



Our ref: DOC19/822989
Senders ref: SSD 9358

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Dear Mr Beckett

Subject: Silverleaf Solar Farm SSD 9358

Thank you for your email of 26 August 2019 seeking comment from the Biodiversity Conservation Division (BCD) of the Department regarding the Silverleaf Solar Farm proposal.

BCD understands that the proposal will consist of the solar farm site covering approximately 450 hectares, and a five-kilometre-long transmission line. The proponent has redesigned the project to avoid areas of higher condition native vegetation.

Aboriginal Cultural Heritage

The Aboriginal Cultural Heritage Assessment (ACH) (GHD 2019:66-76) and accompanying Aboriginal Heritage Mitigation Measures (table 6-17) are adequate. BCD note that the field survey involved representation of the local Aboriginal community through the Narrabri Local Aboriginal Land Council (LALC) and the Gomeroi Native Title Claim Group (2019:69)

BCD note that the field survey found only 2 insignificant (non-tool) stone artefacts (Silverleaf IF-1 (#19-3-0163) and Silverleaf IF-2 (#19-3-0164) associated with an artificial water channel. The nearest major creek where numerous Aboriginal sites are listed on the Aboriginal Heritage Information Management System (AHIMS) is Narrabri Creek located 3 kilometres to the south west of the 2 isolated finds.

The seemingly lack of archaeological finds within the project boundary is therefore consistent with the known landform site distribution pattern for the region, noting that the artificial water channel within the project boundary where the artefacts were found was probably constructed along the margins of a former ephemeral drainage line. BCD therefore accept the field survey results and the interpretation that the project area is unlikely to contain significant items or subsurface potential for intact archaeological deposits.

It is noted that the Aboriginal representatives who participated in the field survey consider the 2 isolated finds as socially and culturally significant. The proposed mitigation measures have stated avoidance of isolated finds (table 6-17) but that further consultation will be undertaken should development circumstances change resulting in potential impacts.

Biodiversity

BCD consider that the Biodiversity Development Assessment Report (BDAR) has not been completed fully in accordance with the Biodiversity Assessment Method (BAM) and should be updated to reflect the following:

- An assessment is undertaken to determine whether any areas on the development site can be designated as Category 1 – Exempt land. These areas will not require biodiversity offsets.
- All native vegetation extent, including derived native grassland, be assessed in accordance with section 4.3.2 of the BAM. The revised percentage of native vegetation extent should then be used for BAM calculations
- Biodiversity offset calculations be revised with all groundcover scores for the development being reduced to zero.
- The proponent should discuss the need for expert reports or assumption of presence of threatened flora species likely to occur on the site with BCD. More information on the planted vegetation, including age and species, should be included in the BDAR. Planted vegetation should be assessed to determine whether it conforms to a plant community type (PCT)
- The Poplar Box community on-site be assessed against the conservation advice for the Commonwealth listed Poplar Box Grassy Woodland on Alluvial Plains (*Environment Protection and Biodiversity Conservation Act 1999*).

Detailed comments regarding biodiversity are provided in **Attachment A**.

If you have any questions about this advice, please do not hesitate to contact Liz Mazzer, Conservation Planning Officer, via liz.mazzer@environment.nsw.gov.au or 02 6883 5325.

Yours sincerely



Peter Christie
Director
North West, Biodiversity and Conservation

25 September 2019

BCD Review

Silverleaf Solar Farm

Identification of Category 1 land

The accredited assessor does not appear to have considered whether the site contains any Category 1 – Exempt Land.

Clearing of native vegetation on land that meets the definition of Category 1 - Exempt Land (under the *Local Land Services Act 2013 [LLS Act]*) does not require assessment or offsetting under the Biodiversity Assessment Method (BAM) (s.6.8 (3) under the *Biodiversity Conservation Act 2016* (BC Act) and s.2.3.1.1 of the BAM).

A development on Category 1 land may involve other biodiversity impacts which will require assessment in a BDAR if they constitute a 'prescribed impact' (as listed in clause 6.1 of the *Biodiversity Conservation Regulation 2017* (BC Reg), however no biodiversity credit obligation is generated.

The circumstances under which land is to be designated as Category 1 – Exempt and Category 2 – Regulated are set out in s.60H-60J of the LLS Act and cl.109-114 of the *Local Land Services Regulation 2014*. Additional information regarding criteria and methodology for assessment is available on the [Local Land Services](#) website and the [BCD accredited assessor information and resources](#) web page.

Recommendation

1. An assessment be conducted to determine whether any areas on the development site can be designated as Category 1 – Exempt. Any clearing of native vegetation on Category 1 – Exempt land will not require biodiversity offsets. Evidence must be provided to support areas designated as Category 1 – Exempt.

