



Office of Environment & Heritage

Your reference: SSD 8540
Our reference: DOC17/496408
Contact: Andrew Fisher
Ph 02 6022 0623

Mr Tim Stuckey
Planning Officer
Resource & Energy Assessments
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Stuckey

RE: Finley Solar Project (SSD 8540) – Berrigan LGA – Exhibition of Environmental Impact Statement

I refer to your email dated 29 September 2017 seeking comment from the Office of Environment and Heritage (OEH) about the Environmental Impact Statement (EIS) for the Finley Solar Project (SSD 8540). We have reviewed the exhibited EIS against the Secretary's Environmental Assessment Requirements (SEARs) provided by the Department of Planning and Environment (DPE) to the proponent on 5 July 2017.

OEH considers that the EIS **does not** meet the Secretary's requirements. A summary of our assessment and advice, and recommended conditions of approval, is provided in **Attachment A** and detailed comments in **Attachment B**.

The Aboriginal cultural heritage consultation process has not followed the process in accordance with Part 6 of the *National Parks and Wildlife Act 1974* for proponents. Although we recognise that this is a highly disturbed site and that impacts on Aboriginal objects is likely to be low, we recommend that a complete and properly documented consultation process be implemented. A full archaeological assessment should be implemented, including consultation with Registered Aboriginal Parties.

With respect to biodiversity, the potential for Superb Parrot and Major Mitchell's Cockatoo to use hollow-bearing trees for nesting within the development site has not been adequately assessed. In addition, more robust justification is required as to why the threatened species listed in the Biodiversity Assessment Report (BAR) are not considered to be impacted by the proposed development.

All plans required as a Condition of Approval that relate to biodiversity or ACH should be developed in consultation and to the satisfaction of OEH, to ensure that issues identified in this submission are adequately addressed.

If you have any questions regarding this matter, please contact Andrew Fisher on (02) 6022 0623 or email andrew.fisher@environment.nsw.gov.au.

Yours sincerely

 20/10/17

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

ATTACHMENT A – OEH Assessment Summary for Finley Solar Project Environmental Impact Statement (SSD 8540)
ATTACHMENT B – Detailed comments for the Finley Solar Project Environmental Impact Statement (SSD 8540)

PO Box 1040 Albury NSW 2640
Second Floor, Government Offices
512 Dean Street Albury NSW 2640
Tel: (02) 6022 0624 Fax: (02) 6022 0610
ABN 30 841 387 271
www.environment.nsw.gov.au

ATTACHMENT A OEH Assessment Summary for the Finley Solar Project Environmental Impact Statement (SSD 8540)

Key Issues

1	<i>Issue</i>	<p>The Aboriginal cultural heritage consultation process has not followed the required process as requested in the SEARs. We recommend that:</p> <ul style="list-style-type: none"> the proponent be required to follow a complete and properly documented consultation process (noting that stage 1 has already been completed). <p>This consultation process must clearly identify parties that will be involved in any Unexpected Finds Protocol that will be incorporated into the final approval.</p> <p>While the Due Diligence assessment indicates that the chance of encountering Aboriginal objects is low, due to the nature of works associated with solar farms, including extensive earthworks, we recommend that:</p> <ul style="list-style-type: none"> a full archaeological assessment (following the 'Code of Practice for archaeological investigation of Aboriginal objects in NSW') be completed. <p>This is to include consultation with Registered Aboriginal Parties.</p>
	<i>Extent and Timing</i>	Pre-determination
2	<i>Issue</i>	<p>The potential for Superb Parrot and Major Mitchell's Cockatoo to use hollow-bearing trees (HBTs) for nesting within the development site has not been adequately assessed. A survey in late July would not have detected use by these species which breed in spring/summer.</p> <p>A spring survey of HBTs within the development footprint is required to confirm whether they are being used for breeding by Superb Parrot or Major Mitchell's Cockatoo. Section 5.3 of the Biodiversity Assessment Report (BAR) needs to be revised once these results are known.</p>
	<i>Extent and Timing</i>	Pre-determination
3	<i>Issue</i>	HBTs should not be removed during spring to early summer to avoid the main breeding period for hollow-dependent fauna.
	<i>Extent and Timing</i>	Pre- and Post-determination
	<i>Recommended Condition of Approval</i>	<i>The removal of hollow-bearing trees is not to occur during spring to early summer to avoid the main breeding period for hollow-dependent fauna</i>
4	<i>Issue</i>	<p>The BAR contains some issues that require clarification:</p> <p>Four species credit species that are generated by the credit calculator are not included the BAR (section 5.2.2).</p> <p>For two plant species (<i>Austrostipa wakoolica</i> and Mossgiel Daisy) it is stated that it is 'unlikely' that there is habitat present for these species in the vegetation zones within the development site, however the field survey was done in late July which is outside of the spring survey period required for these species.</p>

