

Shepparton Irrigation Region GMA

The Shepparton Irrigation Region Groundwater Management Area (the SIR GMA) covers an area of approximately 500,000 hectares and incorporates the Murray Valley, Shepparton, Central Goulburn and Rochester Irrigation Districts.

The SIR GMA extends from Echuca in the west to Yarrawonga in the east with the River Murray as the northern boundary. The southern boundary extends to Murchison and generally follows the irrigation district boundaries.

The SIR GMA applies to groundwater resources from the surface to a depth of 25 metres. These resources are managed under the SIR GMA Local Management Plan (the Plan) approved by Goulburn-Murray Water (GMW) in June, 2015.

Estimated licensed groundwater use

Groundwater use in the SIR GMA is estimated at the end of each season using a method which considers:

- annual use by a subset of SIR GMA licensed groundwater users that are metered;
- the volume of metered groundwater use in the Katunga Water Supply Protection Area, and
- spring rainfall.

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

In 2015/16 the estimated use was 79,448 ML (Figure 1). This is a slight increase from the estimated use in 2014/15 which is consistent with increased usage in the Katunga WSPA and the dry conditions in 2015/16. During dry periods demand for and usage of groundwater increases.

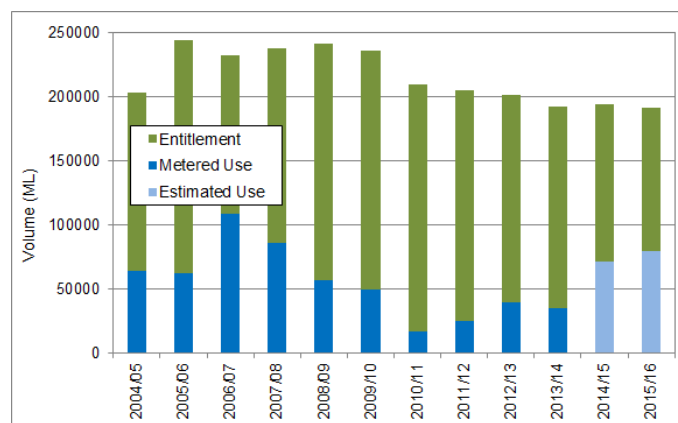


Figure 1 Licensed groundwater use in the SIR GMA

Monitoring shallow groundwater levels

When groundwater levels are close to the ground surface it can pose a significant threat to social, economic and environmental values in the SIR GMA due to land salinisation and waterlogging of soils.

High groundwater levels in the SIR GMA are the result of infiltration of rainfall and irrigation. During periods of normal and high rainfall, groundwater levels rise; and during periods of low rainfall, groundwater levels decline.

Groundwater levels are monitored in approximately 1,000 shallow observation bores in the SIR GMA. An annual water table map is produced which enables water table changes and trends to be understood. The four most recent water table maps are provided overleaf.

As a result of dry conditions in 2015/16 the water table is currently lower than 2 metres below the ground surface across the majority of the SIR GMA. The risk from shallow groundwater salinity is currently low.

