

The purpose of this information sheet is to provide supplementary information for the West Wimmera Groundwater Management Strategy.

A copy of the Strategy, executive summary and information sheets are available by phoning GMMWater on 1300 659 961 or from the GMMWater website [www.gmmwater.org.au](http://www.gmmwater.org.au).

## WEST WIMMERA GMA - Southern Zone

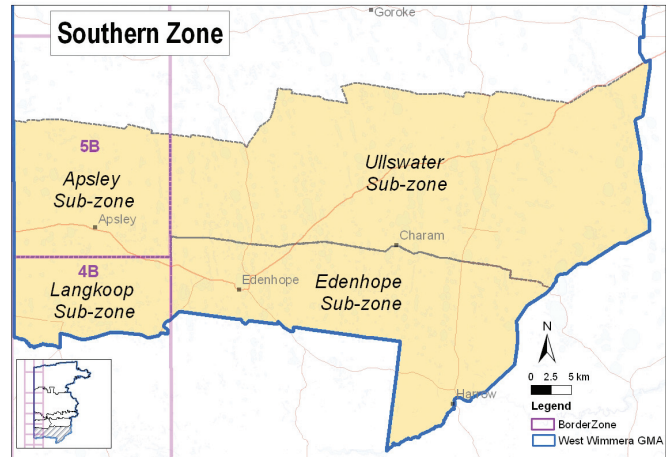
The Southern Zone of the West Wimmera Groundwater Management Area (GMA) includes the area south of the Neuarpur and Gymbowen zones to the GMA boundary. Groundwater levels in this area are generally declining, but to varying extents. The aquifer is markedly lower yielding compared to the Neuarpur area, which is adjacent to parts of this zone. It is thought that some recharge is occurring through to the Tertiary Limestone Aquifer (TLA) in response to rain events.

The zone is divided into four sub-zones:

- Apsley, the Border Zone 5B part of the area.
- Langkoop, the Border Zone 4B part of the area.
- Ullswater, the area outside the Border Zone encompassing Patyah, Ullswater and Miga Lake.
- Edenhope, including the Edenhope and Harrow areas.

The management objective for the Southern Zone is to maintain or stabilise groundwater levels. Management actions to achieve this objective are:

- Continue to monitor the resource to determine if there is a climate related link to groundwater levels.
- Review levels in this zone within five years and, if required, introduce seasonal allocations in a progressive manner to reduce usage to stabilise water levels.
- Within the Ullswater sub-zone, allow smaller new developments of up to 50 ML. This will be subject to a maximum allowable 'intensity of entitlement' limit.
- Smaller new developments of up to 20ML will be available in the Edenhope sub-zone.



### Permissible Consumptive Volume (PCV)

The two western sub-zones of the Southern Zone are Apsley and Langkoop. They have a significant volume of licensed entitlement although actual use is about 40 percent of licensed volume. These sub-zones are showing trends of declining groundwater levels. In these two sub-zones there is a significant risk of exacerbating groundwater declines by increasing use towards the licensed volume.

Groundwater levels will continue to be monitored to determine if restrictions should be introduced. In these two sub-zones the PCV will be set at current licensed volumes with no additional licences available.

The two eastern sub-zones of the Southern Zone are Edenhope and Ullswater. In these sub-zones there is limited monitoring of groundwater levels. Declining groundwater level trends are evident along the southern fringes of the Edenhope sub-zone, and near the Edenhope township.

The licensed volume in these sub-zones is quite small, with only 480 ML and 388 ML licensed in Edenhope and Ullswater respectively. Also, the intensities of use in these areas are low, 0.9 and 0.3 ML/km<sup>2</sup> respectively. This is considerably less than all other zones in the West Wimmera GMA. The risks from additional small entitlements in these sub-zones is thought to be low.

Limited development will be permitted in the Ullswater sub-zone with an additional new volume of 500 ML being available in small parcels of up to 50 ML. Similarly, limited development will be permitted in the Edenhope sub-zone with an additional volume of 200 ML being available in parcels of up to 20 ML.

PCVs for the sub-zones are tabled below:

<b>Current Entitlement</b>	5,769 ML
<b>Current Use (7 year average 2003-10)</b>	2,180 ML (approx)
<b>Area</b>	2,244 km <sup>2</sup>
<b>Water Level Status</b>	Gradually declining
<b>Maximum Intensity of Entitlement</b>	2 ML/km <sup>2</sup>

Aquifer	Maximum Intensity of Entitlements ML/km <sup>2</sup>	PCV ML	Sub-Zone PCV (ML)			
			Apsley	Langkoop	Ullswater	Edenhope
Tertiary Limestone Aquifer	2.0	6,469	2,901	2,000	888	680
Tertiary Confined Sand Aquifer	-	450	200	100	100	50
Parilla Sands Aquifer	-	100	0	0	50	50

## Trading

Trading within the Southern Zone will be limited as follows:

- Trade will be allowed within sub-zones.
- No trade will be allowed between sub-zones until a review of data in 5 years.
- Trade within sub-zones will be subject to the 'Entitlement intensity limits' rule.

