

16 June 2014

**NSW Planning Assessment Commission Determination Report
Moolarben Coal Mine Stage 1 Modification 9
Mid-Western LGA**

EXECUTIVE SUMMARY

The Planning Assessment Commission ('the Commission') has prepared this report under the delegation of the Minister for Planning.

The Commission notes the scale of the proposed modification is substantial, with 30 million tonne (mt) of additional mining resource proposed to be extracted which is an increase of 23% of the mining resource for the approved project. This increased resource extraction will require an extension of the total footprint for the open cut pits by 25%.

Following careful consideration of the views expressed at the public meeting, the Director-General's Environmental Assessment Report as well as agency and public submissions, the Commission has determined the above project modification relating to the Moolarben Coal Mine, should be approved subject to recommended conditions as amended by the Commission.

The Commission also notes the overwhelming concern raised by objectors and supporters alike related to the conservation in perpetuity of the natural feature known as the Drip which is located approximately 6 km north of the proposed extension area. There was substantial community support for the Drip's inclusion within the Goulburn River National Park. The issue of the Drip is discussed in further detail in Section 7.1 of this report. To address this issue, the Commission has imposed a condition requiring the conservation of the Drip.

This determination report provides further detail on the Commission's process, and outlines amendments made in relation to the Director-General's recommendations.

1. Background

The Moolarben Coal Mine Stage 1 was approved by the Minister in 2007. The mine is part of a large coal mining complex, one of the most significant outside the Hunter Valley. The mine is located 40 km north-east of Mudgee, in the Midwestern Local Government Area. Since 2007, the project has been modified seven times and is the subject of a further two modification applications (including MOD 9).

The project, as modified, currently allows extraction of up to 12 million tonnes (Mt) pa of run of mine (ROM) coal from three open cut pits (OC1, OC2 and OC3) and one underground mine.

To date, the surface infrastructure of the mine has been constructed and operations within the first open cut mine are close to completion. The approved underground mining operations have yet to be commenced.

The mine is owned and operated by Moolarben Coalmines Pty Ltd, a joint venture 80% owned by Yancoal Australia Pty Ltd.

2. Project Application

The proposed modification by Moolarben Coalmines Pty Ltd sought approval to:

- extend two of the existing approved open cut pits (OC1 and OC 2) to allow access to further coal reserves (up to 30 Mt). This would involve increasing the footprint of the open cut areas by 25% (an additional 178 ha).
- modify the staging of the open cuts:
 - i. Open Cut 1 - Extend mining period by 4 years until 2017;
 - ii. Open Cut 2 – Extend mining period for a 14 year period until 2030; and
 - iii. Open Cut 3 – Extend mining period for 4 years from 2030 until 2034.
- construct and operate water management infrastructure upgrade works including increasing the capacity of the sediment dams in the Coal Handling & Preparation Plant (CHPP) area; construction of a number of new dams and installing clean water diversions around the unsuitable stockpile area;
- an extension of the project life by 9 years (to 2037); and
- changes to the timing of the rehabilitation works and revisions to the design for the final landforms.

In conjunction with the MOD 9 application, the proponent has also lodged a Stage 2 proposal and separate modification (MOD 3) to its Stage 1 approval. The Stage 2 and MOD 3 proposals seek to extend the existing mining operation with the view to mining the area directly to the east of the approved open cut pits 1 and 2. Both underground and open cut mining extraction methods are proposed.

Up to 16 million tonnes of run of mine coal would be extracted annually from the Stage 2 extension area. 4 million tonnes per year would be sourced from the underground mining operation and 12 million tonnes per year from the open cut pit (pit number 4). The proponent is proposing to process the coal in the existing plant.

While the Stage 2 proposal and Stage 1 MOD 3 applications are independent of MOD 9, the proposed mining activities form part of the same mining complex and as such, some impacts such as noise are difficult to attribute to individual applications.

