

Relationship between the water resource plan and water sharing plan

Water resource plans (WRPs) are being prepared to meet the requirements of Chapter 10 of the Basin Plan 2012, made under the Commonwealth Water Act 2007.

Water sharing plans (WSPs), made under the NSW *Water Management Act 2000* (WM Act), will remain the primary mechanism for defining water sharing arrangements in NSW and therefore a fundamental component of each WRP.

This fact sheet explores the relationship between the draft *Water Sharing Plan for the Murrumbidgee Alluvial Groundwater Sources 2019* and the draft *Murrumbidgee Alluvium Water Resource Plan*.

Changes to existing water sharing plans will be made to accommodate relevant Basin Plan requirements. More information on proposed changes to the groundwater WSP of the Murrumbidgee Alluvium is in the *Murrumbidgee Groundwater Water Sharing Plan changes* fact sheet available from industry.nsw.gov.au/draft-murrumbidgee-alluvium-wrp

Common management areas and extraction limits

The *Water Sharing Plan for the Lower Murrumbidgee Groundwater Source 2003* is due to expire on 1 July 2019. This is being replaced in parallel with the water resource planning process. Its scope is also being expanded to include provisions relating to the Bungendore, Gundagai, Kyeamba, Wagga Wagga and Mid-Murrumbidgee Zone 3 alluvial groundwater sources that are currently included in the *Water Sharing Plan for the Murrumbidgee Unregulated and Alluvial Water Sources 2012*. The new plan will be the *Water Sharing Plan for the Murrumbidgee Alluvial Groundwater Sources 2019*.

The new Murrumbidgee alluvial water sharing plan area will align with the Murrumbidgee alluvium water resource plan area under the *Basin Plan 2012*. Generally, groundwater sources of the water sharing plan will align with sustainable diversion limit resource units of the *Basin Plan 2012*. The exception to this is that the Gundagai, Kyeamba, Wagga Wagga and Mid-Murrumbidgee Zone 3 alluvial groundwater sources are combined as one sustainable diversion limit resource unit under the *Basin Plan 2012*, named the Mid-Murrumbidgee alluvium sustainable diversion limit resource unit.

The extraction limits established in the *Basin Plan 2012*, known as 'sustainable diversion limits' are related to the long-term average annual extraction limits specified in the *Water Sharing Plan for the Murrumbidgee Alluvial Groundwater Sources 2019*, again with the Mid-Murrumbidgee alluvium groundwater sources treated as one

Details of these fundamental relationships between key elements of *Basin Plan 2012* and the draft *Water Sharing Plan for the Murrumbidgee Alluvial Groundwater Sources 2019* are shown in Table 1.

Table 1. Murrumbidgee Alluvium—relationship between the water resource plan and water sharing plan

Specified in Schedule 4 of the Basin Plan		Specified in Part 6 of the <i>Water Sharing Plan for the Murrumbidgee Alluvial Groundwater Sources 2019</i>	
SDL resource unit	SDL	Groundwater source	LTAEL
Lake George alluvium	1.27 GL/yr 1.27 L/yr (groundwater) 0.03 GL/yr (basic rights)	Bungendore alluvial	1,268 ML/yr
Mid Murrumbidgee alluvium	53.5 GL/yr 53.47 GL/yr (groundwater) 0.80 GL/yr (basic rights)	Gundagai alluvial Kyeamba alluvial Wagga Wagga alluvial Mid Murrumbidgee Zone 3 alluvial	1,926 ML/yr 723 ML/yr 20,648 ML/yr* 30,176 ML/yr
Lower Murrumbidgee alluvium shallow	26.9 GL/yr 16 GL/yr (groundwater) 10.88 GL/yr (basic rights)	Lower Murrumbidgee shallow	26,875 ML/yr
Lower Murrumbidgee alluvium deep	273.6 GL/yr (278.6 less 5.0) ** 270 GL/yr (groundwater) 3.63 GL/yr (basic rights)	Lower Murrumbidgee deep	278,673 ML/yr

* 3,650 ML/year for local water utility access licences and 16,998 ML/yr for all other classes of access licence

** Long-term annual extraction limit (LTAEL) less aquifer access licence held for environmental purposes at commencement of this plan

Differences in managing compliance with extraction limits

The *Basin Plan 2012* requires management of extractions against ‘annual permitted take’ for each sustainable diversion limit resource unit. The annual permitted take for the Lower Murrumbidgee shallow groundwater source and the Bungendore alluvial groundwater source will be equivalent to the sustainable diversion limits (or long-term average annual extraction limits).

The annual permitted take for the Lower Murrumbidgee deep groundwater source and the Mid-Murrumbidgee alluvium (combining the Gundagai, Kyeamba, Wagga Wagga and Mid-Murrumbidgee Zone 3 alluvial groundwater sources), will be the sustainable diversion limit varied each water year, based on the deviation of actual annual rainfall in that water year from the average annual rainfall, measured at Coleambally and Wagga Wagga respectively. The variation can’t exceed a specified percentage of the sustainable diversion limit. This climate-adjusted annual permitted take recognises that in dry years extraction will generally exceed the sustainable diversion limit, and in wet years it will be less.

Annual permitted take is calculated retrospectively at the end of a water year, after assessing the volume of water that was allowed to be extracted in that water year. It can be seen as an annual expression of a longer-term sustainable diversion limit, and does not directly determine how much water a licence holder can take in any water year. It forms the benchmark against which total annual consumptive use from a sustainable diversion limit resource unit will be compared for the sole purpose of assessing compliance with the longer-term sustainable diversion limit over time.

Water sharing plans also require management of extraction against the ‘long-term average annual extraction limit’ for each groundwater source. This is done by comparing the long-term average annual extraction limit to the average annual volume of water extracted over the preceding five years.

Non-compliance with the long-term average annual extraction limit occurs when this calculated average annual extraction exceeds the long-term average annual extraction limit by 5% for the Lower Murrumbidgee shallow and deep groundwater sources and the Bungendore alluvial groundwater source, and 10% for the Gundagai, Kyeamba, Wagga Wagga and Mid-Murrumbidgee Zone 3 alluvial groundwater sources.

If non-compliance with a sustainable diversion limit or a long-term average annual extraction limit has occurred under either of the two assessment processes described above, future extraction from the groundwater source is to be restricted to achieve compliance by one or both of the following methods:

- restricting the water allocations that can be taken, assigned under section 71T of the Act, or otherwise debited or withdrawn, from a water allocation account in the following water year
- announcing available water determinations of less than 100% (or 1 ML/unit share) for lower-priority access licences in the following year.

The extent of any extraction restrictions will be that necessary to return average annual extractions in the relevant groundwater source to the long-term average annual extraction limit specified in the water sharing plan for the groundwater source, or to meet the requirements of Division 3 of Part 4 of Chapter 6 of the *Basin Plan 2012*.

More information

See the following fact sheets on the NSW Department of Industry's website, industry.nsw.gov.au/water-resource-plan-consultation:

- *Water resource plans in NSW*
- *Groundwater available water determinations*
- *Groundwater-dependent ecosystems*
- *Compliance with sustainable diversion limits.*

© State of New South Wales through Department of Industry 2018. The information contained in this publication is based on knowledge and understanding at the time of writing (September 2018). However, because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of the Department of Industry or the user's independent adviser.