

Russel Vale Coal Mine Expansion

08-12-2015

Russell Vale Review PAC

I oppose the expansion of the Russell Vale mine by Wollongong Coal Limited for the following reasons.

Water loss

The expansion will cause subsidence, cracking and water loss in Cataract River, Cataract Creek and Bellambi Creek and associated tributaries and also a number of upland swamps in the vicinity of the Cataract Reservoir. All of these features are an integral parts of the water catchment system which maintains Cataract Reservoir as a reliable source of drinking water in the Sydney Water system and indeed, along with Cordeaux Reservoir, the only source of drinking water for the Camden, Campbelltown and Wollondilly council areas.

Long wall mining and the expansion of the Russell Vale mine will cause water loss from the Cataract dam. It will do this because long wall coal mining removes up to 3m in depth of the coal seams over the entire region of the panel. This causes the Hawkesbury sandstone which lies above the coal seam layer to collapse and fracture. Other surface material also fractures and the water of the dam will leak into old mine workings and cause hitherto unknown water loss from the dam. This is unacceptable especially with Federal Government Policy for more immigration which largely expands the population of Sydney and the continuing increased demand for more water from our dams for residential use.

NSW Minister for Resources and Energy, Anthony Roberts, recognised that, "the Special Areas of Sydney's Water Catchment are the most sensitive and important areas for securing our drinking water supply."

The Illawarra Mercury reported: "The government has acknowledged the potential for cracks to form in the riverbeds of water-storing swamps and other sensitive areas of the Cataract Dam catchment area."

Modelling by the mine's own consultant, WRM, estimates the proposed mining may result in surface water base flow loss of up to 7.3 ML per day. This represents the equivalent of the average daily water consumption for 24,580 people. To put it another way, it represents the loss of the equivalent of the water consumption for all the residents of Russell Vale, Bellambi, Corrimal and Woonona combined. The Department of Planning cautions that this is a worst case scenario and is unlikely to eventuate; nonetheless it is affirmed as a possible scenario by the mine's own consultant so it cannot be dismissed.

The Cataract Reservoir at November 2015 holds about 87,000 ML and is at 89% of storage capacity, however this is not always the case. For example, less than a decade ago in the midst of a drought Cataract Reservoir held only 34,190 ML. At such times of low water availability a daily water loss of 7.3ML due to Wollongong Coal's mining would, over a one year period, represent the equivalent of 7.8% of the available stored water of the Cataract Reservoir. With climate change, more extreme weather events are predicted and there is increased risk of periods of drought. Consequently,

risking this level of damage to the Special Areas **would be negligent on behalf of the NSW government** and simply cannot be justified as “in the public interest”.

Possible Damage to Cataract Dam

The proposed expansion also risks damage to Cataract Reservoir itself. The area around and beneath the Cataract Reservoir is riddled with mines. The Federal government’s Independent Expert Scientific Committee found that a fault which dissects the area of the proposed new mining has potential to cause the leakage of the entire stored waters of the Cataract Reservoir through the labyrinth of mines and out through the mine portal in the Illawarra Escarpment.

The PAC’s February 2015 review found that the proposal was not able to be approved in its current form and stipulated that a panel of experts from relevant government departments should be formed to review the risk of the proposal. However, instead the DPE approved a panel mostly comprising consultants from the mining industry to review the risk. The make-up of the panel is currently the subject of a complaint to the Dept on behalf of Protect Sydney’s Water Alliance. The independence and integrity of the panel has also been criticised by the Office of Environment and Heritage (OEH). OEH expressed serious concerns that “the risk assessment for the longwall expansion plan draws conclusions where there is “no evidence”, applies subsidence modelling incorrectly, and wrongly describes irreversible impacts from mining as “short-term” and “reversible”.”

Multi Coal Seam Mining

I am opposed to multi coal seam mining which greatly increases the likelihood of earthquakes and subsidence issues. In the area of concern the Bulli and Balgownie seams have been mined (as shown below) and this proposal seeks to mine from the lower Wongawilli seam by long wall methods. Earthquakes are more prone due to the reduced the structural integrity of the strata. Any minor earthquake due to intraplate movement becomes greatly extended as the resistance of the strata to movement is lost. This is caused by lack of frictional resistance between the strata and bedrock along the mined seams and any collapsed long wall sections. Collapsed sections do not have the resistance of unmined regions. The Newcastle Earthquake of Thursday, 28 December 1989 was focussed at 11.5 km depth from the surface and below the depth of the coal mines but illustrates the capacity of Australia to suffer from intraplate earthquakes.