3. Delegation to the Commission

On 7 February 2014 the Project MOD was referred to the Planning Assessment Commission for determination under the terms of the Minister's delegation of 14 September 2011 due to more than 25 objections being received.

Ms Gabrielle Kibble AO, chaired the Commission to determine the application, Mr Garry Payne AM and Brian Gilligan were the other members to constitute the Commission.

4. Director-General's Assessment Report

The Director-General's Environmental Assessment Report provided an assessment of the residual key issues, being:

- Noise;
- Biodiversity;
- and
- Water resources.

The Assessment Report concluded the modifications would allow access to significant coal reserves while extending the life of the mine; improve mining efficiency and provide significant royalties for the State Government with minimal impact on the environment or the community

The application was recommended by Planning & Infrastructure for approval, subject to conditions.

5. Site Visit and Meetings

5.1. Site Visit

The Commission visited the mine site on 25 February 2014 accompanied by the proponent. Whilst at the mine, the Proponent provided a presentation on the mine and the applications currently before the Commission, including Modification 9. The Commission was also shown a Dura Tray (one of the Proponent's noise minimisation measures).

5.2. Meeting with Mid-Western Regional Council

On 27 February 2014, the Commission met with a representative for Mid-Western Regional Council. The meeting was primarily about the Stage 2 extension application which was before the Commission for Review. Council did not raise any specific concerns or objections with this proposed modification.

5.3. Meeting with Planning & Infrastructure

On 3 March 2014 Planning & Infrastructure briefed the Commission where the following matters were discussed:

- The Drip;
- Water;
- Biodiversity; and
- Amenity impacts (air quality, water).

6. Public Meeting

On 27 February 2014 the Commission held a public meeting to hear the community's views on Planning & Infrastructures recommendation.

The meeting was well attended with approximately 100 attendees including the registered speakers. Speakers included representatives of special interest groups, environmental groups, local business owners and landholders. There were speakers both for and against the modification.

The issues raised at the meeting and in the written comments subsequently provided are summarised below.

The Commission notes the overwhelming concern raised by both objectors and supporters at the public meeting was in respect of the land ownership of the nature features known as the Drip. This issue is discussed in Section 7.1 of this report.

In support:

- Economic benefits, including ongoing employment, capital investment, contributions to Council for provision of facilities for the number of mine employees and Ulan Road upgrade works;
- The modification would allow the mine to improve its water management systems, reduce risks from the current highwall design and rehabilitation of the site would be more consistent with the surrounding landscape and landforms, while maximising resource recovery and operational efficiency;
- The coal is low in sulphur and gas and the land being disturbed is considered to not be highly productive, so this area should be mined instead of the Bylong Valley;

- The mine has made significant improvements to manage dust and noise impacts and the modification will provide greater scope to include noise bunds on the site;
- Mining, tourism and agriculture are able to coexist in the Mudgee region, and that the economy needs all three sectors;
- The mine contributes to local community groups, including riding for the disabled, provides funding for Council and royalties to the State;
- The Proponent is considered to be a good, responsible employer with high regard for safety, community, workplace culture and staff development, as well as good environmental standards, state of the art technology, investment in noise attenuation, ceasing production to avoid noise and dust exceedences, focus on rehabilitation and said to be best mining practice.

Objection/concerns:

- Biodiversity impacts, including on threatened species, suggesting the cumulative impacts of mining could cause a number of species to become extinct in this region, and that this level of impact is unacceptable and cannot be offset
- The proposed offset properties are said to be unsuitable as some are disconnected from existing reserves subject to current minerals exploration activity, and/or have limited rehabilitation potential.
- Mechanisms for securing offsets were also questioned and criticised. Past experience with offsets indicates they will only be protected for 5 to 10 years, or will be subject to impacts of underground mining.
- It was suggested that a conservation bond should also be required to cover maintenance of offsets.

