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Dear Jack

**Ulan Coal Mine – Underground Mining Extension – Modification 6 – Response to Submissions (MP08\_0184 MOD 6)**

Thank you for your e-mail dated 17 May 2024 to the Biodiversity, Conservation and Science Group (BCS) of the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEE) inviting advice on the Ulan Coal Mine Modification 6 Response to Submissions (RTS).

We have reviewed the RTS Report including Appendix 2 – Amended Biodiversity Development Assessment Report (BDAR), Appendix 3 – Groundwater, and Appendix 4 – Surface water, along with the updated Biodiversity Assessment Method Calculator (BAM-C) cases and spatial data. Our review has identified that most of the issues set out in our earlier advice have been addressed by the proponent. Some minor revisions are required to rectify inconsistencies between the BAM-C and the BDAR.

Our remaining recommendations relate to consent conditions. Given the unique staged approach developed with BCS, and to ensure compliance with the Biodiversity Assessment Method (BAM), close consultation with BCS regarding the consent conditions should be undertaken to ensure the consent accurately reflects the assessed impact on biodiversity.

In summary, consent conditions should ensure that:

- Where a stage has multiple options, only one option can be selected and cleared.
- The preferred contingency option resulting in the lowest impact to biodiversity values is identified, with alternative options only considered if supported by evidence that the preferred option cannot be used.
- Each stage can be cleared once the credit obligation for that stage has been retired.
- Any changes to the development footprint outside of the identified stages will require a modification.

We have identified that the development footprint including Option 1 Area A provides the lowest impact on key biodiversity values, including no impact on the serious and irreversible impact (SAIL) entity, *White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland Critically Endangered Ecological Community* (Box Gum Woodland CEEC).

In accordance with the avoid and minimise hierarchy under the BAM, we recommend that Option 1 Area A be included in the development footprint, unless justification supported by evidence is provided as to why this option cannot be used. Should alternative options be explored, selection of an alternative option should be undertaken in consultation with BCS.

We remain available to discuss the wording of draft conditions of consent, particularly relating to the proposed staging approach, or to supply suggested draft condition wording upon request. Biodiversity recommendations are provided in **Attachment A**, and detailed comments relating to the response to issues from our 20 September 2023 response are outlined in **Attachment B**.

If you have any questions about this advice, please contact Kate Tierney, Senior Conservation Planning Officer, via [kate.tierney@environment.nsw.gov.au](mailto:kate.tierney@environment.nsw.gov.au) or (02) 4904 2782.

Yours sincerely



**Sarah Carr**  
**Director North West**  
**Biodiversity, Conservation and Science**

13 June 2024

Attachment A – BCS's Recommendations

Attachment B – Residual issues from BCS's response of 20 September 2023

## BCS's recommendations

### Ulan Coal Mine – Underground Mining Extension – Modification 6 – Response to Submissions

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BAM	Biodiversity Assessment Method
BAM-C	Biodiversity Assessment Method Calculator
BC Act	<i>Biodiversity Conservation Act 2016</i>
BCS	Biodiversity, Conservation and Science Directorate
BDAR	Biodiversity Development Assessment Report
LW	Longwall
NSW DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water
PCT	Plant Community Type
RTS	Response to Submissions
SAIL	Serious and Irreversible Impacts
SMART	specific, measurable, achievable, realistic, timebound

## Recommendations

### Draft conditions of consent

1.1 Consult with BCS regarding the drafting of consent conditions for **option selection**, given the unique staged approach developed in consultation with BCS, to ensure compliance with the BAM. Consent conditions must:

- limit the development footprint to Area 1 (or one contingency option only from Options 1-9 Areas A-I), Area 2 and Area 3. This would include limiting the clearing of PCTs and Box Gum Woodland CEEC to the maximum area as assessed in the option selected. The clearing of more than one option for Area 1 should be expressly prohibited.
- require a modification if there are any additional changes to the development footprint.
- permit each stage to be cleared once the credit obligation for that stage has been retired.

1.2 Consult with BCS regarding the drafting of consent conditions for **stage timing**, given the unique staged approach developed in consultation with BCS, to ensure compliance with the BAM. Consent conditions must:

- require each stage to be offset prior to any impact occurring in that stage, in accordance with section 7.13 of the *Biodiversity Conservation Act 2016* (BC Act).
- detail the credits to be retired for each stage.
- require any amendments to credit retirement to be undertaken in consultation with BCS.

