

SECTION 2:

Gippsland region



2.1	Gippsland region overview	24
2.2	Latrobe system	27
2.2.1	Latrobe River	27
2.2.2	Lower Latrobe wetlands	35
2.3	Thomson system	44
2.4	Macalister system	53
2.5	Snowy system	61

2.1 Gippsland region overview

The systems in the Gippsland region that can receive water from the VEWH's environmental entitlements are *Durt'Yowan* (Latrobe River), lower Latrobe wetlands, *Carran Carran* (Thomson River), Heyfield wetlands and *Wirn wirndook Yeerung* (Macalister River). The Snowy River also receives an environmental flow managed by the New South Wales Department of Climate Change, Energy, the Environment and Water.

Environmental values, objectives and planned actions for delivering water for the environment for each system in the Gippsland region are presented in the system sections that follow.

Traditional Owners in the Gippsland region

Traditional Owners in the Gippsland region have a deep connection to Country that has endured for tens of thousands of years. This includes inherent rights and cultural obligations to Country and community.

The Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) is the Registered Aboriginal Party (RAP) under the Victorian *Aboriginal Heritage Act 2006* for the areas incorporating waterways covered by this section of the seasonal watering plan. GLaWAC holds native title on behalf of the Gunaikurnai people and has a Recognition and Settlement Agreement with the Victorian Government.

Other RAPs in the Gippsland region are the Bunurong Land Council Aboriginal Corporation and the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation. Their RAP boundaries do not extend to the waterways managed with water for the environment in the Gippsland region.

Traditional Owners with links to the Snowy River system include the Gunaikurnai, Nindi-Ngujarn Ngarigo Monero and Bidwel–Maap peoples.

Engagement

Program partners engage extensively with Traditional Owners, stakeholders and local communities to understand community priorities for delivering water for the environment in the coming year and to understand how cultural, social, economic and recreational values, uses and objectives may be supported by delivering environmental flows, provided they do not compromise environmental outcomes.

Engagement also informs environmental objectives in regional catchment and waterway strategies, environmental flows studies and environmental management plans.

Table 2.1.2 Program partners and stakeholders West Gippsland CMA engaged with to develop seasonal watering proposals and key documents informing the proposals for the Latrobe system, lower Latrobe wetlands and Thomson and Macalister systems (in alphabetical order)

Partner/ stakeholder	Latrobe system	Lower Latrobe wetlands	Thomson system	Macalister system
Community groups and environment groups	<ul style="list-style-type: none"> • Friends of Latrobe Water • Friends of Tyers Park • Great Latrobe Park • VRFish 	<ul style="list-style-type: none"> • Field & Game, Sale 	<ul style="list-style-type: none"> • Heyfield Wetlands Committee of Management • Native Fish Australia • VRFish 	<ul style="list-style-type: none"> • EcoGipps • Friends of Bellbird Corner • Native Fish Australia • VRFish
Government agencies	<ul style="list-style-type: none"> • Gippsland Water • Southern Rural Water • Victorian Environmental Water Holder 	<ul style="list-style-type: none"> • Parks Victoria • Victorian Environmental Water Holder 	<ul style="list-style-type: none"> • Gippsland Water • Melbourne Water • Southern Rural Water • Victorian Environmental Water Holder 	<ul style="list-style-type: none"> • Agriculture Victoria • Gippsland Water • Southern Rural Water • Victorian Environmental Water Holder
Landholders/farmers	<ul style="list-style-type: none"> • Individual landholders 	<ul style="list-style-type: none"> • Individual landholders 	<ul style="list-style-type: none"> • Thomson River irrigators 	<ul style="list-style-type: none"> • Macalister River irrigators
Recreational users	<ul style="list-style-type: none"> • Community members • Recreational users 	<ul style="list-style-type: none"> • Recreational users 	<ul style="list-style-type: none"> • Whitehorse Canoe Club 	<ul style="list-style-type: none"> • Whitehorse Canoe Club
Technical experts	<ul style="list-style-type: none"> • Arthur Rylah Institute 	<ul style="list-style-type: none"> • Arthur Rylah Institute 	<ul style="list-style-type: none"> • Arthur Rylah Institute 	<ul style="list-style-type: none"> • Arthur Rylah Institute
Traditional Owners	<ul style="list-style-type: none"> • Gunaikurnai Land and Waters Aboriginal Corporation 	<ul style="list-style-type: none"> • Gunaikurnai Land and Waters Aboriginal Corporation 	<ul style="list-style-type: none"> • Gunaikurnai Land and Waters Aboriginal Corporation 	<ul style="list-style-type: none"> • Gunaikurnai Land and Waters Aboriginal Corporation

Integrated catchment management

Altered water regimes are one of many threats to the health of Victoria's waterways. Many of the environmental objectives of water for the environment in the Gippsland region are complemented by simultaneously addressing issues such as barriers to fish movement, high nutrient loads, loss of streambank vegetation and invasive species.

Examples of complementary programs that support the outcomes of environmental flows in the Gippsland region include:

- works to protect and improve stream banks along priority reaches of rivers and their tributaries, including fencing to exclude stock, revegetation of riverbanks, willow removal and erosion control
- work with farmers along the Thomson and Macalister rivers on grazing and soil management, and on nutrient and water-use efficiency projects that help to improve water quality and river health
- construction of a fishway on the Thomson River to improve fish passage near the heritage-listed Horseshoe Bend Tunnel, completed in August 2019. The fishway allows Australian grayling (specifically targeted with releases of water for the environment) and other migratory fish to access over 200 km of river habitat from the upper reaches of the Aberfeldy River down to the Latrobe River
- construction of a fishway on the Macalister River to allow fish passage through the Maffra Weir, which is expected to be completed in 2027.

For more information about integrated catchment management programs in the Gippsland region, refer to the West Gippsland and East Gippsland regional catchment strategies and regional waterway strategies.

Risk management

When developing seasonal watering proposals for the Latrobe, Thomson and Macalister systems, environmental watering program partners assessed risks associated with potential environmental water delivery in 2026-27 and identified appropriate mitigating strategies. Risks and mitigating actions are continually assessed by program partners throughout the year (see **subsection 1.2.7**).

In the Snowy system, when weather conditions increase the risk of flooding, the New South Wales Department of Climate Change, Energy, the Environment and Water works with the Bureau of Meteorology, the East Gippsland CMA, New South Wales State Emergency Service and the VEWH to inform the community about the management of planned releases. Releases may be cancelled or rescheduled to limit flood impacts on private land.

Seasonal overview

The Gippsland region experienced dry conditions in 2024-25 and 2025-26. Most of the catchments received below-average rainfall between July 2025 and March 2026. Temperatures were above average throughout the Gippsland region. The combination of above-average temperatures and below-average rainfall conditions contributed to drier catchment conditions.

Delivery of water for the environment in the West Gippsland CMA region was managed in line with the dry-average planning scenario in 2025-26, due to below-average storage levels. Planned operational releases from storages for critical dam safety works met some of the planned watering actions during the year. Water for the environment supplemented winter and spring low flows and delivered freshes in spring, summer and autumn in the Thomson and Macalister rivers to help fish and other animals move freely between different habitats and maintain aquatic and fringing vegetation. Water for the environment was not used in the Latrobe River in 2025-26 due to channel capacity constraints in the lower reaches. Drier conditions have prevailed across the Lake Wellington catchment over the past year, resulting in substantial drawdown across all three lower Latrobe wetlands. Natural inflows have been less frequent than in recent years, and only minor top-ups occurred following isolated rainfall events in late summer. These conditions have reduced overall wetland water levels and increased the ecological importance of maintaining minimum water depths through managed inflows. Water for the environment was used to fill Heyfield wetlands in October 2025, to maintain habitat and food resources for frogs and waterbirds.

In 2025-26, the Snowy River received high environmental water allocations for the fourth consecutive year. Releases from Lake Jindabyne were used to mimic seasonal snow melt patterns to enhance the river's environmental and physical conditions.

The Bureau of Meteorology forecasts a 35-40 per cent probability of exceeding median rainfall across the Gippsland region during winter 2026. Ongoing lower storage levels (except Blue Rock Lake) and less rainfall predicted in the winter means the less likelihood of storage spills. However, allocations to environmental entitlements in 2026-27 are expected to remain the same as last year in the Gippsland region.

The environmental watering program in the Gippsland region aims to maintain sufficient flows during dry times to minimise stress on existing plant and animal populations, and to deliver greater flows in wetter conditions to enhance the condition of and increase recruitment in those populations. Critical carryover plans, planned commencement of infrastructure inlets/upgrades in 2026 and allocation water are expected to supply water for the environment in most planning scenarios. Supporting migratory fish in the Latrobe, Thomson and Macalister rivers can provide broader regional benefits, as larvae and juveniles from those systems can colonise other coastal rivers.

Delivery of water for the environment in the lower Latrobe wetlands in 2026-27 will aim to consolidate and, where possible, improve the environmental gains achieved in previous years. This will involve keeping Sale Common, Dowd Morass and Heart Morass at least partially full during winter and spring and allowing a natural partial drawdown during the warmer months in all climate scenarios.

The water year for the Snowy system runs from May to April the following year, unlike how water is managed in the other Gippsland systems. In March 2026, the Snowy Advisory Committee endorsed the total volume for release and daily release targets for the Snowy River from May 2025 to April 2026. The agreed daily releases will not vary unless the flow increases the risk of flooding downstream or operational constraints prevent delivery.

2.2 Latrobe system

Waterway manager – West Gippsland Catchment Management Authority

Storage manager – Southern Rural Water

Environmental water holder – Victorian Environmental Water Holder

The Latrobe system includes *Durt'Yowan* (Latrobe River) and lower Latrobe wetlands: Sale Common, Heart Morass and Dowd Morass.

2.2.1 Latrobe River

System overview





***Durt'Yowan* (Latrobe River) originates near the Baw Baw Plateau and passes through relatively flat to undulating plains, largely cleared for agriculture, before flowing into Lake Wellington (the westernmost point of the Gippsland Lakes) (Figure 2.2.1). The Latrobe River's notable tributaries include the Tanjil River, Narracan Creek, Morwell River, Tyers River, Traralgon Creek and Carran Carran (Thomson River).**

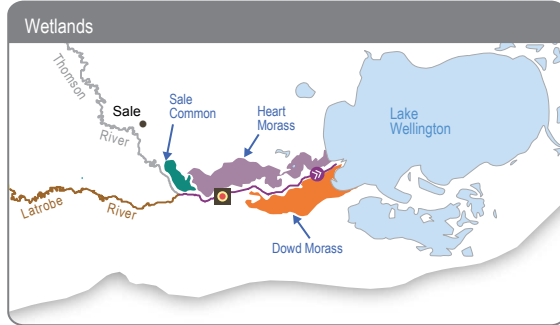
Water for the environment in the Latrobe River is supplied from Blue Rock Reservoir on the Tanjil River and Lake Narracan. Both reservoirs also supply water for irrigation, urban use, electricity generation and a paper mill in the Latrobe Valley.

The Latrobe River from Kilmany to the Thomson River confluence (reach 5) is a high-priority reach for delivering water for the environment because it contains endangered plant communities with good potential for rehabilitation. Capacity constraints within reach 5 mean that some of the larger freshes required to meet environmental objectives in reaches 3, 4, 5 and 6 cannot be delivered without inundating private land. Until this is resolved, environmental flows will be managed in consultation with impacted landholders. Where possible, flows in the Latrobe River are coordinated with freshes in the Thomson River to meet targets for the Latrobe River estuary.

