

## Proposed changes to groundwater sharing plans

The NSW water sharing plans are the primary legal framework for managing water access and sharing in the Murray-Darling Basin. Chapter 10 of the *Basin Plan 2012* requires that water resource plans are prepared to meet requirements set out by Commonwealth legislation. NSW is meeting these requirements by replacing, remaking or amending existing water sharing plans to meet the accreditation requirements of Chapter 10 of the *Basin Plan 2012*.

This factsheet is a summary of proposed changes to the groundwater sharing plan for the alluvial groundwater resources in the Murray Valley. In summary, changes are proposed to the:

- Scope
- Definition of depth boundary for Lower Murray Shallow groundwater source
- Objectives, strategies, and performance indicators
- Definition of planned environmental water
- Estimated requirements for water
- Definition of limits to the availability of water for extraction in the area
- Measurement of compliance with limits to the availability of water
- Distance rules for groundwater works
- Regard to Victorian Murray water resources
- Ability to adjust the limits to the availability of water in line with s 7.25 of the Basin Plan.

The proposed changes to the plan range from purely administrative to more substantial. In general, the changes aim to modernise and simplify the watering sharing plan to make it easier to read and put in place, while maintaining its legal accuracy. In addition, we have made changes to eliminate inconsistencies, inequities, and unintended implementation issues.

### Scope of the water sharing plan

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

This process will align the water sharing plan area with the Murray Alluvium Water Resource Plan Area, as defined in the *Basin Plan 2012*, and deals with all substantial alluvial water resources in the Murray valley in a single water sharing plan.

### Definition of depth boundary for Lower Murray Shallow groundwater source

We propose to increase the depth boundary of the Lower Murray Shallow groundwater source from 12 metres to 20 metres.

This depth has been determined, via modelling and desktop review of all available bore logs, to be the most appropriate depth of the Upper Shepparton formation layer, which conceptually forms the Lower Murray Shallow groundwater source. This change will not impact any existing water access licences.

## Objectives, strategies and performance indicators

The objectives, strategies and performance indicators have been revised. The proposed new objectives, strategies and performance indicators of the water sharing plan deal with similar matters to the previous ones, but have been changed to:

- link the objectives, strategies and performance indicators more strongly, and
- distinguish between the environmental, economic, social and Aboriginal cultural objectives of the water sharing plan more clearly.

## Definition of planned environmental water

We propose to change the way planned environmental water is specified in the water sharing plan. We will define it more accurately, including removing the reference to recharge. This proposal will not alter the actual volume of planned environmental water or the timing of its availability to the environment.

More information on this proposal is provided in the fact sheet *Specifying planned environmental water in groundwater plans*, available from ([industry.nsw.gov.au/water-resource-plans/general-resources](http://industry.nsw.gov.au/water-resource-plans/general-resources)).

## Estimated requirements for water

We have updated the estimated water requirements of basic landholder rights. We have also updated the total volumes or unit shares specified in the share components of all access licences to reflect the current information.

## Aligning long-term average annual extraction limits to Basin Plan sustainable diversion limits and accounting for existing held environmental water

We propose to change the expression of the long-term average annual extraction limit established in the *Water Sharing Plan for the Lower Murray Groundwater Source* to align with *Basin Plan 2012* requirements. The *Basin Plan 2012* and more contemporary water sharing plans in NSW include a numerical estimate of basic landholder rights requirements within the long-term limits to the availability of groundwater. This approach will be adopted for the Lower Murray groundwater source in the new plan, with the estimate of requirements for basic landholder rights calculated at 2012.

Additionally the long-term limit for each groundwater source in the Murray Alluvium Water Resource Plan Area will be increased by the specified volume per year to include aquifer access licences held by the Commonwealth Government that are intended for environmental purposes. These proposed changes will have no impact on existing water access licence holders' shares or access to the resource. More information on changes to long-term limits is provided in the fact sheet *Murray Alluvium WRP—relationships between the water resource plan and water sharing plans*, available from [industry.nsw.gov.au/water-resource-plan-consultation](http://industry.nsw.gov.au/water-resource-plan-consultation).

These actions align the long-term average annual extraction limits for all the groundwater sources in the Murray Alluvium Water Resource Plan with the sustainable diversion limits established in the *Basin Plan 2012*.

In addition, the plan currently includes references to supplementary water access licences in the Lower Murray groundwater source that were phased out in 2016–17. These will be removed.

## Compliance with long-term average annual extraction limits

We propose to change the period for assessing compliance with the long-term average annual extraction limit, so that the average annual extraction limit for the last five years will be compared with the long term limit, rather than the last three years, as previously.

