



Our ref: DOC21/1024753-28

Your ref: SSD-11591659

Mr James McDonough

Team Leader
Energy Resource Assessment
Planning and Assessment Division
Department of Planning, Industry and Environment
james.mcdonough@dpie.nsw.gov.au

Dear Mr McDonough

Deep Creek Quarry (SSD-11591659) – Review of Environmental Impact Statement

I refer to your e-mail dated 17 November 2021 in which the Planning and Assessment Division (P&A) of the Department of Planning, Industry and Environment (the Department) invited Biodiversity and Conservation Division (BCD) to provide advice in relation to the Deep Creek Quarry project (SSD 11591659).

BCD has reviewed the Environmental Impact Statement, 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*). BCD also assessed copies of field data and GIS shapefiles that were provided by the proponent in e-mails dated 24 November 2021. BCD has not reviewed issues relating to water and flood risk and may provide comments on these issues in January 2022.

If you have any further questions in relation to this matter, please contact Robert Gibson, Senior Regional Biodiversity Conservation Officer, on 4927 3154 or via email at huntercentralcoast@environment.nsw.gov.au

Yours sincerely

A handwritten signature in black ink, appearing to read 'S. Crick'.

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

22 December 2021

Enclosure: Attachments A and B

BCD's recommendations

Deep Creek Quarry (SSD-11591659) – Review of EIS

Biodiversity

1. BCD recommends that further information is provided on how drought conditions were managed to ensure that vegetation surveys, and targeted threatened species surveys done to best effect. BCD also recommends that monthly average rainfall is provided to show rainfall any deficit during the survey period.
2. BCD recommends that the proponent shows how species-specific requirements from the Threatened Species Data Collection were met in the assessment.
3. BCD recommends that further information is provided on the vegetation classed as 'Exotic Grassland' in the BDAR, and whether it meets the definition of 'Native Vegetation'. If it meets the definition of native vegetation then its full biodiversity values will need to be assessed in accordance with the BAM. If it is not native vegetation then it will need to be assessed for threatened species habitat and prescribed impacts.
4. BCD recommends that further information is provided to demonstrate how the 'NSW Guide to Surveying Threatened Plants' was met in relation to parallel transect spacing.
5. BCD recommends that the Table in Appendix 1 is revised so that the consideration of the presence, or not of the listed threatened entities is consistent with the rest of the BDAR.
6. BCD recommends that the proponent provides a statement that biodiversity offset obligations for the project will be done in accordance with the Biodiversity Offsets Scheme, and that an indication of the likely offset package.
7. BCD recommends that the further details are provided on the rock den(s) found in the Study Area.

Matters of National Environmental Significance

8. BCD recommends that additional information on the assessment of Matters of National Environmental Significance is provided in the Response to Submissions Report.

BCD's detailed comments

Deep Creek Quarry (SSD-11591659) – Review of EIS

Biodiversity

1. Discuss how drought conditions during targeted flora surveys in 2019 were considered and accommodated

Section 3.1.2 'Vegetation Surveys' and Section 4.2 'Threatened Species Surveys' describes the flora and fauna surveys done for the project, respectively. Many of the surveys were done during drought conditions (August 2019 to January 2020). BCD recommends that further information is provided on how the surveys were managed to ensure that plant identification and threatened species detection was not affected by drought conditions. For example, were nearby reference populations of *Pterostylis chaetophora* checked to see if plants were in growth and flowering when targeted surveys were done for this species? BCD also recommends that Table 8 'Weather Data' is updated to include the monthly average annual rainfall for the Clarence Town weather station in Table 8 to provide a measure of any rainfall deficits.

Recommendation 1

BCD recommends that further information is provided on how drought conditions were managed to ensure that vegetation surveys, and targeted threatened species surveys done to best effect. BCD also recommends that monthly average rainfall is provided to show rainfall any deficit during the survey period.

