

Shepparton Irrigation Region Groundwater Management Area

Covering an area of approximately 500,000 hectares, the Shepparton Irrigation Region (SIR) Groundwater Management Area (GMA) extends from Echuca to Yarrowonga, along the River Murray, to the north and south to Colbinabbin and Murchison and incorporates the Murray-Valley, Shepparton, Central-Goulburn and Rochester irrigation districts.

Management of groundwater resources

The geology of the GMA includes clays and silts, with interbedded lenses of sands and gravels. While water can move through all these sediments, movement is less restricted within the coarser sediments (i.e., sands, gravels), compared to the finer clays and silts.

Water occurring within these sediments ('groundwater'), to a maximum depth of 25 metres, are managed under the *SIR GMA Local Management Plan* which was approved by Goulburn-Murray Water (GMW) in 2015.

Latest licence and use figures

There are currently* 1,060 groundwater take-and-use licences within the GMA; the total entitlement volume (or 'licence volume') of these licences is 185,462.6 megalitres (ML) per year.

In the 2022/23 water year the estimated licensed use was 10,816.7 ML, or six percent of the total licence volume. This is the lowest use figure – both as a total volume and as a proportion of licence volume, since reporting on groundwater use in the SIR groundwater management unit began in the early 2000s (Figure 1).

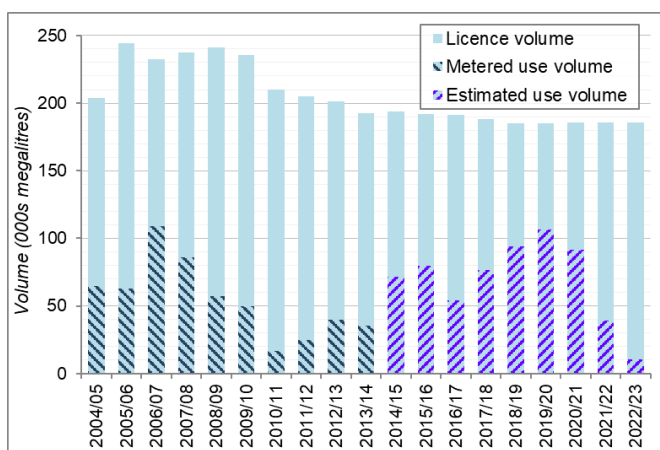


Figure 1 Licensed groundwater use compared to total licence volume, by water year – 2004/05 to 2022/23

The total rainfall recorded at Kyabram in 2022/23 (689.4 mm) was over 1.5 times the long-term average (mean) – currently 450.8 mm – furthermore, the sub-total considered in the use estimation method was almost 2.5 times the average for that period.

* Licence numbers referred to as 'current' were sourced from the Victorian Water Register on 13/10/2023.

How is water use determined without metering?

Groundwater use in the GMA is estimated at the end of each water year, using a method which considers:

1. Recorded use (as a proportion of licence volume) by a subset of bores in the GMA that are metered;
2. Recorded use (as a total volume) in the Katunga Water Supply Protection Area; and
3. Rainfall recorded at Kyabram between 1 August and 30 November.

This is accepted as a conservative and cost-effective approach to understanding annual use in the GMA.

Monitoring of groundwater levels

Groundwater level variation in the GMA is influenced by the amount of water available to infiltrate the surface – with main sources being from rainfall, floodwater and irrigation excesses. When levels are close to the surface (or 'high'), land salinisation and waterlogging of soils can threaten social, economic and environmental values.

GMW monitors groundwater levels in the GMA via a network of 992 observation bores which are visited monthly. In addition, a further 65 bores are monitored under the State Observation Bore Network.

Each year, GMW produces a map outlining areas which may be at risk due to high groundwater levels (0-3 m). The four most recent maps are provided overleaf.

Groundwater salinity testing

If you would like your groundwater salinity checked, please contact GMW to organise a sampling bottle to be sent to you. After receiving your water sample, GMW will measure its salinity and provide you with the result.

