

# 2023 ANNUAL NEWSLETTER

## Mid-Loddon Groundwater Management Area

### Groundwater management

The Mid-Loddon Groundwater Management Area (GMA) extends from Tullaroop Reservoir in the south to Mitiamo in the north. Groundwater resources are managed under the *Mid-Loddon Groundwater GMA Local Management Rules* (the Rules) which was approved by Goulburn-Murray Water (GMW) in 2009.

At 30 June 2023, the total licence entitlement volume (licence volume) in the GMA was 33,927.1 ML/yr – this is unchanged from 30 June 2022.

### Allocations

On 10 August 2022, an allocation of 100 per cent was announced for all groundwater licence holders in the GMA for the 2022/23 water year based on the highest groundwater level in the trigger bore between 1 July and 31 July, 2022 (Figure 1).

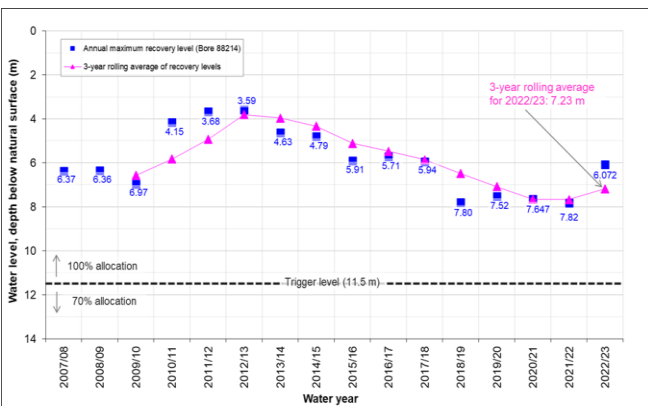


Figure 1. Allocations trigger graph

### Groundwater use

Recorded use in the GMA was 11,761.9 ML in 2022/23 which equates to 35 per cent of the total licence volume (Figure 2). This is the lowest use volume since 2011/12.

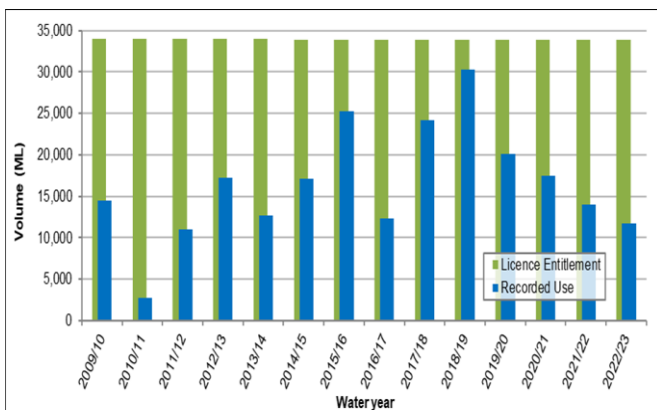


Figure 2. Recorded use compared to licence volume

### Licence transfers

During the 2022/23 water year there were three temporary transfer transactions, for a total of 688.0 ML; no permanent transfer transactions were completed (Figure 3).

Of the three transfers completed, two were between licence holders within the same management zone; there was one temporary transfer of 288.0 ML/yr from Laanecoorie-Serpentine Zone to Moolort Zone,

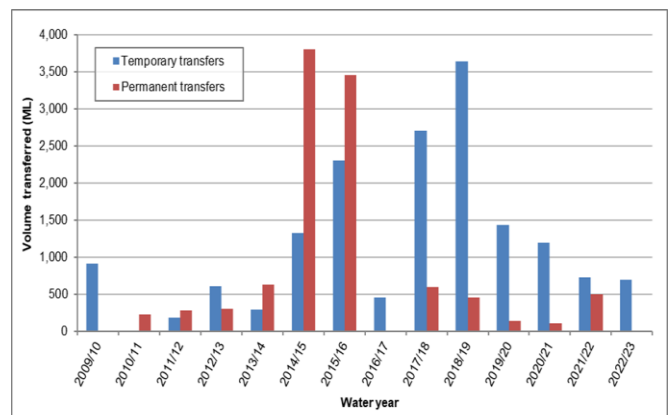


Figure 3. Annual volumes of licence transfers

### Carryover

Licence holders in the GMA are permitted to carryover up to 30 per cent of their licence volume from one water year to the next.

A total of 9,742.3 ML was carried over to the 2022/23 water year by licence holders in the GMA. At the conclusion of 2022/23, 10,090.9 ML was able to be carried over for use in the 2023/24 water year.

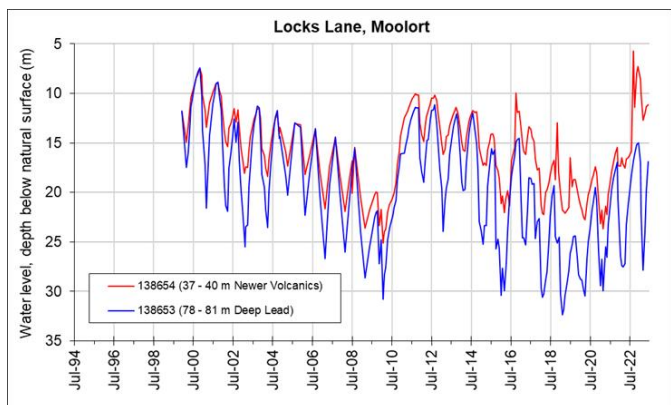
### Groundwater levels

A total of 48 State observation bores, located within the GMA, were monitored by GMW and the Department of Energy, Environment and Climate Action (DEECA) in 2022/23. Of these, 34 were monitored remotely using telemetry equipment, with measurements recorded hourly; and 14 were monitored manually, with measurements recorded at either one-month or three-month intervals.

