Mining, Exploration and Geoscience
Department of Regional NSW

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Clay Preshaw
Executive Director Energy and Resource Assessments
Department of Planning and Environment
4 Parramatta Square, 12 Darcy Street
Parramatta NSW 2124

Maxwell Underground Mine – Modification 2 – Mining Optimisation Modification (SSD-9526-Mod-2)

Dear Clay,

I refer to Department of Planning and Environment correspondence dated 27 July 2022 inviting the Department of Regional NSW – Mining, Exploration and Geoscience (MEG) to provide comments on the Maxwell Underground Mine – Modification 2 – Mining Optimisation Modification (SSD-9526-Mod-2) (the Modification) submitted by Malabar Resources Limited (the Proponent).

Executive summary

The Modification is proposed to allow for the reorientation of longwall panels with the Woodlands Hill, Arrowfield and Bowfield seams and changes to the ventilation shaft site to:

- improve mine safety
- provide better subsidence management around Edderton Road
- reduce initial capital expenditure required
- initially extract coal from lower gas content panels
- minimize development to complete shaft ventilation circuit
- reduce life of mine ventilation pressures

With this Modification, Maxwell anticipates an approximate reduction of $100 million in capital expenditure to produce first Longwall coal from the Woodlands Hill Seam, as a function of optimisation and efficiencies from the revised layout. This accounts for the reduction in initial CAPEX for the project. The difference in costs will be deferred to the second stage when the full scale (300m wide) longwall is anticipated to begin production about 18 months post first Longwall coal.

As a result of this Modification first Longwall coal from the Woodlands Hill Seam is anticipated to be achieved 12 months sooner through a reduction in development requirements of the new mine layout.

Table 1: MEG estimate of total royalties

Resource parameter	$m (2022 dollars)
Total royalties received	$1,650
Net Present Value (NPV) royalties (7% discount rate)	$750
Annual average royalties	$66

The Modification will generate similar benefits as to the overall Maxwell Underground Mine Project (the Project) of:

- on average 350 operational workers over the life of the mine from 2022-23 to 2046-47 with an additional requirement for up to 250 construction workers during the construction phase.
- production value of around $14 billion in current dollars

MEG notes the Modification will result in an approximate reduction in capital investment of about $100 million due to optimisation and efficiencies from the revised mine layout noted above.

MEG considers the Modification will provide an appropriate return to the NSW Government

The Maxwell Modification is considered to be an efficient use of resources. If the Modification does not proceed the economic and social benefits outlined above will not be realised.

Project strategic considerations

Resource and economic context

The Project is a new coal mine in the Upper Hunter Valley approved by the Independent Planning Commission (IPC) in December 2020 and approved under the *Environmental Protection and Biodiversity Conservation Act 1999* in March 2021.

The Project has a mine life of 26 years with bord and pillar production expected to commence in 2023 and long wall production in 2024. The Project will utilise existing infrastructure owned by Malabar Coal in Coal Lease 395 (Act 1973) (CL 395) (the former Drayton mine). Initial construction commenced at the site in May 2022.

This is the second modification for the Project and focuses on the reorientation of long wall panels and relocation of a ventilation shaft. The Modification will provide increased certainty of the Project being developed to its full capacity and realisation of the local, regional and state benefits it provides.

Economic benefits of the Modification

The Modification does not involve significant changes to production (a decrease in overall production of 2.6 Million tonnes (Mt)) or the net benefits to NSW by way of employment, however the proposed changes will:

- allow production coal to be accessed sooner than previously scheduled
- return royalties to the state ahead of what was forecasted, and anticipated to be at a higher rate due to significantly higher projected coal prices from the previous 2019 submission
- reduce initial capital expenditure required to achieve production.

Royalty return to the state

Royalty calculation

The Modification is a proposed underground coal mine and as such a royalty rate of 7.2 percent of net disposal value is applicable. Net disposal value is the price received per tonne minus any allowable deductions.

The main allowable deductions include:

- Coal beneficiation: either $3.50 per tonne for a full washing cycle, or $2.00 per tonne for a simple washing process, or $0.50 per tonne for coal that is crushed and screened
- Administration levies of $1.00 per tonne

As all product coal from the Modification will be only crushed and screened, a deduction of $0.50 per tonne from the value of coal produced applies. Hence total allowable deductions for royalty for the Modification is $1.50 per tonne.

Assumptions

One quarter (25 percent) of the coal from the Modification is expected to be sold into the export thermal market. MEG has used the following forecast coal prices:

Year	Coking Coal A$/t (This Mod)	Coking Coal A$/t (2019 REA)	Thermal Coal A$/t (This Mod)	Thermal Coal A$/t (2019 REA)
2021-22	-	143	-	107
2022-23	430	131	366	105
2023-24	322	126	253	104
2024-25	306	124	218	111
2025-26	282	120	145	110
2026-27 to 2046-47	213	120	108	110

A review of coal quality data by MEG has determined that this is achievable, however, coal price forecast remain uncertain.

