

## Proposed changes to groundwater sharing plans

*While water resource plans (WRPs) are developed to meet requirements set out by Commonwealth legislation, the entire NSW portion of the Murray–Darling Basin is already covered by statutory water sharing plans made under NSW legislation.*

The NSW water sharing plans will remain the primary legal framework for managing water access and sharing. The process of developing WRPs involves replacing, remaking or amending existing water sharing plans to meet the accreditation requirements of Chapter 10 of the *Basin Plan 2012*. This process is also an opportunity to make water sharing plans consistent and impartial and to eliminate unintended implementation issues.

This fact sheet outlines the main changes being proposed to groundwater water sharing plans for the alluvial groundwater resources of the Macquarie and Castlereagh valleys.

Many of the proposed changes are administrative and have no material impact on environmental water or groundwater made available for take. Other proposed changes are more substantive. More broadly, we have modernised and simplified the language and construction of the proposed new water sharing plan to make it easier to read and implement, while maintaining its legal accuracy.

## Scope of the water sharing plan

The *Water Sharing Plan for the Lower Macquarie Groundwater Sources 2003* is being replaced. We propose to incorporate the Castlereagh and Macquarie alluvial groundwater sources into this replacement water sharing plan, which will be called the *Water Sharing Plan for the Macquarie–Castlereagh Alluvial Groundwater Sources 2019*.

This involves removing the Bell alluvial, Cudgegong alluvial, Talbragar alluvial and Upper Macquarie alluvial groundwater sources from the *Water Sharing Plan for the Macquarie Bogan Unregulated and Alluvial Water Sources 2012*, and the Castlereagh alluvial groundwater source from the *Water Sharing Plan for the Castlereagh Unregulated and Alluvial Water Sources 2011* for inclusion in the new plan.

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

The water sharing plan will also include the three sandstone groundwater sources that are currently managed under the *Water Sharing Plan for the Lower Macquarie Groundwater Sources 2003*. The provisions relating to these are excluded for the purpose of accreditation under the *Basin Plan 2012*, as they are not classified as Basin water resources under that plan.

## Objectives, strategies and performance indicators

The objectives, strategies and performance indicators have been revised. The proposed versions deal with similar matters to the previous ones, but have been changed to:

- make a stronger logical connection between objectives, strategies and performance indicators
- more clearly distinguish between the environmental, economic, social and Aboriginal cultural objectives of the water sharing plan.

## 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 change 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-plan-consultation](http://industry.nsw.gov.au/water-resource-plan-consultation).

## Updated requirements for water

The replacement water sharing plan updates the estimated water requirements of people entitled to exercise basic landholder rights. It also updates the total volumes or unit shares specified in the share components of all access licences to reflect the most current information.

## Aligning long-term average annual extraction limits to Basin Plan sustainable diversion limits

We propose to change the expression of the long-term average annual extraction limits established in the current water sharing plans to align with *Basin Plan 2012* requirements, and to remove any reference to supplementary water access licences.

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 Macquarie groundwater sources in the new plan, with the estimate of requirements for basic landholder rights calculated at 2012.

The combined long-term average annual extraction limits for the alluvial groundwater sources of the Lower Macquarie will be treated as a single sustainable diversion limit for *Basin Plan 2012* purposes. The long-term average annual extraction limits for the Bell alluvial, Castlereagh alluvial, Cudgegong alluvial, Talbragar alluvial and Upper Macquarie alluvial groundwater sources will align directly with the sustainable diversion limits for these established in the *Basin Plan 2012*.

References to supplementary water access licences in the Lower Macquarie groundwater sources that were phased out in 2015–16 will be removed. In addition, references to supplementary water access licences in the Cudgegong alluvial and Upper Macquarie alluvial groundwater sources that have not been activated will be removed.

These proposed changes will have no impact on existing water access licence holders' shares or access to the resource.

## Compliance with long-term average annual extraction limits

To assess compliance with the long-term average annual extraction limits in each groundwater source, the average annual extraction over the past five years will be compared with the long-term average annual extraction limits. This is a change for the Lower Macquarie groundwater sources, which previously had a three-year assessment period. It will provide consistency across the groundwater sources of the WRP area, and will provide sufficient flexibility to accommodate climatic variability while still protecting environmental values.

There is no proposed change to the trigger for requiring action to ensure compliance with the long-term average annual extraction limits. This will remain at 5% for the Castlereagh alluvial and Lower

Macquarie groundwater sources, and 10% for the Bell alluvial, Cudgegong alluvial, Talbragar alluvial and Upper Macquarie alluvial groundwater sources.

If compliance action is required, the Minister for Regional Water can limit the available water determinations to lower-priority access licences (aquifer access licences or high-security aquifer access licences as the case may be) to achieve compliance in subsequent years.

An additional or alternative compliance mechanism is proposed. 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. Using this method reduces the need for more severe limits on available water determinations.

## Compliance with Basin Plan sustainable diversion limits

In addition to existing rules in the water sharing plan that specify the process for assessing compliance with the long-term average annual extraction limits, we propose to include rules that mirror those in the *Basin Plan 2012* for assessing compliance with the Basin Plan sustainable diversion limits.

