

ASSESSMENT REPORT

APPIN GAS DRAINAGE PROJECT
Modification (MP 08 0256 Mod 1)

1 BACKGROUND

BHP Billiton Illawarra Coal Holdings Pty Ltd (Illawarra Coal) owns and operates the Appin Colliery, approximately 6 kilometres northwest of the township of Appin in the Southern Coalfield of NSW.

In October 2009, project approval was granted to Illawarra Coal by the Minister for Planning under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for the Appin Colliery underground Area 7 goaf gas drainage project (MP 08_0256).

Coal seam methane can accumulate in the area of collapsed rock strata or “goaf” following the extraction of coal by longwall mining methods. To increase safety for underground workers and reduce greenhouse gas emissions, this “goaf gas” is drained through boreholes. The approved project comprised the installation of temporary gas extraction boreholes and corresponding mobile surface extraction plants and ancillary equipment, in the area shown in **Figure 1**.

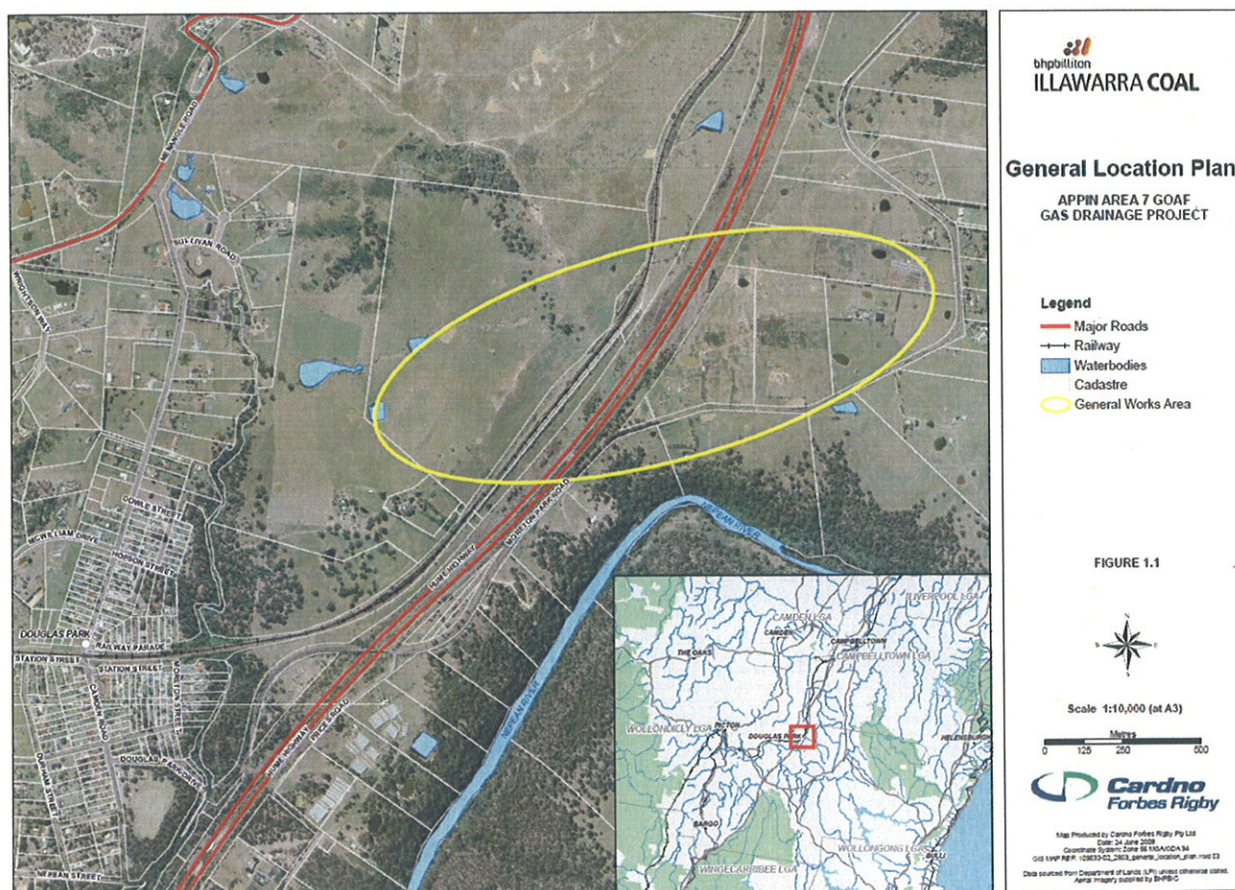


Figure 1: Gas Drainage Project Area

As of October 2010, goaf gas extraction has been implemented and operated from Longwall 703, where mining is nearing completion. Goaf gas extraction infrastructure for Longwall 704 is now required and beginning to be developed.

2 PROPOSED MODIFICATION

On 8 October 2010, Illawarra Coal submitted an application to the Department to modify the terms of its project approval for the Appin gas drainage project under section 75W of the EP&A Act.

The proposed modification includes the relocation of a Medium Radius Drilling (MRD) borehole (Borehole #1) and a vertical borehole, and related access to the site (see **Figure 2**). The need for the modification results from the existing access to the approved site via Dowle Street becoming inaccessible due to particular actions by the Department of Education and Training.

The proposed location of the MRD borehole and vertical borehole is on land owned by Illawarra Coal approximately 300 metres (m) west of the currently approved location. As an alternative to the existing access route, Illawarra Coal has proposed several access options, dependent on the traffic type, utilising a number of existing roads and upgraded tracks. A new section of roadway would also be required.

The following table outlines the site access routes that have been proposed (see **Figure 2** for the location of the 5 traffic nodes).

