

DENDROBIUM MINE EXTENSION SUBMISSION

Illawarra Coal's Proposed Mine Extension for Dendrobium:

I object to the Illawarra Coal's Proposed Mine Extension for Dendrobium. Project SSD-8194.

DENDROBIUM MINE APPROVAL AND THE CLOSURE OF THE BLUESCOPE STEELWORKS.

South32's brinkmanship about the closure of BlueScope Steelworks and the Port Kembla Coal Terminal has been nothing more than a premature exaggerated rant.

"The steelmaking industry is highly trade exposed, with Australian steelmakers competing against suppliers across the globe. Accordingly, maintaining low production costs are critical to the competitiveness and viability of the Australian steelmaking industry."

The proximity of the existing Southern Coalfield mines, including Dendrobium Mine, to BlueScope Steel's facilities at Port Kembla is a factor in BlueScope Steel's ability to make economically competitive steel. BlueScope has previously noted that without local metallurgical coal suppliers it may struggle to remain economically viable at Port Kembla".

This approval is only about the extension of Dendrobium Mine under the Sydney Water Catchments Special Areas using destructive long wall mining.

The viability of the Port Kembla Coal Terminal or the BlueScope Steel Works cannot be seen as an excuse to approve this destructive coal mine.

"Steel remains a fundamental material for a variety of construction and manufacturing industries, and domestic steelmaking is a strategically valuable asset for Australia's economic security and prosperity."

If South32 is so concerned about the closure of the Port Kembla Steel Works why do they sell the bulk of their coal product to other countries? Only 30% of Dendrobium's coal product goes to the Port Kembla Steel Works, the remainder is exported. If South32 is so concerned about Australia's economic security and prosperity, why aren't Australian resources being used only in Australia?

BlueScope Steelworks cannot be the primary metallurgical coal customer of Dendrobium when they only take 30% of the coal product. Where does the remainder of the product coal go?

Also why hasn't South32 offered options for keeping the Port Kembla Steel Works operating? The steelworks could still continue to be supplied by Dendrobium if it used a less destructive mining method. Maybe they could narrow their longwalls or even consider the use of Bord and Pillar, like Russell Vale. South32 needs to justify its reasoning for using such an aggressive and damaging mining method.

South32 is intending to mine 3C, 5 and 6 concurrently instead of mining them consecutively and maintain the supply to the steelworks for a longer period of time.

It should also be noted that Dendrobium has a mining approval for 4 more longwalls in area 3B and approval until 2030. The steelworks isn't going to close or face closure for another 11 years, if Dendrobium is managed correctly.

So therefore the only threat to the closure of the BlueScope Steelworks is South32's obstinate stance on mining method for its expansion proposal.

Liberty Primary Steel Whyalla Steelworks state on their website that in 2018 they entered into an agreement for Tahmoor to supply their metallurgical coal. Yet South32 says they supply Whyalla Steelworks and maintain Australia's economic security and prosperity.

South32 has not provided a breakdown of what their coal product is or where their product goes. How much coal product goes to BlueScope Steelworks and what product type? How much coal product goes to Whyalla Steelworks and what product type? How much coal product is exported and what product type? Their current document makes the case that Australia's economic security and prosperity is at risk but does not back it up with information.

BlueScope steel operates a coke make facility at Port Kembla and they often export coke to overseas customers. If this is the case, they are obviously obtaining more metallurgical coal than is needed to operate the steelworks. Therefore the security of steelmaking in Australia is not a major focus for BlueScope steel.

The continuing use of metallurgical coal in steel making is merely postponing the inevitable move to more sustainable and less polluting steel making processes. At some point in the not too distant future steel making methods will have to change.

I believe South32 has overstated their importance and have not reported the true situation.

