

WATER MANAGEMENT

Whitehaven Coal is Australia’s largest independent coal producer and the leading coal producer in North West NSW. We believe in helping local communities grow and ensuring that benefits flowing from our operations accrue locally.

Of our over 2,000 strong workforce in NSW, around 75% live in the local communities around our operations and, since 2013, we have contributed more than \$1.5 billion to the NSW North West economy.

Good water management is a critical part of what we do, and we always seek to reduce, reuse and recycle water. While we are not a large water user in relative terms, we carefully manage our water allocations to ensure continuity of supply, including by recycling water through our washeries multiple times.

In FY18 our operations had total allocations of 9,978ML and we utilised a little over half of that allocation.

Severe drought conditions are placing pressure on water users right across North West NSW, including farms, towns and the resources sector – all of which are integral to job creation and economic activity.

The intensity of this latest drought has required many to rethink how water is accessed, utilised, shared and valued. It is essential all affected stakeholders continue to work with governments and water regulators to address the challenges posed by the drought.

As the largest employer in the region, Whitehaven is committed to ensuring the ongoing livelihood and prosperity of our 2,000 strong workforce and the hundreds of local families and businesses that rely on our presence. This means continuing to carefully manage and plan our water needs.

Water management in NSW¹

Three key agencies are involved in the licensing and compliance of water use in NSW.

The NSW Department of Industry sets the rules about how ground and surface water is allocated to a range of water uses, as determined by regional water sharing plans. Balancing a range of priorities, the Department aims to address the following objectives when managing water:

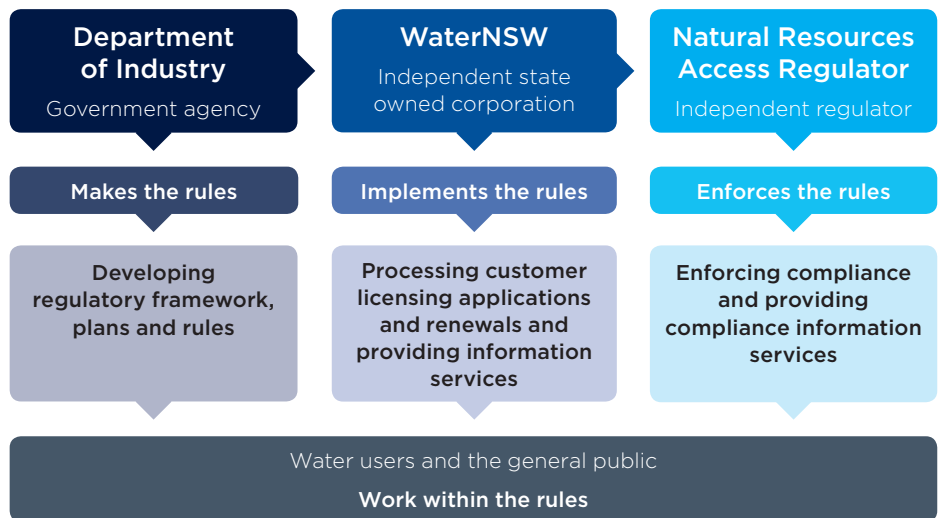
- Support jobs, economic growth, the environment, and our health and wellbeing
- Deliver efficient services with a focus on innovation, performance and affordability
- Improve the health of waterways and their catchments to support our environmental, social, cultural and economic needs and values
- Support the sustainable use of and access to water
- Enable farmers and all water users to achieve and improve water efficiency with the available water, while supporting regional communities to adjust to a changing climate

- Plan infrastructure that secures water supply and increases drought resilience across our communities
- Support the wellbeing of rural and regional communities who enjoy the recreational benefits our regional waterways provide.

Water sharing plans are set for ten years, and are developed by the NSW Department of Industry in consultation with the community. Water sharing plans set rules for water trading – the buying and selling of water licences – as well as annual water allocations. They provide certainty for water users while ensuring there is enough water to ensure long-term sustainability of water sources.

According to the Australian Bureau of Statistics, under these water sharing plans mining accounts for only 1.5% of water use in NSW, followed by manufacturing (1.8%), households (8.7%) and agriculture (70%).²

WaterNSW implements the rules set by the NSW Department of Industry; it supplies and seeks to improve availability of water for water users and communities. The Natural Resources Access Regulator monitors and enforces compliance.



