



A BIG MISTAKE



New coal plans for NSW are **larger** than Adani's monstrous Queensland mine

There are now 11 contested new coal projects proposed in New South Wales poised to mine more coal and take up more land and water than Adani's controversial coal mine in Central Queensland.¹

In addition, a new coal seam gasfield threatens to open up a polluting industry that will put critical groundwater at risk.



1. Note: The eleven coal projects featured in this briefing are not the only coal expansion projects under consideration in New South Wales. The featured projects all face opposition from local communities concerned about their impacts on water, land and the social fabric of rural areas.

COAL



NEW MINES IN NSW:
75 million tonnes per year

ADANI'S COAL MINE:
60 million tonnes per year

LAND



NEW MINES IN NSW:
39,000 hectares

ADANI'S COAL MINE:
28,000 hectares

PEAK WATER



23.5

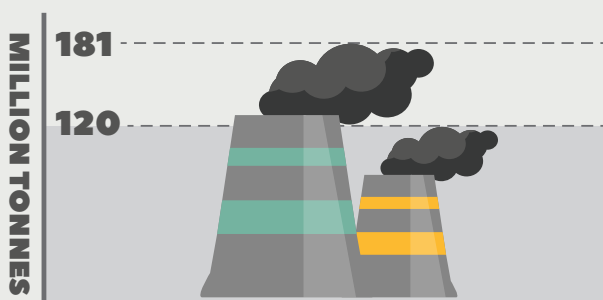
21.5

BILLION LITRES

NEW MINES IN NSW:
23.5 billion litres per year

ADANI'S COAL MINE:
21.5 billion litres per year

GREENHOUSE EMISSIONS THREAT



NEW MINES IN NSW:
181 million tonnes CO₂

ADANI'S COAL MINE:
120 million tonnes CO₂



IN THE NEXT TWELVE MONTHS, NEW SOUTH WALES FACES A CHOICE.

The state's strategic farmland and water resources are in jeopardy from mining proposals that would together do damage comparable to Adani's Carmichael mine in Central Queensland.

Taken together, eleven new coal projects threaten farmland, bushland and water supplies in New South Wales. Together they would extract more new coal than Adani's controversial Carmichael coal mine in central Queensland.

In coal volume, in the size of the landscape destroyed and the extent of the water demand, these NSW mines would be bigger together than Adani's controversial Carmichael coal mine in Queensland.

In addition, over the next twelve months, NSW will consider the largest coal seam gasfield ever proposed in this state. Santos are seeking approval for 850 CSG wells over 950km² near Narrabri in the State's North West. This proposed gasfield is three times the size of Penrith council area.

WHAT'S THE DAMAGE?

These mines and mine expansions would produce 75 million tonnes a year of coal, most of it thermal coal destined to be burnt in power stations.

They would occupy close to 39,000 hectares of land, including strategic farmland and critically endangered bushland. Some would impact the rivers and surround the major dams that Sydney and the Central Coast rely on for clean and plentiful drinking water.

Over the next twelve months, crucial decisions will be made about these mining projects.

Water demand at these mines would be 23.5 gigalitres of water per year.

The Narrabri gasfield would draw down a recharge aquifer of the Great Artesian Basin – an ancient water source relied upon by farms, businesses, households and communities in the west of the state. It risks contamination of surface and groundwater and will lock in high energy prices.²

² Climate Council of Australia 2017, Pollution and Price: The Cost of Investing in Gas, <https://www.climatecouncil.org.au/price-of-gas>



YOUR WATER AT RISK

The imminent NSW coal projects would together have annual water demand more than that of Adani's Carmichael coal mine. Three of them are in major drinking water catchments.

In the five major drinking water catchments that are specially managed to provide drinking water for 4.5 million people in Sydney, the Illawarra, Blue Mountains, Southern Highlands, Goulburn and Shoalhaven regions, underground coal mining is affecting the quality and quantity of water in the catchment. The 2016 Catchment audit, tabled in parliament in August 2017, warned:



"The cumulative, and possibly accelerated, impact of mining on flow regimes in the Catchment is likely linked to the increased prevalence of the current longwall methods of underground mining."



The Hume coal mine in the Southern Highlands would undermine the catchment of the Wingecarribee River which feeds Warragamba Dam. Dendrobium mine has already done considerable damage to the Special Areas of Sydney's catchment and is seeking approval for extensive further mining. And Wallarah 2 would undermine the catchment of the Wyong River, which supplies drinking water to the Central Coast.

In the Hunter Valley, mining is already causing considerable damage to water resources. Mine pits in the central part of the Hunter Valley already cover an area of 148 km² and have been estimated to be causing more than 2 metres drawdown below 123 km² of productive Hunter river alluvial aquifers.³

New mining projects would worsen this damage. The Bylong coal project would cause 10 metres drawdown of a productive alluvial aquifer currently used for irrigation and beef production.

