



Planning

***PROPOSED MODIFICATION:
Narrabri Coal Project – Stage 1
Construction of Certain Stage 2
Infrastructure Elements (05_0102_MOD 1)***



Environmental Assessment Report
Section 75W of the
Environmental Planning and Assessment Act 1979

March 2010

Cover photograph: Nandewar Range viewed from Narrabri Coal Project's surface infrastructure site.

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Published March 2010
NSW Department of Planning
www.planning.nsw.gov.au

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EXECUTIVE SUMMARY

Narrabri Coal Operations Pty Ltd (NCO) is seeking to modify its current approval for Stage 1 of the Narrabri Coal Mine to allow certain of the mine's proposed Stage 2 construction activities to commence prior to the determination of its Stage 2 project application.

On 13 November 2007, the Minister for Planning approved Stage 1 of the Narrabri Coal Project (05_0102). Under this approval NCO is allowed to construct and operate an underground coal mine based on coal production using continuous miners to form main development tunnels and longwall gateroads in preparation for a subsequent project application for Stage 2 longwall operations. The mine is approved to operate for 21 years at a maximum coal production rate of 2.5 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal.

Construction of the mine commenced in January 2008 and almost all surface infrastructure is completed, with first coal from the mine expected to be mined in May 2010.

The Department is currently assessing NCO's application for Stage 2 of the Narrabri Coal Mine. Stage 2 includes:

- introducing longwall mining techniques;
- increasing maximum ROM coal production from 2.5 to 8 Mtpa;
- constructing and operating ancillary infrastructure for mine ventilation, water management and gas drainage;
- constructing and operating a range of ancillary infrastructure; and
- rehabilitating disturbed areas.

NCO believes that an earlier commencement date for certain "long lead-time" activities would prevent potential delays in bringing the mine "on-line" for longwall coal production. These activities include:

- construction (but not operation) of a Coal Handling and Preparation Plant, within the pit top area;
- a change in the sequence of underground panel roadway development;
- construction and use of a ventilation shaft (the West Mains ventilation shaft) and associated surface infrastructure, in place of the main ventilation drift;
- construction and use of a small diameter vertical ventilation shaft (i.e. rear of panel ventilation shaft), associated with Stage 2 Longwalls 1 to 3;
- construction and use of gas (and potentially water) pre-drainage infrastructure, involving drilling from the surface into and along the coal seam, generally within the area of Stage 2 Longwalls 1 to 3; and
- construction and use of supporting infrastructure such as access tracks, electricity supply lines, surface water control features and gas/water pipelines.

NCO is fully aware of the commercial risk to which it is exposed by seeking early approval for these components of the Stage 2 project application. Should Stage 2 be determined by way of refusal, or in a manner that prevents NCO from utilising the infrastructure included in the current modification application, then the company would bear the financial cost of not only having initiated construction of infrastructure that it may not be able to use, but also the costs of decommissioning this infrastructure.

The Department has assessed the key potential impacts of the proposed modification and has recommended conditions it believes would, in conjunction with the reasonable and feasible mitigation measures NCO has committed to, adequately mitigate or minimise all environmental impacts. These conditions require NCO to implement "real-time" noise monitoring to move to "reactive" management of noise emissions from the mine. The Department is satisfied that the proposed noise monitoring and management measures would improve the environmental performance of the mine and guard against exceedances of noise impact assessment criteria at neighbouring residences. NCO has reviewed and accepted the recommended conditions.

The Department is satisfied that the other impacts of the proposal would remain much the same as for NCO's existing operations, and are unlikely to be significant.

The Department is satisfied that the proposal is in the public interest and should be approved subject to conditions.

1. BACKGROUND

Narrabri Coal Operations Pty Ltd (NCO), a subsidiary of Whitehaven Coal Limited, is currently constructing Stage 1 of the Narrabri Coal Project located about 28 kilometres (km) southeast of Narrabri in the Narrabri local government area (see Figure 1).