Speakers also raised concerns about the process, particularly:

- The piecemeal approach to the mine operational planning and design, noting that there have now been 9 modification applications in less than 7 years since the mine was first approved;
- The underground component seems unlikely to proceed as the Proponent keeps expanding its open cut activities therefore the resulting implications for royalties to the state were questioned;
- Modification 9 and the stage 2 application are being considered concurrently; and
- The limited time to consider the information before the Public Meeting, especially given there is both a Public Meeting and Public Hearing to prepare for and the volume of material to consider.

Other issues raised included,

- visual amenity impacts; greenhouse gas emissions resulting from the project; and
- the modification was said to result in a significant change to the final landform.

Objectors stated that should the modification be approved, the mine should be required to undertake more efficient monitoring of water, dust controlled within national standards, inclusion of low frequency noise limits, a guaranteed biodiversity offset strategy and inclusion of the Drip and surrounds (i.e. the lot the Drip is on and the 500 m buffer area to the south of the Goulburn River) into a National Park.

7. COMMISSION'S CONSIDERATION

The Commission has reviewed the Assessment Report and associated documents, including submissions from the Mid-Western Regional Council, agencies and the public, and the proponent's response.

In addition to the specific concerns raised by community submissions and presentations, the Commission is concerned that the scale of this modification is substantial with significant

potential impacts as a result. The expansion of Open Cut 1 and Open Cut 2 effectively linking the two will result in a loss of flora, fauna habitat and as a result, fauna, in addition to altering the final landform and timing of rehabilitation works.

The community has an expectation from the existing approval that works would be completed within an approved time frame however this is being revised through the ongoing modifications. The Commission considers it is reasonable for the community to expect that the proponent honour commitments to minimise and mitigate impacts on the environment and the community in a timely manner rather than continually expanding operations and seeking to modify the commitments.

The key community concerns relate mainly to the Drip; biodiversity; water; noise; air quality and social impacts which are discussed below.

7.1 The Drip

The Drip was a key issue raised by the community since the original project application. There was general consensus by both supporters and objectors that the Drip is significant and should be protected. The ownership and land tenure of the Drip was also of particular concern with strong support from the community for its inclusion within the Goulburn River National Park. It was noted that to date the Proponent has not agreed to secure a suitable area of land around the Drip as part of the Goulburn River National Park.

The Drip is a natural feature approximately 6 km north of the proposed extension area. Anecdotal evidence indicates water drips from the cliff wall at The Drip even during periods of severe drought.

Significant concerns about the Drip were raised by the community and a number of special interest groups. There are two key concerns regarding the Drip, that:

1. Mining in the area could impact on the Drip either directly or through disruption of its aquifer water source; and
2. The Drip and its surrounds, which were previously Crown Land, has since been acquired by Moolarben rather than being incorporated into the Goulburn River National Park.

The Commission notes that the mining activities the subject of this application are more than 5 km from the Drip. Nonetheless, under its existing project approval, the proponent can develop an underground mining domain in relatively close proximity to the Drip. The approval requires that a 500 metre wide buffer be retained between the longwall panels and the Drip and the land immediately surrounding the Drip which is identified as a biodiversity offset.

In relation to subsidence and impacts on surface features, the 500 metre barrier was deemed appropriate by an Independent Hearing and Assessment Panel (IHAP) when it undertook its review of that application in 2006 and 2007 (IHAP, 2007). Further work was undertaken to consider the potential impacts on water and the Department's draft assessment report for the Stage 2 Review suggests there is consensus between the relevant experts that the Drip is supplied by a perched aquifer and is isolated hydraulically from drawdown effects that would occur in other aquifers (draft Assessment Report page 39).

The concern regarding the Drip relates to the land tenure of the Drip and surrounds. The Commission understands that the Drip was previously Crown Land, but that the parcel containing the Drip was sold to Moolarben in 2010. To complicate matters, the walking track which is used to access the Drip traverses a number of land tenures. A travelling stock reserve, Crown Reserve, Crown Land, Moolarben owned land, privately owned land and the

Goulburn River National Park are all also within close proximity to the Drip and/or the walking track.

