

## Lower Campaspe Valley Water Supply Protection Area

### Groundwater management

The Lower Campaspe Valley Water Supply Protection Area (the WSPA) extends from Lake Eppalock in the south to the Murray River in the north. Groundwater resources are managed by Goulburn-Murray Water (GMW) in accordance with the *Lower Campaspe Valley WSPA Groundwater Management Plan* (the Plan), approved by the Minister for Water in 2012.

### Allocations

Allocations are determined by comparing the three-year rolling average of the maximum groundwater recovery levels to triggers set by the Plan (Figures 1 and 2).

- 2019/20 – 100 per cent allocation was announced for the three Northern management zones, and 75 per cent allocation for the Barnadown Zone.
- 2020/21 – 75 per cent allocation has been announced and will apply for all four zones.

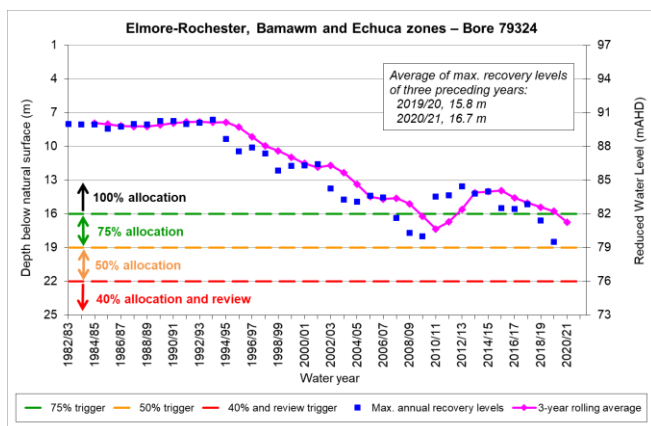


Figure 1. Allocation trigger graph for northern zones; Elmore-Rochester, Bamawm and Echuca

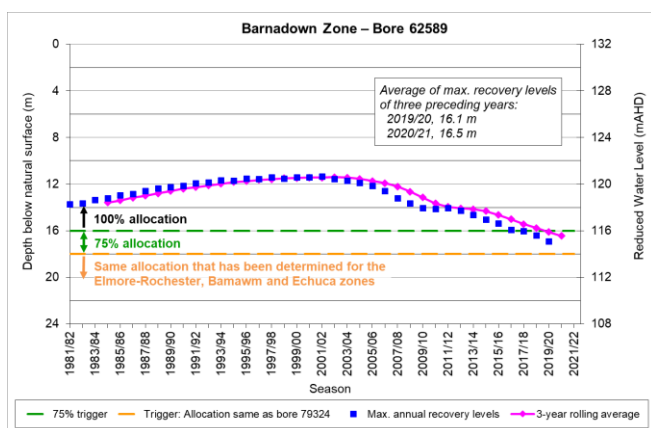


Figure 2. Barnadown Zone allocation trigger graph

### Groundwater licensed volume and use

The total groundwater licensed entitlement volume (licensed volume) in the WSPA in 2019/20 was 55,860.4 ML/yr (Table 1). Recorded use in the WSPA was 41,730.0 megalitres (ML) in 2019/20, or 75 per cent of total licensed volume (Figure 3). Entitlement volume in the Barnadown Zone was allocated at 75 per cent; this is shown in green below with the reduction in available entitlement.

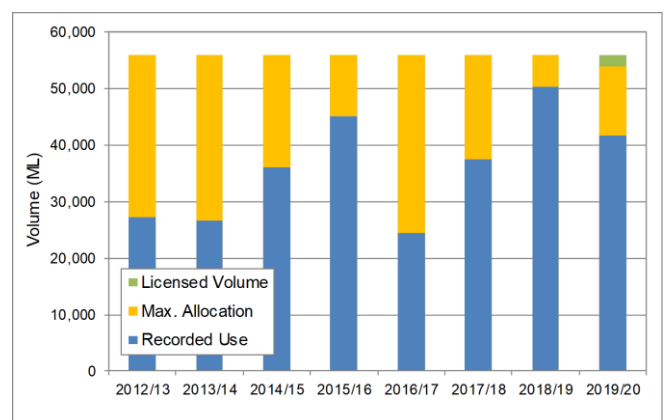


Figure 3. Licensed volume, allocation and use

### Trading

In 2019/20 there were 34 temporary transfers for a total of 4,753.8 ML, and two permanent transfers for a total of 9 ML/yr (Figure 4).

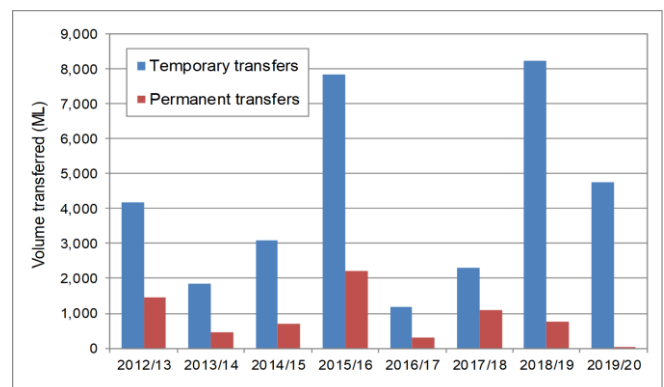


Figure 4. Groundwater trading activity

Licence holders are reminded not to extract more than their licensed volume without approval from GMW. Licence holders seeking to trade groundwater licensed volume are encouraged to visit Watermatch ([www.watermatch.com.au](http://www.watermatch.com.au)); an online forum where people can advertise their interest to buy or sell water.