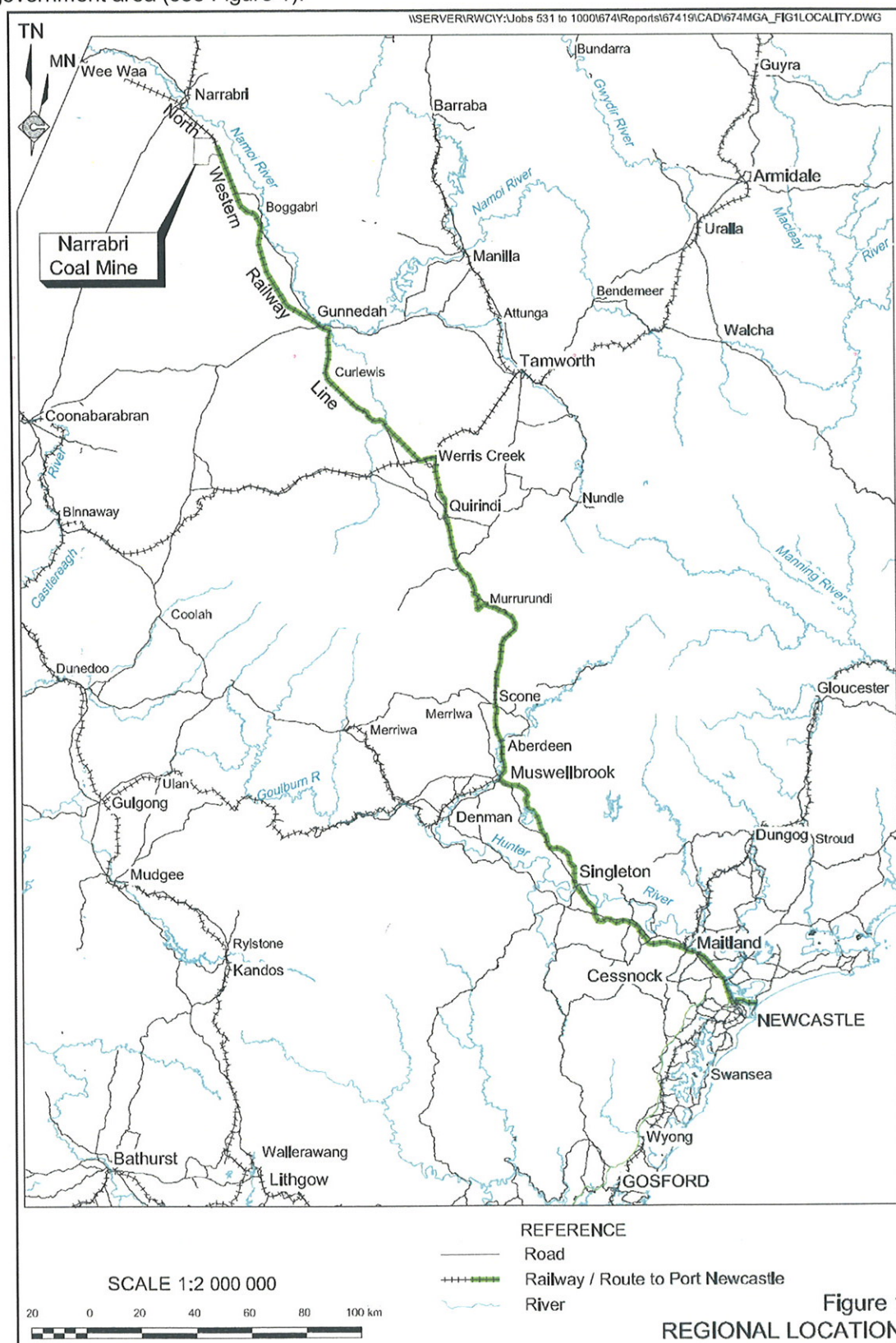


Figure 1: Narrabri Coal Mine Location

On 13 November 2007, the Minister for Planning approved Stage 1 of the Narrabri Coal Project (05_0102). Under this approval NCO is allowed to construct and operate an underground coal mine based on coal production using continuous miners to form main development tunnels and longwall gateroads in preparation for a subsequent project application for Stage 2 longwall operations (see Figure 2). The mine is approved to operate for 21 years at a maximum coal production rate of 2.5 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal. The project includes the construction and operation of a coal crushing and sizing plant and rail loading facilities as well as ancillary infrastructure required for the operation of an underground coal mine. Product coal would be railed to the Port of Newcastle for export.

Construction of the mine commenced in January 2008 and almost all surface infrastructure is completed (see Figure 3). Construction of the tunnels linking the surface infrastructure to the coal seam 160 metres (m) below the surface has been delayed by difficult geological conditions. The first coal from the mine is now expected to be mined in May 2010.

The Department is currently assessing NCO's application for Stage 2 of the Narrabri Coal Project. Stage 2 includes:

- introducing longwall mining techniques;
- increasing maximum ROM coal production from 2.5 to 8 Mtpa;
- constructing and operating ancillary infrastructure for mine ventilation, water management and gas drainage;
- constructing and operating a range of ancillary infrastructure; and
- rehabilitating disturbed areas.

Certain of the Stage 2 construction activities involve relatively long construction times. NCO is seeking approval for these works (described in Section 2) under this modification application, prior to the determination of the Stage 2 project application. NCO believes that an earlier commencement date for these activities would prevent potential delays in bringing the mine "on-line" for longwall coal production.

