

## Broken Groundwater Management Area

The Broken Groundwater Management Area (GMA) extends from the top of the catchment near Mansfield, north to Tungamah and incorporates the towns of Benalla, Glenrowan and Dookie (shown on map overleaf).

The 2016/17 season marks the first year of successful implementation of the Broken GMA Local Management Plan to manage groundwater resources.

### Groundwater resources

Groundwater resources with the Broken GMA are held with two types of aquifers:

- fractured bedrock aquifers – sedimentary, metamorphic and intrusive rocks which typify the Broken Highlands Zone; and
- alluvial aquifers – deposits of clay, silt, sand and gravel occur at the surface in the Broken Sedimentary Plains Zone.

Groundwater level and rainfall charts are provided overleaf.

Groundwater levels in the Shepparton Formation aquifer fluctuate in response to climatic conditions, ranging from 14 to 21 metres below natural surface (mBNS), since the late-1990s.

In the Deep Lead aquifer, groundwater levels have been steadily rising (43.8 to 49.6 mBNS in monitoring bore 98130) over the same timeframe; and levels in the Bedrock aquifer have shown a similar trend (23.7 to 25.2 mBNS in bore 101437).

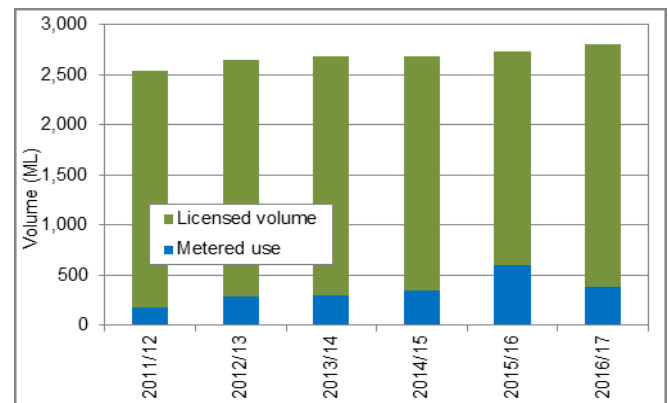
### Groundwater licensed volume and use

There is currently 2,801.4 megalitres per year (ML/yr) of groundwater licensed volume in the Broken GMA (Table 1).

**Table 1 Groundwater licensed volume and metered use by management zone in 2016/17**

Management zone	Licensed volume (ML/yr)	Metered use (ML)
Broken Sedimentary Plains	961.4	121.1
Broken Highlands	1,840.0	267.2
<b>Total</b>	<b>2,801.4</b>	<b>388.3</b>

Metered use in the Broken GMA in 2016/17 was 388.3 ML which is 14% of total licensed volume. This is less than in 2015/16 (Figure 1) which is likely influenced by above-average rainfall received in the Broken GMA in 2016/17.



**Figure 1 Annual metered use as a proportion of licensed volume in the Broken GMA**

### Groundwater trading

Licence holders may transfer licensed volume on a temporary or permanent basis within or between management zones in the Broken GMA and other Groundwater Management Units, provided that it accords with rules outlined in the Local Management Plan.

In 2016/17 one temporary transfer was undertaken; 11 ML/yr was transferred from the Strathbogie GMA to a bore located in the Broken Highlands Zone.

#### Looking to buy or sell licensed volume?

Watermatch is an online forum where licence holders can advertise their interest to buy or sell licensed volume; either groundwater or unregulated surface water.

Visit [www.watermatch.com.au](http://www.watermatch.com.au)

