

ASSESSMENT REPORT

TARRAWONGA COAL MINE

Open Cut Extension Modification (11_0047) MOD 5

1 BACKGROUND

The Tarrawonga Coal Mine is an open cut coal mining operation located approximately 42 kilometres (km) north-northwest of Gunnedah. Whitehaven Coal operates the mine on behalf of a joint venture between Whitehaven Mining Pty Ltd (Whitehaven) (70% interest) and Boggabri Coal Pty Ltd (30% interest).

The mine operates under a project approval known as the Tarrawonga Coal Project (11_0047), granted under delegation from the then Minister for Planning and Infrastructure on 22 January 2013. The approval has been modified on 4 occasions and currently allows Whitehaven to extract up to 3 million tonnes per annum (Mtpa) of Run-of-Mine (ROM) coal by open cut mining methods until December 2030, and transport this coal to the port of Newcastle.

The Boggabri Coal Mine is located immediately north of the Tarrawonga Coal Mine, and is owned and operated by Boggabri Coal Pty Limited (Boggabri Coal). As part of the approval for the Tarrawonga Coal Mine, Whitehaven is required to rehabilitate the site and integrate the final landform with the Boggabri coal mine.

This will be managed by a series of mining lease transfers as both sites are progressively rehabilitated. Following completion of the final lease transfer, Whitehaven will emplace overburden up to the Boggabri waste rock emplacement to create an integrated landform.

2 PROPOSED MODIFICATION

Whitehaven is seeking approval for a further modification to its project approval under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Since receiving approval for the Tarrawonga Coal Project, Whitehaven has undertaken further detailed mine planning and identified an additional recoverable coal reserve of approximately 0.5 million tonnes of ROM coal to the north of the approved open cut mining area, and within the area approved as part of the integrated waste rock emplacement.

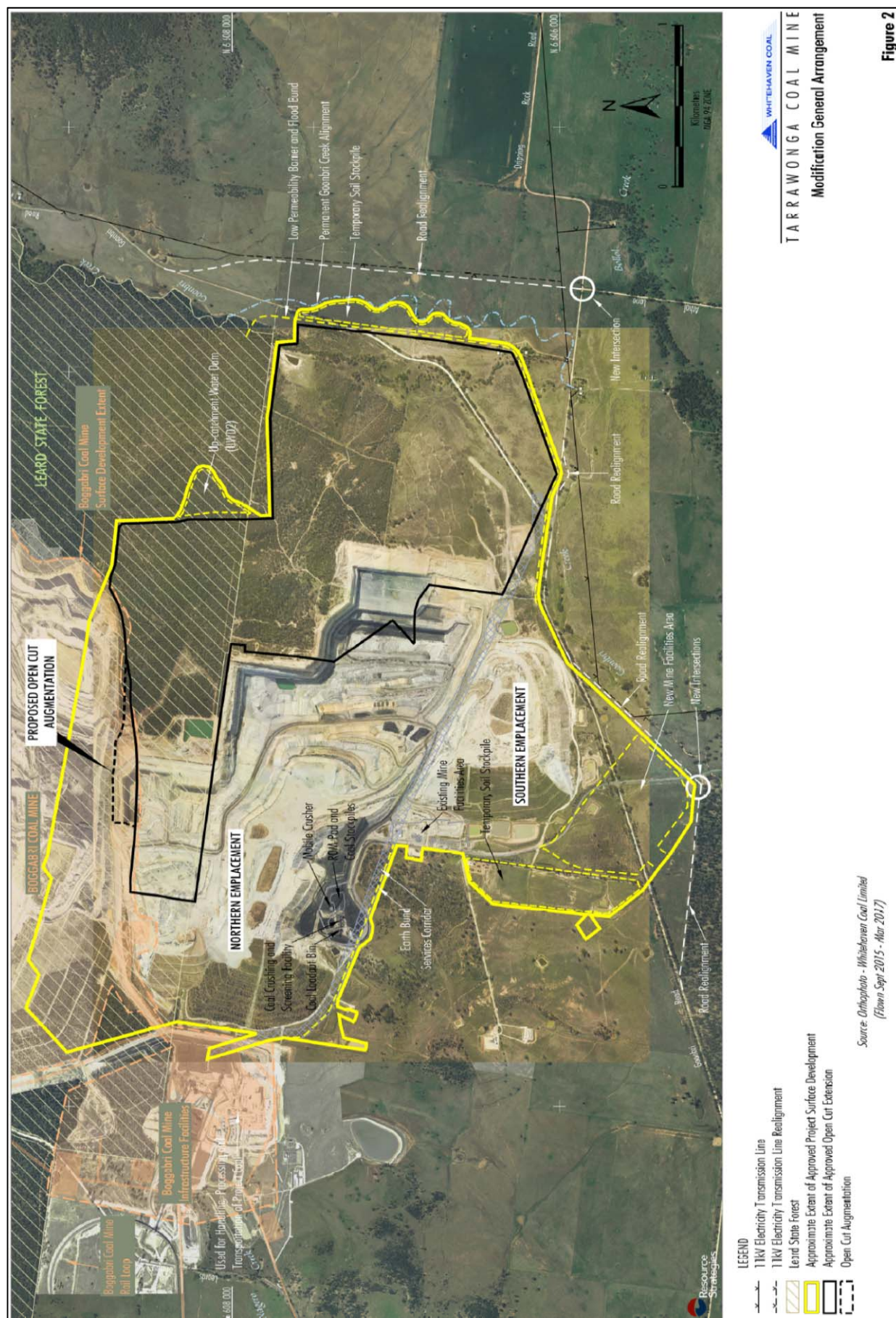
The proposed modification seeks to extend a portion of the open cut 300 metres to the north, as shown in Figure 1. The extension would be contained within the project boundary and the approved disturbance footprint of the integrated waste rock emplacement.