2.1 Consult with BCS regarding the drafting of consent conditions for the **preferred option**, given the unique staged approach developed in consultation with BCS, to ensure compliance with the BAM. Consent conditions must:

- identify the preferred contingency option of Option 1 (Area A) for inclusion in the development footprint, if Area 1 is not selected.
- if Option 1 (Area A) cannot be selected as the preferred contingency option for the proposal, justification supported by evidence must be provided for an alternative option.
- select an alternative contingency option if required in consultation with BCS.

7.1 If the project is approved, consent conditions should require management plans and strategies to be reviewed and adapted to ensure compliance with SMART principles and the inclusion of quantifiable triggers for adaptive management.

7.2 If the project is approved, consult BCS during review of the biodiversity management plan and preparation of the microbat management plan.

### **Other residual issues**

3.1 Correct the errors identified in this response. Audit BAM-C to ensure consistency with the BDAR.

6.1 An independent expert should be engaged to provide advice on the impacts of subsidence on hydrology and groundwater.

## Residual Issues from BCS's comments on Response To Submissions (20 September 2023)

### Ulan Coal Mine – Underground Mining Extension – Modification 6 – Response to Submissions

BCS Recommendation Reference	Summary of BCS Recommendation on the EIS	Addressed in updated BDAR	BDAR Reference	Comment and Recommendation(s)
1.1	The staged approach should be applied, and the worst-case / maximum parameter approach be removed from consideration.	Yes	Amended BDAR section 1.3	<p>Section 1.3 of the amended BDAR outlines the worst case approach. The worst case approach has been updated since the revised BDAR (11 August 2023), following consultation with BCS.</p> <p>Our latest response on the proposed staging (dated 23 February 2024) advised that the amended BDAR should clearly outline the approach to determining a development footprint. This includes:</p> <ul style="list-style-type: none"> <li>• detailing each stage, and</li> <li>• where a stage has multiple options, ensuring that only one option will be cleared.</li> </ul> <p>Section 1.3 of the amended BDAR outlines the proposed approach to address the proponent's need for flexibility regarding the location of the proposed development footprint. The BDAR outlines that there are nine contingency options (Stages A-I) to potentially replace 'Area 1' in the development footprint. These nine options can only be selected in lieu of, and not in addition to, Area 1. The BDAR acknowledges that a modification will be required if the proposal requires further impacts upon an area not already assessed via a BAM-C case.</p>

BCS Recommendation Reference	Summary of BCS Recommendation on the EIS	Addressed in updated BDAR	BDAR Reference	Comment and Recommendation(s)
				<p><b>Outcome:</b> This issue has been resolved. The recommendation below should be followed.</p> <p><b>Recommendation:</b> Consult with BCS regarding the drafting of consent conditions for <b>option selection</b>, given the unique staged approach developed in consultation with BCS, to ensure compliance with the BAM.</p> <p>Consent conditions must:</p> <ul style="list-style-type: none"> <li>• limit the development footprint to Area 1 (or one contingency option only from Options 1-9 Areas A-I), Area 2 and Area 3. This would include limiting the clearing of PCTs and Box Gum Woodland CEEC to the maximum area as assessed in the option selected. The clearing of more than one option for Area 1 should be expressly prohibited.</li> <li>• require a modification if there are any additional changes to the development footprint.</li> <li>• permit each stage to be cleared once the credit obligation for that stage has been retired.</li> </ul>
1.2	If approved, the development consent conditions must require each stage to be offset prior to any impact occurring in that stage, in accordance with section 7.13 of the <i>Biodiversity Conservation Act 2016</i> (BC Act). The credits to be retired for each stage must also be included in conditions of consent. Any amendments to	Yes	Amended BDAR Section 8	<p>Section 8 of the amended BDAR outlines that a staged approach to offsetting is proposed, whereby offset credits are retired as surface impacts progress. The BAM calculator has been set up with several child cases, to allow for a staged retirement of credits as the surface infrastructure progresses. If the infrastructure for any or all of the stages is not constructed, the credits associated with that stage or stages would not need to be retired.</p> <p><b>Outcome:</b> This issue has been resolved. The recommendation below should be followed.</p>