Table 1: Proposed Access Routes

| Vehicle | Proposed Access Route |
|---|--|
| <i>Heavy Articulated Vehicle Access</i> | Existing track from Moreton Park Road (Node 1) would be upgraded and extended over the railway line to the northern side (Node 2). |
| <i>Heavy Rigid and Support Vehicles</i> | Access to the site from Railway Parade (Node 3 to Node 2) on the northern side of the railway via existing road. |
| <i>Light Vehicles</i> | Light vehicles would be the only traffic accessing the site from the Duggan Street entrance (Node 5). Access from this entrance through to Node 4 was approved as part of the current project. |
| <i>All traffic</i> | New roadway is proposed from Node 4 to the proposed site of the boreholes, which will be used by all types of vehicles. |

Construction of the site access is estimated to take around 150 days, while the construction of the MRD and vertical boreholes would take 90 days.

3 STATUTORY CONTEXT

Section 75W

The proposed changes associated with the modification application would not change the purpose of the project for which approval was originally granted, namely for goaf gas drainage. The proposal involves making minor changes to the location of some elements of the approved project, essentially as a result of changed conditions in accessing the approved site.

The Department is satisfied that the proposed changes can be properly characterised as a modification to the existing approval, and can be approved under section 75W of the EP&A Act.

Approval Authority

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

4 CONSULTATION

Under section 75W of the EP&A Act, the Department is not required to exhibit the modification application or undertake consultation. However, the modification application was referred to Wollondilly Shire Council, the Roads and Traffic Authority (RTA), the Department of Climate Change and Water (DECCW), and the Australian Rail Track Corporation (ARTC).

No objections to the proposal were received, however Wollondilly Council raised some concerns regarding impacts to roads and traffic including:

- vehicle visibility at access track entry (Node 1) off Moreton Park Road;
- approvals relating to traffic control measures; and
- potential damage to roadways or footways as a result of the development.

5 ASSESSMENT

The Department assessment of the key issues is summarised in Table 2 below.

