ASSESSMENT REPORT

NARRABRI COAL MINE – MODIFICATION
Stockpile Extension (08_0144 MOD 4)

1 BACKGROUND

The Narrabri Coal Mine is an underground mine located approximately 28 kilometres (km) southeast of Narrabri and 28 km northwest of Boggabri in the New England North West Region (Figure 1).

The mine is owned by Narrabri Coal Operations Pty Ltd (NCO), a joint venture in which Narrabri Coal Pty Ltd is the major shareholder. Narrabri Coal Pty Ltd is a wholly owned subsidiary of Whitehaven Coal Limited. The mine operates under a project approval which was granted under delegation from the Minister for Planning in July 2010 (MP 08_0144).

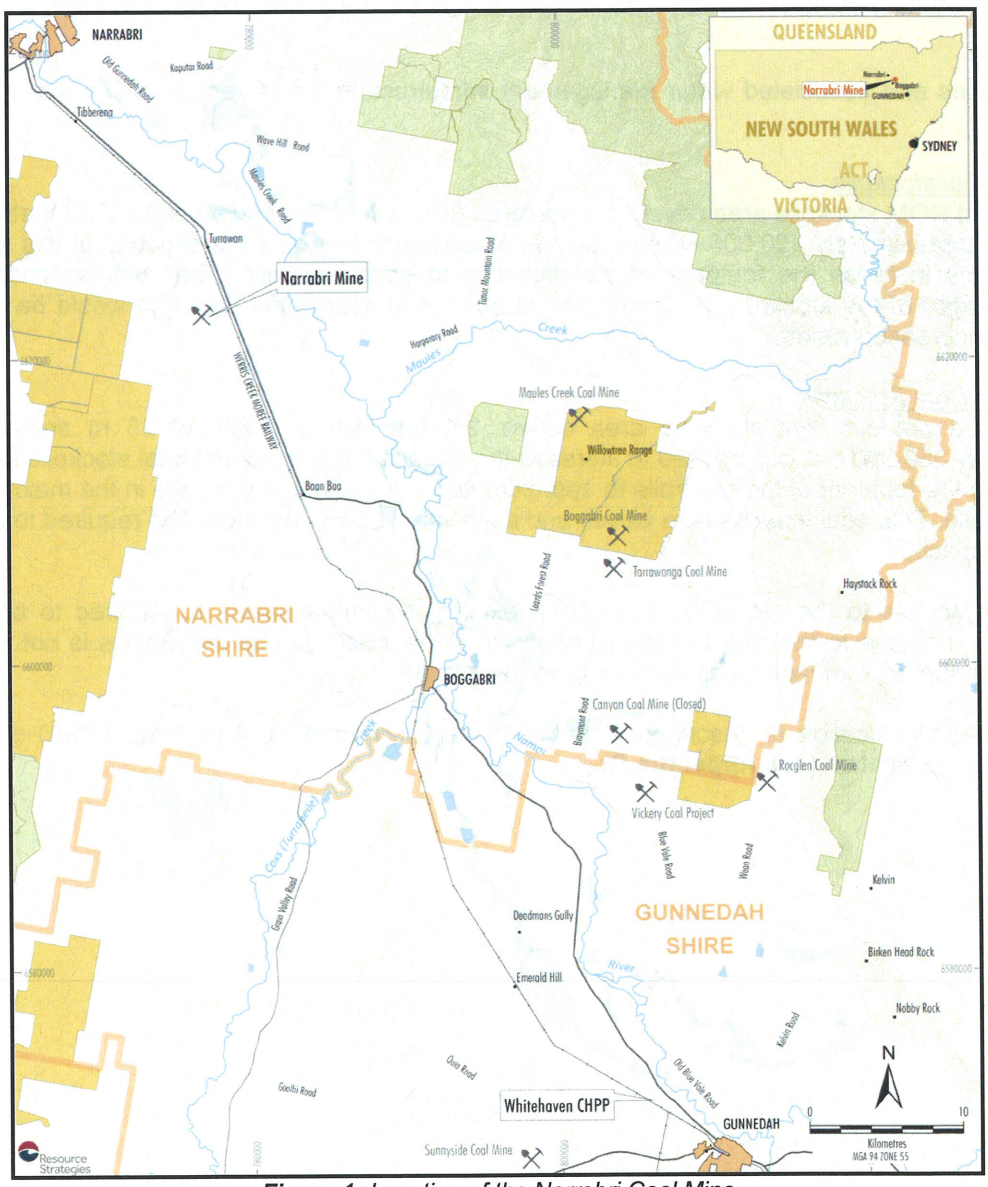

Figure 1: *Location of the Narrabri Coal Mine*

This approval has been modified on two prior occasions and allows:

- extraction of up to 8 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal until the end of December 2031;
- construction and operation of a coal handling and preparation plant (CHPP), rail spur, rail loop, and load out facility;
- processing and stockpiling of coal; and
- transportation of product coal by rail to the port of Newcastle.