The proposed modification (Mod 5) is described in detail in the attached Environmental Assessment (EA) (see Appendix A).

3 STATUTORY CONTEXT

The Tarrawonga Coal Mine was approved under Part 3A of the EP&A Act.

Although Part 3A was repealed on 1 October 2011, the mine remains a 'transitional Part 3A project' under Schedule 6A of the EP&A Act, and hence any modification to the approval is to be made under the former Section 75W of the Act.



The Department is satisfied that the application can be characterised as a modification to the existing approval as the proposal would:

- not alter the approved mining methods;
- not increase the approved maximum production rate;
- not alter the approved transportation methods or rate; and
- not significantly increase the environmental impacts of the approved project.

Given these considerations, the Department is satisfied that the proposal is within the scope of Section 75W, and may be determined accordingly.

Under Section 75W of the EP&A Act, the Minister for Planning is the approval authority for the modification application. However, under the Minister's delegation dated 16 February 2015, the A/Director, Resource and Energy Assessments may determine the application.

Under Section 75X of the EP&A Act, the Secretary is required to make the modification application publicly available. In accordance with this provision, the Department placed the application and accompanying EA on its website.

The Department also consulted with its Division of Resources and Geoscience, Narrabri Shire Council, and the Environment Protection Authority (EPA), none of which raised any concerns with the proposed modification. A copy of the advice is provided in Appendix B.

4 ASSESSMENT

In assessing the merits of the modification application, the Department has considered:

- the modification application and supporting information;
- the EA and conditions of approval for the Tarrawonga Coal Project and the Boggabri Coal Project;
- relevant environmental planning instruments, policies and guidelines; and
- the requirements of the EP&A Act.

The Department considers that all the potential impacts resulting from the modification are relatively minor. This is because the proposed extension area is:

- relatively small (i.e. 9.3 ha or approximately 2% of the entire open cut area);
- located within an area approved for disturbance by the waste rock emplacement to be developed as part of the Tarrawonga and Boggabri coal mines; and
- not located closer to privately-owned receivers.

A summary of the Department's assessment of all relevant issues is provided in Table 1.

Table 1: Assessment of Issues

Issue	Consideration	Conclusion/ Recommendations
<i>Noise and Blasting</i>	• The proposed modification is unlikely to result in any additional noise impacts. This is because: - o there would be no change to the mining fleet or operational procedures which might cause increased noise; - o the proposed modification is not located any closer to privately-owned receivers, the nearest of which is located approximately 5.5 km to the west; and - o the area subject of the proposal is approved for the development of a waste rock emplacement. • The proposed modification would not change the procedures or frequency of blasting.	• The Department is satisfied that noise and blasting could continue to be managed in accordance with the approved Noise and Blast Management Plans.

