

**Executive Director
Resource Assessments and Business Systems
Planning Services
Department of Planning and Environment
re Hume Coal Project EIS SSD 15_7172**

Dear Sir/Madam,

My name is Michael Luscombe.

In partnership with my wife Karen, I own and operate a farm located at 331 Golden Vale Road Sutton Forest. Our main enterprise is backgrounding (fattening grass fed beef), by which we aim to deliver 25-30,000kg live weight per year to the market.

We, in the ordinary course of business, use many local suppliers of contract harvesting, livestock agency, livestock transport, the livestock exchange, veterinary services, grounds and pasture maintenance, agricultural machinery supply and maintenance, fuel supply, irrigation equipment, feed merchants, tree nurseries, farm equipment and hardware retailing, plumbing, building, fencing, electrical, vehicle maintenance, etc. These businesses rely on the many viable agri businesses in the region.

Our property is significantly improved with past investment in improved pastures, lucerne production, extensive electrified fencing, extensive shedding, modern cattle handling yards, and a network of wildlife corridors with hundreds of trees planted. We have a bore fed water reticulation system for cattle troughs, vegetable gardens and orchards. Our one small but useful dam is spring fed from an adjoining property. Investment has also been made in farm roads, solar power and wind driven water reticulation.

We aim to be as organic as possible with no chemical weed control or inorganic fertiliser used on the pastures.

The water produced by our bore is essential for the running of our farm and providing fire protection if needed.

Our farm is also used by our direct and broader family and friends as a wonderful, healthy place to spend time away from city life. For Karen and I, however, the sinister shadow of POSCO (Hume Coal) has been both a huge financial and emotional battle to safeguard our lifestyle, investment and family legacy, something all of our neighbours share.

Put simply, losing access to our groundwater will mean the end of our farm as we know it today.

I also am currently President of Sustainable Southern Highlands Inc., a not for profit association set up with a charter to support, by funding scientific research, a sustainable environment, economy and community in the Southern Highlands. SSHI has funded many of the scientific papers and their peer review that will be presented to you by community groups to opposed to the POSCO (Hume Coal) mine.

In a past life I was a senior executive then CEO of a top ten Australian listed company. In all our deliberations on large and small capital investments, all stakeholders in the company, including the communities it traded in, had to be considered - some call it the triple bottom line. Above all, the risk of damage to any of the stakeholders had to be in front of mind, with many iterations from the best to the worst outcomes tested and assigned probability. The underlying assumptions had to be tested for both veracity, relative value and likelihood.

Even then, once decisions were made with the best possible modelling and planning, there were a range of real world outcomes from highly successful to failure, with the vast majority, due to the rigour of the modelling, being positive investments. The cost of failure was usually restricted to financial loss to the company and its shareholders and a dent in its reputation.

POSCO (Hume Coal), in its EIS, has provided such a positive picture of its operation and its effects on the community, economy and environment it beggars the question as to why the entire Australian continent is not turned into one giant pine feather coal mine such are the benefits.

There are six major red lights that are apparent to me with the scenarios proposed in the POSCO (Hume Coal) EIS:

1. in the range of possible outcomes they have consistently used the most favourable case (with the exception of coal prices), without reference to a range of possible outcomes and their probability. Subterranean hydrology, geology and climate prediction are far from the exact sciences they showcase in the EIS.
2. there is no exhaustive examination of risk in their case, in particular, the compound risk of failing to miss any of their outcomes that underpins another assumption.
3. there are many examples of selective, unrepresentative, missing and blatantly false use of data to support their basic assumptions in geology, hydrology, water balance, local climate variations, engineering, rail traffic, water and air pollution, the local economy (particularly tourism), local land

and water usage, heritage, community acceptance, community wellbeing, net employment, mine economics, etc. I am sure these will be adequately highlighted in the aforementioned scientific papers.

4. POSCO (Hume Coal) locally has demonstrated by their words and actions in this community that they cannot be trusted. Bullying of landholders, vexatious legal action, extremely low flying aircraft over private property without notice or apology, failure to meet commitments to the community (water study presentations, cancellation of public and Water Advisory Group meetings, failure to contact landholders and local businesses after sending correspondence saying they would do so, and lately, presentations where objective questioning was denied.
5. POSCO internationally has a well documented history and on-going reputation both in in South Korea and elsewhere of bribery, corruption, environmental vandalism, human rights abuses and other unwanted corporate behaviour. They cannot be trusted, they have demonstrated by their consistent behaviour that they have no conception of a triple bottom line, merely a single bottom line - theirs.
6. the EIS has no reference to the locally developed and owned masterplan for the future of the Highlands lead by the Shire Council and supported by local business and community groups. A coal mine is not part of that plan.

