

Our ref: DOC24/222394

Your ref: SSD-33083358

Jack Turner

Team Leader

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Letter uploaded to the Major Projects Planning Portal

**Advice on Amendment Report and Submissions Report – State Significant Development
Proposal: Moolarben OC3 Extension Project**

Major Project reference: SSD-33083358

Received: 19 March 2024

Dear Jack,

Thank you for your referral seeking advice on the above State Significant Development proposal. The Amendment and Submissions Reports relate to the extension of Moolarben open cut coal mining pit 3 (OC3), with the project area amended since submission of the Environmental Impact Statement (EIS).

In preparing this advice Heritage NSW has reviewed the following documents:

- Moolarben Coal Complex OC3 Extension Project - Submissions Report - prepared by Moolarben Coal Operations Pty Ltd, dated 6 March 2024
- Moolarben Coal Complex OC3 Extension Project - Amendment Report - prepared by Moolarben Coal Operations Pty Ltd, dated 6 March 2024
- Appendix E - Updated Aboriginal Cultural Heritage Assessment - Moolarben Coal Complex OC3 Extension Project - prepared by Niche Environment and Heritage, dated 6 March 2024

Heritage NSW provided comment on the EIS and Aboriginal Cultural Heritage Assessment Report (ACHAR), advising that additional information was required to ensure that the archaeological assessment and management recommendations were adequate. Heritage NSW made several recommendations and identified 20 points that required additional justification, including:

- Addressing comments from the Registered Aboriginal Parties (RAPs)
- Clarification and further information in the ACHAR and the Archaeological Report (AR) on the site types, predictive modelling, landforms, Significance Assessment, and consideration of Ecologically Sustainable Development (ESD) and cumulative impact the project will have on Aboriginal cultural heritage (ACH).
- Additional information on archaeological survey and areas of Potential Archaeological Deposit (PAD).
- Recommendation for additional survey and test excavations of PADs.

- The inclusion of several additional management and mitigation measures.

The Updated ACHAR outlines that the project area has been reduced to avoid key threatened species habitat, remnant woodland vegetation, rocky habitat features, and the Munghorn Gap Nature Reserve. While avoidance of ACH was not a primary consideration for the reduction, the amended project area will reduce the number of ACH sites impacted from 79 to 67, with 55 directly impacted and 12 indirectly impacted. Included in the Updated ACHAR are the results of additional survey and test excavations as well as requested contextual information and summary of a Geomorphological Report. The Amendment and Submission Report, and the Updated ACHAR have adequately addressed a number of these comments, however there are several outstanding issues. Further queries are included in Attachment A.

Please note that the above comments relate only to Aboriginal cultural heritage regulation matters. If you have any questions regarding these comments, please contact Corey O'Driscoll, Senior Assessments Officer, at Heritage NSW on 6229 7079 or corey.odriscoll@environment.nsw.gov.au.

Yours sincerely

Nicola Roche

Nicola Roche

Manager Assessments

Heritage NSW

Department of Climate Change, Energy, the Environment and Water

As Delegate under *National Parks and Wildlife Act 1974*

23 April 2024

Attachment A - Detailed Aboriginal Cultural Heritage Advice

Survey and Test Excavations

Following review of the Environmental Impact Statement (EIS), Heritage NSW advocated for additional survey and test excavation of areas of potential archaeological deposits (PADs) to inform the significance and impact assessments as well as to ensure that the Registered Aboriginal Parties (RAPs) can make an informed determination on the impact to Aboriginal cultural heritage (ACH). The Updated Aboriginal Cultural Heritage Assessment Report (ACHAR) outlines that an additional 9.3% of the subject area was surveyed and test excavations were undertaken over 19 days in eight localities. While Heritage NSW commends the additional archaeological investigations, there are several outstanding issues from our comments on the EIS as well as additional queries raised as a result of these works, including:

1. The survey mapping for the 2023 surveys shows large areas of overlap with the existing survey efforts. Please clarify whether 2023 surveys targeted areas previously unsurveyed or if there were efforts to resurvey existing areas. Where those overlapping areas were not subject to resurvey, please remove these from calculations of additional survey coverage and update the relevant mapping, tables, and text to reflect the correct extent of the survey coverage.
2. Calculations of survey extent and effective survey coverage must separate the subject area and disturbance footprint. As the project footprint has undergone several changes and reductions, large sections of the surveyed area are now outside of the disturbance footprint and the current survey calculations may misrepresent coverage in the areas to be directly impacted from mining activities.
3. Please clarify the survey area for the 2022 survey as the data does not align between the original ACHAR and the Updated ACHAR.
4. Please clarify the change in the number of ACH sites located on flats/plains from the original ACHAR.
5. Please include mapping of the test excavation units and their association with existing sites, landforms, and water courses. The current mapping makes it difficult to discern the relationship of the testing areas with the existing sites and landforms chosen for testing owing to their archaeological potential.
6. Further discussion is required on whether Area 1 and Area 2 should be considered as PADs based on the test excavation findings. Discussion should include whether these results should be extrapolated to comparable landforms not previously identified as PADs, their potential density of material and how levels of disturbance may impact potential deposits.
7. The Updated ACHAR determined that site S1MC404 (AHIMS #36-3-3299) was not associated with sub-surface archaeological potential following the results of the testing, however, the testing identified a low-density subsurface deposit (n = 15). Please update the site description to reference the low-density subsurface deposit and low likelihood of containing moderate to high density of subsurface material.
8. Further information is required on the extent of the PAD associated with S1MC415 (AHIMS #36-3-3277) and how it relates to the disturbance footprint. As the site has not been subject to testing to determine the extent of the PAD it is unclear how the conservation of the site will be managed as its extent is currently unknown.