Issue	Consideration	Conclusion/ Recommendations
<i>Air Quality</i>	- The proposed modification is unlikely to result in any increased impacts to air quality than previously assessed and approved. - This is because the proposed extension is not closer to privately-owned receivers than any approved activities. - Whitehaven would continue to implement a range of measures to mitigate impacts including general dust mitigation measures (i.e. watering of haul roads and stockpiles), and implementing a real-time air quality management system.	The Department is satisfied that air impacts could continue to be managed in accordance with the approved Air Quality Management Plan.
<i>Water Resources</i>	- The proposed modification has the potential to impact surface water management and groundwater inflows into the open cut. - The proposal would increase the surface area of the open cut by approximately 2% which may result in slightly increased groundwater inflows from the porous rock groundwater system. - Nevertheless, the area surrounding the proposed extension has already been depressurised by existing open cut operations at Tarrawonga and Boggabri which have already dewatered the porous rock aquifer in the extension area. - Inflows from the porous rock aquifer have been less than those predicted in the EA for the original project. (i.e. an average of 0.4 ML a day in 2016 compared to an average of 0.5ML a day identified in the EA). - Consequently, the assessment considers that any additional groundwater inflows could be accounted for by the existing Water Access Licences held by the mine. - There are no privately-owned bores located in the vicinity of the proposed extension. - The proposed modification would not require any significant changes or upgrades to the existing water management system. - The Department considers that the proposal is unlikely to result in any significant incremental impacts to surface water or groundwater.	The Department considers that the existing Water Management Plan should be reviewed and updated to reflect the minor changes from the proposed modification.
<i>Waste</i>	- The proposed modification would increase the amount of waste rock generated and emplaced at the mine by approximately 0.65 million bank cubic metres. - This additional material would account for a very small portion of the total waste rock managed and emplaced at the mine (approximately 0.1%). - Consequently, any changes to the final landform would be negligible.	The Department considers that the existing Rehabilitation Management Plan should be reviewed and updated to reflect the minor changes from the proposed modification.
<i>Biodiversity</i>	- The area to be impacted by the proposed modification would be located within the approved disturbance area for the integrated Tarrawonga and Boggabri waste rock emplacement. - Consequently, the modification would not result in any additional surface disturbance or impacts on biodiversity than that previously assessed.	The Department is satisfied that biodiversity impacts could continue to be managed in accordance with the approved Biodiversity Management Plan for the mine.

Issue	Consideration	Conclusion/ Recommendations
<i>Heritage</i>	- Given that there is no additional disturbance as part of the proposal, the modification would not impact any Aboriginal or Historic heritage other than already approved. - Previous heritage assessments conducted by Kayandel Archaeological Services (2011) and Insite Heritage (2010) did not identify any heritage sites in the proposed extension area.	The Department is satisfied that Aboriginal heritage impacts could continue to be managed in accordance with the approved Heritage Management Plan.

5 CONCLUSION

The Department has assessed the merits of the proposed modification in accordance with the relevant requirements of the EP&A Act, including the objects of the Act and the principles of ecologically sustainable development.

The Department's assessment has found that the proposed modification is relatively minor, would not materially increase the environmental impacts of the mine, and that there are comprehensive conditions in place to mitigate and manage environmental impacts.

The Department notes that the proposed modification would recover a coal resource that would otherwise be sterilised by the integrated Tarrawonga and Boggabri waste rock emplacement and would consequently maximise the benefits of the project, including royalties paid to the NSW Government.

Consequently, the Department considers that the proposed modification should be approved, subject to conditions.

The Department has prepared a Notice of Modification (see Appendix C) and a consolidated version of the project approval (see Appendix D) for the proposal. The notice allows the proposed extension to the open cut.

6 RECOMMENDATION

It is **RECOMMENDED** that the A/Director, Resource and Energy Assessments, as delegate of the Minister:

- **considers** the findings and recommendations of this report;
- **determines** that the proposed modification is within the scope of section 75W of the EP&A Act;
- **approves** the modification application under section 75W, subject to conditions; and
- **signs** the Notice of Modification in **Appendix C**.



Matthew Riley
A/Team Leader
Resource and Energy Assessments

APPENDIX A: ENVIRONMENTAL ASSESSMENT

APPENDIX B: AGENCY AND COUNCIL ADVICE

Matthew Riley
Senior Planning Officer
Resource Assessments - Planning Services Division
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Matthew.Riley@planning.nsw.gov.au

Dear Matthew

**Tarrawonga Coal Mine - Modification 5
Environmental Assessment Review**

I refer to your email dated 3 July 2017 inviting the Division of Resources & Geoscience (the Division) to provide comments on the Tarrawonga Coal Mine - Modification 5 (the Project) Environmental Assessment (EA) submitted by Whitehaven Coal Limited (the Proponent).

The Division has reviewed the adequacy of information supplied in relation to the abovementioned Project and advises that the Division's requirements have been adequately addressed in the Project's EA.

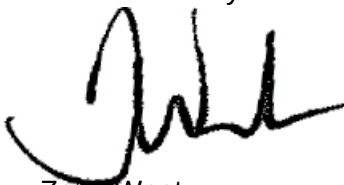
The Division has determined that sustainable rehabilitation outcomes can be achieved as a result of the project and that any identified risks or opportunities can be effectively regulated through the conditions of mining authorities issued under the *Mining Act 1992*.

The Project will not impact on surface development extent, final landform and rehabilitation strategy or existing biodiversity offset arrangements. It is therefore not considered likely to impact negatively on other resources.

Having raised no issues within the EA the Division has no further comments in relation to the current Project stage however, requests review of draft conditions prior to the determination of development consent modification.

Should you have any enquires regarding this matter please contact:
Adam Banister, Acting Senior Advisory Officer - Royalties & Advisory Services on (02) 4931 6439.

Yours sincerely



Zane West
Manager Royalties & Advisory Services
21 July 2017

APPENDIX C: NOTICE OF MODIFICATION

APPENDIX D: CONSOLIDATED PROJECT APPROVAL