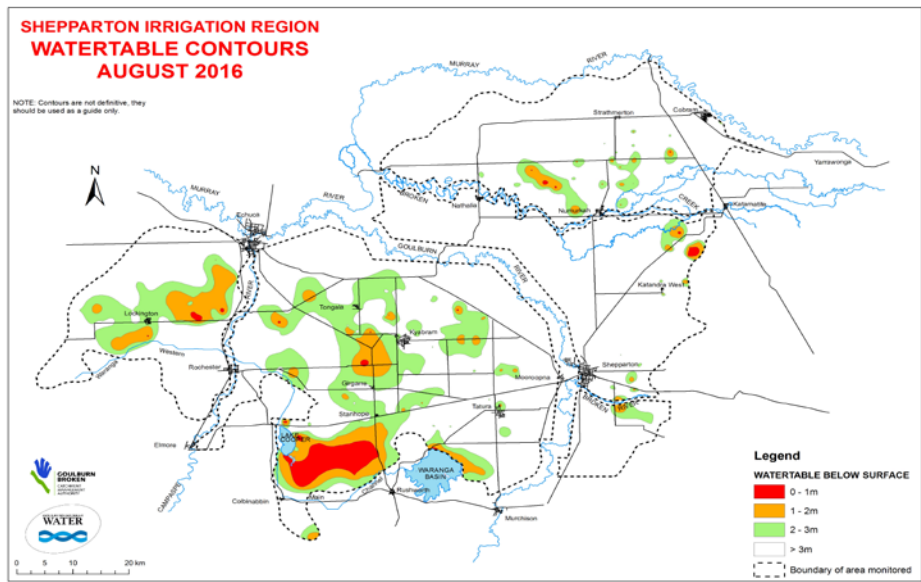
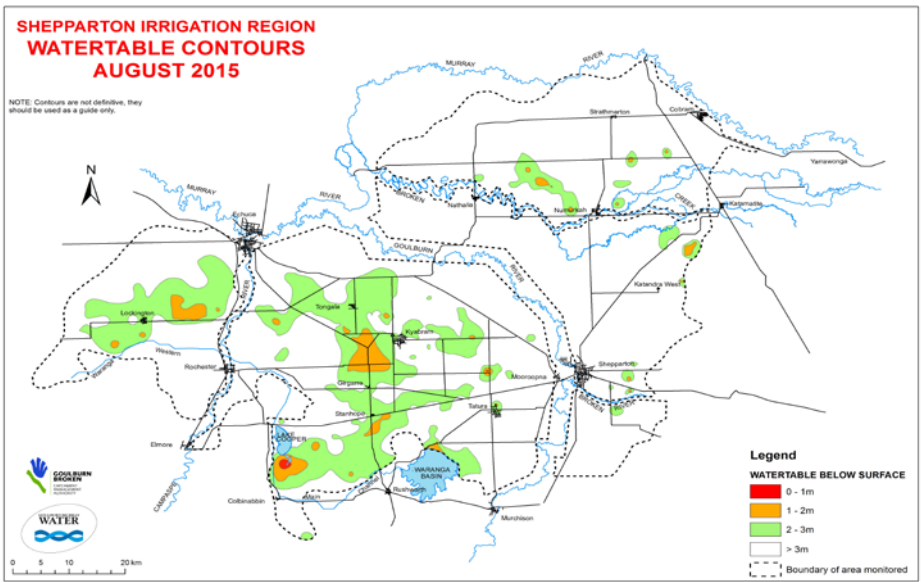
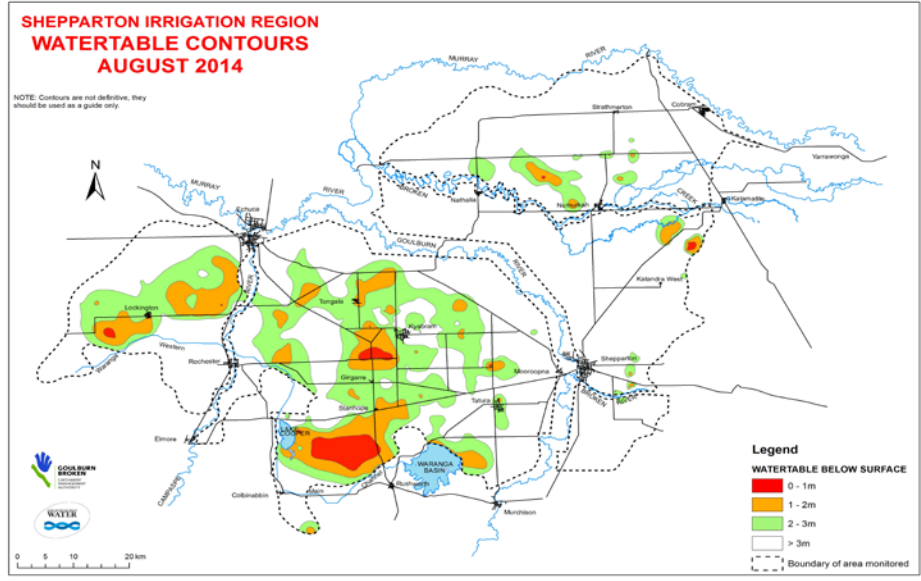
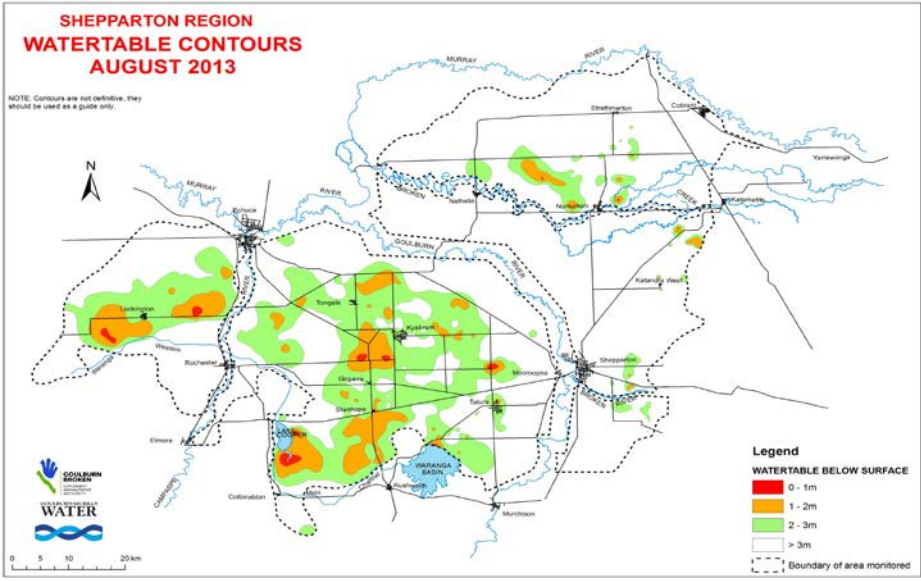
Groundwater salinity

Groundwater salinity is a key risk in the SIR GMA. Whether through application of saline water during irrigation, or due to rising water tables; the impacts on crop productivity may be significant. It is therefore important for groundwater users to understand the salinity concentrations of water from their bores.

To assist SIR GMA customers in better understanding the salinity of their groundwater, GMW provides sample bottles to collect a bore water sample for salinity analysis. In 2015/16 a total of 306 samples were returned from SIR GMA groundwater users.

Where can I get more information?

You can download a copy of the Shepparton Irrigation Region Groundwater Management Area Local Management Plan from the GMW website www.gmwater.com.au or call Karina Joy at GMW on 1800 013 357.



October, 2016; DM #4274520