

Our ref: HMS ID 13100

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Advice on Environmental Impact Statement – State Significant Development

Proposal: Merino Solar Farm

Major Project reference: SSD-59155459

Received: 18 December 2025

Dear Nicholas,

Thank you for your referral seeking advice on the above State Significant Development proposal.

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

- Relevant sections of the Environmental Impact Statement: Merion Solar Farm – prepared by NGH Pty Ltd, dated 7 November 2025
- Appendix F2: Aboriginal Cultural Heritage Assessment Report – Merion Solar Farm, Tirrannaville, NSW 2580 – prepared by Red-Gum Environmental Consulting Pty Ltd, dated 17 September 2025

Following review of the above documents, Heritage NSW requests additional information to inform its advice to the Department of Planning, Housing and Infrastructure (DPHI) on whether the Aboriginal Cultural Heritage Assessment Report (ACHAR) adequately addresses the Secretary's Environmental Assessment Requirements (SEARs) for the project, including the associated recommendations for the management of Aboriginal cultural heritage. Heritage NSW recommends that DPHI request the applicant address the detailed comments in **Attachment A** prior to considering project approval.

Please note that the comments provided relate only to Aboriginal cultural heritage regulation matters. If you have any questions about this correspondence, please contact Marika Low, Senior Assessments Officer at Heritage NSW on (02) 9873 8500 or heritagemailbox@environment.nsw.gov.au

Yours sincerely,

Corey O'Driscoll

Corey O'Driscoll

A/Practice Lead – Major Projects

Heritage NSW - Department of Climate Change, Energy, the Environment and Water

As Delegate under *National Parks and Wildlife Act 1974*

10 February 2026

Attachment A – Detailed Aboriginal cultural heritage advice on SSD-59155459

Aboriginal community consultation

1. The consultation log indicates that key stakeholder agencies were notified by email on 20 August 2025 following an administrative oversight that prevented this process from occurring in 2024. A response from Goulburn–Mulwaree Shire Council was received on 29 August 2025 (Appendix H), identifying the Mulwaree Aboriginal Corporation Inc. as a potential stakeholder. Please clarify whether this organisation was subsequently contacted, afforded the opportunity to register an interest in the project, and, if applicable, invited to comment on the draft ACHAR.
2. Additional documentation is required to support Heritage NSW's assessment of the adequacy of the Aboriginal community consultation. Consultation records must demonstrate that all Registered Aboriginal Parties (RAPs) were contacted at each stage in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010). The Stage 4 consultation material provided is incomplete. Please provide evidence that the Stage 4 draft ACHAR was distributed to all RAPs, such as dated emails showing all relevant recipients. These documents may be submitted separately for Heritage NSW's review.
3. The registration response from Corroboree Aboriginal Corporation requested that its details not be provided to the Local Aboriginal Land Council (LALC); however, its details were included in the Stage 1 Section 4.1.6 notification to Pejar LALC. Please ensure that such requests are respected in accordance with Section 4.1.5 of the consultation requirements, which allows RAPs to specify that their details are not to be released.

Coarse landform definition may obscure micro-contexts with archaeological potential

4. The simplified elevation band landform scheme used in the ACHAR is coarser than current best practice and lacks the granularity of other regional models (i.e., Gundry Solar Farm), which distinguish features such as *low crest near watercourse* rather than grouping them into broad slope categories. This oversimplification may obscure environmental contexts – particularly low crests adjacent to drainage lines – that elsewhere have been associated with low-density artefact scatters. Several landform elements also appear conflated. Upper slopes are incorporated into midslopes, and some ridge units extend downslope into terrain that is geomorphologically upper slope rather than true crest. Because terrain position underpins predictive modelling, improving classification accuracy will strengthen the reliability of the predictive model and related conclusions.
 - To address this methodological simplification and better satisfy Requirement 2 of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (2010; Code of Practice), it is recommended that high-resolution terrain data (e.g., publicly available 2 m contour or elevation datasets) be used to delineate slope breaks and curvature more precisely and to ensure consistency with standard landform elements (crest, ridge, upper slope, midslope, lower slope, flats, depressions) defined in the *Australian Soil and Land Survey Field Handbook* (3rd Edition). Please provide updated landform mapping using these standard units and revise relevant ACHAR sections accordingly (e.g., predictive model, sensitivity mapping, survey results, conclusions).