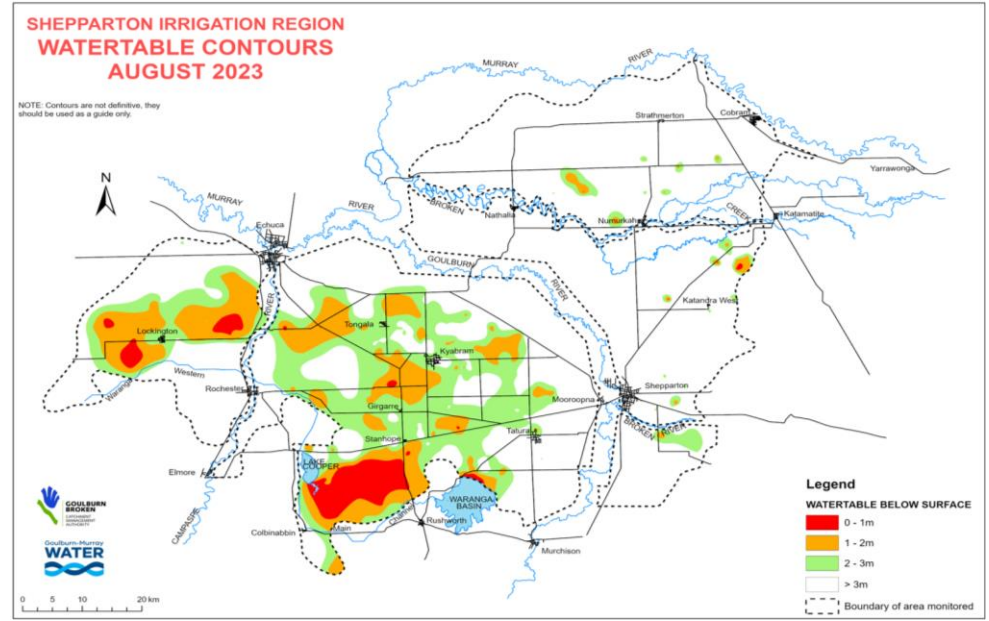
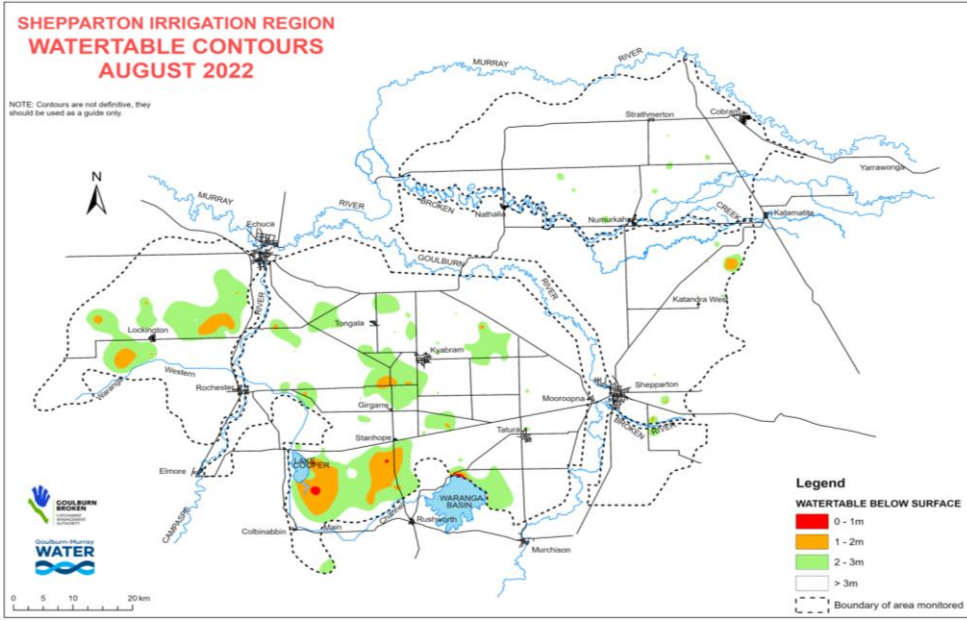
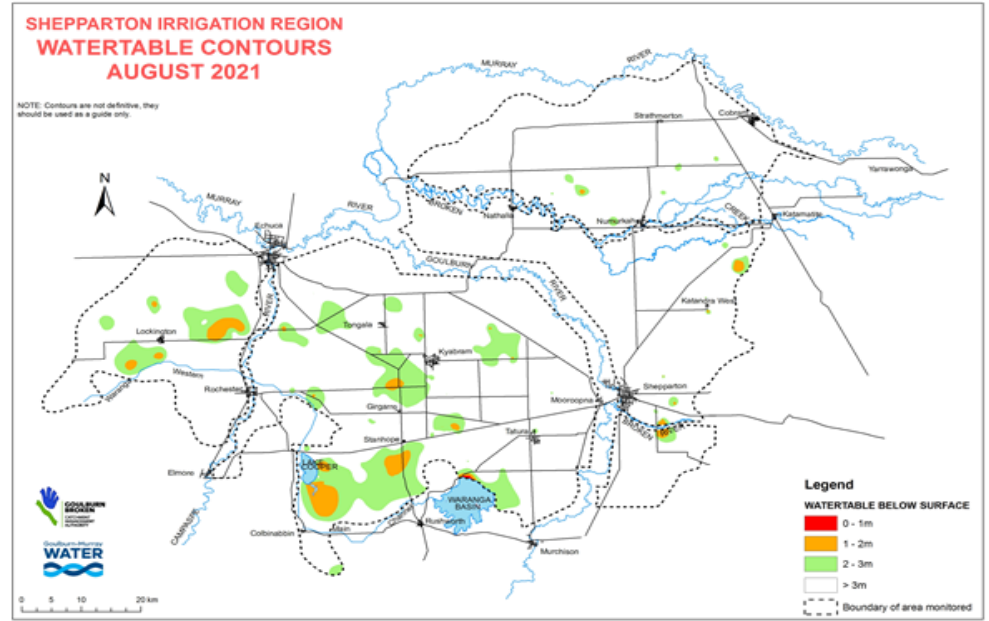
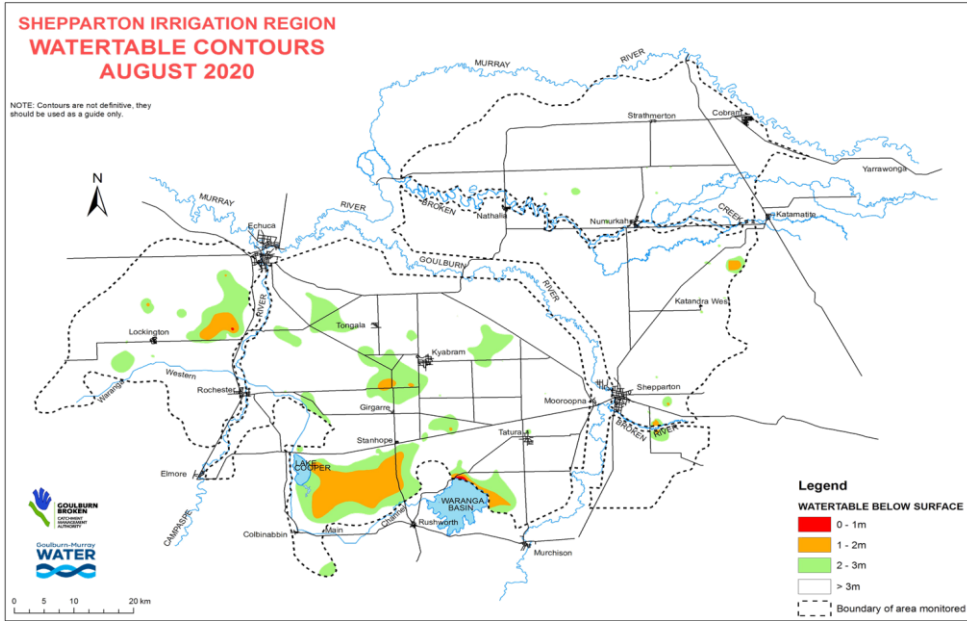
Groundwater licensing

The construction and operation of licensed bores are managed by GMW, in accordance with the *Water Act 1989* and Ministerial policies. Groundwater extracted for a licensable purpose – such as irrigation, industrial or dewatering – requires a take and use licence.

GMW evaluates each licence application and considers a range of matters, including potential impacts to existing bores and the environment. The extent and degree of impact of a proposed development can vary considerably and are usually influenced by the geology and groundwater levels in the area.

Where can I get more information?

You can download a copy of the *Local Management Plan* and previous newsletters from the GMW website, www.gmwater.com.au or call GMW on 1800 013 357.



❖ For more information on the benefits and risks associated with shallow groundwater in the region, visit <https://salinitywatch.gbcma.vic.gov.au>

November 2023; Ref. A4653808