CLIMATE CHANGE

The tide has turned on coal. The 2015 Paris Agreement sent a clear signal that the era of fossil fuels (in particular coal) is coming to an end. Around the world, evidence grows of the coal industry's steep and irreversible decline. Worldwide proven coal reserves would allow us to burn it for 110 more years. Yet if even a small fraction of this dirty, polluting ore is mined and burned, we have no chance to stay within 1.5 degree Celsius of temperature rise. Beyond this level of warming, many impacts of climate change become severe in some regions, including our own.

The coal industry would have us think we need this dirty product to meet growing demand for steel and energy. This is simply untrue. We can no longer listen to or believe these incumbent industries.

We can't wait any longer to break free from this coal addiction. We know that to prevent catastrophic climate change we need to move away from coal now and that climate policy requires that much of the world's reserves of coal remain unmined. The science is clear and action is needed now!

Australia needs to take responsibility for its mined and exported coal regardless of whether it is thermal or metallurgical coal.

The NSW Government has released the NSW Climate Change Policy Framework, which commits NSW to the aspirational objectives of achieving net-zero emissions by 2050 but does not offer any policy regarding transitioning from GHG emitting industries. While all over NSW Councils are declaring Climate Change Emergencies our State and Federal Governments appear to be sitting on their hands. We need a policy that addresses kerbing GHG emissions rather than reacting to its aftermath.

Carbon dioxide and other greenhouse gases are produced in NSW by the following top three activities or sources: stationary energy sources, such as coal-fired power stations (47 per cent); transport (18 per cent); and coal mines (12 per cent). All three can be attributed in some degree to the Dendrobium mine. Not to mention the emissions from the steel making industry.

Also on top of these GHG emissions from this mine, Dendrobium's mining area is under the Sydney Water Catchment and threatens our vital water resource. South32 has made no attempt to reduce subsidence or water loss by investigating alternative mining methods or mining layouts in this proposal.

It is time the NSW Government and the planning approving authorities started to act with determination and urgency. As a start the Dendrobium mine extension project should be rejected.

GHG EMISSIONS

Scope 1- 17,000,000 to 22,000,000 t CO₂-e (depending on proportion of methane able to be flared) emissions from the Proposed Expansion relate primarily from the combustion of diesel and release of fugitive emissions. Scope 2- 1,700,000 t CO₂-e emissions are those emissions associated with the production of electricity used. Scope 3- 237,000,000 t CO₂-e emissions will be generated by third parties who transport and consume coal products.

Total- 255,700,000 to 260,700,000 t CO₂-e

The employment of 500 people at Dendrobium potentially produces 260,700,000 t CO₂-e, which is 521,400 t CO₂-e for each employee. Can you imagine what would happen if everybody employee in Australia generated this amount of GHG emissions.

The recent Land and Environment Court decision to refuse the proposed Rocky Hill Coal Project included the environmental impacts of the project on the natural and built environment, which includes both direct and indirect environmental impacts (including indirect downstream (Scope 3) GHG emissions), the public interest, and the principles of ecologically sustainable development (ESD), particularly the precautionary principle and the principle of intergenerational equity.

Scope 3 emissions accounts for over 90% of the total emissions and South32 has totally discounted it or given it any consideration. I believe that that miner has to take some responsibility for the ore they dig out of the ground and the pollution that it can produce. They are directly accountable for its presence in the global market and its inevitable inclusion in the GHG global inventory.

South32 has not provided a breakdown of what their coal product is or where their product goes. How much coal product goes to BlueScope Steelworks and what product type? How much coal product goes to Whyalla Steelworks and what product type? How much coal product is exported and what product type? Therefore it is difficult to make the case as to where the Scope 3 emissions occur.

The Expansion documents mention flaring the fugitive mine gases but they have not investigated or discussed capture of the gas and its use to generate electricity. We are after all talking about a 30 year project.

There is no mention in the Expansion Project of the purchase of green energy. This type of acquisition brings about change to more sustainable energy production and to some degree may achieve carbon neutrality of the project.

