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Mudgee District Environment Group Presentation to IPC Panel

Ulan Modification 4, 19.6.2019

Good morning Commissioners. Thank you for this opportunity.

My name is Robbin Binks. I am a member of Mudgee District Environment Group, and I am presenting this paper on our behalf. The Environment Group is often referred to by the acronym MDEG.

MDEG objects to this Modification proposed by Ulan Coal.

I will begin with some general comments concerning risk, and then present 3 significant matters of concern to our members. I will also list other matters of concern which we urge you to consider.

RISK

1. The main justification put forward for this Modification is the extraction of an additional 6.4Mt of coal, which will return \$39.5M to the New South Wales Government. Is \$39.5M enough to overcome the potential negative impacts of this additional extraction? No. We believe the risks to surface water, groundwater, Aboriginal sites, cultural heritage, biodiversity, and increased Greenhouse Gas emissions, far outweigh the minimal expected benefits.

One locality at great risk is The Drip. The Drip and Corner Gorge and associated sandstone escarpments on the Goulburn River, are listed on the New South Wales National Trust Register. I quote from the National Trust Register... 'This area has significant scientific, cultural, spiritual, historic, educational, tourism and recreational values'. These values are priceless! The locality is irreplaceable. It is clearly of importance across all aspects of human life, and should be maintained and protected for all generations to come! It is just not worth the risk of damaging this area for short-term,

minor, monetary gain. These risks cannot be simply dismissed. The nature of this risk is presented at various points within this paper.

2. The Department of Planning has assessed the Modification against the objects of the EP&A Act, which it is required to do. The Department claims that the Modification passes Object 1.3(b) *to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment*. It has been assessed, and 'given that there are only minor incremental impacts...the proposed modification can be carried out...consistent with the principles of ESD'. The Department also claims that the Modification passes Object 1.3(e) *to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats*, and Object 1.3(f) *to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage)*. It states that 'the proposed modification does not involve any material changes to environment and heritage matters'.

MDEG does not accept these assessments.

Main principles of ESD, 'the precautionary principle', and 'conservation of biological diversity and ecological integrity' have not been applied. For example 'minor incremental impacts' result in large cumulative impacts - this cumulative impact is what must be assessed. The impacts from this proposal must be considered in the context of impacts from all other current and proposed projects within the local coal complex. These impacts must be cross-referenced and assessed together. The risk is much greater than the words 'minor incremental impacts' suggest.

For example: ULAN COAL Modification 4 will extend the length of time that the regional groundwater system is drawn down above UG3 (lowered). It is obvious that impacts extend further than the pocket of groundwater above the proposed modification. The longer the time the regional groundwater system is depressurised (lowered) the greater the chance that the depressurized zone will intercept and distort the direction of groundwater flow away from the river and The Drip.

The Moolarben Mine Mod 14 expansion has been found to intercept more ground water than predicted in the approval of Stage 1. An increase of 1,000 million litres of water per year into underground mine 4 is a substantial increase in groundwater draw down that has not been assessed. The additional impact on regional ground water sources and base flows to the Goulburn River could have a significant impact. There is no indication that this has been included in the assessment of the Ulan modification.

Also, to state that the proposed Ulan modification 'does not involve any material changes to environment and heritage matters' is incorrect. Ulan Coal and the Department clearly state that increased groundwater drawdown will occur, and more land subsidence will occur. Environment and heritage matters will most definitely be at risk, with potential for major negative impacts.

SIGNIFICANT MATTERS OF CONCERN

1. MONITORING: ASSESSING IMPACT ON THE DRIP

Ulan Coal repeatedly claim there have been no observed impacts on The Drip to date.

This claim from Ulan Coal has been repeated by the Department of Planning.

The claim cannot be proven either way as there was no BASELINE pre-mine study. Anecdotal evidence suggests that the discharge rate at The Drip has reduced.

There is only one monitoring point between the mine and The Drip. It was installed in 2016 1.3 kms north of The Drip. There is some confusion about measurements at this point, as it is referred to as PZ36 and also as PZ29.

Changes to groundwater levels have been provided as large scale graphs, actual numerical data is not readily available. There has been no hydro-chemical analysis of the groundwater at this monitoring bore.

Triassic water levels appear to have declined by around 1- 2 metres since installation. Any decline in groundwater levels prior to installation is unknown. The lack of pre-mining groundwater data in this area as well as between the river and longwall panels makes ascertaining impacts problematic. The data cannot be used to substantiate the claim - 'no observed impacts'.

2. DETERMINING THE WATER SOURCE FOR THE DRIP

The 'Response to Submissions - Appendix C Groundwater' states on page 9 'The available evidence indicates The Drip has a water source that is separate to the greater Triassic unit.

