

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 in the Mid-Loddon GMA are managed under the Local Management Rules (the Rules) which were approved by Goulburn-Murray Water (GMW) in 2009.

Allocations

There is 33,927 ML/yr of licence volume in the Mid-Loddon GMA. Allocations in 2016/17 were 100%. Allocations in 2017/18 are also 100% as groundwater levels to August 2017 are well above the trigger level (Figure 1).

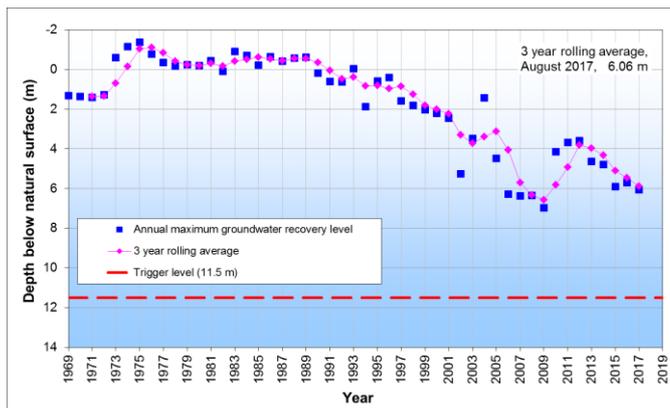


Figure 1. Three year rolling average maximum groundwater recovery level compared to trigger level

Groundwater use

Metered use in the Mid-Loddon GMA in 2016/17 was 12,285 ML, or 36 % of total licence volume. This is less than is used on average and may be attributed to wetter conditions in 2016/17 (Figure 2).

Carryover

Licence holders may carryover up to 30% of their licence volume in the Mid-Loddon GMA. There was 8,572 ML of carryover available in the 2016/17 season. The volume that has been carried over into 2017/18 is 9,913 ML.

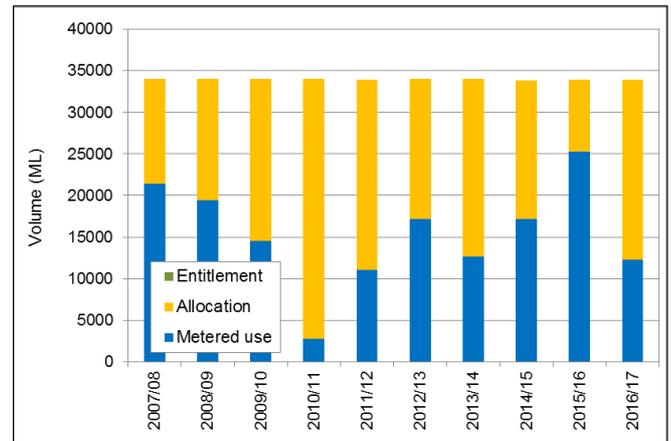


Figure 2. Metered groundwater use

Trading

There were 5 temporary transfers for a total of 450 ML and one permanent transfer for a total of 2 ML/yr in 2016/17 (Figure 3).

All of the temporary transfers occurred within the Laanercoorie-Serpentine Zone. The permanent transfer was within the Moolort Zone.

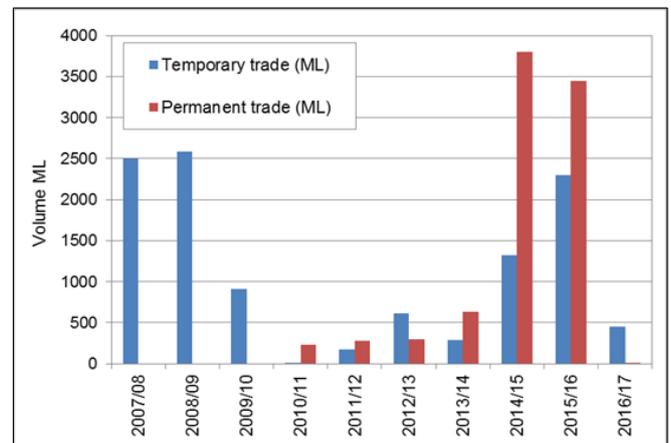


Figure 3. Groundwater trading activity

Licence holders are reminded not to extract more than their licence volume without first obtaining approval from Goulburn-Murray Water and should apply to transfer well in advance of requiring the water.

Licence holders that want to trade groundwater should visit Watermatch, an on-line forum where people can advertise at <https://www.watermatch.com.au/>

Groundwater levels

GMW, in conjunction with the Department of Environment, Land, Water and Planning, monitor groundwater levels in 47 State observation bores in the Mid-Loddon GMA. Groundwater levels have been declining since the wet conditions in 2010/11, but remain within historical ranges.

In the Moolort Zone groundwater recovery levels have fallen by up to 4 m between 2011 and 2016. Seasonal drawdown is typically less than 5 m but in the deep lead monitoring bore in Locks Lane, where there is a higher density of groundwater pumping, drawdown of around 10 m was observed (Figure 4).

