



Planning

ASSESSMENT REPORT

Drayton Coal Mine Section 75W Modification

1 BACKGROUND

Anglo Coal (Drayton Management) Pty Limited (Drayton) operates the Drayton Coal Mine, located in the Hunter Valley of NSW, approximately 13 kilometres (km) south of Muswellbrook (see Figure 1).

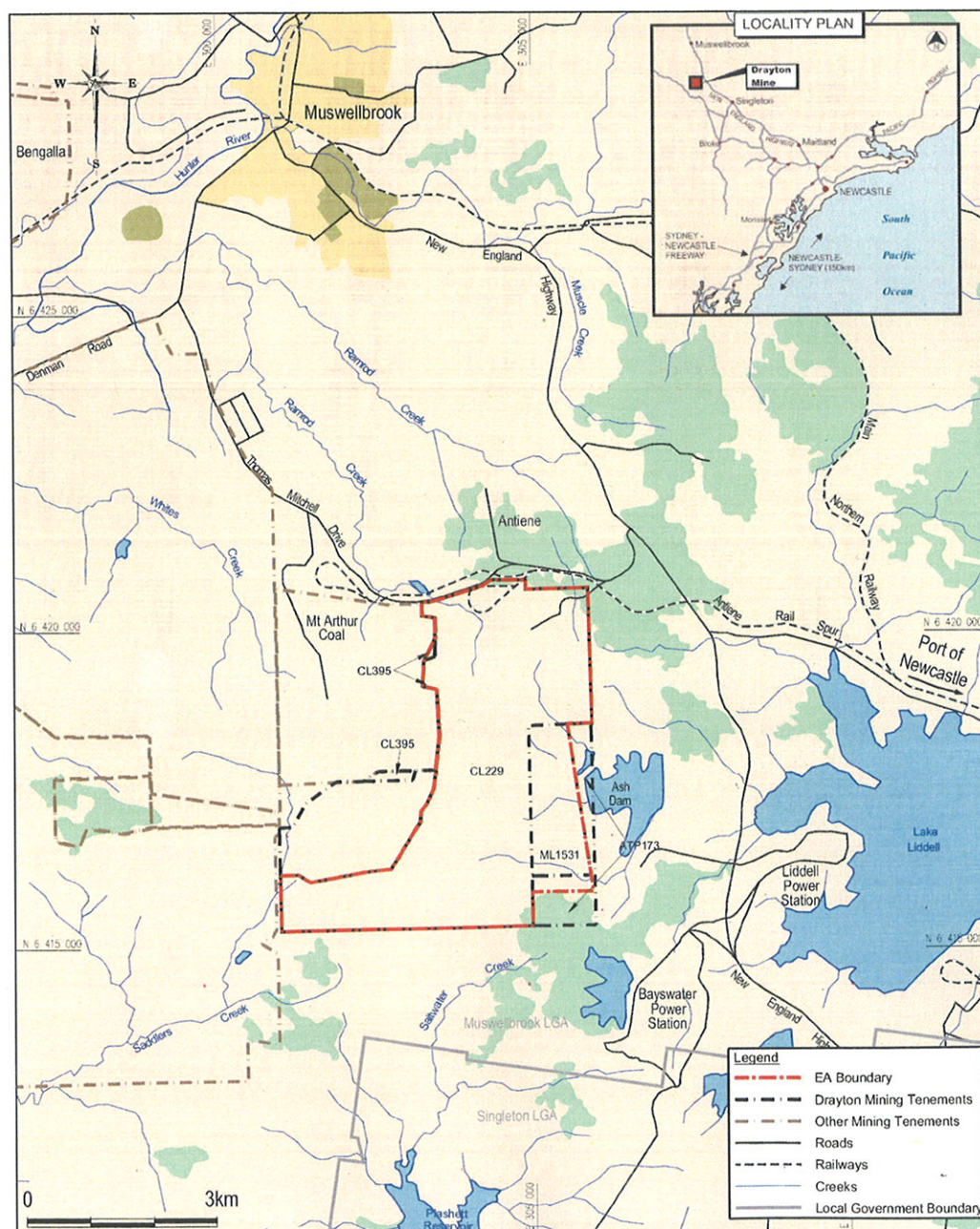


Figure 1: Location of Drayton Coal Mine

The Drayton mine is surrounded by a range of mining, power generation and farming land uses, with the Liddell and Bayswater power stations located to the east and the Mount Arthur Coal mining complex to the west. The closest residences are located to the north of the mine in the Antiene rural-residential area.

