

## Groundwater-dependent ecosystems

*The Basin Plan 2012 requires that priority environmental assets and ecosystem functions dependent on groundwater be identified, considered and actively managed.*

### Identifying and protecting groundwater-dependent ecosystems

Groundwater-dependent ecosystems are those that need access to groundwater to meet all or some of the water requirements necessary to maintain their plant and animal communities and ecological processes.

Water sharing plans for groundwater contain a schedule which identifies high-priority, groundwater-dependent ecosystems. These water sharing plans include rules, to protect these ecosystems such as restrictions on the construction of groundwater bores within specified distances from the groundwater-dependent ecosystems.

The NSW Department of Planning, Industry and Environment (formerly Department of Industry) recently completed a program to identify and prioritise groundwater-dependent ecosystems in NSW.

The *High probability GDE method report* details the method used to identify groundwater-dependent ecosystems: [www.industry.nsw.gov.au/water/science/groundwater/ecosystems](http://www.industry.nsw.gov.au/water/science/groundwater/ecosystems).

### Management of groundwater-dependent ecosystems

Proposed changes in the draft *Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources 2020* to manage groundwater-dependent ecosystems include:

- adding a map of the recently identified high-priority, groundwater-dependent ecosystems into the water sharing plan schedule (shown in Figure 1)
- applying default setback distance rules for new water supply works (including bores).

The proposed distance from a river will be:

- 40 metres of the top of the high bank of a river

The proposed distance from a high priority groundwater dependent ecosystem will be

- 40 metres of the top of the high bank of a river
- 200 metres of any other high priority groundwater-dependent ecosystem shown on the High Priority Groundwater-Dependent Ecosystem Map
- 500 metres of a high priority karst environment groundwater-dependent ecosystem shown on the High Priority Groundwater-Dependent Ecosystem Map.
- 500 metres from the edge of an escarpment, where the location of the water supply work is to be above the escarpment.

The setback distance rules will not apply to a water supply work used only for basic land owner rights, monitoring, environmental remediation activities or emergency services, or to replacement groundwater works. A replacement groundwater work is defined in the draft *Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources 2020*.

The department will make an initial assessment of applications for new water supply work approvals located within the default setback distances. Water users may have the opportunity to mitigate potential impacts on high-priority, groundwater-dependent ecosystems through conditions

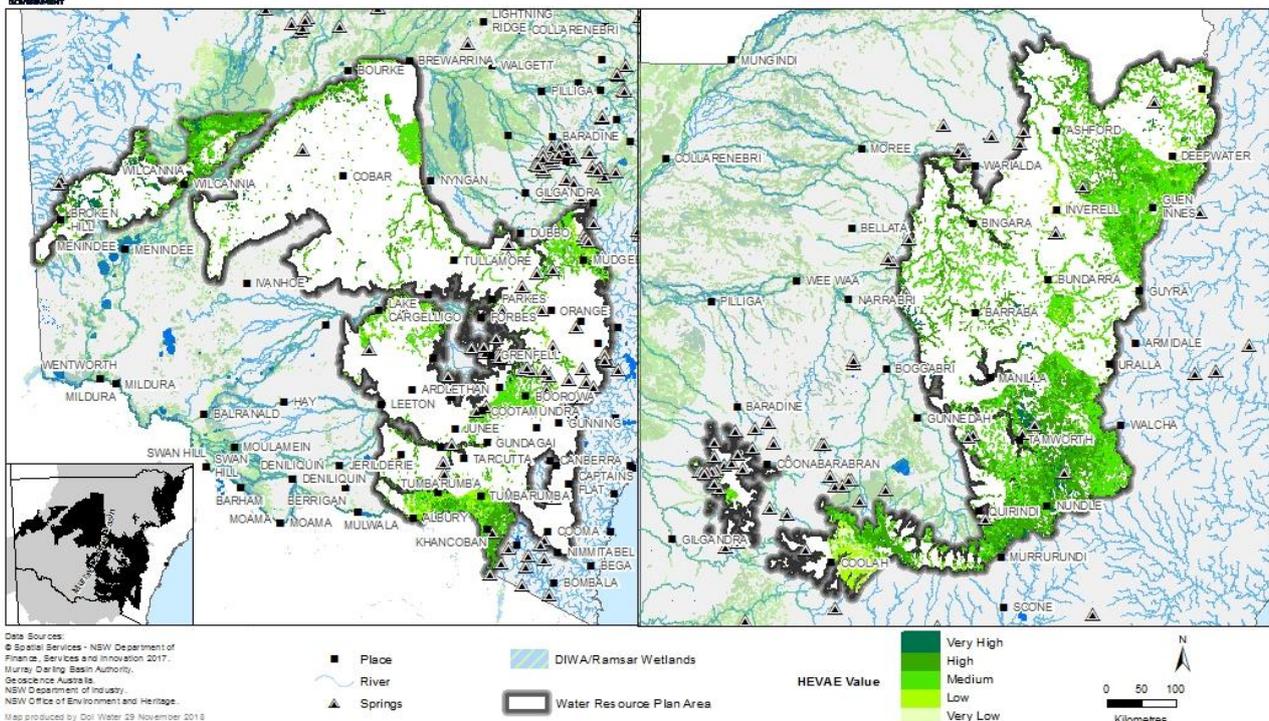
on the work approval. These could include conditions such as grout sealing the work to a specified depth, setting extraction limits or changing the proposed location.

If the initial assessment doesn't identify adequate mitigation measures, you may be required to submit further information, for example, a hydrogeological study, to support the application. This additional information will be considered by the department before the application for approval is determined.

Where a water supply work is currently located within the default setback distances, the works can continue to be used. If it becomes clear that there is a decline in the nearby groundwater-dependent ecosystem, the department will investigate the cause and possible remedial actions. These will be discussed with the water supply work approval holders.



Groundwater Dependent Assets within the NSW Murray-Darling Basin Fractured Rock WRPA



**Figure 1. High-priority, groundwater-dependent ecosystems of the NSW MDB Fractured Rock**

## More information

The draft NSW MDB Fractured Rock 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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