Predictive model – key issues affecting reliability

5. While Section 6.4.2 of the ACHAR broadly satisfies Requirement 3 of the Code of Practice by summarising local and regional Aboriginal land use patterns and associated material traces, the predictive model in Table 10 lacks the level of detail required to meet Requirement 4. Several issues and discrepancies affect its reliability.

The model includes limited consideration of fine scale geomorphic or environmental characteristics specific to the Subject Area, and it is unclear why additional environmental variables were not incorporated, or how variability within included features was accounted for. Landform categories are treated uniformly despite known internal variability (i.e., not all lower slopes are inundated or equally disturbed), which obscures micro contexts with archaeological potential, such as low crests near drainage lines or locally elevated, less disturbed areas. This level of generalisation reduces predictive precision across a footprint of more than 700 ha.

Please update the predictive model and sensitivity mapping to comply with Requirement 4 of the Code of Practice, ensuring that predictions explicitly reference the environmental characteristics of the Subject Area. At a minimum the predictive model must be updated to:

- a. Incorporate additional environmental variables relevant to the Subject Area (e.g., soil landscape information, water availability including relict water features, geology, geomorphology, wetlands and associated resources and so on). Where variables are considered irrelevant, clearly explain why, in accordance with the advisory notes for Requirement 4b of the Code of Practice.
 - b. Include finer-grained consideration of variability within landform elements, recognising that archaeological potential may differ across sub-areas of the same landform (e.g., portions of lower slopes not subject to inundation may retain higher potential than more disturbed areas).
 - c. Include a more nuanced assessment of the past disturbance. We note that the Aboriginal Site Decision Support Tool (ASDST) data presented in Section 6.4.3 indicates that disturbance is more variable than is currently acknowledged. As per the Code of Practice, the model must include consideration of the potential for subsurface archaeological deposits (i.e. potential archaeological deposit [PAD]) in areas lacking surface cultural material and/or below existing disturbance.
6. There are several discrepancies between the environmental and archaeological background information and the predictive model in Table 10. These inconsistencies limit the interpretive value of the model and reduce clarity and confidence in the predictions and resulting archaeological sensitivity mapping. Please update the ACHAR and predictive model to address the following:
- a. Table 10 predicts that PADs occur on “*elevated terraces near watercourses*,” yet no elevated terraces have been identified or defined within the Subject Area. This also conflicts with the previous assessments summarised which indicate that PADs occur across almost all landforms, particularly broad, low hill crests and spurs (i.e., Umwelt 2024; EMM 2006–2011).
 - b. Table 10 predicts a low-moderate potential for stone artefacts within ridgelines / upper slopes and elevated terrace landforms. This contrasts with findings summarised in Section 6.4.1, where studies such as Lance & Koettig 1986 and Umwelt’s Lynwood Quarry assessment consistently recorded artefact scatters on lower slopes near ephemeral watercourses, on benches above watercourses, and on spur crests and associated slopes.

- c. Tables 8 and 12 state that mid-slopes contain “no permanent or ephemeral water sources,” which conflicts with Section 5.4 reporting 32 non-perennial informal drainage lines within the development area.

Adequacy of survey (sampling strategy, survey effort, and effectiveness)