The mine was approved by Muswellbrook Shire Council in 1980, commenced production in 1983, and currently operates under a Ministerial project approval granted on 1 February 2008 (06_0202). This approval allows Drayton to extract up to 8 million tonnes of run-of-mine (ROM) coal a year from its open-cut mining operation until 2017.

2 PROPOSED MODIFICATION & PROJECT NEED

On 2 July 2009, Drayton submitted an application to the Department seeking to modify the Minister's approval for the Drayton Coal Mine under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The proposed modification involves mining a 7.5 hectare (ha) area to the north of the approved Drayton mining disturbance footprint and the addition of 12 ha to the approved Drayton Wildlife Refuge to provide a biodiversity offset for the proposed extension area (see Figure 2).

The modification is sought to ensure the safe extraction of the approved coal resource in the "North Pit" of the mine (adjacent to the proposed extension area), due to the instability of highwall batters in this pit. The proposal would enable the highwall batter slopes to be stabilised, and enable Drayton to extract a coal resource of approximately 1 million tonnes, which would otherwise be sterilised. The proposed modification also involves a small extension and realignment of the existing haul road to accommodate the proposed mining extension area.

The proposed modification would not alter Drayton's currently approved mining methods, extraction limits or transport arrangements. Drayton proposes to commence mining of the extension area in late 2010.

3 STATUTORY CONTEXT

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 Assessments, may determine this application under the Minister's delegation of 4 March 2009.

Modification

The proposed modification represents a minor change to the approved mining operations, which would not change their intensity. It also represents a minor addition to the approved mining disturbance footprint. Consequently the Department is satisfied that the proposed modification would not involve a "radical transformation" of the project, and that it can be determined under Section 75W of the EP&A Act.

4 CONSULTATION

Under Section 75W of the EP&A Act the Department is not required to notify or exhibit the application. However, the Department referred the application to the **Department of Environment, Climate Change and Water** (DECCW) (formerly the Department of Environment and Climate Change), **Department of Industry and Investment** (DII) (formerly the Department of Primary Industries), **NSW Office of Water** (NOW) (formerly the Department of Water and Energy), and **Muswellbrook Shire Council** (MSC) for comment. A summary of the issues raised during consultation is provided below.

DECCW raised concerns over the long term management and conservation of the proposed modification offset area and recommended conditions to ensure that this area is managed for conservation in perpetuity.

DII requested a condition to require Drayton to update the mine's Mining Operations Plan (MOP) to include the proposed offset area.



Figure 2: Proposed Drayton Mining Extension Area and Environmental Monitoring Network

NOW stated that the extent of depressurisation within the Hunter porous rock groundwater system surrounding the approved operation does not appear to be increased by the proposal. However, NOW noted that the proposed modification would mine through groundwater monitoring piezometers and requested that Drayton review the mine's current groundwater monitoring program, in consultation with it.

MSC made a number of recommendations in relation the proposal, including that:

- an area be included to the west of the proposed offset area additional to that identified in the EA, because the proposed offset area had already been identified for preservation based on the presence of Aboriginal artefacts;
- a peer review be conducted of the EA due to increasing community concern over the company's continued use of the same consultants; and
- cumulative impacts of the modification with nearby operations (i.e. Mouth Arthur Coal) are assessed.

The Department and relevant authorities have undertaken a detailed assessment of the application. Based on this assessment, the Department is satisfied with the adequacy and technical rigour of the EA and does not believe that MSC's request for a peer review of the document is warranted.

Drayton has provided responses to the issues raised in submissions. The Department has considered the issues raised, and Drayton's response to these issues, in its assessment of the proposed modification.

5 ASSESSMENT

Noise

The proposal has the potential to increase predicted noise emissions due to the change in area of active mining and the construction and operation of haul roads adjoining the northeastern boundary of the currently approved mining operation. The proposed extension area would be mined 24 hours a day, 7 days a week using truck and excavator mining equipment.

A noise assessment for the proposal was conducted by Bridges Acoustics. The assessment found that there would be a maximum increase of 0.6dBA at private residential receiver 72 (see Figure 2) as a result of mining the proposed extension area compared to predicted noise levels as modelled in the original EA for the project. Minor noise level increases (<0.6dBA) are predicted for all other private residential receivers, provided the adopted mitigation measures described in the original EA are also applied in the proposed extension area. Drayton has undertaken to continue to manage its operations in accordance with these measures.

The existing approval for the project includes conditions to control the mining operations and protect the environment, including intrusive noise criteria for a number of residential receivers in the Antiene estate, north of the mine site. Currently, Drayton undertakes regular attended and non-attended noise monitoring to measure compliance against noise criteria. Drayton has committed to continue to meet the approved noise limits for the mine, including the proposed extension area.

