



Hunter Environment Lobby Inc.

19th June 2019

Submission of Objection
Ulan Mine Modification 4

Introduction

Hunter Environment Lobby is a regional community-based environmental organization that has been active for over 25 years on the issues of environmental degradation, species and habitat loss, and climate change.

We cannot support the ongoing incremental creep of coal mining expansion in the Western Coalfields area of the Hunter Region. The regional cumulative environmental impacts of these very large extractive operations are unsustainable and are not adequately assessed or recognised as an expensive legacy for future generations.

Our particular concern is the cumulative impact of coal mining on the water sources of the Goulburn River, the major westerly rising tributary of the Hunter River system.

We note that this is the third coal mine expansion in the Goulburn River catchment under consideration by the IPC. We commend the Commission for appointing the same chair across the three panels and strongly urge that the cumulative impact of the Bylong Mine proposal, the Moolarben Modifications 3 and 14 and this proposed further expansion of mining at Ulan Mine are considered in regard to increased cumulative impacts on the Goulburn River system.

The community has been calling on the Department of Planning to commission an independent investigation into the impacts of coal mining on the Upper Goulburn River water source for at least 20 years. All that has happened over that time has been ongoing expansion of coal mining in the catchment on a mine-by-mine, modification-by-modification basis with no concerted effort to rigorously assess cumulative impacts.

We are relying on you Commissioners, and particularly the panel chair, to consider the implications of all three mine expansion proposals on the integrity and resilience of the Goulburn River.

Salinity

A key concern we have raised across all three proposals is the cumulative loss of base flows and the cumulative salt load reporting to the Hunter River and its likely impact on the Hunter Salinity Trading Scheme.

We note that the Independent Expert Science Committee has also have expressed concern over the potential for increased salinity and heavy metals concentrations as a result of multiple mines discharging into the Goulburn River and eventually reaching the Hunter River.

One of the problems with the management of these water discharges through the EPA licencing process is that the western coalfield mines are managed from the Bathurst office, while the Hunter Salinity Trading Scheme is managed through the Newcastle office.

There appears to be very little consultation or information sharing across the two regions. The Bathurst office is making decisions about Environment Pollution Licences and salinity levels in mine water discharge and providing advice on the mine expansion in the region. There appears to be little consideration of the overall impacts downstream.

The Hunter River Salinity Assessment Report commissioned by the EPA in 2013 identified the need for strategic real-time monitoring of flow and salinity in the Upper Goulburn River catchment. This still has not occurred. We pointed this out to the Commission in our response to the proposed Moolarben Mine modifications.

We request that the Commission investigate the process within the EPA for responding to these ongoing mine expansion proposals in the Upper Goulburn River catchment.

Our previous submissions have highlighted the issue of the cumulative increase in salinity in the river.

The Trading Scheme's salinity goal downstream of the Goulburn River / Hunter River confluence is 900 EC. Ulan Mine currently has an EPL that allows this level of salinity to be discharged into the top of the river.

At the Glennies Creek reference point, downstream from the Goulburn River confluence, salinities have exceeded 1200 EC on a number of occasions since 2007 and have regularly exceeded 900 EC since 2007.

Measurement of salinity within the Goulburn River at the mid-stream Coggan gauge has demonstrated an increase in flow heights with salinity levels above 900 EC. This level of salinity has been recorded at flow heights of 107 ML/day, whereas pre-mine, this level was recorded at very low flows of 63 ML/day.

An increase in the volume of low flows with salinity levels over 900 EC makes Hunter River catchment objectives to hold river salinity under 900 EC increasingly difficult to achieve.

The current approvals across the three existing operations are:

- Ulan Coal Mine EPL (394) permits discharge up to 30 ML/day at a maximum salinity of 900 EC. This equals 18 tonnes/day of salt
- Moolarben Coal Mine EPL (12932) permits discharge up to 10 ML/day at a maximum salinity of 900 EC. This equals 6 tonnes/day of salt
- Wilpinjong EPL (12425) permits discharge up to 15 ML/day at a maximum 500 EC. This equals 5 tonnes/day of salt.

The cumulative impact of these approvals is currently a maximum of 29 tonnes of salt per day into the top of the Goulburn River or 10,585 tonnes per year.