## Carryover

A total of 11,511.8 ML was carried over by licence holders in the WSPA for use in the 2019/20 water year.

The volume that has been carried over into the 2020/21 water year is 12,590.6 ML.

## Groundwater levels

The Department of Environment, Land, Water and Planning (DELWP), in partnership with GMW, monitored 100 State observation bores in the WSPA.

Monitoring indicates that seasonal groundwater recovery levels have been declining since Plan implementation in 2012. During 2019/20, groundwater recovery levels in the Deep Lead aquifer continued to decline and were lower than recorded in the 2018/19 water year. Seasonal drawdown levels, however, were less for some locations than observed in the previous water year.

In the Elmore-Rochester and Bamawm zones, groundwater drawdown within the 2019/20 water year was 15m and 15.5m depth below natural surface, respectively, in intensively pumped areas in 2019/20 (Figures 5 and 6).

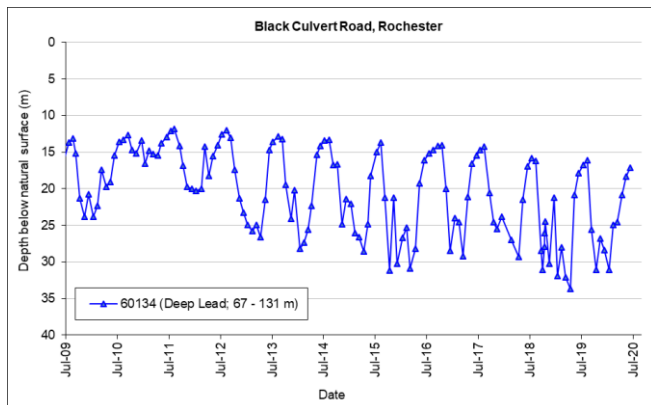


Figure 5. Groundwater levels in the Elmore-Rochester Zone at Rochester

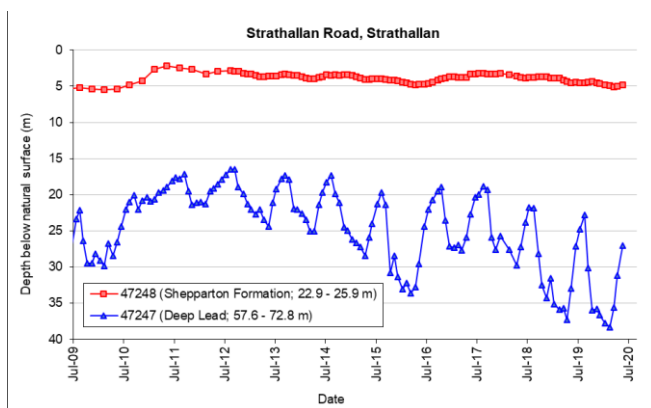


Figure 6. Groundwater levels in the Bamawm Zone at Strathallan

In comparison, seasonal drawdown in the Echuca and Barnadown zones was less than 6m and 2m (Figures 7 and 8).

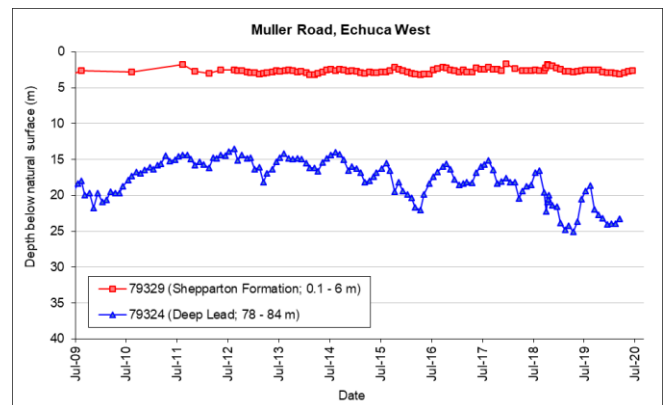


Figure 7. Groundwater levels in the Echuca Zone at Echuca West

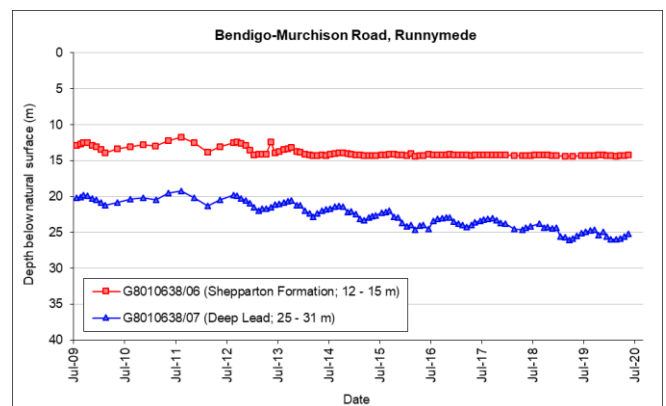


Figure 8. Groundwater levels in Barnadown Zone at Runnymede

## Groundwater quality

Each year GMW provides sample bottles to all licensed groundwater users to monitor salinity in their bores, with 15 per cent of these bottles returned in 2019/20. This was supported by results from targeted sampling of licensed bores, which shows a rising salinity trend occurring in the WSPA.

Key State observation bores were also sampled. Salinity levels ranged from 1,400  $\mu\text{S}/\text{cm}$  (EC) near Elmore to 10,000 EC on the north-western margin of the WSPA, which is comparable to recent years.

## Where can I get more information?

You can download a copy of the Plan, 2019/20 annual report and previous publications from the GMW website [www.gmwater.com.au](http://www.gmwater.com.au), or phone 1800 013 357.