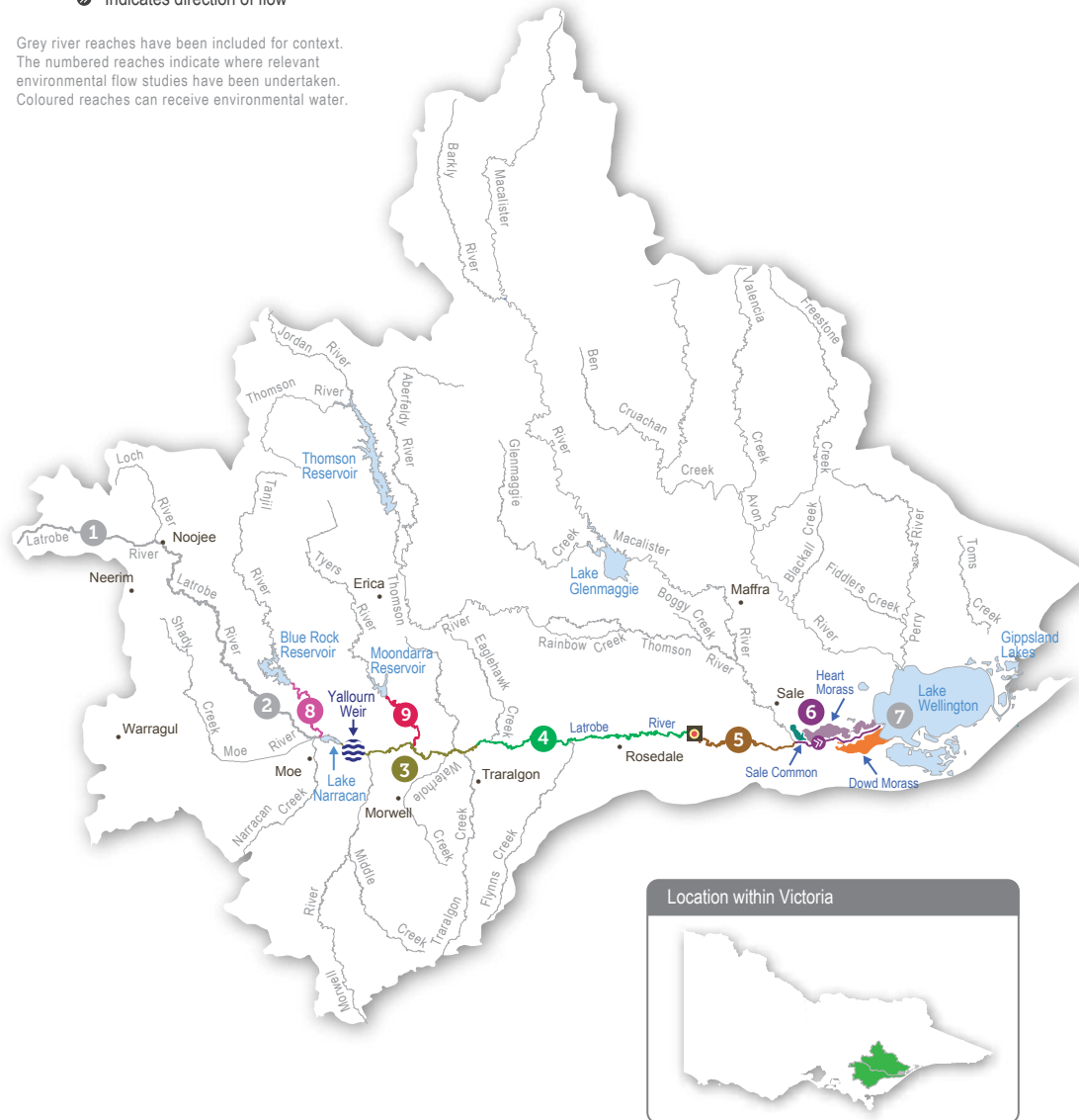
Options to deliver water for the environment to the Latrobe River via the Tyers River are being investigated in 2025-26, with preliminary results by June 2026. If adopted, this would benefit native in-stream and streamside vegetation and non-migratory fish within the Tyers River.

Figure 2.2.1 Latrobe system

- Reach 1 Upstream of Willow Grove
- Reach 2 Willow Grove to Lake Narracan
- Reach 3 Lake Narracan to Scarnes Bridge
- Reach 4 Scarnes Bridge to Kilmany South
- Reach 5 Kilmany South to Thomson River confluence
- Reach 6 Downstream of Thomson confluence
- Reach 7 Lake Wellington
- Reach 8 Tanjil River
- Reach 9 Tyres River
-  Water infrastructure
-  Measurement point
-  Town
-  Indicates direction of flow



Grey river reaches have been included for context. The numbered reaches indicate where relevant environmental flow studies have been undertaken. Coloured reaches can receive environmental water.



Environmental values

The upper reaches of the Latrobe River flow through state forest and are relatively intact and ecologically healthy. They have continuous stands of river red gums and intact streamside vegetation, and they support native animals, including barred galaxias, river blackfish, Gippsland spiny crayfish and nankeen night herons.

Below Lake Narracan, the Latrobe River is regulated and highly degraded due to historic river management practices. Most large woody habitats along the river have been removed, and many sections have been artificially straightened. These practices have caused significant erosion and widened the river channel, reducing the quality and quantity of habitat for aquatic plants and animals.

There is endangered and vulnerable vegetation in all but the most modified sections of the Latrobe River. The banks along the lower reaches support stands of swamp scrub, characterised by swamp paperbark and tea tree. Mature river red gums grow adjacent to the lower Latrobe wetlands and provide nesting habitat for sea eagles and other birds of prey that hunt in the wetlands. The Latrobe River supports native estuarine and freshwater fish, including black bream, Australian bass, Australian grayling and short- and long-finned eel. The river also provides habitat and supports feeding and breeding conditions for platypus, rakali (water rats) and freshwater turtles.

The Latrobe River and its tributaries provide an essential source of freshwater to the Gippsland Lakes system, of which the lower Latrobe wetlands are an important component.

Environmental objectives in the Latrobe River



F1 – Increase native fish (migratory, resident and estuary) populations



G1 – Increase in-stream geomorphic diversity



M11 – Increase the abundance of waterbugs



PR1 – Increase the extent of the platypus and rakali (water rat) populations



T1 – Maintain the abundance of freshwater turtle populations



V1 – Improve the condition and increase the extent and diversity of submerged, emergent and streamside native vegetation

V2 – Reduce the extent and density of invasive plants



WQ1 – Avoid adverse water quality conditions (such as high salinity) in the lower reaches of the Latrobe River and its estuary

Traditional Owner cultural values and uses

The Gunaikurnai have had a continued connection to land and waters for tens of thousands of years, including with *Durt'Yowan* (the Latrobe River), its waterways and connected Country.

For the Gunaikurnai Traditional Owners, there are immense challenges in healing, protecting and managing Country, which has been drastically altered since colonisation.

“As Gunaikurnai, we see our land (Wurruk), waters (Yarnda), air (Watpootjan) and every living thing as one. All things come from Wurruk, Yarnda and Watpootjan, and they are the spiritual life-giving resources, providing us with resources and forming the basis of our cultural practices. We have a cultural responsibility to ensure that all of it is looked after.”

– **Water is Life: Traditional Owner Access to Water Roadmap** – Gunaikurnai Nation Statement

In September 2025, the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) released a position statement, **Healing Wurruk After Coal**, outlining Gunaikurnai principles, rights and priorities for the remediation of coal mines in the Latrobe Valley. The statement, informed by the **Gunaikurnai Whole-of-Country Plan**, included a strong message on the life-sustaining importance of Yarnda (water) and the need to improve the health of *Durt'Yowan* and all waterways that connect to *Talikator* (Gippsland Lakes).

Objectives for *Durt'Yowan* include:

- ensuring water quality, both with water in-stream and water coming into the river
- operations moving to a prioritisation of water delivered for healthy Country ahead of other interests
- government investment in waterway rehabilitation
- connection of *Durt'Yowan* to its wetlands and floodplains
- GLaWAC participation in ongoing monitoring, restoration and management.

GLaWAC has observed that the absence of ecological monitoring by the government of *Durt'Yowan* in 2025-26, particularly as the system transitions toward a future shaped by mine rehabilitation, presents a significant risk. Also, water management decisions, including environmental water deliveries, need to be informed. GLaWAC therefore seeks that the environmental watering program and other water uses in *Durt'Yowan* be informed by multi-seasonal annual ecological, water quality and cultural monitoring from 2026-27.

Cultural values and uses of *Durt'Yowan* are holistic and interconnected, encompassing plants and animals, the importance of place and its role in communicating story and the health of the entire *Durt'Yowan* ecosystem. These values extend to maintaining water quality, controlling pest species and maintaining a natural, seasonal flow regime and overbank flood events. GLaWAC seeks the following from *Durt'Yowan* environmental watering in 2026-27:

- collaboration with GLaWAC regarding the timing of the delivery of water for the environment to support water quality, and a seasonal flow regime that embodies healthy Country
- monitoring, including monitoring of cultural indicators, to be seasonal and continuing, to inform the impacts of changed water regimes from water storage dams, urban and mine supply and other uses
- river flows of *Durt'Yowan* to aid freshwater supply to the *Durt'Yowan* estuary and associated freshwater wetland habitats
- *Durt'Yowan* connectivity upstream and downstream is supported, noting that connection to floodplains in 2026-27 is not forecast
- water quality objectives aimed at supporting cultural values and uses of significance to the Gunaikurnai, including plants, animals and place
- target *Durt'Yowan* flows to help fill large wetlands to support Gidai (black swan) breeding in late winter to spring, through supporting the growth of loombrak (water ribbon) and submerged aquatic plants
- annual government ecological monitoring, including cultural indicators already provided by GLaWAC, is conducted to inform outcomes and future environmental watering needs.

GLaWAC continues to have a close partnership with West Gippsland CMA. We aim to work together in 2026-27 to increase the involvement of Gunaikurnai Traditional Owners in planning and managing environmental flows and progressing opportunities towards self-determination in the environmental watering program, a core commitment of the VEWH and its program partners. This is reinforced by legislation and policy commitments, including the *Water Act 1989*, the **Victorian Aboriginal Affairs Framework**, the 2016 **Water for Victoria**, the 2022 **Water is Life: Traditional Owner Access to Water Roadmap**, and, in some cases, agreements under the *Traditional Owner Settlement Act 2010*.

Social, recreational and economic values and uses

In planning the potential environmental watering actions in **Table 2.2.1**, West Gippsland CMA considered how environmental flows could support values and uses, including:

- water-based recreation (such as fishing and water skiing)
- riverside recreation and amenity (such as birdwatching and game hunting)
- socio-economic benefits (such as commercial fishing, tourism and improved water quality for domestic, irrigation and stock use).

Planned environmental flows may be modified to align with community benefit so long as environmental outcomes are not compromised. West Gippsland CMA works with the storage manager to ensure releases of water for the environment do not affect Lake Narracan’s water levels during water skiing events held between January and March.










Environmental watering will also support water sports activities (e.g., water skiing events) by communicating with recreation groups and commercial operators and by timing freshes to coincide with events where possible.



















Scope of environmental watering

The term ‘environmental watering’ refers to the active delivery of held environmental water to support particular environmental objectives by altering the flow in a river or the water level in a wetland. While other terms are sometimes used to describe the delivery of environmental water, ‘environmental watering’ is deliberately used here and in seasonal watering statements to ensure consistency in the legal instruments that authorise the use of water for the environment in Victoria.

Table 2.2.1 describes the potential environmental watering actions in 2026-27, their expected watering effect (that is, the intended physical or biological effects of the watering action) and the longer-term environmental objectives they support. Each environmental objective relies on one or more potential environmental watering actions and their associated physical or biological effects.

Table 2.2.1 Latrobe River potential environmental watering actions, expected watering effects and environmental objectives

Potential environmental watering action	Expected watering effects	Environmental objectives
Latrobe River – reach 5		
Winter/spring low flow (620 ML/day during July to November 2026 and June 2027)	<ul style="list-style-type: none"> • Wet benches to maintain habitat, support the growth of emergent aquatic plants and limit the encroachment of terrestrial vegetation • Maintain dissolved-oxygen levels in pools and maintain sediment (sands and silts) in suspension to prevent pools from filling and depositing on substrates, helping to maintain habitat for waterbugs, turtles, platypus, rakali (water rats) and other aquatic mammals and breeding substrate for river blackfish • Maintain longitudinal connectivity to allow movement/dispersal of native fish, turtles, platypus and rakali (water rats) 	 F1  G1  PR1  T1  V1, V2  MI1  WQ1

Potential environmental watering action	Expected watering effects	Environmental objectives
Latrobe River – reaches 3 & 5		
<p>Summer/autumn low flow (440 ML/day during December to May)</p>	<ul style="list-style-type: none"> Maintain an adequate depth in pool habitat to support native fish, turtles, platypus and rakali (water rats) and submerged vegetation Limit encroachment by terrestrial vegetation and support the growth of emergent aquatic plants Mix pools to maintain dissolved-oxygen levels suitable for aquatic animals 	 F1  PR1  T1  V1  M11  WQ1
Latrobe River – reaches 3, 4 & 5		
<p>Spring/summer/autumn river fresh(es) (one to nine freshes of 980-1,400 ML/day for one to five days during November to May)</p> <p><i>Note: at lower magnitude (980 ML/day), objectives are met in reaches 3 & 5</i></p> <p><i>At upper magnitude (1,400 ML/d), objectives are met in reaches 3, 4 & 5</i></p> 	<p>Maintain water quality fresh (one-day duration):</p> <ul style="list-style-type: none"> freshen water quality in pools to support fish, waterbug and zooplankton communities provide sufficient velocity to turn over and flush sediments (sands and silts) from pools, scour algae from hard surfaces and clean fine sediment from substrates, including river blackfish nesting habitats <p>Fish and vegetation fresh (three to five days duration)</p> <ul style="list-style-type: none"> objectives listed for the one-day fresh and additional objectives: <ul style="list-style-type: none"> wet benches to support the growth of the emergent aquatic plants provide longitudinal connectivity (including over benches for Australian grayling) for native fish, platypus and rakali (water rats) 	 F1  PR1  G1  V1, V2  M11  WQ1
Latrobe estuary – reach 6		
<p>Spring/summer/autumn estuary fresh(es) (one to three freshes of 2,200 ML/day for seven to 10 days during November to May)</p> <p><i>Note: up to 1,220 ML/day will be required from the Thomson River to meet the total recommended magnitude of 2,200 ML/day to achieve expected watering effects in the Latrobe estuary</i></p>	<ul style="list-style-type: none"> Upper estuary: fully flush with freshwater to support submerged vegetation, provide adequate dissolved-oxygen levels for aquatic animals, transport silt, wet benches, and deliver freshwater to connected wetlands Mid-estuary: partially/fully flush the upper layer of the water column to improve water quality, support emergent aquatic plants, provide freshwater habitat and associated food sources for freshwater fish and provide breeding opportunities for estuary fish Lower estuary: partially flush the upper layer of the water column; a flow of this magnitude will also provide opportunities to fill the lower Latrobe wetlands 	 F1  G1  V1  M11  WQ1

Scenario planning

Table 2.2.2 outlines potential environmental watering and expected water use in a range of planning scenarios.

