NSW GOVERNMENT | Office of Environment & Heritage

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Dear Mr Ko

Springdale Solar Project – State Significant Development (SSD 8703) – Review of Environmental Impact Statement

I refer to your request for the Office of Environment and Heritage (OEH) to review the information provided on the Springdale 120 Megawatt Solar Farm State Significant Development (SSD).

Aboriginal Cultural Heritage

The Aboriginal cultural heritage assessment did not include test excavation and as a result there is currently insufficient understanding of the values that may be impacted by the project. The accepted standard for assessing areas of archaeological sensitivity is to undertake test excavation as part of the project design. Test excavations contribute to the understanding of site characteristics and local and regional prehistory and they inform conservation goals and harm mitigation measures for the proposed activity. Early identification of values provides the best opportunity to conserve Aboriginal objects and gives certainty to all parties about the Aboriginal cultural heritage management requirements. The results of the testing program also determine whether subsurface salvage is needed and how it should be carried out.

If any significant objects are located requiring protection it could affect the layout of the facility. It is therefore recommended that subsurface archaeological test excavation be undertaken across all areas that will be impacted by the solar farm, including ancillary infrastructure, prior to the finalisation of the design of the solar farm and the commencement of construction.

OEH supports the conservation of a sample of the surface artefact scatters and the identified possible Aboriginal scarred trees. A method for managing the conservation of these sites should be included in the Aboriginal Cultural Heritage Management Plan (ACHMP). Further detailed comments on Aboriginal cultural heritage (ACH) matters have been included in Attachment A.

Biodiversity

We have reviewed the Biodiversity Development Assessment Report (BDAR) which is required by the *Biodiversity Conservation Act 2016*. The BDAR is good quality although it does not take account of the impact of shading that will impact upon Golden sun moths. Further detail on this issue is provided below. We note that a Biodiversity Management Plan (BMP) is being developed. OEH request being consulted when the plan is being developed.

Golden sun moths
The Draft Landscape plan L01 shows a proposed 20m wide tree planting along the boundary. The impact of these plantings has not been considered. The trees will eventually shade out some of the known occupied habitat of Golden sun moth and potentially affect movement of the moth between patches of habitat on site and the population to the east of the boundary. Ideally, trees should not be planted in this area. Alternatively, the area that will be shaded should be considered cleared for the purpose of calculating credit requirements for the Golden sun moth.

Superb parrots
There is a stand of hollow bearing *Eucalyptus mannifera* (Brittle gum) in the south-east corner of the site, adjacent to Tintinhull Road, as shown in Figure 6 of the BDAR. This area is suitable Superb parrot breeding habitat and should be avoided or offset using the Biodiversity Assessment Method. If the trees are retained, the BMP should include actions to protect them in the long term such as excluding grazing to promote tree regeneration.

Mitigation and Management Measure B17 states that any hollow (that is suitable for breeding by Superb parrots) removed will be replaced by at least two nest boxes. This measure is unlikely to be effective as there is no evidence that Superb parrots utilise nest boxes. Trials are currently underway in the ACT to relocate whole trees to new locations as it is expected that they are more likely to be utilised. Given the difficulties in offsetting breeding habitat for this species the preferred approach would be retaining the trees.

Striped legless lizard
Although most of the impact area will avoid the area mapped as striped legless lizard habitat, it will be important to manage the retained area in the long term. For example; the retained area needs to be protected from construction/maintenance vehicles and weeds need to be managed. These measures should be documented within the BMP.

Please refer to Attachment B for further information on the biodiversity matters raised above.

Flooding
OEH has reviewed Appendix F of the EIS and do not have any concerns in relation to the adequacy of the flooding assessment.

Should you require any additional assistance or wish to discuss the matter further please contact Lyndal Walters on 02 6229 7157 in relation to biodiversity issues and Julia Maskell on 02 6229 7039 for issues relating to Aboriginal cultural heritage.

Yours sincerely

16·8·2018

MICHAEL SAXON
Director
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Attachment A – Aboriginal cultural heritage comments on Springdale Solar Farm, Sutton SSD 8703

AECOM have completed an Aboriginal Archaeological and Cultural Heritage Impact Assessment (AACHIA). Fifteen Aboriginal sites were identified in this assessment including 12 surface artefact scatters and three potential Aboriginal scarred trees. The assessment also identified areas of high, low and nil sensitivity and two surface sites with associated potential archaeological deposit (PAD). Detailed comments regarding the assessment are provided below and have been split between key issues and suggested improvements to the AACHIA.

Key Issues

Subsurface archaeological testing prior to consent is recommended.

The management and mitigation strategy is focused on managing the impact to surface sites only. The presence of subsurface sites is suggested throughout the AACHIA but no investigation has been undertaken to determine if subsurface sites exist. It is therefore not possible to determine the significance and conservation value of subsurface sites that may be present in the project area or their impacts from construction.

AECOM (2018:37, 47) note in several sections of the AACHIA that surface sites are not a reliable indicator of subsurface deposit. AECOM (2018:37) state *"... the presence or absence of surface artefacts ... is not a reliable indicator of Aboriginal archaeological sensitivity."* Despite noting this, there has been no consideration of identifying subsurface sites.