What follows from the preceding points is that if any number of the underlying assumptions in the EIS are not satisfactorily verified, then there is a risk that environmental and economic outcomes presented will not be met. The risk of failure just a hit to the bottomline of POSCO and its shareholders (I omit corporate reputation because its clearly not important to them), nor to the paltry State royalties this mine purports to deliver, but a permanent catastrophic destruction of our water supply and hence our environment, community, and economy that rely on that water.

1. if the impermeable interburden existence and porosity of the sandstone assumptions are incorrect, the water make will be much greater than reckoned, destroying one of NSW's most productive and pristine aquifers. Local bore data show little or no interburden, only sandstone conglomerate directly above the coal and beneath the sandstone. Bore flows of up to 50 litres per second are on record locally. There is no evidence that the porosity and flow rates through the Hawkesbury sandstone varies with depth.
2. no or little impermeable interburden will mean permanent pollution of the same aquifer with slurry injection that will contain harmful elements from the coal washing facility that has no water treatment plant.
3. there is a risk of permanent (not just a mere 70 years) loss of access to groundwater for local farms and businesses. The EIS presumes that the hundreds of bores that landholders outside the lease area that will be

affected by water drawdown should be totally ignored. Make good for the “lucky” 71 landholders in the lease area by bore redrilling, direct piping or truck delivery of mine water is not practically viable from a farm joint of view. There is no proposed warranty on the quality and safety of water delivered from the mine without a water treatment plant, nor from a bore drilled into a polluted aquifer. Local experience from the now closed much smaller Boral coal mine had bores redrilled to 180 metres with no restoration of flow. Pivot irrigation will not be possible.

4. there will be commuter rail disruption. The main southern line already has a poor reputation for commuter service. Adding 8 coal train movements a day to this line within the confines of the curfews on rail at both ends and the ability of the Unanderra line to reliably carry heavy rail will only add to the challenge of commuters to get to work on time.
5. road maintenance costs to the shire will rise, traffic incidences likewise as the prevalence of heavy vehicle movements are ramped up with the mine development.
6. if the wind predictions are erroneous, there will be inevitably dust and rain water collection pollution for Sutton Forest and Berrima families. On our farm we regularly experience extreme wind from the south and west that would defy any efforts to suppress dust from ore and spoil storage piles. A young local business man from Berrima moved his family and window/roof cleaning business from the Hunter Valley because he feared the health consequences of the black film of coal dust he invariably found on the windows, roofs and guttering of his clients.
7. there will be a slow death of the tourism, viticulture, equine, agricultural industries and their workforces, along with their associated service industries. They all require unfettered access to clean water, clean air and a green vibrant ecology. The EIS vastly misrepresents the number of tourism based businesses in the region by misleadingly using only those with accommodation and selectively reporting only those in the sector to the north and west of the Hume Freeway. Tourists come to the Highlands for the clean air, green countryside, wineries, food experiences. Coal dust on the wedding dress in front of a lacklustre garden and half empty water feature doesn't make for a great photograph.
8. there will be a net employment loss in the region. The region currently has low unemployment amongst adults. This will rise as businesses that rely on water and those that service those businesses will reduce their activity and hence their employment. Any jobs at the mine during construction and in operation mode will come from outside the region drawing from experienced workers from the shrinking coal industry. No attempt has been foreshadowed to help with the high youth unemployment in the region.
9. there is a high risk of death and injury in the mine if the concrete shutters fail under 15 atmospheres of pressure whilst being anchored in coal, particularly if they happen to breach a fissure. Bores that have been drilled locally into fissures have had immense flow rates. Without the

necessary drilling along Golden Vale Road in particular, POSCO has no evidence of where these fissures exist.