The Latrobe catchment experienced drier conditions and below-average inflows in 2025-26, with minor flooding in early and late spring. Capacity constraints in the Latrobe River prevented the release of freshes and low flows. Despite this, compliance with low-flow requirements and natural freshes helped sustain the ecological functioning of the Latrobe River and the condition of the streamside and wetland vegetation.

In dry conditions, protecting and maintaining high-priority environmental assets, ensuring the continuation of critical functioning and avoiding catastrophic events (such as low dissolved oxygen or algal blooms) will be a high priority in the Latrobe River in 2026-27. In 2026-27, potential watering actions in the Latrobe River, including the estuary and connected wetlands, will aim to support native fish communities by maintaining baseflows and delivering targeted freshes that enable movement, dispersal and survival of recruits. Options to deliver environmental water to the Latrobe River via the Tyers River are being explored by Gippsland Water and DEECA. Once the assessment is completed, West Gippsland CMA will continue to work with Gippsland Water and DEECA to transfer environmental water from the Blue Rock Reservoir to the Tyers River and deliver environmental water in the Latrobe River.

Tier 1 watering actions across all planning scenarios aim to deliver low flows in reaches 3 and 5 to maintain year-round habitat for recruits, native fish, turtles, platypus and rakali (water rats) and support vegetation growth. Delivering spring/summer/autumn freshes to reach 5 and the estuary will maintain water quality and provide opportunities for fish movement.

A lower-magnitude summer/autumn fresh in reach 5 will be delivered in tier 1 until a feasible measure to address river breakouts and inundation issues is implemented. Ongoing issues of river breakouts in the lower Latrobe River are currently being assessed, with mitigation option(s) expected to be identified by June-July 2026. The timeline for implementation of mitigation options is not yet known.

Longer-duration estuary freshes (up to 10 days) may be coordinated with the flow in the Thomson River in all planning scenarios to meet environmental flow objectives in the Latrobe River estuary (reach 6). Summer/autumn estuary freshes also achieve the objectives of river freshes in reach 5 and will likely be met naturally in the wet and possibly average planning scenarios.

Most of the recommended flows are likely to be fully achieved through a combination of natural events, operational releases, passing flows and environmental deliveries in the average and wet planning scenarios. There will be less natural inflow in the drought and dry planning scenarios, and available water for the environment will be used to deliver low flows and freshes mostly at their lower recommended duration and frequency to maintain rather than improve current environmental conditions in the Latrobe River. It is expected that even in the drought and dry planning scenarios, passing flows and natural inflows from unregulated tributaries will provide some flow through the system during winter and spring.

There are no true carryover provisions in the Latrobe system. Rather, the VEWH maintains an ongoing share of storage capacity in Blue Rock Reservoir and Lake Narracan. In drought and dry conditions, 5,000 ML (and in average conditions, 3,000 ML) must be maintained in storage to help deliver critical watering actions in early 2026-27.

Table 2.2.2 Latrobe River environmental watering planning scenarios

Planning scenario	Drought	Dry	Average	Wet
Expected conditions	<ul style="list-style-type: none"> • Small contributions to low flow from unregulated reaches and tributaries • Passing flow likely reduced over summer/autumn 	<ul style="list-style-type: none"> • Possible spills from storages in spring, minor flood levels may occur • Some natural flow contributing to low flow and freshes • Passing flow likely reduced over summer 	<ul style="list-style-type: none"> • Regular spills from storages in spring and minor to moderate flood levels may occur • Natural flow and/or passing flow are likely to meet low-flow requirements 	<ul style="list-style-type: none"> • Large and frequent spills from storages and moderate to major flood levels may occur • Natural flow and/or passing flow are likely to meet low-flow requirements
Expected availability of water for the environment	• 30,369 ML	• 31,503 ML	• 35,094 ML	• 38,401 ML
Latrobe River and estuary				
Potential environmental watering – tier 1 (high priorities)	<ul style="list-style-type: none"> • Winter/spring low flow • Summer/autumn low flow • Summer/autumn river freshes (three or four freshes of lower duration and one of mid-duration [four days]) • Summer/autumn estuary fresh(es) (one or two freshes of lower duration) 	<ul style="list-style-type: none"> • Winter/spring low flow • Summer/autumn low flow • Summer/autumn river freshes (five freshes of lower duration and two of mid-duration [three days]) • Summer/autumn estuary freshes (two freshes of upper duration) 	<ul style="list-style-type: none"> • Winter/spring low flow • Summer/autumn low flow • Summer/autumn river freshes (six freshes of lower duration and three of mid-duration [four days]) • Summer/autumn estuary freshes (three freshes of upper duration) 	<ul style="list-style-type: none"> • Winter/spring low flow • Summer/autumn low flow • Spring/summer/autumn river freshes (six freshes of lower duration and three of upper duration [five days]) • Summer/autumn estuary freshes (three freshes of upper duration)

Planning scenario	Drought	Dry	Average	Wet
Potential environmental watering – tier 2 (additional priorities)	<ul style="list-style-type: none"> Replace one lower-duration and lower-magnitude spring/summer/autumn estuary fresh with a 1,400 ML/day (upper-magnitude) fresh Replace one lower-duration and lower-magnitude summer/autumn estuary fresh with a 1,400 ML/day (upper-magnitude) fresh 	<ul style="list-style-type: none"> Replace one upper-duration and lower-magnitude summer/autumn estuary fresh with a 1,400 ML/day (upper-magnitude) fresh 	<ul style="list-style-type: none"> Replace one mid-duration and lower-magnitude spring/summer/autumn river fresh with a 1,400 ML/day (upper-magnitude) fresh Replace one upper-duration and lower-magnitude summer/autumn estuary fresh with a 1,400 ML/day (upper-magnitude) fresh 	<ul style="list-style-type: none"> Replace two lower and three upper-duration and lower-magnitude spring/summer/autumn river freshes with 1,400 ML/day (upper-magnitude) freshes Replace one upper-duration and lower-magnitude summer/autumn estuary fresh with a 1,400 ML/day (upper-magnitude) fresh
Possible volume of water for the environment required to achieve objectives	<ul style="list-style-type: none"> 22,000 ML (tier 1) 3,000 ML (tier 2) 	<ul style="list-style-type: none"> 22,000 ML (tier 1) 5,900 ML (tier 2) 	<ul style="list-style-type: none"> 30,000 ML (tier 1) 9,200 ML (tier 2) 	<ul style="list-style-type: none"> 20,500 ML (tier 1) 17,800 ML (tier 2)
Priority carryover requirements for 2027-28	<ul style="list-style-type: none"> 5,000 ML 		<ul style="list-style-type: none"> 3,000 ML 	

2.2.2 Lower Latrobe wetlands

System overview

The lower Latrobe wetlands (Dowd Morass, Heart Morass and Sale Common) are an important component of the internationally recognised Gippsland Lakes Ramsar site and provide habitat for waterbirds of state, national and international conservation significance. The wetlands are located on the floodplain of *Durt'Yowan* (Latrobe River) between its confluence with *Carran Carran* (Thomson River), and they form part of the Gippsland Lakes system.

River regulation and water extraction from the Latrobe, Thomson and Macalister rivers have reduced the frequency of small and medium-sized floods that naturally wet the lower Latrobe wetlands. The construction of levees and drains, and the filling of natural depressions, have also altered water movement into and through the wetlands. The drainage and flooding regime in all three wetlands is now managed to some extent with regulators connected to the Latrobe River.

Environmental values

Sale Common is one of only two remaining freshwater wetlands in the Gippsland Lakes system. It provides sheltered feeding, breeding and resting habitat for various waterbird species, including the Australasian bittern.

Dowd Morass is a large, brackish wetland that regularly supports rookeries of colonial nesting waterbirds, including Australian white ibis, straw-necked ibis, little black and little pied cormorants, royal spoonbills and great egrets.

Heart Morass is also a large brackish wetland, with open expanses providing shallow feeding habitat for waterbirds, including black swans, Eurasian coots and various duck species.



A1 – Maintain the abundance of frog populations



B1 – Improve waterbird breeding, recruitment, foraging and sheltering opportunities



CN1 – Enable carbon and nutrient cycling between the wetland and river through connectivity



M11 – Maintain the abundance of all waterbugs



T1 – Maintain the abundance of freshwater turtle populations



V1 – Maintain the diversity, condition and/or extent of native streamside vegetation fringing wetlands and the variety of self-sustaining submerged and emergent aquatic vegetation types

V2 – Discourage the introduction and reduce the extent and density of undesirable/invasive plants (Sale Common)



WQ1 – Provide suitable physicochemical conditions to support aquatic life

WQ2 – Avoid catastrophic water quality conditions and avoid acid sulphate soil exposure (Heart Morass) or dilute salt concentrations (Dowd Morass)

Traditional Owner cultural values and uses

The lower Latrobe wetlands are a place of spiritual and cultural connection for the Gunaikurnai people. Over many thousands of years, customs and lore have been passed orally between generations about the Gunaikurnai cultural values and uses of the wetlands. Tangible cultural heritage in the lower Latrobe wetlands underscores the landscape's importance as a food source and gathering place, and its connection to the Gunaikurnai creation story.

Maintaining the lower Latrobe wetlands as a Quarenook (meeting place) and a wetland system where animals and plants for hunting and gathering thrive requires maintaining them as freshwater ecosystems and restoring natural water regimes, including wetting and drying cycles.

GLaWAC supports the West Gippsland CMA objective of providing freshwater to the Latrobe estuary and connected wetlands and seeks participation in monitoring to ensure culturally significant species are included as objectives in environmental water management. GLaWAC considers that some drying may continue in 2026-27, providing an opportunity to minimise pest species, particularly in Sale Common. GLaWAC seeks the maintenance of some deepwater in wetlands to provide habitat, including food sources for waterbird breeding.

GLaWAC seeks 2026-27 environmental watering of the lower Latrobe wetlands to support the following:

- collaboration with GLaWAC regarding the timing of environmental water delivery to support a seasonal flow regime and wet and dry periods that embody healthy Country
- monitoring, including of cultural indicators, to be seasonal and continuing to inform the impacts of changed water regimes from water storage dams, urban and mine supply and other uses
- freshwater supply to the *Durt'Yowan* estuary, Dowd Morass, Sale Common, Heart Morass and associated freshwater habitats
- with GLaWAC, the reading of seasonal conditions and deciding where environmental water can aid the growth of loombrak (water ribbon) and other aquatic water species to support Gidai breeding in late winter to early spring
- ensuring the lower wetlands and billabongs receive freshwater flows to continue to provide food for waterbird breeding, including fledglings
- aiding the control of pest species, including through a drying regime at Sale Common.

GLaWAC continues to have a close partnership with West Gippsland CMA. West Gippsland CMA aims to work together in 2026-27 to increase the involvement of Gunaikurnai Traditional Owners in planning and managing environmental flows and progressing opportunities towards self-determination in the environmental watering program, a core commitment of the VEWH and its program partners. This is reinforced by legislation and policy commitments, including the *Water Act 1989*, the **Victorian Aboriginal Affairs Framework**, the 2016 **Water for Victoria**, the 2022 **Water is Life: Traditional Owner Access to Water Roadmap**, and, in some cases, agreements under the *Traditional Owner Settlement Act 2010*.

Social, recreational and economic values and uses

In planning the potential environmental watering actions presented in **Table 2.2.3**, West Gippsland CMA considered how environmental flows could support values and uses, including:













- water-based recreation (such as canoeing and fishing)
- riverside recreation and amenity (such as birdwatching, bushwalking, camping and duck hunting)
- socio-economic benefits (such as commercial eel and carp fishing and tourism)












Scope of environmental watering



















The term 'environmental watering' refers to the active delivery of held environmental water to support particular environmental objectives by altering the flow in a river or the water level in a wetland. While other terms are sometimes used to describe the delivery of environmental water, 'environmental watering' is deliberately used here and in seasonal watering statements to ensure consistency in the legal instruments that authorise the use of water for the environment in Victoria.





Table 2.2.3 describes the potential environmental watering actions in 2026-27, their expected watering effect (that is, the intended physical or biological effects of the watering action) and the longer-term environmental objectives they support. Each environmental objective relies on one or more potential environmental watering actions and their associated physical or biological effects.