NO RISK TOLERATED FOR OUR DRINKING WATER CATCHMENT

I believe that no level of risk is acceptable in Sydney Water Catchment Special Areas. Water is our number one priority and will become more so in the future. Our forefathers had the prudence to setting aside 16,000 hectares of land in the south to secure the Greater Sydney's water. This vision has proven fortuitous as drinking water around the planet becomes more scarce and valuable with the passing years. But this water catchment area for the greater Sydney area is constantly being threatened by climate change, drought, evaporation and now coal mining. I believe that nothing should threaten the Sydney Water Catchment Area, that this water catchment area should take precedence over everything else.

There is no necessity to find another industry to coexist in the Sydney Water Catchment area. The NSW Government seems insistent on finding a dual purpose for the catchment area when the prime purpose of drinking water collection is the most crucial use and should be the only purpose for this land. The purpose that the Government is promoting is underground coal mining that damages and pollutes this pristine vital area.

CURRENT DRINKING WATER SITUATION

Current overall dam levels currently stands at 49.9% and the Cordeaux and Avon Dams (that South32 intend to mine near) are currently at 41% and 49.5% consecutively.

NSW is currently in drought and more than 85% of the Greater Sydney's water supply relies on rain. The Kurnell Desalination Plant can provide up to 15% of our current water supply needs (or 250ML per day) but it comes at a cost; a cost of \$87 per Sydney Water customer per year in hibernation and \$125 per customer per year when operating. The Desalination Plant was switched on 27 Jan 2019.

The Greater Sydney area is currently on Level 1 water restrictions and will be increased to Level 2 when the dam levels go below 40%. These restrictions include both residential and businesses.

WATER LOSS

The IEPMC stated, *"Supported by its own analysis, the Panel concludes that in the case of Dendrobium Mine:*

- *water inflow into all four mining areas (Areas 1, 2, 3A & 3B) exhibits some correlation with rainfall, ranging from weak in Area 3B to strong and rapid for Area 2*
- *it is very likely that the high rate of influx is associated with a connected fracture regime that extends upwards to the surface*
- *it is plausible that an average of around 3ML/day of surface water and seepage from reservoirs is currently being diverted into the mine workings"*

also *"and a total mine water of about 7.5ML/day that responds to rainfall"*.

The capture of this rainfall is the whole purpose of the catchment area and if the water is lost during this period the purpose is moot.

A loss of 7.5ML/day during rain periods into past workings at Dendrobium, let's put that into perspective.

Based on the extraordinary high figure of 210L/person/day in Sydney, that is enough water for 35,715 people/day. That represents the equivalent of the average daily water consumption of all the residents of (HERE YOU NEED TO ADD A NUMBER OF SUBURBS IN YOUR AREA THAT IS EQUIVALENT TO 35,715 PEOPLE) combined.

The Economic Assessment Appendix L P44 states *"The Groundwater Assessment predicted the level of mine inflow of groundwater entering the Project underground areas in millions of litres per day (ML/d). In Area 5 of the Project, the Groundwater Assessment concludes that over the life of extraction in this area, an average of 12 ML/d of inflow would be generated, peaking at 18 ML/d in 2033 and 2037. In Area 6 of the Project, inflow averages 3 ML/d, peaking in 4 ML/d in 2047"*.

The Groundwater Assessment Appendix B P99 *"The overall conclusion is that Dendrobium Mine as a whole is likely to result in the loss of up to approximately 1300-1400 ML/yr of stream flow from the Cordeaux River catchment and a similar amount from the Avon River catchment (including the reservoirs)." That is 7.7ML/day and 36,667 people/day.*

South32 say they would pay \$100,000 for water diverted from the catchment into their mine but presumably only the approved mining period. The estimated amount of water diverted from the catchment is 2.8BL/Yr. At \$100,000 that's 0.0036 cents per litre.

