24/08/2019

Submission on Wollongong Coal Ltd's Russell Vale Underground Expansion Revised Preferred Project 09_0013.

I write to **OBJECT** to Wollongong Coal Ltd's Russell Vale Underground Expansion proposal (revised preferred project 09_0013). Further, **I ask that the proposal is finally rejected outright, once and for all, by NSW Planning.** In fact, a rejection of the project should already have occurred. It seems that NSW Planning is very concerned to protect the procedural rights of mining companies, but at the same time fails to uphold/enforce its own approval conditions and fails to uphold the law, thereby demonstrating a lack of concern for the wider community.

Why should community members have any trust towards the proponent or in NSW Planning processes and procedures aimed at protecting the environment and communities? NSW Planning has accepted applications and recommended approvals of mining projects by Wollongong Coal Ltd when this company has not met approval conditions of earlier project (e.g. Bellambi Creek realignment).

Why is it, that given the time limit for deemed refusal has passed for Wollongong Coal Ltd's underground expansion proposal according to the *Environmental Planning and Assessment Act (1979)*, that the proposal continued to remain as an active project and has now on public exhibition again in a revised form? Why is it that despite various WaterNSW and NSW government reports documenting a lack of knowledge and understanding of impacts of mining in the water catchment, that nonetheless numerous mining approvals have been granted and only afterwards, after the mining has occurred, it is discovered that more damage occurred than was reported in applications? Why is it that NSW government has not required environmental/social/economic assessments about proposals to be carried out by consultants engaged by government on our behalf and paid for by proponents, rather than employed directly by proponents? Why is it that NSW Planning does not apply the precautionary principle?

I assert that it is not only stupid and risky, but also morally wrong, in the context of dangerous climate change, to continue to approve any new coal mines in NSW (or in Australia). Personally, as an Australian I am not comfortable with telling individual men, women, children in our neighbouring Pacific Island countries that my current comfort (and desire not to think too much about things or to change) is more important than their lives, livelihoods and homes. I am also not comfortable telling Australian children that we adults now are going to trash their physical world and they can work out how to deal with the consequences when they are adults themselves – if they survive. We need to act to limit the extent of climate change NOW and as best we can. And approving this coal mine which produces both coking and thermal coals only will further contribute to the climate change problem. This project will result in an estimated 11,624,000 tonnes of GHG emissions through the mining and the burning of the coal. WE cannot afford this. Instead, as a community (and in NSW and Australia more broadly) we need to be shifting to renewable energy and coking coal replacements for steel production. There is enough coking coal already in the mining/production pipeline that we should leave all other coking coal (as well

as thermal coal) in the ground. We should use this time to transition. Some Scandanavian companies are developing fossil-fuel steel, currently at pilot-scale (HYBRIT). In Australia other small-scale research has identified various coking-coal alternative reductants in virgin steel manufacture. Now is the time for the Australian government to invest in and support innovation towards such research and commercialisation, as well as improving policies that support steel recycling (thereby avoiding need for a coking-coal substitute). Plan for a better future and invest in it rather than continue allowing coal mining.

The Revised Preferred Project replaces longwall coal mining with a *non-caving first-workings* mining system that retains pillars to support the roof. This is no doubt an improvement on the earlier longwall proposals, and this is the most important change offered by the proponent compared to their earlier proposals. The retention of the pillars is described as being *long-term stable* within the proposal. But what does *long-term* mean in this context? I performed a search of the term *long-term* through the entire 942-page proposal document to try to find out what *long-term* meant, but this term is not given explicit context anywhere. To my mind, *long-term* in the context of stability should mean at least 200 years.

On page 217 (p1 *SCT Operations Pty Ltd – Subsidence Assessment …) long-term stable* was mentioned in relation to the pillars. And I read the statement in the *Summary*:

> *The proposed mining layout based on pillars with a width to height ratio of 8 and 10 is longterm stable. The mining of these pillars is not expected to cause significant surface subsidence, significant interaction with the overlying seams or significant interaction with existing groundwater systems.*

Should I take their word for it? Why would anyone believe statements like the above, given the history of Inquiries (Dendrobium, Southern Coalfields, Thirlmere Lakes), NSW Chief Scientist/Engineer reviews, WaterNSW reports and audits, Height of Cracking report, current IEPMC investigations etc, which demonstrate that there is not enough known, and damages are greater and much more significant than expected.

But later, after elucidating the benefits of these wide pillars there is the statement on page 220 (p2 *SCT Operations Pty Ltd – Subsidence Assessment …*):

> *So, while there is considered to be some potential for additional subsidence movements if these areas of pillars are destabilised for any reason, this potential generally exists irrespective of the proposed mining.*

So, I might read this as, if there happened to be an earthquake, well then the pillars might destabilise leading to subsidence. This statement seems to use different mining methods as the reference comparison to mining with pillars, rather than **no mining** which I suggest is the appropriate reference comparison. I would find it very hard to believe that the risks of subsidences, fractures etc are greater with no mining at all, then they are with first workings mining with pillars. So why allow mining at all under the water catchment?

