



Office of Environment & Heritage

Your reference: SSD 8025
Our reference: DOC17/242779
Contact: Miranda Kerr
Ph: (02) 6022 0607

Mr Iwan Davies
Senior Planner, Resource Assessments
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Davies

RE: Limondale Sun Farm (SSD 8025) – Balranald LGA Environmental Impact Statement Exhibition

I refer to your email dated 21 April 2017 seeking comment from the Office of Environment and Heritage (OEH) about the Environmental Impact Statement (EIS) for the Limondale Sun Farm (SSD 8025). We have reviewed the exhibited EIS, taking into account the Secretary's Environmental Assessment Requirements (SEARs) provided by the Department of Planning and Environment (DP&E) to the proponent on 4 November 2016.

As the final stage of consultation for the Aboriginal cultural heritage (ACH) assessment has not been provided with the EIS, OEH considers that the EIS **does not** meet the Secretary's requirements. We recommend that development approval not be granted until this information is provided and assessed. Full details are provided in **Attachment A** but in summary the information required is as follows:

- *Assessment of significance and statement of significance (Cultural/Social) be updated with inputs from the RAPs.*
- *RAP inputs into site avoidance, mitigation, salvage or impacts be included in the final documents.*
- *Any RAP comments and inputs into recommendations be acknowledged, and where appropriate, included in the ACHA and other relevant final documents.*
- *Final ACH documents be updated with AHIMS site ID numbers once site registration in AHIMS has occurred.*

Subject to the availability of this information we believe that the assessment is appropriate and that approval is granted it can be conditioned to address impacts to ACH and biodiversity. Detailed comments are provided in **Attachment A** along with recommended conditions of approval. In summary the key recommendations include:

- *A Cultural Heritage Management Plan be prepared that will address the requirements for the five sites that will be harmed, the eight sites that are to be avoided and any additional sites identified during the construction and operation, including human remains.*
- *Implement the Biodiversity Offset Strategy as per section 7 of the Biodiversity Assessment Report, and in consultation with OEH. Amendments to the BOS must be agreed with OEH. The conditions relating to the retirement of credits associated with this project must be consistent with the NSW biodiversity offsets policy for major projects.*
- *To minimise impacts on breeding individuals we recommend a seasonal constraint on vegetation clearing to mitigate direct impacts to threatened fauna during the breeding season. Clearing should at a time likely to minimise impacts on hollow-dependent fauna. If clearing is to occur during spring or early summer we recommend additional pre-clearance survey of all hollow-bearing trees.*

- *If the detailed design of the access from the Yanga Way results in additional vegetation being cleared, the area of vegetation impacted must be assessed in accordance with the Framework for Biodiversity Assessment.*
- *Construction activities and storage of materials for boundary fencing should be wholly contained within the proposal site. Disturbance to road reserves other than access points identified in the EIS must not occur.*

In the past many of these recommendations have been included within various management plans including Construction Environmental (CEMP), Biodiversity (BMP) and Heritage (HMP) Management Plans. All plans required as a Condition of Approval that relate to biodiversity or ACH should be developed in consultation with OEH, to ensure that issues identified in this submission are adequately addressed.

SEARs provided to the proponent appear to have not included full details of biodiversity impacts that require further consideration, as advised by OEH (see **Attachment B**). The resulting implications for our assessment of the proposal are outlined in **Attachment A**.

If you have any questions regarding this matter please contact Miranda Kerr on 6022 0607 or by email at miranda.kerr@environment.nsw.gov.au.

Yours sincerely

 30/5/17

PETER EWIN
Senior Team Leader Planning
South West Branch
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Office of Environment & Heritage

ATTACHMENT A – Detailed comments for the Limondale Sun Farm Environmental Impact Statement (SSD 8025)

ATTACHMENT B – OEH response to request for Secretary's Environmental Assessment Requirements (SEARs)
December 3 2016

ATTACHMENT A Detailed comments for the Limondale Sun Farm Environmental Impact Statement (SSD 8025)

Aboriginal cultural heritage

The Aboriginal Cultural Heritage Assessment (ACHA) (EIS Appendix E) does comply with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH2010a). OEH has identified that further assessment will be required prior to construction, which can be addressed in the conditions of approval as detailed below.

Consultation

Consultation has been conducted in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (OEH 2010b). OEH acknowledges that this has included all four consultation stages; and notes that the 28 day review process for stage 4 was still being undertaken by Registered Aboriginal Parties (RAPs) at the time of this review by OEH. Therefore, that section of the report was yet to be completed and so the advice within this entire section on ACH is tempered by that.

