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Your ref: DA86-51-MOD 1

Ms Sarah Clibborn  
Team Leader – Energy & Resource  
Assessments  
Planning and Assessment Division  
Department of Planning and Environment  
4 Parramatta Square  
PARRAMATTA NSW 2150  
[sarah.clibborn@planning.nsw.gov.au](mailto:sarah.clibborn@planning.nsw.gov.au)

Dear Ms Clibborn

**Subject: Ravensworth South Mine – Landform Amendment Project (DA86-51-MOD 1) – Review of Environmental Impact Statement**

Thank you for your e-mail dated 15 June 2022 in which the Planning and Assessment Group (PAG) of the Department of Planning and Environment (the Department) invited Biodiversity and Conservation Division (BCD) of the Department for advice in relation to the Ravensworth South Mine Landform Amendment Project (DA86-51-MOD 1); which occurs in the Singleton Shire local government area.

BCD has reviewed the Environmental Impact Statement (EIS), including its appendices, for this project in relation to the biodiversity assessment. BCD's recommendations are provided in **Attachment A**. Detailed comments are provided in **Attachment B**. If you have any questions about this advice, please contact Robert Gibson, Senior Regional Biodiversity Conservation Officer, via [huntercentralcoast@environment.nsw.gov.au](mailto:huntercentralcoast@environment.nsw.gov.au) or 02 4927 3154.

Yours sincerely

**STEVEN CRICK**  
**Senior Team Leader Planning**  
**Hunter Central Coast Branch**  
**Biodiversity and Conservation Division**

**4 July 2022**

Enclosure:      Attachments A and B

### BCD's recommendations

#### Ravensthorpe South Coal Mine – Landform Amendment Project (DA86-51-MOD 1) – Review of Environmental Impact Statement

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1. BCD recommends that details of how any multispecies surveys were conducted, and whether species specific survey requirements from the Threatened Biodiversity Data Collection were met.
2. BCD recommends that further details of survey effort against minimum survey requirements and any species-specific survey requirements are provided to demonstrate that survey effort met BCD's requirements.
3. BCD recommends that dams in the development footprint as described and assessed as to whether they meet the requirements of forming a Vegetation Zone. If so, they require assessment under the BAM.
4. BCD recommends that the subject land is defined, and any temporary clearing is identified.
5. BCD recommends that Native Vegetation extent is shown on a map at no more than 1:10,000 to meet BAM 2020 requirements.
6. BCD recommends that copies of the figures in the BDAR are provided as separate jpeg files.
7. BCD recommends that a summary of the relevant experience for all survey personnel is provided.
8. BCD recommends that any land in the Subject Land that qualifies for not requiring BAM assessment is described, justified as not requiring BAM assessment, and shown on a map.
9. BCD recommends that further details are required that walk the reader through how the species polygon for the southern Myotis was generated.
10. BCD recommends that the sensitivity to gain class is provided for all potential species affected by the project to meet the requirements of the BAM 2020

## BCD's detailed comments

### Ravensthorpe South Coal Mine – Landform Amendment Project (DA86-51-MOD 1) – Review of Environmental Impact Statement

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#### 1. Further details on threatened flora surveys are required

The Biodiversity Development Assessment Report (BDAR) does not fully show how threatened flora surveys meet relevant survey requirements, i.e., 'Surveying threatened plants and their habitats' (EES, 2020). Table 8 'Survey of requirements and timing conducted for candidate flora species' presents a summary of survey timing and effort for 14 species of threatened plant species or populations. It suggests that surveys for many of the 14 threatened plant species were done concurrently. Clarification is sought on how this meets the threatened flora survey guidelines (2020: Section 5.1) for conducting multi-species surveys. A maximum of five species per stratum per traverse is allowed under the guidelines – to enable sufficient effort to detect targeted species, if they are present. Further details are also required on any species-specific survey requirements from the Threatened Biodiversity Data Collection (TBDC) and how they were met. This could be added to a revised version of Table 8.

##### Recommendation 1

BCD recommends that details of how any multispecies surveys were conducted, and whether species specific survey requirements from the Threatened Biodiversity Data Collection were met.

#### 2. Further details on threatened fauna surveys are required

Table 10 of the BDAR 'Survey of requirements and timing conducted for candidate fauna species' presents a summary of survey types and timing for 12 species of threatened fauna. Section 4.2.2.1 'Survey Methodology' describes how surveys were conducted. However, the BDAR does not compare the survey effort undertaken against BCD's minimum survey effort requirements per species. There appears to be no mention of any species-specific survey requirements from the TBDC, and how they may have been met. Therefore, it is not possible to know if minimum survey requirements were undertaken.

##### Recommendation 2

BCD recommends that further details of survey effort against minimum survey requirements and any species-specific survey requirements are provided to demonstrate that survey effort met BCD's requirements.