Mapping of native vegetation extent

Figure 4-1 of the Biodiversity Development Assessment Report (BDAR) shows landscape features including native vegetation extent. The native vegetation extent does not appear to have been mapped in accordance with the Biodiversity Assessment Method (BAM). Section 4.3.2 of the BAM requires that both woody and non-woody native vegetation be assessed on the site and within a 1500 metre buffer of the development site.

Comparing the aerial image with the mapped native vegetation extent (figure 4-1), it appears that areas of woody vegetation likely to be native have not been fully mapped. In addition, there is no derived native grassland included with mapped native vegetation extent despite this being identified on the development site. Native vegetation on the development site, which includes derived native grasslands shown in figure 5-1, has not been mapped as part of the native vegetation extent.

Recommendations

2. All native vegetation extent, including derived native grassland, be assessed in accordance with section 4.3.2 of the BAM.

3. The revised percentage of native vegetation extent be used for BAM calculations.

Vegetation integrity scores

The method applied by the accredited assessor for calculating vegetation integrity scores is outlined in section 9.1.1 of the BDAR. This states that,

It is assumed that the construction and operation of a solar project will not necessitate the removal of all vegetation layers and so the 'future vegetation integrity score' for the various vegetation zones was not entered as 0.

The accredited assessor has assumed the following for groundcover:

- 10% reduction in species richness
- 10% reduction in compositional scores (from the observed means)
- 50% reduction in percentage cover
- 50% reduction in structural scores (from the observed means)

BCD considers that the reduction in groundcover vegetation scores does not take into account all impacts of the installation and operation of the solar farm.

There will be direct impacts associated with installation of approximately 20,000 piles. This involves complete removal of the groundcover for each pile location.

The BDAR also states that there would be temporary disturbance of groundcover during laying of cables, with trenches being backfilled to the existing ground layer and groundcover being allowed to regrow. In order to create the trenches, groundcover will be reduced to zero before regrowing. There is no evidence to suggest that it will regrow to the species richness, composition, cover or structure indicated by the percentage reductions entered into the Biodiversity Offset Calculator.

In addition, the BDAR does not take into account additional impacts on groundcover during construction of the solar farm, such as laydown areas, access tracks and machinery movement.

There is no justification for reducing groundcover vegetation scores, and no scientific evidence has been provided to support the percentage reductions. The reduction of scores reduces the biodiversity credit requirement for the project.

Recommendation

4. Biodiversity offset calculations be revised with all groundcover scores for the development being reduced to zero unless the accredited assessor can provide adequate scientific data to support lesser reductions.

Targeted flora surveys

Consistent with section 6.5.1.3 of the BAM, flora species surveys must be undertaken in accordance with the *NSW Guide to Surveying Threatened Plants*.

We note that the BDAR includes targeted surveys for five threatened flora species, which were not located during survey and so have been subsequently discounted from requiring species credits. Table 6-3 of the BDAR indicates that three of these species, Finger Panic Grass, Belson's Panic and Spiny Peppergrass, have been recorded in the locality.

The BDAR notes that surveys were undertaken during drought conditions, and the proposal site was very dry at the time of survey, as indicated by the absence of water from natural drainage

lines, heavily grazed vegetation, bare sections of earth from vegetation dieback, and relatively low grassland flora species diversity.

The NSW Guide to Surveying Threatened Plants states that, where suboptimal conditions such as prolonged drought has substantially affected the site, the proponent may choose to use an expert report to assess the species' presence or absence. Alternatively, the species can be assumed to be present at the development site.

Recommendation

5. The proponent should discuss the need for expert reports or assumption of presence of threatened flora species likely to occur on the site with BCD.

Planted vegetation

The development site includes areas of planted vegetation. These are variously described in the BDAR as:

- Not indigenous to the Narrabri region
- Non-native planted windbreaks
- Planted natives (windbreaks)

The species that comprise the planted vegetation are not identified in the BDAR, and there is no information about the ages of the plantings. There is potential for the planted vegetation to provide some habitat value for threatened species.

Recommendations

6. More information on the planted vegetation, including age and species, should be included in the BDAR.
7. Planted vegetation should be assessed to determine whether it conforms to a PCT

Poplar Box community

Poplar Box Grassy Woodland on Alluvial Plains has recently been listed as an endangered ecological community (EEC) under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). There is potential for the Poplar Box community on the site to meet the definition of the EEC.

Recommendation

8. The Poplar Box community on-site be assessed against the conservation advice for the EPBC listed Poplar Box Grassy Woodland on Alluvial Plains.