



Our ref: DOC22/648452-9

Your ref: SSD-9526 MOD 2

Mr Joe Fittell

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Dear Mr Fittell

Maxwell Underground Coal Mine (SSD-9526 MOD 2) – Mining Optimisation Modification Project – Review of Modification Report

I refer to your request for advice on the Major Projects Portal, dated 27 July 2022, in which the Planning and Assessment Division (P&A) of the Department of Planning and Environment (the Department) invited Biodiversity and Conservation Division (BCD) of the Department to provide advice in relation to the Maxwell Underground Coal Mine Mining Optimisation Modification project (SSD-9526 MOD 2).

BCD has reviewed the 'Maxwell Underground Mine Project: Mining Optimisation Modification: Modification Report', including relevant appendices, in relation to impacts on biodiversity (including Matters of National Environmental Significance [MNES] under the *Environment Protection and Biodiversity Conservation Act 1999*) and flooding and flood risk assessment. BCD has no comment to make on the flooding and flood risk assessment for the project.

BCD's recommendations are provided in **Attachment A** and detailed comments are provided in **Attachment B**. If you have any further questions in relation to this matter, please contact Robert Gibson, Senior Regional Biodiversity Conservation Officer, on 4927 3248 or via email at huntercentralcoast@environment.nsw.gov.au

Yours sincerely

Steven Crick
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15 August 2022

Enclosure: Attachments A and B

BCD's recommendations

Maxwell Underground Coal Mine (SSD-9526 MOD 2) – Review of Mining Optimisation Modification: Modification Report

Biodiversity

1. BCD recommends that further information on threatened flora survey effort is provided that describes how BCD's threatened plant survey guidelines have been met for the species listed in this letter, particularly in relation to width of survey transect, the density of the vegetation, survey methodology, the extent of suitable habitat covered, and how any multi-species surveys were undertaken.

Further, if several different species were searched for along the same transect at the same time, then details are required of how many species were searched for and how they fall within Section 5.1 'Undertaking field traverses' in BCD's threatened flora survey guidelines (BCD, 2020). If BCD's survey guidelines have not been met, further survey may be required, or an Expert Report may be prepared. BCD notes that several plant species are currently assumed to be present, at least in part of the project area

2. BCD recommends the accredited assessor provides copies of the plot field data sheets of the vegetation quadrats used for this assessment.
3. BCD recommends the accredited assessor provides the GIS shapefiles used for maps in the BDAR.
4. BCD recommends that existing tables are revised, or new tables are prepared that provide all of the information required by the BAM.
5. BCD recommends all maps from the BDAR are provided as jpeg files

BCD's detailed comments

Maxwell Underground Coal Mine (SSD-9526 MOD 2) – Review of Mining Optimisation Modification: Modification Report

Biodiversity

1. Further details are required of survey effort for 15 threatened plants

The Biodiversity Assessment Report (BDAR) does not demonstrate how the targeted survey effort for 15 threatened plant species meets BCD's threatened plant survey guidelines (Surveying threatened plants and their habitats: NSW survey guide for the Biodiversity Assessment Method', April 2020). Section 4.4 'Species credit species - survey' of the BDAR states that supplementary surveys for threatened plants were undertaken for this project between September and November in 2021 and between May and June in 2022. Survey transects for those targeted surveys are shown in Figure 8a 'Vegetation Integrity Plot and Survey Transect Locations – proposed Ventilation Shaft Surface Development Area', however, the transect separation distance is not clear, vegetation density is not described, and the surveys are not demonstrated to meet BCD's flora survey guidelines (EES, 2020).

Further details are also required of the species targeted for each survey in relation to any multi-species surveys. Such details would show how Section 5.1 'Undertaking field traverses' in BCD's threatened flora survey guidelines (BCD, 2020) may have been met, which states that up to five species in the same stratum can be effectively searched for concurrently.

