



ASSESSMENT REPORT

Moolarben Coal Mine

Open-Cut Extraction Limit Modification (05_0117 MOD 10)

1. BACKGROUND

The Moolarben Coal Mine is located approximately 40 kilometres northeast of Mudgee (see **Figure 1**), between the Ulan and Wilpinjong Coal Mines. Moolarben Coal Operations Pty Ltd (MCO) operates the Moolarben Coal Mine on behalf of the Moolarben Joint Venture (Moolarben Coal Mines Pty Ltd (MCM), Sojitz Moolarben Resources Pty Ltd and a consortium of Korean power companies). MCO and MCM are wholly owned subsidiaries of Yancoal Australia Limited.

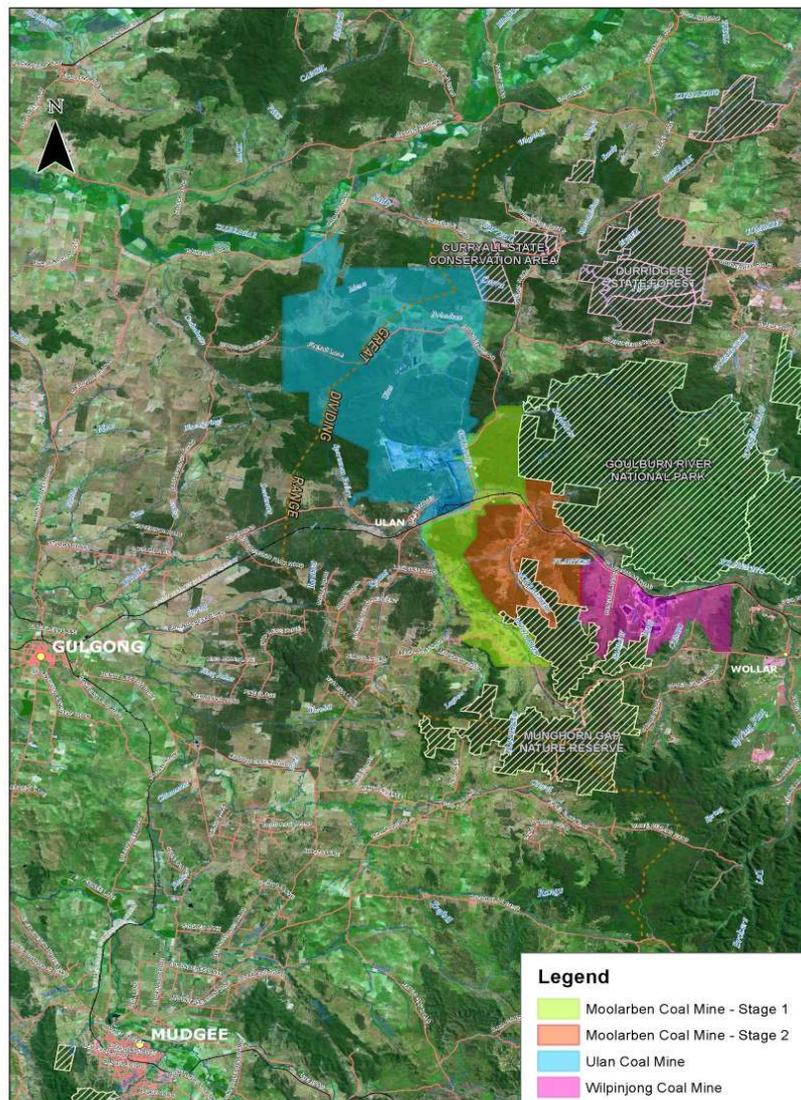


Figure 1: Regional Context

Stage 1 Project

Stage 1 of Moolarben was approved by the Minister for Planning on 6 September 2007 under the now repealed Part 3A of the Environmental Planning & Assessment Act 1979 (EP&A Act), following an Independent Hearing and Assessment Panel. This project approval has been modified on nine occasions, and currently allows MCM to extract up to 8 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal from 3 open cut pits (OC1, OC2 and OC3) and up to 4 Mtpa of ROM coal from one underground mining domain (UG4), until 2038.

The approval also allows the construction and operation of a range of mine infrastructure, including a coal handling and preparation plant, and a coal loader and rail loop. The approval allows up to 13 Mtpa of product coal to be despatched from the mine by rail to export and domestic markets.

The general layout of the approved Stage 1 operations is shown in blue outline in **Figure 2**.

To date, MCM has constructed the mine's surface infrastructure, and is close to completing mining operations in OC1. MCM is yet to commence Stage 1 underground mining operations.