This does not include the indirect passive seepage of saline groundwater from disturbed mined areas (unmeasured) or the disposal of brine from the desalination plants into disused pits and as dust suppressant.

An example of this problem is the complexity of the management of leakage to the river from the East Pit void at Ulan Mine where brine is dumped. Moolarben identified this leakage as a source of increased modelled flows into their underground 4 workings.

We note that the recommendation for the Moolarben modification before you is to lower that maximum salinity level to 685 EC, while increasing the daily discharge by 100% to 20 ML/day.

Hunter Environment Lobby continues to recommend that a maximum level of 500 EC across all three EPLs is a more precautionary approach to the management of increased salt loads in the Goulburn River. The river is not included in the Hunter River Salinity Trading Scheme and a 500 EC limit would provide consistent management across the three operating mine sites.

Baseflows

The other key issue is the cumulative loss of base flows to the river system from the current approved operations in addition to the mine expansions under consideration.

The peak loss of base flows to the Bylong River, a major tributary of the Goulburn River, is predicted to be 994 ML/year from the proposed Bylong Mine.

The cumulative loss of base flows through the interception of groundwater sources and surface flows on the existing operating mine sites is significant and has not been clearly identified in the assessment documents for Ulan Mine MOD 4.

This information is not readily available and requires a considerable level of research across many Environmental Assessments and Annual Reports to understand the impacts of the current mining operations on the river system and whether these actually meet the predictions underlying the approvals.

An independent regional water study would be useful to compile all this information in the one place

An outstanding example of this issue is the re-calibration of the Moolarben groundwater model that has now predicted an additional 1,000 ML/year inflow into underground 4. This additional water make has not been assessed in relation to additional loss of base flows to the river.

The significant deficiency within the current NSW planning and approvals process is the consideration of each proposal as a stand alone impact.

The emphasis by both the Department of Planning and the Uan's response to submissions is that Ulan MOD 4 is predicted to have a minor additional impact on base flows. Planning refers to a 1% - 3% increase while the modelling predicts an additional 0.001 ML/day on top of the approved MOD 3.

The predicted baseflow reductions from 2010 to the end of mining was 13.14 ML/year for MOD 3 and 13.51 ML/year with MOD 4.

However, nowhere in any of the assessment documents is there provided a total of approved loss of base flows to the Goulburn River.

The Groundwater Response in Appendix C states that the cumulative impacts on the regional groundwater systems has been assessed and the drawdown that is presented from the modelling does include the drawdown from the neighbouring Moolarben mine.

Wilpinjong is not included as it is considered to be largely outside of the model domain and is sufficiently distant that no cumulative impacts would occur within the groundwater regime.

We have two concerns with this statement. The first is the additional drawdown from the recalibrated Moolarben model, has this now been included in the regional groundwater model used by Ulan? The second point is that Wilpinjong Mine is directly adjacent to the Moolarben Mine and has drawdown impacts on tributaries to the Goulburn River. Moolarben Mine also has drawdown impacts on these tributaries.

We understand that there is a requirement to consider cumulative impact in the determination of new projects. We look forward to a detailed report on how the Commission has considered the cumulative impact of the existing mining operations on the longterm health and resilience of Goulburn River over time as part of the determination process for the projects currently before you.

One of the proposals put forward by the community to help mitigate these impacts is to regulate mine water discharge so that it responds to catchment triggers and antecedent conditions. The return of a more natural flow regime through regulation would help improve the condition of the river. The replacement of base flows is very important.

As we have noted before, the Hunter sub region Bioregional Assessment Report found in key finding 6 that: *"Modelled changes in ecologically important flows indicate a higher risk to the condition of riverine forested wetlands along the Goulburn River compared to other riverine forested wetlands in the subregion"*

We do not support this ongoing incremental loss of base flows and increased reliance of the river system on mine water discharge.

Biodiversity

The other important issue we wish to raise is the impacts of Ulan MOD 4 on biodiversity and the Durrigere State Conservation Area.

Firstly, in regard to water impacts, Curra Creek that flows through the SCA, has maintained a low flow through periods of dry times and at times when the Goulburn River has ceased to flow due to sudden loss of mine discharge.

Mod 4 is predicted to impact on flows in this creek system. The subsidence impact assessment predicts that Curra Creek may experience a reduction in retention times after periods of rainfall.

The implications of this flow loss during dry periods has not been assessed.