9. Include a discussion of the presence of archaeological deposit ≥ 70 cm in depth in open contexts within the Moolarben Coal Mine and the wider region. Provide a clear discussion on why deeper deposits are present with reference to taphonomy, geomorphology, and consider the potential antiquity of these deposits.
10. Further information is required on how the identification of grinding groove sites away from expected locations (e.g., raised ridgelines, steep slopes, and creek lines with exposed rocks) affects the predictive model and Recommendation 7 of the Management Recommendations for additional survey.
11. Please provide Heritage NSW with a copy of the Geomorphological Report and timings for the completion and submission of the test excavation report.

Significance Assessment

Heritage NSW identified some limitations in the significance assessment presented in the ACHAR, with the likely underestimation of the scientific significance of several sites. Additional information has been provided regarding why the original scientific significance assessment was changed, however further discussion is required.

12. Site S1MC103 (AHIMS #36-3-0912) was originally designated for conservation in the original recording, however the scientific significance was changed based on the low density of the exposed artefacts, disturbance, and results of nearby test excavations. On the mapping provided it is unclear how the test excavation results at Area 2 relate to S1MC103, the current extent of the site, and the level of disturbance at the site. Please clarify whether the site has been subject to resurvey to determine its status and discuss the relationship between Area 2 and S1MC103.
13. The scientific significance of S1MC403 (AHIMS #36-3-3001) was lowered based on levels of disturbance and the increased number of shelter sites in the subject area, however the original recording notes low disturbance. Please provide supporting evidence for the levels of disturbance at the site
14. The scientific significance of S1MC437 (AHIMS #36-3-3317) was lowered as an additional grinding groove locality was identified at S1MC422 (AHIMS #36-3-3280), however this marks only the third grinding groove site within the Moolarben footprint. The addition of one grinding groove site increases the proportion of the site type by less than 1% and therefore the argument that this reduces the site's significance is not well supported. Further, S1MC437 is located in a lower slope away from major creek lines which was not expected by the predictive model. Further justification is required on the change in significance assessment. If adequate justification cannot be provided, then Heritage NSW recommends that the original assessment stand.
15. The significance of S1MC422 remains unchanged despite the identification of grinding grooves in association with a shelter that contains artefacts and test excavation demonstrating subsurface deposit (54 artefacts identified in testing). The combination of these site features is uncommon within the project area and region. The Updated ACHAR argued that test excavations were carried out adjacent to the grinding grooves and that they lacked evidence for sub-surface archaeological material to justify the lack of change in scientific significance. However, there is little reasoning provided as to why it was expected that a grinding groove site, generally characterised by exposed bedrock or boulders, contain such material. Further

discussion is required on the scientific significance of S1MC422 following the identification of grinding grooves as part of the site complex. This should clarify how the test excavations relate to the grinding grooves, whether there is potential for more subsurface material associated with the shelter, if this site should be considered to have high research potential, and why the recommendations do not include additional excavation at the locality.

16. Heritage NSW understands that S1MC538 (AHIMS #36-3-3845) is located outside of expected 230 m vibration area, however it is recommended that a site-specific vibration plan is undertaken at the site, pending agreement of the RAPs, to ensure that impacts do not occur to the stacked stone at the site.

Management and mitigation measures

17. Recommendation 7 of the Management Recommendation includes provisions for additional survey and test excavations in areas previously not investigated prior to ground disturbance, as per the existing Heritage Management Plan. Please indicate areas within the disturbance footprint that may require additional investigation and provide justification as to why this should not occur prior to any project approval.
18. Please provide additional information on the process that will be followed if blasting vibration limits are exceeded including how further indirect impacts can be avoided, and whether project redesign will occur if vibration limits are exceeded.
19. Please clarify whether provisions for investigation at sites with high potential and excavations of sites has been retained in the Recommendations of the Updated ACHAR and Amendment Report.

Consultation

20. Heritage NSW recommends that following further revisions of the ACHAR to address the above comments, the RAPs are provided with a minimum of 28 days to comment. Additionally, in-person meetings with the RAPs should be considered to discuss the changes to the project area, the comments from Heritage NSW, and changes to the ACHAR.
21. It is noted that the Updated ACHAR was provided to the RAPs in late December 2023 with seven weeks provided for comment, with one comment provided. Please provide Heritage NSW with a copy of these comments, pending approval from the RAP, so that Heritage NSW can assess the adequacy of the response.
22. Heritage NSW recommends that consultation with the RAPs include the consideration for testing of rockshelters with PAD that may be indirectly impacted by the project.

Additional information

23. There are several site cards included in the Updated ACHAR that have not been uploaded to the Aboriginal Heritage Information Management System (AHIMS), please ensure that the relevant site cards are submitted (i.e., S1MC508, S1MC549).
24. Please update the site description on AHIMS for S1MC422.
25. While outside of the OC3 Extension project, please ensure that site S1MC280 is registered with AHIMS.