Table 2: Assessment of Key Issues

| Issue | Impact and Considerations | Conclusion and Recommendation |
|-------------------------|--|--|
| Noise | <ul style="list-style-type: none"> The proposed modification has the potential to cause noise impacts through borehole construction and traffic on access roads. Due to engineering requirements, the construction of the MRD borehole would proceed 24 hours per day. Noise modelling by Wilkinson Murray predicted that, without any mitigation, exceedances of DECCW's <i>Interim Construction Noise Guidelines</i> criteria during borehole construction at the proposed location would occur at sensitive receivers 1, 2 and 3 (see Figure 3). However, modelling of a 5 m noise barrier on the southern and western sides of the drill rig resulted in predicted noise levels meeting the criteria at all receivers. Use of the proposed access roads during construction of the boreholes was assessed by Wilkinson Murray. Day time noise impacts were considered to be minimal, however more intensive impacts were predicted during the night-time shift change. During this time, four vehicles would travel on the access roads during a fifteen minute period, resulting in an exceedance of 2dB. This exceedance is considered minor in both magnitude and frequency (occurring once per night), and is therefore unlikely to significantly impact on receivers. | <ul style="list-style-type: none"> The Department is satisfied that noise impacts would be minimal and that Illawarra Coal's proposed noise impact management measures are sufficient to manage them. No further action required, beyond the proponent's proposals. |
| Traffic volume and flow | <ul style="list-style-type: none"> Additional traffic numbers are predicted through Douglas Park village from light vehicles (via Hopson and Duggan Streets) and heavy rigid vehicles (via Railway Parade). The potential for this traffic to add to congestion during school pick up and drop off periods is avoided by curfews in Illawarra Coal's <i>Douglas Park Driver's Code of Conduct</i>, which prohibit or deter mine vehicles travelling through the area between 8.00am-9.30am and 2.30pm-4pm on weekdays. Railway Parade is already used as an access road to the Main Southern Rail Line and also includes several light industrial and commercial premises. Given the short nature of the project and taking into account the existing usage, the Department considers the impacts to Railway Parade to be negligible. Nevertheless, the Department has recommended conditions of approval requiring Illawarra Coal to notify residents of Railway Parade of the expected impacts, and to ensure that any damage to Railway Parade resulting from the project is suitably repaired or compensated. Site access via Moreton Park Road is only proposed for heavy articulated vehicles and associated light vehicles. The increase in traffic volume on Moreton Park Road as a result of the project is predicted to be a maximum of 30 vehicles per day. Existing traffic volumes were observed to be low (ten vehicles per hour). This increase is considered to be well within the capacity of the road. Access from Moreton Park Road to the borehole site will require upgrading of an existing track. The track meets Moreton Park Road on a broad curve, where sight distances are restricted to the south. To mitigate this risk, Illawarra Coal proposes the provision of temporary signage, including a reduction to the speed limit on Moreton Park Road to 40km per hour, for the duration of the project, in addition to traffic control and flagman signage when heavy articulated vehicles are leaving the site. Wollondilly Council has also proposed that the company remove some privet vegetation which restricts sight lines at this intersection. The access track from Moreton Park Road includes a private level rail crossing. Upgrades to the crossing have been proposed to accommodate heavy articulated vehicles. Use of the level crossing has potential impacts to safety and flow of rail traffic. However, Illawarra Coal, in consultation with the ARTC, | <ul style="list-style-type: none"> The Department has recommended conditions to mitigate potential risks to traffic safety and potential impacts to council roads as a result of the modification. As a consequence, the Department is satisfied that the impacts would be minimal and can be adequately managed. |

| Issue | Impact and Considerations | Conclusion and Recommendation |
|-----------------|--|--|
| | has proposed safe work practices and traffic control procedures to mitigate these impacts. | |
| Flora and Fauna | <ul style="list-style-type: none"> The proposed modification involves clearing of a very small area of native vegetation (10 m²) to accommodate the wider entry on the existing track off Moreton Park Road. In addition, the removal of six to ten trees along this track is required. The vegetation to be cleared is considered highly degraded, lacks sheltering environments (hollows) in trees and is in close proximity to an abundance of similar vegetation. | <ul style="list-style-type: none"> The Department is satisfied that the impacts to flora and fauna as a result of the proposed modification would be minimal. No further action required. |
| Heritage | <ul style="list-style-type: none"> The proposed access road upgrade would involve works to an existing road or minor track development in a disturbed environment. There are no known Aboriginal archaeological sites within close proximity to the proposed access road upgrades or the MRD borehole site. The proposed access road, at its closest point, would pass within 150 m of the Moreton Park Mountbatten Group, which is listed as a group of items of local heritage significance in the draft <i>Wollondilly Local Environmental Plan</i>. However, the proposed works have been assessed as being of a scale that would not harm the heritage values of the group. | <ul style="list-style-type: none"> The Department is satisfied that the potential impacts to heritage would be minimal and can be adequately managed. No further action required. |