At Moolort, the groundwater level in Deep Lead observation bore 138653 recovered to a level 1.9 m higher (i.e., closer to the surface) in 2022/23, compared to 2021/22 – 15.0 m depth below natural surface (DBNS), up from 16.9 m. The level of maximum drawdown in 2022/23 was 27.9 m DBNS, occurring in

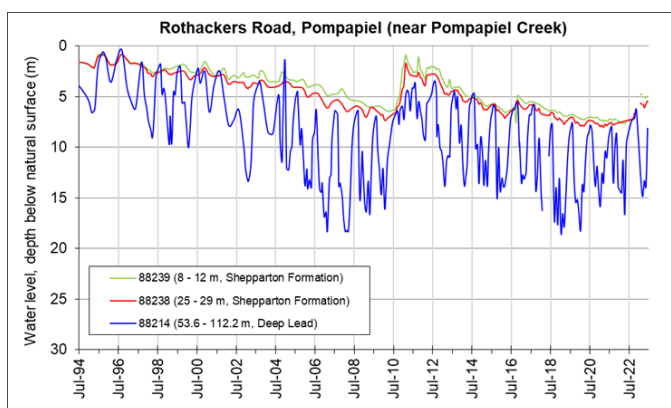
September 2023; A4653798

March 2023; this was marginally lower than the 2022/21 level (27.5 m DBNS) which also occurred in month of March (Figure 4).

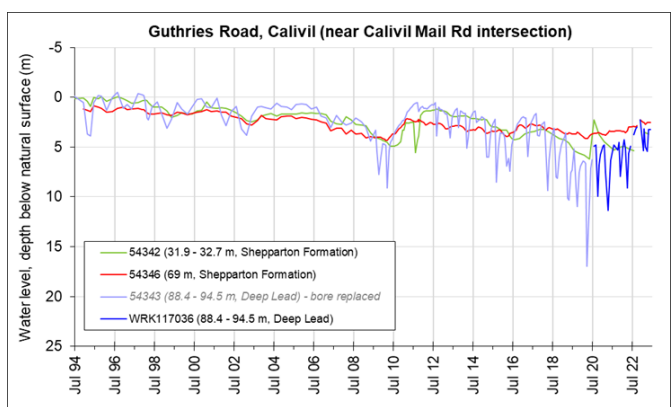


**Figure 4. Groundwater level monitoring at Moolort**

The maximum recovery level in the allocations trigger bore (ID 88214), located on Rothackers Road near Pompapiel Creek, was 1.75 m higher than the maximum of 2021/22 (6.08 m DBNS, compared to 7.83 m). As a result of the observed water level in 2022/23 reaching a maximum drawdown level similar to that of 2021/22 (16.49 m DBNS, versus 16.71 m), the magnitude of drawdown was greater – 10.41 m, compared to 8.88 m (Figure 5).



**Figure 5. Groundwater level monitoring at Pompapiel**



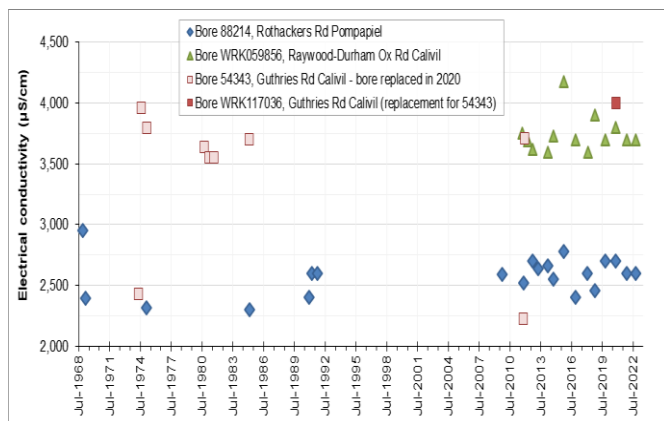
**Figure 6. Groundwater level monitoring at Calivil**

At Calivil, the highest groundwater level recorded in deep lead observation bore WRK117036 (which

replaced bore 54343 in August 2020) during 2022/23 (i.e., the maximum recovery level) was 2.27 m DBNS; 2.00 m higher than the 2021/22 level and the highest since 2017/18. The magnitude of drawdown was 5.45 m this is the highest since 2013/14 when the lowest recorded level was 5.12 m DBNS Figure 6).

### Groundwater quality

Two deep lead observation bores, located within the GMA, were sampled and analysed in November 2022. Groundwater salinity results were within historic ranges (Figure 7). Ongoing annual sampling of these bores will enable trends in groundwater quality to be observed.



**Figure 7. Groundwater salinity monitoring at Calivil and Pompapiel**

GMW provides all groundwater licence holders in the GMA with a sample bottle and a reply-paid envelope to submit a groundwater sample for salinity analysis. In 2022/23, 129 sample bottles were sent out and 19 samples (or 15 per cent) were returned for analysis.

The salinity of groundwater samples collected in 2022/23 were lower than many previous results.

### Licence compliance

In 2022/23, there were no prosecutions or convictions relating to groundwater matters in the GMA.

GMW has a zero-tolerance approach to unauthorised take of non-urban water. GMW will investigate these reports and take action in accordance with GMW's Risk-Based Compliance and Enforcement Framework.

Please visit [www.gmwater.com.au/compliance](http://www.gmwater.com.au/compliance) for more information.

### Where can I get more information?

You can download a copy of the Rules, the 2022/23 annual report and other resources from the GMW website at [www.gmwater.com.au/midloddongma](http://www.gmwater.com.au/midloddongma)