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OBJECTION TO PROPOSAL WALLARAH 2 COAL PROJECT APPLICATION NO. SSD – 4974

Dear Sir/Madam

Enclosed herewith is my submission in response to the second attempt by Wallarah Coal Project (KORES) to mine in the Wyong Jilliby Catchment. The original application by Wyong Areas Joint Coal Venture (WAJCV), Kores P/L, in 2010 was rejected by the previous NSW Government in March 2011 on grounds of unsustainability (ESD principles) and the Government's application of the Precautionary Principle. Nothing in the new application changes that concept as essentially it is a reworking of the previous application. I wrote back then in response to the CHIKAROVSKI WYONG COAL INQUIRY REPORT and part of that submission forms this response as the facts have not changed.

I was one of those landowners in the Little Jilliby area that was rejoicing over the fact that the State Government had rejected the Wallarah 2 underground mine in 2011. Apparently, Planning Minister Tony Kelly had signed the formal refusal of the mining application "due to unresolved concerns regarding subsidence, water, ecological and heritage impacts". I have read the latest proposal as well as the initial one. I wrote to Kerry Chikarovski back then about my concerns over the planned mining of the valley. I am writing to you this time to protest the re-engagement of the same parties with a longer report that only identifies the many problems of this development but does little to address them.

We are the owner of DP755271 Lot 236, located at 400 Little Jilliby Road. We reside above the LW6SW 7SW and 8 SW shafts. I have read the submission by Wallarah (Kores) and I am seriously concerned about the impact on my property. We are worried about the proposed coal mine and the long term effects on the water supply to the central coast, the impact of the mine on the flora and fauna of the area and the potential subsidence on our land. We are surrounded by the Wyong State Forest. Importantly, we are at the beginning of tributaries that form the Little Jilliby Jilliby Creek. The proposed development by KORES et al will impact my livelihood in this valley in the following ways:

In the review of this proposed coal mine, the panel from the Chikarovski era found that:

> "On the weight of evidence presented to it, longwall mining is likely to cause subsidence-related impacts within the water supply catchments associated with Wyong River and Jilliby Jilliby Creek."

As a landowner in the proposed area of mining, this causes great concern to me. Over the past several years I have invested considerable time and expense improving the pastures and crop carrying capability of my property. This has included working with the CMA to protect our waterways in recognition to the fact that the catchment area is important to the Central Coast. It worries me that the water supply could be jeopardized by coal mining.

As our property lies within the Little Jilliby Catchment area we will be directly and unfavourable affected by the proposed mining in the area. In fact, some of the tributaries to the water catchment start on our property. The river system around the property can be seen by the submission map 18 and the potential longwall shafts. This farm is used to raise livestock and crops and a deterioration of the water supply, as evidenced by other similar mining projects that have been undertaken and evidenced in prior studies would inhibit our ability to continue our livelihood. This is not acceptable.

On my property I have a myriad of assets that will be affected by the potential subsidence of land and the loss of water. A picture of just some of the assets can be seen below.

The subsidence would negatively affect:

- I have cattle requiring the water flow. This property is **not** serviced by town water. We rely on the rainfall runoff through the creeks. A reduction in surface water would not allow us to continue farming the land. A contamination of the water supply, notorious from the brackish output of mining would be just as bad. I am incredulous that in other mines the dilution of mine water using town water is considered treatment.
- I have dams that provide irrigation for the crops including wine and forage and animal consumption. This also includes the water for the house.
- I have fencing throughout the property that the report states this is at risk from the subsidence. This fencing has been put in at my expense over the past 3-5 years.
- I have bridges that would be affected. There are two on the property and three more that we travel on to access the lot within 2 km of the farm. Subsidence here would put my family

and employees at risk when using the bridges. Some of these bridges (3) have been replaced within the past year.

- I have a house that is up on stilt/support poles. You can see that in the picture above. The height at some corners is a full storey. Naturally any subsidence in this area will directly impact the safety of me and my family. I would hold those granting the authorization of this activity below the property as directly responsibility for any consequences from this activity since there is prior knowledge of the known dangers and risks. If the risks cannot be mitigated the economic consequence should not be the overriding deciding factor.
- I have tennis court which the report discusses can be affected. A lopsided court is useless.
- I have an in-ground swimming pool that again the report says there are risks. This worries me. A crack here would render the pool damaged and useless.
- We have two water tanks residing on the hill above the house. They would each hold approximately 25,000 litres. One is made from concrete and stores the household water. A subsidence here would mean we would have to leave the property as the government has not seen fit to attach the farm to town supply.

The maximum predicted total conventional subsidence tilt and curvature under our property is predicted by the report to be 2550 mm / 12 mm / 0.19, almost the maximum for the overall mine site. The report goes on to note that the maximum predictions do not include valley related upsidence and closure movements. We live in the valley. This study and or results should have been included to show our risks to you.