		<p>The BAR does not consider a number of the communities and species that OEH provided in our Project Specific Environmental Assessment Requirements. In particular, Inland Grey Box woodland, Floating Swamp Wallaby-grass and nest trees for raptors and owls need to be addressed. It is stated that there was no evidence of nests in the paddock trees, however it is likely that a survey in July may not have captured nesting by Spotted Harrier. Table A4 states that nests were recorded in Trees 16 and 30 but there is no information provided as to whether these were stick nests.</p> <p>Section 5.2 of the BAR (including Table 5.2) needs to be revised to include all species credit species generated by the credit calculator, along with robust justification as to why these species are not considered to be impacted by the proposed development.</p> <p>Section 5.3 of the BAR needs to be revised to provide along with robust justification as to why these species are not considered to be impacted by the proposed development.</p>
	<i>Extent and Timing</i>	Pre-determination

5	<i>Issue</i>	<p>The BAR contains some minor issues that require clarification:</p> <p>Vegetation to be cleared</p> <p>The BAR states repeatedly that 5.68 ha of native vegetation will be cleared within the development site. The basis for this figure must be provided.</p> <p>There are inconsistent figures for the number of paddock trees within the development footprint (23 and 26 trees are stated).</p> <p>It is unclear how many HBTs will be removed (two and 'up to four' are stated).</p> <p>These inconsistencies must be clarified and presented correctly in the BAR and EIS Main Report.</p> <p>Paddock trees</p> <p>The area used for the Biobanking Paddock Tree Calculator appears to be too high. If the methodology described in Appendix B of the Biobanking and the Framework for Biodiversity Assessment Operations Manual is applied, the large areas of cleared land between these trees within the development footprint should not be included. This will change the percent foliage cover for this vegetation zone but this is likely to still be <25% of the benchmark percent foliage cover, so this vegetation zone will still be considered to be in low condition. Nevertheless the methodology for determining the area of paddock trees should be applied correctly in the BAR.</p> <p>Landscape features</p> <p>It is not clear which patch was used for the patch size calculation in the landscape value assessment. The definition of patch size in the FBA includes the requirement for the patch to be an area of native vegetation in moderate-good condition. Only the planted woodlot in Zone 3 is considered to be in moderate-good condition, but this is not native vegetation. The patch used for this calculation needs to be clarified.</p>
---	--------------	---

		<p>The largest area of native vegetation within the development site that meets the patch size criteria is stated as 3 ha in the BAR, but 5.97 ha has been entered in the credit calculator. Although this will not affect the patch size score, the correct data should be provided.</p> <p>Cumulative impacts</p> <p>The assessment of cumulative impacts should include consideration of projects in the adjoining Local Government Areas.</p>
	<i>Extent and Timing</i>	Pre-determination

6	<i>Issue</i>	<p>The EIS Main Report (section 8.3.6.1.1) refers to trimming vegetation to avoid total removal of vegetation. If vegetation maintenance during construction or operation includes clearing or lopping that is additional or different to that included in the BAR (dated 6 September 2017), then it must be assessed for biodiversity impacts and documented in accordance with the FBA, unless otherwise agreed by OEH. The assessment must be undertaken by a person accredited in accordance with s142B(1)(c) of the <i>Threatened Species Conservation Act 1995</i>.</p>
	<i>Extent and Timing</i>	Post-determination
	<i>Recommended Condition of Approval</i>	<p><i>All clearing of native vegetation, which is additional or different to that included in the Biodiversity Assessment Report dated 6 September 2017, and will be cleared or lopped for construction or operation of the proposal, must be assessed for biodiversity impacts and documented in 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.</i></p>