Table 2.2.3 Lower Latrobe wetlands potential environmental watering actions, expected watering effects and environmental objectives

Potential environmental watering action	Expected watering effects	Environmental objectives
Dowd Morass		
Top-up (as required for bird breeding events)	<ul style="list-style-type: none"> Prolong wetting of reed beds to maintain habitat and food resources for waterbirds and protect chicks from predators, following an observed breeding event 	 B1
Fill to control salinity (any time) <i>Likely trigger: electrical conductivity rising above 7,000 µS/cm</i>	<ul style="list-style-type: none"> Dilute salt concentrations within the wetland that may be caused by king tides from Lake Wellington (likely occurring between March to May) or other sources 	 WQ2
Partial fill (with top-ups as required to maintain a water depth of 0.3 m AHD during July to December 2026 and April to June 2027)	<ul style="list-style-type: none"> Provide seasonal variation in water depth throughout the wetland to support the growth and flowering of semi-aquatic plants Wet vegetation and soils at middle elevations within the wetland to increase the abundance of waterbugs and other food resources for frogs, turtles and waterbirds Provide connectivity between the river and wetlands and between wetlands, increasing available habitat for frogs and turtles Support bird breeding (when delivered in spring/early summer following earlier fill) by maintaining wetted habitat around reed beds 	 A1  B1  M1  T1  V1
Fill (with top-ups as required to maintain a water depth of 0.6 m AHD during August to November)	<ul style="list-style-type: none"> Wet reed beds and deep water next to reed beds to provide waterbird nesting habitat and stimulate bird breeding Wet high-elevation banks and the streamside zone to support vegetation growth, creating nesting habitat for waterbirds Wet vegetation and soils at higher elevations to stimulate ecosystem productivity and increase the abundance of waterbugs and other food resources for frogs, turtles and waterbirds Provide connectivity between the river and wetlands and between wetlands, increasing available habitat and food resources for frogs and turtles Reduce the impact of saltwater incursion from Lake Wellington 	 A1  B1  T1  V1  WQ1

Potential environmental watering action	Expected watering effects	Environmental objectives
Partial drawdown (during January to March)	<ul style="list-style-type: none"> Oxygenate sediments to enable aquatic vegetation to germinate and recruit Provide water level fluctuations for emergent vegetation reproduction and expansion (particularly swamp scrub and tall marsh) Break down organic matter and promote nutrient cycling Expose mudflats and create shallows to facilitate waterbird foraging 	  
Heart Morass		
Top-up to permanently maintain water level above -0.3 m AHD (any time) <i>This watering action is likely to be triggered if wetland overtopping appears likely, based on rising water levels at Lake Wellington (reaching or exceeding +0.5 m AHD)</i>	<ul style="list-style-type: none"> Minimise the risk of acid sulphate soils developing by keeping known high-risk areas wet Respond to decreasing pH from the rewetting of exposed acid sulphate soils (most likely during high-wind events) Dilute salt concentrations within the wetland that king tides from Lake Wellington or other sources may cause 	
Top-up (to 0.5 m AHD, as required for bird breeding event)	<ul style="list-style-type: none"> Prolong wetting of reed beds to maintain habitat and food resources for waterbirds and protect chicks from predators, following an observed breeding event 	
Fill and partial flushing flow (during July to November)	<ul style="list-style-type: none"> Wet high-elevation banks and the streamside zone to support vegetation growth, create nesting and foraging habitat for waterbirds and provide food resources for terrestrial birds Provide connectivity between the river and wetlands and between wetlands, increasing available habitat and providing food resources for frogs and turtles Export accumulated salts and sulphate and transport nutrients, dissolved organic carbon and seeds between the Latrobe River and Heart Morass 	     

Potential environmental watering action	Expected watering effects	Environmental objectives
Partial fill (with top-ups as required to maintain a minimum water depth of 0.3 m AHD during August to December)	<ul style="list-style-type: none"> Support the growth and flowering of semi-aquatic plants Provide appropriate wetland fringing habitat for frogs and turtles Provide conditions that support waterbug communities and food resources for frogs, turtles and waterbirds 	 A1  M11  V1  B1  T1
Partial drawdown (during January to March)	<ul style="list-style-type: none"> Oxygenate sediments to enable aquatic vegetation to germinate and recruit Provide water level fluctuations for emergent vegetation reproduction and expansion (particularly swamp scrub and tall marsh) Break down organic matter and promote nutrient cycling Expose mudflats and create shallows to facilitate waterbird foraging 	 B1  V1  CN1
Salvage Common		
Top-up (as required for bird breeding events)	<ul style="list-style-type: none"> Prolong wetting of reed beds to maintain habitat and food resources for nesting waterbirds and protect chicks from predators 	 B1
Partial fill with top-ups as required to maintain a minimum water height of 0.3 AHD (July to December)	<ul style="list-style-type: none"> Encourage the growth and flowering of semi-aquatic plants Provide appropriate wetland habitat for frogs and turtles Provide conditions that support waterbug communities and food resources for waterbirds 	 A1  M11  V1  B1  T1
Fill (with top-ups as required during August to November to maintain a water depth of 0.4 m AHD for at least two months)	<ul style="list-style-type: none"> Wet the outer boundaries of the wetland to support the growth and flowering of streamside and fringing wetland plants, increasing foraging opportunities for waterbirds Encourage bird and turtle breeding by providing nesting habitat Provide connectivity between the river and wetlands and increase habitat and feeding opportunities for frogs and turtles 	 A1  T1  B1  V1, V2

Potential environmental watering action	Expected watering effects	Environmental objectives
<p>Trigger-based fill or top-up to 0.5 m AHD (during warmer months, likely during December to January)</p> <p><i>Trigger: observed broadscale germination of giant rush in previously uncolonised areas</i></p>	<ul style="list-style-type: none"> Wet key habitats within the wetland for a sufficient duration to discourage invasive plants, particularly the excessive spread of giant rush 	 <p>V2</p>
<p>Partial drawdown (during January to March)</p>	<ul style="list-style-type: none"> Oxygenate sediments to enable aquatic vegetation germination and recruitment Provide water level fluctuations for emergent vegetation reproduction and expansion (particularly swamp scrub and tall marsh) Break down organic matter and promote nutrient cycling Expose mudflats and create shallows to facilitate waterbird foraging 	 <p>B1</p>  <p>CN1</p>  <p>V1</p>

Scenario planning

Table 2.2.4 outlines potential environmental watering and expected water use in a range of planning scenarios.

Drier conditions across the Lake Wellington catchment in 2025-26 led to substantial drawdowns in all three lower Latrobe wetlands: Heart Morass, Dowd Morass and Sale Common. Localised, isolated late-summer rainfall events provided small top-ups, allowing sensitive freshwater vegetation communities to thrive. The reduction in the water level has increased salinity and affected habitat suitability for animal communities (such as frogs, turtles and waterbirds). Also, some of the vegetation communities that expanded before 2024-25—the wetter period effect—are now showing the signs of stress.

The main environmental watering priorities in 2026-27 will be partially filling each wetland in winter/spring to prevent them from complete drying over autumn and summer, or partial drawdown to support the functioning of the wetland ecosystem. The wetlands can be filled when the water quality and water level in the lower reaches decline. Partial fills are likely to occur in the drought or dry planning scenarios. It is planned to deliver trigger-based inflows to address acid sulphate soil risk, support waterbird breeding events and control the expansion of invasive species. These triggering actions and their timing will commence as required.

The development of water infrastructure and the removal of constraints (channel capacity inundating private land) in the lower Latrobe River are expected to enhance planned environmental watering actions in 2026-27 in the lower Latrobe wetlands. Specific watering plans for each wetland in different planning scenarios are described below.

Dowd Morass

The plan at Dowd Morass is to maintain the water level above 0.3 m AHD from July to December 2026 and from April to June 2027, and to allow the wetland to partially draw down (without complete drying) between January and March 2027. This proposed watering regime will provide sufficient variation in water levels to support the needs of a range of vegetation communities within and beside the wetland and to provide habitat and food for native frogs, turtles and waterbirds. A summer/autumn partial drawdown will be important to facilitate carbon and nutrient cycling in drying soils and to provide foraging habitat for wading shorebirds.

The proposed watering regime described above may need to be modified if wet conditions naturally fill the wetlands, or if additional water is needed to support a large waterbird breeding event or to dilute saline water from king tides.

A planned inlet upgrade (water infrastructure) at the end of the 2026 calendar year is expected to offer long-term improvements in water delivery efficiency and salinity management. However, this may temporarily reduce the delivery of large-volume inflows into the Dowd Morass Wetland late in the 2026-27 water year.

Heart Morass

Acidity and salination represent a high risk to environmental values at Heart Morass. Therefore, maintaining water levels above -0.3 m AHD at all times is a high priority to avoid exposing potential acid sulphate soils. Planned partial fills in winter/spring and a natural partial fill in summer will enhance established wetland plant communities, increasing the habitat and food chain for frogs, turtles and waterbirds. The partial drawdown (summer/autumn) will expose shoreline habitat, increasing the diversity of vegetation communities, allowing nutrient cycling and providing foraging habitat for shorebirds. And winter/spring fill and partial flushing will help to remove saline water from this wetland.

Sale Common

The Sale Common Wetland went through a substantial drawdown in 2025-26. Therefore, the delivery of water for the environment in 2026-27 prioritises maintaining wetland water levels above 0.3 m AHD through winter and spring fills in all planning scenarios.

Winter/spring/summer partial fills will provide favourable conditions for the growth and flowering of semi-aquatic plants, habitat for frogs and turtles and food resources for waterbugs and waterbirds. At least two months of winter/spring top-ups to 0.4 m AHD will wet the outer wetland boundaries. This will promote the growth of streamside and fringing vegetation, support nesting habitat for birds and turtles and establish later connectivity between the lower Latrobe River and the Sale Common Wetland, offering species movement. A summer/autumn partial drawdown will promote nutrient cycling, enriching sediments to enable aquatic vegetation germination and recruitment, the expansion of emergent vegetation (particularly swamp scrub and tall marsh) and the exposure of mudflats to facilitate waterbird foraging. To address the expansion of the established invasive giant rush, a planned summer natural drawdown continues. However, a natural drawdown might be replaced by a summer top-up of 0.5 m AHD if monitoring indicates higher water levels are needed to prevent further expansion of giant rush.

West Gippsland CMA is planning to upgrade an inlet structure in May/June 2026. This upgrade will improve the inlet's ability to support efficient top-ups, help maintain minimum water levels during dry periods and manage trigger-based fill action to control the spread of established invasive giant rush.

Table 2.2.4 Lower Latrobe wetlands environmental watering planning scenarios

Planning scenario	Drought	Dry	Average	Wet
Expected conditions	<ul style="list-style-type: none"> No natural inflow from the Latrobe River, and the wetlands are likely to dry completely 	<ul style="list-style-type: none"> Minor natural inflow from the Latrobe River in winter/spring; expect moderate to substantial drying in summer 	<ul style="list-style-type: none"> Moderate winter/spring flow in the Latrobe River is likely to fill or partially fill the wetlands; expect minor drying in summer 	<ul style="list-style-type: none"> Major flow in the Latrobe River in winter/spring and possibly autumn/winter is likely to fill all wetlands with very little drying in summer
Expected availability of water for the environment	<ul style="list-style-type: none"> Very low freshwater availability due to low river levels, saline conditions in the middle and lower estuary, with extended periods of saline conditions in the upper estuary 	<ul style="list-style-type: none"> Low freshwater availability due to low river levels, saline conditions in the middle and lower estuary, with periods of saline conditions in the upper estuary 	<ul style="list-style-type: none"> Moderate freshwater availability due to average river levels (fluctuating), one to two overbank flows, mostly freshwater conditions with periods of saline conditions in the middle and lower estuary 	<ul style="list-style-type: none"> High freshwater availability due to extended periods of high river levels, two or more overbank flows, and mostly freshwater conditions throughout the estuary
Dowd Morass				
Potential environmental watering – tier 1 (high priorities)	<ul style="list-style-type: none"> Top-up (as required for bird breeding events) Fill (any time to control salinity) Partial fill to maintain 0.3 m AHD (with top-ups as required in July to December and April to June) Partial drawdown (during January to March) 			
Potential environmental watering – tier 2 (additional priorities)	<ul style="list-style-type: none"> Fill to maintain 0.6m AHD (with top-ups as required during August to November) 			
Heart Morass				
Potential environmental watering – tier 1 (high priorities)	<ul style="list-style-type: none"> Top-up (any time to permanently maintain water level above -0.3 m AHD) Top-up to 0.5m AHD (as required for bird breeding) Partial fill to maintain 0.3 m AHD (with top-ups as required during August to December) Partial drawdown (during January to March) 			
Potential environmental watering – tier 2 (additional priorities)	<ul style="list-style-type: none"> Fill and partial flushing flow (during July to November) 			

Planning scenario	Drought	Dry	Average	Wet
Sale Common				
Potential environmental watering – tier 1 (high priorities)	<ul style="list-style-type: none"> • Top-up (as required for bird breeding events) • Partial fill to maintain 0.3 m AHD (with top-ups as required, during July to December) • Trigger-based fill or top-up to 0.5 m AHD (during December to January, if required) • Partial drawdown through evaporation (during December to March) 			
Potential environmental watering – tier 2 (additional priorities)	<ul style="list-style-type: none"> • Fill (with top-ups as required during August to November) 			

2.3 Thomson system

Waterway manager – West Gippsland Catchment Management Authority

Storage managers – Melbourne Water (Thomson Reservoir) and Southern Rural Water (Cowwarr Weir)

Environmental water holder – Victorian Environmental Water Holder

The Thomson system includes the Thomson River and the Heyfield wetlands.

System overview

Carran Carran (Thomson River) flows from the slopes of the Baw Baw Plateau to join Durt'Yowan (Latrobe River) south of Sale (Figure 2.3.1). The major tributaries of the Thomson River are the Aberfeldy and Jordan rivers in the upper reaches and Wirn wirndook Yeerung (Macalister River) in the lowest reach. Two major structures regulate the flow in the Thomson River: Thomson Reservoir—the largest water supply storage for metropolitan Melbourne—and Cowwarr Weir—a regulating structure that supplies irrigation water to parts of the Macalister Irrigation District.

Thomson Reservoir harvests most of the flow from the upper catchment of the Thomson River and significantly affects the flow in all downstream reaches. The Aberfeldy River provides most of the natural flow variation (natural freshes and a high flow) to the Thomson River below Thomson Reservoir.






Water for the environment is held in the Thomson Reservoir and released into the river as required. Reach 3 of the Thomson River (from the Aberfeldy River confluence to Cowwarr Weir) is the highest priority for delivering water for the environment due to its heritage river status, high-value native streamside vegetation, high-quality in-stream habitat, and low abundance of exotic fish species.

