

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).

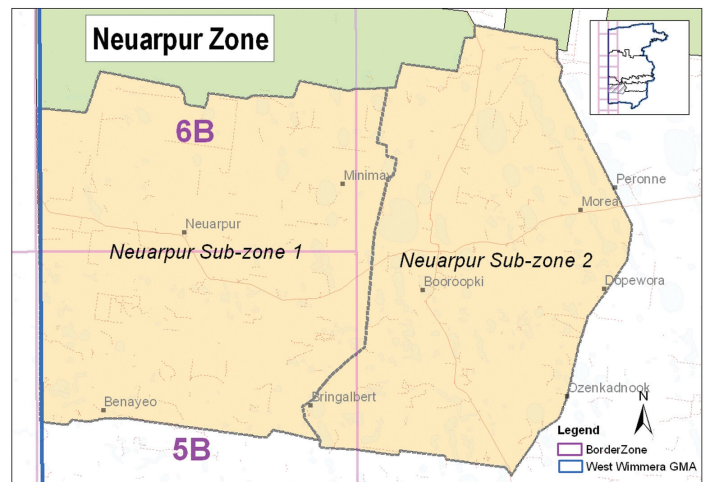
## WEST WIMMERA GMA - Neuarpur Zone

The extent of the Neuarpur Zone of the West Wimmera GMA align with that established by the approved Neuarpur Water Supply Protection Area (WSPA) established in the late 1990's. Two sub-zones exist within the Neuarpur Zone to manage use.

The Neuarpur Zone is an area of intense use and groundwater levels are declining in sub-zone 1.

The management objective for the Neuarpur Zone is to:

- Achieve stabilised groundwater levels over a period of approximately 20 years.
- Maintain stable groundwater levels in sub-zone 2.



<b>Current Entitlement</b>	24,691 ML
<b>Current Use (7 year average)</b>	16,668 ML
<b>Area</b>	776 km <sup>2</sup>
<b>Water Level Status</b>	Steeply declining in the Neuarpur sub-zone 1, levels generally stable in Neuarpur sub-zone 2

### PCVs

Tertiary Limestone Aquifer	24,750 ML
<b>Sub Zones</b>	
Sub-zone 1	20,700 ML
Sub-zone 2	4,050 ML
Tertiary Confined Sand Aquifer	400 ML (200 ML for each sub-zone)
Parilla Sands Aquifer	0

<b>Maximum Intensity of Entitlements</b>	<i>Sub-zone 1</i> – no limit at present (not practical due to current high intensity) <i>Sub-zone 2</i> - 15.8 ML/km <sup>2</sup> (TLA)
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### Permissible Consumptive Volume (PCV)

The intensity of groundwater use across the West Wimmera Groundwater Management Area (GMA) is highest in Neuarpur. The intensity of use in Neuarpur sub-zone 2 is approaching the threshold at which declining levels occur and in sub-zone 1 the intensity of use is clearly exceeding the threshold.

The PCV for Neuarpur will be maintained at its current level of 24,750 ML.

Seasonal restrictions will be introduced to manage the declining trend in groundwater levels in Neuarpur sub-zone 1.

### Border Designated Area (Border Zone)

Part of the Neuarpur Zone lies within the Border Designated Area (parts of Border Zones 5B and 6B). Separate Permissible Annual Volumes (PAV) exist for each of the Border Zones and have been prescribed under the *Groundwater (Border Agreement) Act 1985*. The table (below) shows the current PAVs which must be adhered to when licensing groundwater entitlements.

#### Border Zones within the Neuarpur Zone

Border Zone	PAV (ML/yr)	Entitlement Volume TLA (ML)
5B	12,201	12,201
6B	10,811	10,811

### Trading

Due to the existing high intensity of use, trading into Neuarpur sub-zone 1 will not be permitted, either permanently or temporarily. Trading into sub-zone 2 will not be allowed on a permanent basis.

## Groundwater level

These graphs represent the groundwater level over time at selected groundwater observation bores within the Tertiary Limestone Aquifer. Further information on groundwater levels can be found at the DSE data warehouse website [www.vicwaterdata.net/vicwaterdata](http://www.vicwaterdata.net/vicwaterdata).