2. Demonstrate how species-specific survey requirements were met

APPENDIX 5 'Fauna survey effort within the Study Area' summarises the targeted survey effort undertaken for the project. However, it does not include reference to any species-specific survey requirements from the BioNet Threatened Biodiversity Data Collections (TBDC). For example, the Large-eared Pied Bat is known to roost in derelict concrete buildings, and it is not known if such dwellings were on site, and if they are, whether they were surveyed. Nor does it include details of local abundance of flowering canopy species, and type, during targeted surveys for the Regent Honeyeater and the Swift Parrot – which would indicate how likely those species were of being in the area at the time. BCD recommends that the TBDC species-specific survey requirements are provided in a revised version of the table of survey effort by species in Appendix 5.

Recommendation 2

BCD recommends that the proponent shows how species-specific requirements from the Threatened Species Data Collection were met in the assessment.

3. Describe the 'exotic grasslands' in the project area and demonstrate that they have been fully assessed in relation to the Biodiversity Offset Scheme

Table 3 'Plant Community Types and other areas within the Development Site' states that there is 1.6 hectares of exotic grasslands in the study area, which are shown in Figure 3 'Plant Community Types'. However, no details are provided for this vegetation type, such as composition and structure to demonstrate that it is non-native vegetation and whether it requires full assessment under the Biodiversity Offset Scheme. Further, there does not appear to have been an assessment of potential threatened species habitat in that area, as required

by Section 5.2.6 'Step 6: Determine the habitat condition within the species polygon for species assessed by area' and for prescribed impacts from the potential clearing such vegetation, as required by Section 6.1.2 'Human-made structures and non-native vegetation' of the BAM 2020.

BCD recommends that a description, with photos, is provided of the vegetation classed as 'exotic grassland' on the Project Area to demonstrate whether or not it meets the definition of 'native vegetation'. If it is native vegetation then it will require assessment for direct and prescribed impacts. If it is non-native vegetation then it will require assessment for threatened species habitat and prescribed impacts.

Recommendation 3

BCD recommends that further information is provided on the vegetation classed as 'Exotic Grassland' in the BDAR, and whether it meets the definition of 'Native Vegetation'. If it meets the definition of native vegetation then its full biodiversity values will need to be assessed in accordance with the BAM. If it is not native vegetation then it will need to be assessed for threatened species habitat and prescribed impacts.

4. Justify parallel transect separation distance for threatened flora species survey

Section 4.2.2.1 'Survey methodology' describes the use of systematic parallel transects for plants of different life form and states the minimum and maximum separations of the transects. Transect separation distance is related to the density of vegetation in which the surveys take place. BCD recommends that further information is provided of why and where surveys of minimum and maximum transect separation distance were used on the site, and how it met the 'NSW Guide to Surveying Threatened Plants'.

Recommendation 4

BCD recommends that further information is provided to demonstrate how the 'NSW Guide to Surveying Threatened Plants' was met in relation to parallel transect spacing.

5. Consistent justification for the exclusion of threatened species is required for the assessment

The BDAR gives inconsistent reasons for the exclusion of many threatened species during the assessment process. The reasons for likely absence of threatened entities listed in the table in Appendix 1 is not consistent with the reasons for the likely absence of the following candidate species Appendix 4 'Predicted and Candidate Species Reports': *Allocasuarina defungens*, *Eucalyptus glaucina*, *Grevillea guthrieana*, *Grevillea parviflora* ssp. *parviflora*, *Melaleuca biconvexa*, Green and Golden Bell Frog, Stuttering Frog, and Giant Barred Frog. These species have been assessed by targeted survey, but this is not reflected in the Table in Appendix 1. Further, Appendix 1 indicates that *Tetratheca juncea* is not present on the site, which is at odds with Section 4.2.2.2 'Flora Survey Results' and Figure 11 '*Tetratheca juncea* (Black-eyed Susan) Species Polygon.'

Recommendation 5

BCD recommends that the Table in Appendix 1 is revised so that the consideration of the presence, or not of the listed threatened entities is consistent with the rest of the BDAR.

6. Include details of how offset obligations are likely to be met

Section 6.2 'Identification of impacts requiring offsets' does not include any statement of how the offset obligation for this project is likely to be met. Nor that the offset obligation will be met in accordance with the Biodiversity Offsets Scheme.