Then later on the same page, the statement:

> *Assuming the overlying workings are not required to be drained for mining in the Wongawilli Seam, any impacts of the proposed workings on groundwater are expected to be limited only to the immediate vicinity of the Wongawilli Seam and only in the area of the proposed mining*

What is the justification for assuming that the overlying workings are not required to be drained? What is the evidence for making this assumption? Why outline a best-case scenario rather than a worst-case scenario? What would be the consequences for groundwater if draining was required?

And then:

> *The proposed mining plan involves first workings within the DSC Notification Area for Cataract Storage Reservoir. This mining will require the consent of the Dams Safety Committee.*

Why not steer completely clear of the DSC Notifications Area? Then that was followed by:

> *Some ongoing low-level ground movement, mainly horizontal movement associated with previous mining, including the Wongawilli Seam longwalls, may still be ongoing. This low-level movement has potential to continue to cause perceptible cracking on Mount Ousley Road at the top of the ridge to the south of Cataract Creek and some compression on the road at Cataract Creek that may also be perceptible. This movement is a legacy of previous mining and is not expected to be influenced by the proposed mining. Movement is expected to continue irrespective of any further first workings that are developed in the Wongawilli Seam.*

So, as I understand it, previous mining of the area has caused damage that may be ongoing. But because this damage and ongoing movement is expected to occur now anyway, regardless of whether the current proposal proceeds or not – that is, the damage is done – we should consider rewarding the proponent with licence to do more damage. This argument is so flawed and reckless.

Moreover, while the high ratio of pillar width to height was mentioned several times in the proposal as confering *long term stability* and on page 223 (p5 *SCT Operations Pty Ltd – Subsidence Assessment …*) descriptions of square pillars (with dimensions) in retangular panels was provided, I did not find any more comprehensive description within the *SCT Operations Pty Ltd* section. Specifically, I did not find described the maximum excavated panel distances between these pillars. If it is not present in the report, then surely it is not just individual pillar strength that is important, but the spatial frequency of pillars within panels, and proportion of pillar width to panel width (unsupported roof distance) that would determine overall stability.

I kept looking for the meaning of *long-term*. Later on page 486 (p10 *Biosis*), the statement:

> *Long-term research indicates that vertical subsidence as a result of the extraction method is typically less than 20 millemetres; consistent with variations in surface levels observed in natural or seasonal patterns (Commonwealth of Australia 2014).*

Nothing else in the report appeared to provide any basis for the claims of *long-term stability* if pillars were employed. So I consulted the referred document Commonwealth of Australia (2014) *Background Review: Subsidence from coal mining activities.* This report focusses on longwall mining rather than bord-and-pillar or first-workings mining. However, it also refers to bord-and-pillar mining as providing stability in the *long term* without explicitly and specifically contextualising the period or the reliability and extent of data evidence. Clearly,

compared to longwall coal mining bord-and-pillar is much more stable and limits subsidence. However this report also notes that (pages 5-6):

> *While most attention has been paid to subsidence induced by longwall mining, all methods that result in a sufficiently wide area of unsupported roof strata can cause subsidence. The bord and pillar methods that dominated Australian underground coal mining up to the 1980s frequently generated subsidence, but it was generally less extensive than subsidence from longwall mining.*

So, clearly it is possible for bord-and-pillar to cause subsidence.

Moreover the proposed mining is likely particularly risky because a third seam of coal is being mined beneath two previously mined seams. Triple seam mining has little precedent and impacts are difficult to predict. Further, the proponent admits that instability in the overlaying old Bulli seam workings may cause pillar collapse and subsequent subsidence of 1 to 2 metres.

It is unacceptable for the NSW government to allow such risky mining in the water catchment for 5 million people of Greater Sydney in a time of drought. The mining will take place in the Special Areas of the Greater Sydney Water Catchment – areas that forbid public access because of their sensitivity and strategic importance - and up to the shores of the Cataract Reservoir. Further the mining infrastructure, such as access roads and vent shafts, will disturb and damage the catchment at a time when there is greater need than ever to protect habitats and ecosystems to help wildlife withstand climate change and habitat losses elsewhere (e.g. as outlined *Four Corners June 24, 2019 Extinction Nation:* https://www.facebook.com/abc4corners/videos/641598559677148/).

I ask that you outright reject this application from Wollongong Coal and commence a process to close the mine at Russell Vale permanently.

Thank you for considering my submission.

Deidre Stuart