

Compliance with long-term sustainable diversion limits for groundwater sources

This fact sheet covers the Basin Plan 2012 requirements for determining compliance with long-term sustainable diversion limits (SDLs) for groundwater sources.

Basin Plan SDL compliance requirements

Under the Basin Plan, states must undertake an assessment at the end of each water year to determine whether take from a SDL resource unit remains within the SDL for that unit. In NSW, SDL resource units are equivalent to our individual groundwater sources or in some cases groups of groundwater sources. In short, the annual assessment compares the volume of groundwater that's 'permitted to be taken' in that year under the provisions of a water resource plan (the **annual permitted take**), with the volume of groundwater that 'was taken' (the **annual actual take**).

The method for determining compliance with an SDL for groundwater sources is set out in Division 3 of Part 4 of Chapter 6 of the Basin Plan. In summary, for the first 10 years of a water resource plan (from 2019/20):

1. the **annual permitted take** volume for each form of take for the water year will be determined at the end of a water year (June 30).
2. for the same water year, the **annual actual take** is determined.
3. the difference between **annual actual take** and **annual permitted take** is recorded as follow:
 - If **annual actual take** is greater than the **annual permitted take**, the difference is recorded as a debit.
 - If **annual actual take** is less than the **annual permitted take**, the difference is recorded as a credit.
4. There is non-compliance with an SDL for the groundwater SDL resource unit if:
 - the sum of annual actual take in the water accounting periods since 1 July 2019 is greater than the sum of annual permitted take for those water accounting periods plus 20% of the SDL for the SDL resource unit, and
 - NSW does not have a **reasonable excuse** for the excess.

After 30 June, 2028, the compliance method will change. There will be non-compliance with an SDL for a groundwater SDL resource unit if the annual actual take averaged over the proceeding 10-year period is greater than the annual permitted take averaged over the same time period and NSW does not have a **reasonable excuse** for the excess.

Determining annual permitted take and annual actual take

Sections 10.10 and 10.15 of the Basin Plan require NSW water resource plans to set out the methods used to establish the **annual permitted take** and the **annual actual take** volumes.

NSW proposes to use one of two methods to determine the **annual permitted take** volumes in groundwater SDL resource units—simple or variable. The choice of method will depend on the form of take, and on the current level of take compared to the SDL.

There are **two forms of take** under the Basin Plan for groundwater systems:

1. 'take from groundwater' (extraction under access licence rights) and
2. 'take under basic rights' (extraction under basic landholder rights).

For the simple method, **annual permitted take** will be equal to that proportion of the SDL attributable to a particular **form of take**. This simple method will apply to:

- 'take under basic rights' (i.e. extraction under basic landholder rights) in all groundwater sources, and
- 'take from groundwater' (i.e. extraction under access licence rights) in groundwater sources where extraction has remained at less than 80% of SDL over the period from 2007/08 to 2016/17, where the risk of non-compliance is considered very low.

A variable **annual permitted take** method will apply to 'take from groundwater' in groundwater sources where extraction has been 80% or more of the long-term average annual extraction limit attributable to groundwater take over the period from 2007/08 to 2016/17 (see Table 1).

Table 1. SDL resource units where variable annual permitted take will apply

Sustainable diversion limit resource units	Maximum annual extraction during 2007/08 to 2016/17 period (% SDL)
Lower Gwydir Alluvium	141%
Lower Murray Deep Alluvium	123%
Lower Namoi Alluvium	120%
Lower Murrumbidgee Deep Alluvium	117%
Lower Lachlan Alluvium	113%
Peel Alluvium	92%
Cudgegong Alluvium	92%
Upper Namoi Alluvium	92%
Upper Macquarie Alluvium	89%
Mid Murrumbidgee	77% (average) (Gundagai - 43%, Kyeamba - 85%, Mid Murrumbidgee Z3 - 87%, Wagga Wagga - 89%)

The **annual permitted take** in a particular year will be calculated at the end of the year based on the rainfall in that year at a location in the SDL resource unit. In average rainfall years, the annual permitted take will be the SDL. In drier years, the annual permitted take will be greater than the SDL and in wetter years less. Analysis has shown that applying a climate adjusted **annual permitted take** of +/- 20% of the SDL achieves SDL compliance over the long-term.

Annual actual take for take under basic rights will be assumed to be that volume specified as 'requirements' for basic landholder rights in the relevant water sharing plan. **Annual actual take** from groundwater will be measured.

How will Basin Plan requirements for annual permitted take be specified in Water Resource Plan documents?

The **annual permitted take** methods proposed by NSW have been shown theoretically to achieve sustainable diversion limits compliance over the long term. They have not, however been tested in practice. If there is apparent non-compliance with a sustainable diversion limits, and the method itself forms a justifiable basis for a **reasonable excuse**, or if the method is otherwise resulting in perverse outcomes, there may be grounds for the method to be amended. Such an amendment would need to be made in consultation with the MDBA.

As such, it is not proposed to 'hard wire' these take methods in water sharing plans but instead simply reference the Basin Plan provisions in Part 6 of the water sharing plans. In addition **the annual permitted take** method for each **form of take** in each sustainable diversion limit resource unit will be specified in the relevant water resource plan for accreditation by the MDBA.

More information

For more information on water resource plans and related material go to

<https://www.industry.nsw.gov.au/water/plans-programs/water-resource-plans>

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