These water licences have been in place for many years and when the concept was first devised the water take was probably relatively small. But now with these mega mining machines and losses of billions of litres of water a year the concept needs rethinking. It is time for a review of the whole water licence process and the permanent damage being wrought on our vital water catchment. (See below)

POLITICS OF COAL MINING

Today all types of coal mining are under pressure and the industry has lost its social licence.

The GHG generated by coal, for whatever purpose, is driving CO2 to unprecedented levels in the atmosphere. But the Australian mining industry is taking no responsibility global catastrophe and blindly continues on its destructive path. There are current alternatives to all coal related purposes but the industry stubbornly refuses to transition away from this polluting product.

The NSW Government has determined that the Coal State Environmental Planning Policy will take priority over all other planning instruments including the Water State Environmental Planning Policy. This is an extraordinary stance and directly undermines our water security. This situation becomes even more puzzling when the NSW Government allows destructive coal mining under the water catchment for the largest city in the driest inhabited continent on earth during a drought with escalating climate change. Surely in these more illuminated days the NSW needs to change its priorities to secure its water for an ever increasing population.

The NSW Government has always had a pro-mining stance. Of the coal mining applications made to them over 99% are approved in some form. With these daunting figures and the ever changing policies to accommodate coal mining interests, the community has lost faith in NSW Planning system and the planning process in NSW.

More specific to Dendrobium, the NSWwater website shows that South32 currently holds a water licence that allows water allocation rights for 4,037 ML/yr under 10WA118772 to extract water from the catchment area. This is reckless on the part of the NSW Government to allow such ridiculous water allocation rights; this is probably why the water ways in Australia are so depleted, unrealistic water take.

In 2015 a report from NSW Planning stated, *"The current total mine inflows were reported to be about 6.2 ML/d (2263 ML/year) following the completion of Longwall 10. South32 presently holds a groundwater entitlement of 1537 ML/year. South32 has confirmed that in September 2014 it acquired the rights to an additional 2500 ML/year through a controlled allocations release. However, the entitlement has not been registered by South32 with Land and Property Information and therefore to date a water access licence has not been issued"*. (Mining Impacts at Dendrobium Coal Mine Area 3B Report to Government Dec 2015 P11

It appears that when the mining companies exceed their water allocations they simply apply for an extended licence, as in the case of South32. There is no compunction on their part to operate within their allocation as it will be so easily extended. This process is not to the advantage of the people of NSW.

Water entitlements from licensed water extractions in the catchment in the Hawkesbury-Nepean and Woronora in 2010 were 11,351ML/yr but grew to 31,147ML/yr in 2016.

WaterNSW is responsible for managing access to water and ensuring water is shared equitably between the environment, farmers and industry. But a water licence doesn't give the holder the right to permanently damage the catchment. That water will be lost from the catchment for ever. We are not talking short term, like the life of the mine. The mining companies' water allocation isn't being drawn out of the reservoir or pumped up from a bore. They are physically damaging the vessel that the water is captured in and they don't take responsibility for that damage because they think they are blameless because they have a licence. No one has ever held them to account and when this foolishness is realised the mining companies will be gone.

When will mining companies be held responsible for that perpetual loss of water.

I think it is time for a review of the whole water licence process and not tolerate permanent damage. We are only the custodians of this water catchment; it is not up to this generation to decide what amount of damage, if any, is tolerable.

MINING APPROVAL PROCESS

At present the mining approval method in NSW appears to be blanket approval of a number of longwalls with a following Subsidence Management Plan and/or Extraction Plan approval. The problem with this type of approval

process is that the Subsidence Management and/or Extraction Plans are not exhibited or made available for community comment. This approval process is not transparent and fraught with possible corruption. The last Dendrobium approval was almost two decades ago and expressly allows mining in Areas 1, 2, 3A, 3B and 3C. That is a blanket approval for over 20 longwalls. This type of abusive mining approval should never happen again, given the destruction that has occurred to the catchment with this approval at Dendrobium. Longwalls should have planning approval incrementally to allow for a more robust community consultation process and a mechanism to keep NSW Planning honest. The Independent Expert Panel for Mining in the Catchment also *“endorses approving longwall panels at Dendrobium and Metropolitan mines on an incremental basis in the light of existing and emerging information and knowledge gaps that have the potential to jeopardised compliance with performance measures”*. This is an independent panel of respected specialist under the auspices of the NSW Chief Scientist.