Source: Roles of water management agencies in NSW, NSW Government, June 2018

Water licences

Water sharing plans determine how much water can be extracted over the long-term and how much needs to be set aside for the environment. Based on that area's water sharing plan, water access licences entitle the licence holder to:

- Specified shares in the available water within a particular water management area or water source
- Take water at specified times, rates or circumstances from specified areas or locations.

Anyone can apply for a licence through WaterNSW. There are various categories of licences. All licences are listed on the Water Access Licence Register maintained by the NSW Land Registry Service.

Water allocations

The volume of water licensed users can have is an *allocation*, and varies annually based on the licence category and size of a licence holder's individual entitlement under the licence terms. The annual allocation is known as an Available Water Determination (AWD) and depends on a range of factors including dam storage levels, river flows and catchment conditions.

At the start of each new water year on 1 July, water access licence holders are provided an opening allocation for each category. This can be between zero and 100% of their full entitlement.

The NSW Department of Industry looks at a range of factors when deciding how much water will be allocated to water users, such as:

- How much water is in storage and how much of that is carried over as unused water from the previous year
- How much water is expected to flow into storages from natural inflows over the forecast period
- The volume required to run the river, including end of system flows, transmission losses and evaporation losses
- Other requirements, including storage reserves and credits to environmental water allowances, where applicable.

The long-term sustainability of the water system is a key consideration in the AWD assessment, ensuring that no more is taken than can be sustained.

Water trading

In water sharing plan areas there is the ability to trade water access licences and water allocations. This means water users can buy licences (i.e. the right to a 'share' of the available water) and/or additional water (allocation); and those with licences or allocations can sell them if they don't want to use a licence or allocation that year. This process is facilitated and overseen by WaterNSW.

Water management at Whitehaven Coal

While we are not a large water user in relative terms, good water management is a critical part of what we do, and we always seek to reduce, reuse and recycle water.

It is important to note we look at our water allocations both at an individual site level and a Whitehaven Group level. Water purchases and where those purchases are used are two different things. Any purchases made by the Group can be allocated across our mines in accordance with the water sharing plan rules.

We recognise that water is a precious and scarce resource and that is why where we have surplus water we have periodically sought to share it with neighbouring landholders, as we have done at our Werris Creek mine, for example.

Water use at Maules Creek

The Maules Creek mine's primary external water source is a 3000ML High Security water licence from the Namoi River, which flows during high rainfall events and from Keepit Dam periodic releases. Other site water sources include rainfall into the pit and licensed groundwater allocations.

It is important to note we are permitted to store water in the open cut pit. We also intercept water as the pit progresses deeper; this is an anticipated part of mining operations and is accounted for in our management plans and water access licences. These are permitted outcomes over which NSW regulators have oversight. There has never been an instance of unauthorised aquifer interference at any of our mine sites.

At Maules Creek, water is stored for use and reuse in dams and at times in areas of the open cut pit. Water may be pumped from the dams to the pit for extra storage during dry periods, with the storage dams then being topped up with water pumped from the Namoi River.

On site, water is used to suppress dust, to wash the coal in the Coal Handling and Processing Plant (CHPP) and across other miscellaneous areas. Some water is lost through evaporation.

We recycle water used in the CHPP and add binding agents to control dust on designated roads, making more efficient use of water on site.

Water use at Maules Creek is monitored and tracked on site and on the Namoi River pump where the meter reading is checked by WaterNSW to monitor compliance against water allocation and water orders. Not only does the mine have meters on the transfer pumps, but the water levels in the storages are also surveyed to provide an additional layer of monitoring.

Fast Facts

Mining accounts for only
1.5% of water use
across NSW

In FY18 our operations had total allocations of 9,978ML and we used
just over half of that

1. <https://www.industry.nsw.gov.au/water>
<https://www.watnsw.com.au/customer-service/water-licensing>
2. Australian Bureau of Statistics, 2019, *Water Account, Australia, 2016-17*, cat. no. 4610.0
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4610.0Main+Features22016-17?OpenDocument>