

## Lower Campaspe Water Supply Protection Area

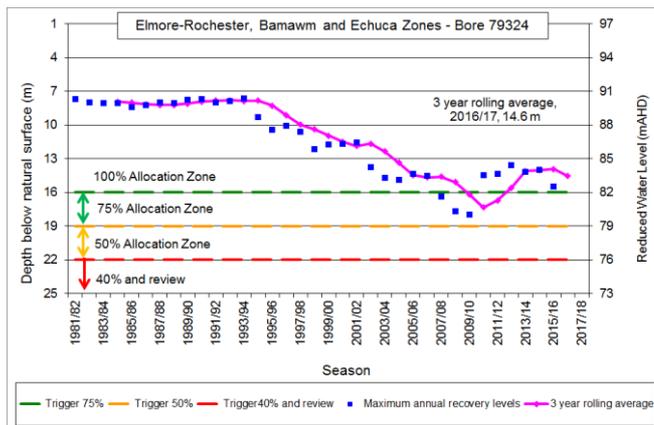
### Groundwater Management

The Lower Campaspe Valley Water Supply Protection Area (WSPA) extends from Lake Eppalock in the South to the Murray River in the North. Groundwater resources are managed by Goulburn-Murray Water in accordance with the Lower Campaspe Valley WSPA Groundwater Management Plan, which was approved by the Minister for Water in October 2012.

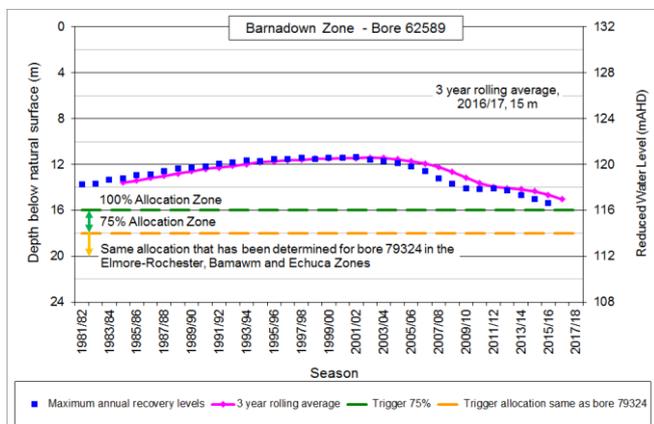
### Allocations

Allocations are determined by comparing the three year rolling average of the maximum groundwater recovery level to the trigger level.

In 2015/16 all management zones received an allocation of 100%. Allocations in 2016/17 are also 100% (Figure 1 and Figure 2).



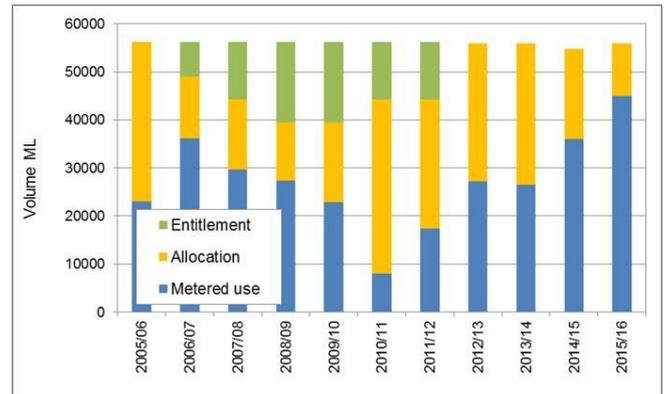
**Figure 1. Trigger levels for allocations in the Elmore-Rochester, Bamawm and Echuca Zones**



**Figure 2. Trigger levels for allocations in the Barnadown Zone**

### Groundwater use

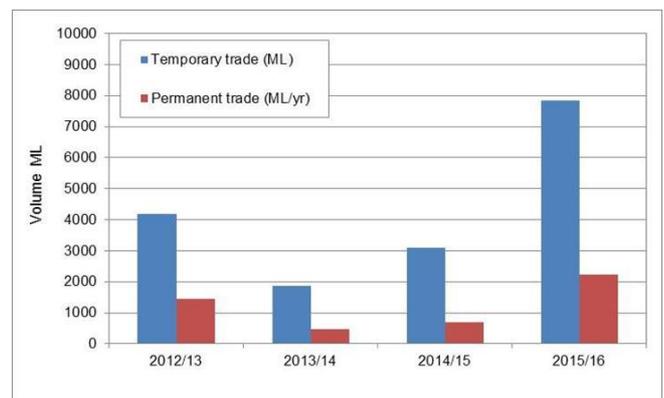
Metered groundwater use in the Lower Campaspe Valley WSPA in 2015/16 was 44,994 ML, which is 81% of licence entitlement (Figure 3). This is the highest recorded use in the area.



**Figure 3. Metered groundwater use**

### Trading

The Plan allows groundwater licence holders to temporarily or permanently transfer licence entitlement. In 2015/16 there were 43 temporary transfers for a total of 7,838 ML; and 12 permanent transfers for a total of 2,224 ML (Figure 4).



**Figure 4. Groundwater trading activity**

Licence holders are reminded not to extract more than their licence volume without written approval from Goulburn-Murray Water.

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

## Carryover

There was 13,425 ML of carryover available to licence holders in the 2015/16 season.