10. there will be destruction of property values and decreasing rate income for the Shire. Property valuations have already dropped by 30% (excluding the farm properties bought by POSCO under the cloak of a bogus pastoral company). Some properties have now been for sale for over four years with no takers.
11. there is always a risk of sudden closure of the operation (as seen elsewhere in Australia and internationally) causing chaos to the local economy. The continuing operation of the mine is always at the whim of a Board in Seoul, and the vagaries of the minerals market.
12. there will absolutely be continued deterioration of the mental and physical health of our community as they watch the stealthy destruction of their past efforts and their future dreams with no compensation. A "yes" decision or a "maybe" decision that carries on for years will be the final straw for many long suffering residents.
13. any lowering of the water table may lead to loss of native habitat. The last remnants of the endangered Southern Shale Forest that have been rigorously protected by landholders, with many of the species replanted in windbreaks and wildlife corridors. All will suffer in drought years with a lowering of the water table. The north south Highlands koala migration corridor is believed to run through the lease area as are platypus breeding grounds. No definitive study of the effect on stygofauna present in the aquifer and their potential loss has been presented.
14. if subsidence does occur, it may compromise the fabric of heritage buildings in Sutton Forest and Exeter. If subsidence occurs under the main north-south arterial road connecting three capital cities, the economic cost of freight disruption will be widespread.
15. if the mine is not as productive or profitable due to cost and capital overruns, or the coal product mix moves to a higher thermal content or some basic assumptions in the business case are not met, the result is Federal company tax is negligible if not zero, and State royalty revenues are minimised.
16. under-predicting rainfall by selective use of historic weather data or underestimating water make means the mine will require a larger retention dam and/or a water treatment plant to enable the lease of water into Olbury Creek. Given the cost of a large scale water treatment plant of sufficient capacity to guarantee no loss of water quality as a minimum, the capital return economics and the business case will be under threat. In the interim, while the plant and or dam is being built, excess water pumped into Oldbury Creek will ultimately pollute the Warrangamba Water Catchment.
17. the local area has a poor record for continuous grid power, particularly in our frequent high wind events. Outages have stretched in the past year alone to as long as four days in duration. Adding a much larger customer to the local grid will further stretch our grid supplier to maintain power,

critical to most landholders to drive bore pumps, household water pumps and electric fencing.

18. If Hume Coal cannot purchase the required water licences that they require to proceed, even based on the unbelievably low water usage they claim to need, the project can't proceed. The Nepean Water District covering the exploration area has presently the available water resources fully utilised. The 60% of the of the required licenced water that POSCO (Hume Coal) state to have purchased, will fall to a much lower percentage of that required if their water make/take predictions are proved to be incorrectly conservative.

There has been no been no serious attempt to quantify the many costs to the local economy and community in this paper, or even a robust description and sizing of the existing economy.

Published international papers on the overall economics of mining in a community, taking in both the overt and obvious revenue and cost streams, as well as those the mining corporations (and often naive governments) choose to overlook on the cost side, are unilateral in their findings. The shareholders of the miners (most often not citizens of the country mined) are the winners, but the net benefits to the State and community are invariably hugely negative economically, putting aside the health costs to its citizens and the permanent destruction of their environment. Around the world, communities are facing immense rehabilitation costs from abandoned mines, mined by large corporations that promised to make good or better and did not, but rather on-sold their liability to bottom tier financially bereft miners well after the cream has been taken.

This proposal however is even questionable as to any certainty of upside to the shareholders of POSCO. There is no doubt however, a great deal of certainty of downside to our community, environment and economy. What is also in question are the minimal royalty returns to the State even before taking into account the inevitable costs to infrastructure, reduction of rate and taxation revenue from local business, and the cost to deal with community physical and mental health issues brought on by this Company's proposal. If POSCO is so desperate to mine their own coal, and for far less investment, this proposal should be rejected and they should be encouraged to buy the operating Glencore Mine at Tahmoor.

In summary, I ask that the proposals for a coal mine, railroad connection and access to the state rail network, and electrical connection to the grid be not approved on the basis of unacceptable risk to the water supply, environment, local businesses and economy, and health and well being of the regions citizens, exacerbated by negligible if not negative net reward for the State . The EIS, its assumptions and outcomes should be read in conjunction with the lack

of trust one should afford a company with the reputation and behaviour attributed to POSCO, the ultimate applicant.

In particular, I ask that the Department require the applicant to irrefutably demonstrate

1. that the so-called impermeable inter burden exists uniformly over the mined area.
2. that bores outside the lease area will also not experience drawdown.
3. that across a range of water extraction levels and rainfall events that they will not need to discharge water into Oldbury Creek.
4. that the waste paste/slurry contains no elements that would cause pollution to the aquifer.
5. that they will be able to landholders satisfaction, make good water loss for the entire duration of the drawdown. This must include those affected landholders outside the lease boundary.
6. that the environmental bond being contemplated will cover total loss and/or the pollution of the aquifer and the complete rehabilitation of any land or water damage.
7. that POSCO has a defined plan to purchase the required water licences prior to finalising their application and demonstrating without Government assistance how they will obtain further licences should their water calculations be erroneous.

Failure to demonstrate conclusively any of the above should mean that the mine proposal should not proceed.

I further ask that it is recommended to the appropriate Minister that the mineral exploration licence be extinguished permanently forthwith as no community should suffer the seven years of stress we have had to endure.

I also ask that the appropriate Minister not entertain any request from POSCO (Hume Coal) to vary the licence conditions and total drawdown in our Nepean Water District, nor allow licenced water from other Districts to be included for the purposes of this mine.

Yours Sincerely,

Michael Luscombe.