

Mid-Loddon Groundwater Management Area

Groundwater management

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

An overall cap on licensed groundwater entitlements (licensed volume), termed a Permissible Consumptive Volume (PCV), of 34,037 megalitres per year (ML/yr) was declared for the GMA in March 2013.

At 30 June 2021, the total of licensed volume in the GMA was 33,927.1 ML/yr. This is unchanged since 30 June 2020

Allocations

In the 2020/21 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 to 8 July 2021 (Figure 1).

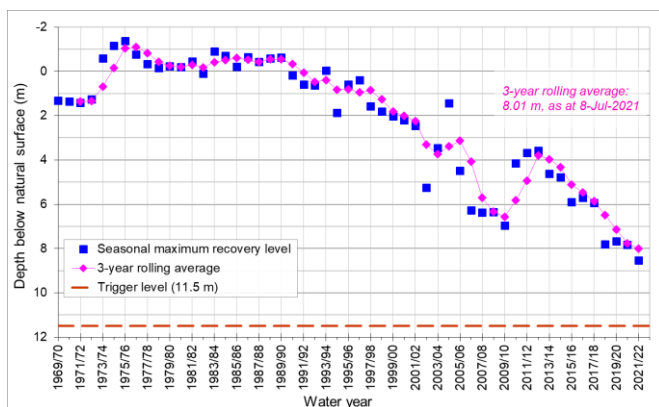


Figure 1. Three-year rolling average of maximum recovery levels, compared to the trigger level

Groundwater use

Recorded use in the GMA was 17,514.6 ML in 2020/21 which equates to 52 per cent of the total licence entitlement volume (Figure 2). This is a seven per cent decrease on the volume used in 2019/20.

Carryover

Licence holders in the GMA are permitted to carryover up to 30 per cent of their licence entitlement volume from one water year to the next. There was 9,764 ML of

carryover available for use in the 2020/21 water year. The volume that has been carried over for use in 2021/22 was 9,914 ML.

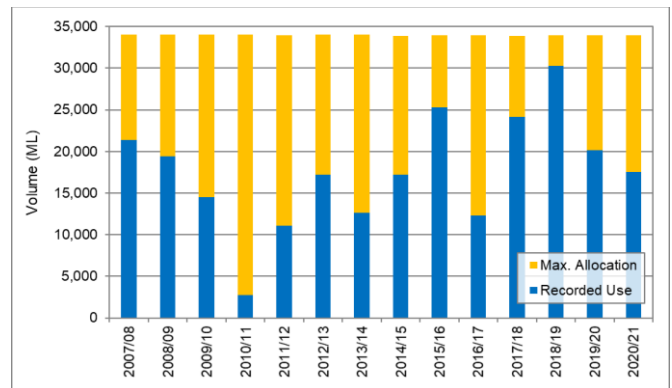


Figure 2. Recorded groundwater extractions

Licence transfer

During the 2020/21 water year there were nine temporary transfer transactions for a total of 1,195 ML and one permanent transfer transaction of 100 ML/yr (Figure 3).

Of the nine temporary transfers completed, eight were between licence holders within the same management zone. The permanent transfer was from the Laanecoorie-Serpentine Zone to the Moolort Zone.

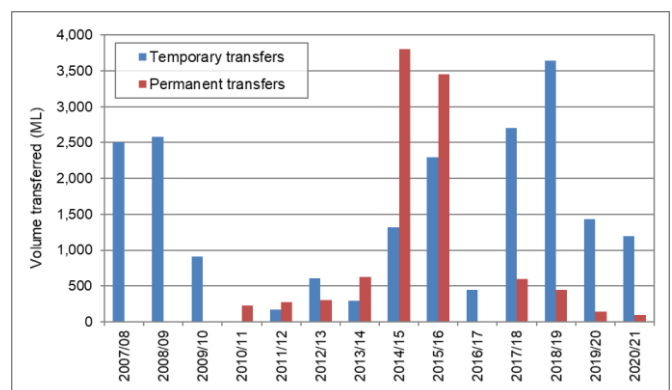


Figure 3. Licence volume transfer activity

Licence compliance

In 2020/21 there were two reported instances of alleged unauthorised take of groundwater (incl. overuse) in the GMA.

GMW has a zero-tolerance approach to unauthorised take of non-urban water. Relevant actions, if required, are taken in accordance with GMW's Risk-Based Compliance and Enforcement Framework.

Please visit www.gmwater.com.au/compliance for more information.

Groundwater levels

A total of 49 state observation bores, located within the GMA, were monitored by GMW and the Department of Environment, Land, Water and Planning (DELWP) in 2020/21.

Of these, 38 were monitored remotely using telemetry equipment, with measurements recorded hourly, and 11 were monitored manually, with measurements recorded on a monthly or quarterly basis.

Monitoring data indicate that groundwater levels were within historic ranges during 2020/21, across the majority of the GMA.

At Moolort, the groundwater level in deep lead observation bore 138653 recovered to 19.4 m below the ground surface; 5.0 m higher compared to 2019/20. The magnitude of drawdown was 4 m greater in 2020/21, however the maximum drawdown level (depth) did not reach that of 2019/20 (Figure 4).