Based on consideration of the above, we recommend the following be finalised before approval is granted:

- *Assessment of significance and statement of significance (Cultural/Social) be updated with inputs from the RAPs.*
- *RAP inputs into site avoidance, mitigation, salvage or impacts be included in the final documents.*
- *Any RAP comments and inputs into recommendations be acknowledged, and where appropriate, included in the ACHA and other relevant final documents.*

Site registration

From the ACHA (Section 6, page 34) it would appear that the sites found during the current survey have yet to be registered by OEH on the Aboriginal Heritage Information Management System (AHIMS). These appear to have been submitted, but were not present on AHIMS at the time of the OEH review. There are two objects previously recorded that are registered: Transmission Line 5 (AHIMS 47-6-0605) and Transmission Line 6 (AHIMS 47-6-0606).

Based on consideration of the above, we recommend the following be finalised before approval is granted:

- *Final ACH documents be updated with AHIMS site ID numbers once site registration in AHIMS has occurred.*

Site Impact

Within the activity area there are 13 recorded Aboriginal sites (ACHA Section 6, page 34). Harm to five of these Aboriginal objects within the study area is unavoidable. Impacts are unavoidable for: Limondale 1, 9, 11 and AHIMS 47-6-0606 and 47-6-0605.

Based on consideration of the above, we recommend the following condition of development consent:

- *A Cultural Heritage Management Plan be prepared that will address the matters relating to the sites that are to be impacted, including:*
 - *Salvage and test excavation be implemented prior to construction as per Section 6.2 Page 35 and Section 7 Page 36 of the ACHA.*
 - *Dating of any viable in situ datable materials as part of the excavation and salvage prior to destruction.*
 - *Development of a short and long term management strategy (repatriation) for salvaged objects in accordance with the Code of Practice (OEH 2010a).*
 - *Community collection plan be developed, and a Care Agreement under S85(A) of the National Parks and Wildlife Act 1974, be applied for should the Aboriginal community wish to retain objects in their safekeeping.*

- *Production of a post salvage/testing/repatriation report submitted to OEH for uploading on AHIMS.*
- *Aboriginal Site Impact Recording Form needs to be completed following salvage/site destruction of the archaeological material:*
www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf.

Mitigation measures

Within the activity area there are 13 recorded Aboriginal sites (ACHA Section 6, page 34). Overland has redesigned the development footprint to avoid harm to eight of the 13 Aboriginal objects within the study area.

Based on consideration of the above, we recommend the following condition of development consent:

- *A Cultural Heritage Management Plan be prepared that will:*
 - *Require clearly visible delineation of objects in the landscape that may be inadvertently impacted that are to be avoided.*
 - *Contain a map clearly identifying where objects are that are not authorised for harm and those that are.*
 - *Confirm the cultural values of the site and objects, based on feedback from the Griffith Local Aboriginal Land Council.*
 - *Outline specific avoidance and mitigation measures for the proposal, including monitoring during construction.*
 - *Include site impact recording forms for any sites modified as part of the activity (this includes collection).*
 - *Detail how objects are to be protected during construction and operation if they are relocated.*
 - *An unanticipated finds protocol.*
 - *Stop work and reporting of suspected human remains protocol.*
 - *Describe how relocated objects are returned to the original site context during the decommissioning stage, or what other long term management arrangements may be made.*
 - *Include provision for Aboriginal Cultural Heritage Awareness training as part of site induction.*
 - *Contain a site identification appendix.*

Biodiversity

The EIS meets the Secretary's requirements for biodiversity assessment. We reviewed the Biodiversity Assessment Report (BAR) and Biodiversity Offset Strategy (BOS) against minimum information requirements for each document as listed in Appendix 7 of the Framework for Biodiversity Assessment (FBA).

Data provision

1. Spatial data requirements for the FBA have not been fully met. Appendix 7 of the FBA lists the information, maps and data that are expected to be submitted with the BAR. Our EIS review would have been greatly assisted by having a spatial representation of the construction and operational footprint, and vegetation mapping.
2. Floristic plot and transect field data has been provided in tables in the BAR, and Section 4.2.1 Site Investigation (page 16) mentions that records of all flora species will be submitted to OEH for incorporation into BioNET (Atlas of NSW Wildlife). While not stipulated in the FBA, OEH prefer that all floristic data is entered by the surveyor into the VIS Flora Survey module of BioNET. The FBA reporting requirements (page 100) specify that plot and transect field data be provided as copies of field data sheets (to assist with checking of potential data entry errors in the future) and MS Excel spreadsheets.

Based on consideration of the above, we request that the following be provided:

1. The proponent provide scanned copies of plot and transect field data sheets to OEH via email at planning.matters@environment.nsw.gov.au
2. If floristic data are not intended to be entered directly into the VIS Flora Survey module of the Atlas of NSW Wildlife, copies of plot and transect field data are to be provided in MS Excel spreadsheet format to OEH via email at planning.matters@environment.nsw.gov.au.