7. **Sampling strategy:** The ACHAR states that the intent of the survey was to undertake a full survey of the 'Project Area', yet an “exposure based” approach was adopted in which only exposed ground was inspected on foot. Although the ACHAR outlines why this approach was considered effective, it is not consistent with the Code of Practice and underestimates the potential for Aboriginal objects in low visibility surface and subsurface contexts. The ACHAR then relies heavily on past disturbance to justify low potential, effectively conflating low visibility with low archaeological potential. Statements such as exposure “down to rocky subsoil” in arable areas and the acknowledgement that high visibility often reflects disturbance (pg. 83) raise concerns that the potential of unexposed areas has not been adequately assessed.
- Consistent with Requirement 5(a) of the Code of Practice, please update the ACHAR to address this potential bias and include additional justification for why full pedestrian survey coverage was not undertaken; low visibility, lack of exposure, or reliance on vehicle transects are not sufficient reasons. As additional assessment (survey and potentially test excavation) is being requested (see comments below), we also recommend developing a revised sampling strategy in consultation with RAPs and consider using test excavation to improve visibility and reduce bias.
8. **Survey data:** Heritage NSW is concerned that the ACHAR appears to overestimate ground surface visibility (GSV) and exposure across the Subject Area. For example, Photos 11 and 12 in Survey Unit 3 (Ridges) do not reflect the GSV and exposure values reported in their captions (GSV = 50–70%; Exposure = 30–50%). This may be compounded by the use of only three very large survey units based on broad landform categories, which masks internal variability. Given the size of the Subject Area, smaller, more discrete survey units would better capture this variability and provide more accurate GSV, exposure, and effective survey coverage estimates. Please review and update the visibility and exposure estimates to ensure variability is properly captured and that values accurately reflect field conditions.
9. **Analysis of survey coverage:** Section 9.6 states that Effective Survey Coverage (ESC) was calculated by combining pedestrian, vehicular, and exposure survey results, resulting in an ESC of 77.3% of the observable surface relative to the total 'Impact Area'. This approach is not compliant with the Code of Practice. Under the Advisory Notes for Requirement 5 (Archaeological Survey), vehicle traverses may be used for reconnaissance only and cannot be included in survey effectiveness calculations. Including vehicular traverses inflates coverage estimates and does not reflect the true ESC for the project. Please revise the survey coverage and ESC calculations to ensure full compliance with Requirements 9 and 10 of the Code of Practice.
10. **Adequacy of survey:** Heritage NSW considers the current level of pedestrian survey coverage within the Subject Area to be neither comprehensive nor adequate. We require that additional pedestrian survey be undertaken in areas of non-exposure to ensure a more thorough assessment of archaeological potential, consistent with the Code of Practice and the requirements of the SEARs. As per Requirement 5a of the Code of Practice, survey coverage must include all landforms that will potentially be impacted. Where there is more than one instance of similar or

the same landforms that have the potential to be impacted each individual landform must be sampled. As noted above, the lack of refinement in the landform modelling has underestimated the number and range of landforms present across the Subject Area.

11. **Confidence in conclusions regarding low archaeological potential:** The ACHAR's conclusions about the low archaeological potential of the Subject Area rely heavily on assumptions of agricultural disturbance, inferring that such disturbance has truncated or removed archaeological deposits. However, this low-potential assessment is not empirically verified and risks circular reasoning (i.e., disturbance is used to explain the absence of sites, and the absence of sites is then used to support the disturbance argument). Without subsurface testing, the model cannot confirm that disturbed landscapes lack buried archaeology. Consistent with the SEARs, Heritage NSW recommends undertaking a test excavation program to ground truth the predictive model, improve visibility, and assess the potential for subsurface archaeological deposits. We note that, as per Requirement 15b of the Code of Practice, test excavations may additionally be used to confirm areas of low potential.

Impact assessment and management measures

12. As a restricted AHIMS record (51-6-0912) appears in the search results, please provide evidence that it has been confirmed with the AHIMS team that the restricted site does not occur within or directly adjacent to the assessment area.
13. Table A-1 of the EIS identifies several required road upgrades (e.g., OSOM haulage route works, rural driveway upgrades, widening of Painters Lane). It is unclear whether these impacts have been assessed in the ACHAR. Please confirm whether all road-related works fall within the assessed Impact Area, and if not, ensure they are included in the ACHAR's impact assessment.
14. Figure 26 presents the Impact Area and Excluded Areas against archaeological sensitivity; however, the sensitivity mapping does not appear to have been updated following the survey. If it has been updated, please clarify why no additional management measures are proposed for areas mapped as 'Moderate archaeological sensitivity' that will be impacted.