

16 St. Clair Street,

Bowral, 2576.

23rd. May, 2017

NSW Department of Planning & Environment

GPO Box 39

Sydney NSW 2001.

Re: The Hume Coal Mine Project in Authorisation A349 in the Southern Sydney Basin.

I wish to support the application by Hume Coal to establish an underground coal mine within the area of Authorisation A349, as explained in their voluminous Environmental Impact Statement (EIS).

I have some serious concerns about the Environmental Impact Study, which accompanies their application. Those concerns are listed below and described in more detail in the accompanying critique. Most of those concerns, if proved correct, would have a beneficial effect on the performance of the planned underground coal mine.

The attached critique of portions of the EIS is based on my previous experience as a Coal Geologist, my acquired knowledge of the local geology and of the hydro-geology of the Hawkesbury Sandstone, which usually directly overlays the coal seam proposed for extraction.

I am critical of:-

- the lack of detailed geological and hydro-geological information of the coal seam that will be extracted and of all of the strata that underlies and overlies it.
- the assumption that, whatever the mine plan or the details of the seam roof material, extraction of coal will result in “depressurisation of the seam” so that groundwater will inevitably flow from individual aquifers within the overlaying Hawkesbury Sandstone and fill the mine voids. Experience from the nearby, now abandoned, Berrima Colliery, supports my view that “if pillars are not removed and the roof strata is stabilised, water may seep but not flow from above”. There was one quote in the EIS, on page 115 of Volume 4A, that supports my view. It stated that ***“in this water assessment the Hawkesbury Sandstone is interpreted as being desaturated above the full extraction workings in the northern part of Berrima***

Colliery and as having a local zone of saturation above first workings in the southern part of the mine. It assumes that groundwater did not drain from the overlying Hawkesbury Sandstone where the roof was maintained above the mine void.

- two Strata Control Specialists have agreed with me that “depressurisation will not occur and/or have the major draining effect concluded in the EIS”. Lack of subsidence, suggested by the Subsidence Assessment, would also appear to support my/our view.
- the assumption that most or all existing land-owner water bores will be affected during the life of the proposed mine,
- if correct above, the lack of explanation as to how efficiently and effectively the lowered water levels in the affected water bores, could be catered for. A Sydney Water report on Thirlmere Lakes negated Dr. Pells assumption that lower water levels resulted from subsidence in Tahmoor Colliery. In doing so, it explained in some detail how subsidence effects on landowners’ water bores, within the pillar extraction area of Tahmoor Colliery, were minimised and rectified.
- the Company, which argued against a previous presentation by Dr. Pells, based on “depressurisation and extreme effects on local groundwater supplies” but now accepts that principle, despite mine planning to prevent it.

I conclude that the EIS describes the very worst case scenario and, if development is allowed and does proceed, I expect that those effects will be much less than forecast by the modellers.

Yours faithfully,

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