We are concerned for the threatened species vulnerable to subsidence, loss of habitat and loss of base flows that have been listed in the Response to Submissions Ecology Report as being likely or known in the area of impact. These include:

Regent Honeyeater
Barking Owl
Large-eared Pied Bat
Eastern Bentwing-bat
Squirrel Glider
Brush-tailed Rockwallaby
Koala
Grey-headed Flying Fox
Eastern Cave Bat

The ongoing threats to native animals and plants in this area of the Hunter catchment is of great concern. The complex system of calculating offsets is increasingly problematic and there is a reluctance to provide the necessary checks and balances to ensure the survival of the increasing number of species threatened with extinction.

We note that there is an outstanding issue with species credits required for loss of habitat for the Koala, Squirrel Glider and Regent Honeyeater. There is yet to be an assessment of the required species credits. We consider it essential for this assessment to be conducted in a transparent manner prior to a decision being made on the Ulan MOD 4 proposal. Post approval assessments are not acceptable.

There is also a confusion through the reports in regard to the ecosystem credits.

The Planning Assessment Report refers to 61 ecosystem credits¹, the Response to Submissions Appendix D Ecology Report refers to a Biodiversity Offset Strategy that requires 155 ecosystem credits equivalent to 17 ha of land², while Appendix A of the Ecology Report states that 63 ecosystem credits are required equivalent to 7 ha of land to be secured into a biodiversity offset under a suitable conservation mechanism.³

The number of ecosystem credits assessed for retirement needs to be clarified due to these major discrepancies in reporting. We note that NPWS have a preferred land based offset for the MOD 4 proposal and support that this agreement needs to be finalised.

The Reponse to Submissions mentions that an agreement on the approved biodiversity offset arrangements is still underway. It is of concern that the conservation agreements for the existing five offset areas required by the approval of the Ulan West extension in 2010 are still being finalised.

It is imperative that existing biodiversity offset arrangements are secured before further loss of habitat can occur at Ulan Mine.

We are also concerned that the impacts of large vehicle movements, construction of the access roads and ventilation shafts and ongoing noise impacts from three ventilation fans within the SCA has not been assessed in regard to threatened species habitat and the amenity of the SCA.

1 DPE Report p 27

2 RtS App D p 36

3 RtS App D App A p2

We are particularly concerned for Threatened and Vulnerable Species in this area as the EPA has released a damning report that Critically Endangered Species have jumped by 30% in three years and at the same time land clearing is up by 24%.

Greenhouse Gas

Finally, we all know that climate change risks are growing exponentially with each approval granted to yet another extension and modification of another coal mine in the Hunter Region.

It is another failure of the NSW planning system that decision-makers don't quantify and evaluate the cumulative economic risk of increased greenhouse gas emissions. The Ulan MOD 4 proposal, if approved will be responsible for a further 16,093,298 tonnes of CO₂-e being released into the atmosphere.

It is not only environmental organisations like Hunter Environment Lobby that call for a different focus on business as usual – such luminaries as the Australian Reserve Bank Deputy Governor, Guy Debel; the banking regulator APRA; and also ASIC call for a lessening of the 'risk facing listed companies' by climate change effects.

We hope this is the very last time we have to attend a public meeting in Mudgee to address the poor assessment and approvals process for additional carbon release. At a time when the global community is struggling to combat climate change impacts, it is highly irresponsible to be approving coal mine expansion.

Conclusion

Hunter Environment Lobby objects to the extraction of a further 6.4 Mt of coal on the headwaters of the Goulburn River.

We consider that the cumulative impacts are not minimal and have not been assessed across all existing and proposed mining operations in the catchment.

The ongoing reliance of the Goulburn River on mine water discharge to replace lost base flows needs to be managed under regulations to provide environmental flows that improve river health and resilience.

The limits on salinity levels in mine water discharge from both Moolarben and Ulan Mines must be lowered to 500 EC to lessen the cumulative salt load in the river system.

No decision on Ulan MOD 4 can be made until such time as current biodiversity offset areas are protected under conservation agreements.

Also no decision until such time as the required species credits are assessed and a suitable land based biodiversity offset has been agreed upon to mitigate the Ulan MOD 4 biodiversity impacts.

We look forward to the Commissions report to see how the important issues we have raised have been considered in the final determination for this proposal.