Also this planning application is so convoluted.

SYDNEY DRINKING WATER CATCHMENT AUDIT 2016

The 2016 Audit of the Sydney Drinking Water Catchment has numerous insights into damaged caused by aggressive longwall mining.

“The auditors found that there was reduced water availability across the Catchment in 2013-16 compared to the previous audit period and the overall total surface water extraction has increased since the previous audit periods”. P13 For whatever reason there is reduced water available across the catchment, drought, climate change, higher transpiration or diverted water, it should certainly ring alarm bells. But given that there is destructive longwall mining under the catchment and Dendrobium only drains billions of litres of water from the catchment, I think I can safely say that the reduced water availability is predominantly due to coal mining in the catchment. As mining is the only direct manmade cause of this water loss the NSW Government should ensure that this threat is removed totally.

“The available data indicates that there has been a decline in the extent and condition of wetlands in some areas of the Catchment and efforts to rehabilitate wetlands that were impacted by longwall mining have been unsuccessful to date”. P14 The wetlands are damaged and drained by aggressive coal mining and then the miners will try to convince everyone that they can repair or rehabilitate this damage. The community and the mining industry know that rehabilitation of swamps and wetlands is fraught and futile but for some reason this worthless token is tolerated by the approving authorities. The proponent and NSW Planning agonise over post destruction management plans rather than take the precautionary approach and cause no damage in the first place.

“There was a significant increase in the area affected by uncontrolled bushfires during the audit period. Risks of bushfires and associated impacts to catchment health (e.g. soil runoff) are predicted to increase with climate change”. P14 After reduced water availability across the catchment the vegetation and the eco systems in the area have to change with sometimes dire consequences. The loss of water can directly be attributed to destructive coal mining. The access of mining personnel and consultants and the ongoing clearing for access and infrastructure bring in an added burden to fire management.

On the Upper Nepean River in 2007-10 there was 89.05ha burned but in 2013-16 there was an incredible 13540.01ha burned. The mind boggles to think what will happen this year with the drought.

“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”. P21 It is incredulous to think that 3m mining subsidence and seam to surface cracking would not be responsible for changing water flow, especially when it has been going on for decades. And now South32 are making application for a further 30 years of the same aggressive mining and NSW Planning are considering it?

“Surface water loss into mine workings has been confirmed by the Department of Planning and Environment in investigations to support determination of the most recent subsidence management plan for the Dendrobium Area 3B mine (NSW Government 2016)”. P21 We are now 3 years on and despite all the reviews, reports and adaptive management strategies the Dendrobium Mine is still the most destructive mine in the water catchment. There has been the Southern Coalfield Inquiry 2008, the Mining Impacts at Dendrobium Coal Mine Area 3B Report in 2010, the NSW Aquifer Interference Policy 2012, the 2016 Audit of the Sydney Drinking Water Catchment, the Height of Cracking Report- Area 3B in 2017 and then the IEPMC Initial report on specific mining activities at the Metropolitan and Dendrobium coal mines 2018 just to name a few. They have dismissed the ‘neutral beneficial effect on water quality’, the ‘precautionary principle’, the ‘threatened species conservation act’ and have applied

adaptive management, performance monitoring and peer reviews and still continue to destroy our vital water catchment.

The last report, the IEPMC Initial report on specific mining activities at the Metropolitan and Dendrobium coal mines 2018 came up with more of the same, more TARPS and triggers and maybe if we apply this formula this way. When are we going to stop and say enough, enough! Enough gambling with our vital water catchment! This is just not working!