Section 1. Introduction

1.3 Development Proposal

Construction and maintenance of the security fence to be installed on the site boundary (page 3) should be contained within the proposal site. Storage of fencing materials and associated machinery must also be within the proposal site and not within patches of native vegetation.

1.5 Information sources

1. The Biosis (2016) report titled 'Balranald Sun Farm site: Ecological constraints assessment' has not been provided to OEH. Any assumed knowledge from that report is not available for our review.
2. The OEH vegetation channel on SIXX maps has been decommissioned. Vegetation mapping held in the NSW Vegetation Information System (VIS) is now accessed through the OEH Data Portal (<http://data.environment.nsw.gov.au/>).

Based on consideration of the above, we recommend the following condition of development consent:

- *Construction activities and storage of materials for boundary fencing should be wholly contained within the proposal site. Disturbance to road reserves other than access points identified in the EIS must not occur.*

Section 3. Landscape

3.4 Assessment of landscape value

The final landscape score should be stated in the BAR. The BAR provides components of the landscape value assessment and the final landscape score is able to be identified in the BioBanking Credit Calculator (BBCC), however the BBCC is not readily accessible. Please refer to Table 20 in Appendix 7 of the FBA for reporting requirements.

Section 4 Native Vegetation

4.2.1 Site investigation (page 16)

- 1 We understand that the precise location of the site access track from Yanga Way will be determined during the detailed design phase. Based on aerial imagery, we agree that vegetation condition of the current route of the proposed road from Yanga Way is likely to be similar to that in the electricity connection corridor. If the proposed route is changed any vegetation clearing associated with the new site access track needs to be specified, including vegetation clearing or lopping for widening the existing vehicle track. Additional assessment for impacts to threatened species and communities will be required if the new footprint includes: a) a larger area than currently estimated in the BAR; b) areas with a different species composition to the electricity connection corridor; or c) patches of intact native vegetation. If native vegetation cannot be avoided, any offset requirements must be calculated and an updated version of the BOS submitted to OEH.
- 2 It is unclear if the vegetation clearing and soil disturbance for construction of the perimeter security fence has been included in the impact assessment. We have recommended a condition of approval to cover potential impacts under the heading 'Section 1 Introduction' above.
- 3 Our comments about floristic data entry under the heading 'Data Provision' above are also relevant to section 4.2.1.

Based on consideration of the above, we recommend the following condition of development consent:

- *Prior to clearing for construction: native vegetation, which is additional or different to that included in the Biodiversity Assessment Report dated 10 April 2017, and will be cleared or lopped for the construction or widening of the site access track from Yanga Way, must be assessed for biodiversity impacts and documented accordance with the Framework for Biodiversity Assessment, unless otherwise agreed by OEH. The assessment must be undertaken by a person accredited in accordance with s142B(1)(c) of the Threatened Species Conservation Act 1995.*

Section 5 Threatened Species

5.1 Methods

Targeted surveys for the proposed access road from Yanga Way will be required prior to clearing for construction.

5.2 Fauna habitat assessment results

OEH considers scattered trees in agricultural landscapes to be important for biodiversity. It appears that the more isolated of the 18 individual scattered trees on the proposal site were not visited during the fauna field survey. The potential impact of tree removal on ecosystem credit threatened species has been included in the assessment so offsetting requirements have been met without needing to visit each tree.

OEH agrees with the assumption on page 27 of the BAR that scattered trees on the proposal site are mature and hollow-bearing. It is possible that hollow-dependent fauna, including threatened birds and microbats, will be occupying the hollows.

We recommend a seasonal constraint on vegetation clearing to mitigate direct impacts to threatened fauna during the breeding season. Clearing should at a time likely to minimise impacts on hollow-dependent fauna. Clearing between late summer and late autumn is less likely to impact on bats and between late summer and late winter will have minimal impact on hollow-dependent birds. If clearing is planned for spring and early summer, we consider that a pre-clearance survey of hollows by a qualified ecologist is required, with a fauna rescue protocol to be implemented when clearing occurs.

Based on consideration of the above, we recommend the following condition of development consent:

- *Develop a construction protocol for identification and management of rescued fauna that includes pre-construction liaison with animal welfare organisations to enable support if required. The protocol will be developed in consultation with OEH and be finalised before commencement of clearing.*
- *If vegetation clearing is to be undertaken in spring and early summer: conduct a pre-clearance survey of all hollow-bearing trees. The survey will be undertaken by a qualified ecologist prior to clearing for construction. The survey will identify hollows where threatened fauna are nesting or roosting and ensure safe removal and relocation of threatened species from areas to be cleared. Animals will be rescued according to the fauna rescue protocol.*

Section 6 Impact Assessment (biodiversity values)

6.1.2 Recommendations to avoid, minimise and mitigate impacts

This section would be clearer if presented as a table of measures to be implemented before, during and after construction to avoid and minimise impacts of the project, including action, outcome, timing and responsibility. Please refer to guidance in the FBA for minimum information requirements in the BAR (Appendix 7, page 102).

