Invincible / Cullen Valley Mine - Coalpac Pty Ltd (Administrators Appointed)

Modification Proposal 07_0127 MOD 4

April 2014

Submission from Dr Ann Young

I wish to object to approval of the proposal on the following grounds:

1. The fact that the company is under administration must raise questions about its ability to fund and meet even the existing rehabilitation and environmental management requirements, let alone any others imposed under a new approval. It is as though the community is being held to ransom - as operations are suspended due to exhaustion of the supply of coal approved for mining, the extension is needed even to rehabilitate properly the already affected area. The documents comment that there is 'insufficient overburden material available to avoid leaving a large water sink' and the prospect of 'sub-optimal rehabilitation'. If the company's previous planning has failed to provide adequately for rehabilitation to date, it is hard to trust it for the future. Or will there be yet another modification required after 2020?

2. I understand that current legislation provides only for Biodiversity offsets, but I submit that this does not adequately reflect community concern about the environment in the Ben Bullen area. The Geodiversity, specifically the pagoda country, is of equal importance. Hence if the company is sincere in wanting to minimise environmental impacts, then the impacts on the pagoda landforms must be at the centre of planning. Yet both the Modification boundary and also the Modification disturbance boundary at Invincible almost abut areas of pagodas, as can be seen on Figure 3 of Part 1 of the documents. The currently approved biodiversity offsets do not include pagoda areas. I refer you to element c of ESD which lists conservation of 'ecological integrity'. Ecological integrity requires integrity of the landform on which biodoversity flourishes. Furthermore, the pagoda and rocky escarpment habitat is admitted to be important for biodiversity - rock wallaby, broad-headed snake and large-eared pied and eastern bent-wing bats.

3. I note the comment that highwall mining does not cause subsidence and that modelling has been carried out to confirm the design of the highwalls. It would be interesting to see whether actual impacts (or lack thereof) from already-mined highwalls is available to confirm the modelling. On 5 August 2011 I wrote to the Minister for Planning re DA 10_0178 querying how the highwalls would affect the stability of the cliffs and pagodas and commenting that:
No information is given about the spacing of the tunnels in relation to the joint spacing and orientation of the joint patterns of the sandstones; there is no assessment of the competence of the sandstone to withstand subsidence; there is no acknowledgement or assessment of the known failures and cracking of the cliffs and pagodas in nearby areas due to other mining activities.

4. Dewatering of the seams is an important consideration for the overlying landscape. There is already seepage into old mine workings, and this is addressed as a potential problem after 'extraordinary rainfall events'. But possible long-term loss of near-surface groundwater into workings of the highwalls does not seem to be addressed in the EA. The groundwater table may well be 'at considerable depth' but near-surface shallow groundwater flows typically are

found in sandstone terrain and must be considered. While highwall mining may not cause subsidence, it does increase the likelihood of shallow groundwater dropping to the level of the tunnels. Impacts on Groundwater Dependent Ecosystems may occur even though the strata are dewatered by previous mining if the flows to shallow aquifers are further disrupted. It is the localised near-surface movement of water that may be affected by mining close to the pagodas and cliffs, causing impacts on ecosystems dependent on seepage and driplines. I remain - like others more expert than myself in such matters - extremely sceptical that the claystones of the Narrabeen Group are a serious barrier to water movement down through the strata. I note that the monitoring bores are all measuring groundwater at appreciable depths (mainly >40m). This is of course the usual case for monitoring of groundwater flows. So, as usual, no information is available about flows close to the surface. Again an evaluation of any potential impacts from existing highwalls would be helpful.

For these reasons, I oppose approval of the Modification, especially in regard to Invincible Colliery and the proposed extension of mining close to pagoda landscape.