

ASSESSMENT REPORT

Werris Creek Extension Project

Mine Infrastructure Augmentation Modification (10_0059 MOD 1)

1 BACKGROUND

Werris Creek Coal Pty Limited (WCC), a subsidiary of Whitehaven Coal Limited, owns and operates the Werris Creek Coal Mine, an open-cut coal mine located approximately 4 kilometres (km) south-west of Werris Creek in the Liverpool Plains Shire (see Figure 1).

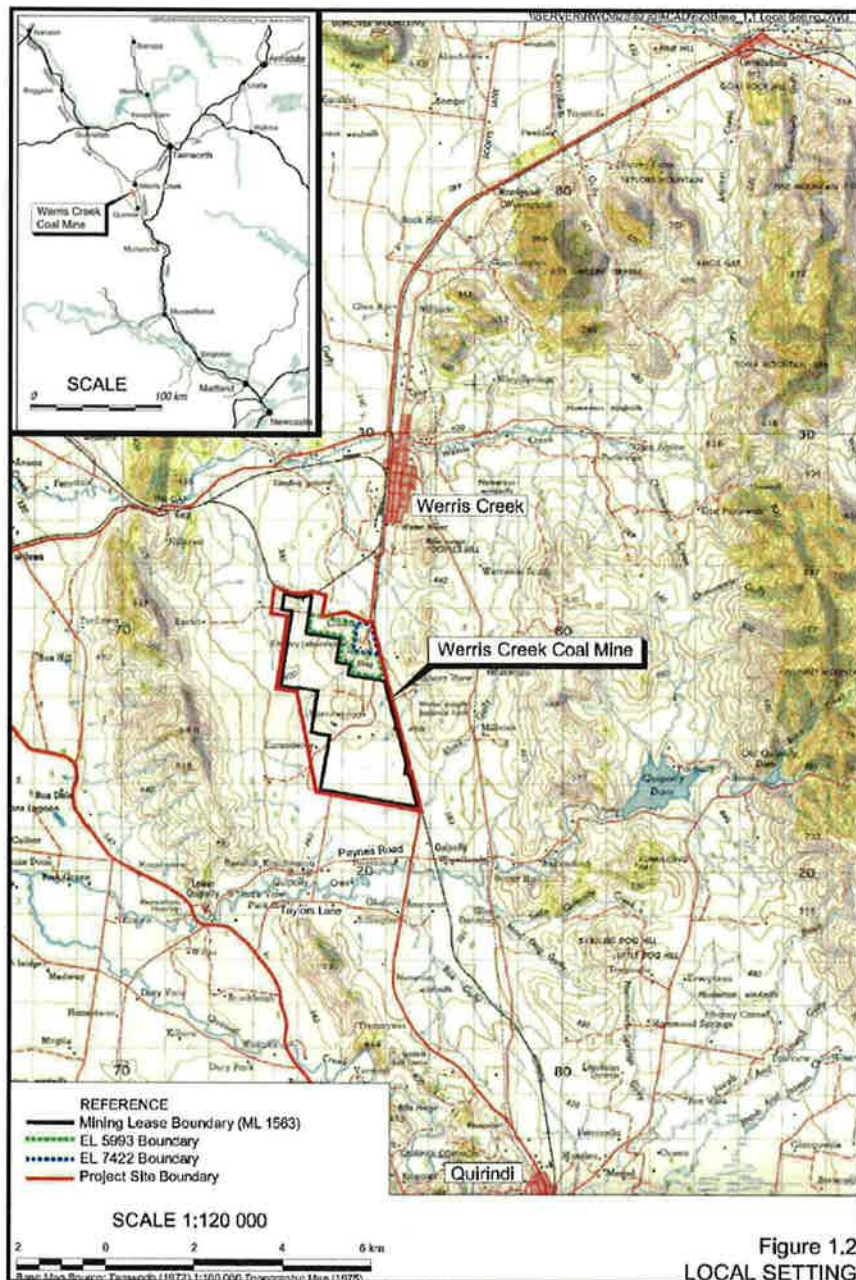


Figure 1: Location of the Werris Creek Coal Mine.