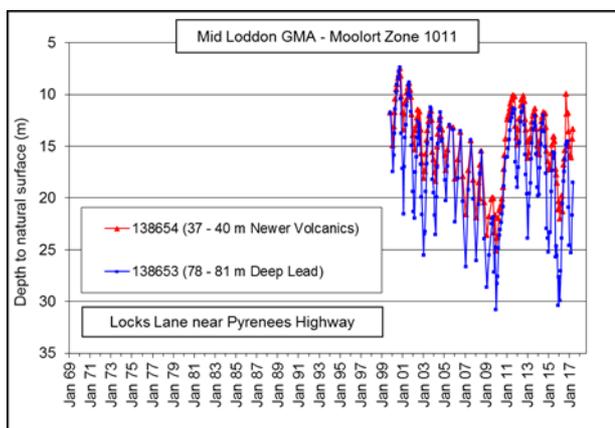


Figure 4 Hydrographs for nested bores in the Moolort Zone

In the Laanecoorie-Serpentine Zone groundwater recovery levels have fallen by around 2.5 m between 2011 and 2016. Seasonal drawdown is typically less than 5 m but in the deep lead bore on Rothackers Road, which is an area of intensive groundwater pumping, around 8 m drawdown was observed (Figure 5).

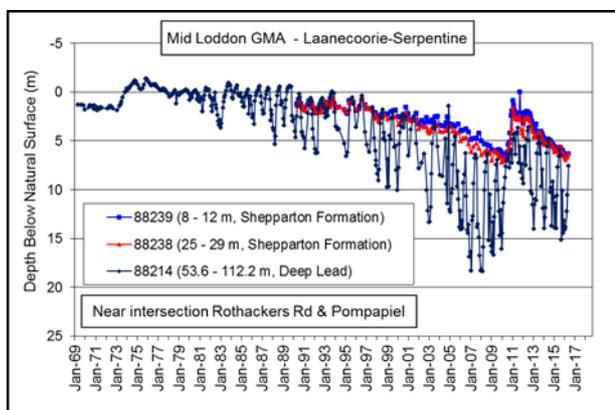


Figure 5 Hydrographs for nested bores in the Laanecoorie-Serpentine Zone

In the Jarklin Zone groundwater levels are typically within 5 m of the surface. There is little seasonal variation in the water table aquifer, but drawdown of around 3 m is observed in the deep lead (Figure 6).

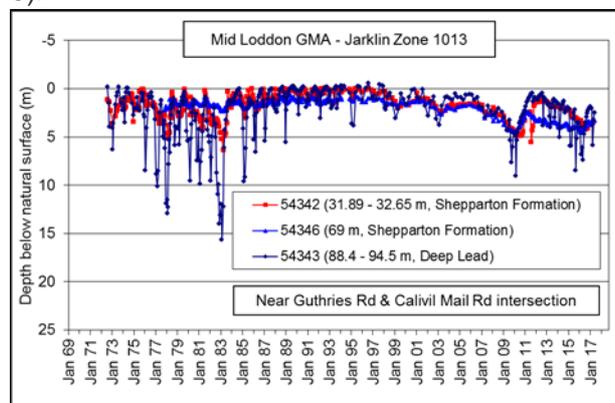


Figure 6 Hydrographs for nested bores in Jarklin Zone

Groundwater quality

Groundwater salinity is recorded from key State observation bores in the north of the Mid-Loddon GMA. The results were within the historical range (Figure 7). Ongoing annual sampling of these bores will enable any trends in groundwater quality to be observed.

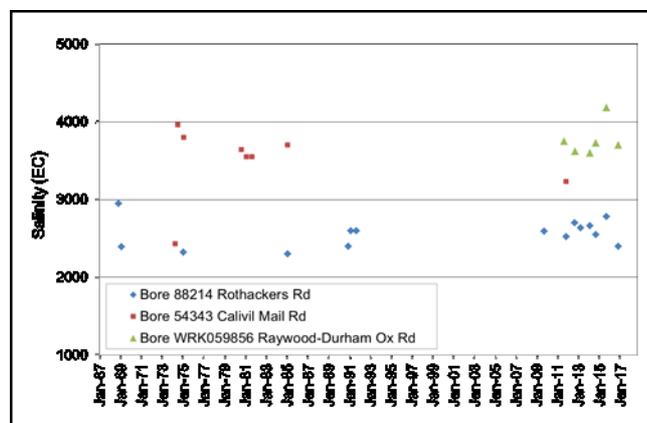


Figure 7 Groundwater salinity

GMW sent bottles to groundwater users to collect a sample for salinity analysis. Unfortunately only 21 (15%) of samples were returned. Results indicate that groundwater salinity levels are within the expected range in each zone.

Where can I get more information?

You can download a copy of the Mid-Loddon Groundwater Management Rules or the annual report from the GMW website www.gmwater.com.au, or call 1800 013 357.