Goulburn River Stone Cottages

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Submission Objecting to MCO Modification 12 – UG1 Optimisation Modification

Dear Sir/Madam,

As long term landowners and operators of a remaining small businesses in the Ulan area not dependent on the coal industry we object to the MCO Optimisation Modification 12/Mod 2 and would like to submit the following comments.

1. The groundwater modelling is extrapolated from insufficient data; uses incorrect assumptions and relies on future predictions that are speculations and as such scientifically unproven.
2. The impacts of doubling coal extraction from underground mining from 4 MT/annum to 8Mt/annum have not been adequately assessed
3. The cumulative impact of cliff collapse caused by subsidence in the region has not been identified
4. The Central Hunter Valley eucalypt forest and woodlands has not been identified as critically endangered under the EPBC Act
5. The proposed increase in trains to a peak of 9 daily will have cumulative noise and dust impacts throughout the Hunter coal chain. Coal wagons should be covered and washed. The industry has a clear duty of care; their actions cannot compromise the health and safety of the community regardless of economic priorities.
6. Cumulative noise levels affecting Goulburn River Stone Cottages have been erroneously classified as 'Commercial receivers".

1. Groundwater Modelling

The infinite complexities and unknowns of groundwater processes make modelling problematic and unsuitable for determining specific outcomes due to mine subsidence and dewatering. Groundwater modelling is a tool best used to analyse and quantify risk and uncertainty, interrogate hypotheses and test the likelihood of possible worst case scenarios.

The 2012 RPS Aquaterra model was used to determine potential groundwater impacts from UG1 Optimisation Modification with the claim it had been 'calibrated' using observed impacts from the neighbouring mines. The assumption was made that direct hydraulic connection between the goaf and the base of the Triassic Narrabeen Group sediments was '*unlikely to have occurred as a result of mining from longwall panels with a width of around 260m'*. This

interpretation of Ulan Coal No 3 longwall mining history contradicts UCML own groundwater report and represents an inherent flaw in the RPS Aquaterra model.

The Aquaterra assessment was also '*based on the results of limited drilling'* and assumes the '*Triassic sediments are essentially dry'* (App B p. 3). Considering the number of unknown parameters and limited available data it is possible to make multiple computer simulations "fit" the scenario. Hardly surprising the new model predictions were found *'broadly consistent with previous assumptions of fracture heights*". Interestingly some predicted leakage of baseflows to the Goulburn River is dismissed as a *'the result of model imperfection'* (Table 3 – p.9).

UCML assessments indicate hydraulic conductivity linking the goaf and base of Triassic occurred prior to the installation of the 400m wide panels. Reductions in pore pressure measured across the mined subsidence zone have shown connected and drainable cracking from the mined coal seam upwards, through all saturated strata, to the surface (Mackie-Environmental-Research, 2011, 2012, 2015). The cumulative and long term effects of the Moolarben Coal Complex combined with Ulan and Wilpinjong operations risks the ultimate disruption and destruction of the river and groundwater system in the headwaters of the Goulburn River.

Recommendation – An independent regional groundwater study is urgently needed to investigate and quantify the range, probability and severity of potential risks that could result from the cumulative impact of current mining approvals in the Ulan Wollar area on surface and groundwater connectivity and baseflows in the Goulburn River. Effective parameters and trigger levels need to be clearly identified and enforced to avoid ongoing, irreparable damage to the Goulburn River surface and connected groundwater system.

2. Doubling of Coal extraction from 4 million tonnes to 8 Mt per annum

Given the current economic realities of structural oversupply and falling demand for thermal coal, this significant increase in supply can be expected to have negative economic consequences for the area and the state. It is clear from universally accepted evidence there is an urgent need to reduce releases of fossil carbon into the atmosphere. All involved in approving an increase in this are knowingly profiting from intergenerational injustice**.**

6. Noise - Since 1980 we have operated Goulburn River Stone Cottages and provided our guests with a quiet, peaceful retreat in a unique natural landscape and bushland.

We object to our rural residential cottages (receivers 11a & 11c) being classified as 'commercial receivers' that permits **Maximum Noise Amenity levels up to 65 DB.** In addition the maximum allowable cumulative limit applying to our homestead and surrounds are well in excess of historic noise levels. (App. C - Table 12 F1&F2- Evening and Night-time cumulative noise assessment).

Our eco-cottages (11a & 11c) are also residences and homes – occupied for more than 24 hours a day by family members and paying guests, for periods up to 10 nights over 50% of the year. They are completely different to an industrial commercial workplace such as the concrete production plant in Ulan.

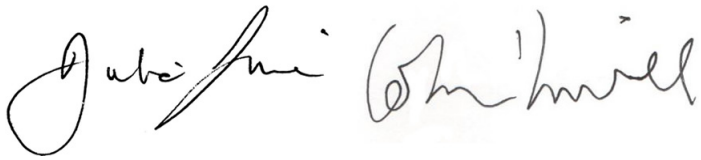
Noise impacts on our cottages should, at the very least, be limited to those applying to rural residential levels. There should also be some official recognition of the importance of low noise

requirements for our holiday retreat business that well predates all the open cut and long wall coal mining developments in the Ulan Wollar area.

Cumulative mine noise should not exceed 25 DB level at rural homes and residents; if this level is exceeded the Mining companies should be obliged to cease work and undertake noise mitigation measures to reduce noise to a level acceptable to the affected landowner.

The recent unpredicted highwall collapse at Open Cut 1 compromised a public road, threatened public safety and inconvenienced the community and visitors. This is yet another example of an 'unpredicted' disaster that has been a recurring theme with these large coal projects where the priorities are to maximise profits, subsidised by the expense and risk borne by the community.

Yours Sincerely,



CD & JE Imrie

31 July 2014

Addendum to CD JE Imrie Submission Goulburn River Stone Cottages

We have significant concerns regarding the lack of clarity and assessment for the proposed increase in ROM coal extraction for underground operations (4- 8 MT/annum. It is unspecified how the doubling of annual production rate of ROM coal will be sourced.

The MOD 12 assessments are based on limited parameters that consider only the proposed changes to UG1. No environmental assessment or analysis of the impact of increased ROM production has been provided for UG2 or UG4.

Any increase in extraction rates from UG4 would further threaten the integrity of The Drip and base flows to the Goulburn River. This is a considerable omission that requires rigorous assessment.