

Relationship between the water resource plan and water sharing plan

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

Water sharing plans are made under the NSW *Water Management Act 2000* (WM Act). They are, and will continue to be, the primary tool to define water-sharing arrangements in NSW. Water sharing plans are therefore a central component of each water resource plan, and have been amended to meet Basin Plan requirements where necessary.

This factsheet explains differences between the existing and the new groundwater water sharing plans for the Murray. These changes are the result of aligning the groundwater water sharing plan with the *Murray Alluvium Water Resource Plan*, and include changes to the management area and how extraction limits are set.

You may also want to read the factsheet for proposed changes to the Murray Alluvium groundwater plan.

Groundwater management areas

A new water sharing plan called the *Water Sharing Plan for the Murray Alluvial Groundwater Sources 2019* has been drafted.

The new plan will be called the *Water Sharing Plan for the Murray Alluvial Groundwater Sources 2019*, and will align with the boundaries set for the Murray Alluvium water resource plan area under the *Basin Plan 2012* ('the Basin Plan'). That means that the new water sharing plan will manage new areas, and include provisions for these.

It is proposed that this plan will replace the *Water Sharing Plan for the Murrumbidgee Unregulated and Alluvial Water Sources 2012* in relation to the Billabong Creek Alluvial Groundwater Source, the *Water Sharing Plan for the Lower Murray Groundwater Source* in relation to the Lower Murray Groundwater Source, the *Water Sharing Plan for the Lower Murray Shallow Groundwater Source 2012* in relation to the Lower Murray Shallow Groundwater Source, and the *Water Sharing Plan for the Murray Unregulated and Alluvial Water Sources 2011* in relation to the Upper Murray Groundwater Source.

Likewise, groundwater sources of the water sharing plan will align with sustainable diversion limit resource units of the *Basin Plan 2012*.

The new water sharing plan will then include four of the sustainable diversion limit resource units specified in the *Basin Plan 2012*.

The extraction limits for these areas, and the water sharing plan area overall, are explained below.

Extraction Limits

The Basin Plan sets extraction limits, known as 'sustainable diversion limits', for each of the sustainable diversion limit resource units. These limits are equal to the long-term average annual extraction limits for the equivalent groundwater sources in the water sharing plan.

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

Table 1. Murray 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 Murray Alluvial Groundwater Sources 2019</i>	
Sustainable diversion limit resource unit	Sustainable diversion Limit	Groundwater Source	Long term average annual extraction limit
Billabong Creek Alluvium	7.5 GL/yr*	Billabong Creek Alluvial	7529 ML/yr (29 ML/yr)**
Upper Murray Alluvium	14.1 GL/yr*	Upper Murray	14,246 ML/yr (137 ML/yr)**
Lower Murray Alluvium Shallow	81.9 GL/yr*	Lower Murray Shallow	81,926 ML/yr (33 ML/yr)**
Lower Murray Alluvium Deep	88.9 GL/yr*	Lower Murray	90,223 ML/yr (1323 ML/yr)**

*equals long term average annual extraction limit minus volume of held environmental water at commencement of this Plan

** Volume of held environmental water at commencement of this Plan

Differences in managing compliance with extraction limits

Groundwater extraction within the area of the new Murray groundwater sharing plan will need to meet these four sustainable diversion limits. Compliance will be assessed by calculating the maximum volume of water permitted to be taken in a water year¹, known as ‘annual permitted take’, and comparing this to the volume actually taken in that year. The difference is then recorded on a ‘register of take’ as a debit or a credit.

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 under the water resource plan rules. It does not directly determine how much water a licence holder can take in any water year, but is the benchmark against which total annual consumptive use from a resource unit will be compared.

The comparison is solely to assess compliance with the longer term sustainable diversion limit over time. Until 2028, non-compliance with a sustainable diversion limit is defined as when the cumulative balance is in debit by an amount that is equal to 20% (or more) of the sustainable diversion limits for that groundwater resource unit

The annual permitted take for the Billabong Creek Alluvial and the Lower Murray Shallow groundwater sources will be equivalent to the sustainable diversion limits. The annual permitted take for the Upper Murray and the Lower Murray groundwater sources varies each water year based on the deviation of actual annual rainfall from the average annual rainfall measured at Albury or Deniliquin 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.

Water sharing plans also require management to the long-term average annual extraction limits for each groundwater source. The plans specify that compliance is assessed 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:

- 10% in the Billabong Creek Alluvial, Upper Murray and Lower Murray Shallow groundwater sources and
- 5% in the Lower Murray groundwater source.

¹ A water year is a 12 month period commencing 1 July.

If either of these two assessment processes shows a breach of a sustainable diversion limit or a long-term average annual extraction limit, future extraction from the groundwater source will be restricted. This can be by one or both of the following methods:

- restricting the water allocations that can be taken, assigned under section 71T of the *Water Management Act 2000*, 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.

Extraction restrictions will be what is necessary to return average annual extractions in the 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.

More information

The draft Murray Alluvium Water Resource Plan and other fact sheets are available from www.industry.nsw.gov.au/water

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