7	<i>Issue</i>	<p>Table 20 in the EIS Main Report provides a summary of commitments listing mitigation and management actions. To ensure that these actions are carried out at the appropriate time, OEH request that the following details are supplied for each action:</p> <ul style="list-style-type: none"> • who will be responsible for individual actions (including the position title of the officer responsible); • outcome or measure of success; and • when the action will be completed. <p>These details should be completed before the start of construction to clearly identify the proponent's commitments for management and mitigation.</p> <p>OEH have noticed that Cultural Heritage and Environmental management plans have not been required by DPE for some recently approved developments. If conditions do not require the preparation of individual plans, OEH will need to see more detail for actions relating to biodiversity and Aboriginal cultural heritage before the start of construction.</p>
	<i>Extent and Timing</i>	Pre- and Post-determination

OEH Advice

- | | | |
|------------|---|------------|
| 1.1 | Is the 'baseline' for impact assessment reasonable? | Yes |
| 1.2 | Are predictions of impact robust (and conservative) with suitable sensitivity testing? | Yes |
| 1.3 | Has the assessment considered how to avoid and minimise impacts? | Yes |
| 1.4 | Does the proposal include all reasonably feasible mitigation options? | Yes |
| 2. | Is the assessed impact acceptable within OEH's policy context? | No |

A complete and properly documented Aboriginal cultural heritage consultation process is required. A full archaeological assessment should be implemented, including consultation with Registered Aboriginal Parties.

Adequate assessment of the potential impacts of the proposed development on nesting by Superb Parrot and Major Mitchell's Cockatoo needs to be completed.

3. Confirmation of statements of fact

Statements of fact are correct.

4. Elements of the project design that could be improved

The proponent's commitment to mitigation and management actions would be clarified by including details about project stage, timeframes, outcomes and responsibility for each action.

ATTACHMENT B Detailed comments for the Finley Solar Project Environmental Impact Statement (SSD 8540)

Aboriginal cultural heritage

The EIS does not meet the Secretary's requirements for Aboriginal cultural heritage (ACH) assessment. We have reviewed the Cultural Heritage Assessment Report (CHAR) by RPS (dated 30 August 2017) against the SEARs. Although the CHAR asserts compliance with this document (section 1.4) and cites the 'Guide to investigating, assessing and reporting on ACH in NSW' and the 'Code of Practice for archaeological investigation of Aboriginal objects in NSW' (the Code of Practice), it does not address either of these documents. The CHAR is reliant on the Due Diligence assessment prepared by ACHM (dated 4 July 2017).

The consultation as documented does not meet the SEARs which required consultation process in accordance with Part 6 of the *National Parks and Wildlife Act 1974* for proponents. The log provided indicates that Stage 1 of the consultation process has been undertaken with only one Registered Aboriginal Party (RAP) identified, and they had been provided with the Due Diligence assessment prior to the consultation commencing. The timeframes of the document indicate that report was finalised the day after the required 14 days for notification. There may have not been additional RAPs identified, but we would like certainty that all efforts were made to obtain community input into the project. There is a commitment within the EIS to undertake the additional assessment stages, and we believe that this should be undertaken.

However, based on the documentation in the Due Diligence assessment there would appear to be a reduced probability of *in situ* ACH values being present due to prior land use. There are some limitations with this document, such as limited detail on which of the trees that are to be removed as part of the project have been inspected for signs of scarring or modification. This assessment was carried out over a single day. Further detail should be provided on how much of the proposal site was assessed.

We recommend that further assessment of ACH be undertaken, in accordance with the SEARs, particularly complete consultation with the community. This consultation process must clearly identify parties that will be involved in any Unexpected Finds Protocol that will be incorporated into the final approval. While the Due Diligence assessment indicates that the chance of encountering Aboriginal objects is low, due to the nature of works associated with solar farms, including extensive earthworks, we recommend that a full archaeological assessment (following the Code of Practice) including consultation with RAPs be implemented.

Biodiversity

The EIS does not meet the Secretary's requirements for biodiversity assessment. The Biodiversity Assessment Report (BAR) does not fulfil the requirements of the Framework for Biodiversity Assessment (FBA). Please note with the commencement of the *Biodiversity Conservation 2016* (BC Act) on the 25 August 2017, the *Threatened Species Act 1995* has been repealed. However, Savings and Transition provisions are in place. The comments below recommend continuation of processes as identified under the previous Offsets Policy (rather than as requirements of the BC Act) but there may be time restrictions within the transitional period that mean that future actions may need to be done in accordance with the more recent legislation.

OEH commends the proponent on the effort made to avoid the area of native vegetation and a wetland located near the centre of the proposed development area. The native vegetation to southeast of final development footprint, which was included in the Preliminary Environmental Assessment - Scoping Report (dated June 2017), has also been avoided.

