



Mid-Loddon GMA

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/year of licence entitlement in the Mid-Loddon GMA. Allocations in 2015/16 were 100%. Allocations in 2016/17 are also 100% as groundwater levels are well above the trigger level (Figure 1).

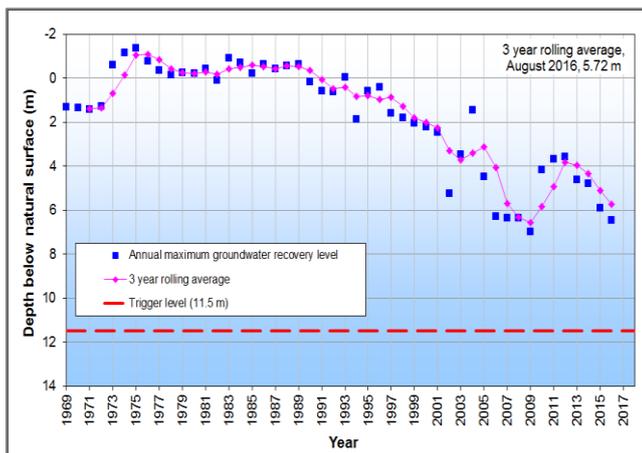


Figure 1. Three year rolling average maximum groundwater recovery level compared trigger level

Groundwater use

Metered use in the Mid-Loddon GMA in 2015/16 was 25,250 ML, or 74 % of total licence entitlement. This is the highest recorded use since plan implementation (Figure 2).

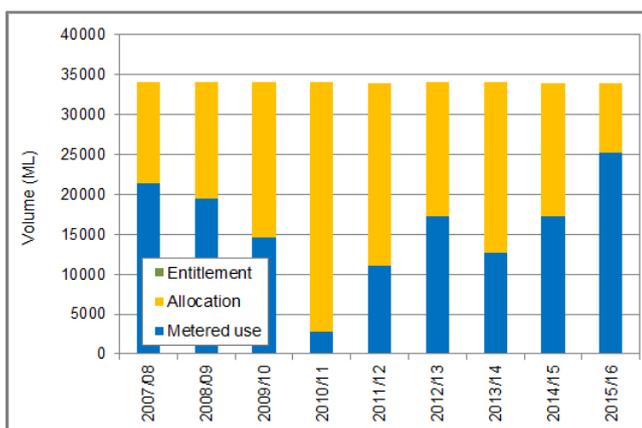


Figure 2. Metered groundwater extractions

Licence transfers

There were 15 temporary transfers for a total of 2,296 ML/yr and 9 permanent transfers for a total of 3,450 ML/yr in 2015/16 (Figure 3).

Most of the water was transferred within the same zone. There was 200 ML/yr permanently transferred out of the Laanecoorie-Serpentine Zone into the Moolort Zone.

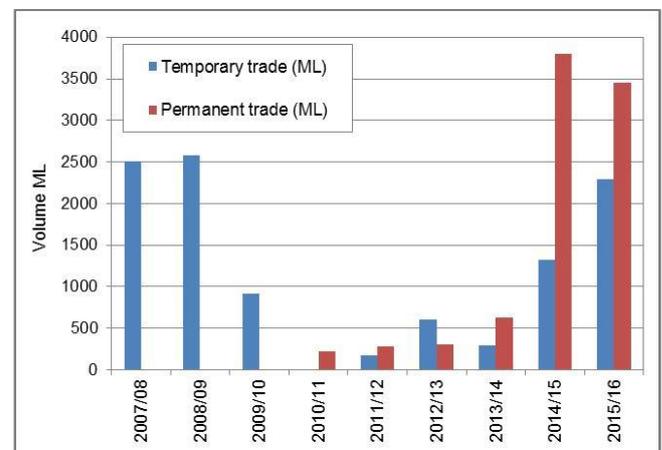


Figure 3. Groundwater licence transfers

Licence holders are reminded not 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/>

Transferring groundwater licence entitlement can provide an opportunity to generate income from unused entitlement for sellers; or increase production for buyers.

Carryover

Licence holders may carryover up to 30% of their licence volume in the Mid-Loddon GMA. There was 9,834 ML of carryover available in the 2015/16 season. The volume that has been carried over into 2016/17 is 8,572 ML.