At Cowwarr Weir, the Thomson River splits into the old Thomson River course (reach 4a) and Rainbow Creek (reach 4b) (see **Figure 2.3.1**). Passing flows throughout the year are split two-thirds down reach 4a and one-third down reach 4b to avoid impacts to irrigators located on Rainbow Creek. Water for the environment is primarily delivered to the old Thomson River course (reach 4a) to support fish migration, as Cowwarr Weir impedes fish movement through Rainbow Creek.

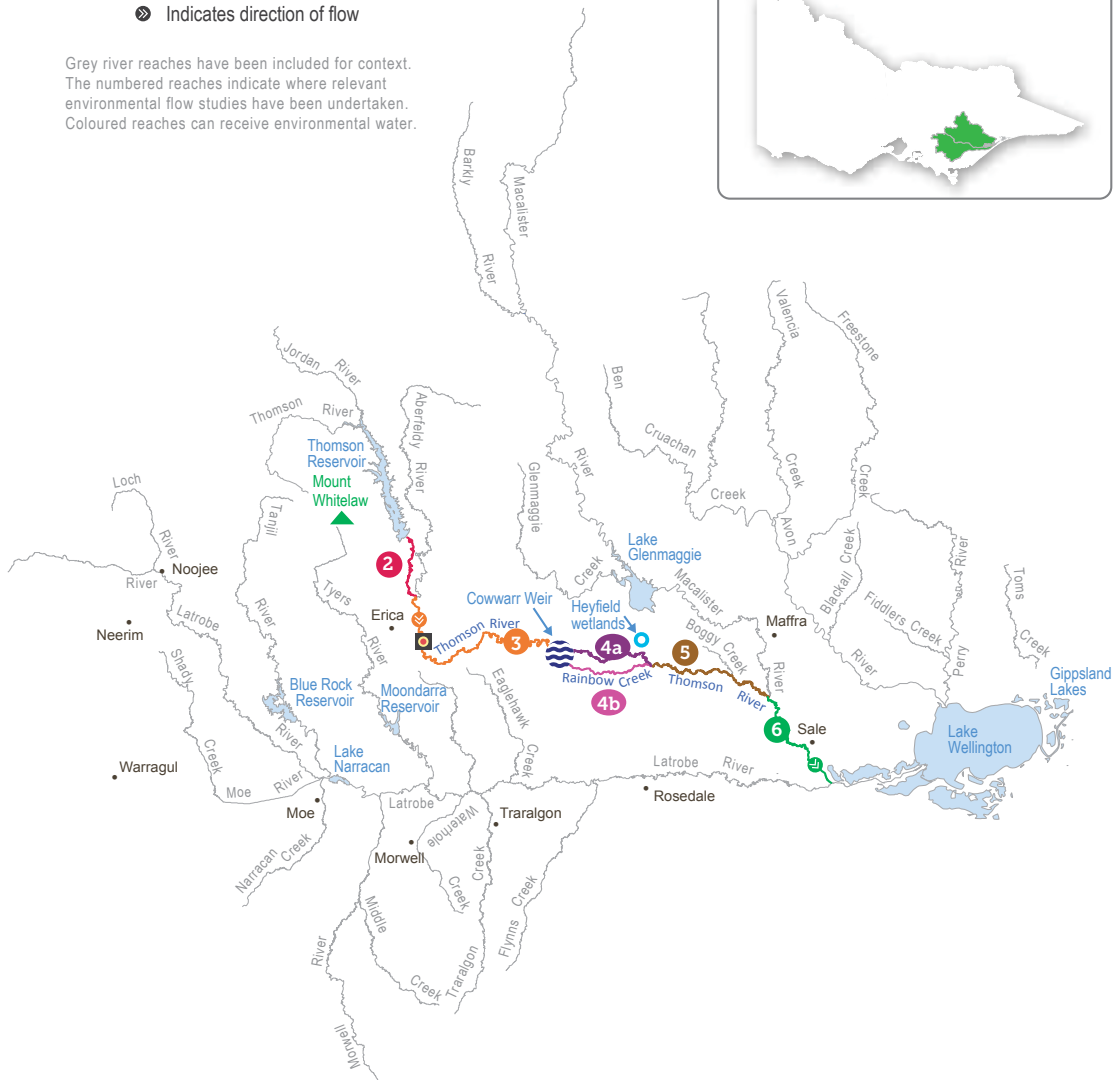
The Heyfield wetlands are a cluster of pools located between the Thomson River and the township of Heyfield. The construction of levees and weirs along the Thomson River regulates river water entering the wetlands. While the largest pool receives stormwater from Heyfield, smaller ponds rely on rainfall or pumped water for the environment to maintain environmental values. The values include planted floral species in the wetland as part of the comprehensive revegetation program.

Figure 2.3.1 Thomson system

- Reach **2** Thomson River: Thomson Reservoir to Aberfeldy River
- Reach **3** Thomson River: Aberfeldy River to Cowwarr Weir
- Reach **4a** Old Thomson River: Cowwarr Weir to Rainbow Creek
- Reach **4b** Rainbow Creek: Cowwarr Weir to Thomson River
- Reach **5** Thomson River: Rainbow Creek/Old Thomson confluence to Macalister River
- Reach **6** Thomson River: Macalister River to Latrobe River

-  Water infrastructure
-  Measurement point
-  Wetland
-  Town
-  Indicates direction of flow

Grey river reaches have been included for context. The numbered reaches indicate where relevant environmental flow studies have been undertaken. Coloured reaches can receive environmental water.



Environmental values

The Thomson River supports native species of migratory fish that need to move between the sea and freshwater environments to complete their life cycles, including Australian grayling, tuongong, short-finned and long-finned eel, Australian bass and pouched and short-headed lamprey. The focus of environmental flows management is the Australian grayling, a threatened species in Victoria. Australian graylings spawn in response to autumn freshes, and the larvae and juveniles spend time at sea before returning to the freshwater sections of coastal rivers. A flow that supports key migration periods for Australian grayling also provides spawning and recruitment opportunities that benefit the broader native fish assemblage.

The composition and condition of streamside vegetation vary throughout the Thomson River catchment. The vegetation is intact and in near-natural condition above Thomson Reservoir in the Baw Baw National Park. Streamside vegetation between Thomson Reservoir and Cowwarr Weir is mostly in good condition but is affected by exotic weeds, including blackberry and gorse. Below the Cowwarr Weir, the vegetation is degraded due to stock access and widespread weed invasion.

The Heyfield wetlands are one of the few remaining freshwater wetland sites in the Gippsland Plains landscape. They provide habitat for aquatic and terrestrial animals, including threatened migratory birds that prefer shallow, slow-moving water bodies.

Environmental objectives in the Thomson system



A1 – Maintain the existing frog population and provide suitable habitat for it



B1 – Provide freshwater habitat for migratory and non-migratory wetland birds within the Gippsland Plains landscape



CN1 – Restore carbon and nutrient cycling within Heyfield wetlands to increase ecosystem productivity



F1 – Increase the distribution, recruitment and abundance of all native fish, and increase opportunities for the spawning and recruitment of native migratory fish (such as Australian grayling)



G1 – Maintain the physical form of the channel to provide a variety of channel features and habitats for aquatic animals

G2 – Improve river function by maintaining substrate condition and enabling carbon cycling



MI1 – Maintain the natural waterbug community



PR1 – Increase the abundance of platypus



V1 – Maintain the structural diversity and appropriate distribution (zonation) of streamside vegetation along the riverbank and reduce terrestrial encroachment and invasion in the Thomson River

V2 – Increase the recruitment and growth of native in-stream, fringing and streamside vegetation in the Thomson River

V3 – Maintain the existing vegetation and promote the growth, establishment and resilience of semi-aquatic species in the Heyfield wetlands



WQ1 – Improve water quality in the Thomson River estuary

Traditional Owner cultural values and uses

Wirn wirndook Yeerung (Macalister River) is an important river to the Gunaikurnai. The Gunaikurnai have moved through the landscape along the waterways for thousands of years, sourcing food and plants along the way. *Wirn Wirndook Yeerung* is a pathway that connects the Snow Country to the heart of Gippsland, to ceremonial grounds and to a known special men's place to Elders. Its traditional name, *Wirn wirndook Yeerung*, translates to 'song of the male fairy-wren'. *Yeerung* is the men's totem.

The river has many cultural resources and numerous important sites along its entire system. Traditionally, the landscape of *Wirn wirndook Yeerung* and its branches and the associated floodplains have been a rich source of food, medicine and other resources for the Gunaikurnai people. There are many sites of cultural significance near the river and around Lake Glenmaggie.

Values mapping undertaken by the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) has raised concerns about the impacts of changing water quality and a regulated water regime on the plants and animals that depend on it.

GLaWAC seeks 2026-27 *Wirn wirndook Yeerung* environmental watering to support the following cultural values and uses:

- provide *Wirn wirndook Yeerung* with more water for healthy Country, at the right time, including promoting deeper water pools
- promote downstream fish migration and spawning
- environmental water deliveries planned in partnership with GLaWAC to support a seasonal flow regime to support plants and animals of importance to the Gunaikurnai
- monitoring including monitoring of cultural indicators—to be seasonal and continuing—to inform the impacts of changed water regimes from water storage dams, urban and mine supply and other uses
- water quality to support the health of native plants and animals with cultural values and uses of significance to the Gunaikurnai
- improved water quality between Lake Glenmaggie and Lake Wellington.

GLaWAC continues to have a close partnership with West Gippsland CMA. West Gippsland CMA aims to work together in 2026-27 to increase the involvement of Gunaikurnai Traditional Owners in planning and managing environmental flows and progressing opportunities towards self-determination in the environmental watering program, a core commitment of the VEWH and its program partners.

West Gippsland CMA is working with GLaWAC to find opportunities for knowledge-sharing and collaboration, including West Gippsland CMA working with GLaWAC on eDNA monitoring, in the renewal of the regional waterway strategy and getting their monitoring programs to complement each other.

This is reinforced by legislation and policy commitments, including the *Water Act 1989*, the **Victorian Aboriginal Affairs Framework**, the 2016 **Water for Victoria**, the 2022 **Water is Life: Traditional Owner Access to Water Roadmap**, and, in some cases, agreements under the *Traditional Owner Settlement Act 2010*.

Social, recreational and economic values and uses

In planning the potential environmental watering actions in **Table 2.3.1**, West Gippsland CMA considered how environmental flows could also support values and uses, including:

- water-based recreation (such as kayaking, canoeing, fishing and swimming)
- riverside recreation and amenity (such as birdwatching, camping, hiking and duck hunting)
- community events and tourism (such as community education, events at the Heyfield wetlands and visitation by locals and non-locals)
- socio-economic benefits (such as maintaining bankside vegetation and preventing erosion and the potential loss of private and public land).

Planned environmental flows may be modified to align with a community benefit so long as environmental outcomes are not compromised. Autumn, winter and spring freshes in the Thomson River create ideal conditions for whitewater rafting, kayaking and canoeing. The timing of environmental flows may be adjusted to optimise opportunities to support these recreation activities, where it does not compromise environmental outcomes. For example, a fresh that aims to cue the migration of Australian grayling and other native fish may be timed to coincide with recreation events or holiday periods when people take advantage of favourable rafting or kayaking conditions.

In addition, kayaking and rafting activities have inherent risks, and large environmental flows are ramped up and down over several days to avoid sudden changes in water levels that may affect river users.



Environmental watering will also support water sports activities (e.g., canoeing, kayaking, rowing, swimming, water skiing) by increasing the river depth and the presence of whitewater conditions (in the upper sections of the river), improving conditions for canoeing and kayaking, improving the water quality in waterholes and increasing the longitudinal connectivity of the river



Environmental watering will also support waterbird-related recreational activities (e.g., twitching, birdwatching) by providing waterbird habitat at Heyfield wetlands



Environmental watering will also support angling activities by encouraging the spawning and recruitment of native fish species



Environmental watering will also support peaks in visitation (e.g., camping or other public activities on long weekends or school holidays), adding to the amenity of both river and wetland areas with improved water quality and river flow










West Gippsland CMA notifies the public of planned large releases of water for the environment to alert river users about potential increases in the water's level and velocity. People can register on the **West Gippsland CMA website** to be notified of upcoming watering events.












Scope of environmental watering

The term 'environmental watering' refers to the active delivery of held environmental water to support particular environmental objectives by altering the flow in a river or the water level in a wetland. While other terms are sometimes used to describe the delivery of environmental water, 'environmental watering' is deliberately used here and in seasonal watering statements to ensure consistency in the legal instruments that authorise the use of water for the environment in Victoria.

Table 2.3.1 describes the potential environmental watering actions in 2026-27, their expected watering effect (that is, the intended physical or biological effects of the watering action) and the longer-term environmental objectives they support. Each environmental objective relies on one or more potential environmental watering actions and their associated physical or biological effects.