The mine, which was approved and commenced operations in 2005, comprises an open-cut pit and various infrastructure areas, including those used for coal processing, rail loading and despatch, reject emplacement and water management (see Figure 2). The mine employs 70 full-time workers.

In 2011 WCC was granted Ministerial approval (10_0059) under the now repealed Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to extend the open-cut pit, increase coal production, processing and transportation rates, construct a rail loop and other mine infrastructure, and to contemporise the regulatory framework for the mine. This approval replaced the development consent granted in 2005.

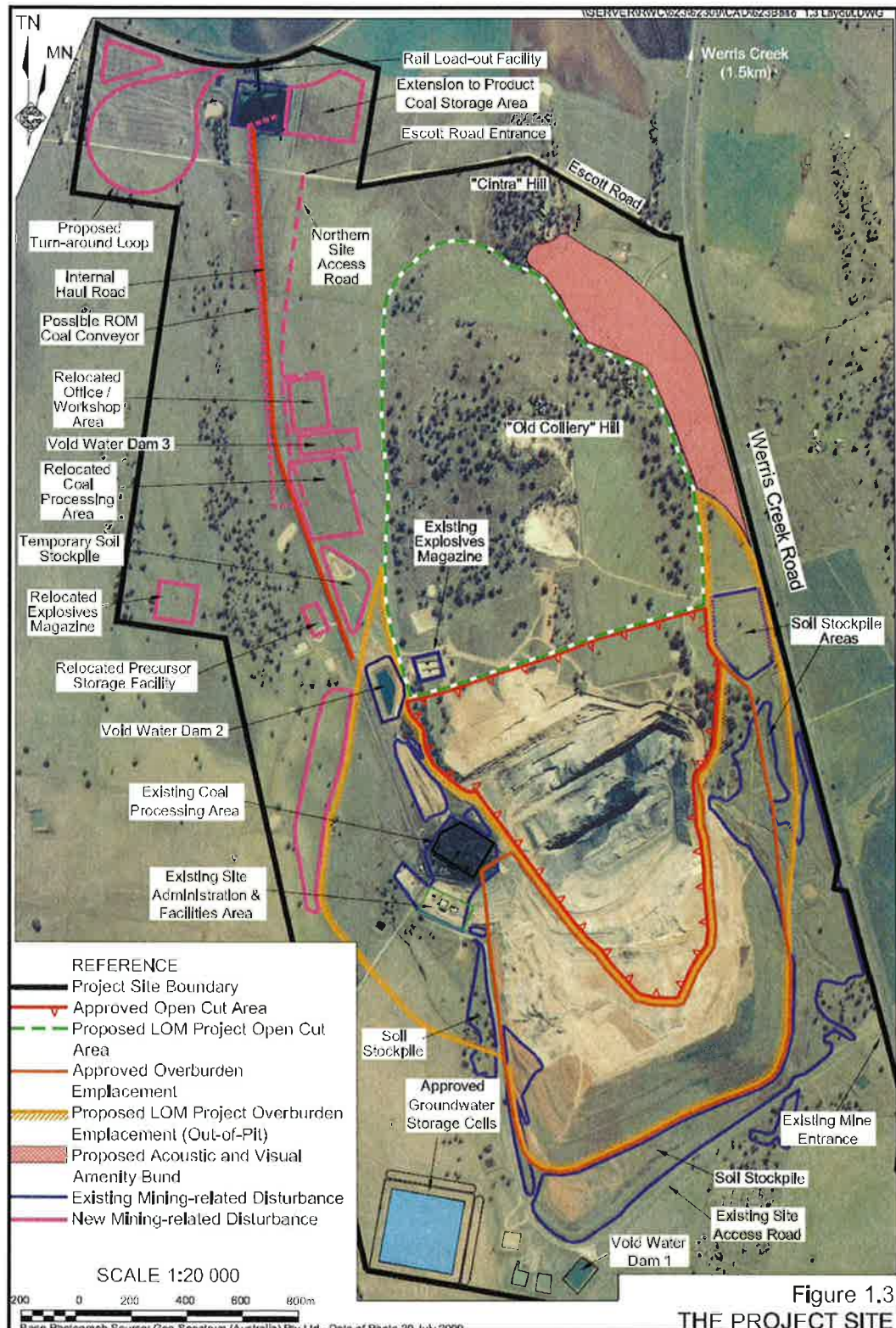


Figure 2: The general layout of the mine as approved in 2011.