Stage 2 Project

A separate application for Stage 2 of Moolarben was approved by the Planning Assessment Commission (PAC) in January 2015, under Part 3A of the EP&A Act. Stage 2 involves expanding mining operations further east of Stage 1, developing two additional underground mining domains (UG1 and UG2) and one additional large open cut mining pit (OC4). The Stage 2 approval allows the extraction of an additional 16 Mt of ROM coal per year (including 12 Mtpa by open-cut methods and 4 Mtpa by underground methods) for 24 years.

The general layout of the approved Stage 2 operations is shown in red outline in **Figure 2**.

Stage 2 will be operated concurrently with Stage 1, and together the two projects will form a single, integrated mining complex with a range of shared infrastructure, including the existing coal handling and preparation plant and rail facilities. All ROM coal from Stage 2 operations will be delivered to the Stage 1 surface infrastructure area for processing and despatch by rail.

2. PROPOSED MODIFICATION

MCM has made a request to the Minister for Planning under S75W of the EP&A Act (05_0117 MOD 10) to further modify its Stage 1 project approval (see Appendix A). This modification involves temporarily increasing the Stage 1 open-cut mining extraction limit from 8 Mtpa to 9 Mtpa, for 2015 and 2016 only.

The mining schedule has been affected by delays to the determination of its Stage 2 project. Also until recently, mining had been precluded in the OC1 extension area approved under Stage 1 Modification 9 until approval requirements for the conservation of "The Drip" were satisfied. The Stage 2 project is expected to be developed and commissioned over the coming 12-18 months.

These matters have significantly delayed access to the OC1 extension area and the commencement of the Stage 2 OC4 box cut. In order to maintain operational efficiency during this delay period, open-cut mining operations have concentrated on the lower strip ratio areas of OC1, rather than balancing high strip and low strip ratio areas mining within existing pits and commencing construction of the new box cut in OC4.

Low strip ratio mining areas are planned to be mined until well into 2016, to counter the above delays. However at the current production rate, MCO predicts that it would reach the approved Stage 1 open-cut extraction limit at the end of October 2015.

Slowing (or ceasing) production to comply with the approved extraction rate while mining the low strip ratio mining areas could significantly affect the continued employment of workers and the efficient operation of equipment.

Therefore to ensure maintenance of current production efficiencies while Stage 2 is developed, a temporary increase to the approved Stage 1 open-cut extraction rate is requested.

It is important to note that the proposed increase is for 2015 and 2016 only. Following this period, the current approved Stage 1 open-cut extraction limit of 8 Mtpa would again apply.

The modification would result in:

- maintained operational efficiency in Stage 1 while Stage 2 is developed;
- no increase to the approved total coal production limit of 13 Mtpa from Stage 1 and Stage 2;
- no further disturbance over that already approved;
- no additional equipment being required, or increase in intensity of current mining operations; and
- no additional environmental impacts above that already approved for the original project.

