



Barwon, Leigh & Moorabool Basin

Local Water Report 2019-20

Introduction

Welcome to our annual Local Water Report for our Barwon, Leigh and Moorabool Basin customers. This report provides information on:

- how our rivers fared last season (2019-20)
- groundwater level trends;
- the number of irrigation licences in each of our systems;
- how much water irrigators used last season, compared with previous years; and
- emerging local water issues.

What's happened with your local rivers?

The Barwon system has experienced slightly below average rainfall for the winter and a below average rainfall pattern for spring. Rivers experienced flows similar to that of the previous year with some higher flows, particularly on the Moorabool River, maintaining above average winter average flows. Most winterfill licences on the Barwon, Leigh and Moorabool Rivers would have been able to take their full allocation.

Restrictions on both the Barwon and Moorabool Rivers will be managed closely as flows reduce and will align with the CMA's environmental releases to allow these pulses to pass without a lifting of any bans outside of natural flows. These releases on the Moorabool river were in two stages. 10 Jan through to 29 April and then again from 25 May through to 14 October. Bans were in place for irrigators to allow the passing of these flows for the environment.

Moorabool River

An extended dry summer resulted in total bans for the summer and the autumn period, with these bans remaining in place until early March 2020.

The below table show the restrictions for the 2019-20 season:

Stage	Total days
Stage 1 (100% No restriction)	
Stage 2 (25%)	
Stage 3 (50%)	0
Stage 4 (75%)	
Stage 5 (Total ban)	129

Leigh River

Run off from Ballarat South, good spring activity in the upper catchment and inflows of treated water from the Ballarat South Treatment Plant resulted in no restrictions for the 2019-20 season. Flows never fell below 10ML's per day at the Inverleigh GS.

The table below shows the restrictions for the 2019-20 season:

Stage	Total days
Stage 1 (100% No restriction)	NIL
Stage 2 (25%)	
Stage 3 (50%)	
Stage 4 (75%)	
Stage 5 (Total ban)	

Barwon River

Similar rainfall as that of the Moorabool River saw flows gradually slow resulting in restrictions and bans on the Barwon River for the summer and early autumn. Winter flows were average with some high flows reaching well below bank topping events.

The below table show the restrictions for the 2019-20 season.

Zone 1. (Data monitored at Ricketts Marsh gauging station – Upper Barwon)

Stage	Total days
Stage 1 (100% No restriction)	122
Stage 2 (25%)	
Stage 3 (50%)	
Stage 4 (75%)	
Stage 5 (Total Ban)	

Zone 2. (Data monitored at Inverleigh gauging station – Middle Barwon)

Stage	Total days
Stage 1 (100% No restriction)	127
Stage 2 (75%)	
Stage 3 (50%)	
Stage 4 (25%)	
Stage 5 (Total Ban)	

Zone 3. (Data monitored at Pollocksford gauging station – Lower Barwon)

Stage	Total days
Stage 1 (100% No restriction)	11
Stage 2 (75%)	
Stage 3 (50%)	
Stage 4 (25%)	
Stage 5 (Total Ban)	

Rosters and restrictions

When river, creek and groundwater levels drop, we often have to introduce rosters, restrictions or bans to ensure a fair distribution of available water to all licence holders.

You can find your area's hotline number and local management rules by visiting www.srw.com.au/customer/rosters-and-restrictions

Surface water figures

The table below compares last season's usage with the previous four years

River System ¹	Number of licences	Licensed volume (ML)	Total Volume Extracted (ML)				
			2019-20	2018-19	2017-18	2016-17	2015-16
Barwon River	174	5548.1	1135	1,315	1,028	1,213	1,756
Moorabool River	150	3576.0	1137	1,486	1,344	999	977
Totals	344	9164.1	2,272	2,801	2,372	2,212	2,733

¹ Does not include farm dam registrations.

What happened with your local groundwater last season?