The geological cross-section north-south through The Drip (RtS Figure 3.4) that is used to show the “,, potential for the regional groundwater table to be hydraulically disconnected from The Drip” relies on a number of assumptions and errors.

It does not establish that The Drip is fed by only a perched rainfall driven aquifer. Both The Drip and regional groundwater system are seen to respond to rainfall recharge.

The Drip is most likely a combination of both localised aquifers and permanent (regional) groundwater sources.

These matters indicate it is highly unlikely that Ulan Coal can meet its current condition of Schedule 3 clause 33 that requires that The Proponent must ensure that the project has no impact on the water supply to the “Drip”.

This cannot be substantiated based on the available information.

Similarly it is not conclusive that there has been no impact in the past.

The above and the Ulan Coal argument that The Drip water character is dissimilar to the regional groundwater system is discussed in more detail (by Julia) in the next presentation

What we do know is The Drip is fed by a permanent groundwater source/spring that has continued to seep water through ALL the major droughts. This is supported by both anecdotal observations, historical photos, and the presence of a groundwater dependent plant species "*Cladium procerums*" - a member of the sedge family. This is a significant range extension that normally grows in the swamps around Nelson Bay.

3. SALINITY & maintaining low flows during extended dry periods

MDEG calls for an EC limit of 500 all discharged water and regulated environmental flows that reflect pre-mining salinity levels and the natural regime. This is necessary to maintain the health and resilience of the Goulburn River and National Park into the future considering the pressures of climate change.

Stream flow data from the gauge at Ulan village (above the mine) shows that the Goulburn River maintained surface flows throughout the drought in the early 1980s, However now the river stops flowing whenever the mine ceases discharging during extended dry periods. This happened most recently in Dec 2017 to March 2018.

The discharge of low salinity ground water, intercepted by mining, to support environmental low flows in the Goulburn River must be given the highest priority for water use and be written into the approval conditions.

4. VEGETATION: GROUNDWATER DEPENDENT ECOSYSTEM

The New South Wales National Trust Register states that the fragile ecosystem of The Drip is at considerable risk from commercial activity.

The Trust goes on to say 'the Triassic Aquifer System is highly critical to The Drip and the Goulburn River because "it is an important stratigraphic unit which governs recharge and piezometric surfaces throughout the region, and is especially important in so far as it hosts The Drip and significant reaches of the Goulburn River. Depressurisation of the aquifer system has the potential to impact The Drip and Corner Gorge.' (p3)

"A series of small vegetated pockets located within the cliff line of The Drip, comprise coastal wetland species and moisture affiliated ferns and weeping grasses such as *Cladium procerum* and Coral Fern respectively. Much of the vegetation in the cliff face of The Drip is considered a groundwater dependent ecosystem, which is of highly localised and restricted occurrence." In fact, the sedge *Cladium procerum* is at the most westerly point of its distribution here in the headwaters of the Goulburn River.

The Drip never runs dry, however, groundwater dependent ecosystems such as The Drip are recognised by governments not only as poorly understood systems but also as critical components of the water cycle. The New South Wales Government asserts the Goulburn River groundwater dependent ecosystems are among those at highest risk state-wide. State

and federal governments acknowledge that greater effort is urgently required "to ensure sustainable planning and management".

The Drip and Corner Gorge and the Goulburn River are significant as part of a transitional zone containing plants from different areas of the state and "form part of a corridor between major botanical divisions of the Central Western Slopes, Central Tablelands, North Coast and Central Coast of NSW."

MDEG has great concern regarding the future of this fragile, important ecosystem. Currently Ulan has a bigger impact on The Drip than Moolarben and with any increase in mining this impact will increase. Can we risk reaching the tipping point and the Great Dripping Wall and surrounds drying upthe only water in the river totally dependent on releases from Ulan mine.

OTHER MATTERS OF CONCERN

CLIMATE CHANGE

Scope 3 emissions are ignored in this assessment. The only reason for extracting coal is to burn it. Therefore Scope 3 emissions are a direct consequence of the activity and must be included in all assessment. The 6.4MT of additional coal will produce an additional 19tonnes of CO₂, if we assume 80% carbon content. This extra load of greenhouse gasses is untenable in a world which must be struggling to meet the Paris protocol targets.

Prof Will Steffen, Emeritus Professor at ANU and a member of the Climate council warns: 'To meet a 2°C carbon budget, a very rapid phase-out of all fossil fuel usage by 2050 at the latest, or preferably earlier, is required. The 1.5°C carbon budget is smaller, requiring an even more rapid phase-out of fossil fuel usage.'

This means that the majority of the world's existing fossil fuel reserves must be left in the ground, unburned. Furthermore, no new fossil fuel developments, or extensions to existing fossil fuel mines or wells, can be allowed.'

MDEG re-iterates Prof Steffen's words and calls for no extensions to existing fossil fuel mines. This Modification must be rejected.