The United Wambo project would worsen cumulative drawdown caused by a cluster of large mines. Drawdown of more than 5 metres is expected in the Wollombi Brook alluvium. Cumulative impacts from approved mining at Hunter Valley Operations, Mount Thorley Warkworth and Wambo mine will reduce the net baseflow to Wollombi Brook by more than half.⁴

The Narrabri gas project would drill through and dewater aquifers beneath the Pilliga Sandstone, a crucial recharge for the Great Artesian Basin. Experts have warned that the Pilliga Sandstone could be subjected to greater than 2 metres drawdown in some places.

The project would bring hundreds of thousands of tonnes of toxic salts to the surface that would need to be disposed of, bringing risk of contamination and leaching.

3 Mid Hunter Groundwater Study, 2015. Available here; <http://www.water.nsw.gov.au/water-management/water-sharing/plans-commenced/water-source/north-coast-fractured-and-porous-rock-groundwater>
4 Environmental Assessment for United Wambo. August 2016.

FARMLAND AT RISK

The eleven new mining projects would occupy nearly 39,000 hectares of land, comprising farmland, forests and water catchments.

In the Hunter region, some of this land is mapped as being strategic agricultural land. On the Liverpool Plains, mining is proposed next to the richest soils in the state.

In the Bylong Valley, a coal mine will directly open cut a floodplain. It is mapped to be part of the critical cluster of the Hunter thoroughbred breeding industry.

The Narrabri gasfield is proposed to mostly occupy the Pilliga forest, the largest temperate woodland in New South Wales. It's a beloved place of recreation and home to myriad threatened wildlife.



COAL PROJECTS IN NEW SOUTH WALES

Project	Company	Location	Type	Coal (Mtpa)	Land (ha)	Peak Water (MLpa)	Status	CO2e/year
Watermark Coal	Shenhua Energy	Breeza, Liverpool Plains	New Mine	6.15	4084	1539	Approved	
Vickery Coal	Whitehaven	Near Boggabri, Namoi Region	New Mine	7.5	4517	Unknown	Pre-EIS	
Wilpinjong Coal Extension	Peabody	Next to Wollar, far Upper Hunter	Expansion	13	1990	1270	Approved	
Bylong Coal	Kepco	Near Bylong, far Upper Hunter	New Mine	6	1160	2049	Assessment	
Wallerah 2	Kores	Central Coast Catchment	New Mine	5	4053	3987	Assessment	
West Muswellbrook	Idemitsu Kosan	Muswellbrook, Hunter	New Mine	15	8100	Unknown	Pre-EIS	
United Wambo	Glencore/Peabody	Central Hunter	New Mine	7.3	3269	5861	Assessment	
Hume Coal*	POSCO	Southern Highlands	New Mine	3	3474	2290	Assessment	
Mount Pleasant	Mach Energy	Muswellbrook, Upper Hunter	New Mine	7.5	3982	3144	Approved - needs time extension	
Rocky Hill Coal	Gloucester Resources	Next to Gloucester	New Mine	2	242	1100	Assessment	
Dendrobium*	South32	Sydney's Water Catchment	Expansion	3.3	4100	2263	Pre-EIS	
Total				75.75	38,971	23,503		181.8
Adani Comparison				60	28,000	21,500		120

NOTES

* The coal from Dendrobium and Hume will be steel-making, not thermal coal.

- Adani figures for land and water are drawn from 2013 Supplementary EIS. Adani CO2 estimate is from Individual Report to the Land Court of Queensland on 'Climate Change -Emissions,' Expert report of Dr Malte Meinshausen (climate change) for Land Services Coast and Country for (OL013; Exh 35). All NSW CO2 estimates use 2.4 factor of coal to CO2.
- Vickery land area is the area of Coal Lease 316
- Dendrobium water use and land area are indicative, being the current water use and land area of this mine, since the wholly new areas are roughly as extensive as the current area.
- Watermark land area is the disturbance estimate in the 2003 EIS
- Wilpinjong land area is the disturbance estimate in the 2016 EIS and the water use estimate from the same source

- Bylong land and water estimates are from the Department of Planning's March 2017 Preliminary Assessment Report
- Land area for West Muswellbrook is Assessment Lease 19. The mine is likely to occupy a smaller area within this lease.
- The land area for Wallarah 2 is the size of Mining Lease Application 342; the water demand estimate is drawn from Table 39 of the Main Report of the 2013 EIS
- Rocky Hill land area is ML application 446 and water demand estimate is taken from DPI water Sept '16 comment on the EIS.
- United Wambo water use estimate from the 2016 EIS and land area is the combined area of ML1572 and CL775
- The Hume area of land and volume of water used are drawn from the 2017 EIS
- The Mount Pleasant area of land is the area of ML 1645 and the water estimate is derived from Appendix E of the Environmental Assessment for Modification 3