Beneath and around Cataract Reservoir is already riddled with coal mines. The grey lines in this image are the areas that have already been mined. The proposed new mines are in a third seam of coal beneath two previously mined seams. (Source: Proposed mining areas and existing workings, NRE No 1 Colliery Environmental Assessment, 14/11/2012, Fig 3.5)

Damage to Upland Swamps

The proposed long wall mining will damage the pristine upland swamp CCUS4 and will impart some damage to neighbouring swamps. This will occur due to the subsidence following the removal of coal from the panel. When the upper Hawkesbury sandstone fractures, the water in the swamp drains into the voids. This dries out the swamps and kills the upper living layer of the swamp which acts as a mat and holds it together. Once dead the mat disintegrates with rainfall deluges causing rills to form into devastating gullies washing out much of the sand of the raised upland swamp. This causes massive erosion. The swamps provide year round water release including through times of drought and responsible environmental management in a catchment would be to preserve them and stop the coal mining.

Adverse Impacts on Native Fauna

The water catchment is home to many threatened animals including the Southern Brown Bandicoot and the Giant Burrowing Frog. The mine threatens the Endangered Coastal Upland Swamps where the Giant Burrowing Frog lives. Like us, frogs depend on water to live. The lands of the water catchment should act as defacto conservation lands and not as an open cheque book for state governments to get short term revenue from coal mines with 40 year life spans as against water supplies which will last for thousands of years.

Flawed Economic Case

WCL claim that the project will bring in \$23 million in royalties to the NSW government. However there are problems with this figure:

Bizarrely, it is based on coal prices from August 2014. The expected royalty revenue is therefore inflated because both thermal and coking coal prices continue to fall.

There are a number of external costs that are not figured into the equation: the negative health impacts on the local community as a result of colliery operations and trucking; wear and tear on the roads from coal trucking; and, the use of the Wollongong City Council owned land at no cost for disposal of coal waste.

The mine is currently in Care and Maintenance mode and only about 60 staff are employed. Therefore the impact on the employment outlook for the Illawarra if this approval was not granted would be minimal. Moreover, as neither of Wollongong Coal's mines are currently operating the flow-on effects to the local economy if this proposal was not approved would be negligible.

Increase in coal extracted to 3 million tonnes per annum

Wollongong Coal proposes an increase in extraction from the current limit of 1 million tonnes per annum to 3 million tonnes per annum. In fact, in the past decade this mine has not approached 1 million tonnes per year. The average annual extraction has been around 200,000 to 300,000 tonnes. However even this level of production has resulted in considerable environmental impacts for the surrounding community. Noise and dust are ongoing problems. The trucking of coal along Bellambi lane results in negative impacts on the health and wellbeing of the residents in the vicinity. As it is so close to a residential area and the current low levels of production cannot be managed appropriately, the proposed increase is unworkable and irresponsible. It is farcical to suggest that the existing antiquated infrastructure at the Russell Vale Colliery could handle 3 million tonnes per annum and still meet modern environmental standards.

The current proposal is for 4.7 million tonnes of extraction over 5 years. There is no extraction plan for the additional 2 million tonnes per year of coal. Wollongong Coal has made it clear that they want to expand to West of Cataract Reservoir and the company also has a history of Modifications to approvals that have been criticised by successive PAC panels. An approval of increase to 3 million tonnes per annum leaves the way clear for further Modifications of the type criticised. The proposal should be rejected, but if it is approved, at the very least there should be no increase in production.

Infrastructure

The colliery has antiquated infrastructure that the prior “Preliminary Works Project” approval was intended to upgrade. However, WC and DoPE keep moving the goalposts, allowing months or even years to pass after updated infrastructure was required to be in place and then coming up with new – and inevitably cheaper – proposals that replace the original requirements. Meanwhile, the coal trucks are still loaded off the stockpile with tractors, the colliery roads remain dusty and unsealed and important flood mitigation works have not been carried out.

Stockpile

The proposal aims to increase the current stockpile of coal on site at Russell Vale from 80,000 to 360,000 tonnes. A 360,000 tonne stockpile would be 33 metres high, or as high as an 11 story building. This massive stockpile would be located just 225m from people’s homes and 500m from a pre-school. Coal stockpiles are major emitters of coal particulate pollution that is known to increase human morbidity and mortality.

The coal on site is not just confined to the official stockpile. Currently Wollongong Coal has approval for an 80,000 tonne stockpile on site. However in addition to this, the colliery has a stockpile of 120,000 tonnes of high potash coal[12] and keeps 200,000 tonnes of oversized coal in the Wollongong City Council owned “Emplacement Area” adjacent to the site. Thus, the current approval for an 80,000 tonne stockpile somehow enables WCL to keep 400,000 tonnes of coal piled on the colliery site. An increase to 360,000 tonnes approved stockpile may therefore lead to an actual quantity of 1,800,000 tonnes of coal on site. Russell Vale Colliery is in the most densely populated area of any Colliery that it has been compared to and it is totally unacceptable, not to mention dangerous to the health of local residents, to have these quantities of coal so close to a residential area.



