

MINING, EXPLORATION & GEOSCIENCE ADVICE RESPONSE

Philip Nevill
Energy, Resources & Compliance Division
Department of Planning, Industry and Environment
GPO Box 39
SYDNEY NSW 2001

philip.nevill@planning.nsw.gov.au

Dear Philip

Project: Tarrawonga Coal Mine – Life of Mine Modification – Modification 7
Stage: Review Modification Report
Development Application: MP11_0047-Mod-7

I refer to your correspondence dated 14 May 2020 inviting Regional NSW – Mining, Exploration & Geoscience (MEG) to provide comments on the Tarrawonga Coal Mine – Life of Mine Modification – Modification 7 (the Tarrawonga Project or the Proposal). The proponent is Tarrawonga Coal Pty Ltd, a wholly-owned subsidiary of Whitehaven Coal Limited (Whitehaven or the Proponent).

The relevant units internal to Mining, Exploration and Geoscience (MEG) have been consulted in generating this advice. The Department of Planning, Industry and Environment – Energy, Resources & Compliance Division and the Proponent should be aware that matters concerning subsidence, subsidence management, mine operator, safety, rehabilitation and environmental impacts of final landform design are not assessed by MEG and advice should be sought from the Resources Regulator.

Advice overview

MEG has determined that the Tarrawonga Project will:

- improve resource recovery and be an efficient use of resources.
- ensure an appropriate return to the NSW Government including;
 - an additional \$31 million royalties (current dollars)
 - \$3.392 billion total revenue (current dollars), an increase of \$392 million on the currently approved operation.
- maximise the economic extraction of coal and avoid mining the Upper Namoi alluvium, therefore, removing the requirement to construct the low permeability barrier, Goonbri Creek diversion and road and electricity transmission line realignments.
- provide an alternative contingency water supply from surplus water from the proposed Vickery Extension Project (subject to the Vickery Extension Project's approval, commissioning and water extraction/licensing limits).
- support continued employment for a workforce of up to 211 full-time equivalent (FTE) personnel.

Resource and Economic Assessment

Whitehaven will continue to mine the Braymont, Bollol Creek, Jeralong, Merriown, Velyama and Nagero Seams of the Maules Creek Formation. Coals produced from Tarrawonga are typically low

ash, low sulphur, low phosphorus, medium to high volatile semi-soft/PCI and export quality thermal coals.

Tarrawonga was initially approved to mine a larger extent than the Modification area, however, the original approval included conditions requiring a permanent Goonbri Creek alignment and the construction of a permanent flood bund and low permeability barrier before mining within 200 metres of the Goonbri Creek and associated Upper Namoi Alluvials. The total coal within the Upper Namoi Alluvium plus that within the 200 metre Goonbri Creek offset is 8.5 Million tonnes (Mt). Based on current market conditions and other costs that would likely be incurred in mining the 8.5 Mt, Whitehaven considers the costs associated with the recovery of this coal to be economically prohibitive. The Modification, therefore, seeks to avoid mining within 200 metres of the Goonbri Creek and the associated Upper Namoi Alluvium.

To achieve the objectives of the Modification, Whitehaven assessed a base case and the Tarrawonga Project case and determined that the mine design accepted to form the Tarrawonga Project is the most appropriate, commercially viable and achieved the best resource recovery within the existing approved open cut boundary.

In the base case, Whitehaven would continue operations at Tarrawonga consistent with the original consent and terminate mining activities 200 metres from the Upper Namoi Alluvium at the point where the construction of the Goonbri Creek diversion and lower permeability barrier and associated processes would be required. The base case would have resulted in a loss of 8.5 Mt coal recovery over the Life of Mine (LOM). The Tarrawonga Project, if approved, optimises the resource that can be recovered whilst meeting the objectives of the Modification, without the need for extensive additional capital works and other costs. The Modification will allow mining within 200 metres of the Upper Namoi alluvium, however, would remain at least 200 metres from Goonbri Creek. The associated Goonbri Creek diversion and low permeability barrier would no longer be required.

Approximately 3.4 Mt of additional LOM coal would be extracted under the Modification compared to the base scenario. For example, approximately 3.4 Mt of coal is located within the 200 metre offset from the Upper Namoi alluvium. The Modification is therefore proposed on the basis that it would maximise the recovery of coal within the currently approved open cut extent, given the constraints imposed by the existence of the Upper Namoi Alluvium and the costs of full compliance with the corresponding approval conditions.

The Proponent has completed coal resource and reserve estimations for the Project in accordance with the Australasian Code for Reporting of 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 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 Tarrawonga Project and the proposed mining method.

