

# ASSESSMENT REPORT Invincible Coal Mine – Modification of Project Boundary

# 1 BACKGROUND

Coalpac Pty Limited (Coalpac) owns and operates the Invincible Coal Mine, located in the Western Coalfield of NSW, approximately 20 kilometres northwest of Lithgow near the town of Cullen Bullen (see Figure 1).

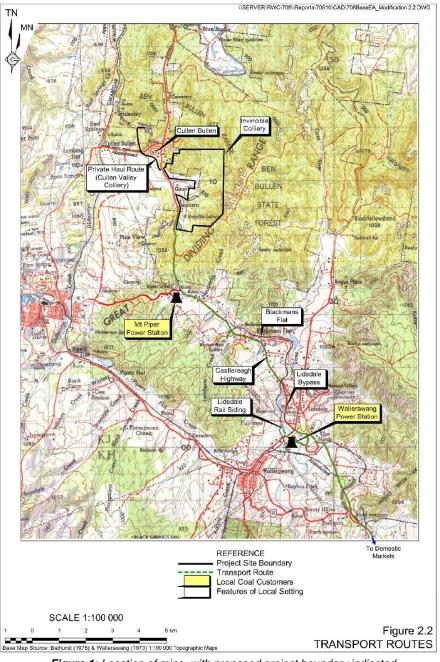


Figure 1: Location of mine, with proposed project boundary indicated

Coalpac operated the mine sporadically from 1989 until 2006. In 2006, a project approval was granted which allowed open cut mining and increased production. This approval was modified twice in 2007 to upgrade onsite infrastructure and increase production.

In December 2008, the Minister approved a second project application, which provided for a further increase in the mine's production limit to 1.2 million tonnes per annum and an extension of mining operations by up to 8 years. This second project approval (07\_0127) is now the "dominant" approval at mine, with the earlier project approval granted in 2006 due to be surrendered by November 2009.

On 12 January 2009, a minor modification (07\_0127 MOD 1) was made to correct an incorrect Lot/DP number listed in this second project approval.

## 2 PROPOSED MODIFICATION

On 17 March 2009, Coalpac submitted an application to modify the second project approval under section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The proposed modification (07\_0127 MOD 2) involves the re-alignment of the approved project boundary to align with Coalpac's current mining lease application, which is being assessed by Department of Primary Industries (DPI). Coalpac and DPI wish to consolidate the mine's existing open-cut mining leases into a single lease. However, DPI cannot issue a new mining lease for land that is outside the boundary of the current project approval. The modification seeks to extend the lands to which the project applies, but does not seek to modify the nature or scale of mining activities. The land within the project boundary would increase by 41.3 hectares (ha), including land within the Ben Bullen State Forest and Crown land.

On 11 June 2009, Coalpac amended this application to include minor changes to the layout of the mine's open cut pits, to correct drafting errors contained within figures earlier provided by the company and included within the mine's approval (07\_0127). The current project approval does not accurately reflect, albeit in minor respects, the open cut areas that Coalpac actually proposes to mine.

#### 3 STATUTORY CONTEXT

#### 3.1 Approval Authority

The Minister was the approval authority for the original project application, and is consequently the approval authority for this modification application. However, the Executive Director, Major DA Assessment, may determine the application under the Minister's delegation of 4 March 2009.

#### 3.2 Exhibition and Notification

Under section 75W of the EP&A Act, the Department is not required to notify or exhibit the modification application. The Department considers that the proposed modification is minor and of an administrative nature and does not require either exhibition or notification. However, the Department has made the application publicly available on its website.

#### 4 ASSESSMENT

Coalpac engaged RW Corkery to review the EA for the original project application (07\_0127) to determine if it fully addressed the impacts associated with the proposed modification. This review and the assessment of potential additional impact was included as part of the modification application.

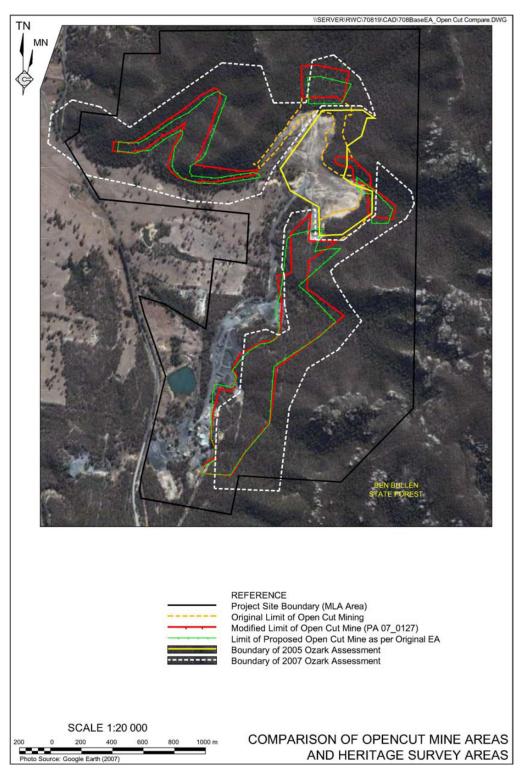


Figure 2: Comparison of approved and proposed open cut areas

# 4.1 Project Boundary Re-alignment

The proposed increase of 41.3 ha to the project area is not accompanied by an application to conduct any works or activities within this area. Consequently, it would not lead to approval to conduct any additional development in the expanded area and no environmental impacts requiring assessment arise. It should be noted, however, that Coalpac can conduct activities which do not require development consent, such as exploration, under its mining leases within these areas.

## 4.2 Proposed Open Cut Pit Layout

The proposed and original open cut pit layouts are shown in Figure 2. The total area to be disturbed by the proposed open cut pit layout is 69 ha, which is slightly less than was originally approved (69.2 ha). The amended open cut pit layout will therefore not increase the total area of open cut disturbance. The intensity and scale of mining operations and the number and types of mining equipment would also remain unchanged.