Project approval 10_0059 allows WCC to:

- extract up to 2 million tonnes of run-of-mine (ROM) coal a year until 2030;
- process this coal on-site;
- transport the processed coal by rail to the Port of Newcastle for export; and
- progressively rehabilitate the site.

It also requires WCC to implement a Biodiversity Offset Strategy (BOS). This BOS covers an area of around 1,242 hectares (ha), and is located partly on the mine site and partly on land to the immediate east and west of the mine (see Figure 3).

The mine is surrounded by agricultural, rural-residential and conservation land uses. The closest urban settlement is the township of Werris Creek, located 4 kilometres north of the mine.

The approved project includes the construction of a new 200 megalitre (ML) dam (Void Water Dam 3 on Figure 2) to manage and store water which accumulates in the open-cut pit. The dam is approved to be constructed immediately west of the open-cut pit extension. When undertaking preliminary geotechnical works to facilitate construction, WCC found the soils in this area to be unsuitable for the dam, as the required compaction and permeability levels would not be able to be achieved. It therefore needs to relocate this approved dam.

The approved project also provides for the relocation of WCC's current explosive magazine, to allow the pit to be extended. However the approved relocation is constrained by a powerline, which does not allow sufficient clearance for construction equipment. WCC is therefore seeking to relocate the magazine to an alternative site.

2 PROPOSED MODIFICATION

WCC is proposing to modify its project approval for the Werris Creek Extension Project under section 75W of the EP&A Act. The application (10_0059 MOD 1) seeks to (see Figure 3):

- expand the existing Void Water Dam 1 (VWD1), and delete Void Water Dam 3;
- change the approved location of its explosive magazine;
- compensate for any additional biodiversity impacts through an increased biodiversity offset; and
- update the schedule of land for the project site.

VWD1 is proposed to be expanded from its current 20 megalitre (ML) capacity to 250 ML, to provide the approved storage capacity in the absence of Void Water Dam 3. The explosive magazine is proposed to be located 300 metres (m) south-east of its approved location.

The expanded dam would require 6 ha of the approved mine site Biodiversity Offset Area (BOA) to be removed. The 4 ha at the approved magazine location would be resumed into the mine site BOA, and the new location would remove 0.8 ha. The proposed modification would therefore result in a net reduction of 2.80 ha of the approved mine site BOA.

To offset the biodiversity impacts from the clearing required for the dam and the explosives magazine, and to compensate for the removal of a portion of the existing Mine Site biodiversity offset area (BOA), WCC proposes to include an additional 45 ha of land in its Greenslopes/Banool (BOA), located east of the mine (see Figure 3).

The schedule of land is required to be updated, to reflect a subdivision of land at the site. The update would also rectify incorrect Lot/DP references and include reference to previously omitted lots. These proposed changes are administrative, and would not result in any environmental impacts.

The proposed modification does not seek to increase the life of the project, change the mining method, the coal production rate or change any other aspect of the mine's approved activities. The proposed modification is described in full in the Environmental Assessment for the proposal, attached at Appendix B.