Table 2.3.1 Thomson system potential environmental watering actions, expected watering effects and environmental objectives

Potential environmental watering action	Expected watering effects	Environmental objectives
Thomson River – reach 3 (compliance point Coopers Creek gauge)		
Year-round low flow 125-350 ML/d	At 125 ML/day: <ul style="list-style-type: none"> maintain a minimum level of habitat, water quality and temperature in pools and riffles for waterbugs and fish maintain sufficient water depth to facilitate platypus and fish movement between localised habitats and increase foraging opportunities 	 F1, F2  M1
	At 350 ML/day: <ul style="list-style-type: none"> improve longitudinal connectivity, supporting large-scale native fish movement over autumn/spring improve connectivity for downstream migration of Australian bass, tulong, lamprey, and common galaxias reduce encroachment into the in-stream channel by invasive terrestrial plants <p>Additional benefits to the Thomson River estuary (reach 6) are expected when provided at 350 ML/day:</p> <ul style="list-style-type: none"> partially flush the upper water column, helping to sustain waterbug communities and fish by maintaining dissolved-oxygen levels prevent high salinity levels, helping to maintain emergent aquatic plants provide freshwater to the lower Latrobe system 	 PR1  V1  WQ1
Spring fresh 800-900 ML/day for five to seven days (September to November)	<ul style="list-style-type: none"> Trigger the migration of adult and juvenile native fish (in particular, the upstream migration of Australian grayling and Australian bass from marine/estuarine habitats) Improve and maintain streamside vegetation by inundating the benches and providing variable water levels for plant zonation Carry plant seeds from the upper catchment for deposition downstream Provide flows that disturb biofilms and scour substrates to maintain in-stream habitat quality for waterbugs Prevent infilling of pools by mobilising fine sediments and depositing them on existing bars and benches to provide substrate for vegetation Additional benefits to the Thomson River and its estuary (reach 6) are expected when provided at 900 ML/day: <ul style="list-style-type: none"> wet vegetation on higher benches partially flush the upper water column, helping to sustain waterbug communities and fish by maintaining dissolved-oxygen levels prevent high salinity levels, helping to maintain emergent aquatic plants provide freshwater to the lower Latrobe system 	 F1  G1, G2
		 V1, V2  M1

Potential environmental watering action	Expected watering effects	Environmental objectives
<p>Summer/autumn freshes 230-350 ML/day for seven days (December to March)</p>	<ul style="list-style-type: none"> Wet aquatic and fringing vegetation to maintain its condition and support its growth Wet low-lying benches to prevent encroachment by invasive plants and enable vegetation zonation Scour substrates to remove accumulated fine sediment and support native fish movement: Trigger downstream migration of adult short- and long-finned eel and upstream movement of juvenile Australian bass (February to March) Increase the water depth over riffles to facilitate local movement between habitats for large-bodied native fish 	 F1, F2  G1, G2  V2
<p>Autumn fresh (800 ML/day for five to seven days during April to May)</p> 	<ul style="list-style-type: none"> Trigger the migration of adult and juvenile native fish, in particular: <ul style="list-style-type: none"> the downstream migration and spawning of adult Australian grayling (April) the downstream migration of adult tupong (April) and the upstream migration of Australian bass (May) Carry plant seeds and propagules from the upper catchment for deposition downstream and help maintain the zonation of vegetation Prevent infilling of pools by mobilising fine sediments and depositing them on existing bars and benches to provide substrate for vegetation Scour substrates to remove accumulated fine sediment 	 F1, F2  G1, G2  V1, V2
Heyfield wetlands		
<p>Fill (up to 10-15 ML, max depth ~1.5 m during August to September)</p>	<ul style="list-style-type: none"> Fill ponds to capacity to stabilise the banks and support the spring growth of semi-aquatic vegetation Provide freshwater habitat for waterbirds and frogs 	 A1  B1
<p>Top-ups as required to maintain water levels at 5-15 ML, maximum depth ~1 to 1.5 m (during October to May)</p>	<ul style="list-style-type: none"> Top up ponds before summer to maintain vegetation and enhance recruitment by triggering the release of seeds Top up ponds in late summer to ensure the survival of newly planted wetland vegetation Maintain habitat for waterbirds and frogs When provided in April-May, top-ups provide drought refuge habitat for waterbirds and frogs following prolonged dry conditions 	 CN1  V3
<p>Late summer/autumn partial drawdown (average and dry years, during April to May)</p>	<ul style="list-style-type: none"> Oxygenate surface soils, break down accumulated organic matter and cycle nutrients Enhance waterbird food availability by exposing mudflats and providing access to burrowing invertebrates 	

Scenario planning

Table 2.3.2 outlines potential environmental watering and expected water use in a range of planning scenarios.

The Thomson catchment experienced dry-to-average conditions in 2025-26, with only a few short-duration rainfall events contributing to small freshes in the Thomson River system in July and September 2025 and late February 2026. Water for the environment delivered during 2025-26 continued to target flow patterns that provide good conditions for native fish to breed and disperse throughout the system. Planned environmental flows for the Thomson River in 2026-27 will continue to focus on supporting the migration, spawning and recruitment of native fish to further boost their populations.

It is important to deliver a mix of low flows and freshes throughout the year in the Thomson River, but the magnitude, duration and frequency of these events will generally be lower in the drought and dry planning scenarios than in the average and wet planning scenarios. More events with higher magnitude and longer duration may be delivered in all planning scenarios if sufficient water is available. As seen in recent years, natural tributary inflows will likely achieve many of the planned watering actions in the wetter planning scenarios.

The highest-priority potential watering actions for the Thomson River are 800 ML per day freshes in autumn (in April/May) and spring (in September/November) to support migratory fish to move into or out of the system. These events are essential to cue the spawning and recruitment of the threatened Australian grayling population and other native migratory fish species, which have had high recruitment in recent years. These events are necessary yearly in the average and wet planning scenarios to ensure regular recruitment and align with environmental cues in the broader landscape. In the dry and drought planning scenarios, low flows are generally prioritised over freshes to maintain fish populations, but these are important to deliver even in drier conditions in 2026-27 to consolidate recent population growth. And, given the two-to-five-year life cycles of most of the species we target in the Thomson, it is important not to have consecutive years of little to no recruitment. Where possible, the spring and autumn freshes may be timed to coincide with long weekends to provide additional social and recreational benefits for river users. Delivering two summer/autumn freshes are high priorities in all planning scenarios to clear fine silt and biofilms from in-stream habitat and facilitate the movement of native fish and platypus.

The magnitude targeted when delivering the year-round low flow is expected to vary depending on the planning scenario. A 125 ML per day flow in reach 3 is the minimum target magnitude through summer and autumn, which is expected to be delivered with the operational passing flows. Increasing the low-flow magnitude to at least 230 ML per day between May and July and 350 ML per day in November (following a spring fresh) is recommended in all planning scenarios to improve water quality in the Thomson estuary. The upper magnitude of 350 ML per day during May to July is preferred in all planning scenarios to improve outcomes for fringing and streamside vegetation. However, the magnitude of the low flow throughout these months may be reduced to 230-300 ML per day in drier planning scenarios, which is still at a rate that allows fish and platypus to move throughout the reach at critical breeding and dispersal times.

The recommended water regime for the Heyfield wetlands is the same in the dry and average planning scenarios because the wetlands are expected to hold water for most of the year in these planning scenarios. Filling the wetlands in late winter or early spring and providing top-ups through summer and early autumn support the establishment of recently planted semi-aquatic and terrestrial fringing plants and promote the natural recruitment of native wetland species. A partial drawdown in mid-to-late autumn in the dry and average planning scenarios will replicate a natural drying event. A natural drying event will allow the breakdown of accumulated organic matter, promote nutrient cycling and provide mudflat habitats for waterbirds to feed. Natural inflow is expected to keep the wetlands near full in the wet planning scenario, so a partial drawdown will not be possible. The planned autumn drawdown will be replaced by ongoing top-ups in the drought planning scenario to maintain some aquatic habitat for frogs and waterbirds in the Heyfield wetlands. In the average and wet climate scenarios, natural run-off will likely meet some or all of the recommended watering actions in the Heyfield wetlands.

There are no firm carryover targets in the Thomson system for 2026-27. A combination of natural inflows and environmental water deliveries is expected to meet many of the planned watering actions in the Thomson River in 2026-27, meaning forecast demand on the entitlement is not expected to exhaust supply, and enough water for the environment will likely be available to meet early-season demands in 2027-28. The VEWB will work with West Gippsland CMA to refine a carryover target for 2027-28, once winter and spring storage inflows are known and the potential resource outlook for the following year is clear.

Table 2.3.2 Thomson system environmental watering planning scenarios

Planning scenario	Drought	Dry	Average	Wet
Expected conditions	<ul style="list-style-type: none"> Thomson Reservoir spilling is unlikely Passing flow delivered at Coopers Creek as per the bulk entitlement for all months Reduced passing flow at Wandocka (50 ML/day or higher) No unregulated flow expected 	<ul style="list-style-type: none"> Thomson Reservoir spilling is unlikely Passing flow delivered at Coopers Creek as per the bulk entitlement for all months Reduced passing flow at Wandocka (50 ML/day or higher) Some unregulated flow from tributaries potentially contributing to baseflow and freshes 	<ul style="list-style-type: none"> Thomson Reservoir spilling is unlikely Passing flow delivered at Coopers Creek as per the bulk entitlement for all months Unregulated flow from tributaries is likely to contribute to baseflow and freshes 	<ul style="list-style-type: none"> Thomson Reservoir spilling is possible Passing flow delivered at Coopers Creek as per the bulk entitlement for all months Unregulated flow from tributaries is highly likely to contribute to baseflow and freshes
Expected availability of water for the environment	• 15,100 ML	• 17,200 ML	• 19,400 ML	• 24,500 ML
Thomson River – reach 3				
Potential environmental watering – tier 1 (high priorities)	<ul style="list-style-type: none"> Year-round low flow Spring fresh (one fresh) Summer/autumn freshes (two freshes) Autumn fresh 	<ul style="list-style-type: none"> Year-round low flow Spring fresh (one fresh) Summer/autumn freshes (two freshes) Autumn fresh 	<ul style="list-style-type: none"> Year-round low flow Spring fresh (one fresh) Summer/autumn freshes (two freshes) Autumn fresh 	<ul style="list-style-type: none"> Year-round low flow Spring fresh Summer/autumn freshes (three freshes) Autumn freshes
Potential environmental watering – tier 2 (additional priorities)	• N/A	• N/A	• N/A	• Spring fresh

Planning scenario	Drought	Dry	Average	Wet
Heyfield wetlands				
Potential environmental watering – tier 1 (high priorities)	<ul style="list-style-type: none"> • Fill • Top-ups as required to maintain the water level 	<ul style="list-style-type: none"> • Fill • Top-ups as required to maintain the water level • Partial drawdown 	<ul style="list-style-type: none"> • Fill • Top-ups as required to maintain the water level • Partial drawdown 	<ul style="list-style-type: none"> • Fill • Top-ups as required to maintain the water level
Possible volume of water for the environment required to achieve objectives	<ul style="list-style-type: none"> • 14,600 ML (tier 1) 	<ul style="list-style-type: none"> • 17,600 ML (tier 1) 	<ul style="list-style-type: none"> • 20,200 ML (tier 1) 	<ul style="list-style-type: none"> • 24,300 ML (tier 1) • 6,500 ML (tier 2)
Priority carryover requirements for 2027-28	<ul style="list-style-type: none"> • 0 ML 			

2.4 Macalister system

Waterway manager – West Gippsland Catchment Management Authority

Storage manager – Southern Rural Water

Environmental water holder – Victorian Environmental Water Holder

System overview

Wirn wirndook Yeerung (Macalister River) flows from Mt Howitt in the Alpine National Park and joins Carran Carran (Thomson River) south of Maffra (Figure 2.4.1). The river winds its way to the southeast through mostly forested, confined valleys and narrow floodplains above Lake Glenmaggie. The downstream reaches flow through wide alluvial floodplains that have been cleared for agriculture. The Wellington River and Glenmaggie Creek are the main tributaries of the Macalister River.

Lake Glenmaggie is the major water harvesting storage regulating the Macalister River. Maffra Weir is a small diversion weir located further downstream in Maffra.

Before the construction of Lake Glenmaggie, the Macalister River would regularly receive high and medium flows in winter and spring. Although Lake Glenmaggie regularly spills, a high flow is less frequent than natural because the storage captures much of the water. A notable impact of irrigation and water harvesting is the reversed seasonality of the flow between Lake Glenmaggie and Maffra Weir. The summer flow through this reach is much greater than natural due to the delivery of irrigation water. Winter flow in this reach is lower than natural because a large proportion of the inflows are captured, and there are no irrigation demands over winter. Most of the water for irrigation is diverted at Maffra Weir, and the flow downstream of the weir is lower than the natural year-round flow. Such change in streamflow run-off restricts fish migration, limits the growth and recruitment of in-stream and streamside plants, and reduces the quality of in-stream habitat.

Water for the environment is stored in Lake Glenmaggie and released into the Macalister River. The river is divided into two reaches for the purposes of managing environmental flows: Lake Glenmaggie to Maffra Weir (reach 1) and Maffra Weir to the Thomson River confluence (reach 2).