The Narrabri Coal Mine is located to the northwest of the mining precinct centred within and around the Leard State Forest, which includes the Boggabri, Maules Creek and Tarrawonga Coal Mines (see Figure 1). Other land uses surrounding the mining complex include forestry, conservation and agriculture.

2 PROPOSED MODIFICATION

NCO is seeking to modify its project approval to increase the capacity of the ROM and product coal stockpiles (see Figure 2). The original Stage 2 project assumed a steady state rate of production and did not allow for periods requiring additional stockpile capacity due to train scheduling and production fluctuations.

This has not been an operational issue to date as the mine has been operating at a lower production rate of 5.5 Million tonnes per annum (Mtpa). However, ROM coal production is forecast to increase to the approved maximum 8 Mtpa during 2015. An increase in the capacity of the stockpiles is required to allow for the increase in operational fluctuations, and for the efficient storage, handling and loading of coal at the mine.

Both stockpiles and associated water management infrastructure would remain within the approved pit top area.

The ROM Coal stockpile
The approved ROM stockpile area covers 4.7 hectares (ha), with a maximum height of 20 metres (m) and capacity of approximately 400,000 tonnes (t). It is proposed to increase the capacity of this stockpile to 700,000 t and increase the footprint of the stockpile to approximately 7 ha, with no change in the maximum height of the stockpile. A new sediment basin and associated drainage would be required to manage the increased runoff.

The Product Coal Stockpile
The approved product coal stockpile area covers 3.4 ha, with a height of 25 m and capacity of approximately 350,000 t. It is proposed to increase the capacity of the product coal stockpile to 500,000 t and increase the footprint of the stockpile to approximately 4.8 ha, with no change in the maximum height of the stockpile. Two additional reclaim valves and associated conveyors would be required to service the increased capacity.

To maintain access to the stockpile, one of the existing sediment basins is required to be modified. However, an increase to the overall storage capacity of the existing sediment basins is not required as the overall controlled drainage catchment remains the same.

The proposed modification is described in detail in the Environmental Assessment (EA) submitted in support of the application (see **Appendix B**)

***Figure 2**. Stockpile and Sediment Basin Modifications*

3 STATUTORY CONTEXT

The Narrabri Coal Mine was approved under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Although Part 3A was repealed on 1 October 2011, the project remains a 'transitional Part 3A project' under Schedule 6A of the EP&A Act. Consequently, the proposed modification must be determined under Section 75W of the Act.

Based on its assessment, the Department is satisfied that the application can be characterised as a modification to the existing approval (rather than a new project in its own right) as the proposal would:

- not alter the approved mining footprint or the mining methods;

- contain the additional infrastructure within the approved pit top area;
- not alter maximum production rates;
- not alter the transportation methods; and
- not significantly increase the environmental impacts of the 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 Executive Director, Resource Assessments and Business Systems, may determine the application. This is because less than 25 public submissions were received on the proposal that were in the nature of an objection, no reportable political donations were made, and Narrabri Shire Council (Council) raised no objections to the proposal.

4 CONSULTATION

The Department exhibited the modification application from 28 March 2015 until 13 May 2015 and made the accompanying EA publically available on its website and at the Department's Information Centre, Narrabri Shire Council and the Nature Conservation Council.

The Department also consulted with relevant Government authorities and a summary of their comments is provided below. None of these agencies objected to the proposed modification.

The **Environment Protection Authority** (EPA) accepted that additional air quality impacts were negligible and that existing air quality monitoring and mitigation measures were adequate to manage dust. In regards noise impacts, the EPA noted that NCO had entered a noise agreement with one receptor (Bow Hills) predicted to receive moderate noise impacts and that they were also in negotiation to acquire an additional property (Belah Park) where a minor 1dB(A) exceedance is predicted. Further, the EPA accepted that noise from construction activity would be relatively minor compared to overall operational noise.