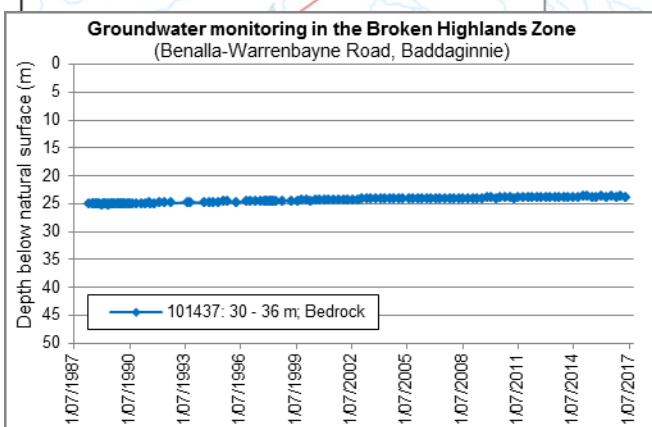
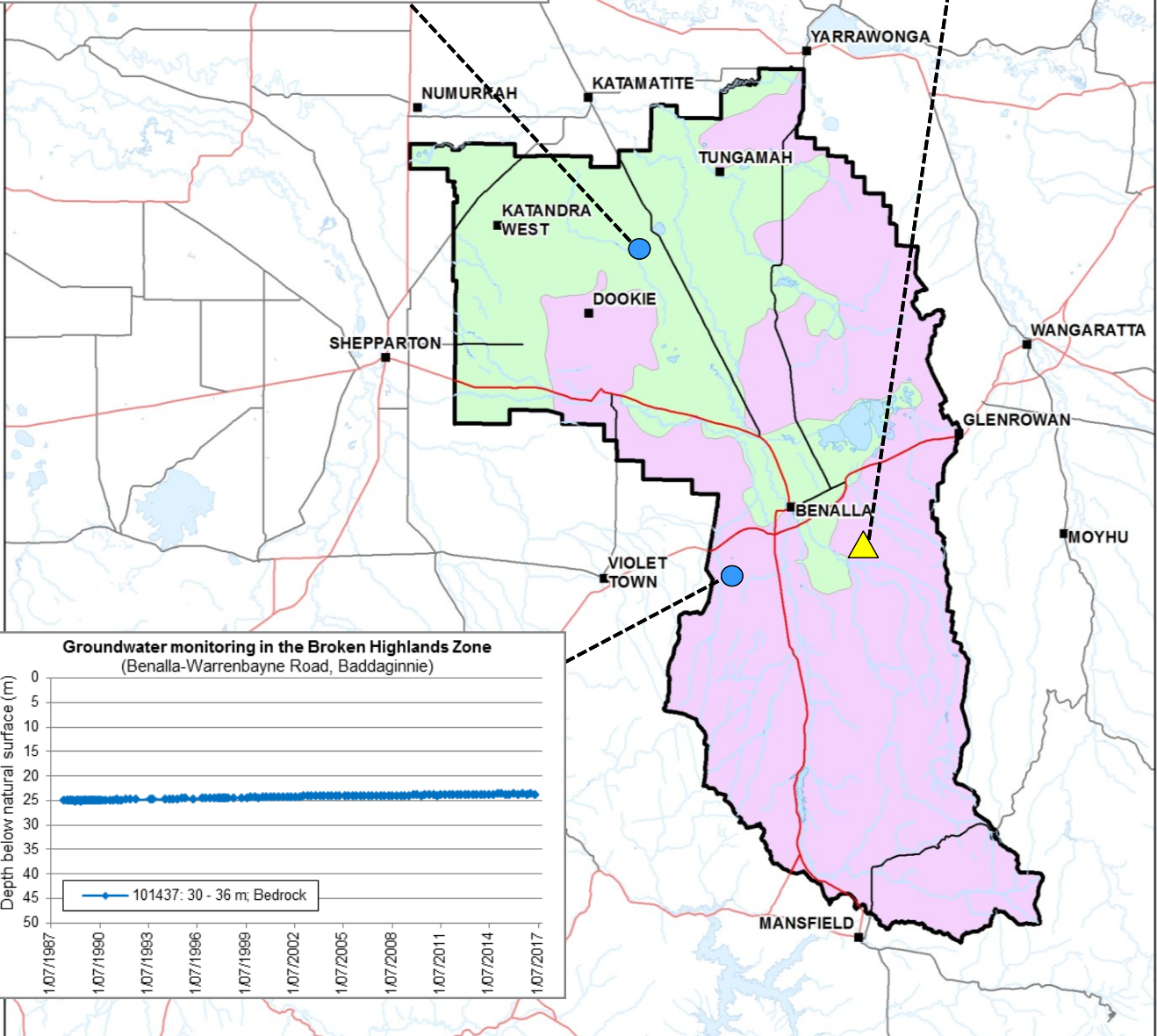
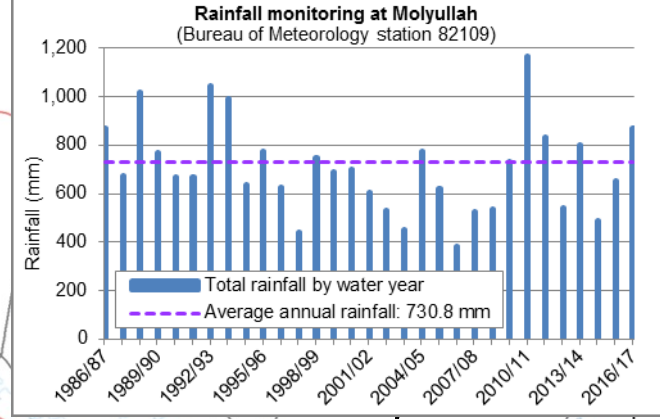
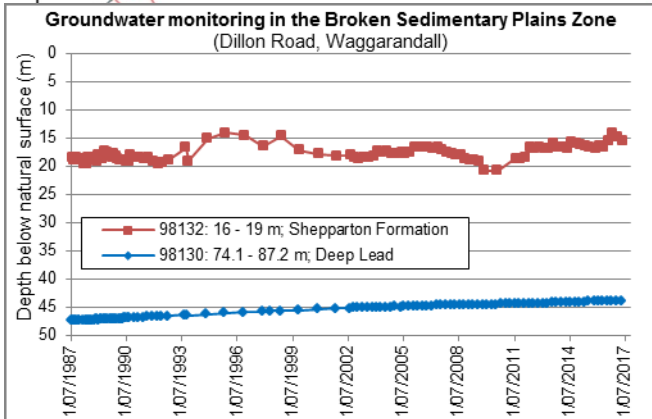
Transferring licensed volume can provide an opportunity to generate income from unused entitlement for sellers, or increase production for buyers.

#### Where can I get more information?

You can download a copy of the Local Management Plan from the Goulburn-Murray Water website [www.gmwater.com.au](http://www.gmwater.com.au) or call GMW on 1800 013 357.

# BROKEN GROUNDWATER MANAGEMENT AREA

GOULBURN-MURRAY WATER



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**Legend**

- Freeway/ Highway
- Major Road
- Waterway
- Waterbody
- Broken GMA
- Management Zones
  - Broken Highlands
  - Broken Sedimentary Plain

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