



Our Ref: DOC21/181084

Your Ref: SSD10346

Department of Planning, Industry and Environment
Locked Bag 5022
Parramatta NSW 2124

Attention: Ms May Patterson

Dear Ms Patterson

RE: Oxley Solar Farm (SSD-10346) Armidale Regional Council

Thank you for your notification dated 10 March 2021 about the proposed Oxley Solar Farm at Armidale seeking comments from the Biodiversity and Conservation Division (BCD) of the Biodiversity, Conservation and Science Directorate in the Environment, Energy and Science Group of the Department of Planning, Industry and Environment on the exhibited development application. I appreciate the opportunity to provide input.

We have reviewed the documents supplied, including the Environmental Impact Statement (EIS) and the Biodiversity Development Assessment Report (BDAR) and advise that there are several issues with the assessment for biodiversity and National Parks and Wildlife Service (NPWS) estate. These issues are discussed in detail in **Attachment 1** to this letter.

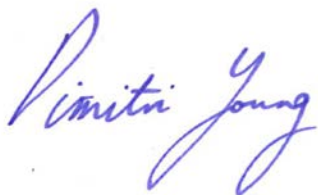
In summary, the BCD recommends that:

1. The native vegetation cover assessment must include the subject land in accordance with the Biodiversity Assessment Method operational manual.
2. The BDAR must be updated to assess the area between Gara Road and the Gara River as Category 2 regulated land.
3. The BDAR must be updated to include reference to the important habitat maps for the swift parrot and the regent honeyeater.
4. Further consideration must be given in the BDAR to identifying indirect impacts immediately adjacent to the development footprint and determining whether biodiversity credits are required to offset these impacts.
5. Further avoidance of the Critically Endangered Ecological Community White Box Yellow Box Blakely's Red Gum Woodland vegetation zones 2 and 4 needs to be incorporated into the proposal and the BDAR updated accordingly.
6. Further detail should be provided on the scope of the proposed management plans and actions identified in the BDAR to clarify the areas to which they apply and the rehabilitation targets for these areas.

7. Further information is required in the EIS to address the NPWS Estate issues relating to acknowledgement of existing NPWS Estate values, and potential direct and indirect impacts on NPWS Estate and its values including, but not limited to, sedimentation, erosion, stormwater runoff, fire management, visual amenity at Blue Hole Road, Blue Hole Picnic Area and the Waterfall Walking Track, and cumulative impacts from state significant developments in the locality.

If you have any questions about this advice, please do not hesitate to contact Mr Krister Waern, Senior Operations Officer, at krister.waern@environment.nsw.gov.au or 6640 2503.

Yours sincerely



7 May 2021

DIMITRI YOUNG
Senior Team Leader Planning, North East Branch
Biodiversity and Conservation

Enclosure: Attachment 1: Detailed BCD Comments - Oxley Solar Farm (SSD-10346)

Attachment 1: Detailed BCD Comments – Oxley Solar Farm (SSD-10346)

Biodiversity Development Assessment Report

We have reviewed the Biodiversity Development Assessment Report (BDAR) prepared by NGH dated March 2021 and provide the following comments for consideration.

Native Vegetation Cover

Figure 2-2 of the BDAR shows the mapped native vegetation cover for the 1500m buffer area. This native vegetation cover assessment is a requirement of the Biodiversity Assessment Method (BAM) and is used in the BAM calculator to filter predicted threatened species likely to occur.

In accordance with page 8 of the BAM Operational Manual Stage 1, the percent of native vegetation cover is to include the total area of the subject land and the buffer. The BDAR appears to only have assessed the native vegetation cover for the buffer area. This assessment also needs to include native vegetation cover for the subject lands.

BCD Recommendation

1. The native vegetation cover assessment must include the subject land in accordance with the BAM operational manual.

Category 1 exempt land assessment

A Category 1 exempt land assessment has been undertaken for the site as shown in figure 3-1 of the BDAR. As stated in s6.8(3) of the *Biodiversity Conservation Act 2016* (BC Act), the biodiversity assessment is to exclude the assessment of any clearing of native vegetation and loss of habitat on category 1-exempt land, other than the additional biodiversity impacts in accordance with clause 6.1 of the BC regulation.

The Remote Sensing and Regulatory Mapping Team of the Department of Planning Industry and Environment has reviewed the NGH land categorisation mapping for the site against the relevant legislative provisions. Although there is large agreement with the NGH categorisation, the Department has identified an area which has been mapped by NGH as Category 1 exempt land that should instead be mapped as Category 2 regulated land. The NGH land categorisation mapping, as shown below, identified the area between Gara Road and the Gara River as Category 1 exempt land (yellow). However, the Department's assessment found that no non-woody disturbance could be detected via aerial imagery in this area between 1990 and 2017. Accordingly, this area needs to be assessed as Category 2 regulated land.