Therefore, further details of threatened plant surveys are required as follows:

Trees, mallee trees and tall shrubs (>6 metres tall) – BCD survey requirements are for transects up to 40 metres apart in open vegetation or up to 20 metres apart in dense vegetation. Details of survey effort in areas of suitable habitat, and how they meet BCD survey guidelines are required for the following species:

- *Acacia pendula*
- *Eucalyptus glaucina*
- *Eucalyptus pumila*

Medium shrubs (1-6 metres tall) – BCD survey requirements are for transects up to 20 metres apart in open vegetation, or up to 10 metres apart in dense vegetation. Details of transect spacing and vegetation density are required. Transects less than 20 metres apart are too far apart in any areas of dense vegetation for the following species

- *Ozothamnus tessellatus*
- *Pomaderris bodalla*
- *Pomaderris queenslandica*
- *Pomaderris reperta*
- *Prostanthera cineolifera*

- *Prostanthera cryptandroides* subsp. *cryptandroides*

Herbs and forbs – BCD survey requirements are for transects up to 10 metres apart in open vegetation or up to 5 metres apart in dense vegetation. Details of survey effort undertaken in areas of suitable habitat and how much survey work is required is needed for the following species:

- *Thesium australe*

Orchids, epiphytes, climbers and aquatic herbs – BCD survey requirements are for transects up to 10 metres apart in open vegetation or up to 5 metres apart in dense vegetation. Details of survey effort undertaken in areas of suitable habitat and how much survey work is required for the following species:

- *Cryptostylis hunteriana*
- *Cymbidium canaliculatum*
- *Cynanchum elegans*
- *Diuris tricolor*
- *Prasophyllum petilum*

Recommendation 1

BCD recommends that further information on threatened flora survey effort is provided that describes how BCD's threatened plant survey guidelines have been met for the species listed in this letter, particularly in relation to width of survey transect, the density of the vegetation, survey methodology, the extent of suitable habitat covered, and how any multi-species surveys were undertaken.

Further, if several different species were searched for along the same transect at the same time, then details are required of how many species were searched for and how they fall within Section 5.1 'Undertaking field traverses' in BCD's threatened flora survey guidelines (BCD, 2020). If BCD's survey guidelines have not been met, further survey may be required, or an Expert Report may be prepared. BCD notes that several plant species are currently assumed to be present, at least in part of the project area.

2. Copies of plot field data sheets should be provided

The plot field data sheets have not been included in the BDAR. Copies of the BAM plot sheets for the seven recently done vegetation plots (220524P1 to 220524P4 and 220527P2 to 220527P4) are required, as per Appendix K of the BAM (2020). BCD reviews the plot field data sheets to ensure consistency between the data sheets, the BDAR and the credit calculator.

Recommendation 2

BCD recommends the accredited assessor provides copies of the plot field data sheets of the vegetation quadrats used for this assessment.

3. Copies of GIS shapefiles should be provided

GIS shapefiles of the maps in the BDAR have not been provided. The GIS shapefiles are required to help with the assessment of the BDAR. Their provision is a requirement under the BAM (2020, see Appendix K).

Recommendation 3

BCD recommends the accredited assessor provides the GIS shapefiles used for maps in the BDAR.

4. Additional information is required to be presented in Tables in the BDAR

The BDAR does not fully meet the requirements of the BAM with respect to information presented in Tables. These requirements are described in Appendix K of the BAM. BCD recommends that either existing tables are revised, or new tables are produced with the following information:

- The biodiversity risk weighting for all species-credit species considered for the project (e.g., add to Table 8 'Species Credit Species for Assessment')
- State the unit of measure (count or area of suitable habitat) for all species that require a species polygon
- Threatened entities that may be dependent upon, or may use habitat features associated with any of the prescribed impacts
- Measures to mitigate and manage impacts – with details of action, outcome, timing and responsibility (perhaps revise Table 23 and add a column for responsibility?)

Recommendation 4

BCD recommends that existing tables are revised, or new tables are prepared that provide all of the information required by the BAM.

5. Copies of all BDAR report maps as separate jpeg files are required

Copies of all maps in the BDAR are required to be provided as separate jpeg files. This is a requirement of Appendix K of the BAM 2020. Those files are used when reviewing a BDAR and their provision will speed up the assessment process.

Recommendation 5

BCD recommends all maps from the BDAR are provided as jpeg files.