BCS Recommendation Reference	Summary of BCS Recommendation on the EIS	Addressed in updated BDAR	BDAR Reference	Comment and Recommendation(s)
	credit retirement must be undertaken in consultation with BCS.			<p><b>Recommendation:</b> Consult with BCS regarding the drafting of consent conditions for <b>stage timing</b>, given the unique staged approach developed in consultation with BCS, to ensure compliance with the BAM.</p> <p>Consent conditions must:</p> <ul style="list-style-type: none"> <li>require each stage to be offset prior to any impact occurring in that stage, in accordance with section 7.13 of the <i>Biodiversity Conservation Act 2016</i> (BC Act).</li> <li>detail the credits to be retired for each stage.</li> <li>require any amendments to credit retirement to be undertaken in consultation with BCS.</li> </ul>
2.1	The development footprint requires further refinement to demonstrate avoidance and minimisation of impacts on key biodiversity values.			<p>The executive summary of the Modification Amendment report outlines the changes to the proposal as:</p> <ul style="list-style-type: none"> <li>extension of Ulan Underground Longwall (LW) panels LWW9 to LWW11 to the west, albeit at a reduced length compared to the Proposed Modification</li> <li>widening of Ulan Underground LWW11 by approximately 30 metres</li> <li>extension of Ulan West LW10 to LW12 to the north, noting the removal of the extension to LW9 which was included in the Proposed Modification.</li> </ul>
2.2	Detail the avoidance measures that have been used to refine the location of the proposal.	Yes	Amended BDAR section 4	<p>The revised proposal presents a smaller footprint and reduced impacts on biodiversity. The proposed amendments reduced the development footprint to 17.4ha and the potential indirect impacts to 634.4ha (from 23ha and 852.9ha respectively under the proposed modification).</p> <p>Section 4 of the amended BDAR outlines the avoid and minimise measures. The access track has been removed,</p>

BCS Recommendation Reference	Summary of BCS Recommendation on the EIS	Addressed in updated BDAR	BDAR Reference	Comment and Recommendation(s)
				<p>reducing impacts on Box Gum Woodland CEEC and resulting in no direct impact on large-eared pied-bat and eastern cave bat species polygons.</p> <p>Section 4 of the BDAR outlines that a review of the proposal has determined that there are no additional changes that can be made that would not compromise future mining operations. We are satisfied that the amended BDAR has adequately detailed avoidance measures for the proposal.</p> <p>We have reviewed the biodiversity impacts of Area 1 Options A to I and note that these options have variable impacts on biodiversity. For example, Option A and B have no impact on Box Gum Woodland CEEC whilst the remaining Options C to I have some impact on box gum woodland CEEC.</p> <p>We note that Area 1 Option A will have the least impact on key biodiversity values, because this location has no Box Gum Woodland CEEC and following survey excludes threatened species, including Barking Owl and Koala. In accordance with the avoid and minimise hierarchy under the BAM, we recommend Area 1 Option A is included in the development footprint, unless justification is provided as to why this option cannot be used.</p> <p><b>Outcome:</b> This issue has not been resolved, but can be addressed by way of condition. The applicant should nominate Area 1 Option A as preferred for inclusion in the development footprint, to be secured by condition.</p> <p><b>Recommendation:</b> Consult with BCS regarding the drafting of consent conditions for the <b>preferred option</b>, given the unique</p>

BCS Recommendation Reference	Summary of BCS Recommendation on the EIS	Addressed in updated BDAR	BDAR Reference	Comment and Recommendation(s)
				<p>staged approach developed in consultation with BCS, to ensure compliance with the BAM.</p> <p>Consent conditions must:</p> <ul style="list-style-type: none"> <li>• identify the preferred contingency option of Option 1 (Area A) for inclusion in the development footprint, if Area 1 is not selected.</li> <li>• if Option 1 (Area A) cannot be selected as the preferred contingency option for the proposal, justification supported by evidence must be provided for an alternative option.</li> <li>• select an alternative contingency option if required in consultation with BCS.</li> </ul>
3.1	Review the BDAR, BAM-C cases and spatial data to ensure that all data is consistent.	No	BAM-C cases and Amended BDAR	<p>We have reviewed the BDAR and the BAM-C cases and has identified some inconsistencies between ecosystem species.</p> <p>For example, Table B.1 Ecosystem credit species in Appendix B of the Amended BDAR identifies the following ecosystem species as occurring in PCT 476:</p> <ul style="list-style-type: none"> <li>• dusky woodswallow</li> <li>• glossy black cockatoo</li> <li>• white-throated needletail</li> <li>• turquoise parrot</li> <li>• barking owl</li> </ul> <p>For comparison, BAM-C case 00040994 for Stage 1B which is identified in the BAM-C case as PCT 476 contains the following ecosystem credits in Tab 4:</p>