As there is no offset requirement for this proposed development, no Biodiversity Offset Strategy is required. However, if consideration of Species Credit species identified below confirms their presence on site, then a requirement to offset these species may be required in the final BAR.

Vegetation to be cleared

The BAR states repeatedly that 5.68 hectares of native vegetation will be cleared within the development site. However, it is not stated anywhere in the BAR how this figure has been determined. It is assumed that this is the combined area of all of the paddock trees to be removed, with a buffer around each tree or polygons encompassing the trees close to each other (consistent with the paddock tree calculator methodology (see below). The basis for this 5.68 ha area of clearing must be stated in the BAR.

There are different figures given regarding the number of paddock trees. On page 26 of the BAR it is stated that the development footprint contained 26 paddock trees, whereas page 22 says that 23 paddock trees were recorded within the development footprint. On page 26 of the BAR it is stated that up to 21 trees are likely to require removal, including two hollow-bearing trees (HBTs). Elsewhere in the BAR (e.g. pages 31, 32, 33, 34) and in the EIS Main Report (e.g. page 103), reference is made to the “removal of up to” four HBTs. These inconsistencies must be clarified and the BAR corrected where required.

Paddock trees

Biobanking Paddock Tree Calculator has been applied to an area of 339 ha. If the methodology described in Appendix B of the Biobanking and the Framework for Biodiversity Assessment Operations Manual is applied, the large areas of cleared land between these trees within the development footprint should not be included. OEH considers that the cleared area used should be much smaller, of the order of 20 ha. We have run the paddock tree calculator using the 20 ha figure and while it changes the percent foliage cover for this vegetation zone to 0.70%, this is still <25% of the benchmark percent foliage cover and so this vegetation zone is considered to be in low condition. Nevertheless the methodology for determining the area of paddock trees should be applied correctly and the basis for arriving at this area should be demonstrated (e.g. by provision of GIS shape files).

Threatened species

Table 5.2 which lists ‘threatened species not reliably predicted that may require survey’, omits four species credit species that are generated by the credit calculator. These are Austral Pillwort (*Pilularia novae-hollandiae*), Boland Yellow Gum (*Eucalyptus leucoxylon* subsp. *pruinosa*), Brush-tailed Phascogale (*Phascogale tapoatafa*) and Winged Peppercress (*Lepidium monoplocoides*). The credit calculator shows these four species as being considered to not be impacted by the development, but the BAR needs to clearly state this provide the justification used.

Also in Table 5.2 it is stated for two plant species (A spear-grass, *Austrostipa wakoolica* and Mossgiel Daisy, *Brachyscome papillosa*) that it is ‘unlikely’ that there is habitat present for these species in the vegetation zones within the development site. It is inferred from the credit calculator that this means that it is considered that these two plant species will not be impacted by the development, but this needs to be clearly stated in the BAR.

OEH notes the following from the Threatened Species Profile Database:

- *Austrostipa wakoolica* – can occur in a variety of habitats and flowers mainly in response to rain.
- Austral Pillwort (*Pilularia novae-hollandiae*) – can grow in waterways, table drains and roadsides; is probably ephemeral, appearing when soils are moistened by rain.
- Winged Peppercress (*Lepidium monoplocoides*) – occurs in periodically flooded and waterlogged habitats; does not tolerate grazing disturbance.
- *Brachyscome papillosa* – recorded in grassland and Inland Grey Box – Cypress Pine woodland.

The credit calculator indicates that survey was used to determine that the species credit species generated for this proposal will not be impacted by the development. However, the field survey was done in over two days in late July which is outside of the spring survey period required for *Austrostipa wakoolica* and *Brachyscome papillosa*. We consider that Table 5.2 needs to be revised to include all species credit species generated by the credit calculator, along with robust justification as to why these species are not considered to be impacted by the proposed development.