NCO is fully aware of the commercial risk to which it is exposed by seeking early approval for these components of the Stage 2 project application. Should Stage 2 be determined by way of refusal, or in a manner that prevents NCO from utilising the infrastructure included in the current modification application, the company would bear the financial cost of not only having initiated construction of infrastructure that it could not use, but also the costs of decommissioning this infrastructure.

2. PROPOSED MODIFICATION

On 15 October 2009, NCO lodged a modification application with the Department under section 75W of the *Environmental Planning & Assessment Act 1979* (EP&A Act). The key aspects of the application (05_0102_MOD 1) include (see Figures 3 and 4):

- construction (but not operation) of a Coal Handling and Preparation Plant (CHPP), within the pit top area;
- a change in the sequence of underground panel roadway development, in response to improved knowledge of geological features, resulting in a slightly reduced footprint of the approved mining layout;
- construction and use of a ventilation shaft (the West Mains ventilation shaft) and associated surface infrastructure;
- construction and use of a small diameter vertical ventilation shaft (i.e. rear of panel ventilation shaft), associated with Stage 2 Longwalls 1 to 3;
- construction and use of gas (and potentially water) pre-drainage infrastructure, involving drilling from the surface into and along the coal seam, generally within the area of Stage 2 Longwalls 1 to 3;
- construction and use of supporting infrastructure such as access tracks, electricity supply lines, surface water control features and gas/water pipelines;
- additional surface disturbance of approximately 34.6 hectares (ha) of primarily cleared agricultural land, including up to 3.2 ha of native vegetation. This surface disturbance would be associated with ventilation shafts, pre-drainage boreholes and associated supporting infrastructure; and
- employment of an additional 35 people over a period of approximately 12 months.