The management recommendation that archaeological excavation be left to post approval is at odds with the assessment developed in consultation with the Registered Aboriginal Parties (RAPs) that *"owing to generally poor visibility conditions, subsurface testing will be necessary to adequately characterise the Aboriginal archaeological record of the proposal site. Any subsurface investigation within the proposal site should utilise a landscape-based sampling strategy"* (AECOM 2018:14).

It is therefore recommended that subsurface archaeological test excavation be undertaken across all areas that will be impacted by the solar farm, including ancillary infrastructure, prior to the finalisation of the design of the solar farm and the commencement of construction.

The proposed subsurface archaeological salvage program should be conducted after subsurface test excavation has been completed

The AACHIA recommends that an archaeological surface and subsurface salvage program is completed. The proposed subsurface archaeological salvage program suggests that a landscape based program of subsurface investigation be completed across areas recorded as both high and low Aboriginal archaeological sensitivity. No further detail about this planned excavation is provided. This strategy aligns more closely with testing methods rather than salvage methods. Test excavation is part of the assessment process in order to determine the presence and significance of Aboriginal objects. Salvage excavation is a mitigation measure. Subsurface archaeological testing should therefore be undertaken prior to any salvage excavation. The results of the testing program would determine whether subsurface salvage excavation as a mitigation measure is necessary and guide the salvage program method if required.

Conservation management of surface sites should be considered

The Environmental Impact Statement (EIS) states that ancillary infrastructure (such as underground cabling and fencing) may be needed outside the development envelope but still within the project site. Landscaping works are also currently planned to minimise the visual impacts of the proposal.

These ancillary works could impact known Aboriginal objects. The AACHIA recommends conservation of all surface sites that will not be impacted by the development footprint. If surface sites are to be conserved, a management plan outlining various strategies should be prepared to ensure the protection of these sites from direct and inadvertent impacts. This would assist in preventing inadvertent impacts from ancillary activities.

Suggested improvements to the AACHIA

Further details in the Literature Review may assist in developing management recommendations

The literature review should provide a comprehensive review of the AHIMS sites that were found in the AHIMS database search discussing features such as site size, raw material and subsurface potential. These details may assist in further developing the predictive model for the area and determining the subsurface potential of sites.

Clarification of artefact types should be included in the AACHIA

The AACHIA notes that the assemblage is dominated by non-flake debitage (i.e. angular shatter). Site SSF-AS-17 includes a large number of non-diagnostic quartz angular shatter over a large surface area. The subject area is noted to contain natural outcropping quartz. Further clarification should be provided in the ACCHIA to explain how the non-diagnostic angular quartz was differentiated from natural outcropping quartz and quartz gravels.

It would be beneficial to include a table or list of recorded artefacts in an appendix of the report.

Registered Aboriginal Party correspondence should be clarified

The *Aboriginal cultural heritage consultation requirements for proponents* stages 1, 2 and 3 appear to have been combined. While this is unlikely to have altered the consultation outcomes it is not in accordance with OEH guidelines. In future, stage 1 should not be combined with stages 2 and 3.

The report references letters to Native Title Services Corporation (NTSCorp) and the Native Title Tribunal but these are not included in Appendix B along with other agency letters. These should be included. Appendix E contains agency notification correspondence of the RAPs for the project. The log contains a letter informing OEH of the RAPs for a different project and does not match the correspondence received to date by OEH. This should be amended.

One of the submissions included in Appendix G indicates that a particular RAP group has requested that their details are not provided to OEH and the relevant LALC. This submission and the name of the RAP group should be redacted throughout the report.

Attachment B – Additional biodiversity comments for Springdale Solar Farm Sutton SSD 8703

Superb parrot habitat

The small stand of mature Brittle Gums (*Eucalyptus mannifera*), where Superb Parrots were recorded during the site biodiversity assessment in 2017, was inspected by OEH threatened species and planning staff on 7 August 2018. In recent years, Superb Parrots have been recorded breeding in the hollows of this tree species both in the ACT (L. Rayner, ACT Parks unpubl. Data) and also nearby in Gundaroo where a community member has annual records of Superb Parrots nesting in up to 6 trees on their property in *E. mannifera.*

Until recently, this information was not incorporated into the NSW Threatened Species Profile Database, and hence the BAM assessment would have overlooked this issue. The database is now up to date to reflect new information about breeding tree species for the Superb Parrot.

Of the dozen or so trees in the small clump, at least half had hollows or hollow entrances that would be of a suitable size as Superb Parrot nesting sites.

OEH recommends avoiding the loss of these trees by fencing the small patch on the hill and destocking temporarily (5 years at least) to allow natural regeneration of trees to provide future replacement trees as the mature trees age, die and eventually fall down.

If this is not the desired option for the proponent, then they can either assume loss of Superb Parrot breeding habitat and look for suitable offset options OR undertake surveys in the breeding season (mid Oct-mid Nov is optimal) to determine whether these trees represent breeding habitat or not.