Recommendation 6

BCD recommends that the proponent provides a statement that biodiversity offset obligations for the project will be done in accordance with the Biodiversity Offsets Scheme, and that an indication of the likely offset package.

7. Discuss the significance of rock dens found during threatened fauna survey

Figure 4 'Habitat Features' shows at least one 'Rock Den' in the Study Area, but does not define what it is, nor its significance. BCD recommends that further details, including photos, are included in the Response to Submissions Report, with a discussion about its potential importance for threatened species.

Recommendation 7

BCD recommends that the further details are provided on the rock den(s) found in the Study Area.

Matters of National Environmental Significance

8. Further information is required on the assessment of Matters of National Environmental Significance

Section 7.1, and Appendices 7, 10 and 11 of the BDAR contain the assessment of Commonwealth matters for the project. The project has been determined to be a controlled action (EPBC 2020/8823) for which BCD will undertake a bilateral assessment of Matters of National Environmental Significance (MNES) for the Commonwealth Department of Agriculture, Water and the Environment (DAWE). BCD has reviewed the BDAR against the requirements of the bilateral assessment and has identified data gaps. The Response to Submissions Report should contain the following information:

- Descriptions and maps of the staging and timing of the action that may impact on MNES
- GIS shapefiles for Figure 1 (riparian buffers), Figure 2 (*Callistemon linearifolius* records), Figure B3 (Grey-headed Flying-fox records and foraging habitat), Figure B4 (Large-eared Pied Bat record & potential foraging habitat), Figure B5 (New Holland Mouse records and habitat), Figure B6 (Green and Golden Bell Frog potential habitat), Figure B7 (Swift Parrot potential habitat), Figure B8 (Regent Honeyeater potential habitat), and Figures 3, 4, 5, A1, A2, A3 & A4 from the Koala Plan of Management.
- Provide the date(s) on which the NSW BioNet Atlas was accessed, including the Threatened Biodiversity Data Collection.
- Discuss if peer-reviewed papers were used in the BAM assessment, and provide their reference.
- Discuss if local data were used in the BAM assessment, and if so, provide a copy of the data used. If local data was not used then include a statement to that effect.
- Demonstrate that relevant Commonwealth listing advice was used when mapping the extent of MNES in this assessment.
- Demonstrate that important populations and critical habitat have been considered in accordance with Approved Listing Advice, Approved Conservation Advice and Recovery Action Plans.

- Demonstrate that the /BDAR has considered all relevant Commonwealth guidelines and policy statements that are applicable to the action and listed threatened species and/or communities, including but not limited to:
 - a. International environmental obligations
 - b. Recovery Plans
 - c. Approved Conservation Advice
 - d. Threat Abatement Plans
- Demonstrate that the assessment of each EPBC Act listed threatened species and/or community in the BDAR at has been adequately informed by applicable Commonwealth guidelines and/or policy statements.
- Provide the following information in the given Table format

Name of EPBC Act listed entity	Nature & consequence of impact (direct & indirect)	Duration of impact (e.g. construction, operation, life of project)	Quantum of impact	Consequence of impact (local, state & national scales)	Impact requires offsetting? (significant or not)

- Provide details of any offsets proposed in relation to residual significant adverse impacts to MNES, how they provide a like-for-like outcome, and how any land-based offsets will be secured. This must include an analysis of how the proposed offsets will contribute to the conservation and long-term protection of the species and communities. This must include an assessment of any indirect impacts that may require offsetting. Describe whether ecological rehabilitation or biodiversity conservation actions are proposed to be used for offsetting this project.
- Provide the following information in the given Table format:

TABLE X: MNES IMPACT AND OFFSET SUMMARY:

Threatened Species / Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community (if applicable)	Area of Impact (ha)	Credits Required	Offsetting Approach	Reference (EIS, BDAR)
TOTAL					

Recommendation 8

BCD recommends that additional information on the assessment of Matters of National Environmental Significance is provided in the Response to Submissions Report.