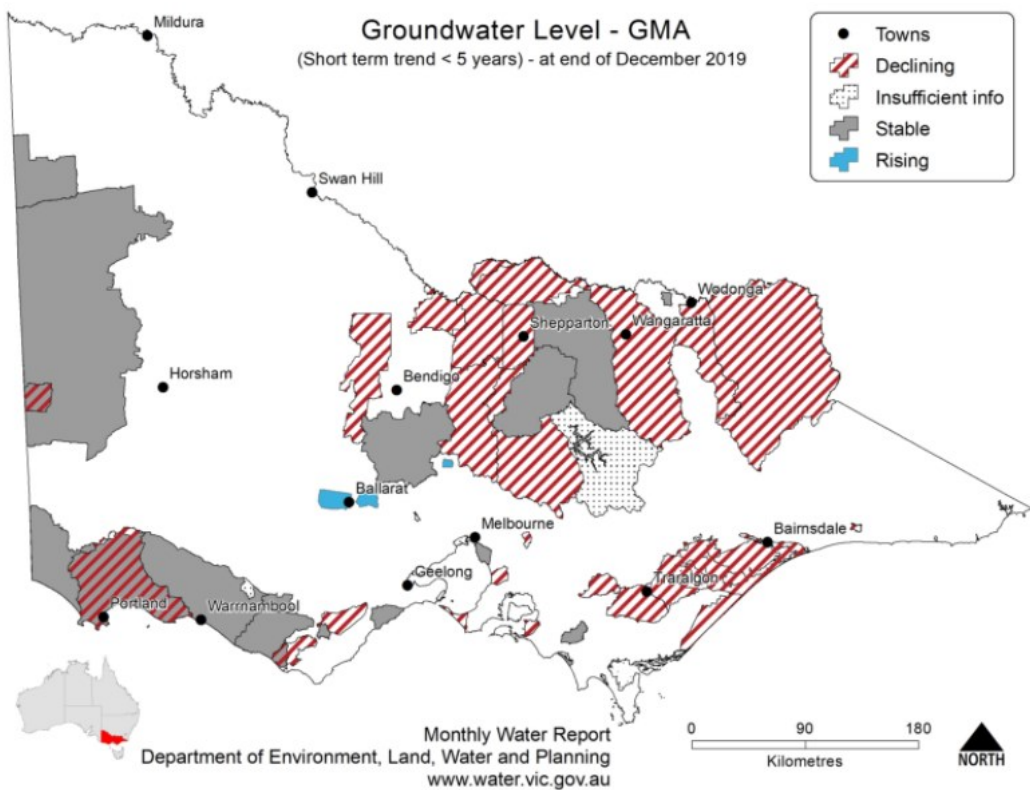
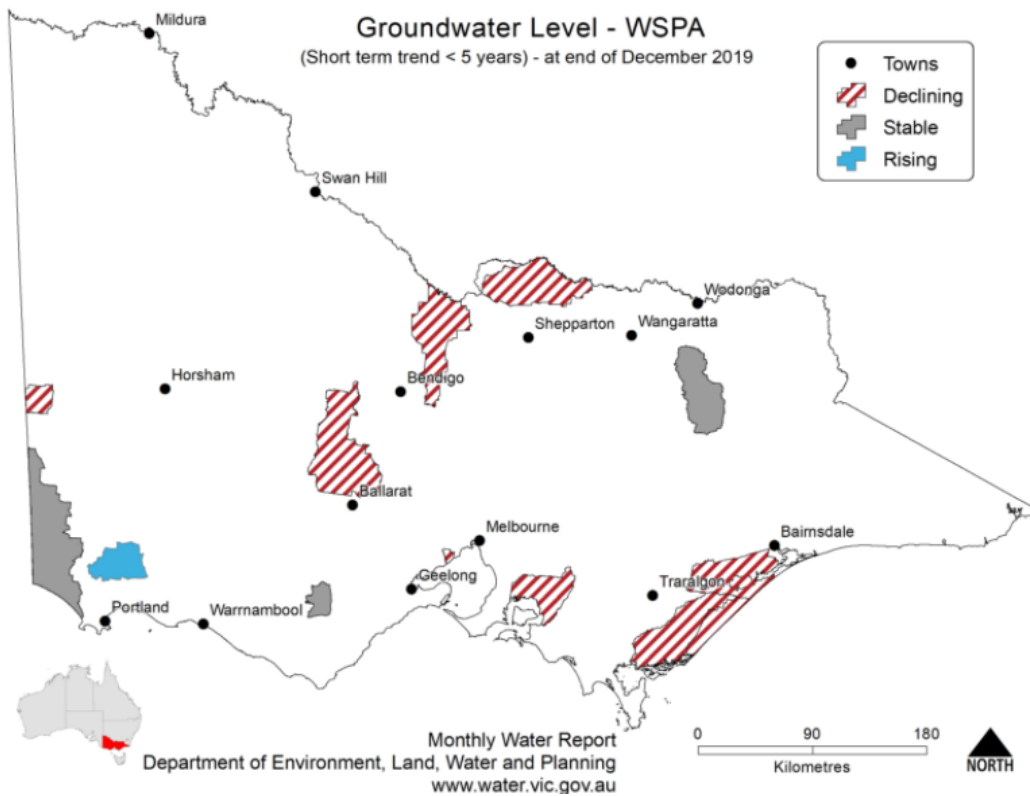
Overview

There are three Groundwater Management Units within the Barwon and Moorabool Basins (Bungaree, Gerangamete and Cardigan). Gerangamete is a deep sand aquifer and the other aquifers in these areas are thick basalt and deep leads. The deep leads are ancient river beds, and the basalt is from local volcanoes, such as Mt Warrenheip.

