

**Submission on the Hume Coal EIS and Berrima Rail Project
SSD 15_7172 and SSD 15-7171
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From:

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I object to the Hume Coal project and ask that the following considerations be taken into account when assessing the EIS for both projects.

The plan detailed in the EIS to mine the Wongawilli Coal Seam in the Sutton Forest area presents unacceptable cumulative risks to Berrima, the Southern Highlands community, to the local natural and cultural environment, to the Sydney Water Catchment and to the State significant heritage values of Berrima and the Sutton Forest Area.

Risks concern:

- Uncertainty over the size of the coal resource in the proposed mine area, as outlined in:
 - Ben Fitzsimmons and Rod Doyle, *Hume coal – An overview*, in Naj Aziz and Bob Kininmonth (eds.), Proceedings of the 17th Coal Operators' Conference, Mining Engineering, University of Wollongong, 8-10 February 2017, 90-98.
- Uncertainty with the local geological conditions to be faced by mining in the proposed mine area due to the inability to access private land and undertake detailed geological mapping and drilling on land which the NSW Land and Environment Court found significant 'improvements' had been made.
- The proposed mining method is unproven. There is no evidence in the EIS that this 'first workings and slender pillar system' will actually work.
- The unique geological conditions in the Sutton Forest area, in which an aquifer directly overlays the coal seam, have not been faced before in NSW. There is no evidence in the EIS that the water ingress into the mine can be managed.
- The EIS does not present any evidence that injecting a slurry of reject material from the CPP back into the mine voids and sealing the panels with concrete, is workable or sustainable over the 19 year life of the mine.
- The mixing of groundwater in the closed voids with reject slurry has the potential of contaminating the aquifer and water flows into the Wingecarribee River, a key element in the Sydney Water Catchment

- The Department should take into account the public evidence from recent court proceedings of serious groundwater pollution at the now closed Berrima Colliery at Medway
- The uncertainty over the validity of claims made in the EIS that the impacts on groundwater drawdown and on surface water.
 - Hume's Coal modeling of the water impacts are contradicted in independent research by:
 - "Pells, S.E. and Pells, P.J.N.P. 2013 *Three dimensional groundwater model of Hume Coal Prospect, Southern Highlands NSW. Draft consultant's report by Pells Consulting for Southern Highlands Coal Action Group. Ref P029.R1 3 October 2013.*
 - This study is currently being updated following the release of the Hume Coal EIS
- Hume Coal's water modeling has also been criticised by:
 - Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development. *Advice to decision maker on coal mining project, IESC 2017-083: Hume Coal Project (EPBC 2015/7526) – New Development.* Canberra, March 2017
 - This independent expert panel raises serious concerns that the assessments of minimal impact on ground and surface water in the EIS are questionable.
- Studies by Colleen Morris on the Cultural Landscape of the Berrima, Sutton Forest and Exeter Area demonstrate that the area to be mined has State significant heritage values.
 - Colleen Morris (in association with Christine Hay). *Cultural Landscape Assessment. Berrima, Sutton Forest, Exeter Area.* May 2017. 169pp
- The adverse impacts of mining on the area are reviewed in the *Statement of Heritage Significance* (SOHI) also prepared by Colleen Morris.
 - Colleen Morris. *Statement of Heritage Impact of Hume Coal Southern Highlands Proposal on the Berrima, Sutton Forest and Exeter Cultural Landscape.* June 2017. 43pp.

- The Cultural Landscape Study and SOHI were included as attachments to the Submission by the Berrima Residents Association.
- In *The Statement of Heritage Impacts* of the Hume Coal Project, Colleen Morris concludes:

"The cumulative impacts of the mine proposal and rail project are highly adverse and the project presents unacceptable risks to the heritage values of the area.

In my opinion the proposal will impact on the cultural significance of the rare and substantially intact Berrima, Sutton Forest and Exeter cultural landscape to an unacceptable extent. It will impact on the aesthetic significance of the cultural landscape which to quote the EMM HIS is an important aspect of the identity of the Southern Highlands today.

In my opinion this is not an acceptable place to build a mine and associated above ground infrastructure or the associated Rail Project.

- Colleen Morris is a highly respected heritage consultant whose professional opinion should carefully considered.
- An additional risk to the economic viability of the project is the uncertainty surrounding the future demand and prices for metallurgical and thermal coal over the next 20 years.
 - Hume Coal may argue that market conditions are a commercial concern of the company but the economic viability of the company is a relevant factor in assessing the economic benefits to the State from mining
 - plans to extract just 35% of the available resource pushes the project up the production cost curve, making it particularly vulnerable to weak market conditions for steel production and coal market indicators
 - if the mine fails, royalties, company taxes and wages cease to be paid and the economic benefits form the project are diminished.
- The inherent risks associated with the Hume Coal project are significant and the claims made in the EIS that these risks do not exists, are minimal or management should not be accepted.