BCD Recommendation

2. The BDAR must be updated to assess the area between Gara Road and the Gara River as Category 2 regulated land.

Threatened species habitat

For a small number of species, a habitat constraint may refer to a mapped location. Mapped locations identify areas that are considered important for the species. Maps currently available include important areas for the swift parrot and the regent honeyeater. These maps can be accessed by sending a request to bam.support@environment.nsw.gov.au. The BDAR does not appear to have checked these important habitat maps.

BCD Recommendation

3. The BDAR must be updated to include reference to the important habitat maps for the swift parrot and the regent honeyeater.

Indirect impacts

Figure 7-1 of the BDAR shows the mapped indirect impact area of the proposal as shown shaded pink below.

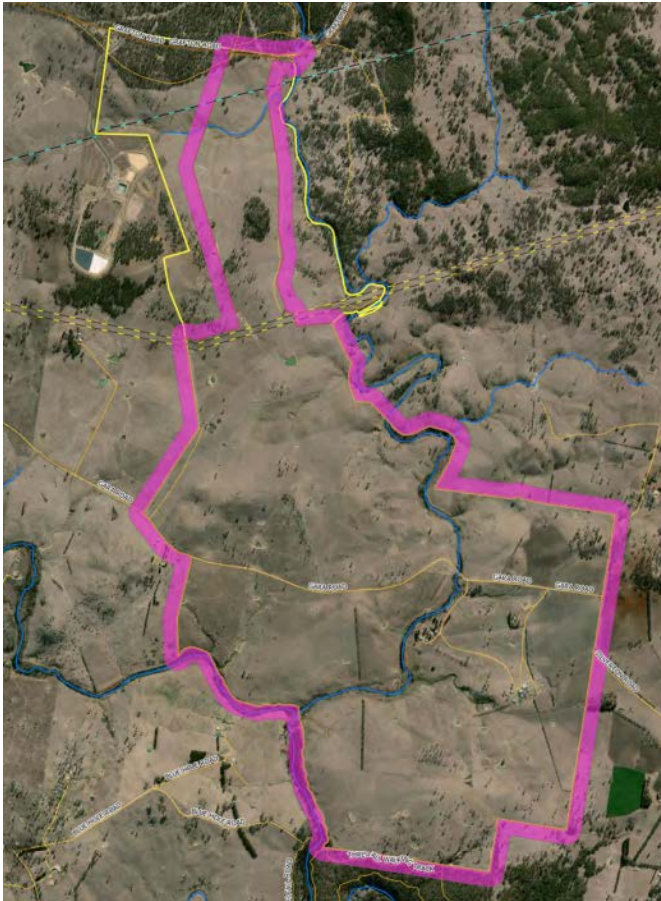


Table 7-5 of the BDAR describes the types of indirect impacts that may occur from the development. Some of these indirect impacts may extend to outside the subject site, however the main consideration of the indirect impact zone should be focused to the area immediately adjacent to the development footprint, such as solar arrays, access tracks and other infrastructure.

All direct impacts of the proposal are shown in figure 1-3 of the BDAR, which identifies the development footprint. An indirect impact zone should be identified around the development footprint.

We note that mitigation measures have been identified in section 8 of the BDAR to address any potential indirect impacts. If the BDAR cannot demonstrate that all indirect impacts have been effectively mitigated, then biodiversity credits should be calculated for the remaining indirect impacts in accordance with the BAM Operational Manual Stage 2.

BCD Recommendation

4. Further consideration must be given in the BDAR to identifying indirect impacts immediately adjacent to the development footprint and determining whether biodiversity credits are required to offset these impacts.

Serious and Irreversible impacts

We note that the critically endangered ecological community (CEEC) White Box Yellow Box Blakely's Red Gum Woodland occurring on site is listed as a potential Serious and Irreversible Impact (SAIL) entity. As outlined in the *Guidance to assist a decision-maker to determine a serious and irreversible impact* (OEH 2019), this CEEC has been listed as a potential SAIL entity due to Principles 1 and 2.

In accordance with Principle 1, this community is listed as critically endangered due to its significant reduction in geographic extent (greater than or equal to 90% reduction) since European settlement. Further, under Principle 2 this community is listed as critically endangered due to the remaining 90% of its extent experiencing very high environmental degradation and a very large disruption of biotic processes.