## Restrictions

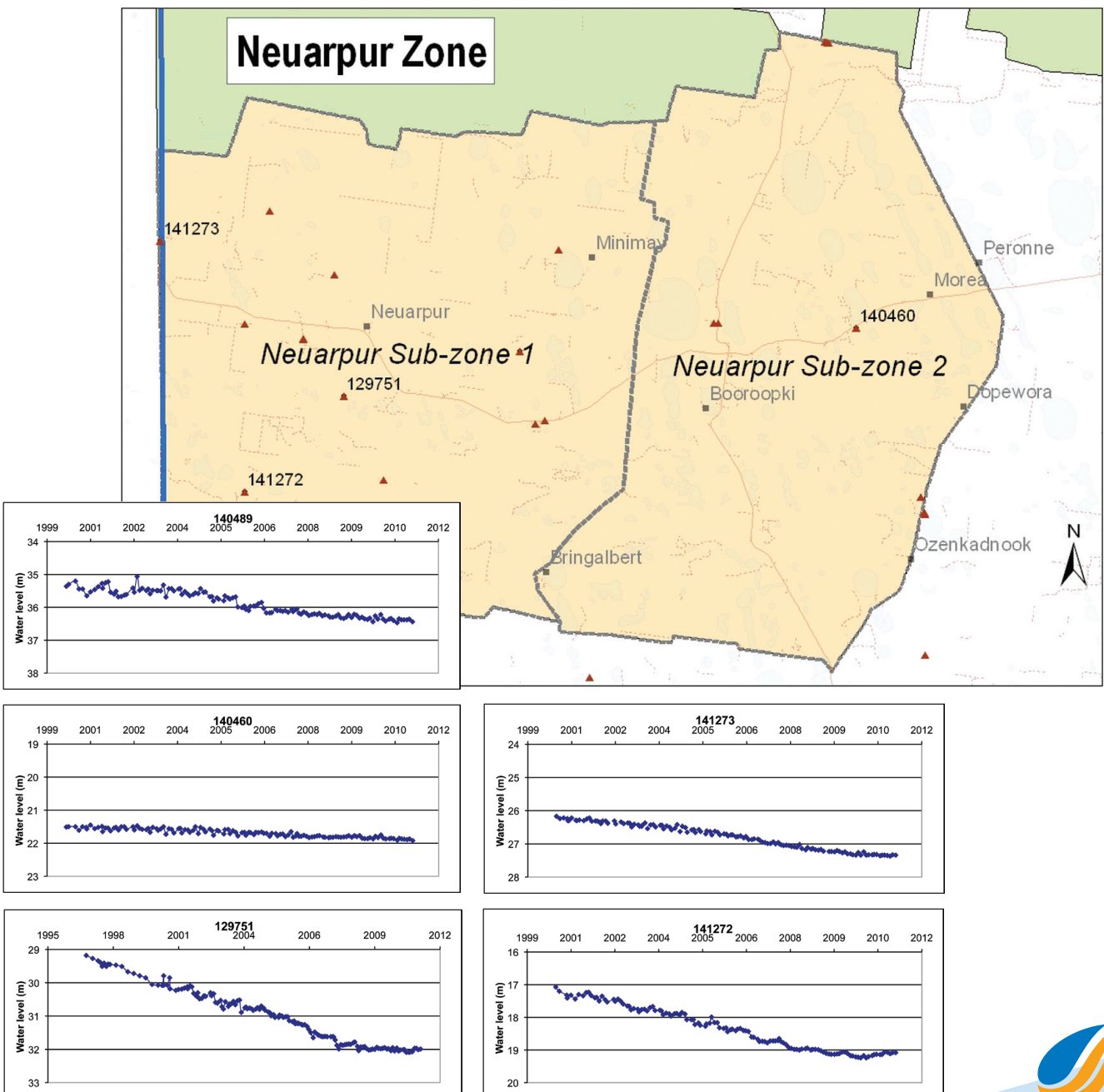
Restrictions on groundwater extraction will be introduced to arrest the declining trends in groundwater levels in Neuarpur sub-zone 1. The magnitude of the restriction required to achieve stabilisation of groundwater levels is not precisely known. An adaptive management approach will be applied to successively increase restrictions until stable levels are achieved in Neuarpur sub-zone 1.

The restriction will be expressed as a percentage of licence volume that is permitted to be pumped that season or water year (12 months commencing 1 July).

The proposed approach is:

1. The restriction for licensed irrigators within the Neuarpur management zone (sub-zone 1) for the 2011/12 season will be set at 96% of the licensed entitlement. Restrictions for successive years through to 2015/16 will be reviewed annually, but are recommended to be increased by 4% per year for five years and reach 80% of licenced volume by 2015/16. Subsequent increased restrictions will be required if levels do not stabilise during this time.
2. The restrictions will be announced annually on 1 March, to apply for the season commencing 1 July of that same year.
3. Groundwater levels are to be reviewed annually against the trigger level target band, with allocations able to be adjusted after two annual readings outside the target band.

Under this approach, stable groundwater levels should be achieved in the Neuarpur sub-zone 1 within 20 years with signs of stabilisation being evident within 10 years. This is based on the combined understanding of the capability of the resource and the socio-economic impact of a more rapid reduction in groundwater extractions.



**GWMWater**