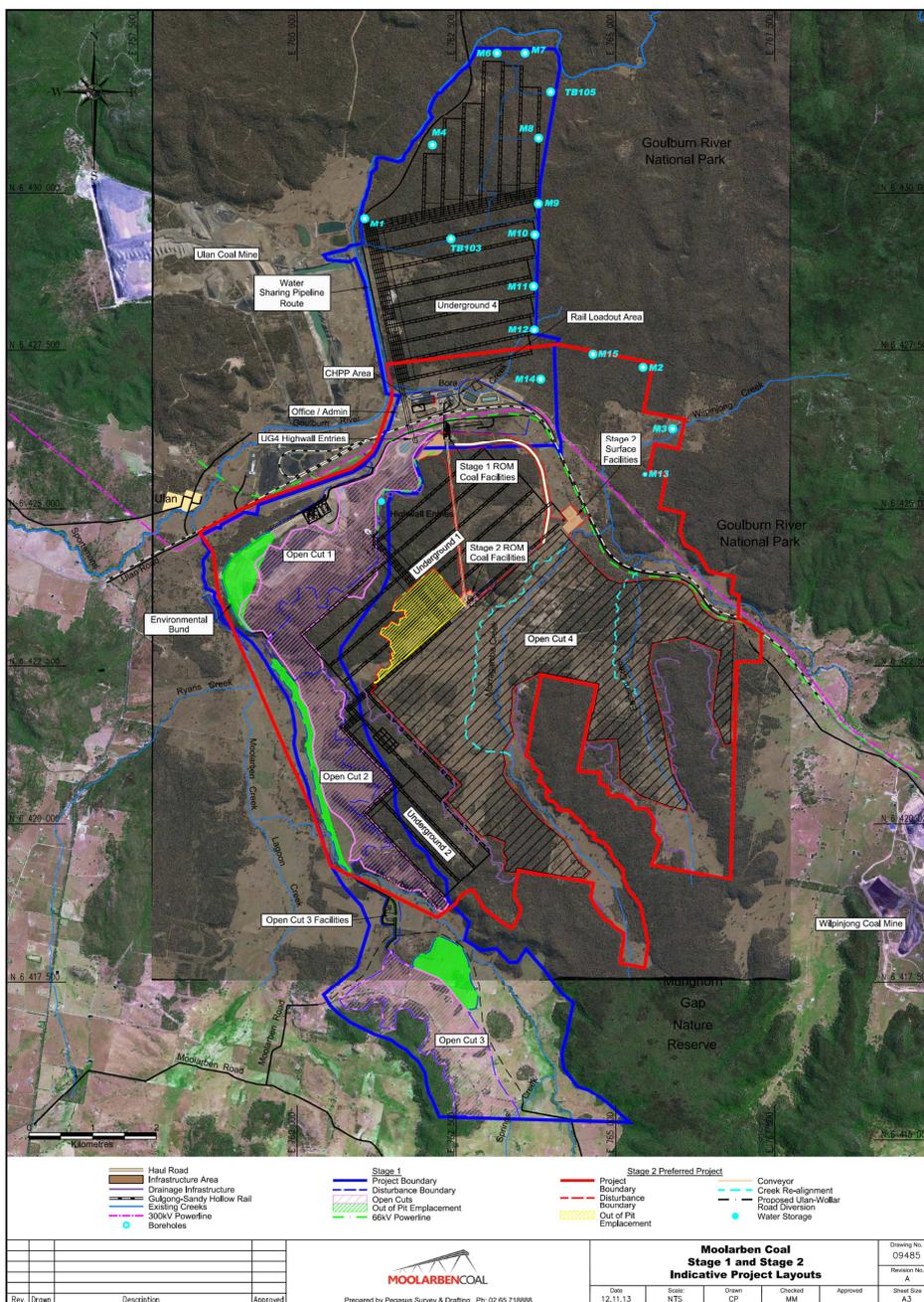


Figure 2: Layout of the Moolarben Coal Mine

3. STATUTORY CONTEXT

Section 75W Modification

The Moolarben Coal Project Stage 1 is classified under Schedule 6A of the EP&A Act as a "transitional Part 3A project", and can continue to be modified under the former section 75W of the EP&A Act.

The proposed modification involves no change to approved mining methods and systems, no change to the total approved total coal output from the mine, no change to the approved mining area or mine infrastructure, and the resulting environmental impacts would be substantially the same as those approved for the original project. The Department is therefore satisfied that the proposed modification is within the scope of section 75W.

Approval Authority

The Minister for Planning is the approval authority for the application. However, the Executive Director, Resource Assessments and Business Systems, may determine the application under the Minister's delegation of 16 February 2015, as; no reportable political donations have been made; Mid-Western Regional Council did not object; and no public objections were received.

4. CONSULTATION

The Department made the modification application publicly available on its website on 24 February 2015, and consulted with key agencies about the proposed modification.

The Environment Protection Authority asked for confirmation that the approved mining fleet would not increase, and confirmation of the period that the proposed increase in production rate would be required. The Department of Primary Industries (NSW Office of Water), Division of Resources and Energy, Office of Environment and Heritage and Mid-Western Regional Council raised no issues requiring consideration in the Department's assessment of the proposed modification.

There were no public submissions on the proposed modification.

5. ASSESSMENT

The Department's assessment of key issues is summarised in **Table 1**.

Table 1: – Assessment of key issues

<i>Issue</i>	<i>Potential impacts and consequences</i>	<i>Conclusion & Recommendation</i>
<i>Socio-Economic</i>	<ul style="list-style-type: none"> The proposed modification would increase coal royalty payments by approximately \$2.7 million during 2015 and 2016. If the extraction limit remains as approved, the temporary slowing or ceasing of coal production would result in socio-economic impacts, including the potential for standing down mining personnel, and lost opportunity costs due to equipment potentially remaining idle during this period. The proposed modification allows the continuation of efficient mining in OC1 while Stage 2 is commissioned. The Department is satisfied that the proposed modification will provide economic benefits to both the State and the region. 	<ul style="list-style-type: none"> No additional conditions of approval required to manage socio-economic impacts.
<i>Noise</i>	<ul style="list-style-type: none"> Current strip ratios are lower than average, and therefore less overburden is required to be removed to extract coal. The resulting noise levels from mining operations are accordingly minimised. No additional noise impacts would result from the modification, as the intensity of current mining operations would not increase, and no additional equipment would be used to extract the additional coal from OC1. The Stage 1 project approval contains strict noise criteria. Attended noise monitoring undertaken throughout 2014 shows consistent compliance with approved criteria. The Department is satisfied that the proposed modification would be unlikely to increase the level of impact at all nearby residences. 	<ul style="list-style-type: none"> No additional conditions of approval required to manage noise impacts.