No change is proposed to the trigger for requiring action to ensure compliance with the long-term average annual extraction limit. These are:

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

As previously, if extraction exceeds the triggers, the Minister can limit the available water determinations to lower priority access licences<sup>1</sup> to achieve compliance in the following year(s).

We have also proposed an additional, alternative means to reach compliance. With this mechanism, the Minister may also limit the water allocation that can be taken, assigned under section 71T of the *Water Management Act 2000*, or otherwise debited or withdrawn, from a water allocation account, to achieve compliance. This method may reduce the need for more severe limits on available water determinations.

If compliance action is required, licence holders will be consulted on the most appropriate mechanism to achieve compliance with the long-term average annual extraction limit.

## Compliance with Basin Plan sustainable diversion limits

The existing water sharing plan specifies the process to assess compliance with the long-term average annual extraction limits. Additional provisions will be included that directly adopt the *Basin Plan 2012* provisions for assessing compliance with the Basin Plan long term average sustainable diversion limits.

The *Basin Plan 2012* requires an annual assessment of extractions against 'annual permitted take'. Annual permitted take will be defined as for each groundwater source, as follows.

- In the Billabong Creek Alluvial and Lower Murray Shallow groundwater sources the annual permitted take will be equivalent to the sustainable diversion limits.
- In the Upper Murray and Lower Murray groundwater sources the annual permitted take will be the sustainable diversion limit (again equal to the long-term average annual extraction limit) modified each year, based on rainfall at Albury and Denilquin. The amount of actual rainfall is compared to average annual rainfall at each of those locations and used to vary the annual permitted take by up to 20% of the sustainable diversion limit. In general, extraction exceeds the sustainable diversion limit in dry years and is below it in wet ones, and the variation aims to manage this effect.

The annual permitted take is determined at the end of each water year for each groundwater source according to the methods above. It is an annual expression of the longer term sustainable diversion limit for the purpose of assessing compliance, and doesn't directly determine the water a licence holder can take in any water year.

In order to assess compliance with the longer term sustainable diversion limit, annual permitted take will be compared with the total annual actual take from a resource unit. Under the *Basin Plan 2012*, there is non-compliance with a sustainable diversion limit when the cumulative actual take from a resource unit exceeds the cumulative annual permitted take by 20% or more of the sustainable diversion limit.

If compliance action is required, the Minister may limit available water determinations and/or the water that can be taken from accounts in subsequent years, as outlined in the section above.

More information on these issues is in these fact sheets available from [industry.nsw.gov.au/water-resource-plan-consultation](http://industry.nsw.gov.au/water-resource-plan-consultation) and [industry.nsw.gov.au/water-resource-plans/general-resources](http://industry.nsw.gov.au/water-resource-plans/general-resources):

- *Compliance with the sustainable diversion limit for groundwater*
- *Available water determinations in groundwater sources*
- *Murray Alluvium WRP—relationships between the water resource plan and water sharing plans.*

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<sup>1</sup> aquifer access licences or aquifer (high security) access licences

## Standardising distance rules

We propose to standardise the rules for assessing applications for new or amended water supply works (bores). The proposed changes to rules are summarised below.

### Rules to minimise interference between users

There will be only minor changes to these to better align rules across groundwater sources.

In Billabong Creek Alluvial, Upper Murray and Lower Murray Shallow groundwater sources:

- New bores used solely for basic landholder rights must be at least 100m from government observation bores.

In the Upper Murray groundwater source:

- New bores, other than those used solely for basic landholder rights, must be at least 500m from government observation bores.

In the Lower Murray groundwater source:

- Bores used solely for basic landholder rights must be at least 100m from government observation bores
- New bores, other than those used solely for basic landholder rights, must be at least:
  - 400 metres from a supply work which provides water used solely for basic landholder rights
  - 500 metres from a boundary with a neighbour unless written consent is provided from the neighbour
  - 1000 metres from a water supply work on a neighbouring property nominated by another access licence accessing the same groundwater source
  - 1000 metres from a water utility water supply work unless written consent is provided by the utility licence holder, and
  - 500 metres from a government monitoring bore unless there is ministerial consent.

### Rules for water supply works located near contamination sources

New or amended water supply works approvals will not be granted:

- within 500 metres of a contamination source listed in Schedule 1 of the water sharing plan
- within 250 metres of the edge of a contamination plume
- between 250 and 500 metres of the edge of a contamination plume where drawdown will occur within 250 metres of the edge of a contamination plume.

We propose to introduce an additional rule for all groundwater sources, to reduce the risk to public health and safety from contaminated groundwater from on-site sewage disposal systems, as follows:

- A water supply work approval located within 250 metres of an on-site sewage disposal system may only be granted or amended if the water supply work is:
  - constructed with cement grout between the bore casing and the borehole annulus<sup>2</sup> to a minimum depth of 20 metres from the ground surface, and
  - located at sufficient distance from the on-site sewage disposal system to prevent septic contamination of the aquifer.

