2023 ANNUAL NEWSLETTER



Loddon Highlands Water Supply Protection Area

Groundwater management

The Loddon Highlands Water Supply Protection Area (WSPA) extends from Newlyn and Learmonth in the south to Maryborough and Dunolly in the north.

Groundwater resources are managed under the Loddon Highlands Water Supply Protection Area Groundwater Management Plan, approved by the Minister for Water in November 2012 (the Plan).

The Plan provides protection to existing groundwater users and the environment through licence limits and restrictions on the take of groundwater when triggers are reached. It also provides licence holders with flexibility to manage their licence entitlement volume through licence transfers and carryover.

Licence Volume

The WSPA has a permissible consumptive volume of 20,697 megalitres per year (ML/yr). At 30 June 2023, the total licence entitlement volume (licence volume) in the WSPA was 20,482.6 ML/yr – this is 19 ML/yr less than in 2021/22, resulting from a licence cancellation.

Annual allocations

Under the Plan, trigger levels have been established for the Ascot, Blampied, Newlyn and Waubra management zones where there is a higher density of licence entitlement volume, and seasonal groundwater-level drawdown is greatest. In the 2022/23 water year, all management zones had an allocation of 100 per cent of licence entitlement volume (Figure 1).

Allocations for the 2023/24 water year were announced on 27 June 2023, based on the highest groundwater levels recorded up to that time.

Licence holders in all management zones in the WSPA can access 100 per cent of licence volume for 2023/24.

Carryover

There was a total of 3,028.7 ML carried over by licence holders in the WSPA for use in the 2022/23 water year. A total of 2,982.1 ML was then carried over for use in the 2023/24 water year.

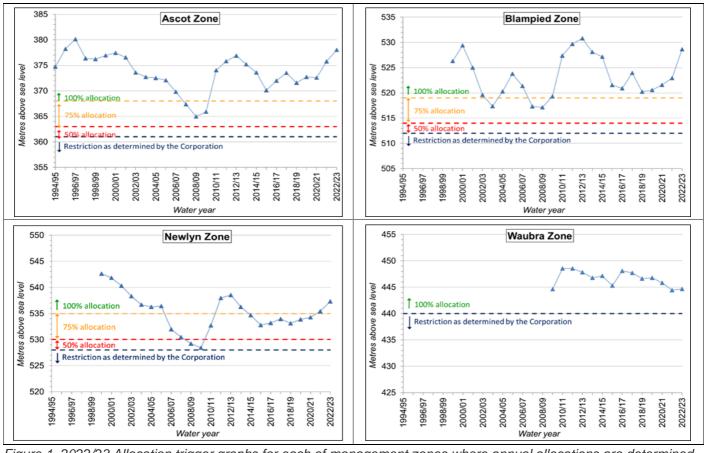


Figure 1. 2022/23 Allocation trigger graphs for each of management zones where annual allocations are determined Note, 2022/23 levels in the trigger graphs above are based on groundwater level records to 30 November 2022. September 2023; Ref A4653786

Groundwater use

Total recorded use in the WSPA was 4,722.9 ML, in the 2022/23 water year. This equates to 23 per cent of the total licence entitlement volume (Figure 2).

Recorded use was greatest (by volume) in Ascot Zone, at 2,286.0 ML. Blampied Zone recorded the greatest use as a percentage of licence entitlement, at 39 per cent.

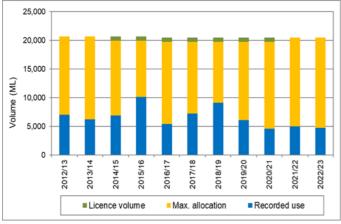


Figure 2. Annual recorded use volumes compared to licence entitlement and maximum allocation volumes

Licence transfers

During the 2022/23 water year there was one permanent transfer, totalling 10.0 ML/yr, and seven temporary transfers, totalling 538.0 ML. This is the lowest number and volume of permanent transfers to occur in a water year since the Plan was implemented (Figure 3).

All temporary and permanent transfers occurred between licence holders within the same management zones except one temporary (1 ML/yr) transfer from Ullina to Talbot Zone.

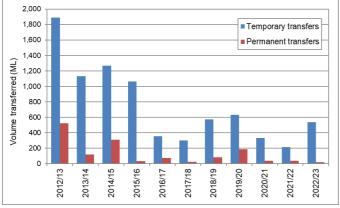


Figure 3. Licence volumes transferred within the WSPA, each water year since 2012/13

Licence compliance

In 2022/23, there were no prosecutions or convictions relating to groundwater in the WSPA.GMW is responsible for ensuring water users in northern Victoria comply with their licence conditions. More information is available at www.gmwater.com.au/compliance

Groundwater levels

During the 2022/23 water year, groundwater level monitoring occurred at 59 State observation bores, located across the WSPA. Of these, 44 were monitored remotely using telemetry equipment capable of recording measurements hourly.

Drawdown during the 2022/23 water year was typically less than six metres (m), however larger drawdowns were observed in Ascot Zone – for example, up to 10.49 m was recorded in bore 64880 at Coghills Creek (Figure 4).

For the majority of bores, recovery levels (i.e., the highest level that groundwater rises to each year) throughout the WSPA are now higher than in 2012/13.

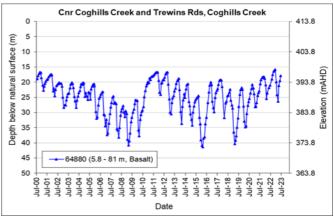


Figure 4. Groundwater level monitoring within the basalt aquifer at Coghills Creek, 1 July 2013 to 30 June 2023

Groundwater quality

Groundwater quality is monitored annually in State observation bores located near Campbelltown, in Ullina Zone, and Bung Bong, in Talbot Zone.

Results from samples collected in October/November 2021 indicate that groundwater salinity has remained relatively stable over the last five years (Figure 5).

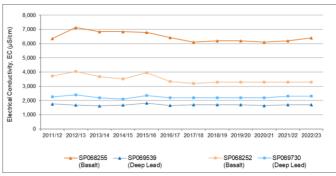


Figure 5. Groundwater salinity records for nested bores at two key monitoring sites in the WSPA

Where can I get more information?

You can download a copy of the Plan, the 2022/23 annual report and other resources from the website, at www.gmwater.com.au/loddonhighlandswspa

September 2023; Ref A4653786