<i>Air Quality</i>	<ul style="list-style-type: none"> As less overburden is required to be removed to extract coal, dust emissions are accordingly minimised. Air quality impacts are unlikely to increase over current levels. Monitoring results for 2014 indicate that the mine is operating well within its approved short-term and long-term air quality limits. The Department is satisfied that the current management controls, including watering stockpiles and exposed areas, and a real-time air quality monitoring system, would effectively manage air quality impacts at all nearby residences. 	<ul style="list-style-type: none"> No additional conditions of approval required to manage air quality impacts.
<i>Water Resources</i>	<ul style="list-style-type: none"> The Stage 1 surface water management system does not require upgrading, and would continue to effectively manage water impacts from the proposed modification. The MOD 9 EA noted that negligible impact to groundwater levels is evident from current mining operations in OC1. There has not been any measurable groundwater inflows to OC1 during current operations. The Department considers the proposed modification would have a negligible effect on surface water and groundwater resources. 	<ul style="list-style-type: none"> No additional control measures required, to manage water impacts
<i>Biodiversity</i>	<ul style="list-style-type: none"> No additional vegetation clearing would be required for the proposed modification. The proposed modification would therefore have no additional impacts on biodiversity values in the immediate and wider areas. 	<ul style="list-style-type: none"> No additional conditions required to manage biodiversity impacts.
<i>Aboriginal Cultural Heritage</i>	<ul style="list-style-type: none"> The proposed modification would be restricted to already disturbed areas of OC1. The Department is satisfied that no additional Aboriginal Cultural Heritage impacts would result, and the approved Heritage Management Plan remains appropriate. 	<ul style="list-style-type: none"> No additional conditions required to manage Aboriginal Cultural Heritage impacts.

6. RECOMMENDED CONDITIONS

No additional conditions are required to regulate the environmental impacts of the mine as a result of the proposed modification. The Department has prepared a Notice of Modification for the proposal (see Appendix B), including modifying the coal extraction limit condition, to allow the proposed extraction increase in 2015 and 2016. The Department has also taken the opportunity to correct two administrative errors in the previous Notice of Modification to the approval, regarding the acquisition of affected properties and the meteorological conditions under which the noise criteria do not apply.

Acquisition Rights

The note to condition 18 of Schedule 3, incorrectly references five receivers as having acquisition rights for predicted noise impacts. These receivers were never granted acquisition rights, but were granted "mitigation on request" rights under the previous modification (MOD 9). The Department has made the necessary amendment to correct this error.

Applicable Meteorological Conditions

Appendix 6 of the project approval lists the meteorological conditions which do not apply when assessing compliance with noise criteria. The Stage 2 approval, which the PAC determined concurrently with Stage 1 MOD 3 in January 2015, contains the most up-to-date list of exempted EPA recommended meteorological conditions. For consistency, the exempted meteorological conditions contained in the Stage 2 approval should also be applied to the Stage 1 approval. The Department has accordingly amended Appendix 6 to reflect the meteorological conditions listed in the Stage 2 approval.

MCM has reviewed and accepted the proposed conditions.

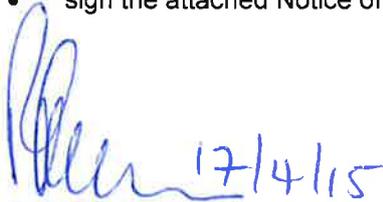
7. CONCLUSION

The Department has assessed the modification application in accordance with the relevant requirements of the EP&A Act. This assessment has found that the proposed modification would be unlikely to increase the environmental impacts associated with the approved project. The proposed extraction limit increase would allow efficient mining conditions in OC1 to continue while the Stage 2 project is developed and commissioned. The proposed increase is required only for 2015 and 2016, and would have socio-economic benefits. Consequently, the Department is satisfied that the proposed modification is in the public interest and should be approved.

8. RECOMMENDATION

It is RECOMMENDED that the Executive Director, Resource Assessments and Business Systems:

- consider the findings and recommendations of this report;
- determine that the proposed modification (05_0117 MOD10) falls within the scope of section 75W of the EP&A Act;
- approve the modification application under Section 75W of the EP&A Act ; and
- sign the attached Notice of Modification (Appendix B).



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David Kitto
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Resource Assessments & Business Systems

APPENDIX A: MODIFICATION APPLICATION

APPENDIX B: NOTICE OF MODIFICATION

APPENDIX B: PROJECT APPROVAL AS PROPOSED TO BE MODIFIED