Resource Assessment

Background

The Proponent seeks to modify their development consent SSD 9526, this Modification would involve:

- the reorientation of the longwall panels in the Woodlands Hill, Arrowfield and Bowfield Seams resulting in a minor increase in the approved underground mining extent
- a reduction in the width of some of the longwall panels in the Woodlands Hill Seam
- the repositioning of the upcast ventilation shaft site and associated infrastructure
- other minor works and ancillary infrastructure components (for example, access road and ancillary water management infrastructure for the repositioned ventilation shaft site).

This modification is located wholly within the approved development application area. In this assessment MEG are reviewing the changes to the longwall panel orientation only in regard to resource recovery.

The proponent states that the reorientation of the longwall panels in the Woodlands Hill, Arrowfield and Bowfield Seams would better align with the principal stress orientation (east-west), improving the stability and safety of the underground working area during development advance and longwall

retreat. The reorientated longwalls would also be staggered between seams so that the chain pillars would not align, thus minimising the total subsidence at the surface.

Size and quality of the resource

The Project is located within the Hunter Coalfield of the Sydney Basin. The Proponent aims to recover coal from the Jerrys Plains Subgroup of the Wittingham Coal Measures. The strata dips to the south between three to five degrees. The total resource within the project is estimated at 530 Mt to a depth of 500 metres (2022 Resource report).

The Project aims to recover 148 Mt of run of mine (ROM) coal of which they will produce 121 Mt of product coal. The Proponent has completed coal resource and reserve estimation for the Project in accordance with the Australasian Code for Reporting Exploration results, Mineral Resources and Ore Reserves (the JORC Code). The JORC Code is an industry-standard professional code of practice that sets minimum standards for public reporting of minerals exploration results, mineral resources and ore reserves.

Due to the higher ash of the coal, the Project will be required to wash the ROM coal to meet export market specifications and maximise product value. Coal will be processed at the mines Coal Handling and Preparation Plant then railed to Newcastle for export or transported via conveyor to Bayswater and/or Liddell power stations.

The products expected from mining varies with each seam working section. Overall, the Proponent expects to produce 75 per cent metallurgical and 25 per cent thermal coal.

Resource recovery

From the schedule provided to MEG the resource recovery is expected to decrease by 2.6 Mt. This is not considered significant. The change in mine design is shown in Figure 1.

