

Loddon Highlands Water Supply Protection Area

Groundwater management

The Loddon Highlands Water Supply Protection Area (WSPA) extends from Newlyn, Learmonth and Waubra in the south to Maryborough and Dunolly in the north. Groundwater resources are managed under the Loddon Highlands WSPA Groundwater Management Plan (the Plan), which was approved by the Minister for Water in November 2012.

The Plan provides protection to existing licence holders and the environment through caps on licence entitlement and restrictions on the taking of groundwater when triggers are reached. It also provides licence holders with flexibility to manage their entitlements through trading and carryover.

Allocations

Under the Plan, trigger levels have been established for the Blampied, Newlyn, Ascot and Waubra management zones where the largest volume of

licence entitlement is concentrated and season drawdown is greatest.

In 2016/17 all management zones received an allocation of 100% except for the Newlyn Zone which had an allocation of 75%.

Based on the August 2017 groundwater readings, allocations have been announced for the 2017/18 season with the Newlyn Zone on 75% and all other zones on 100% allocation (Figure 1).

Groundwater levels will continue to be monitored during spring and if there is sufficient recovery to November then the allocations may be increased in the Newlyn Zone.

Carryover

There was 2,789 ML of carryover available to licence holders in the 2016/17 season. The volume that has been carried over into the 2017/18 season is 2,936 ML.

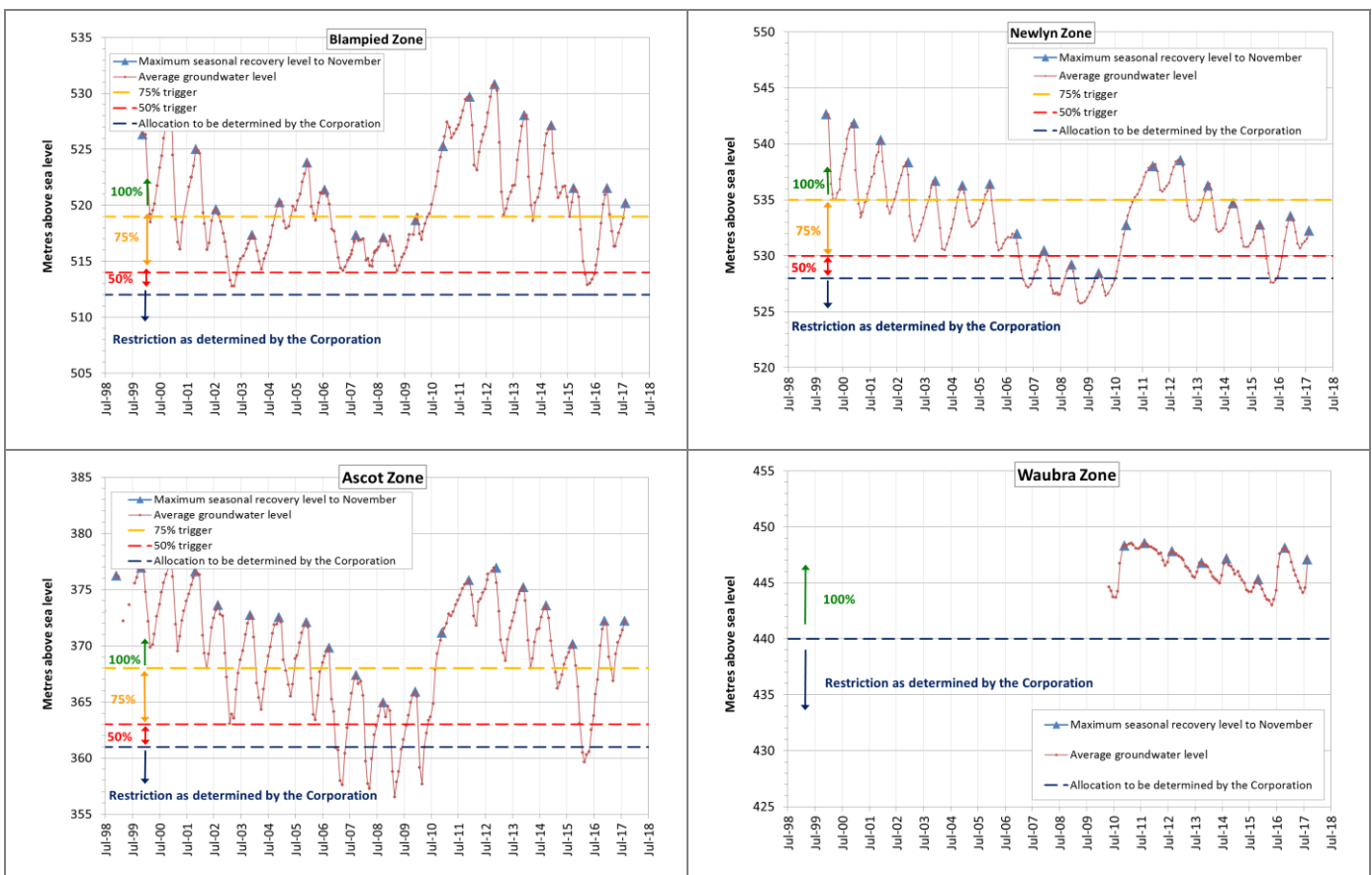


Figure 1 Average maximum groundwater recovery levels to August 2017 compared to trigger levels.