The Russell Vale Colliery is in the most densely populated area of any colliery in the region, perhaps even in Australia. (Source: Russell Vale site, NRE No 1 Colliery Environmental Assessment, 22/09/2010, Fig 2.1)

Waste

The proposal makes no allowance for the waste generated by the colliery. Currently reject coal and rubbish is dumped on the Wollongong City Council owned "Emplacement Area" adjacent to the colliery. The current level of non-compliance with the Emplacement Area's coal dumping conditions and the risks involved for Council make this arrangement untenable. Because the waste system is not covered under the UEP, there is no allowance for waste included in the economic assessment. It should be pointed out that the Council receive no remuneration for the dumping of coal reject on their land and they will also have to bear the cost of upkeep and maintenance in the future. This is a huge liability for the Council and community.

Particulate pollution

The colliery is too close the residential areas, with homes bordering the colliery site on 3 sides, just 225 m from the massive stockpile and schools located just several hundred metres away. The

colliery is a major source of particulate pollution. A report commissioned by the company in 2012 calculated that Russell Vale Colliery emits 779 tonnes per year of particulate matter pollution (coal dust and particles) per year. The same consultant's study of emissions from Dendrobium colliery, just south of Wollongong shows that the Russell Vale mine's air pollution per tonne of coal extracted was 165 times greater than Dendrobium's.

It is well documented that coal particulate pollution increases human morbidity and mortality from respiratory and cardiovascular disease. In this day and age, Russell Vale is not an appropriate location for a colliery, and particularly not for a colliery that wants to expand given the Russell Vale Colliery is in the most densely populated area of any colliery in the region, perhaps even in Australia.

Trucking

The coal is trucked along Bellambi Lane, past people's homes onto the Northern Distributor to Port Kembla Coal Terminal. The mine proposes to increase production from the current 1 million tonnes of coal per annum to 3 million. With the current 35 tonne capacity trucks, transporting 3 million tonnes of coal would take nearly 86,000 truck journeys to the Port per year and approximately 242 return journeys per day (484 in total). This represents 32 trucks per hour both ways or one every two minutes or alternatively, one for every change of the traffic lights.

The suitability of the proponent

As a loss making company with a reported \$657 million shortfall in net current assets at 31 March, 2015 and \$371 million of net losses in the last two years, Wollongong Coal does not have the investment capital to follow through on its commitments to develop and safely operate the mine. The firm's auditors, Ernst and Young, note that the company's financial situation raises significant uncertainty that they will remain a going concern even over the next 12 months.

The report Risky Business: The shocking truth about the company undermining Sydney's water^[15] shows the company fails to pass five of the tests required to be judged a "fit and proper person" suitable to hold a mining licence in the state of NSW under Section 380A (2) of the Mining Act.

The Environmental Defender's Office, EDO NSW acting for Lock the Gate Alliance has in October 2015 written to the NSW Minister for Industry, Resources and Energy contending that Wollongong Coal is not a "fit and proper person" as defined under the Act and requesting an investigation and cancellation or suspension of Wollongong Coal's mining rights.

The majority shareholder of Wollongong Coal is the Indian company Jindal Steel and Power Ltd JSPL) which operates via a holding company in Mauritius. The Chair of JSPL, Naveen Jindal, has been charged with criminal misconduct, conspiracy and cheating in India.

The mine's technical capacity has been called into question. WCL had to cease operation at its Wongawilli Colliery in early 2014 when a roof collapse buried a multimillion dollar longwall mining machine. The company is yet to retrieve the machinery and re-open the colliery. More recently in November 2015, roof collapses at Russell Vale elicited a prohibition order from government authorities prohibiting further mining until the company "fixes its urgent problems with the integrity of its operations".

The company also has a history of non-compliances. As mentioned earlier, many of the items that are put forward as “commitments” in this proposal – for example, sealing the roads and carparks in the colliery site to reduce dust; flood mitigation works; and upgrade from 35 tonne trucks to 45 tonne trucks - were in fact commitments or requirements of previous approvals that were never honoured.

If substantial damage occurs to the water catchment and storage system of Greater Sydney as a result of this mining, it seems increasingly unlikely that Wollongong Coal will be around to fix the problem.

In conclusion the costs across so many areas of expansion of operations by WCL at Russell Vale far exceed any benefits to the community. There should be no mining in water catchments. Please act responsibly towards the water catchments and preclude coal mining within them.

Ian Hill