There is a strong argument to incorporate the Drip and its surrounds into the Goulburn River National Park and the Commission agrees with this view. To address this issue, the proponent has committed to reserving the Drip as National Park, but the surrounding land would remain in its existing ownership, albeit with an 'upgraded' walkway to the Drip.

The Commission understands the proponent has commenced discussions with the Office of Environment and Heritage (National Parks), Mineral Resources (NSW Trade & Investment) and the Department with the view to reserving the Drip as National Park.

The Commission acknowledges the proponent's commitment of reserving the Drip as National Park. To reflect this commitment the Commission has imposed a condition requiring the conservation in perpetuity of the Drip.

7.2 Biodiversity

The proposed disturbance footprint for MOD 9 is 200.8 ha including 6 vegetation communities. This includes 177.1 ha is native forest and woodland. This includes 20.6 ha of Endangered Ecological Community (EEC) and would result in the removal or disturbance of a range of habitat for threatened fauna.

The community submissions have raised concerns that biodiversity impacts, including those for threatened species, arising from the cumulative impact of mining could cause a number of species to become extinct in this region, and that this level of impact is unacceptable and cannot be offset. The community indicated the proposed offset properties are unsuitable due to the disconnection from existing reserves; they are subject to current minerals exploration activity; and/or have limited rehabilitation potential. The mechanisms proposed for securing offsets were also questioned and criticised. The community indicated that previous experience with offsets anecdotally shows they will only be protected for 5 to 10 years, or will be subject to impacts of underground mining. It was suggested that a conservation bond should also be required to cover maintenance of offsets.

The Proponent's assessment of the biodiversity impacts of the project acknowledge that the proposal would result in the removal of fauna habitat for 7 known threatened species and potential habitat for an additional 31 threatened species

The Commission has considered the biodiversity impacts of the project in the context of the surrounding landscape. The site sits within an existing mining cluster, in close proximity to both open cut and underground coal mining operations to the east and northwest. The area also contains large areas of native vegetation including significant areas protected within reserves, with the Goulburn River National Park to the north of the site and the Munghorn Gap Nature Reserve to the south east. However it is noted the existing reserves include relatively little of the lower slopes and woodland communities to be impacted by the proposal.

As part of the overall expansion of the mining complex, the proponent has provided a commitment to minimise the area of disturbance and using delivery of high quality habitat through rehabilitation of mine areas as a means of mitigating impacts. Given the scale of MOD 9, the Commission is not satisfied that all reasonable attempts have been made to minimise the biodiversity impacts particularly on the area between Open Cut 1 and Open Cut 2. Further refinement of the Mine Plan in this area is warranted and should be undertaken in consultation with OEH to the satisfaction of the Secretary for the Department of Planning & Environment.

7.3 Water

Objectors raised significant concerns about impacts on water, including draw down, and on groundwater in particular. Concern was also raised regarding:

- The record of discharges and breaches of the existing approval; and
- Cumulative impacts, particularly on the Goulburn River, especially in relation to groundwater drawdown as well as the large number of final voids in the mine plan.
- The mine's water balance and licensing was questioned, noting discrepancies in the information, including a water deficit of up to 6.8 ML a day.
- The mine's infrastructure have been inappropriately located and that the water management upgrades should be required to be implemented regardless of whether the expansion of the pits is allowed.

Objectors also requested that an independent regional water study be conducted and an expert panel tasked with developing clear performance criteria.

Section 5.3 of the Department's Assessment Report provided an in-depth assessment of the issue. The report identified two assessments conducted on water management in addition to an assessment of the site water balance.

The modified operations would increase the sites water demand by up to 200 ML/year to 1,850 ML/year. The proponent has access to a number of external water sources including advanced dewatering of the northern borefields which can provide up to 2,400 ML/year in addition to obtaining surplus water from Ulan Coal Mine (a minimum 1,000 ML/year). The Commission is satisfied the site can satisfy the additional water demand required as a result of the modification.