The report notes that longwall mining can result in increased levels of flooding or scouring of the stream banks if the mining increases tilt. We already face flooding in periods of high rain. I am worried that increased flooding would cut us off from the town. We already see several instances a year where the water can reach 1-2 metres above the road (which is in turn 2 metres above the normal creek water surface level) at our front gate.

I will not be the only one affected. A total of 245 houses (Append.H Page 130) will be impacted by subsidence from a conservative one metre to 1.6 metres throughout the mine area. A total of 755 Rural Building Structures will be impacted (Append. H >page 179) and 420 Farm Dams suffering subsidence to some degree (Append.H>page 187). As can be seen the projected damage inside the mining lease area would be catastrophic. The hinterland of the valleys are to be subsided 2.6 metres; Little Jilliby Jilliby Creek at the southern end is predicted to fall 2 metres; the main artery into the Jilliby/Dooralong Valley, Jilliby Road is destined to be subsided 1.75 metres in places, remembering that these valleys flood on a regular basis leaving residents isolated from all directions.

It is galling that the report dismisses surface cracking to such an extent. Despite noting that compressive buckling in the bedrock and dilation of the uppermost bedrock could occur from valley related movements, the report goes on to say that these cracks would be filled with water in times of heavy rain and then gaps filled by alluvial deposits. What rubbish.

The original report asserted:

> "the nature of the geology, geomorphology and depth of the coal seams make it unlikely that underground mining will result in a loss of surface water."

This comment gives me little comfort. In trying to determine the history of coal mining and the potential effects on my property, I have seen the following examples. Just within the Hunter Valley, there are

examples of damage to creek systems in the Hunter Valley associated with subsidence from longwall mining. Affected creeks include Eui Creek, Wambo Creek, Bowmans Creek, Fishery Creek and Black Creek. The damage caused from sediment, instability and even the complete loss of flow gives concern that the farming of the Wyong area and the safety of our water source could be compromised.

You will no doubt have seen the submissions in the past to the NSW Planning. In particular, the Scientific Services Section, Department of Environment and Climate Change in its conclusion of its paper "Ecological Impacts of Longwall Mining in the Southern Coalfields of NSW – A Review" wrote:

> "Surface cracking as a result of longwall mining subsidence can have a variety of impacts on riverine features or attributes (DIPNR 2003, ACARP 2001, 2002, Williams 2004, Booth 2006, MSEC 2006, Geoterra 2006, Krogh 2007).
>
> These include:
>
> □ Loss of surface flows or water levels (Increased frequency, duration and magnitude of drying aquatic habitats).
>
> □ Loss of aquatic or instream habitats (Complete drying of river pools or wetlands has occurred. The loss of these surface features is potentially irreversible in some cases).
>
> □ Loss of longitudinal connectivity (connectivity between pools is diminished via surface water being lost to the subsurface flows).
>
> □ Loss of water quality (Increased iron oxides, manganese, sulphides and electrical conductivity, and lower dissolved oxygen).
>
> □ Simplification of remaining instream habitat due to the growth of iron-oxidising bacteria which can also be seen as a rusty-coloured mass in the water.
>
> □ Release of gas into the water column.

Their conclusion includes that fact that:

> "Longwall mining in the Southern Coalfields of NSW can, if not well managed, have a significant impact on streams, swamps and aquatic dependent species (DIPNR 2003, Stout 2004, Galvin and Associates 2005, SKM 2007, Krogh 2007)."

How has the new report found differently in the face of such damming evidence and scientific fact? The proof of the loss of surface water supply is available to all on the internet as pictures of before and after effects and resultant total loss or brackish water seepage can be seen all over Australia.

Kores claim that there will be no effect upon the water supply due to impervious layers between the surface and the mine seam. Professor Phillip Pells, Senior Lecturer at the University of NSW dismisses these claims. Kores do admit to a so-called tiny loss of water rated at 2ml per day per square metre. This extrapolates over the whole mine area some 8 megalitres per day or 3000 megalitres each year once mining is complete. The

professional uncertainties characterised within the Kores submission paint a very tentative picture for protection of the coast's natural potable water supply.

The Wyong Water Catchment was protected under a proclaimed NSW Statute in 1950 (Gazette no 153 of the LGA 1919, 1950). The now extinguished Part 3a of the EPA Act overrode this Statute , so effectively the original protective measure should now be in place.

Some 300,000 people in the Wyong and Gosford LGA's rely upon the 53% of their potable water emanating from these critical valleys. Recently the completed $80 million Mardi-Mangrove pipeline was funded by the Federal Government specifically to transfer water from this system to the Mangrove Dam on the escarpment during flood rains. The valleys above this mine regularly flood as agreed in the proponent's submission.

