

Latrobe water fact sheet 1: Existing users of water in Latrobe

This fact sheet is number one of a series that illustrate how water is utilised in the Latrobe basin

The many users of surface water

There are many uses for water across the Latrobe region. Ensuring healthy waterways benefits and provides water for the environment, farmers and irrigators producing food and crops, industry (including for power generation in the region), recreation and households. Water is the responsibility of water corporations and catchment management authorities:

- West Gippsland Catchment Management Authority (healthy waterways)
- Gippsland Water (urban water)
- Southern Rural Water (management of Latrobe system and rural water)

Information about the environment and Traditional Owners can be found in fact sheets 2 and 3.

Table 1. Major water storages in the Latrobe system

Storage	Capacity (GL)	Location	Purpose
Blue Rock Reservoir	198.3	Tanjil River upstream of Latrobe confluence	<ul style="list-style-type: none">- Supply to Gippsland Water's Moondarra Reservoir via transfer pipeline- Supply to Moe urban demand- Supply to irrigators and private diverters- Supply to environmental entitlements- Supply of water to power generators- Provision of Latrobe reserve
Lake Narracan	7.2	Latrobe River, near Moe	<ul style="list-style-type: none">- Supply of water to power generators- Operating rules accommodate recreational users and harvesting of unregulated flows
Moondarra Reservoir	29.9	Tyers River	<ul style="list-style-type: none">- Gippsland Water supply to urban and industrial demands

* Gippsland Water transfers water from its share of Blue Rock Reservoir to Moondarra Reservoir based on its operating rules and requirements

Water for power generation

The Latrobe River system provides a very reliable supply of water to the State's power generators who are the largest consumptive users of water in the Latrobe Valley. In 2017–18, the Latrobe Valley power stations used 63 gigalitres (GL) of surface water from the Latrobe River system for power generation. Significant volumes of water have also been returned to the Latrobe River system by power generators following its use in the process of power production. This water has been used by irrigators and provided benefits to the environment.

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The power stations at Yallourn and Loy Yang A and B take water for power generation under entitlements. The average annual volume of water used for power generation is often less than these entitlements permit to ensure their continued access to water in dry years.

Yallourn and Loy Yang A and B power stations are provided water via a pipeline from Yallourn Weir downstream of Lake Narracan. Hazelwood Power Station, when it was operating, received water from Gippsland Water via a pipeline from Moondarra Reservoir.

Table 2: Current bulk entitlements (BE) in the Latrobe regulated system for power generation.¹

Entitlement	Share of flow Blue Rock Reservoir	Share of unregulated Latrobe River flow	Share of storage Blue Rock	Share of storage Lake Narracan	Annual entitlement volume	Purpose
Yallourn BE	15.72	22.41	15.72	29.94	36,500	Held by Energy Australia for power generation
Loy Yang A BE	17.22	24.55	17.22	32.80	40,000	Held by AGL Loy Yang Partnership for power generation
Loy Yang B BE	8.61	12.28	8.61	16.40	20,000	Held by Southern Rural Water and supplied to Loy Yang B (who hold a licence) for power generation
TOTAL % SHARES	41.55	59.24	41.55	79.14		

1. Water for power generation at Hazelwood, before it closed, was supplied from Gippsland Water's Bulk Entitlement

Water for agriculture

The Latrobe Valley and surrounds is home to a large food and fibre industry. Dairy is the most established industry in Gippsland, but there has recently been rapid growth in the production of high-value horticultural commodities such as olives, garlic, saffron and truffles. Cattle, sheep and lambs, wool and poultry are also significant.

To take and use water from a waterway, farmers and irrigators must have a section 51 licence that authorises them to do this. This licence includes the details of the location for where the water can be taken and where the water can be used.

Southern Rural Water supplies section 51 licences along the lower Latrobe River using water from a BE held for this purpose. Southern Rural Water's bulk entitlement provides:

- A share of inflows and storage capacity in Blue Rock Reservoir
- A share of unregulated flows in the Latrobe River
- A share of additional unregulated flows in the Latrobe River if not being used by other bulk entitlement holders, and
- A 50% share of return flows from power generation and paper production.

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In 2017–18, 8.5 GL of surface water was used by section 51 licence holders along the lower Latrobe River (downstream of Lake Narracan) and a further 6.3 GL of surface water was diverted by section 51 licence holders from other unregulated streams.

There are about 490 farm dams in the Latrobe Basin that are used for irrigation and commercial purposes that have a combined volume of approximately 16 GL. In 2017–18 it was estimated that 4 GL of water was used from these farm dams. Annual usage from farm dams will vary on climate. A take and use licence is also required to use water from a farm dam for commercial and irrigation purposes.

Table 3: Current entitlements in the Latrobe system for agriculture.

Entitlement	Share of Flow Blue Rock Reservoir (%)	Share of unregulated Latrobe River Flow (%)	Share of Storage Blue Rock (%)	Share of Storage Lake Narracan (%)	Annual Entitlement Volume (ML)	Purpose
Southern Rural Water Irrigation BE	2.10	25.15	2.10	0	13,400	Held by Southern Rural Water to supply section 51 licence holders in Latrobe system
Private diversion licences from unregulated rivers	0	0	0	0	18,891	

Water for industry and urban users

The Latrobe system supplies the townships of Boolarra, Churchill, Cowwarr, Darnum (north side of freeway and Fonterra milk factory), Erica, Glengarry, Hazelwood North, Moe, Morwell, Rosedale, Thorpdale (carting), Toongabbie, Trafalgar, Traralgon, Traralgon South, Tyers, Willow Grove, Yallourn North, Yarragon and Yinnar among others.