The surface and groundwater impact assessments identified specific management and mitigation measures required to address water concerns. The Department has considered the impact assessment reports, the proponent's response, and advice from the relevant agencies and has concluded the groundwater and surface water issues can be adequately mitigated and managed.

The Commission notes that the Environment Protection Authority and the NSW Office of Water both indicated water issues could be satisfactorily mitigated through specific conditions or offset through existing licensing arrangements. The Department has recommended conditions accordingly.

Overall, the Commission agrees with the Department's assessment that the water concerns have been satisfactorily addressed in the assessment report and through the recommended conditions. It is of the view that the potential impacts can be properly mitigated or adequately managed by the recommended water management conditions.

7.4 Noise

A number of speakers raised concern regarding noise emissions from the mine. Concerns were also raised that:

- low frequency noise was an issue that required consideration under the Industrial Noise Policy;
- activities in pits 2 and 3 were to have been limited to day time operations which is not contained in any conditions;
- traffic and blasting generate unacceptable impacts;

- a large number of properties have been acquired by the mine, indicating the original assessment underestimated the impacts of the mine; and
- various health related issues associated with noise, land devaluation, social and population displacement impacts.

The community also requested an independent noise study be conducted.

Section 5.1 of the Department's Assessment Report provided an assessment of the noise issue. The report identified that a Noise and Vibration Impact Assessment (by EMGA Mitchell McLennan Pty Ltd) had been prepared with the subsequent inclusion of two addendums made at the request of the Department. The community raised concern with the Noise and Vibration Impact Assessment however the Department's Assessment Report indicates the Impact Assessment represents the most up to date assessment of potential impacts for the combined projects. Further, the Department is of the view the Impact Assessment was carried out in accordance with the relevant guidelines, providing a robust assessment of noise impacts as a result of the modification.

The Department has recommended conditions including the requirement for a detailed management plan to be prepared and implemented ensuring the mine operates in line with contemporary standards; conduct attended monitoring at least 12 times a year; and implementation of noise mitigation measures where required.

The Commission is concerned that the noise impacts of activities proposed in MOD 9 are not readily separated from those attributable to Stage 2 activities.

The Commission acknowledges that substantial land acquisition has occurred which would act to limit sensitive receptors that would normally be subject to noise impacts however, a precautionary approach in approval conditions is needed to protect amenity values.

7.5 Air Quality

A number of speakers at the public meeting raised concern about air quality impacts and the resulting health, land devaluation, social and population displacement impacts. The community also considered the acquisition criteria of 150ug/m to be inappropriate and not in accordance with National Standards.

The Department's Assessment Report considered the Air Quality and Greenhouse Gas Impact Assessment (by Todoroski Air Sciences) which indicated predicted dust levels for the modification are below the existing approved criteria for the mine. The Impact Assessment also indicated that there would be no discernable change in the predictions as a result of the surface water infrastructure works for sensitive receptors.

The question of the acquisition criteria being set at 150ug/m is under consideration with the Stage 2 and MOD 3 Reviews.

After careful consideration, the Commission accepts that while the project modification is substantial, it will not lead to unreasonable dust impacts. The Commission reached this conclusion on the basis of the existing and proposed mitigation measures that have been provided which are considered a reasonable measure to minimise dust emissions in addition to the recommended condition requiring the mine to implement best practise measures to minimise dust emissions.

The Commission notes that the Environment Protection Authority raised no concern with the modified project.

7.6 Social Impacts

The community raised concern that the mine had resulted in social impacts for the locality including significant population losses which have left small local rural fire service brigades and sporting groups short of members. The communities submissions suggested that the mines supported growth and prosperity in Mudgee was achieved at the cost of the local villages. The view of the community was that there is a difference between the mine's support for its workers and its behaviour towards neighbouring residents of the mine. The short term employment benefits of the mine were also compared to the long-term sustainable nature of agricultural industries in the region.