The water quality in these aquifers is generally very good. The main use is for irrigation.

A bedrock aquifer also exists across the basin, but has limited quality and yield and is generally only used for domestic and stock purposes. The Department of Environment, Land, Water and Planning (DELWP) has a good spread of State Observation Bores in these areas.

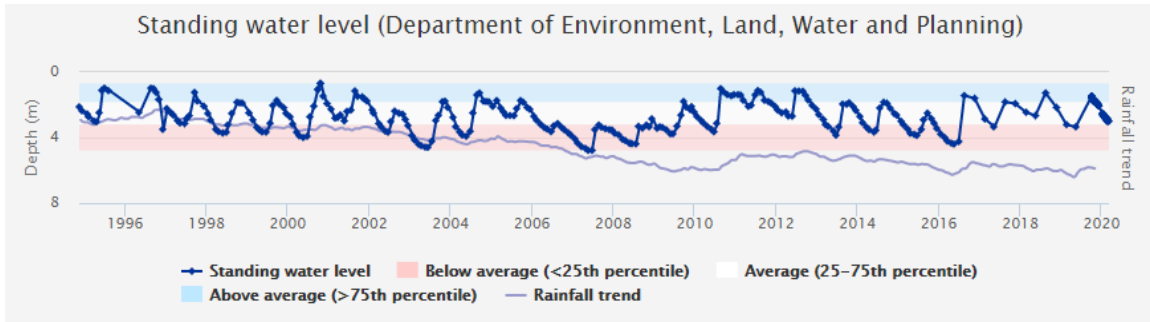
Follow this [link](#) if you would like to know more about groundwater management in your area.



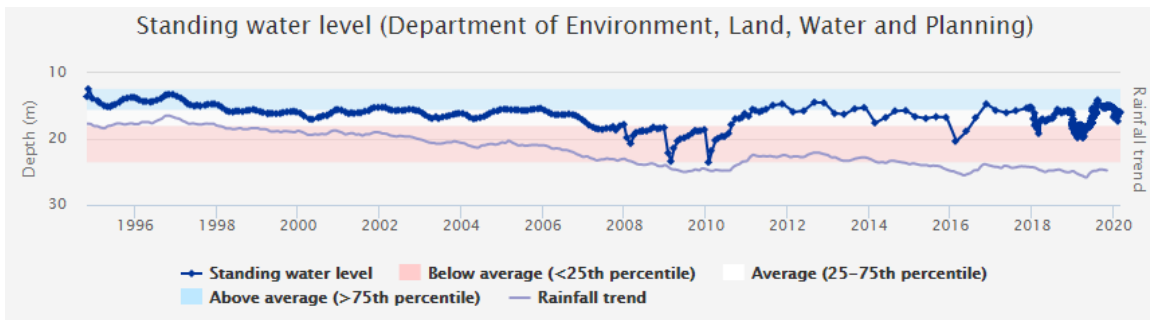
Use this [link](#) to view groundwater trends across Victoria.

Bungaree

Bungaree GMA received 787.2mm of rain at the Glen Park rain gauge station which was close 100mm lower than the long term average of 862mm. Groundwater usage last year was 2,196ML compared to the long term average of 2,747ML. Average water levels this year are within the long term average (25-75th percentile).