The EPA advised that appropriate design criteria had been adopted for the water management system and that a variation would be required to its Environment Protection Licence (EPL) to reflect changes to noise limits and water discharge points at the site, should the modification be approved.

Narrabri Shire Council raised no objection to the proposal, but did raise concern in relation to the contribution of the proposal to cumulative air quality and dust pollution issues within the Narrabri local government area. The Council recommended that a regional dust monitoring system be established to measure air quality in the Gunnedah Basin. The Department notes that a regional dust monitoring network is currently being investigated by the EPA in accordance with the agreed actions under the *New England North West Strategic Regional Land Use Plan.*

Division of Resources and Energy (DRE) requires the submission of a revised Mining Operations Plan should the modification be approved.

Two public submissions were received from local residents located within 3 km of the south east boundary of the mine. Both submissions identified dust from the mine as an issue with one resident also concerned about noise impacts from the existing operations.

Full copies of all submissions are included in **Appendix C** and NCO has considered these submissions in its Response to Submissions (RTS) (see **Appendix D**).

5 ASSESSMENT

In assessing the merits of the proposal, the Department has considered:

- the modification application and accompanying EA;
- the original project EA and conditions of approval for the Narrabri Coal Mine;
- previous modifications to the project;
- submissions and response to submissions;
- relevant environmental planning instruments, policies and guidelines; and

- the requirements of the EP&A Act.

Based on its assessment, the Department is satisfied that all potential impacts resulting from the modification would be relatively minor and could be appropriately managed. A summary of the Department's assessment of all relevant issues is provided in Table 1 below.

***Table 1**: Assessment of key issues*

Issue	***Impact and Consideration***	***Recommendation***
Air Quality	• There will be additional dust emissions from construction activity and the increase in area of the coal stockpiles. However, these emissions can be mitigated through applying and extending existing management practices. • Dust from the coal stockpile areas would be managed through extension of existing water spray systems, which have been upgraded recently through a Pollution Reduction Program (PRP) required by the EPA. • Air quality modelling predicted that the dust criteria would be met at all private receptor locations, with minimal risk (0.2% likelihood of additional exceedance of the criteria) of cumulative impacts as a result of the modification. • Existing air quality monitoring undertaken at the site also shows good compliance with dust criteria. • The EPA raised no issue in relation to air quality impacts. However, two private receptors located to the south east quadrant of the mine are concerned over impacts from coal dust from the existing and proposed operations. • The Department notes that while the existing conditions include the implementation of an air quality monitoring program, there are no requirements for an Air Quality Management Plan (AQMP) or contemporary operating conditions.	The Department recommends that the existing conditions be strengthened to include: - operating conditions, such as a requirement to implement all reasonable and feasible measures to minimise dust emissions of the project; - preparation and implementation of an AQMP (incorporating the air monitoring program); and - minor administrative changes to include explanatory footnotes.
Noise	• During construction and operations noise sources (primarily dozers on the stockpiles) would move marginally closer (up to 110m) to noise receivers. Noise impacts during construction are predicted to be negligible compared to operational noise. • Predicted operational noise levels under worst case (inversion) conditions are expected to exceed the Project Specific Noise Level of 35dB(A) (PSNLs) at two privately owned residents. • 'Belah Park' is predicted to experience a negligible [1dB(A)] increase above the PSNL, while 'Bow Hills' is predicted to experience a moderate [4 dB(A)] increase. • NCO has acquired a number of the closest receptors to the mine and is currently negotiating acquisition of 'Belah Park'. • However, the Department notes that under the NSW Government's *Voluntary Land Acquisition and Mitigation Policy* (VLAMP), the noise exceedance at 'Belah Park' would be considered "negligible" and would not trigger mitigation or acquisition rights at the residence. • NCO has also entered a private agreement with 'Bow Hills' to accept higher noise levels subject to acoustic treatment provided by NCO. • The EPA raised no issue with the noise impact assessment, noting the private agreement in place and acquisition negotiations underway. • The existing conditions provide mitigation and acquisition rights in accordance with the VLAMP. • The Department also notes the concerns raised in one submission about existing noise impacts, with recent attended noise monitoring indicating a non-compliance at this location during the winter period. The noise limit at this receptor remains at 35dB(A) and the mine would be required to meet this noise limit. • The existing approval requires a Noise Management Plan (NMP), including a noise monitoring program incorporating real time monitoring and reactive noise measures to manage noise at existing privately owned receptors. • The project approval conditions and the EPL adopt different requirements for identifying inversion conditions (temperature	The Department recommends that: - the noise limits remain at 35dB(A) at all receptors, noting that this limit does not apply where noise agreements are in place; and - the inversion conditions under which the noise limits apply adopt the EPL definition (stability class).