The Department is satisfied that potential noise impacts to nearby private residences would be minimal and can be appropriately managed under the existing approval conditions for the mine.

Air Quality

The proposed mining in the extension area and realignment of the haul road would generate dust. The closest privately-owned residences to the proposed modification area are identified as receivers 61 and 72 (see Figure 2).

A review of air quality effects due to the proposal was conducted by PAE Holmes. The assessment indicates that under prevailing wind conditions, air quality impacts would be minimal and are not predicted to exceed the air quality impacts modelled in the original EA for the mine.

Drayton maintains an air quality monitoring system, comprising 8 dust deposition gauges and two high volume air samplers (HVAS) within the Antiene residential area (see Figure 2). This air quality monitoring network is operated in accordance with the approved Air Quality Monitoring Program which includes measures to minimise airborne dust emissions.

The Department is satisfied that air quality impacts would be minimal and that the existing conditions for the Drayton project approval are sufficient to continue to manage dust emissions from the mining operation.

Flora and Fauna

The proposed extension to the open cut mining area would involve disturbance of remnant native vegetation. The proposal would remove up to 7.5 ha of existing habitat, comprising 1.9 ha of Hunter Lowland Redgum Forest (HLRF), 2.1 ha of Grey Box Forest Woodland (GBFW) and 3.5 ha of derived native grasslands (see Figure 3). The HLRF vegetation community is listed as an Endangered Ecological Community (EEC) under the *Threatened Species Conservation Act 1995* (TSC Act).

The EA contains an ecology assessment prepared by Cumberland Ecology. The assessment found that vegetation in the proposed extension area is highly degraded, fragmented by existing roads, weed invaded, and in close proximity to noisy infrastructure. For these reasons, the assessment found that the modification extension area has a reduced habitat value for flora and fauna.

No threatened flora species were recorded in the modification extension area. However, the proposal has the potential to impact on native fauna. While the fauna surveys conducted for the EA did not record any threatened species within the proposed extension area, threatened fauna that have been previously recorded in the vicinity include four bird species and four bat species and one terrestrial mammal species. The assessment considered that these species have the potential to occur within the proposed extension area. Nonetheless, it concluded that the proposal is unlikely to negatively affect such species.

Biodiversity Offsets

The EA includes a proposed biodiversity offset to compensate for the impact of the proposed modification on remnant native vegetation including the HLRF EEC. The proposed offset amounts to an area of 12 ha of woodland vegetation, of which over half (6.3 ha) is HLRF (see Figure 3). It is also adjacent to the existing DWR conservation area. The assessment found that vegetation within the proposed offset area is of significantly higher quality than that proposed to be removed, and would assist in creating habitat for foraging and corridor linkages to facilitate long term regional fauna movement.

DECCW was generally satisfied with the proposed offset area, but raised concerns over its long-term management and conservation. It consequently recommended conditions to ensure that the proposed modification offset area is managed for conservation in perpetuity. In response, Drayton confirmed that the proposed modification offset area would be managed for conservation purposes in the long-term, noting that it would be added to the existing Drayton Wildlife Refuge (DWR).

MSC raised concerns that the proposed offset area had already been identified for preservation based on the presence of Aboriginal artefacts, and recommended that the proposed offset area be expanded to incorporate an additional area to the west. In response, Drayton stated that, although five isolated Aboriginal heritage sites identified within the offset area were managed under its approved Aboriginal Cultural Heritage Management Plan, this Plan did not outline any conservation mechanisms for the proposed offset area.

The Department is satisfied that the proposed offset is consistent with DECCW's "*Principles for the Use of Biodiversity Offsets in NSW*" (2008) and that the proposed offset area would sufficiently compensate for the vegetation removed as a result of the proposal. The Department has recommended conditions requiring Drayton to integrate the proposed offset area into its existing DWR area, to ensure its long-term conservation.

The Department is satisfied that other flora and fauna impacts of the proposal (such as short term impacts associated with vegetation clearing) can be adequately managed through Drayton's existing Flora and Fauna Management Plan. However, the Department has recommended a condition requiring Drayton to update this plan to include management measures for the proposed offset area. Overall, the Department is satisfied that the proposal is unlikely to have any significant impact on flora and fauna values in the area, subject to implementing the proposed biodiversity offset.



Figure 3: Proposed Drayton Mining Extension Biodiversity Offset Area and Vegetation Communities

Other Issues

Other residual environmental issues associated with the proposal are considered in Table 1 below.