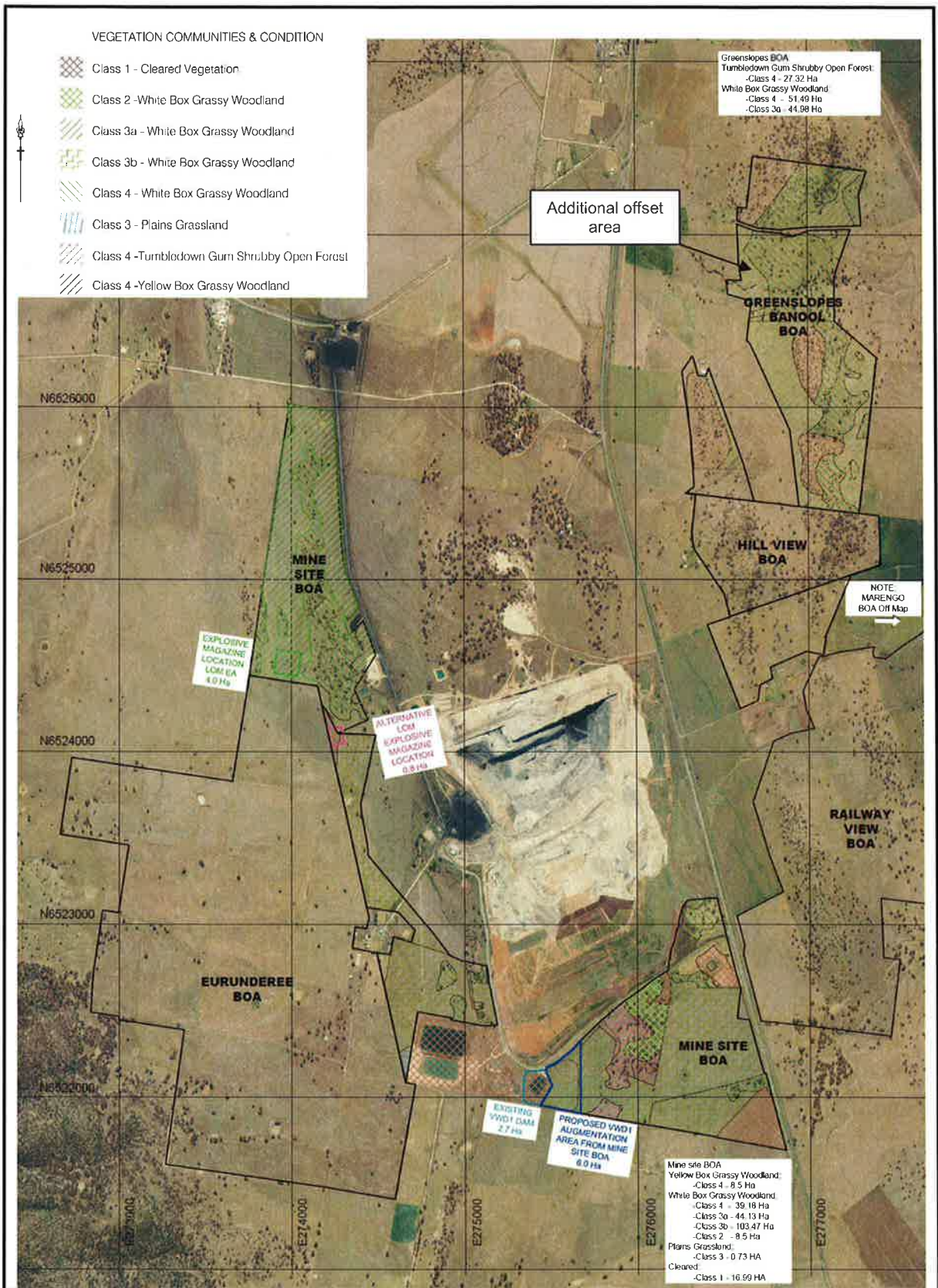


Figure 3: Proposed modification

3 STATUTORY CONTEXT

3.1 Approval Authority

Although Part 3A of the EP&A Act, was repealed on 1 October 2011, the Werris Creek Extension Project remains a “transitional Part 3A project” under Schedule 6A of the Act. The proposed modification would therefore be under the former section 75W, in accordance with the relevant savings provisions.

Consequently, this report has been prepared in accordance with the requirements of Part 3A and its associated regulations, and the Minister may approve or disapprove of the carrying out of the modified project under section 75W of the EP&A Act. However, under the Minister’s delegation of 14 September 2011, the Director Mining and Industry Projects may determine the modification application on behalf of the Minister, as it meets the terms of the Minister’s delegation.

3.2 Modification

The Department is satisfied that WCC’s requested modification can be characterised as a modification to the original approval rather than a new project in its own right, as:

- it does not change the approved maximum coal production, processing and transportation rates;
- no additional employees are required;
- it involves relatively minor changes to the approved project;
- no change in the approved noise, blasting, air quality, surface water, heritage or visual amenity-related impacts are predicted; and
- the proposed update to the schedule of lands would be administrative only.