### Rules for water supply works located near groundwater-dependent culturally significant areas

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<sup>2</sup> the space between the bore casing and the wall of the borehole

There will be no change to these in the Billabong Creek Alluvial and Upper Murray groundwater sources. In the Lower Murray Shallow and Lower Murray groundwater sources we propose to bring the rules into line with standardised rules across the state. New or amended water supply works approvals will not be granted within:

- 100 metres of any other groundwater-dependent culturally significant areas if the work is used solely for basic landholder rights
- 200 metres of any other groundwater-dependent culturally significant areas for all other groundwater works.

unless the Minister is satisfied that allowing the work to be located at a lesser distance will have no more than minimal impact on a groundwater dependent culturally significant areas.

### Rules for water supply works located near groundwater-dependent ecosystems

There will be no change to these in the Billabong Creek Alluvial and Upper Murray groundwater sources.

In the Lower Murray Shallow and Lower Murray groundwater sources we propose to bring the rules into line with standardised rules across the state. Unless the Minister is satisfied that allowing the work to be located at a lesser distance will have minimal impact at most on a groundwater dependent ecosystem, new or amended water supply works approvals will not be granted within:

- 40 metres of the top of the high bank of a river
- 100 metres of any other groundwater-dependent ecosystem if the work is used solely for basic landholder rights
- 200 metres of any other groundwater-dependent ecosystem for all other groundwater works.

### Additions to groundwater-dependent ecosystems schedules

A recently completed program by the NSW Department of Industry has identified additional, high-priority, groundwater-dependent ecosystems. We propose to add the mapped extent of these groundwater-dependent ecosystems as a water sharing plan schedule. The setback distance rules for new water supply works outlined above will apply to these groundwater-dependent ecosystems

More detailed information on this proposal is provided in the fact sheet *Murray Alluvium WRP—managing groundwater-dependent ecosystems*, available from [industry.nsw.gov.au/water-resource-plan-consultation](http://industry.nsw.gov.au/water-resource-plan-consultation)

### Removal of ‘local impact management’ and take ‘within restricted distances’ rules

Rules for granting new water supply works or amending existing water supply works will remain (as amended) in the water sharing plan, as outlined above. However, we propose to remove the provisions about restricting take from existing water supply works. Specifically, we intend to remove the rules for

- managing local impacts for the Lower Murray groundwater source, and
- the use of water supply works located within restricted distances for the Billabong creek Alluvial, Upper Murray and Lower Murray Shallow groundwater sources.

Contemporary advice is that the powers to restrict groundwater take from existing water supply works lie firmly within the *Water Management Act 2000* (the Act), and that their duplication and re-interpretation in water sharing plans may cause inconsistencies between the Act and the plan. This means that the Act will continue to provide the framework for groundwater take from existing water supply works.

The powers in the Act enable the Minister, at any time, to specify a limit on the volume or rate of extraction from a water supply work to minimise impacts on other users, on groundwater-dependent ecosystems, or groundwater-dependent culturally significant areas; or for public health and safety reasons. The Minister may also condition or refuse an application for a dealing to effect these outcomes.

For transparency, the draft plan includes notes explaining these powers.

More details on the process for assessing groundwater applications for a new or amended water supply work approval or dealing is provided in the fact sheet *Assessing groundwater applications*, available from [industry.nsw.gov.au/water-resource-plans/general-resources](http://industry.nsw.gov.au/water-resource-plans/general-resources)

## Regard to Victorian Murray groundwater sources

Section 10.05 of the *Basin Plan 2012* requires water resource plans to 'have regard to the management and use of any water resources which have a significant hydrological connection to the water resources of the water resource plan area'. To give effect to this, NSW will include in the new Murray Alluvial water sharing plan a clause that allows the plan to be amended to provide for the creation of a new border zone, and for inter-state trading rules to be developed and implemented. The clause will specify that such an amendment can only occur if and when an inter-state agreement and associated administrative arrangements are in place.

## Adjustments to groundwater sustainable diversion limits

Section 7.25 of *Basin Plan 2012* allows for the MDBA to propose 'an adjustment of the sustainable diversion limit for a groundwater sustainable diversion limit resource unit if better information becomes available about the groundwater resources of the unit and the factors relevant to setting the sustainable diversion limit.

To allow for this, the new Murray Alluvial water sharing plan will contain a provision that allows for a s.7.25 adjustment, and in particular for Part 6 of the plan to be amended for sustainable diversion limits and long-term average annual extraction limits to be modified.

## More information

The draft Murray Alluvium Water Resource Plan and other fact sheets are available from [www.industry.nsw.gov.au/water](http://www.industry.nsw.gov.au/water)

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