

ASSESSMENT REPORT

West Cliff Coal Mine – Surface Goaf Gas Drainage Project Section 75W Modification (MP 07_0073 MOD 1)

1 BACKGROUND

BHP Billiton Illawarra Coal Holdings Pty Ltd (Illawarra Coal) owns and operates the West Cliff Coal Mine (West Cliff) located approximately 20 kilometres northwest of Wollongong in the Southern Coalfield. West Cliff currently operates under a development consent granted in 1975 by Wollondilly Shire Council and has been extracting coal using underground longwall mining methods since 1976.

The West Cliff Coal Mine – Surface Goaf Gas Drainage Project (MP 07_0073) (the project) was approved by the Minister for Planning on 8 December 2008. Under this approval, Illawarra Coal is allowed to construct and operate 21 coal seam gas wells in West Cliff's 'Area 5' and to flare or vent gas extracted from these wells.

2 PROPOSED MODIFICATION & PROJECT NEED

Following approval of the project, Illawarra Coal has completed goaf gas drainage for Longwall 32 and is currently operating goaf gas drainage associated with Longwall 33. However, Illawarra Coal is proposing to modify the goaf gas drainage procedure for Longwall 34.

On 5 November 2009, Illawarra Coal submitted an application to the Department, seeking to modify the project (MP 07_0073) under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The proposed modification (see Figure 1) comprises the following components:

- linking the proposed gas extraction wells via a surface pipeline to one of two centralised locations, which would host an extraction plant and flare/vent stack, rather than consecutively locating an extraction plant and a flare/vent stack within each well compound, and
- increasing the number of wells for Longwall 34 from 8 to 10.

The modified project is essentially the same development as the approved project, however it would result in a more efficient method for capturing and venting coal seam methane, and reduce native vegetation clearing and construction and operational noise impacts. A summary of the approved and modified project is shown in Table 1.

Table 1: - Summary of the approved and modified project.

Aspect	Project Description – as approved	Project Description – as modified
Project summary	<p>Construction and operation of up to 21 coal seam gas wells in 'Area 5' of West Cliff Coal Mine and flaring or venting the extracted gas.</p> <p>The extraction plant and flare/vent stack would be co-located within each well compound, except wells within 500m of residential premises will duct gas back to a central extraction plant/flare/vent stack to minimise operational noise. 8 wells were approved for Longwall 34.</p>	<p>Construction and operation of up to 21 coal seam gas wells in 'Area 5' of West Cliff Coal Mine and flaring and venting the extracted gas.</p> <p>Gas extraction wells for Longwall 34 would be linked via surface pipelines to one of two centralised locations, which would host an extraction plant and flare/vent stack. Where the pipelines would be visible from Appin Road, or at the request of the landowner, the pipelines would be buried. The extraction plant equipment would be located within well compounds 34-4 and 34-5, at least 1km away from the nearest residence. 10 wells are proposed for Longwall 34. The total number of goaf gas drainage wells would remain the same due to fewer wells constructed for Longwalls 32 and 33 than proposed.</p>