Consequently, the Department is satisfied that that the proposed modification is within the scope of section 75W of the EP&A Act.

3.3 Environmental Planning Instruments

The Department has assessed the proposed modification against relevant environmental planning instruments, including State Environmental Planning Policies (SEPPs) and the Liverpool Plains Local Environmental Plan. The Department is satisfied that none of these environmental planning instruments substantially govern the proposed modification.

4 CONSULTATION

The Department made the application available for viewing on its website on 8 August 2012, and referred it to the Office of Environment and Heritage (OEH) and the Environment Protection Authority (EPA) for comment.

OEH does not object to the proposed modification, and indicated that the proposed revision to the BOS would be acceptable.

EPA does not object to the proposed modification. It commented that some of the mine’s clean water management structures (which would not be affected by the proposed modification) were not constructed to their design capacity. EPA further commented that it is investigating a recent unlicensed discharge from the mine, which may not have occurred if the clean water structures had been constructed as designed. It recommended that appropriate contingency water management controls should be implemented while VWD1 is expanded.

5 ASSESSMENT

5.1 Biodiversity

The Department assessed whether the proposed additional offset lands would adequately compensate for:

- the vegetation clearing required for the expanded dam and the explosives magazine; and
- the additional offset liability created by the removing a portion of an existing offset area.

Current Biodiversity Offset Strategy

The project approval currently requires 1,241 ha of land to be conserved, to compensate for vegetation clearing at the mine. The key aim of this biodiversity offset strategy is to conserve and

enhance White-Box Grassy Woodland, which is listed as an Endangered Ecological Community (EEC) under the *Threatened Species Conservation Act 1995*, and is also listed as a Critically Endangered Ecological Community (CEEC) under the Commonwealth *Environment Protection Biodiversity Conservation Act 1999*. The existing offset strategy is summarised in Table 1:

Table 1: Summary of the Approved Biodiversity Offset Strategy

Offset Areas	Minimum Size (hectares)
Eurunderee	363.93
Hillview	57.32
Marengo	284.12
Railway View	243.69
Mine Site	218.66
Additional Offset Area	74
TOTAL	1,241.72

WCC has complied with the requirement to provide a 74 ha offset at an “additional offset area”, by providing 78 ha of good quality (Class 4¹) White-Box vegetation (of which 51.49 ha is White-Box Grassy Woodland EEC) at its nearby Greenslopes/Banool property.

Biodiversity Impacts and Additional Offsets

To offset the additional biodiversity impacts from the proposed modification and to compensate for the net reduction of 2.80 ha of the mine site BOA, WCC proposes to include a further 45 ha of lesser quality (Class 3a) White-Box Grassy Woodland EEC (in addition to the 78 ha already provided) to the Greenslopes/Banool BOA.

Regarding the adequacy of the proposed additional offset, OEH commented that WCC had not undertaken a quantitative assessment of the biodiversity values of this land. However, OEH noted that if the Biobanking methodology was used, sufficient credits would be likely to be generated by the additional offset to compensate for the additional disturbance and the net reduction to the Mine Site BOA. OEH concluded that WCC’s proposed offset could therefore be considered adequate to offset the biodiversity impacts of the proposed modification.

The Department has considered the additional offset, and is satisfied it would be appropriate for the following reasons:

- it contains similar vegetation to that which would be disturbed by the proposed modification;
- it includes the same EEC as the Mine Site BOA;
- it forms a logical addition to the Greenslopes/Banool BOA;
- it would be conserved in perpetuity;
- it is not isolated, and is not constrained by mining operations;
- it would contribute to the biodiversity corridors created by the approved project; and
- the proposed offset ratio of 16:1 is substantial.

The Department also considers that the biodiversity impacts of the proposed modification would be further mitigated in the long-term through the proposed rehabilitation of the disturbed areas to White-Box Woodland. The Department is satisfied that this rehabilitation, together with the proposed offset strategy, would ensure that the biodiversity values of the area are improved (or at least maintained) over the medium to long-term.

The Department has recommended conditions requiring WCC to implement the revised offset strategy. The existing conditions also require WCC to update its Biodiversity Offset Management Plan to accommodate the proposal.

