



Carmichael Mine Project Water management at the Carmichael Mine

Water is a precious resource and Adani is committed to its sustainable use in the construction and operation of the Carmichael Mine.

Like every other Australian mine, the Carmichael Mine's use of water is strictly regulated.

The sources of water the mine uses, and when and how much is used, is all detailed in the conditions and regulations set by the Australian and Queensland Governments.

These conditions and limits have been determined based on comprehensive scientific assessments as part of the approval processes for the mine.

Adani monitors and reports on its activities to sustainably manage its water use.



Fast facts

- The mine will not use water from the Great Artesian Basin (GAB).
- Safeguards have been put in place in case there is seepage from the GAB to the mine.
- Adani cannot take water from the Suttor River in drought.
- Adani can only take limited water from the Suttor River in flood after farmers and others users and Adani must pay commercial rates for any water used.
- A flood levee wall and 500m buffer zone on each side of the Carmichael River will separate the mine from the river.
- The mine has more than 120 bores to monitor groundwater quality and water levels.
- The Doongmabulla Springs are located more than eight kilometres from the mining lease and 11 kilometres from any active mining operations.

How is groundwater monitored?

New monitoring bores have been installed on the mining lease boundary to closely monitor groundwater.



One of the existing free-flowing bores in the project area.

Adani has also upgraded river flow gauging stations on the Carmichael River and Belyando River to continuously monitor water flows and water quality.



Groundwater monitoring will be regularly conducted at more than 135 sites to observe water levels.

Your questions on water answered

What do you use water for?

Water on site will be used for:

- Washing coal – some of the coal will be washed to increase energy efficiency before export
- Personnel use – in offices, the accommodation village and workshops
- Dust suppression – in production, water is sprayed on roads and stockpiles to minimise dust
- Vehicle washing including weed and seed management

Where will you source water?

- Rain water that falls directly on the mine site is captured in dams to prevent run off
- **Recycled water** – water that is captured on site is re-used many times over
- **Groundwater** - from local aquifers within the coal seams, not the Great Artesian Basin
- Water from the Suttor River when the river is in flood (classified by a flow rate of at least 2,592ML per day) and only after farmers and other users have taken the water they need
- The Belyando River is a temporary source, with water extracted during construction for a limited time

Your questions on water answered

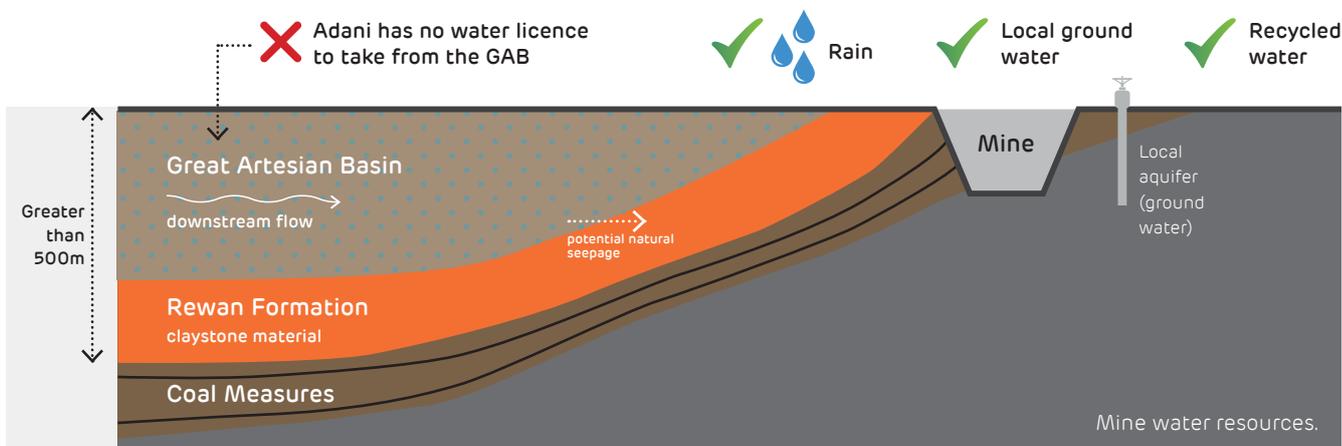
Will you take water from the Great Artesian Basin (GAB)?

No, the Carmichael Mine will not take water from the GAB.

The GAB is separated from the mining area by a layer of impermeable claystone. This claystone layer is called the Rewan Formation and is up to 300 metres thick.

A condition of the mine's approval is that Adani must offset any potential seepage at the rate of 730ML per year for the first five years of operations.

Under this offset program, there is an option to provide water savings through capping free-flowing GAB bores or lining the open channels previously made by agricultural users. Free-flowing bores were drilled over the last 110 years to extract water from the GAB for farming, town water supplies and other industrial uses. Until the 1950s these bores were often left free-flowing and uncontrolled and many remain so.

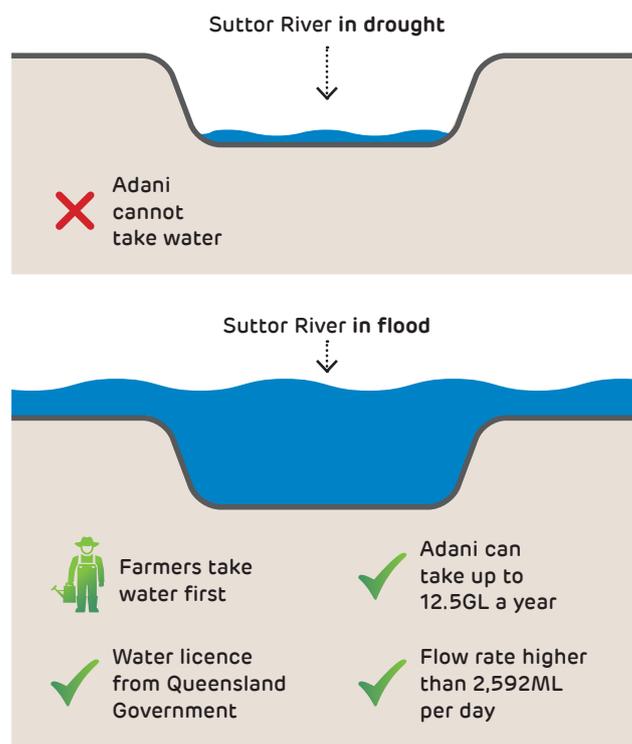


Will you take water from farmers?

Adani has a licence to take up to 12.5GL of water per year from the Suttor River when the river is in flood.

Adani can only take water after farmers and other users have taken the water they need. Like other industrial users, Adani has to pay for the river water it uses.

Adani has also established 'make good agreements' with surrounding landholders to protect their underground bores.



Your questions on water answered

What are the Doongmabulla Springs and where are they?

The Doongmabulla Springs are home to a variety of native plant and animal species that are dependent on groundwater from the Great Artesian Basin.

The Springs are more than eight kilometres from the Carmichael Mine boundary and 11 kilometres from any mine activity.

Adani undertook extensive scientific study to inform our approach to mining operations at Carmichael Mine, without impacting the Doongmabulla Springs or the species that depend on them.



The Doongmabulla Springs, September 2018

How will you protect the Carmichael River?

Stage 1 of the mine is located five kilometres from the Carmichael River.

A flood levee wall and 500m buffer zone on each side will separate the mine from the Carmichael River to protect the riverine environment.

How are you tracking your impact on underground water levels?

There are more than 120 monitoring bores to track groundwater levels around the mine. The information gathered in real time is reported to Adani and to regulators and informs a process of checking any actual groundwater drawdown impacts with early warning triggers.