Section 5.3 of the BAR refers to 'Other threatened species'. This section does not consider a number of the communities and species that we provided in our Project Specific Environmental Assessment Requirements. In particular, Inland Grey Box woodland, Floating Swamp Wallaby-grass (*Amphibromus fluitans*) and nest trees for raptors and owls need to be addressed. We note that Grey Falcon (*Falco hypoleucos*) was listed in our SEARs advice and that this is identified in the credit calculator under the assessment of geographic/habitat features. The Little Eagle (*Hieraaetus morphnoides*) and Spotted Harrier (*Circus assimilis*) are discussed in Section 5.3. It is stated (BAR, page 30) that there was no evidence of nests in the paddock trees, however it is likely that a survey in July may not have captured nesting by Spotted Harrier. Table A4 states that nests were recorded in Trees 16 and 30 but there is no information provided as to whether these were stick nests. The discussion of Superb Parrot (*Polytelis swainsonii*) and Major Mitchell's Cockatoo (*Lophochroa leadbeateri*) in Section 5.3 does not address the issue of nest trees. A survey in late July would not have detected use by these species which breed in spring/summer. We consider that a spring survey of HBTs within the development footprint is required to confirm whether they are being used for breeding by Superb Parrot or Major Mitchell's Cockatoo. Section 5.3 of the BAR needs to be revised to address these issues concerning 'Other threatened species'.

Landscape features

Figure 1.2 in the BAR is intended to convey information that is integral to the biodiversity impact assessment. The legend and text for Figure 1.2 is very small and therefore difficult to read, making the figure hard to interpret. The Location and Sites Map (BAR Figures 1.1 and 1.2) do not show all of the features required in the FBA (section 4.1.1.2). Some of these features are shown in Figure 3.1 with the assessment circles. Figure 1.2 should be revised so that the required information is presented clearly.

It is not evident from the BAR or the GIS data provided which patch was used for the patch size calculation in the landscape value assessment. The definition of patch size in the FBA (Definitions, page 57) includes the requirement for the patch to be an area of native vegetation in moderate-good condition. Only the planted woodlot in Zone 3 is considered to be in moderate-good condition (BAR Table 4.2), and as this is not native vegetation, the patch used for this calculation needs to be clarified.

Further to this, in the BAR (page 17) the largest area of native vegetation within the development site that meets the patch size criteria is stated as 3 ha. However in the credit calculator the figure of 5.97 ha has been used. This should be corrected. It should be noted that this does not affect the patch size score, which would still be 3 (score for a medium-sized patch [$>1-10$ ha] in the same Mitchell landscape).

Vegetation buffer

We note the intention to use a vegetation buffer at various points around the perimeter of the development to screen the solar farm from surrounding residential landowners. It is stated (EIS Main Report, page 90) that 'the vegetative screen would consist of a range of native tree and shrub species endemic to the locality'. We support this and suggest that the species used should correspond to the vegetation community identified in the EIS (Western Grey Box tall grassy woodland). This is important to minimise the potential for 'non local' species associated with the vegetation buffers to invade the surrounding areas of remnant native vegetation.

Cumulative impacts

The consideration of cumulative impacts should include projects within the adjoining Local Government Areas (LGAs), in particular Edward River and Murray River LGAs, and not just Berrigan LGA.

Mitigation and management

The minimum information requirements for Stage 2 of the BAR are listed in Appendix 7 of the FBA (Table 21, page 102). This includes a 'table of measures to be implemented before, during and after construction to avoid and minimise the impacts of the project, including action, outcome, timing and responsibility'. However, this data requirement is not specified in the text of the FBA and is inconsistently applied in BARs submitted to OEH.

Section 8.4.5 of the EIS Main Report states that a Construction Environmental Management Plan (CEMP) will be prepared. Table 20 provides a summary of commitments but it is not clear who will be responsible for individual actions, the outcome or measure of success or when the action will be completed. We consider that these details should be completed prior to construction to clearly identify the proponent's commitments for mitigation and management.

We recommend that the removal of HBTs does not occur during spring to early summer to avoid the main breeding period for hollow-dependent fauna.

Although noise control for vehicles is addressed, there is no reference to limiting the speed of vehicles, both on the development site and on the access roads immediately surrounding the site. The speed of vehicles should be controlled to minimise the risk of collision with native fauna.

The EIS Main Report (section 8.3.6.1.1) refers to trimming vegetation to avoid total removal of vegetation. If vegetation maintenance during construction or operation includes clearing or lopping that is additional or different to that included in the BAR (dated 6 September 2017), then it must be assessed for biodiversity impacts and documented in accordance with the FBA, 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*.

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

- *All clearing of native vegetation, which is additional or different to that included in the Biodiversity Assessment Report dated 6 September 2017, and will be cleared or lopped for construction or operation of the proposal, must be assessed for biodiversity impacts and documented in 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.*
- *The removal of hollow-bearing trees is not to occur during spring to early summer to avoid the main breeding period for hollow-dependent fauna.*