¹ In order to delineate between various condition states of woodland vegetation types, a condition class system is employed which follows the Box-Gum Threatened Ecological Community Listing Advice (TSSC 2006).

5.2 Other Impacts

The Department has considered other potential impacts of the proposed modification. These considerations are summarised in Table 2.

Table 2: Consideration of other impacts

<i>Issue</i>	<i>Consideration</i>	<i>Recommendation</i>
<i>Water</i>	<ul style="list-style-type: none"> The existing dam would be dewatered during construction of the dam expansion. This water would be stored either in the pit or in the other dams on-site. The Department is satisfied that adequate storage capacity exists on-site to handle void water while VWD1 is expanded. The expanded VWD1 has been designed to avoid offsite discharges and any interaction with local groundwater resources. Appropriate drainage, erosion and sediment control measures would be implemented during construction and operation of the expanded dam. The Department notes EPA's comments that other dams at the mine were not constructed to their design capacity. The Department also notes that EPA is investigating a recent unlicensed discharge of water from the site. However the Department considers that as the dams to which EPA refers are part of the clean water management system, they do not relate to, or have any influence on the proposed modification. The Department believes EPA's concerns would be adequately addressed through a revision to the mine's Site Water Management Plan, which is required under the current conditions. The Department however considers that WCC should provide an engineering report which confirms that the expanded VWD1 has been constructed to its design specifications. 	<ul style="list-style-type: none"> Submit a "works as-executed" report which confirms that the expanded Void Water Dam 1 has been constructed to its design specifications. No change to other existing water management conditions.
<i>Noise</i>	<ul style="list-style-type: none"> Construction would only occur during the day and the closest residences to the construction areas are project-related. No additional noise impacts would be expected. The equipment proposed to be used in for construction were included in the modelling of noise levels for the approved project. The controls in the mine's Noise Management Plan would continue to be applied to maintain compliance with approval conditions. 	<ul style="list-style-type: none"> No change to existing noise management conditions.
<i>Air Quality</i>	<ul style="list-style-type: none"> The proposed modification does not seek to change the coal production rate or any of the mine's operating processes, therefore no additional air quality impacts would be expected. Dam construction was previously considered in the air quality assessment for the approved project. 	<ul style="list-style-type: none"> No change to existing air quality management conditions.
<i>Description of project site</i>	<ul style="list-style-type: none"> The proposed updated schedule of land would correct omissions and transcription errors. 	<ul style="list-style-type: none"> Replace the Schedule of Land in Appendix 1 of the approval, and add a figure which shows the updated Lot and DP numbers which apply to the site.

6 RECOMMENDED CONDITIONS

The Department has recommended conditions for the proposed modification. The conditions include modifying the approved offset to accommodate the net reduction in the Mine Site BOA and the proposed addition to the Greenslopes/Banoool BOA, and the requirement to report that the expanded dam has been constructed to its design specifications. The Department has also recommended that

the project site description is updated, and that other minor administrative changes to the wording of the approval are made. WCC has reviewed and accepted the proposed 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 result in minor environmental impacts. The proposed modification would allow WCC to effectively manage its minewater.

The Department's assessment has found that any additional biodiversity impacts at the mine would be able to be adequately offset by the proposed addition of land to the Greenslopes/Banool BOA.

The Department considers that any residual impacts would be able to be successfully avoided, mitigated or otherwise managed under the existing conditions of approval. Modified and additional conditions have been recommended to ensure that the additional offset is integrated into the existing biodiversity offset strategy for the mine, and that the expanded VWD1 is constructed to its design specifications.

Consequently, the Department believes the modification is in the public interest and should be approved.

8 RECOMMENDATION

It is RECOMMENDED that the Director, Mining and Industry Projects exercises the powers and functions in the Instrument of Delegation from the Minister for Planning and Infrastructure, dated 14 September 2011, and:

- **considers** the findings and recommendations of this report;
- **determines** that the proposed modification is within the scope of section 75W of the EP&A Act;
- **approves** the modification application, subject to conditions, under section 75W of the EP&A Act; and
- **signs** the attached notice of modification at Appendix D.

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30/8/12

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