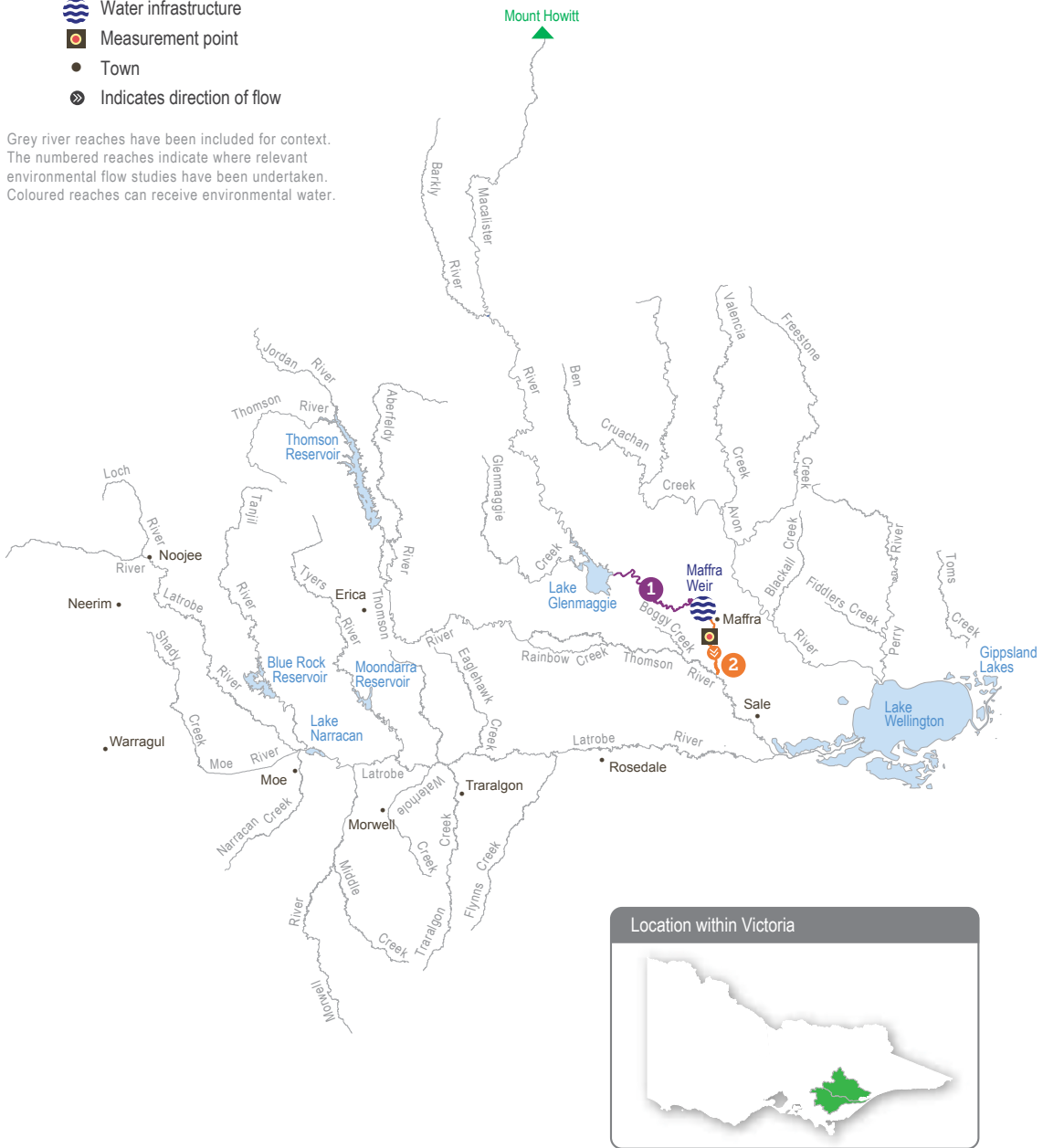
Maffra Weir is a major barrier to fish movement along the river, so delivery of water for the environment for migratory fish objectives is focused on reach 2. All other objectives apply to reaches 1 and 2.

Construction of a new fish ladder on Maffra Weir to improve fish passage is scheduled to commence in April 2026 and is expected to be completed in November 2026. Construction of the fish passage is unlikely to affect deliveries of water for the environment in 2026-27.

Figure 2.4.1 Macalister system

- Reach 1 Lake Glenmaggie to Maffra Weir
- Reach 2 Maffra Weir to Thomson River
- Water infrastructure
- Measurement point
- Town
- Indicates direction of flow

Grey river reaches have been included for context. The numbered reaches indicate where relevant environmental flow studies have been undertaken. Coloured reaches can receive environmental water.



Environmental values

Seven migratory native fish species move between the Macalister River, the estuary, Gippsland Lakes and the sea to complete their life cycle. These species include the Australian grayling, short-finned eel, long-finned eel, tupong, Australian bass, short-headed lamprey and common galaxias. Yellow-eye mullet, an estuarine species, has also been recorded in the river. Platypus and rakali (water rats) are widely distributed through the Macalister River and its tributaries.

The streamside vegetation corridor along the regulated reaches of the Macalister River is fragmented. Immediately below Lake Glenmaggie, the vegetation is in good condition. It includes remnant river red gums and good-quality stands of shrubs, particularly in areas where revegetation has occurred in combination with stock exclusion. Further downstream, the vegetation is degraded. The cover of in-stream vegetation has declined, possibly due to increased water turbidity associated with land-use change, run-off from horticultural areas and illegal discharge of dairy effluent, erosion and a lack of an appropriate water regime to encourage plant growth. The cover of non-woody plants (such as reeds, sedges and rushes) along the river's fringes is patchy.

Environmental objectives in the Macalister system



F1 – Increase the distribution, recruitment and abundance of all native fish, and increase opportunities for the spawning and recruitment of native migratory fish (such as Australian grayling)



G1 – Maintain the form of the riverbank and bed to provide physical habitat for aquatic animals and plants



PR1 – Increase the abundance of platypus and rakali (water rats)



V1 – Maintain emergent (non-woody) and fringing (woody) vegetation in the streamside zone

V2 – Reinstate submerged aquatic vegetation



MI1 – Increase the abundance and number of functional groups of waterbugs



WQ1 – Improve water quality during periods of reduced or no passing flow from Lake Glenmaggie

WQ2 – Improve water quality in the Thomson River estuary

Traditional Owner cultural values and uses

Wirn wirndook Yeerung (Macalister River) is an important river to the Gunaikurnai. The Gunaikurnai have moved through the landscape along the waterways for thousands of years, sourcing food and plants along the way. *Wirn Wirndook Yeerung* is a pathway that connects the Snow Country to the heart of Gippsland, to ceremonial grounds and to a known special men's place to Elders. Its traditional name, *Wirn wirndook Yeerung*, translates to 'song of the male fairy-wren'. *Yeerung* is the men's totem.

The river has many cultural resources and extensive important sites along the whole system. Traditionally, the landscape of *Wirn wirndook Yeerung* and its branches and associated floodplains have been a rich source of food, medicine and other resources for the Gunaikurnai people. There are many sites of cultural significance near the river and around Lake Glenmaggie.

Values mapping undertaken by the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) has raised concerns about the impacts of changing water quality and a regulated water regime on the plants and animals that depend on it.

GLaWAC seeks 2026-27 *Wirn wirndook Yeerung* environmental watering to support the following cultural values and uses:

- provide *Wirn wirndook Yeerung* with more water for healthy Country, at the right time, including promoting deeper water pools
- promote downstream fish migration and spawning
- environmental water deliveries planned in partnership with GLaWAC to support a seasonal flow regime to support plants and animals of importance to the Gunaikurnai
- monitoring, including monitoring of cultural indicators, to be seasonal and continuing, to inform the impacts of changed water regimes from water storage dams, urban and mine supply, and other uses
- water quality to support the health of native plants and animals with cultural values and uses of significance to the Gunaikurnai
- improved water quality between Lake Glenmaggie and Lake Wellington.

GLaWAC continues to have a close partnership with West Gippsland CMA. West Gippsland CMA aims to work together in 2026-27 to increase the involvement of Gunaikurnai Traditional Owners in planning and managing environmental flows and progressing opportunities towards self-determination in the environmental watering program, a core commitment of the VEWH and its program partners.

West Gippsland CMA is working with GLaWAC to find opportunities for knowledge-sharing and collaboration, including West Gippsland CMA working with GLaWAC on eDNA monitoring, in the renewal of our regional waterway strategy and getting our monitoring programs to complement each other.

This is reinforced by legislation and policy commitments, including the *Water Act 1989*, the **Victorian Aboriginal Affairs Framework**, the 2016 **Water for Victoria**, the 2022 **Water is Life: Traditional Owner Access to Water Roadmap**, and, in some cases, agreements under the *Traditional Owner Settlement Act 2010*.

Social, recreational and economic values and uses

In planning the potential environmental watering actions in **Table 2.4.1**, West Gippsland CMA considered how environmental flows could support values and uses, including:

- water-based recreation (such as canoeing, kayaking and swimming)
- riverside recreation and amenity (such as fishing)
- socio-economic benefits (such as preventing erosion and potentially losing private and public land).

Watering actions, particularly over summer, may improve the water quality in waterholes and improve swimming conditions. Freshes throughout the year also increase the longitudinal connectivity of the river, improving conditions for canoeing and kayaking.

Winter and spring freshes encourage the spawning and recruitment of fish species (such as Australian bass, a popular recreational fishing species).

West Gippsland CMA notifies the public of planned large releases of water for the environment to alert river users about potential increases in the water's level and velocity. People can register on the **West Gippsland CMA website** to be notified of upcoming watering events.



Environmental watering will also support water sports activities (e.g., canoeing, kayaking, rowing, swimming, water skiing) by improving the water quality in waterholes and increasing the longitudinal connectivity of the river, improving conditions for canoeing and kayaking












Environmental watering will also support angling activities by encouraging the spawning and recruitment of native fish species

Scope of environmental watering

The term 'environmental watering' refers to the active delivery of held environmental water to support particular environmental objectives by altering the flow in a river or the water level in a wetland. While other terms are sometimes used to describe the delivery of environmental water, 'environmental watering' is deliberately used here and in seasonal watering statements to ensure consistency in the legal instruments that authorise the use of water for the environment in Victoria.

Table 2.4.1 describes the potential environmental watering actions in 2026-27, their expected watering effect (that is, the intended physical or biological effects of the watering action) and the longer-term environmental objectives they support. Each environmental objective relies on one or more potential environmental watering actions and their associated physical or biological effects.

Table 2.4.1 Macalister system potential environmental watering actions, expected watering effects and environmental objectives

Potential environmental watering action	Expected watering effects	Environmental objectives
Macalister River – reach 2 (compliance point Macalister River at Riverslea)		
Year-round low flow (60-90 ML/day)	<ul style="list-style-type: none"> Maintain the water depth in pools and hydraulic habitat for native fish Maintain permanent wetted habitat in pools and riffles for waterbugs Provide connectivity throughout the river for the local movement of platypus and rakali (water rats), as well as protection from predation and access to food Maintain a minimum depth in pools in the event of reduced passing flows to allow for turnover of water and to slow degradation of water quality to support aquatic life <p>Note: At 90 ML/day, the expected watering effects are met in reach 1 and 2. At 60 ML/day, the expected watering effects are met in reach 2 only.</p>	  F1 M11   PR1 WQ1
Winter/spring low flow (300 ML/day for at least 120 days during July to November 2026 and June 2027)	<ul style="list-style-type: none"> Provide permanent wetted habitat for waterbugs and maintain the water depth over riffles to enable fish passage between local habitats Provide sustained wetting of low-level benches to limit the encroachment of terrestrial vegetation 	  F1 M11  V1
Spring fresh (one fresh of 700 ML/day, five to 10 days during September to November)	<ul style="list-style-type: none"> Cue the upstream migration of adult fish (e.g., short-headed lamprey) and the recruitment of juveniles (e.g., Australian grayling, tupong, common galaxias, Australian bass and short- and long-finned eels) from marine/estuarine environments Wet mid-level benches to water woody vegetation, limit the encroachment of terrestrial vegetation and facilitate the dispersal of emergent and fringing vegetation seeds and propagules throughout the reach 	  F1 V1

Potential environmental watering action	Expected watering effects	Environmental objectives
<p>Spring/summer fresh following spill (one fresh peaking at 1500-1800 ML/day for three days during September to December)</p> <p><i>Trigger action: extend duration (if needed) and slow recession of spills</i></p>	<ul style="list-style-type: none"> Inundate emergent and woody vegetation on middle and higher-level benches and move organic matter into the channel to transport food resources downstream Provide a flow with sufficient shear stress to scour biofilms and flush fine sediment from pools and small gaps in the substrate to improve geomorphic habitat and food resources for waterbugs Cue the upstream migration of adult fish (e.g., short-headed lamprey) and the recruitment of juveniles (e.g., Australian grayling, tupong, common galaxias, Australian bass and short- and long-finned eels) from marine/estuarine environments 	   
<p>Summer/autumn freshes (three freshes of 140 ML/day for three days during December to March)</p>	<ul style="list-style-type: none"> Increase the water depth to allow fish to move throughout the reach Flush pools to maintain water quality for aquatic animals Flush substrates and improve the quality of existing waterbug habitat and food supply Wet low benches to facilitate the dispersal of seeds and propagules from emergent vegetation throughout the reach Provide flow with sufficient shear stress to flush fine sediment from small gaps to improve geomorphic habitat 	    
<p>Summer/autumn fresh (350 ML/day, for seven to 10 days during December to March)</p>	<ul style="list-style-type: none"> Flush the upper Thomson River estuary (Thomson reach 6) when combined with flows from the Thomson River, and contribute freshwater to the lower reaches of the Latrobe estuary and wetlands Increase the water depth to allow fish to move through the reach Provide a flow with sufficient shear stress to flush fine sediment from small gaps to improve geomorphic habitat Flush substrates and improve the quality of existing waterbug habitat and food supply Wet low benches to facilitate the dispersal of seeds and propagules from emergent vegetation throughout the reach Flush pools to maintain water quality for aquatic animals 	    
<p>Autumn fresh (one fresh of 350 ML/day for five to 10 days during April to May)</p>	<ul style="list-style-type: none"> Cue the downstream migration of Australian grayling towards the estuary for spawning When delivered for more than five days and combined with freshes in the Thomson River, fully flush the upper Thomson River estuary and contribute freshwater to the lower reaches of the Latrobe River and wetlands 	 
<p>Autumn/winter fresh (700 ML/day for five to seven days during July to August 2026, or May to June 2027)</p>	<ul style="list-style-type: none"> Cue the downstream migration of Australian bass and tupong towards the estuary for spawning/breeding Increase the wetted area and improve water quality by flushing pools, providing habitat and conditions for waterbugs Wet low and mid-level benches to facilitate the dispersal of emergent and fringing vegetation seeds and propagules throughout the reach 	   

Scenario planning

Table 2.4.2 outlines potential environmental watering and expected water use in a range of planning scenarios.