"The impacts of increased infiltration, with potential for loss of yield may not be significant in wetter years. However, such losses could be significant in dry and drought conditions. The loss of surface water can also impact on bushfire severity, and thus the condition of upland swamps and their flora and fauna communities". P21 Water lost from our vital catchment at any time is concerning but it is felt the most when we are in drought, when climate change is upon us, we have water restrictions and we are paying for desalinated water to top up the damaged catchment.

NSW Planning and the approving authorities should listen to and take their direction from NSWwater. This is the reason there are different government agencies.

MINING APPROVAL NECESSITY

It is curious that South32 is applying for this approval at all.

They have an approved 11 years to run at Dendrobium, 1 approved longwalls in Area 3A, 3 approved longwall in Area 3B and possibly 7 approved longwalls in Area 3C.

Not to mention what South32 have at Appin/West Cliff. They are also investigating the North West expansion of the current Bulli Seam Operation at Appin/West Cliff that is located in a rural area, outside the Special Areas of the water catchment.

South32 appear to be rushing this approval through during the early part of current Liberals NSW Government term. There is no real need to do this, they 10 more years of mining ahead of them. This rushed approach is not good planning.

MINING METHOD OPTIONS AND LAYOUT

Wollongong Coal is investigating an alternative mining method at its Russell Vale mine that mines under the Sydney Water Catchment area, one that has no subsidence and no loss of water. If this is the case then clearly it is an acknowledgment that coal mining damages the water catchment.

Dendrobium mine has been operating for almost 19 years under their DA 60-03-2001 approval. It has had incorporated monitoring, triggers, TARPS, adaptive management for almost 19 years and it still continues to damage the water catchment with subsidence, pollute the water and drain water from the catchment at an alarming rate and still NSW Planning and South32 are considering another larger scale proposal using the same parameters. This boggles my mind.

20 years ago they started out with huge longwalls and for 20 years they have included all the bells and whistles possible and end up a destructive mine. Why don't they reverse the process and start small and get larger.

South32 in their submission has provided no alternative mining method options. They haven't investigated the pros and cons of different methods or mine layouts. The proposal has a consistent 305m wide longwall panel located side by side. The only concession they have made is to stop these huge longwall panels short of certain sensitive ground features. This of course achieves nothing because if the ground subsides 2.4m around swamps or creeks it merely isolates them and destroys their function. The setback distances are inadequate; a 50 or 100m setback is nothing when the overburden is 350m. Major built infrastructure is given 1,000m setbacks, why isn't the environment afforded the same security?

The adaptive management measures mentioned only include shortening longwall lengths but not widths. Stopping short of a swamp does not protect it if the supporting water and surrounding area has been compromised. Swamps cannot survive independently but only a total part of the catchment system.

"Project subsidence impacts on upland swamps and associated potential habitat effects would be offset consistent with NSW and Commonwealth Government policies." How can this occur, there are no 'like for like' suitable offsets that could compensate for the loss of swamps in the Sydney Water Catchment Special Areas.

This aggressive form of mining has to stop.

South32 has made no attempt to reduce subsidence or water loss by investigating alternative mining methods or mining layouts. They have just proposed this large cookie cutter destructive longwall mine with no justification or rationale. Given that Dendrobium has the highest water loss and surface damage of any mine currently operating in the Sydney Water Catchment Special Areas, I believe South32 should lift their game and offer genuine alternatives to protect our vital water catchment.

SUBSIDENCE

The predicted subsidences included in the Dendrobium mining extension document are absurd.

How South32 can even think that such damage would be tolerated is amazing. They were given a blanket approval almost 20 years ago and their ideology has not changed. Big longwalls, maximise extraction, make as much money as possible and don't care about the consequences.

We have come a long way in 20 years and we cannot allow this this level of subsidence and destruction in our vital water catchment areas.