We support most of the mitigation measures recommended for inclusion in the Construction Environmental Management Plan (CEMP), also referred to as the 'EMP' in the EIS. We also recommend including measures for minimising the impact of introduced species into remnant vegetation on the proposal site and the adjoining Travelling Stock Reserve (TSR). The adjacent TSR supports large patches of mature and intact native vegetation so is likely to have high biodiversity values.

The impact assessment identifies indirect impacts including invasive exotic species and soil erosion and/or compaction. Section 6.5.3 of the EIS (page 93) includes management and mitigation measures for impacts to land, which are generally appropriate for minimising biodiversity impacts. These measures should also be linked or included with mitigation of impacts to biodiversity to ensure that monitoring of weed control success, particularly for Boxthorn (*Lycium ferocissimum*), includes consideration of improvement in vegetation condition.

Introduction of pasture species and weed seeds from hay bales during ground stabilisation works into native remnant vegetation has the potential to reduce condition of remnant vegetation on the site and native vegetation in the adjoining TSR.

Section 6.5.4 of the EIS (page 95) discusses the potential use of ground cover plantings underneath the solar panels. Plantings of exotic species that have not been used in the traditional agricultural enterprise may have the potential to invade remnant native vegetation.

We recommend that Section 6 of the BAR be amended as follows:

- List measures to avoid and minimise impacts of the proposal, including clear actions, timing and responsibility, in the format described in Appendix 7 of the FBA (Table 21, page 102). In the table, include or clearly link those mitigation measures from Section 6.5 of the EIS that relate to pest plant and animal impacts.
- All scattered hollow-bearing trees to be removed should be placed in areas of retained vegetation to provide additional fauna habitat.
- Sterile exotic crops or native ground cover species be considered if plantings are required beneath the solar panels to minimise the impact of weed incursion into remnant native vegetation.

Based on consideration of the above, we recommend the following condition of development consent:

- *Weed control programs include the following:*
 - *Success measures for pest plant control programs include an improvement in vegetation condition.*
 - *Weed management protocols include vehicle hygiene measures to ensure machinery undertaking construction works on the proposal site and adjoining TSR are clean of weed seeds and propagules prior to leaving the depot or previous location.*
 - *Pasture species, weed seeds from hay bales and non-local native plants will not be introduced into native remnant vegetation. Alternative measures for ground stabilisation works, if required, should be implemented adjacent remnant native vegetation.*
 - *Any supplementary planting on the site within 50 metres of native vegetation will not disturb the existing ecosystem and be with local species.*

Section 9 Biodiversity Offset Strategy

The proposed offset strategy is appropriate. Revisions and updates to the strategy must be agreed with OEH. The conditions relating to the retirement of credits associated with this project must be consistent with the NSW biodiversity offsets policy for major projects.

Species for Further Consideration

It appears that the proponent has not received the full details of our advice to DP&E regarding the SEARs for Limondale Sun Farm, emailed to DP&E on December 3 2016 (**Attachment B**). We understand that DP&E would prefer to give proponents of solar proposals a streamlined version of the environmental requirements typically issued for major projects. While part of our response to a SEARs request is standardised, the information we provide in the cover letter gives specific guidance about the proposal site. This advice helps biodiversity and ACH consultants to understand OEH requirements. It is also intended to minimise the number of inadequate EIS's being submitted and speed up our assessment.

We also specify species and communities that require further consideration by DP&E if impacted by the proposal. Occasionally habitat requirements of species that otherwise would not meet the criteria are identified as not being able to withstand further loss in the catchment, such as raptor nest trees. In this case, the full list of impacts that require further consideration was not included in the SEARs issued by DP&E and Major Mitchell's Cockatoo (*Lophochroa leadbeateri*) was added. Major Mitchell's Cockatoo was recorded on the proposal site and its habitat will be impacted during construction. It is unclear if DP&E are now required to further consider these impacts before development consent is issued.

References Section

Keith (2004) describes the NSW vegetation formations and classes. Plant Community Types (PCTs) are described in the VIS Classification database. VIS Classification should be referenced with the following or similar details:

OEH (2017). *NSW Vegetation Information System (VIS) Classification Database*, Office of Environment and Heritage, date accessed, www.environment.nsw.gov.au/NSWVCA20PRapp/default.aspx

The full reference for Keith (2004) is:

Keith DA (2004). *Ocean Shores to Desert Dunes: the native vegetation of New South Wales and the ACT*. Department of Environment and Conservation, Hurstville.