Following the drier conditions in 2024-25, the Macalister catchment continued to experience much drier climatic conditions in 2025-26. Even so, Lake Glenmaggie storage still spilled in spring, and the operational releases met some of the environmental flow recommendations for the 2025-26 water year. Planned environmental watering actions in 2026-27 will continue to focus on supporting the migration, spawning and recruitment of native fish in the Macalister system. They are generally the same in all planning scenarios, but the duration and magnitude may vary depending on water availability throughout 2026-27.

Providing a year-round low flow to maintain habitat, habitat connectivity and food for native fish and platypus in the Macalister River is the highest-priority potential watering action in all planning scenarios. In average and wet conditions, a year-round operational passing flow of 60 ML per day will meet the minimum low-flow objectives for reach 2. Increasing the flow to 90 ML per day will meet the minimum low-flow objectives in reach 1 (which has a wider channel than reach 2) and will provide more habitat and food to help grow waterbug, fish and platypus populations and exclude terrestrial vegetation from the main channel. A higher-magnitude low flow is therefore preferred, which may be partly met by operational releases and natural inflows at certain times. In drought and dry conditions, the operational passing flow may be reduced to 35 ML per day. Water for the environment will be used where possible to deliver a higher-magnitude low flow, but it will be prioritised in November in all planning scenarios when operational and consumptive water deliveries are expected to be low. In the wet planning scenario, the winter/spring low flow may be increased to 300 ML per day to wet the lower benches over a sustained period to discourage the encroachment of terrestrial vegetation.

Larger summer/autumn freshes of 350 ML per day may be timed to coincide with freshes from the Thomson River. In the dry planning scenario, these freshes help to improve water quality in the Thomson River and the Latrobe estuary. Smaller volumes of summer/autumn freshes (140 ML per day) will be delivered to maintain the quality of pool habitats that will serve as important refuges for native fish and platypus. The summer/autumn freshes are especially important to deliver in the drier planning scenarios when poor water quality could be an issue. West Gippsland CMA will monitor water quality during dry and drought planning scenarios and adapt the flow as necessary to limit stress on aquatic animals.

Delivering at least one fresh of 350 ML per day in autumn is a high priority in all planning scenarios to provide a migration trigger for native fish to move into or out of the system to complete their life cycles. A larger-magnitude spring fresh is a high priority in all planning scenarios except drought to inundate higher up the bank to improve the condition of flood-tolerant species and provide a migration cue. The autumn fresh is likely to improve water quality in the Thomson River and Latrobe estuary, which can deteriorate at the end of summer. These autumn and spring events are necessary each year in the average and wet planning scenarios to ensure regular recruitment that aligns with environmental cues in the broader catchment. An additional 700 ML per day fresh may be delivered in late autumn or winter in the average to wet planning scenarios to increase fish migration and boost fish recruitment when climatic conditions are favourable. However, this event may be difficult to deliver in the drought and dry planning scenarios, given the availability of water for the environment. Several other large freshes are recommended to slow the recession following spills from Lake Glenmaggie in the wet planning scenario, but they are a lower priority and will likely be at least partly met by operational releases if the reservoir spills.

Natural inflows and operational releases to manage storage levels may partially achieve some tier 1 planned watering actions in the wetter planning scenarios, meaning lower-priority tier 2 actions that are proposed in these planning scenarios may also be achievable if enough water for the environment becomes available. A minimum carryover target of 1,900 ML has been prioritised in the drought, dry and average planning scenarios to support early-season low-flow requirements in the Macalister River in 2027-28. In the wet planning scenario, opening allocations in 2027-28 are expected to be high enough to meet early-season low-flow requirements.

Table 2.4.2 Macalister system (reach 2) environmental watering planning scenarios

Planning scenario	Drought	Dry	Average	Wet
Expected conditions	<ul style="list-style-type: none"> Limited natural flow; freshes or high flow are unlikely Passing flows at Maffra Weir may be reduced 	<ul style="list-style-type: none"> Possible spills from Lake Glenmaggie in spring, minor flood levels may occur Passing flows at Maffra Weir may be reduced 	<ul style="list-style-type: none"> Regular spills from Lake Glenmaggie in spring, minor to moderate flood levels may occur 	<ul style="list-style-type: none"> Large and frequent spills from Lake Glenmaggie, moderate to major flood levels may occur
Expected availability of water for the environment	<ul style="list-style-type: none"> 13,800 ML 	<ul style="list-style-type: none"> 17,000 ML* 	<ul style="list-style-type: none"> 18,000 ML* 	<ul style="list-style-type: none"> 22,800 ML*
Potential environmental watering – tier 1 (high priorities)	<ul style="list-style-type: none"> Year-round low flow Summer/autumn freshes (three freshes) Summer/autumn fresh Autumn fresh 	<ul style="list-style-type: none"> Year-round low flow Spring freshes Summer/autumn fresh (three freshes) Summer/autumn fresh Autumn fresh 	<ul style="list-style-type: none"> Year-round low flow Spring fresh Summer/autumn freshes (three freshes) Autumn fresh Autumn/winter fresh 	<ul style="list-style-type: none"> Year-round low flow Spring fresh Autumn fresh Autumn/winter fresh
Potential environmental watering – tier 2 (additional priorities)	<ul style="list-style-type: none"> Spring fresh Autumn/winter fresh 	<ul style="list-style-type: none"> Autumn/winter fresh 	<ul style="list-style-type: none"> Summer/autumn fresh 	<ul style="list-style-type: none"> Winter/spring low flow Spring/summer fresh following a spill
Possible volume of water for the environment required to achieve objectives	<ul style="list-style-type: none"> 10,800 ML (tier 1) 11,100 ML (tier 2) 	<ul style="list-style-type: none"> 14,300 ML (tier 1) 5,300 ML (tier 2) 	<ul style="list-style-type: none"> 16,100 ML (tier 1) 3,400 ML (tier 2) 	<ul style="list-style-type: none"> 21,900 ML (tier 1) 13,700 ML (tier 2)
Priority carryover requirements for 2027-28	<ul style="list-style-type: none"> 1,900 ML 	<ul style="list-style-type: none"> 1,900 ML 	<ul style="list-style-type: none"> 1,900 ML 	<ul style="list-style-type: none"> N/A

* Carryover from 2025-26 may be forfeited in the event of spill releases from Lake Glenmaggie.

2.5 Snowy system

Waterway managers – East Gippsland Catchment Management Authority and New South Wales Department of Climate Change, Energy, the Environment and Water

Storage manager – Snowy Hydro Limited

Environmental water holders – Victorian Environmental Water Holder and New South Wales Department of Climate Change, Energy, the Environment and Water

System overview

The Snowy River originates on the slopes of Mount Kosciuszko. It flows from its headwaters on the eastern slopes of the Snowy Mountains in New South Wales through the Snowy River National Park in Victoria and into Bass Strait (Figure 2.5.1).

Four major dams and multiple diversion weirs in the upper Snowy River catchment capture and divert water to the Murrumbidgee and Murray River valleys. The hydrological effects of the Snowy Mountains Scheme are substantial, but they are partly alleviated by the contribution of flows from tributaries (such as the Delegate River in NSW and the Buchan and Brodribb rivers in Victoria).

The construction and operation of the Snowy Mountains Scheme previously diverted 99 per cent of the Snowy River's mean annual natural flow at Jindabyne. The loss of flow changed the structure and function of the river, reduced the opening of the Snowy River entrance to Bass Strait and resulted in a decline in environmental values.

In response, a tripartite agreement, the Snowy Water Inquiry Outcomes Implementation Deed, established in 2002 between the Victorian, New South Wales and Commonwealth governments, agreed to recover some water and delivered the first environmental flow to the Snowy River below Jindabyne Dam to help restore the damage done by decades of limited flow. The Victorian share of water for the environment available for use in the Snowy system is held in the Victorian Murray, Goulburn and Loddon systems. The NSW share of water for the environment available for use in the Snowy system is held in the NSW Murray and Murrumbidgee systems. Collectively, the water is made available for environmental flows in the Snowy River via a substitution method, whereby water for the environment allocated in Victoria and NSW replaces water earmarked for transfer from the Snowy to Victoria and NSW to support irrigation demands. The NSW Department of Climate Change, Energy, the Environment and Water plans environmental flows in the Snowy River in consultation with the Snowy Advisory Committee. The committee includes representatives of the Aboriginal community, the local community, the Victorian and NSW governments and environmental experts. The committee brings together local knowledge and expert advice to help inform the management and delivery of water for environmental outcomes.

The water year in the Snowy system runs from 1 May to 30 April, and the daily flow regime is planned in advance by the Snowy Advisory Committee. Water for the environment is released daily from Jindabyne Dam into the Snowy River. The annual allocation of water for the environment varies based on water availability, rainfall and inflows. Environmental releases aim to deliver an average of 212,000 ML per year, the equivalent of 21 per cent of the average annual natural flow before the construction of the Jindabyne Dam.

Figure 2.5.1 Snowy system



Environmental values

The upper reaches and tributaries of the Snowy River support water-dependent plants and animals, including freshwater native fish (such as river blackfish and Australian grayling), platypus and frogs. The lower reaches support estuary perch and Australian bass that move between saltwater and freshwater systems. The estuary contains estuarine and saltwater species (such as flathead and black bream). The floodplain wetlands of the Snowy River near Marlo provide feeding and breeding areas for wetland and migratory birds.

Traditional Owner cultural values and uses

Traditional Owners with links to the Snowy River system include the Nindi-Ngujarn Ngarigo Monero, Bidwell-Maap and Gunaikurnai peoples.

The river and its associated systems and lands have significant cultural values, including as a functional and spiritual connective pathway. The Snowy River has enduring cultural importance as a place for the gathering of different Nations, ceremonies, access to food, fibre and other resources, stories, spirituality and songlines.

The Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) holds Native Title, a recognition and settlement agreement under the *Traditional Owner Settlement Act 2010* and Registered Aboriginal Party status under the *Aboriginal Heritage Act 2006* in East Gippsland, including the lower Snowy River, associated with the Krauatungalung clan. This landscape was largely a transitional landscape, with people migrating seasonally from the High Country to the coast and back, depending on the availability of different food sources throughout the year. Many trade routes travel through freshwater river systems (such as the Snowy River system).

The Nindi-Ngujarn Ngarigo Monero, Bidwell-Maap and GLaWAC have all expressed aspirations to strengthen capacity in decision-making and working on Country. Nindi-Ngujarn Ngarigo Monero is contributing to the Snowy advisory group, and Bidwell-Maap are contributing to catchment management groundwork. In addition, all three Traditional Owners are participating in the renewal of the **East Gippsland Waterway Strategy 2014 – 2022**. Increasing the involvement of Traditional Owners in managing environmental flows and progressing opportunities towards self-determination in the environmental watering program is a core commitment of the VEWH and its program partners.

This is reinforced by legislation and policy commitments, including the *Water Act 1989*, the **Victorian Aboriginal Affairs Framework**, the 2016 **Water for Victoria**, the 2022 **Water is Life: Traditional Owner Access to Water Roadmap**, and, in some cases, agreements under the *Traditional Owner Settlement Act 2010*.

Scope of environmental watering

The total volume available for release to the Snowy River in 2026-27 is 140,170 ML. Due to operating rules in the system, the daily flow regime that will be delivered in 2026-27 is pre-planned. The storage manager will make daily releases of varying volumes from Lake Jindabyne between May 2026 and April 2027 to mimic the typical flow patterns of a mixed snowmelt/rainfall river system characteristic of the Snowy Mountains. A 'natural flow scaling' approach is applied, and the continuous daily releases aim to support environmental processes in the Snowy River below Jindabyne Dam and maintain a healthy river that is much smaller than the natural channel that existed before the river was regulated.

The Snowy catchment experienced dry conditions during the 2025-26 water year. The Bureau of Meteorology's long-term weather forecast indicates a continuation of drier conditions in 2026-27, meaning there will be less water available in 2026-27. Drought contingency and streamside releases are planned to address this issue. A volume of 131,170 ML plus 9,000 ML base passing flow (including 500 ML base passing flow for Mowamba) will be delivered from Jindabyne, with more winter and early-spring flows rather than high-spring flows to coincide with variability in snow-melting timing. Five, eight-hour high-flow events (four winter/spring and one autumn) exceeding 2,200 ML per day are scheduled from August 2026 to April 2027 to move sediment, wet high benches and backwaters and improve in-stream habitat for native fish, platypus, frogs and waterbugs. Four triggered flows (flexible flows with pre-determined volumes) will be delivered in May, June, January and February within the nominated window to mimic natural flow events, freshen up the river channel during the low flow in the hot summer and support multiple environmental values, including Australian bass. Based on the Snowy River Estuary Flow Study recommendations, two releases (base passing flow) of less than 150 ML per day for 20 days in January and over 150 ML per day in February will be delivered to test the effect on the estuary mouth.

For further information, visit the Snowy and Montane Rivers | NSW Environment and Heritage [website](#).