

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 and is available from: 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 Great Artesian Basin Shallow 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 setback distance rules for new water supply works (including basic landholder rights bores).

The proposed distances from a river will be:

- 40 metres from the top of the high bank of a river in the NSW GAB Surat Shallow, NSW GAB Warrego Shallow, NSW GAB Central Shallow – MDB and NSW GAB Central Shallow – North Western groundwater sources.

The proposed distances from a high priority groundwater dependent ecosystem will be:

- 100 metres in the NSW GAB Surat Shallow, NSW GAB Warrego Shallow, NSW GAB Central Shallow – MDB and NSW GAB Central Shallow – North Western groundwater sources if the work will take water for basic landholder rights only

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 NSW Great Artesian Basin Shallow 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 in consultation with the water supply work approval holder.

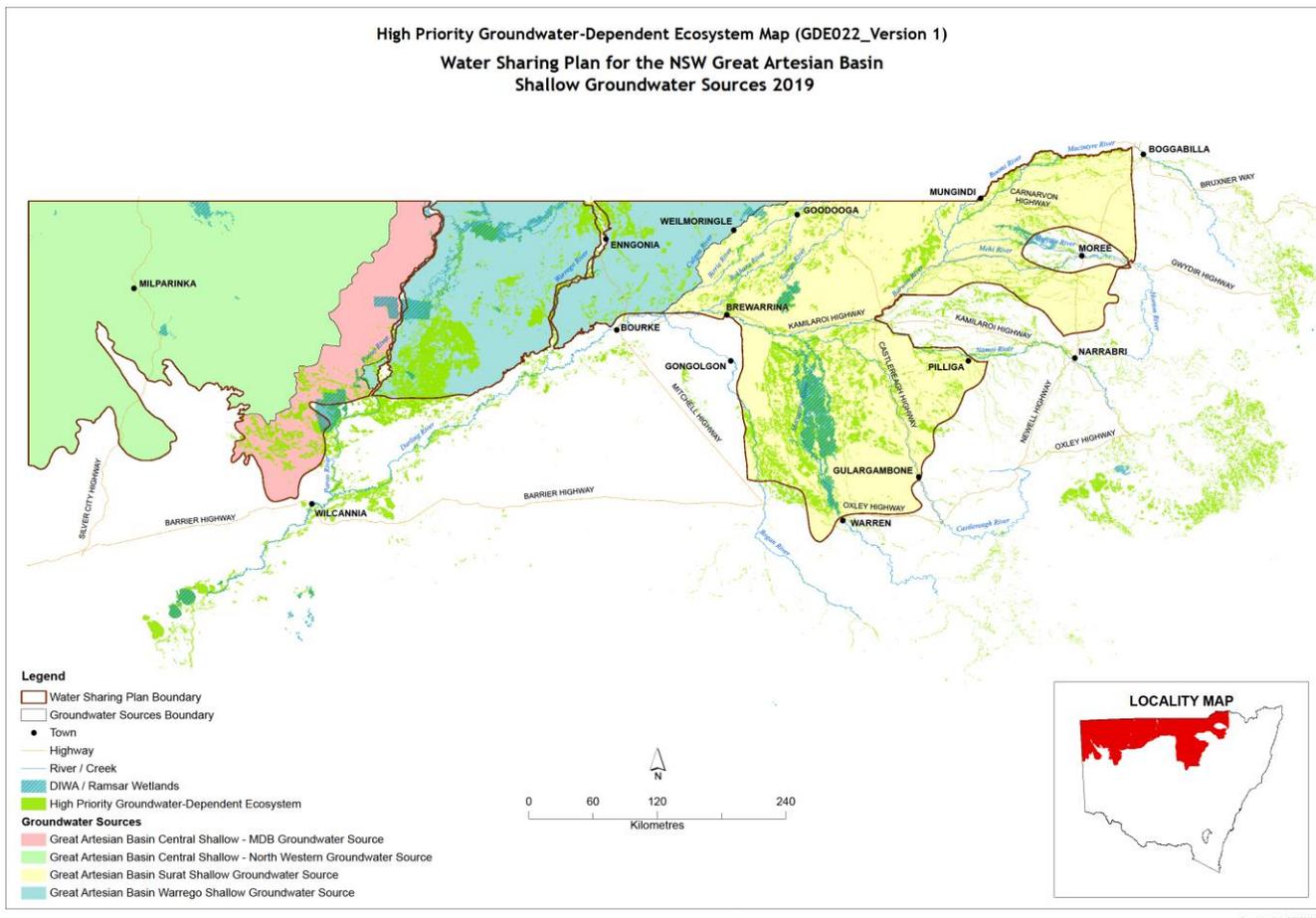


Figure 1: High-priority, groundwater-dependent ecosystems of the NSW GAB Shallow

More information

The draft NSW Great Artesian Basin Shallow Water Resource Plan and other fact sheets are available from industry.nsw.gov.au/water-resource-plan-consultation:

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