In 1999 groundwater consultants, ERM Mitchell McCotter, found that transient pathways for water to travel downwards to the coal strata were evident and so bulk water would not be impeded on its downward path.

Again, we will not be the only ones affected by changes in water supply. Council shows the land use for the Wyong Shire Valleys. The table is faithfully reproduced below :

Agricultural Land use	Proportion (%)	Area (Hectares)
Pasture	88.10	8,814
Orchard	6.20	617
Turf Farms	2.70	268
Nurseries	0.30	30
Poultry	0.20	21
Hydroponics	0.02	2
Other	0.04	04

Source: WSC, 1999 - Update

The council goes on to describe the pressures on the area. They mention:

> ‘‘The stability and fertility of valleys soils is important for farming, natural bushland, and water quality. The Wyong Valleys Strategy identifies the environmental pressures due to farming and rural lifestyle development and considers major planning issues for the valleys, including guidelines for development in order to maintain water quality, landscape quality and the environmental values of the area…”

I worry that the pressures described by council will no longer be valid if the mines are allowed, the water system compromised and the farms allowed to perish.

. The Director-General's Requirements are extensive and in most areas Kores have failed to address these adequately. The proposal should be rejected outright as the long term damage to the coast's water,infrastructure , amenity and health is breathtaking. The addition of the result of burning this resource within the next 30 years has not been evaluated upon damage to the earth's climate and will be wholly condemned as the trend to reject fossil fuels gains momentum.

I have recently read the paper “Impacts of longwall coal mining on the environment in New South Wales” by the Total Environment Centre. Disputes abound, and yet we are contemplating another location for a mine. The economics of the projects cannot be assessed solely through the potential economics but also through the social and environmental impacts for generations to come. The table below attests to the concerns that I have to the effect that mining may have on our Valley.

Environmental Impacts of Longwall Mines in NSW

Mine	Region	Owner	Cracking/Draining	Pollution/Salinity	Cliff/Rock Falls	Major River	Creek or Stream	Supply Catchment	National Park/SCA
Tower	Southern	BHPB	Y	Y	Y	lower Cataract		Metropolitan	
West Cliff	Southern	BHPB	Y	Y	Y	upper Georges			
Appin	Southern	BHPB	commenced	commenced	commenced	upper Cataract			
Appin	Southern	BHPB	Y	Y		upper Georges	Stokes Creek		
Tahmoor	Southern	Centennial	Y	Y		Bargo			
Dendrobium / Delta (former Elouera)	Southern	BHPB	Y	Y	Y		Wongawilli Creek	Metropolitan	
Delta (former Elouera)	Southern	BHPB	Y		Y		Native Dog Creek	Metropolitan	
Metropolitan	Southern	Peabody	Y	Y	Y		Waratah Rivulet	Metropolitan	
Metropolitan	Southern	Peabody		Y		Hacking	Camp Gully Creek		Royal
Moolarben	Western	Felix	proposal	proposal	proposal	Goulburn			Goulburn River
Ulan	Western	Xstrata	Y	Y		Goulburn	Ulan Creek		Goulburn River
Clarence	Western	Centennial		Y		Wollangambe	Farmers Creek	Metropolitan	Blue Mountains
Angus Place / Springvale	Western	Centennial	Y	Y		Wolgan & Cox's	numerous	Metropolitan	Wollemi/Gardens of Stone
Baal Bone	Western	Xstrata		Y			Jew's Creek	Metropolitan	Wollemi
numerous	Hunter			Y		Hunter			numerous
Wollemi UGM	Hunter	Hunter Coal	Y			Hunter	South Wambo Creek		
	Hunter		Y	Y		Hunter	Bowmans Creek		
Wyong Proposal	Newcastle	Kores Australia	proposal	proposal	proposal	Wyong	Jilliby Creek	Central Coast	Jilliby SCA
West Wallsend	Newcastle	Xstrata	Y	Y			Diega Creek		
Caroona Proposal	Gunnedah	BHPB	exploration	exploration		Namoi (& major aquifers)			

Fossil fuel is being phased out globally except in the Dooralong Valley it seems. The approval of this mine would directly affect my family and their well-being. It will also affect my ability to farm in this valley. In viewing this proposal, the Director-General's Requirements are extensive and in most areas Kores have failed to address these adequately. The proposal should be rejected outright as the long term damage to the coast's water, infrastructure , amenity and health is breathtaking. The addition of the result of burning this resource within the next 30 years has not been evaluated upon damage to the earth's climate and will be wholly condemned as the trend to reject fossil fuels gains momentum.

Regards,

Alastair & Beverley Sloan