goulburn Valley Water – www.gvwater.vic.gov.au
- GWMWater – www.gwmwater.org.au
- Greater Western Water – www.gww.com.au
- Lower Murray Water – www.lmw.vic.gov.au
- Melbourne Water – www.melbournewater.com.au
- North East Water – www.newater.com.au
- South East Water – www.southeastwater.com.au
- South Gippsland Water – www.sgwater.com.au
- Southern Rural Water – www.srw.com.au
- Wannon Water – www.wannonwater.com.au
- Westernport Water – www.westernportwater.com.au
- Yarra Valley Water – www.yvw.com.au

More information about environmental water can be found at:

- Victorian Environmental Water Holder – www.vewh.vic.gov.au

More information about forecast rainfall and temperatures can be found at:

- Australian Bureau of Meteorology – www.bom.gov.au/climate/ahead

More information about using water efficiently can be found at:

- Smart Water Advice – <https://smartwateradvice.org/>

More information on water restrictions can be found at:

- <https://www.water.vic.gov.au/for-households/water-restrictions-and-rules>

DID YOU KNOW



Replacing a very inefficient showerhead (1-star or 2-star) with a 4-star showerhead can save a family of four around \$315 per year in water bills, plus significant energy savings.

Glossary

Allocation (determination): Water that is actually available to use or trade in any given year.

The water that is actually in the dam in any given year is allocated against water shares. The seasonal allocation is the percentage of your water share volume available under current resource conditions, as determined by the resource manager e.g. a 50% allocation to your 100 ML water share gives you 50 ML of water available to use or trade.

In northern Victoria the resource manager uses seasonal determination instead of allocation when allocating water to entitlements.

Average maximum temperatures: The BoM's median maximum temperature over the selected data period (e.g. February to April) is the midpoint of the ordered maximum temperatures over that data period from 1981–2018.

DEECA: The former Department of Environment, Land, Water and Planning (DELWP) has evolved into the Department of Energy, Environment and Climate Action (DEECA).

El Niño: El Niño is a large-scale change in tropical Pacific Ocean temperatures that affects global weather patterns. It's one phase of a natural cycle called the El Niño-Southern Oscillation. For Victoria, El Niño usually means below-average winter-spring rainfall and warmer temperatures.

Entitlements: A right to take/use/extract/have water delivered that may be limited by conditions. Different entitlements are necessary depending on where and how water is taken, and what it is then used for.

Freshes: Freshes are short-duration flow events that submerge the lower parts of the river channel. They are important for plants that grow low on the banks and provide opportunities for fish and other animals to move more easily along the river.

La Niña: La Niña is a large-scale change in tropical Pacific Ocean temperatures that affects global weather patterns. It's one phase of a natural cycle called the El Niño-Southern Oscillation. For Victoria, La Niña usually means above-average winter-spring rainfall and cooler temperatures.

Median rainfall: The BoM's median rainfall over the selected data period (e.g. February to April) is the midpoint of the ordered rainfall totals over that data period from 1981–2018. Due to the high variability of rainfall, the median is usually the preferred measure of 'average' rainfall.

Regulated systems: A water system where the flow of the river is regulated through the operation of major storages or weirs to secure water supplies. For example, in northern Victoria there are seven regulated water systems: the Murray, Ovens, Broken, Goulburn, Campaspe, Loddon and Bullarook.

Reliability: Water shares are classed according to their reliability, which is defined by the frequency with which full seasonal allocations are expected to be available. Most water shares are classified as either high-reliability or low-reliability water shares.

Reserves: Reserves are established to secure the availability of high-reliability entitlements in the following year if conditions turn dry. Each system has different arrangements for establishing reserves.

Run of the river systems: A system with little or no water storage. Forecasts for run of the river systems carry greater uncertainty because the demand on the system makes up a greater proportion of system capacity. Smaller outlook periods (3–6 months) are typically applied to reflect this uncertainty.

Spill: When water is discharged from the storage when there is more water in supply than demand for water. In southern Victoria, spill is extra water that irrigators can receive on top of their normal high-reliability allocation, if their water storage overflows in spring. For example, in the Macalister Irrigation District, any water that spills over the Glenmaggie Weir between 1 July and 15 December becomes spill entitlement.

Stage 1 restrictions: For a summary of key Stage 1 water restrictions head to <https://www.water.vic.gov.au/liveable/using-water-wisely/advice-and-rules/stage-1-water-restrictions>

Stage 2 restrictions: For a summary of key restrictions head to <https://www.water.vic.gov.au/for-households/water-restrictions-and-rules/stage-2-water-restrictions>

Unbundling: When the entitlement previously called a water right, or a take and use licence in a declared water system, is converted into three separate entitlements. These are: a water share, a delivery share or extraction share in a works licence, and a water-use licence. This occurred for declared water systems on 1 July 2007 in northern Victoria and 1 July 2008 in southern Victoria.

Unregulated systems: A river system where no major dams or weir structures have been built to regulate the supply, or extraction, of water for consumptive use.

VEWH: The Victorian Environmental Water Holder is an independent statutory body responsible for holding and managing Victoria's environmental water entitlements.

Victorian Water and Climate Initiative: The Victorian Water and Climate Initiative (VicWaCI) is a partnership between DEECA, the Bureau of Meteorology, and Commonwealth Scientific and Industrial Research Organisation (CSIRO). Through the VicWaCI research our understanding of climate change and its impacts on Victoria's water resources has grown substantially in recent years. Find out more at <https://www.water.vic.gov.au/our-programs/climate-change-and-victorias-water-sector/hydrology-and-climate-science-research/victorian-water-and-climate-initiative>

Water is Life: Traditional Owner Access to Water Roadmap (2022): '*Water is Life*' sets out the opportunities for Traditional Owners to access and manage water for spiritual, cultural and environmental purposes. Find out more at <https://www.water.vic.gov.au/aboriginal-values/the-aboriginal-water-program>.

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