The *Basin Plan 2012* requires an annual assessment of extractions against ‘annual permitted take’. The annual permitted take for the Bell alluvial, Castlereagh alluvial, Talbragar alluvial and combined Lower Macquarie alluvial groundwater sources will be equivalent to the sustainable diversion limits (or long-term average annual extraction limits). The annual permitted take for the Upper Macquarie alluvial and Cudgegong alluvial groundwater sources is the sustainable diversion limit (again equal to the long-term average annual extraction limit) varied each water year, based on the deviation of actual annual rainfall in that water year from average annual rainfall measured at Dubbo and Mudgee. The variation can’t exceed 20% 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 and the rainfall where applicable. It can be viewed 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.

Under the *Basin Plan 2012*, the amount taken is deemed to be non-compliant with a sustainable diversion limit when the cumulative balance of annual permitted take compared to actual take is in debit by an amount that is equal to 20% (or more) of the sustainable diversion limits for a groundwater source, or a group of groundwater sources in the case of the Lower Macquarie alluvium.

If compliance action is required, the Minister for Regional Water can limit available water determinations and/or the water that can be taken from accounts in subsequent years consistent with the approach outlined above for compliance with long-term average annual extraction limits.

The following fact sheets available from [industry.nsw.gov.au/water-resource-plan-consultation](http://industry.nsw.gov.au/water-resource-plan-consultation) provide more information:

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

## Standardising distance rules

We propose to standardise distance rules relating to the construction and location of new or amended water supply works when replacing, remaking or amending water sharing plans. The proposed changes to distance rules are summarised below.

### Rules to minimise interference between users

There will be no change to rules to minimise interference between users in the Bell alluvial, Castlereagh alluvial, Cudgegong alluvial, Talbragar alluvial or Upper Macquarie alluvial groundwater sources. In the Lower Macquarie groundwater sources, the following additional minimum distance rules are proposed:

- 400 metres from a supply work that provides water for basic landholder rights
- 200 metres from a boundary with a neighbour unless written consent is provided from the neighbour
- 600 metres from a water utility water supply work unless written consent is provided by the utility licence holder
- 500 metres from a government monitoring bore unless there is ministerial consent.

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

The following minimum distance rules are proposed for all groundwater sources:

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

Also, we propose an additional rule for all groundwater sources to reduce risks to public health and safety from contaminated groundwater resulting from on-site sewage disposal systems:

- 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 to a minimum depth of 20 metres from the ground surface
  - 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 ecosystems

There will be no change to rules for water supply works located near groundwater-dependent ecosystems in the Lower Macquarie groundwater sources. In the Bell alluvial, Castlereagh alluvial, Cudgegong alluvial, Talbragar alluvial and Upper Macquarie alluvial groundwater sources, we propose the removal of distance rules in relation to escarpments and high-priority karst, as these are not present in these groundwater sources.

## 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 relating to restricting take from existing water supply works, specifically the rules for managing local impacts for the Lower Macquarie groundwater sources and the rules for the use of water supply works located within restricted distances for the Bell alluvial, Castlereagh alluvial, Cudgegong alluvial, Talbragar alluvial and Upper Macquarie alluvial groundwater sources.

Contemporary legal advice is that the powers to restrict groundwater take from existing water supply works lie firmly within the *Water Management Act 2000*, and that their duplication and re-interpretation in water sharing plans may cause inconsistencies between the act and the plan.

The powers in the act enable the Minister for Regional Water, 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 put conditions on or refuse an application for a dealing to effect these outcomes. In particular:

- Section 107 of the *Water Management Act 2000* provides for the amendment of approvals. In addition, the minister may impose or vary conditions on a water supply work approval at any time as the minister thinks fit, under section 102 of the act. These conditions may limit the volume or rate of extraction from a water supply work approval if the minister considers it appropriate.
- The minister may also limit the volumes or rates of extraction from existing water supply work approvals for:
  - (a) all water supply works within a specified area, by an order made under section 324(2) of the act, or
  - (b) existing water supply works used solely for basic landholder rights, by an order made under section 331 of the act.
- The minister may refuse an application for a dealing, or apply conditions on access licences or water supply work approvals at the time of a dealing to give effect to the Access Licence Dealing Principles Order 2004. The order specifies principles relating to adverse effects on environmental water and water-dependent ecosystems, water quality, Indigenous, cultural, heritage or spiritual matters, and other existing authorised water take.

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-plan-consultation](http://industry.nsw.gov.au/water-resource-plan-consultation)

## Additions to groundwater-dependent ecosystems schedules

A recently completed program by the NSW Department of Industry has identified additional, high-priority, groundwater-dependent ecosystems (GDEs). We propose to add the mapped extent of these GDEs as a water sharing plan schedule.

More detailed information on this proposal is provided in the fact sheet *Macquarie–Castlereagh alluvium—Groundwater-dependent ecosystems*, available from [industry.nsw.gov.au/draft-macquarie-castlereagh-alluvium-wrp](http://industry.nsw.gov.au/draft-macquarie-castlereagh-alluvium-wrp)

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