# **2022 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 2022, the total licence entitlement volume (licence volume) in the GMA was 33,927.1 ML/yr – this is unchanged from 30 June 2021.

### **Allocations**

In the 2021/22 water year, all licence holders in the GMA had access to 100 per cent of their licence volume (or 100 per cent allocation).

Maximum allocation has also been announced for 2021/22, based on the highest groundwater level in the trigger bore between 1 July and 31 July, 2022 (Figure 1).

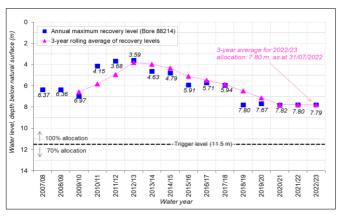


Figure 1. Allocations trigger graph

### **Groundwater use**

Recorded use in the GMA was 14,018.5 ML in 2021/22 which equates to 41 per cent of the total licence volume (Figure 2). This is the lowest use volume since 2016/17.

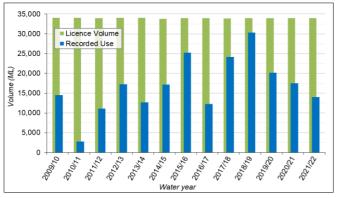


Figure 2. Recorded use compared to licence volume

## Licence transfers

During the 2021/22 water year five temporary transfer transactions, totalling 722.3 megalitres per year (ML/yr), and one permanent transfer of 500.7 ML/yr were completed (Figure 3).

Of the six transfers, five were between licence holders within the same management zone. One temporary transfer of 288 ML/yr was from Laanecoorie-Serpentine Zone to Moolort Zone.

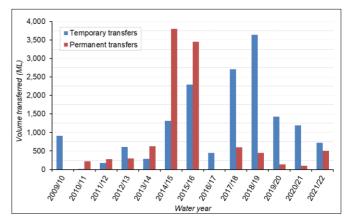


Figure 3. Annual volumes of licence transfers

## 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.

There was 9,914.2 ML of carryover available for use in the 2021/22 water year. The volume that has been carried over for use in 2022/23 was 9,742.3 ML.

## **Groundwater levels**

A total of 48 State observation bores, located within the GMA, were monitored by GMW and the Department of Environment, Land, Water and Planning (DELWP) in 2021/22. Of these, 37 were monitored remotely using telemetry equipment, with measurements recorded hourly; and 11 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 16.9 m below the natural (ground) surface; 2.6 m higher compared to 2020/21. The <u>magnitude of drawdown</u> in 2021/22 was similar to that recorded in 2020/21 (~10.5 m), however the <u>maximum drawdown level</u> (depth) did not reach that of 2020/21 (Figure 4 –overleaf).

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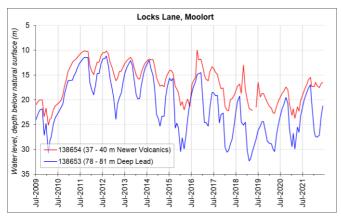


Figure 4. Groundwater level monitoring at Moolort

The <u>maximum recovery level</u> in the allocations trigger bore (ID 88214), located on Rothackers Road near Pompapiel Creek, was 0.15 m lower in 2021/22 compared to 2020/21; and the <u>magnitude of drawdown</u> was slightly greater – 8.7 m, compared to 8.0 m in 2020/21 (Figure 5).

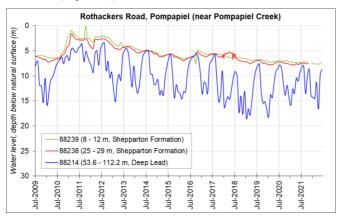


Figure 5. Groundwater level monitoring at Pompapiel

At Calivil, the <u>highest groundwater level</u> recorded in deep lead observation bore WRK117036 (*which replaced bore 54343 in August 2020*) during 2021/22 was 4.50 m, 0.31 m higher than the highest level recorded in 2020/21. The <u>magnitude of drawdown</u> was 4.64 m which was 1.9 m less than the drawdown recorded of 2020/21 (Figure 6).

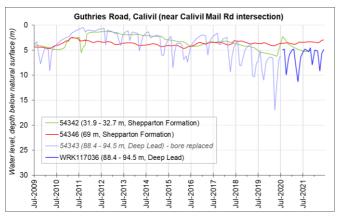


Figure 6. Groundwater level monitoring at Calivil

## **Groundwater quality**

Two deep lead observation bores, located within the GMA, were sampled and analysed in November 2021. Groundwater salinity results were within historic ranges (Figure 7). Ongoing annual sampling of these bores will enable trends in groundwater quality to be observed.

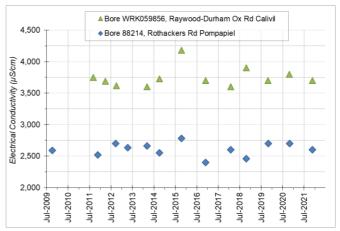


Figure 7. Groundwater salinity monitoring at Calivil and Pompapiel

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 2021/22, 130 sample bottles were sent out and 21 samples (or 16 per cent) were returned for analysis.

On average, the salinity of groundwater samples collected in 2021/22 were slightly lower than previous results.

## Licence compliance

In 2021/22 there were two reports of alleged, unauthorised take of groundwater 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 <u>www.gmwater.com.au/compliance</u> for more information.

### Where can I get more information?

You can download a copy of the Rules, the 2021/22 annual report and other resources from the GMW website at www.gmwater.com.au/midloddongma