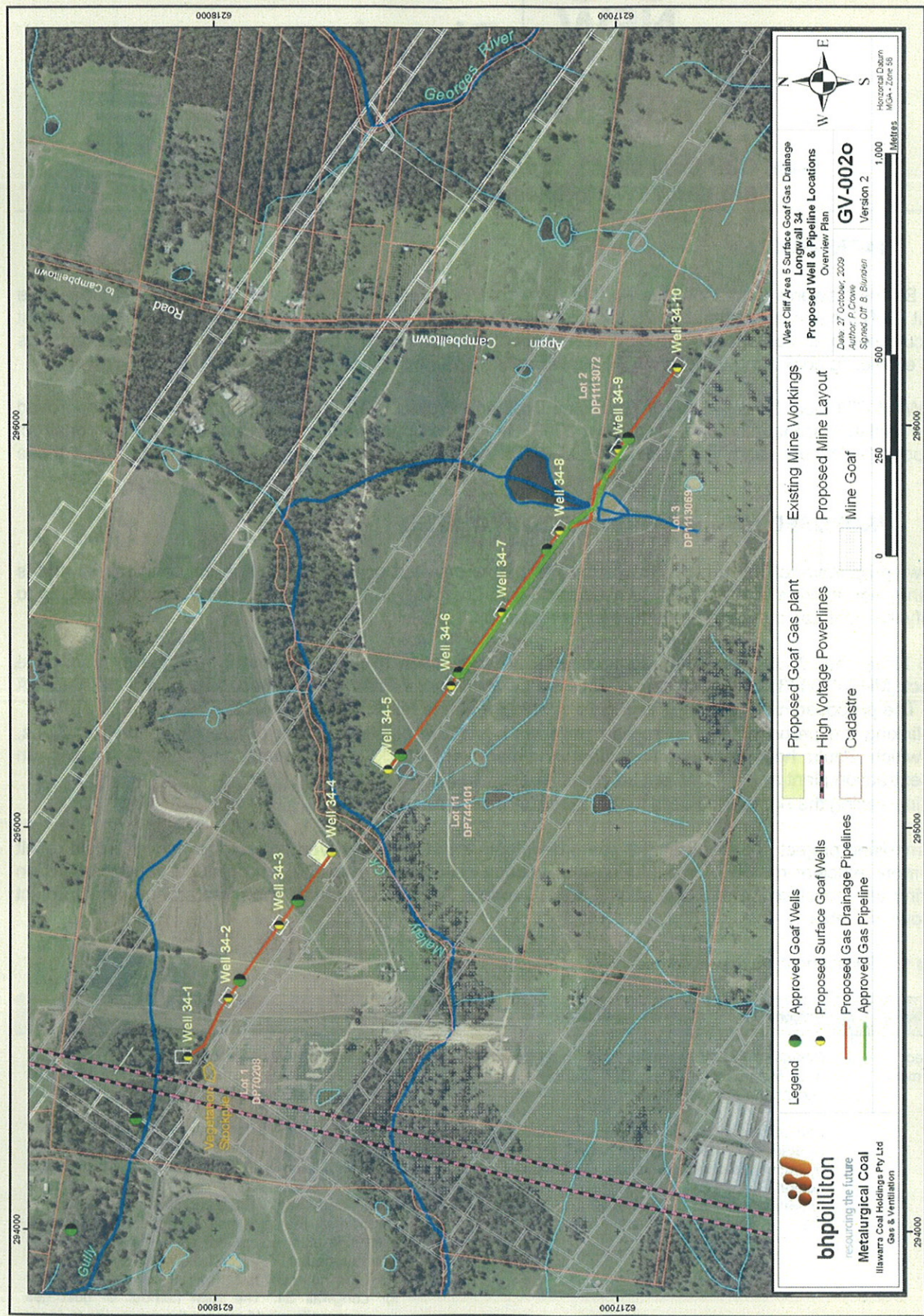


Figure 1: Layout of wells for Longwall 34, approved and proposed.

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 the intensity of these operations. 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), DECCW's **NSW Office of Water** (NOW) and the **Department of Industry and Investment** (DII) for comment.

None of the Government departments objected to the project, but noted the modification is likely to result in benefits such as a decrease in greenhouse gas emissions and a reduction in the area of native vegetation clearing.

5 ASSESSMENT

The environmental assessment of the proposal is set out in Table 2 below.

Table 2: - *Assessment of key issues.*

<i>Issue</i>	<i>Potential Impacts & Consideration</i>	<i>Conclusion</i>
Noise	<ul style="list-style-type: none">• There is the potential for noise impacts during construction and operation activities. The noise assessment undertaken by Wilkinson and Murray for the modified project indicated that the construction noise impacts (drilling wells, establishment of gas extraction plant, and trenching and installation of pipelines), would be minimal for the following reasons:<ul style="list-style-type: none">– only 2 wells (34-9 and 34-10) and the associated construction activities, have the potential to cause noise impacts;– Appin Road (a major arterial road) is located between the wells and the nearest private residences,– only 2 residences have the potential to be affected during construction associated with wells 34-9 and 34-10, and– construction activities would only be carried out during daytime hours (7am – 6pm, Monday to Friday) only, over a 4 to 6 week period (2 to 3 weeks per well).• Furthermore, Illawarra Coal has committed to orientating the drill rig away from sensitive receivers and using quiet, well maintained equipment to further minimise noise impacts.• Operational noise impacts would be minimal and further reduced when compared to the original project, as the extraction plant locations are now at least 1km from the nearest private residence compared with 500m under the approved project.• The assessment concluded that the modification would generally be consistent with performance standards described in DECCW's Interim Construction Noise Guideline (2009).• Therefore, the Department is confident that noise impacts associated with the modified project would be minimal.	<ul style="list-style-type: none">• No additional control measures required.