The Commission notes the Department's Assessment Report does not account for the concerns that were raised by the community at the public meeting. Notwithstanding this, the Commission acknowledges that the modified project would continue to provide a long term contribution to the economic and social welfare of the local, and regional, communities which depend, directly or indirectly, on the exploitation of the coal resource.

7.7 Independent Review Mechanism

The draft Instrument provides for an independent review to be requested, and conducted, if the owner of privately owned land is of the opinion the project is exceeding its approval limits. The recommended Instrument however does not clearly reflect the ability of the Department to direct the proponent to undertake mitigation or acquisition for non-compliance following the independent review mechanism.

The Commission is of the opinion that these conditions are the safety net for residents, should the mine be operating outside of its approval or if the modelling is inaccurate.

While the Commission supports the Department's conclusion that the modified project will not result in adverse impacts as a result of the predictive modelling, it is of the view that independent review mechanism should be incorporated into the approval to ensure that if the mine falls into non-compliance, there is recourse for affected residents.

For the reasons outlined above, the Commission has retained the conditions relating to the independent review process to ensure appropriate mechanisms are in place for the community.

7.8 Conditions

The Department has recommended a number of existing conditions including management plans, be updated to reflect contemporary condition standards. While the Commission is supportive to the approach of updating of management plans, it does not agree with the approach of modernising all the existing conditions through the modification process particularly when the changes have not been considered in the Director-Generals Assessment Report.

8. Commission's Determination

The Commission has carefully considered the information available including the Director-General's Environmental Assessment Report and associated documents including the Preferred Project Report, submissions made to Planning & Infrastructure and to the Commission during the public meeting.

The Commission supports the modified project, as it allows the rational and efficient extraction of a coal resource within the footprint of the existing approved coal mine, while the location of the works minimises the potential for detrimental impacts on local residents.

Having regard to the relevant issues, the Commission finds that the proposal, as amended, will be beneficial to the community and that the environmental and amenity impacts of the

proposal can be adequately mitigated or managed by a suite of stringent conditions. Therefore, the Commission has determined to approve the application as recommended by (the former) Planning & Infrastructure subject to the recommended modifications as well as approval conditions as amended by the Commission.

The proponent has committed to conserving the Drip. To reflect this, the Commission has imposed a condition requiring the conservation of the Drip.

The Commission's amendments include:

1. Retaining the noise provisions for property acquisition
2. Retaining the 35 dBA operational noise limit criteria
3. Refinement of the Mine Plan in the vicinity of Open Cut 1 and Open Cut 2 to minimise biodiversity impacts
4. Imposing a condition requiring the conservation of the Drip prior to coal the subject of this determination being extracted.



Gabrielle Kibble AO (chair)
Member of the Commission



Brian Gilligan
Member of the Commission



Garry Payne
Member of the Commission

Appendix 1

List of Speakers

PLANNING ASSESSMENT COMMISSION MEETING MOOLARBEN COAL MINE STAGE 1 MODIFICATION 9

Date: 27 February 2014, 2 pm

Place: Mudgee Town Hall

Speakers:

1. Yancoal Australia, Frank Fulham
2. Hunter Environment Lobby, Jan Davis
3. Speaker on behalf of Wendy White
4. Tim Buckley
5. Anthony Banton
6. Paul Rodgers
7. Joe Adendorff
8. Diane O'Mara
9. Julia Imrie
10. Phyllis Setchell
11. Sheree O'Connell
12. Darren Gaw
13. Gavin Browning
14. Bruce Birchall
15. Colin Imrie
16. Anthony Bell
17. David Brown
18. Central West Environment Council, Chris Pavich
19. Clifford Wall
20. Andrew Palmer
21. Jolieske Lips
22. Mudgee District Environment Group, Bev Smiles, Chairperson