The Independent Expert Panel for Mining in the Catchment (IEPMC) said *"this is reflected in 305m wide longwall panels, 87% areal extraction, vertical surface subsidence of typically 2.5 to 3m and a total mine water of about 7.5ML/day that responds to rainfall"*.

South32s current proposal reads much the same with 305m wide longwalls and vertical subsidence of 2 to 2.4m. We are not going to tolerate this degree of damage in our catchment.

WaterNSW submission to the IEPMC stated *"the implications of the surface-to-seam fracturing at Dendrobium Mine in terms of increased surface water losses and reduced long-term groundwater levels on the Special Area catchments are a major concern to WaterNSW. The Height of Cracking Report (denoted hereon as HoCR) findings have confirmed that subsidence from Dendrobium Mine is causing impacts greater than were predicted and approved"*. And yet South32 states in their proposal that

The IPM (incremental profile method) *"tends to overprotect the conventional subsidence parameters that is slightly Conservative where the mining geometry and geography are within the range of the empirical database"*.

Subsidence Report Appendix A P15

Why would they then recalibrate it to interlink with ALS (airborne laser scanners) when this data can be so inaccurate depending on terrain slope, density of vegetation and timing following initial subsidence.

"ALS surveys could produce DDEM maps with a detectability of approximately 5-cm over flatter and moderate rugged areas (slope < 20 degrees) and a detectability of within the nearest 10-cm over rugged terrain areas (20 degrees < slope < 40 degrees). However, extraordinary elevation changes in DDEM maps coincidence with cliff and landslide scarps should be interpolated with caution. The vertical accuracy of modern ALS surveys could vary from one decimeter to one foot (~30 cm) depending on the roughness of the terrain and vegetation coverage".

Geosciences 2018 Detectability of Repeated Airborne Laser Scanning... P15

Subsidence can also continue for a number of years after initial subsidence and can be influenced by ongoing mining in the area, particularly when it is as aggressive as what is occurring at Dendrobium. The proponent and the approving authorities should lean more on the side of the conservative with their predictions instead of trying to hone a finer line with subsidence.

THERMAL COAL

The proponent extols the virtues of metallurgical coal constantly in their Environmental Impact Statement but does not mention the other 50% of their coal product that is thermal coal. We have been informed by a member of South32 that Dendrobium produces millions of tonnes of thermal coal a year and that the mix is 50% metallurgical coal and 50% thermal coal. So it is not the miracle wonderful product it has been made out to be.

This thermal coal component is exported and will be burnt, no doubt for electricity. Burning coal emits toxic and carcinogenic substances into our air, not to mention GHG emissions.

It should be noted that Australia is the worlds largest export of coal. Australia: US\$47 billion (37.8% of total coal exports); Indonesia: \$20.6 billion (16.6%); Russia: \$17 billion (13.7%); and United States: \$12.2 billion (9.8%).

Australia and the mining companies should be held directly responsible for the GHG emissions that they add to the global inventory.

COAL WASH EMPLACEMENT

The ROM coal from dendrobium is processed at the coal processing plant at Port Kembla. The millions of tonnes of waste and reject coal from that process is then trucked up Mount Ousley Road to the White Cliff mine where it is permanently stockpiled in the Sydney Water Catchment Area. This project is approved under 08_0150 and is connected to the Bulli Seam Operations at Appin Mine and West Cliff Colliery.

For the Project to proceed to its full extent however, an extension of Project Approval 08_0150 from 31 December 2041 to 31 December 2048 would be required to allow for the continued use of the West Cliff Stage 4 Coal Wash Emplacement.

The Sydney Water Catchment Area is a vital piece of infrastructure for the people of the greater Sydney area, too precious to be used for stockpiling coal wash waste.

We ask that you reject this application from Illawarra Coal and commence a process to close the mine at Dendrobium permanently.

Thank you for considering this submission.

Regards