

The Great Artesian Basin Sustainability Initiative

The first flowing artesian well tapping the Great Artesian Basin (GAB) was drilled near Bourke in New South Wales in 1878. The first flowing artesian water bore was completed in Queensland in 1887.

By 1915, approximately 1500 flowing artesian bores had been drilled in the GAB, with the total discharge from the basin peaking at approximately 750 000 megalitres per annum. However, diminishing flows and pressures in the artesian wells was already becoming a concern.

Currently there are approximately 4700 bores tapping the GAB, which flowed when they were first drilled. Only 3300 of these bores are still flowing, with the remaining bores ceasing to flow due to pressure decline in the GAB. The flow from these remaining flowing bores still totals approximately 350 000 megalitres per annum, with up to 90 per cent lost through seepage and evaporation in bore drains. This waste of water is unsustainable.

The Great Artesian Basin Sustainability Initiative

The Great Artesian Basin Sustainability Initiative (GABSI) provides financial assistance to landholders to rehabilitate eligible uncontrolled bores and replace eligible bore drains with piped reticulation systems. This investment by federal, state and territory governments directly addresses water wastage in the GAB.

The Queensland Government has invested, with matching funding provided by the Australian Government,:

- \$16.1 million under GABSI Phase 1 (1999–2004)
- \$22.9 million under GABSI Phase 2 (2004–09)
- \$48.5 million under GABSI Phase 3 (2009–14).

At the completion of Phase 2 in Queensland, under GABSI and its predecessor programs:

- 563 uncontrolled bores had been rehabilitated
- 280 bores had their bore drains replaced with pipeline reticulation systems
- approximately 10 700 kilometres of bore drain had been shut down permanently
- approximately 170 000 megalitres per annum of flow from the GAB had been saved.

Bore rehabilitation

A Queensland Government subsidy of up to 80 per cent is available under the GABSI for the rehabilitation of eligible bores.

Through this rehabilitation of eligible bores under the GABSI, the Department of Environment and Resource Management (the department) addresses water wastage from uncontrolled bores in the GAB.

Bore drain replacement (piping)

A Queensland Government subsidy of up to 60 per cent is available under the GABSI for the replacement of eligible bore drains with a pipeline reticulation system.

Through the piping of eligible bores under the GABSI, the department addresses:

- water wastage (approximately 90 per cent of water discharged into bore drains is lost through seepage and evaporation)
- land degradation.

Environment and heritage

The GABSI has a Heritage and Environmental Management Plan (HEMP) in place that incorporates control measures to lessen the impact of projects/activities upon heritage and environmental values. The HEMP ensures that practices relating to the operation of GABSI projects will:


- ensure high-quality stewardship of resources and values
- minimise disturbances to resources and values
- comply with Commonwealth and state statutory requirements
- protect cultural and heritage sites (both European and Indigenous)
- preserve and/or improve resources and values.

The HEMP covers all on-ground works within the Queensland section of the GAB. It includes all bore rehabilitation, bore drain replacement works, and monitoring activities.

During the planning phase for GABSI works and activities, a review of environmental, cultural, and heritage values is undertaken for each property as part of the HEMP.

Cultural heritage

GABSI aims to recognise, protect and conserve Aboriginal cultural heritage as defined under the *Aboriginal Cultural Heritage Act 2003*.



Before the planning of GABSI works commences, a search request is submitted to the Cultural Heritage Coordination Unit to identify if there are known cultural heritage values on the property/ies involved. The landholder is informed of the results of the search, along with an explanation of obligations pertaining to the Act.

The Act states that a person who carries out an activity must take all reasonable and practicable measures to ensure that the activity does not harm Aboriginal cultural heritage (the 'cultural heritage duty of care').

Vegetation management

To address the requirements of the *Vegetation Management Act 1999*, GABSI identifies areas of concern prior to planning works commencing.


By identifying these areas upfront, the impact on important vegetation types and habitat can be limited.

More information

For more information on bore rehabilitation, see fact sheet W70—The Great Artesian Basin Sustainability Initiative—Bore Rehabilitation on the department's website <www.derm.qld.gov.au>.

For more information on bore drain replacement (piping) under the GABSI, see fact sheet W71—The Great Artesian Basin Sustainability Initiative—Bore Drain Replacement (Piping) on the department's website.

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For general enquiries contact the
Queensland Government call centre 13 74 68 (13 QGOV)
or visit www.derm.qld.gov.au