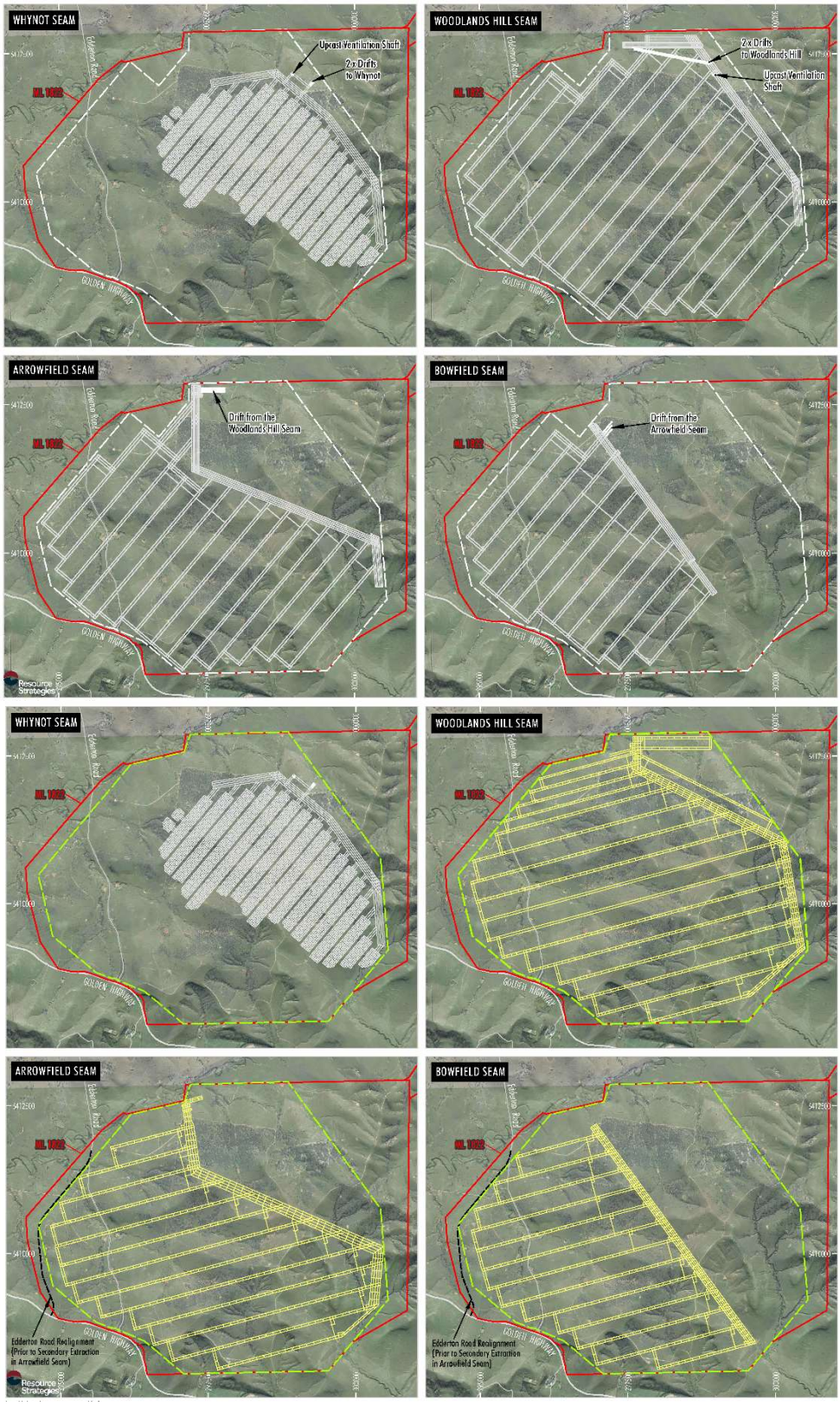

Figure 1: Changes in mine plan orientation for Woodland Hill, Arrowfield and Bowfield Seams

JORC code considerations

The Proponent has completed resource and reserve estimations for the Modification in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC code) produced by the Australasian Joint Ore Reserves Committee. The JORC Code is an industry-standard professional code of practice that sets minimum standards for public reporting of mineral exploration results, mineral resources and ore reserves. Reserves are the economically mineable portion of a resource. A JORC compliant reserves report assists in independently assessing the commercial viability of the Modification and the proposed mining method.

In view of the opportunities and constraints outlined in the Proponent's Modification and based on the information currently available, MEG considers that the Modification is consistent with the objects of the *Mining Act 1992*. Furthermore, in relation to clause 2.21 of the State Environmental Planning Policy (Resources and Energy) 2021, the Modification represents an efficient development and utilisation of minerals resources which will foster significant social and economic benefits.

MEG is satisfied that, should the operational outcomes be achieved, the proposed mine design and mining method submissions adequately recover resources and will provide an appropriate return to the state.

Application of section 380AA of the *Mining Act 1992* – restrictions on planning applications for coal mining and titles required to undertake mining

Coal is a prescribed mineral under the Act and the Proponent is required to hold appropriate mining titles from MEG to undertake mining.

Section 380AA states:

> *(1) An application for development consent, or for the modification of a development consent, to mine for coal cannot be made or determined unless (at the time it is made or determined) the applicant is the holder of an authority that is in force in respect of coal and the land where mining for coal is proposed to be carried out, or the applicant has the written consent of the holder of such an authority to make the application.*
>
> *(2) For that purpose, an authority in respect of coal need not be in force in respect of the whole of the land to which the application for development consent relates but must be in force for the land where mining for coal is proposed.*

Based on current title information MEG advises that the Proponent holds the appropriate titles as required for planning applications for coal as relating to the Modification and satisfies the requirements of section 380AA.

The requirement for a mining authority and royalty liability

The requirement for a mining lease

As coal is a prescribed mineral under the Act, the Proponent is required to hold appropriate mining title(s) allowing for mineral extraction, such as a mining lease, to undertake mining.

The mining and prospecting activities under the currently approved MP09_0182 are located within Coal Lease 368 (Act 1973) (CL 368) and Authorisation 344 (Act 1973) (Auth 344). Based on current title information MEG advises that the Proponent holds the appropriate titles as required for mineral extraction (coal). This satisfies the requirements of sections 5 and 73 of the Act within the limits of CL 368, including the additional depth requirements of the Modification.

MEG notes that the Proponent has lodged a mining lease application over Auth 344. Mining Lease Application 586 (Act 1992) will cover the already approved operations within MP09_0182 and the additional depth sought as part of the Project/Modification.

Based on current authority information MEG advises that the Proponent holds the appropriate authorities as required for mining operations as relating to the project.

Royalty Liability

The holder of a mining lease is also liable to pay a royalty for both publicly and privately-owned minerals (refer to section 282-285 of the Act).

Biodiversity offset assessment

MEG requests that the Proponent consider potential resource sterilisation should any future biodiversity offset areas be considered. The Proponent must consult with MEG and any holders of existing mining or exploration authorities that could be potentially affected by the proposed creation of any such biodiversity offsets, prior to creation occurring. This will ensure there is no consequent reduction in access to prospective land for mineral exploration or potential for the sterilisation of mineral and extractive resources.

Summary of review

MEG considers that should the Modification be approved; efficient and optimised resource outcomes can be achieved.

MEG requests that it be provided with an opportunity to review the draft conditions of approval before finalisation and any granting of development consent.

For enquiries and further information on this matter, please contact Katherine Courtney, Senior Analyst Industry Advisory & Mining Concierge Unit within the Industry Development Branch on 02 4063 6860 or mining.concierge@regional.nsw.gov.au.

Yours sincerely,

Scott Anson

Manager Industry Advisory and Mining Concierge

for

Tony Linnane
Executive Director Strategy, Performance and Industry Development
Mining, Exploration and Geoscience