For the Southern Zone, the intensity of entitlement limit for new developments is proposed to be 2 ML/km<sup>2</sup>, representing half the current intensity of use in the Apsley and Langkoop sub-zones where declining levels are evident.

## Site use plans

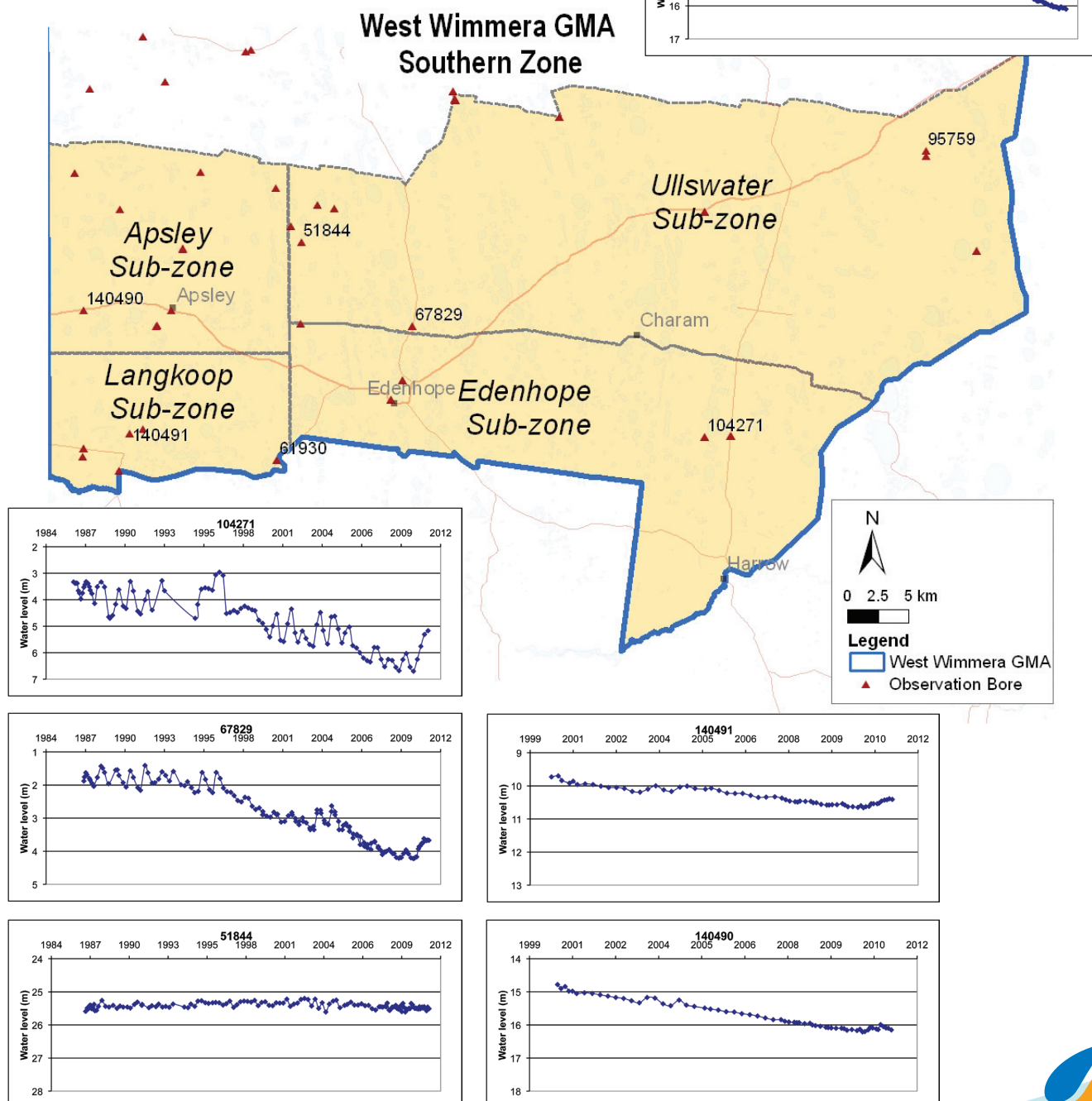
New developments, associated with either new entitlements or trade to undeveloped areas, will require a site use plan which addresses issues associated with irrigation and drainage management, soil water holding capacity and related issues.

## Border Designated Area (Border Zone)

Part of the Southern Zone lies within the Border Designated Area (Border Zones 4B and 5B). Separate Permissible Annual Volumes (PAVs) exist for each of the Border zones and have been prescribed under the *Groundwater (Border Agreement) Act 1985*. The current PAVs must be adhered to when licensing groundwater entitlements.

## Selected Hydrographs for the Southern Zone

The graphs below are of selected groundwater observation bores of water level trends within the TLA. Further information on groundwater levels and addition bores can be found at the Department of Sustainability and Environment data warehouse website [www.vicwaterdata.net/vicwaterdata](http://www.vicwaterdata.net/vicwaterdata).



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