Many factors constrain the mine plan and extraction methodology and therefore the resource recovery of the Project. The options were assessed according to mine design, engineering feasibility, economic feasibility and the balance provided for appropriate environmental and social outcomes.

In view of the constraints outlined in the Proponent's modification report (MRT) and based on the information currently available, MEG considers the Project satisfies section 3A objects of the *Mining Act 1992* and the requirements of clause 15 of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007. The Tarrawonga Project represents an efficient development and utilisation of coal resources which will foster significant social and economic benefits.

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

The resource utilisation, recovery and economic benefits assessment undertaken by MEG is addressed in Attachment A.

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 Whitehaven holds the appropriate titles as required for planning applications for coal as relating to the Project and satisfies the requirements of section 380AA (see Attachments B, C, D and E).

The requirement for a mining authorisation and royalty liability

The requirement for a mining lease

As coal is a prescribed mineral under the Act the Proponent is required to apply for appropriate mining title(s) allowing for mineral extraction, such as a mining lease, from MEG to undertake mining. Based on current title information, and should a mining lease be obtained covering the north-eastern extent of the open cut consistent with the original 11_0047 approval, MEG advises that the Proponent will hold the appropriate titles as required for mineral extraction (coal) satisfying the requirements of sections 5 and 73 of the Act

Additional ancillary mining activities (including ventilation shafts)

For ancillary mining activities, a proponent holding a mining lease granted in respect of mineral/s may, in accordance with the lease conditions, carry out any ancillary mining activity on that land (see definition of ancillary mining activity in clause 7 of the Mining Regulations 2016).

There is a subset of ancillary mining activity that the legislation defines as 'designated ancillary mining activity' (defined in section 6(6) of the Act).

A proponent seeking to undertake designated ancillary mining activity on land inside the mining area must ensure that the mining lease granted in respect of mineral/s contains a condition allowing undertaking of this designated ancillary mining activity (Section 6(1) of the Act).

A proponent seeking to undertake a designated ancillary mining activity outside a mining area, but in the immediate vicinity of and that directly facilitates the mining lease in respect of mineral(s), must apply for one of the following:

- A separate mining lease for the designated ancillary mining activity which authorises the carrying out of the activity. (This provides the holder with the right to access the mining area to undertake the ancillary mining activity, however, does not provide the holder with the right to mine).
- A condition on an existing mining lease that regulates the carrying out of the designated ancillary mining activity in an off-title area. (See section 6(2) of the Act). The ancillary mining activity condition will include the survey plan of the designated ancillary mining activity area on which the designated ancillary mining activity is (or is proposed to be) located.

Royalty Liability

Furthermore, 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).

Application of section 65 of the *Mining Act 1992* – development consents under the *Environmental Planning and Assessment Act 1979*

A development application under the *Environmental Planning and Assessment Act 1979* must be approved before a mining lease can be granted. A mining lease will only be granted for activities specified in the development consent.

Section 65 states:

The Minister must not grant a mining lease over land if development consent is required for activities to be carried out under the lease unless an appropriate development consent is in force in respect of the carrying out of those activities on the land.

Biodiversity offset assessment

MEG requests that Whitehaven consider potential resource sterilisation concerning any amendments or additions to biodiversity offset areas. MEG requests that both the Geological Survey of NSW – Land Use Assessment team and holders of existing mining and exploration authorities that could be potentially affected by planned biodiversity offsets be consulted. 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 has determined that should the Project be approved, efficient and optimised resource outcomes can be achieved, and any identified risks or opportunities can be effectively regulated through the conditions of mining authorities issued under the *Mining Act 1992*.

MEG requests to review the draft conditions of approval before finalisation and any granting of development consent.

For further enquiries and advice concerning this matter, please contact Adam W. Banister, Senior Advisor, Assessment Coordination Unit – Resource Assessments on 02 4063 6534 or assessment.coordination@planning.nsw.gov.au.

Yours sincerely



Dr David Blackmore
Director Resource Assessments
Regional NSW – Mining, Exploration & Geoscience
15 June 2020

Encl.

Attachment A – Tarrawonga Coal Mine - Modification 7 (Life of Mine Modification) - Resource & Economic Assessment (DOC20/371377)

Attachment B – Tarrawonga Coal Mine - Modification 7 (Life of Mine Modification) - diagram – overview (DOC20/459047)

Attachment C – Tarrawonga Coal Mine - Modification 7 (Life of Mine Modification) - diagram – mining (DOC20/459043)

Attachment D – Tarrawonga Coal Mine - Modification 7 (Life of Mine Modification) - diagram – exploration (DOC20/459040)