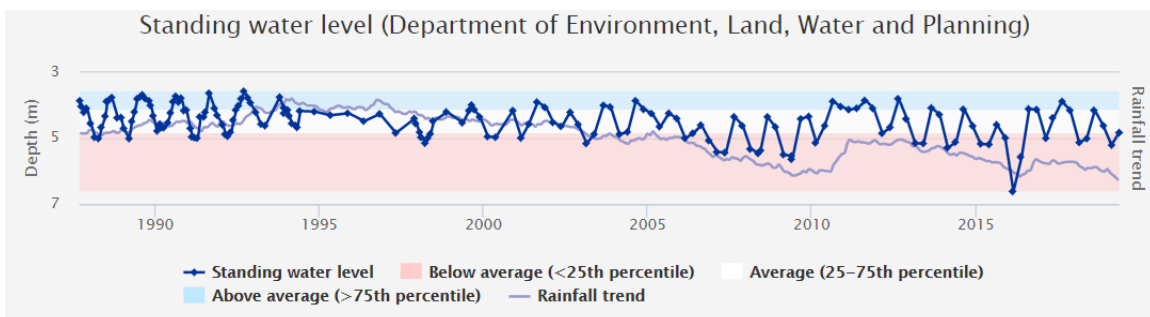
Bungaree – Springbank Road (119340)



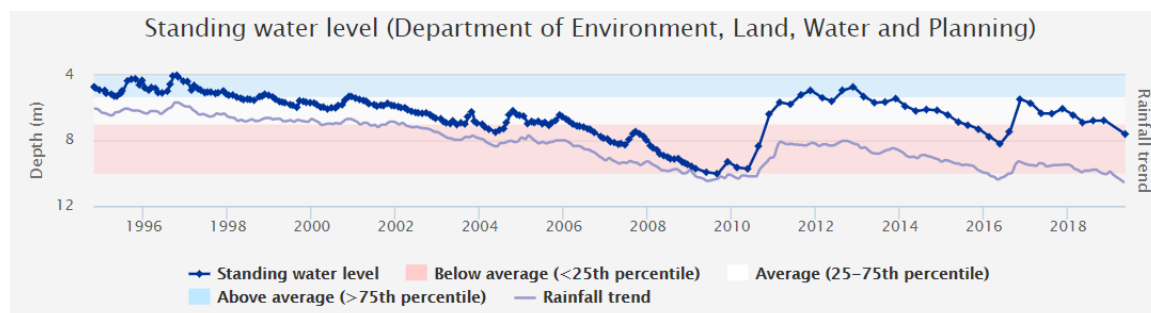
Bungaree - Murphy's Road (119337)

Cardigan

Cardigan GMA received 618mm of rain at the Ballarat Aerodrome rain gauge station which was approximately 70mm less than the long term average of 687mm. Groundwater usage last year was 733ML compared to the long term average of 678ML. Water levels this year are average to below average.



Cardigan – Racecourse Road (66622)



Cardigan – Draffin's Road (122382)

Gerangamete

Gerangamete GMA received 665mm of rain at the Pennyroyal Creek rain gauge station which was approximately 125mm less than the long term average of 790mm. Groundwater usage last year was 0ML compared to the long term average of 3,299ML.

The licenced volumes for Gerangamete have reduced significantly in this report due to Barwon Water not renewing their groundwater licence for the GMA.

To find out more information about the bore depths in your area visit https://www.vvg.org.au/vvg_map.php

Groundwater figures

The table below compares last season's usage with the previous four years

Groundwater system	Number of licences	Licensed volume (ML)	Total Volume Extracted (ML)				
			2019-20	2018-19	2017-18	2016-17	2015-16
Bungaree GMA	98	4516.6	2,196	3,245	2,938	2,290	3,074
Cardigan GMA	21	3889.1	733	931	742	751	933
Gerangamete GMA	3	238.4	0	0	3	1,546	1,846
Unincorporated	89	10,802	3,521	3,544	4,115	3,907	4,149
Totals	210	28,181	6,450	7,720	7,798	8,494	10,002

Water trading for 2019-20

The table below shows the number and volume (ML) of water trades. Temporary and permanent volume trades show water trades across different locations, as distinct from ownership changes that are part of land transfers.

1. Previous years water trade ML volumes , numbers and traded price can be found at: <http://waterregister.vic.gov.au/water-trading/take-and-use-licence-trading>

Basin / GMU	Permanent trade		Temporary trade	
	Number	Volume (ML)	Number	Volume (ML)
Moorabool Basin	0	0	6	114
Barwon Basin	7	175.2	2	110
Bungaree GMA	2	45	7	165
Cardigan GMA	0	0	0	0

More information

For more information about rural water use in your area, please contact your local field officer, **Angus Ramsay on 0437 074 768** or phone Southern Rural Water on 1300 139 510.

Southern Rural Water is publishing local water reports for all basins. You can view these online at our website (www.srw.com.au).

PLEASE DON'T DRINK OUR WATER

ANY water from sources managed or licensed by Southern Rural Water, including irrigation storages, channels, rivers and creeks, groundwater and farm dams, is untreated. It should not be considered safe for human consumption without proper treatment.