#### Flora

However, the proposed pit layout would result in an additional 1.7 ha of native vegetation being cleared (refer Table 1). The proposed pit layout contains potential habitat for two threatened flora species, *Persoonia marginata* (Clandualla Geebung) and *Prostanthera cryptandroides* (Wollemi Mint-bush). Given the minor increase in the total area of native vegetation being cleared the Department's assessment of flora impacts for the original project approval remains appropriate. In that assessment, the Department concluded that the project would be unlikely to significantly impact any threatened species, predominantly because they were adequately represented and/or had access to appropriate habitat elsewhere within Ben Bullen State Forest and in the wider region.

Further, the proposed minor increase in total native vegetation to be cleared is adequately compensated for by the existing biodiversity offset strategy, which provides a 2:1 ratio of offset land to mined land. Additionally, all land to be mined will be rehabilitated and the existing project approval conditions ensure the security of the offsets.

Table 1: Comparison of open cut layouts and flora disturbance

	Area of Vegetation Disturbance (ha)	
Vegetation Community	Original Open Cut Layout	Proposed Open Cut Layout
MU11	3.6	3.8
MU32	35.2	37.3
MU35	13.8	13
MU37	13.6	13.8
Native Vegetation Total	66.2	67.9
Disturbed Land	3.0	1.1
Total	69.2	69

#### Note:

- MU11: Table Gully Snow Gum Ribbon Gum Grassy Forest
- MU32: Tableland Scribbly Gum Narrow Leafed Shrubby Open Forest
- MU35: Tableland Gully Mountain Gum Broad-Leafed Peppermint Grassy Forest
- MU37: Cox's Permian Red Stringybark Brittle Gum Woodland

The amended open cut pit layout would also change the shape of one of the existing biodiversity offset areas, denoted as '2008 Offset Area – Lot 113, DP877190', which contains 100 individuals of the threatened ecological flora species, *Eucalyptus cannonii* (Capertee Stringy Bark). However, the amended shape of the offset area would not impact on any individual Capertee Stringy Bark, and the amended shape is larger than originally assessed by the Department (5.3 ha instead of 4.5 ha).

The Department is therefore satisfied that the amended open cut pit layout and biodiversity offset area boundary would have no net impact on biodiversity.

# **Groundwater**

The minor changes to the open cut layout would not change the total area of the pit void that would intersect groundwater, or consequential dewatering of coal seams and other aquifers. Therefore, the Department's assessment of the groundwater impacts for the original project application remains applicable. The Department then concluded that dewatering of aquifers would be localised to the vicinity of the mine voids and that local users would not experience any noticeable change in groundwater availability. Additionally, the existing conditions of

approval require comprehensive management and monitoring of groundwater in the areas surrounding the mine.

## Surface Water

The amended pit layout would not increase the total disturbed area that would intercept surface water or impact on surface water quality. Accordingly, the Department's assessment of surface water impacts for the original project application remains applicable. The Department then concluded that the current water management infrastructure and techniques employed at the mine would satisfactorily contain dirty water run-off and divert clean surface water around disturbed areas. Additionally, current approval conditions require Coalpac to implement a Sediment Erosion Control Plan and a Surface Water Monitoring Program to ensure surface water is managed over the life of the mine.

## Heritage

Coalpac has reviewed the specialist Aboriginal and non-Aboriginal heritage study undertaken by OzArk as part of the EA for the original project application. Figure 2 demonstrates that the great majority of the amended pit layout was included within the surveys done in 2005 and 2007. However, two small areas in the centre and north of the mine area were outside of the formal study areas for these surveys. Ozark has reviewed its original studies and has provided an assurance that its surveys extended beyond the formal study area boundaries at that time, and that there are no additional Aboriginal heritage sites within these two small areas. Accordingly, the proposed modification is not anticipated to impact on Aboriginal or non-Aboriginal heritage.

## Subsidence

The amended open cut pit layout would in turn lead to minor changes in the areas that would be subject to auger mining and potentially experience resulting subsidence. However, given that the anticipated subsidence under a worst-case scenario is 20 mm, the Department is satisfied that the current approval conditions adequately address subsidence-related impacts for the proposed modification.

## Noise. Blasting and Air Quality

Coalpac's review concluded that the worst-case scenarios described in the EA for noise, blasting and air quality impacts remain representative for the proposed modification. Accordingly, the proposed pit layout would not increase noise, blasting or air quality impacts.

### Amenity and Traffic

As the intensity and scale of the mining operations and the total area of disturbance would remain unchanged, traffic and visual amenity impacts resulting from the modification would be immaterial.

## Management Plans and Monitoring Programs

The Department has recommended a condition of approval that would require Coalpac to review and, if necessary, update management plans and monitoring programs required under the project approval to incorporate the minor changes to the open cut pit design, the proposed changes to the project boundary and the final landform.

## 5 CONCLUSION

The Department has assessed the application in accordance with the relevant requirements of the EP&A Act. The proposed modification would improve administrative management of the mine and would not cause any additional environmental impacts for the approved project. The Department believes that the modification is in the public interest and should be approved.

# 6 RECOMMENDATION

It is RECOMMENDED that the Executive Director:

- consider the findings and recommendations of this report;
- determine that the proposed modification would not radically transform the approved project;
- approve the proposed modification under Section 75W of the EP&A Act; and
- sign the attached Notice of Modification (Tagged A).

Howard Reed

Howard Reed 7.8.0

A/Manager Mining

12.5.09

Chris Wilson

Executive Director Major DA Assessment Bkitto 10/8/09

David Kitto Director

**Major Development Assessment**