

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 Department of Planning, Industry and Environment 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.

Management of groundwater-dependent ecosystems

Proposed changes in the draft *Water Sharing Plan for the Murray-Darling Basin Porous 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)
- maintaining existing setback distance rules for new water supply works including basic landholder rights 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

- 500 metres from a high priority karst environment groundwater-dependent ecosystem
- 500 metres from the edge of an escarpment, where the location of the water supply work is to be above the escarpment
- 100 metres, if the work will take water for basic landholder rights only
- 200 metres for all other groundwater works, unless the Minister for Water is satisfied that allowing the work to be located at a lesser distance will have no more than minimal impact on the groundwater-dependent ecosystem.

The setback distance rules will not apply to a water supply work used only for 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 Murray-Darling Basin Porous 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 work 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 holder.

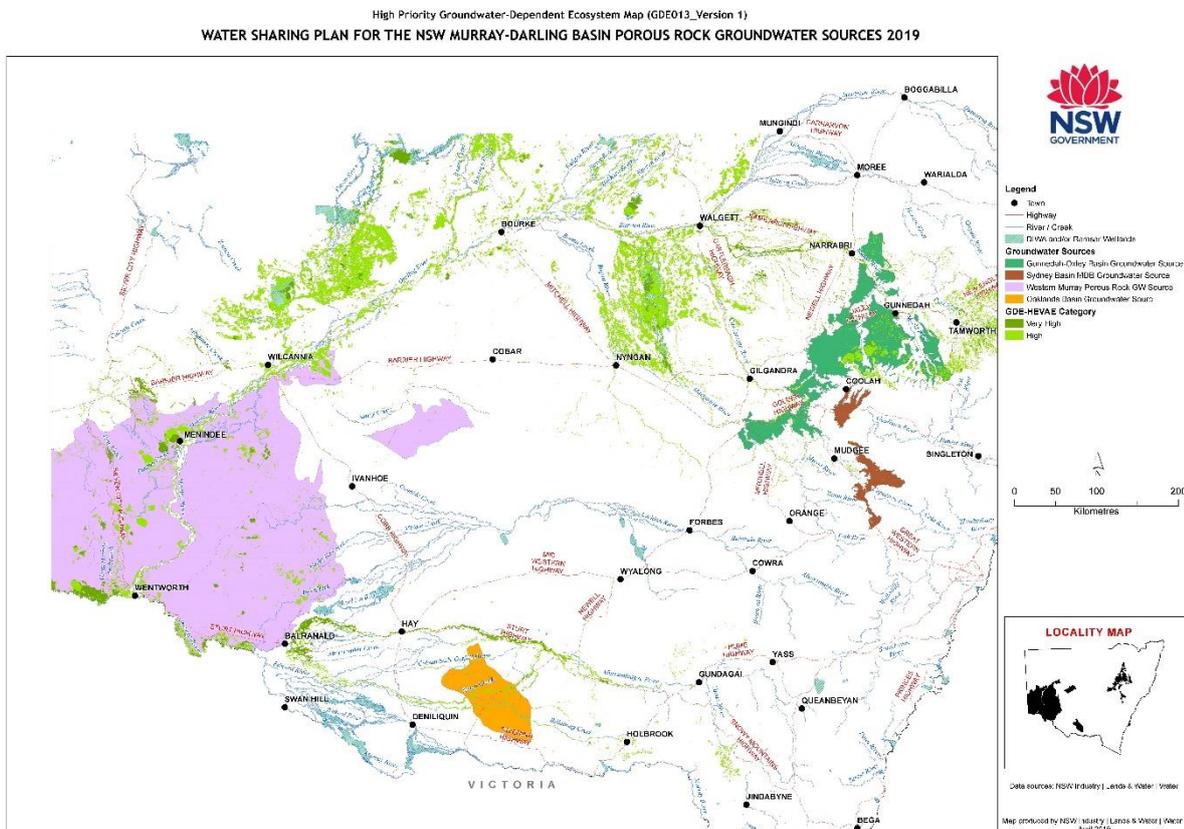


Figure 1. High priority, groundwater-dependent ecosystems of the Murray-Darling Basin Porous Rock

More information

The draft NSW MDB Porous Rock Water Resource Plan and other fact sheets are available from www.industry.nsw.gov.au/water