

ASSESSMENT REPORT

ABEL COAL MINE

Downcast Ventilation Shaft Modification (05_0136 - MOD 1)

1 BACKGROUND

Donaldson Coal Pty Limited (Donaldson) has approval to establish and operate the Abel Coal Mine, at Black Hill, approximately 23 kilometres north-west of Newcastle (see Figure 1). Most of the mine is located in the Cessnock local government area (LGA), with minor components located in the Maitland and Newcastle LGAs.



Figure 1: Location of the Abel Coal Mine

The mine was approved by the Minister for Planning in June 2007. This approval (05_0136) allows Donaldson to:

- extract up to 4.5 million tonnes per annum (Mtpa) of run-of-mine coal by bord and pillar mining methods;
- transport this coal to the existing Bloomfield Coal Handling and Preparation Plant (CHPP), using private haul roads;
- operate the CHPP to process coal extracted from the Abel Coal Mine and the nearby Bloomfield and Donaldson coal mines; and
- rehabilitate the site.

2 PROPOSED MODIFICATION

On 1 June 2010, Donaldson asked the Minister to modify the terms of its project approval under section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The proposed modification involves installing a downcast ventilation shaft and an access track. The shaft is required to supply additional air to the mine to support the ongoing development of the mine's underground workings. The shaft would be located approximately 400 metres (m) south of John Renshaw Drive (see Figure 2).



Figure 2: Location of proposed shaft and access track

The shaft would assist in better ventilating the underground workings. As air is drawn through the underground workings it can become contaminated with dust from underground roadways and conveyors. The additional shaft would reduce pressure loss of air entering the mine, as less distance would be required for the air to travel to the working areas.

The shaft would be constructed using the 'raise bore' method, where a pilot hole is first drilled from the surface to the underground workings. The shaft is then excavated upwards to the surface. Excavated material would be removed via the existing underground workings. The shaft would be 55 m deep and 5.5 m in diameter. It would be lined with concrete, finished with a concrete collar and topped with a steel screen to prevent unauthorised access and fauna ingress. A 12 week construction schedule is proposed for the works.

Access to the shaft site would be from John Renshaw Drive, using and extending an existing bush track (see Figure 2). A total area of 0.23 hectares of vegetation would need to be cleared to construct the shaft and the access track.

3 STATUTORY CONTEXT

Approval Authority

The Minister for Planning was the approval authority for the original project application, and is consequently the approval authority for this modification application. However, the Acting Director Mining and Industry Projects may determine the modification application under the Minister's delegation of 25 January 2010.

Modification

The proposed modification involves minor earthworks to establish a downcast ventilation shaft and access track. It does not involve changing the mining or transportation components of the approved project. The Department is satisfied that the proposed modification is within the scope of section 75W of the EP&A Act.

Consultation

Under section 75W, the Department is not required to undertake consultation or exhibit the modification application. However, after accepting Donaldson's modification application and Environmental Assessment (EA) on 1 June 2010, these documents were made publicly available on the Department's website.

4 ASSESSMENT

The Department has assessed the potential impacts of the proposed modification. Table 1 details this assessment.

Table 1: Assessment of environmental impacts

Issue	Consideration
Flora & Fauna	Vegetation clearing would not significantly impact on Donaldson's approved biodiversity conservation ratio of 2:1. Donaldson would revise its Biodiversity Conservation Agreement Management Plan to reflect the proposed modification. The Department is satisfied the current approval conditions would continue to adequately manage flora and fauna impacts.
Noise	Construction activities are not expected to impact on any residence, with the closest residence approximately 1.5 kilometres to the west of the proposed shaft site. DECCW's recommended standard construction hours and construction noise emission criteria would apply during the 12 week construction period. The raise bore drilling would however be undertaken 24 hours a day for 3 - 4 weeks and the operational noise emission criteria would apply to this drilling outside of standard construction hours. Donaldson is confident that impacts from this drilling would be limited to the underground area, and noise would remain within the relevant noise limit. As a precaution, Donaldson would undertake attended and unattended continuous noise monitoring during the construction period to allow it to quickly respond should the relevant noise limit be exceeded. The Department is satisfied that noise impacts would be effectively managed under existing approval conditions.

<i>Air quality</i>	The proposed works may cause dust generation. However, the raise bore method of construction would significantly reduce the likelihood of air quality impacts. Department considers any impact would be negligible, and Donaldson's approved Air Quality Management Plan would continue to be applied to manage air quality impacts. The Department considers no additional conditions of approval are required.
<i>Water Management</i>	Sediment and erosion controls would be implemented at the shaft site and access track in accordance with Donaldson's approved Erosion and Sediment Control Plan. The Department is satisfied that the proposed modification would have a negligible impact on water management and soil erosion and no additional conditions of approval need to be applied.
<i>Aboriginal Heritage</i>	Donaldson surveyed the shaft site and access track and found one artefact of low scientific and cultural significance. A member of the Mindaribba Local Aboriginal Land Council would be on site during clearing for the shaft and access track, in accordance with Donaldson's approved Aboriginal Cultural Heritage Management Plan. The Department is satisfied that Aboriginal cultural heritage impacts would be negligible.

Other Issues

All other issues are considered to have negligible environmental impacts and do not warrant further assessment.

5 CONCLUSION

The Department has assessed the modification application in accordance with the relevant requirements of the EP&A Act. The Department is satisfied that the proposed modification would:

- assist in ventilating the Abel underground workings; and
- result in negligible changes to the approved project's environmental impacts.

The Department therefore believes that the proposed modification is in the public interest and should be approved.

6 RECOMMENDATION

It is RECOMMENDED that the Acting Director, Mining and Industry Projects:

- **consider** the findings and recommendations of this report;
- **determine** that the proposed modification is within the scope of section 75W of the EP&A Act;
- **approve** the proposed modification under section 75W of the EP&A Act; and
- **sign** the attached Notice of Modification (Tag A).

Colin Phillips 10/06/10

Colin Phillips
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Howard Reed

Howard Reed 10.6.10
A/Director
Mining & Industry Projects