Note groundwater levels are still recovering and allocations for 2017/18 will be reviewed based on the recovery levels to November 2017.

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Groundwater use

Metered use in the Loddon Highlands WSPA was 5,435 ML in 2016/17, which is 27% of licence volume (Figure 2). In the Newlyn Zone, which had an allocation of 75%, 36% (1,060 ML) of licence volume was used. Metered use was greatest in the Ascot Zone (2,348 ML). Use as a percentage of licence volume was greatest in the Blampied Zone (45%).

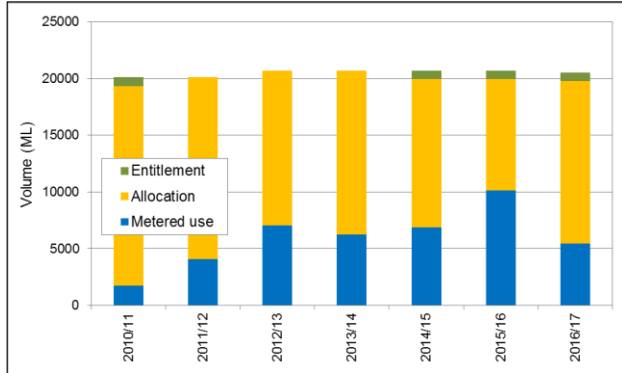


Figure 2 Metered groundwater extractions

Trading

There were 10 temporary transfers for a total of 355 ML in 2016/17 (Figure 3). There were 4 permanent transfers for a total of 76 ML/yr. Most permanent transfers were within the same zone with only one inter-zone transfer for 10 ML/yr from the Newlyn Zone into the Mollonghip Zone.

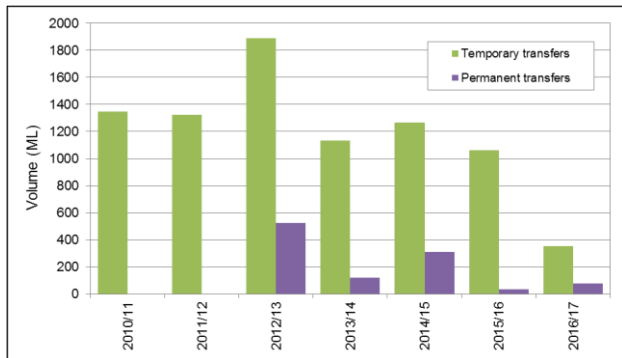


Figure 3 Groundwater trading activity

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/>

Groundwater levels

Goulburn-Murray Water (GMW), in conjunction with the Department of Environment, Land, Water and

Planning monitor groundwater levels in 59 state observation bores across the Loddon Highlands WSPA. Seasonal drawdown was typically less than 6 m, but larger drawdowns were observed in the Ascot Zone with 11 m drawdown recorded at bore 119377 (Figure 4).

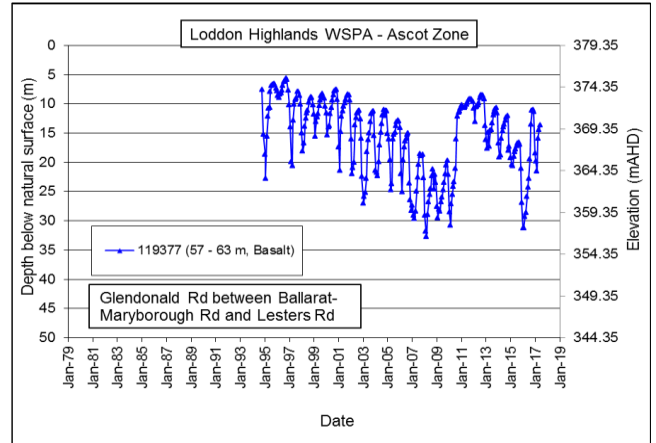


Figure 4 Groundwater levels in Ascot

Groundwater recovery levels had been declining since the wet conditions experienced in 2010/11, but there was good recharge in 2016/17 allowing levels to recover. Groundwater levels remain with historical ranges.

Groundwater quality

Groundwater quality is monitored in nested bores sites near Bung Bong and Moolort to identify any change in groundwater quality. Groundwater salinity in the shallow basalt aquifer in these locations is more saline than in the Deep Lead aquifer (Table 1).

Table 1: Groundwater salinity in key monitoring bores

Bore number	Zone	Aquifer Screened	Salinity (EC μ S/cm)
SP069539	Ullina	Deep Lead	1,660
SP068255	Ullina	Basalt	6,429
SP069730	Talbot	Deep Lead	2,184
SP068252	Talbot	Basalt	3,345

Where can I get more information?

You can download a copy of the Loddon Highlands WSPA Groundwater Management Plan or the annual report from the GMW website www.gmwater.com.au or call 1800 013 357.