There are 36,762 Latrobe serviced residential customers and 3,323 non-residential customers (businesses, schools, parks) for an estimated population of 75,991. In 2017–18, water supplied to towns (excluding industry) totalled approximately 13 GL per year.

Gippsland Water owns and operates Moondarra Reservoir, located on the Tyers River, which is the predominant source of water for industry and towns in and around the Latrobe Valley. One major exception to this is the township of Moe, which receive their water supplies from Narracan Creek Weir. This supply is supplemented by Blue Rock Reservoir when Narracan Creek Weir supplies are insufficient or untreatable.

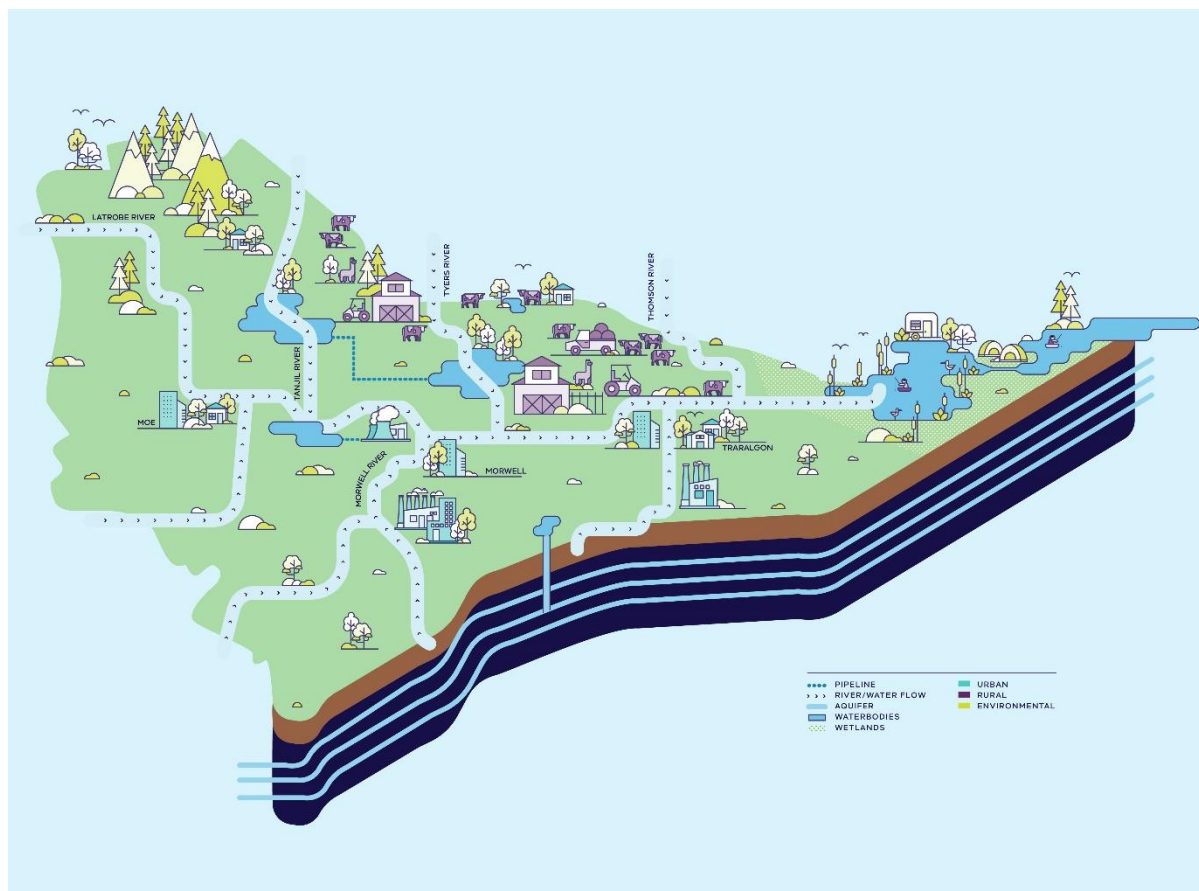
Urban water is for household uses such as drinking water, bathing, dishwashing, cooling, gardens, flushing toilets, washing cars, laundry and other cleaning or functional uses.

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Table 4: Current bulk entitlements in the Latrobe regulated system for industry and urban use.¹

Entitlement	Share of Flow Blue Rock Reservoir (%)	Share of Storage Blue Rock (%)	Share of Flow and Storage Moondarra Reservoir (%)	Annual Entitlement Volume (ML)	Purpose
Gippsland Water –Blue Rock BE ²	17.08	17.08	0	20,000 (averaged over 3 years)	Held by Gippsland Water to supply urban and industrial demands including supply by agreements
Gippsland Water – Moondarra Reservoir ²	-	-	100	62,000 (averaged over 2 years)	Held by Gippsland Water to supply urban and industrial demands including supply by agreements
Gippsland Water – Narracan Creek (Moe)	-	-	-	3,884	Held by Gippsland Water to supply customers in Moe

1. Excludes unused bulk entitlements for Boolarra, Thorpdale and Noojee, as well as minor volumes available under bulk entitlements for Erica-Rawson and Mirboo North.
2. Water from these bulk entitlements includes water that has historically provided for power generation at the Hazelwood Power Station, but also includes supply to other major industrial water users



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