Water	<ul style="list-style-type: none"> • There is the potential for surface and groundwater impacts during construction and operation activities. • During construction, surface water impacts would be managed in accordance with the Erosion and Sediment Control Plan required for the project. • During construction and operation, groundwater impacts would be managed by casing and grouting each vertical gas extraction well to a depth of approximately 410m to prevent the ingress of groundwater into the well and consequent contamination of aquifers; as per the original proposal. • The Department is confident that the surface and groundwater impacts associated with the modified project can be managed appropriately. 	<ul style="list-style-type: none"> • No additional control measures required.
Flora and Fauna	<ul style="list-style-type: none"> • There is the potential for flora and fauna impacts. However, the original assessment concluded that the project would not create significant impacts on flora and fauna, as only minor vegetation clearing would be required. Clearing would be restricted to vegetation of little or no conservation significance. • The modified project would result in a reduction of native vegetation clearing, as only one well would require native vegetation clearing compared with two wells in the original project. • The Department is confident that flora and fauna impacts associated with the modified project would be minimal and result in a more positive outcome compared to the original project. 	<ul style="list-style-type: none"> • No additional control measures required.
Aboriginal Heritage	<ul style="list-style-type: none"> • There is the potential to impact Aboriginal heritage features. However, the original archaeological assessment concluded that any potential impact to Aboriginal heritage features would be unlikely. • Illawarra Coal has committed to ceasing works immediately in the event that Aboriginal artefacts are encountered and obtaining a section 90 permit under the <i>National Parks and Wildlife Act 1974</i> for their salvage. • The Department is confident that impacts to Aboriginal heritage features can be managed appropriately. 	<ul style="list-style-type: none"> • No additional control measures required.
Air Quality	<ul style="list-style-type: none"> • There is some potential for air quality impacts. However, the modified project is predicted to result in a further reduction in air quality impacts, as the nearest private residence is located at least 1 km from any well, compared to 500 m in the original project. • Therefore, odour, airborne pollutants and dust impacts would be well below DECCW criteria. Greenhouse gas impacts are also predicted to be reduced as centralised gas extraction plants and additional wells are predicted to result in less greenhouse gas emissions being inadvertently vented to the atmosphere via the mine ventilation system. • The Department is confident that air quality impacts associated with the modified project would be minimal and result in a more positive outcome compared to the original project. 	<ul style="list-style-type: none"> • No additional control measures required.
Visual Impacts	<ul style="list-style-type: none"> • There is the potential for visual impacts. However, extraction plants and flare/vent stacks would not be visible from Appin Road as they are shielded by topography. Any pipelines visible from Appin Road or where requested by the landowner would be buried. • The Department is confident that visual impacts would be negligible. 	<ul style="list-style-type: none"> • No additional control measures required.
Rehabilitation	<ul style="list-style-type: none"> • Rehabilitation of all disturbances would occur immediately following decommissioning of the wells/extraction plant/pipelines. • Rehabilitation would be carried out in accordance with the Vegetation Clearing and Rehabilitation Protocol prepared for the project. 	<ul style="list-style-type: none"> • No additional control measures required.

6 RECOMMENDED CONDITIONS

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

7 CONCLUSION

The Department has assessed the modification application, EA and submissions on the proposal, 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 the proposed modification would not generate any adverse environmental impacts above and beyond those associated with the approved project. The modification is predicted to result in a more efficient procedure for capturing and venting coal seam methane, resulting in less greenhouse gas emissions being released to the atmosphere. In addition, the modified project would reduce native vegetation clearing and noise impacts associated with construction and operation activities.

Consequently, the Department is satisfied that the proposal is in the public interest and should be approved.

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.

DKitto 4/12/09

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