Table 1: – Assessment of other issues

Issue	Potential Impacts	Consideration
<i>Water Resources</i>	<ul style="list-style-type: none"> Potential impacts to surface and groundwater resources. 	<ul style="list-style-type: none"> The EA reported that mining of the proposed modification extension area would not result in any significant impacts to groundwater resources and that mine water demand would remain substantially unchanged. NOW raised concerns that the proposed modification would mine through groundwater monitoring piezometers and requested that Drayton review the approved groundwater monitoring program in consultation with it. In response, Drayton confirmed advice in the EA that it would not, in fact, impact on any monitoring piezometers as a result of mining the proposed modification extension area. The Department is satisfied that any potential impacts to surface and groundwater resources as a result of the proposal would not be significant and can be managed under the existing approval conditions for the mine.
<i>Blasting</i>	<ul style="list-style-type: none"> Potential vibration and overpressure impacts due to blasting 	<ul style="list-style-type: none"> A vibration assessment for the proposal, conducted by Bridges Acoustics, indicated that blasting impacts would be similar to those currently approved. Drayton currently operates a network of blast monitors within the Antiene residential area (see Figure 2) to monitor compliance with vibration and overpressure criteria. The Department is satisfied that blasting impacts would be minimal, beyond those associated with the approved mine, and that blasting impacts can be managed in accordance with the approved Blast Monitoring Program for the mine.
<i>Aboriginal Cultural Heritage</i>	<ul style="list-style-type: none"> Potential impacts to Aboriginal heritage sites 	<ul style="list-style-type: none"> The proposed extension area does not contain any Aboriginal heritage sites as identified within the original EA for the approved mine. Five known Aboriginal sites are located within the proposed modification offset area and these would continue to be conserved in accordance with the approved Aboriginal Cultural Heritage Management Plan for the mine. The Department is satisfied that impacts on Aboriginal cultural heritage as a result of the proposal would be minimal.
<i>Greenhouse Gas (GHG)</i>	<ul style="list-style-type: none"> Release of GHG emissions as a result of the proposal 	<ul style="list-style-type: none"> The EA considered the impact of the proposal on GHG emissions and found that, as the proposal would not increase the approved maximum ROM coal production at the mine, there would be no additional GHGs liberated annually, beyond those associated with the approved mine. Nevertheless, Drayton has committed to investigating opportunities for reducing GHG emissions from the mine and the implementation of energy efficiency measures. The Department is satisfied that GHG impacts from the proposal can be adequately managed through Drayton's approved Greenhouse and Energy Efficiency Plan.
<i>Cumulative Impacts</i>	<ul style="list-style-type: none"> Cumulative impacts as a result of the proposal 	<ul style="list-style-type: none"> MSC recommended that the cumulative impacts of the modification with the existing Drayton Coal operations and other nearby operations be assessed. In its response, Drayton stated that the proposed modification would not increase ROM coal production or rail movements and that no cumulative air quality, noise or blasting impacts were anticipated. The Department is satisfied with Drayton's assessment of cumulative impacts (particularly noise and dust) and that any increase in cumulative impacts as a result of the proposal would be negligible.
<i>Visual</i>	<ul style="list-style-type: none"> Potential visual impacts from the proposal 	<ul style="list-style-type: none"> The EA included consideration of visual impacts which found that the proposed modification would not significantly increase visual impact levels from Hassall Road. The Department is satisfied that visual amenity impacts as a result of the proposal would be minimal.

6 RECOMMENDED CONDITIONS

The Department has drafted recommended conditions for the modification. Drayton has reviewed and accepted these conditions.

7 CONCLUSION

The Department has assessed the modification application, EA, submissions on the proposal, and Drayton's response to submissions in accordance with the relevant requirements of the EP&A Act, including the objects of the EP&A Act and the principles of ecologically sustainable development.

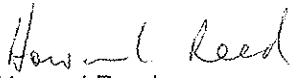
The assessment has found that mining of the Drayton extension area would not generate any significant environmental impacts above and beyond those associated with the approved open cut mining operation. The proposal would enable the safe extraction of the approved coal resource in the "North Pit" of the mine and the economic mining of a coal resource which would otherwise be sterilised. The Department is satisfied that the proposal represents a logical change to Drayton's existing open cut mining operations, and is satisfied that its benefits sufficiently outweigh its costs.

Consequently, the Department is satisfied 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, as delegate of the Minister:

- 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, subject to the conditions set out in the attached notice of modification; and
- sign the attached notice of modification.


Howard Reed 16.10.09
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Mining


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Major DA Assessments 16/12/09