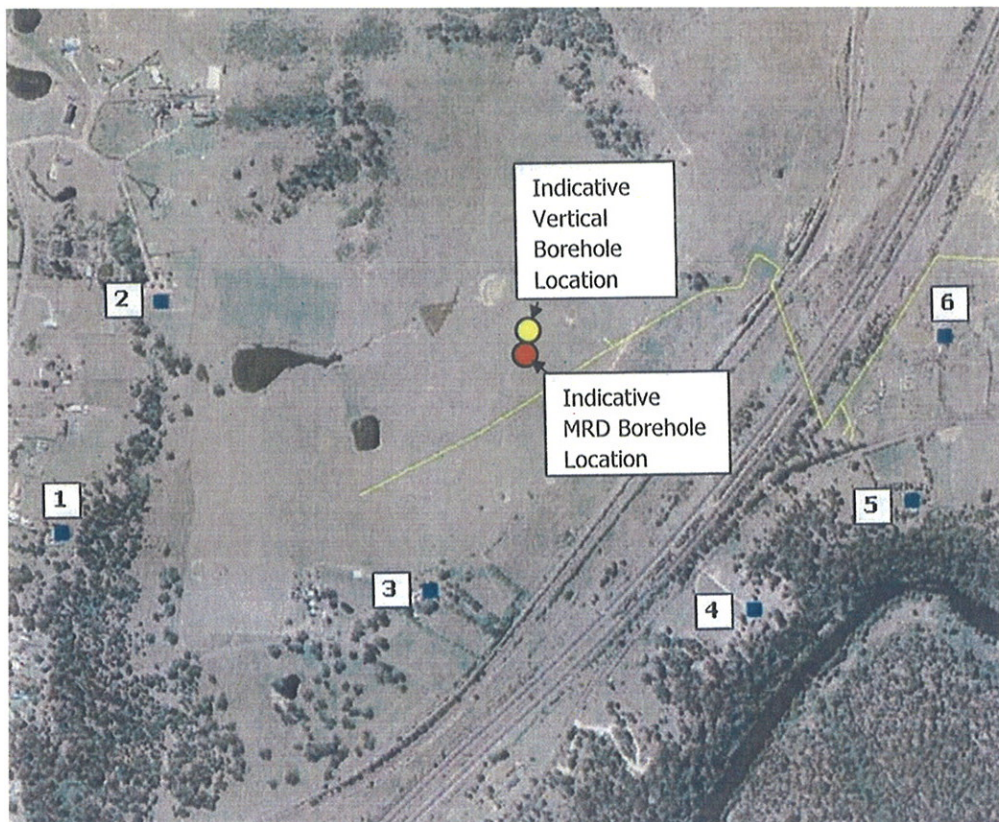


Figure 3: Location of sensitive receivers

6 RECOMMENDED CONDITIONS

The Department has drafted recommended conditions for this modification. Illawarra Coal has reviewed and accepted these conditions.

7 CONCLUSION

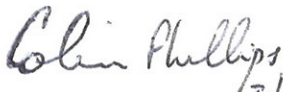
The Department has assessed the modification application in accordance with the relevant requirements of the EP&A Act. The Department is satisfied that the proposed modification would enable Illawarra Coal to continue the goaf gas drainage project and improve the safety of the underground working environment for mine employees, with negligible changes to the environmental impacts of the approved project.

Therefore, 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 Director, as delegate of the Minister:

- **consider** the findings and recommendations of this report;
- **determine** that the proposed modification falls within the scope of section 75W of the EP&A Act;
- **approve** the application under section 75W, subject to conditions; and
- **sign** the notice of modification in Appendix A.


Colin Phillips
A/Manager
Mining Projects

3/12/10


Howard Reed
A/Director
Mining and Industry Projects

3.12.10