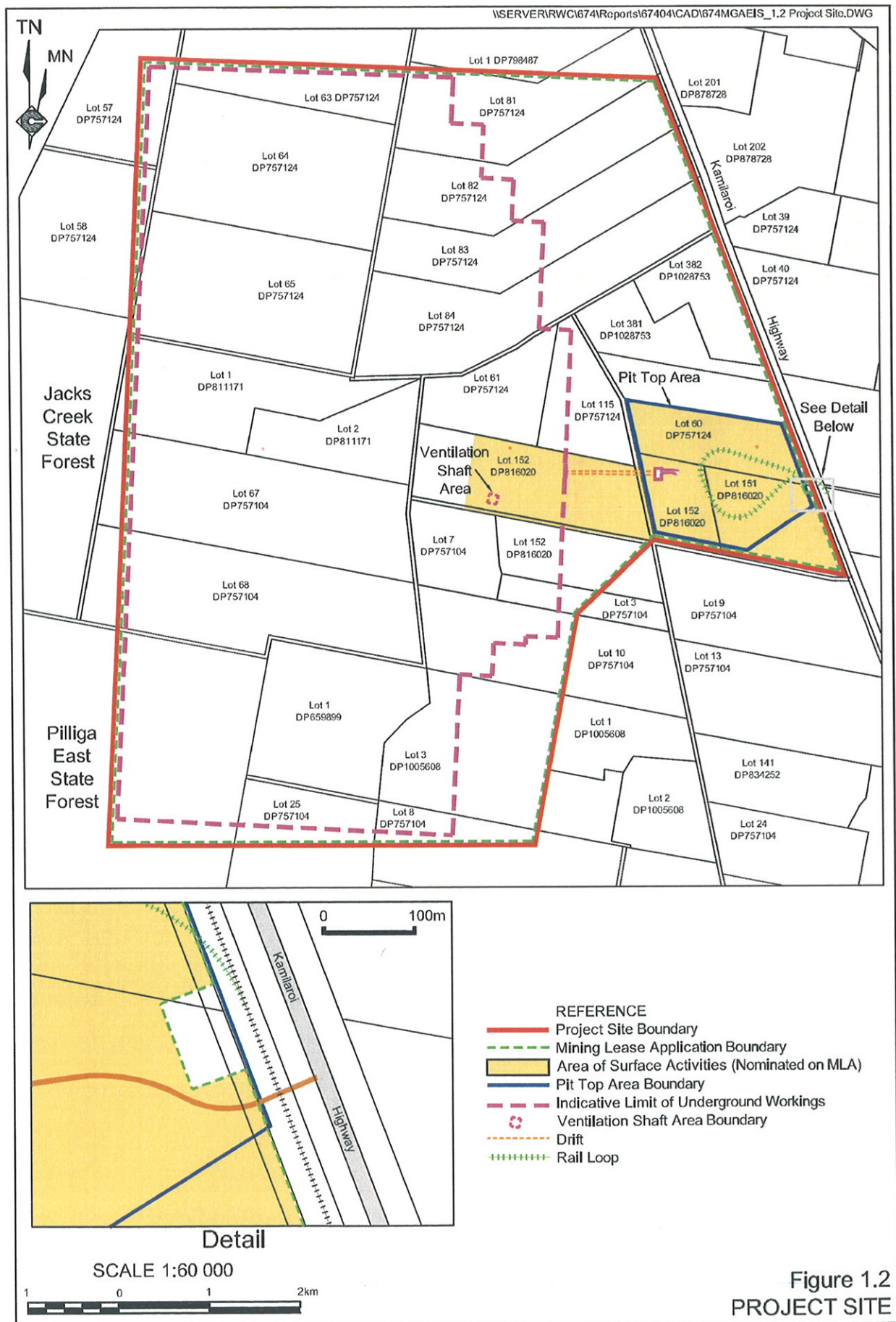


Figure 2: Approved Stage 1 Mine Layout

These proposed changes would be located within the area already assessed and approved for Stage 1 of the mine (see Figures 2 and 4). Table 1 contains a comparison of the currently approved Stage 1 approval and Stage 1 as proposed to be modified by this application.

Table 1: Comparison of the Currently Approved and Modified Stage 1 Narrabri Coal Mine

Project Feature	Approved	Proposed Modified Stage 1
Annual ROM and Product Coal Production	Maximum annual rate of approximately 2.5 Mtpa.	No change.
Indicative Underground Mining Area	Indicative mining area of approximately 3,630 ha.	No change.
Surface Facilities Area	Surface facilities area of approximately 465 ha.	No change.
Surface Disturbance Area	Surface disturbance area of approximately 48.2 ha.	Additional surface disturbance area of approximately 34.6 ha.
Life of Mine	Operational life of 21 years.	No change.
ROM Coal Stockpiling	ROM coal stockpile area with a capacity of approximately 150,000 tonnes (t).	No change.
Coal Crushing/Sizing/Preparation	Coal from the ROM stockpile is sized and crushed, then stockpiled by a stacking conveyor onto the product stockpile area.	No change to coal crushing/sizing. Construction (not operation) of a CHPP, immediately south of the ROM coal stockpile (see Figure 3).
Product Coal Stockpiling	Product coal stockpile area with a capacity of approximately 150,000 t.	No change.
Rail Loading	Rail loop (approx. 3.36 km in length) from the North Western Branch Railway, to the pit top area to provide for direct product loading of trains via an overhead load-out bin.	No change.
Train Movements per Day to Port of Newcastle	An average of two to three trains would be loaded and dispatched each day (with the rate to vary to meet shipping schedules at Newcastle).	No change.
Train Movement Hours	24 hours per day, seven days per week.	No change.
Underground Development and Mining	West Mains roadway (Area A) bisecting the southern and northern areas within the indicative limit of underground workings (see Figure 2). Continuous miner units to progressively develop north-south oriented panel roadways (in both areas B and C) and secondary partial extraction leaving stable pillars.	No change to mining methods or indicative underground mining area. Change in the sequence of panel roadway development.
Key Underground Mining Equipment	Continuous miner; shuttle cars; breaker feeder; EIMCO (LHD); man transport vehicle; roof bolting machine; and panel conveyor belt.	No change.
Key Surface Equipment	Dozer; ventilation fan; conveyors; and double-roll crusher.	Generally as per approval but with ventilation fan in a new location. CHPP to be constructed.
Surface Construction Equipment	Crane; excavator; dozer; haul trucks; scraper; grader; compactor; compressor; water cart; gravel truck; and generator.	Generally as per approval but with additional fleet items associated with construction of additional surface infrastructure.
Ventilation	Ventilation via a ventilation drift. The exhaust of the ventilation drift is located within the box cut excavation.	Construction of the West Mains ventilation shaft and associated surface infrastructure (i.e. exhaust) in area above the West Mains roadway between Stage 2 Longwalls 2 and 25. Addition of the small diameter rear of panel ventilation shaft.
Gas Drainage	Additional specialist investigations to be continued with regard to gas quantities and safety limits across the potential mining areas.	Pre-draining gas within Stage 2 Longwalls 1 to 3 by in-seam drilling and surface to in-seam pre-drainage of coal seam gas.
Water Supply and Management	Install a reverse osmosis (RO) plant when observed dewatering volumes exceed operational requirements by a sufficient amount to sustain the operation of an RO plant. Evaporation, treated water storage and brine ponds to store treated water and waste water from the RO plant.	No change in volume of water from underground dewatering. Water obtained from gas drainage boreholes to be managed as per water obtained from underground dewatering.
Waste Rock Management	Waste rock to be produced from a number of sources during construction (i.e. box cut, drift development and rail loop cuttings) and to be used in the construction of site landforms (e.g.	Rock mined from the ventilation shafts to be used to construct the perimeter amenity bund and ROM coal and product coal stockpile pads. Waste from the construction of the mine drifts would also be