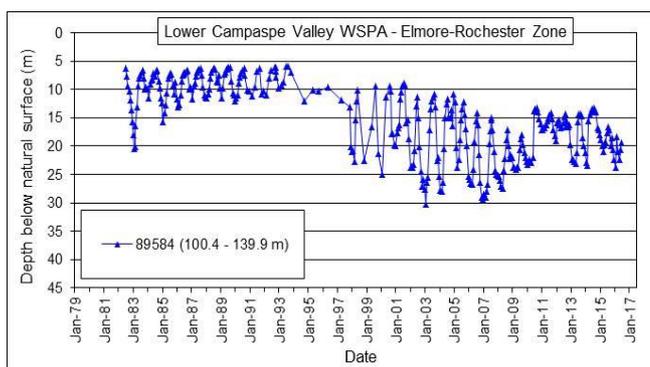
The volume that has been carried over into the 2016/17 season is 12,707 ML.

## Groundwater levels

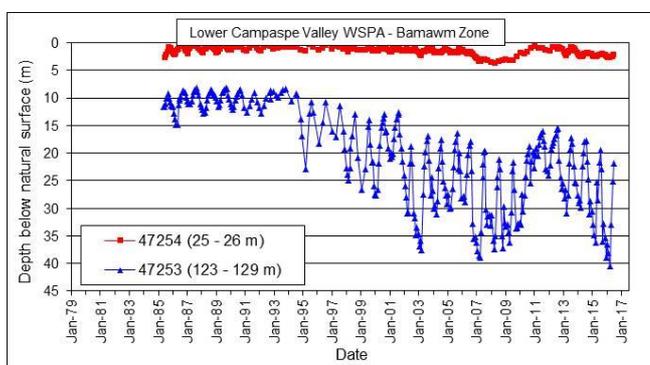
The Department of Environment, Land, Water and Planning (DELWP) monitored 132 bores from the State Observation Bore Network on a quarterly basis in the Lower Campaspe Valley WSPA. GMW monitored 60 of these bores on a monthly basis.

Monitoring indicates that seasonal groundwater level recovery is strong and levels are generally within observed historical ranges.

In the Elmore-Rochester and Bamawm Zones, groundwater recovery levels were lower than 2014/15. Seasonal drawdown of up to 18 m was observed in more intensively pumped areas in 2015/16 (Figure 5 and Figure 6). In some areas the groundwater drawdown levels were the greatest ever recorded (e.g. bore 47253).



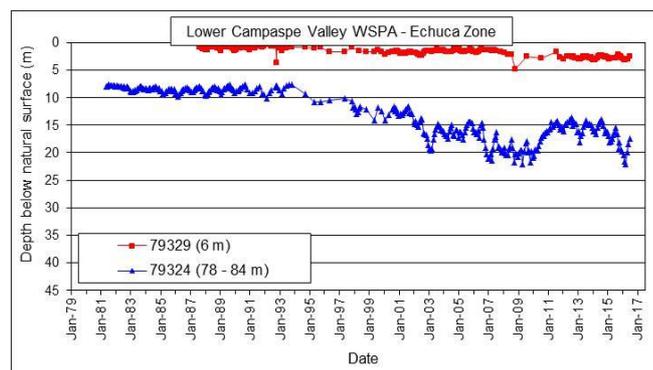
**Figure 5 Groundwater levels in Elmore-Rochester Zone**



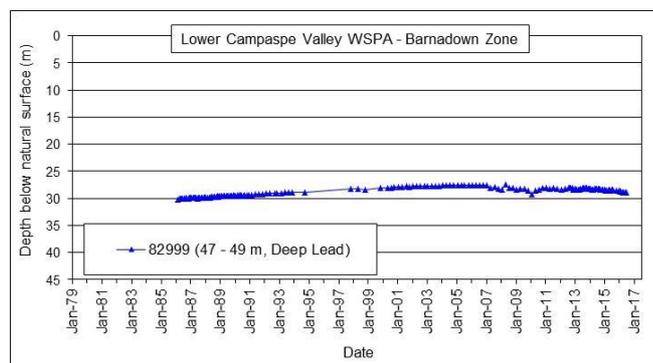
**Figure 6 Groundwater levels in Bamawm Zone**

In comparison, groundwater recovery levels in the Echuca and Barnadown Zones have remained

relatively steady and seasonal drawdown of up to around 5 m is seen (Figure 7 and 8).



**Figure 7 Groundwater levels in Echuca Zone**



**Figure 8 Groundwater levels in Barnadown Zone**

## Groundwater quality

Each year, Goulburn-Murray Water provides sample bottles to all licensed groundwater users to monitor salinity in their bores. Only 25% of bottles were returned from the groundwater user salinity sampling. This was supported by results from the targeted sampling of licensed bores and indicates that salinity levels are generally within expected ranges.

Groundwater samples were also collected from key nested State observation bores. Groundwater salinity ranged between 1,860 EC near Bamawm to 11,400 EC on the north-western margin of the area, which is similar to recent years. Continued monitoring of groundwater quality will enable any trends to be identified.

## Where can I get more information?

You can download a copy of the Lower Campaspe Valley WSPA Groundwater Management Plan or the annual report from the GMW website [www.gmwater.com.au](http://www.gmwater.com.au), or call 1800 013 357.