Issue	***Impact and Consideration***	***Recommendation***
	lapse rate vs. stability class). The Department considers that consistency is required between the project approval and the EPL for applying noise limits apply under inversion conditions. • If the modification is approved, the Noise Management Plan will need to be revised to reflect these changes. An existing condition requires a review of management plans following modifications of the approval.	
Water Resources	• The modification includes revisions to key water management infrastructure to ensure that sediment laden water is appropriately captured in accordance with the project approval and the EPL. • EPA in its submission indicated that it was satisfied with proposed upgrades to water management infrastructure. • The Department is satisfied the storage capacity and management of coal contact water runoff from these stockpiles is consistent with the existing project approval and approved Water Management Plan. • Further, the approval requires that there is no pollution of waters in accordance with the *Protection of the Environment Operations Act 1997* unless discharged in accordance with an EPL. • The Water Management Plan will need to be revised to identify the infrastructure location changes. A condition requiring these revisions currently applies.	No additional conditions or amendments necessary.
Biodiversity and Aboriginal Heritage	• The additional activities are located within the existing pit top area previously assessed. No additional impacts are identified.	No additional conditions or amendments necessary.
Other Issues	• Other issues associated with the proposed modification are considered to be minor issues, components of key issues, or of minor environmental impact, and can be adequately managed via the existing conditions of approval.	No additional conditions or amendments necessary.

6 RECOMMENDED CONDITIONS

The Department has drafted a recommended notice of modification (see **Appendix A**) to ensure that adequate mitigation measures continue to be implemented as a result of the additional disturbance from the construction of the extended stockpile pads and sediment dam. The key revisions include:

- contemporary operating conditions for managing air quality impacts;
- preparation and implementation of an Air Quality Management Plan;
- standardising the definition of inversion conditions to be consistent with the EPL for the site; and
- minor administrative changes, such as changes to agency names.

7 CONCLUSION

The Department has assessed the modification application and supporting information in accordance with the relevant requirements of the EP&A Act. The Department is satisfied that the proposed infrastructure changes are necessary for ongoing efficient operation of the Narrabri Coal Mine. In particular, an increase in the capacity of the stockpiles is required to allow production to reach the approved maximum production rate, allowing for operational fluctuations, and for the efficient storage, handling and loading of coal at the mine.

The incremental environmental impact in dust and noise levels would be managed through implementing or extending existing management and monitoring measures, which in the case of dust will be formalised through an AQMP, and contemporary operating conditions. NCO has signed a negotiated noise agreement with one moderately impacted resident and is negotiating acquisition with the owner of Belah Park, where the noise exceedance is considered to be negligible.

Further, the proposed modification would not result in any material changes to the Narrabri Coal Mine with respect to the amount of coal extracted, processed and transported.

The Department considers that the benefits of the modification outweigh its residual costs and that the proposed modification is in the public interest and should be approved, subject to conditions.

8 RECOMMENDATION

It is RECOMMENDED that the Executive Director, Resource Assessments and Business Systems, as delegate of the Minister:

- **considers** the findings and recommendations of this report;
- **determines** that the modification is within the scope of Section 75W of the EP&A Act;
- **approves** the application under Section 75W, subject to conditions; and
- **signs** the notice of modification (**Appendix A**).

14/9/15

Stephen O'Donoghue
A/ Director
Resource Assessments

14.9.15.

Mike Young
A/ Executive Director
Resource Assessments & Business Systems

APPENDIX A: NOTICE OF MODIFICATION

APPENDIX B: ENVIRONMENTAL ASSESSMENT

See website at:

https://majorprojects.affinitylive.com/public/0b2681763ed2ff318d92cf7c58cdbf10/Narrabri%20MOD%204%20-%20Environmental%20Assessment.pdf

APPENDIX C: SUBMISSIONS

See website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7012

APPENDIX D: RESPONSE TO SUBMISSIONS

See website at:

https://majorprojects.affinitylive.com/public/087d1a8a41b088c32d6832dfd31fc863/Narrabri%20MOD%204_Response%20to%20Submissions.pdf