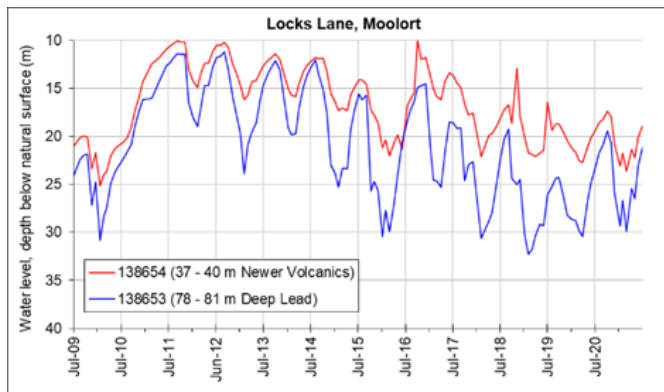


Figure 4. Groundwater level monitoring at Moolort

The maximum groundwater recovery level in the allocations trigger bore (88214), located on Rothackers Road near the Pompapiel Creek, declined by 0.22 m in 2020/21 compared to 2019/20; however the magnitude of drawdown was notably less (8.0 m, compared to 10.6 m in 2019/20) (Figure 5).

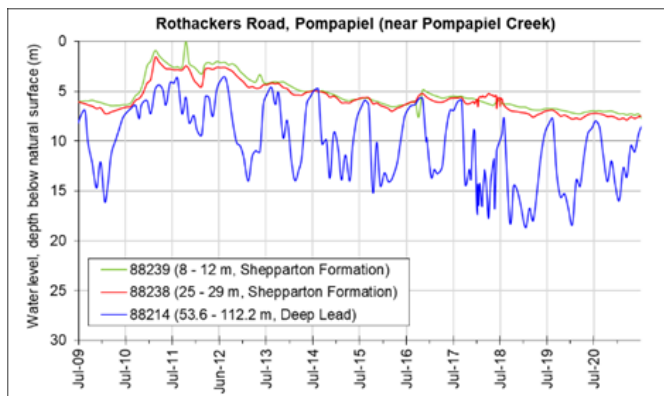


Figure 5. Groundwater level monitoring at Pompapiel

At Calivil, the highest groundwater level recorded in deep lead observation bore WRK117036 (which replaced bore 54343 in August 2020) during 2020/21 was 4.81 m, 0.33 m higher than the highest level recorded in 2019/20. The magnitude of drawdown was 6.53 m which was just over half that of 2019/20. (Figure 6).

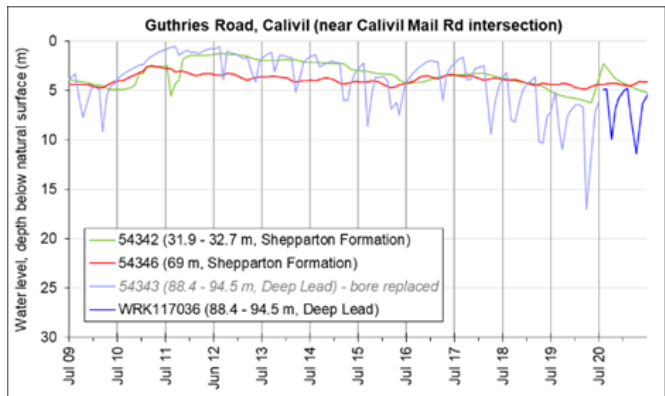


Figure 6. Groundwater level monitoring at Calivil

Groundwater quality

Three deep lead observation bores, located within the GMA, were sampled and analysed in October 2020. Groundwater salinity results were within historic ranges (Figure 7). Ongoing annual sampling of these bores will enable trends in groundwater quality to be observed.

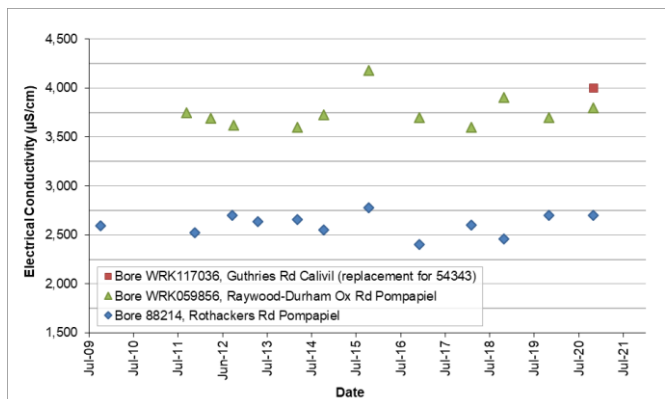


Figure 7. Groundwater salinity monitoring

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 2020/21, 129 sample bottles were sent out and 24 samples (or 19 per cent) were returned for analysis.

Generally, the salinity of groundwater samples collected in 2020/21 were slightly higher than previous samples.

Where can I get more information?

You can download a copy of the Rules, the 2020/21 annual report and other resources from the GMW website, at www.gmwater.com.au/midloddongma