BCS Recommendation Reference	Summary of BCS Recommendation on the EIS	Addressed in updated BDAR	BDAR Reference	Comment and Recommendation(s)
				<ul style="list-style-type: none"> <li>• dusky woodswallow</li> <li>• white-throated needletail</li> <li>• swift parrot</li> <li>• turquoise parrot</li> </ul> <p>We recommend a full audit of BAM-C cases and the Amended BDAR and is undertaken and all errors detected are updated.</p> <p><b>Outcome:</b> This issue is not resolved. Further action is required.</p> <p><b>Recommendation:</b> Correct the errors identified in this response. Audit BAM-C to ensure consistency with the BDAR.</p>
4.1	Revise the threatened microbat species polygons in figure 6.9 to ensure accuracy and consistency with figure 3.12.	Yes	Amended BDAR section 4	<p>Section 4 of the amended BDAR outlines the avoid and minimisation measures including that the removal of the access track has resulted in no direct impact on large-eared pied-bat and eastern cave bat species polygons.</p> <p>PCT 281 no longer occurs within the development footprint.</p> <p><b>Outcome:</b> This issue is resolved. No further action required.</p>
5.1	Revise the species polygon for <i>Commersonia procumbens</i> in both Figures 3.13 and 6.6 to include all areas of PCTs 478, 479 and 481 within the development footprint.	Yes	Amended BDAR section 6.3.4	<p>Table 6.5 outlines that this species is assumed present. Figure 6.6 shows the location of the species polygon for <i>Commersonia procumbens</i> across the development footprint.</p> <p>The species polygon covers the entirety of the development footprint.</p> <p><b>Outcome:</b> This issue is resolved. No further action required.</p>
6.1	An independent expert should be engaged to provide advice on the	N/A	N/A	An independent expert has not been engaged to provide advice on the impacts of subsidence on hydrology and groundwater.

BCS Recommendation Reference	Summary of BCS Recommendation on the EIS	Addressed in updated BDAR	BDAR Reference	Comment and Recommendation(s)
	impacts of subsidence on hydrology and groundwater.			<p><b>Outcome:</b> This issue has not been resolved.</p> <p><b>Recommendation:</b> An independent expert should be engaged to provide advice on the impacts of subsidence on hydrology and groundwater.</p>
7.1	If the project is approved, consent conditions should require management plans and strategies to be reviewed and adapted to ensure compliance with SMART principles and the inclusion of quantifiable triggers for adaptive management.	Partially	Amended BDAR section 4.2	<p>Section 4.2 of the amended BDAR states that the Ulan Coal Complex Biodiversity Management Plan (UCPML 2022) will be reviewed and adapted if necessary to ensure compliance with SMART (specific, measurable, achievable, relevant, time-bound) principles and inclusion of quantifiable triggers for adaptive management in accordance with Section 2.6 of the BAM Operational Manual Stage 2. The BDAR also outlines that SMART principles will be used for the Microbat Management Plan, and the Water and Hydrology Management Plan.</p> <p><b>Outcome:</b> This recommendation is relevant for consent and should be implemented if the project is approved.</p> <p><b>Recommendation:</b> If the project is approved, consent conditions should require management plans and strategies to be reviewed and adapted to ensure compliance with SMART principles and the inclusion of quantifiable triggers for adaptive management.</p>
7.2	BCS should be consulted during review of the biodiversity management plan and preparation of the microbat management plan.	N/A	N/A	<p><b>Outcome:</b> This recommendation relates to the issuing of development consent and should be implemented if the project is approved.</p> <p><b>Recommendation:</b> If the project is approved, consult BCS during review of the biodiversity management plan and preparation of the microbat management plan.</p>