Just like every other Australian mine, the Carmichael Mine is strictly regulated to ensure it uses water safely and responsibly.

The source of water that 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 set after comprehensive scientific assessments as part of the approval processes for the mine.

The mine must also monitor and report on its activities to ensure the way it uses water is sustainable.

**Water uses**

The mine will use water for:

**Washing coal** – approximately 30% of coal will be washed to increase its energy efficiency.

**General human use** – workshops, offices and in the accommodation village.

**Dust suppression** – water is sprayed onto roads and stockpiles to minimise dust to keep employees and neighbours safe.
Water sources

- **Groundwater** is extracted from in and around the mine to ensure safe mining. This will come from local aquifers connected to coal seams beneath the mine site, not the Great Artesian Basin (GAB). The mine is separated from the GAB by a natural underground layer of thick claystone, the Rewan Formation, which inhibits water from moving from between the GAB and the mine.

- **Rain water** that falls directly on the mine site will be captured in ponds and dams to prevent run off.

- **Recycled water** through water captured onsite that is re-used, many times over.

- **Suttor River** water that the mine will pump from the river can only be done when in flood, only after farmers and other users have taken the water they need, and only when the flow rate is higher than 2,592ML per day. The water licence allows the mine to take up to 12.5GL of water per year when the river is in flood. Like other industrial users Adani has to pay for the river water it uses.

Protecting local waterways

The Carmichael Project’s Groundwater Management and Monitoring Program (GMMP) is strictly regulated under a framework of approvals and management plans that are backed by six years of scientific environmental assessments.

Like all other mines throughout Australia, the Carmichael Mine will follow strict regulations and approval conditions to ensure we use water responsibly and protect local waterways.
Preserving the Great Artesian Basin

- The Carmichael Mine will not take water from the GAB because the mine and the GAB are separated by the Rewan Formation, a 250m -300m layer of claystone. Safeguards have been put in place in case there is seepage from the GAB to the mine. This potential seepage is predicted to peak at 730ML per year, if the mine was operating at full production of 60 million tonnes per annum. Phase one for the mine will operate at 10 million tonnes per annum.

- For more than 110 years, water has been extracted from the Great Artesian Basin (GAB) for farming, town water supplies and other industrial uses by drilling bores. Early in this period farmers would drill bores to provide water for their livestock and homesteads, in what were otherwise dry locations. Until the 1950s, these bores were often left free-flowing and uncontrolled.

- Since the 1950s governments have put regulations in place to protect the GAB, which requires all new bores to be fitted with headworks, like a large tap, meaning the flow can be controlled, turned on and off as required. However, some of these old bores still flow-freely.

- Adani will not extract any water from the GAB. However, to offset any potential seepage, Adani must cap free-flowing GAB bores previously made by agricultural users, at the rate of 730ML per year for the first five years – that’s 3,650ML of water in total, permanently returned to the GAB.
Fast facts

- The mine will not use water from the Great Artesian Basin.

- Adani is not permitted to pump water from the Suttor River when there is a drought.

- The Doongmabulla Springs are located more than 8km from the mining lease and 11 km from any mine activities. Adani must monitor and report to the government about the level of water in the springs. To protect the springs and its local species there are regulatory conditions that state that the water level at the springs cannot drop lower than 20cm.

- Safeguards have been put in place in case there is seepage from the GAB to the mine. This potential seepage is predicted to peak at 730 mega litres per year in the later years of mine life at full production. To offset this Adani must cap free-flowing GAB bores on properties in the region, at the rate of 730ML/year for the first five years – that's 3650ML of water in total, permanently returned to the GAB.

- A levee wall and 1km buffer zone will separate the mine from the Carmichael River to protect the riverine environment.

- The mine will have more than 100 monitoring bores to observe underground water levels. The information gathered will be reported to regulators and used to ensure the mine’s water use is safe and sustainable.

Groundwater monitoring will be regularly conducted at more than 100 sites to observe water levels.
Fast facts

The Doongmabulla Springs are more than 11km from mining activities and plans are in place to protect their ecological value.

11km is approximately the same distance from the Sydney Harbour Bridge to Bondi Beach

*Distance calculated by driving route on Google Maps


Adani is committed to protecting the Carmichael River.

Scientific assessments  
Technical studies  
Public consultations  
Reviews  

ENVIRONMENTAL IMPACT STATEMENT

Queensland Government  
Australian Government  

Environmental protection zone  
Flood levee protection zone

Flood levee protection zone  
Mine

Environmental protection zone  
Carmichael River

Environmental protection zone  
Flood levee protection zone  
Mine

To find out more about the Carmichael Coal Mine Project, visit www.adaniaustralia.com or call us on 1800 423 264.

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