Groundwater levels

GMW, in conjunction with the Department of Environment, Land, Water and Planning, monitors groundwater levels in 123 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 2015. Seasonal drawdown of around 14.8 m was observed in deep lead bore 138653 at Locks Lane (Figure 4). This is greater than previous seasonal drawdown and may be attributed to increased local pumping. Elsewhere groundwater recovery levels have remained relatively steady and seasonal drawdown is less than 5 m

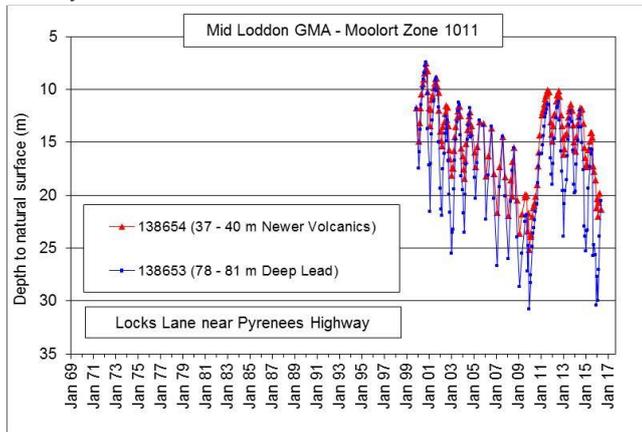


Figure 4. Hydrographs for nested bores in the Moolort Zone

In the Laanecoorie-Serpentine Zone groundwater recovery levels have fallen by around 2 m between 2011 and 2015. Seasonal drawdown of around 7.8 m was observed in deep lead bore 88214 on Rothackers Road, which is an area of intensive groundwater pumping (Figure 5). Elsewhere, seasonal drawdown is typically less than 5 m.

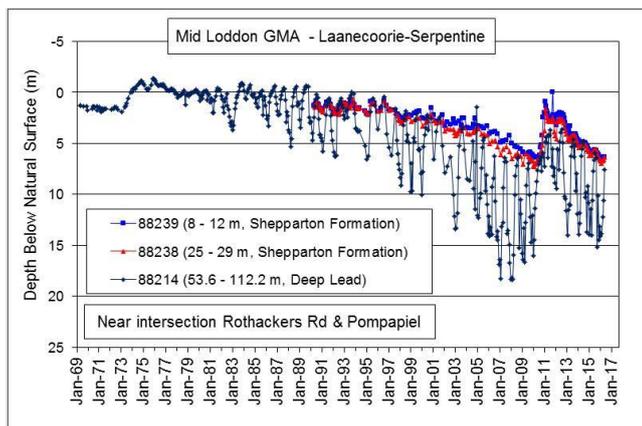


Figure 5. Hydrographs for nested bores in the Laanecoorie-Serpentine Zone

In the Jarklin Zone, groundwater recovery levels have fallen by around 2 m between 2011 and 2015 (Figure 6). Lower groundwater levels in this area can provide improved drainage and reduced waterlogging and land salinity problems.

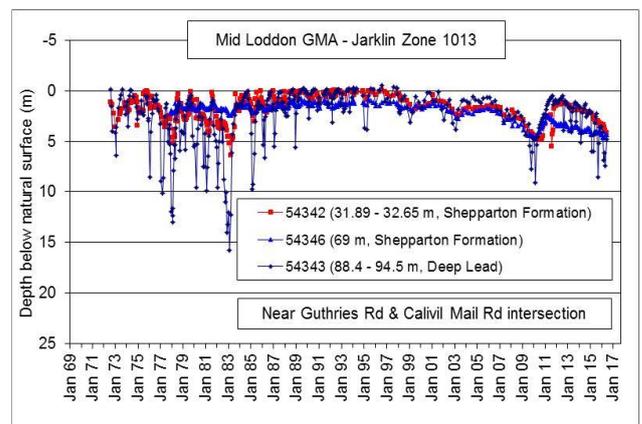


Figure 6. Hydrographs for nested bores in Jarklin Zone

Groundwater salinity

Groundwater salinity is recorded from key State observation bores in the north of the Mid-Loddon GMA. Results from 2015/16 were higher than previous levels (Figure 7). Ongoing annual sampling of these bores will enable any trends in groundwater quality to be observed.

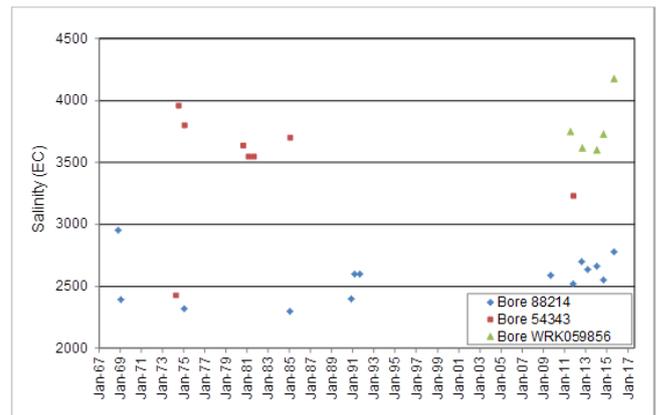


Figure 7. Groundwater salinity

GMW sent bottles to groundwater users to collect a sample for salinity analysis. Unfortunately only 35 (25%) of samples were returned. Results indicate that groundwater salinity levels are within the expected range in each zone.

Groundwater users are encouraged to return samples for analysis when requested as trends over time provide valuable information to help support more informed groundwater management decisions.

Where can I get more information?

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