#### 3. Details on the vegetation in dams in the development footprint are required

The BDAR does not describe the dams in the development footprints nor explain why they do not require assessment by the BAM. Figure 4 'Plant Community Types, Vegetation Zones and Plot Locations' show two dams in the development footprint. The dams and their vegetation cover are not described. Where dams are colonised by Bullrushes (*Typha* species), Common Reed (*Phragmites australis*) and other water plants then they can meet the definition of 'native vegetation'. BCD recommends that descriptions, with photos are provided of the dams with an assessment of whether they contain native vegetation, and whether meet the requirements to be assessed as a new vegetation zone in the BDAR.

##### Recommendation 3

BCD recommends that dams in the development footprint as described and assessed as to whether they meet the requirements of forming a Vegetation Zone. If so, they require assessment under the BAM.

#### 4. The 'subject land' needs to be defined

The BDAR does not define the 'subject land' nor identify any clearing associated with temporary or ancillary construction facilities and infrastructure. This could be provided in a statement and a revised version of Figure 2 or Figure 3. This would then meet the requirements set out in Table 24 (page 116) of the BAM 2020.

##### Recommendation 4

BCD recommends that the subject land is defined, and any temporary clearing is identified.

#### 5. Native Vegetation Extent

The map showing the Native vegetation Extent (Figure 3 'Landscape Context' in the BDAR) is not presented at the appropriate scale. Section 4.1(2) of the BAM 2020 requires that native vegetation extent is shown at no greater than 1:10,000 scale; this may require the information being presented in several maps. Figure 3 is presented at about 1: 30,000 scale. BCD recommends that Figure 3 is revised and represented at no more than 1:10,000, or that new maps of vegetation extent are prepared.

##### Recommendation 5

BCD recommends that Native Vegetation extent is shown on a map at no more than 1:10,000 to meet BAM 2020 requirements.

#### 6. Provide copies of maps in the BDAR as separate jpeg files

The BAM 2020 (Tables 24 and 25 in Appendix K) requires copies of maps in a BDAR to be provided as separate jpeg files. However, this was not done. BCD uses individual figures when reviewing BDARs.

##### Recommendation 6

BCD recommends that copies of the figures in the BDAR are provided as separate jpeg files.

#### 7. A summary of the relevant experience of those who undertook the surveys has not been provided

Appendix I 'Staff Contributions' does not include details of relevant experience of the personnel who contributed to surveys for this biodiversity assessment. This is required as per Table 24 in Appendix K of the BAM 2020.

##### Recommendation 7

BCD recommends that a summary of the relevant experience for all survey personnel is provided.

#### 8. Identify land not requiring BAM assessment

Land not requiring BAM Assessment is not described or identified in the BDAR. Table 3 'Plant Community Types (PCTs) mapped within the Development Site' states that there is 2.02 hectares of 'cleared/infrastructure land', and this land is separate to the vegetation zones assessed under the BAM for this project. Section 9.3, and Table 25 of Appendix K of the BAM requires areas not requiring further assessment to be described, justified as not requiring BAM assessment, and shown on a map. BCD recommends that the 2.02 hectares of 'cleared/

infrastructure land' is described, identified as 'not requiring further assessment' (if appropriate) and shown as 'not requiring further assessment' on a map.

#### Recommendation 8

BCD recommends that any land within the Subject Land that qualifies for not requiring BAM assessment is described, justified as not requiring BAM assessment, and shown on a map.

### 9. More details on the species polygon for southern Myotis are required

Further details are required on the generation of the species polygon for the southern Myotis to meet BAM requirements. Section 4.3 describes the detection of southern Myotis within the Central Disturbance Area. A species polygon of 2.03 hectares was generated for this species for the project (Shown in Figure 11 of the BDAR). However, the following details are required in order to meet Box 2 in Section 5.2.5 of the BAM 2020:

- Give the unit of measure (count or area) for the southern Myotis
- Describe why a 200-metre wide buffer was used
- Provide a copy of the TBDC advice on suitable habitat verbatim to make it clear what it is and how it has been used to produce the species polygon.

#### Recommendation 9

BCD recommends that further details are required that walk the reader through how the species polygon for the southern Myotis was generated.

### 10. 'Sensitivity to gain' details are required for all Candidate Species

The 'Sensitivity to gain' class is not provided for all potential threatened species considered for this project, which does meet the requirements of the BAM 2020. Appendix G 'Biodiversity Credit Report' gives the sensitivity to gain class for the PCTs and southern Myotis, but this value is not given for the potential species listed in Table 6 (Ecosystem credit species) and Table 7 (Species credit species). BCD recommends that those tables are updated to provide the sensitivity to gain class for all species, and this would meet Section 5.1.1 and Table 24 in Appendix K of the BAM 2020.

#### Recommendation 10

BCD recommends that the sensitivity to gain class is provided for all potential species affected by the project to meet the requirements of the BAM 2020.