This means that about 1% of the original extent of the community is unlikely to be very highly degraded.

Section 9 of the BDAR provides further information about the SAIL entity and an evaluation of the key principles for consideration. We note that in table 9-1, information relating to zone id 2 and 3 is different to that stated in table 7-2. This anomaly should be corrected.

The approval authority is responsible for deciding whether an impact is serious and irreversible. This decision is to be made in accordance with principles set out in clause 6.7 of the Biodiversity Conservation Regulation 2017.

We have reviewed the information provided in the BDAR and assessed that information against the relevant principles. The information provided in section 9 of the BDAR to address the SAIL principles is insufficiently detailed or robust, particularly in relation to principles (d)-(i).

We have liaised previously with NGH about these principles on similar developments, recognising there is limited data to accurately contextualise impacts on this CEEC. Given this situation, a more precautionary approach to the consideration of SAIL is warranted for this CEEC.

We note that table 7-2 shows the proposed impact to the CEEC. This includes approximately 9.3ha of woodland CEEC in relatively good condition (i.e. vegetation zones 2 and 4) and about 80ha of Derived Native Grassland (DNG). The DNG on site is degraded and our focus for assessing SAIL is on vegetation zones 2 and 4 of the woodland community.

Currently the impact on these two vegetation zones is 9.3ha. Further avoidance of these CEEC woodland zones, particularly the larger remnants of vegetation zone 2 currently in the impact area, will need to be demonstrated in an updated BDAR.

BCD Recommendation

5. Further avoidance of the CEEC White Box Yellow Box Blakely's Red Gum Woodland vegetation zones 2 and 4 needs to be incorporated into the proposal and the BDAR updated accordingly.

Management Plans

The BDAR identifies the following management plans/actions relevant to biodiversity:

- Landscaping plan
- Vegetation Management Plan
- Biodiversity Management Plan
- Vegetation clearing protocols
- Plantings around dams and creeks
- Installation of nest boxes.

We support the above management plans/actions, however there is very little detail provided to understand the scope of some of these plans/actions. For example, the Biodiversity Management Plan proposes to rehabilitate degraded areas. A map of these degraded areas would be helpful to understand the scale of this management action and further details provided on the benchmarks to be targeted by that rehabilitation.

The area outside of the development footprint comprises more than 600ha of degraded land and the rehabilitation of this area would be a significant biodiversity benefit.

BCD Recommendation

6. Further detail should be provided on the scope of the proposed management plans and actions identified in the BDAR to clarify the areas to which they apply and the rehabilitation targets for these areas.

National Parks Estate

The Oxley Wild Rivers National Park (NP) is managed under the NSW *National Parks and Wildlife Act 1974* (NPW Act) but also declared under the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) as World Heritage property and a National Heritage place. As the NP forms part of the Gondwana Rainforests of Australia, the National Parks and Wildlife Service (NPWS) has an obligation as the land manager to ensure environmental matters are appropriately assessed where a proposal will or is likely to impact on the environmental values of the NP.

The World and National Heritage listings are mentioned in Section 5.4.1 (Table 5.1) of the Environmental Impact Statement (EIS). However no assessment is provided in support of the overall impact statement in section 8.5.3 of the EIS as 'The proposal is not considered likely to have a significant impact in accordance with the *NSW Heritage Act 1977*, the EP&A Act, or the EPBC Act, in terms of heritage'.

The EIS has not appropriately acknowledged or considered the heritage values and thus cannot clearly demonstrate that it meets the provisions of the Acts referenced above. The Gondwana Rainforest (natural values) should be acknowledged in the EIS in accordance with its listing and the significance of the impacts assessed in accordance with the criteria as specified by the Matters of National Environmental Significance – Significant Impact Guidelines 1.1 (Commonwealth of Australia 2013). This will ensure evidence is provided that the values and potential impacts of the proposal are addressed in support of the statement provided in the EIS.

The NSW State Heritage listing for the Gondwana Rainforest under the *Heritage Act 1977* should be acknowledged in Section 8.5 of the EIS. Impact assessment in the EIS should consider the heritage significance and ensure adequate mitigation measures are in place to address the direct and indirect impacts of the proposal on these heritage values.

In addition, the EIS should provide further information to address the *NPWS Development adjacent to National Parks and Wildlife Service lands – Guidelines for consent and planning authorities* (NPWS 2020), as specified in the BCD Secretary's Environmental Assessment Requirements for the development.

Onsite management of sediment and erosion control and stormwater runoff should be more adequately addressed in the EIS with both direct (control) and indirect (rehabilitation of drainage lines and application of buffer zones) mitigation measures. Construction, installation and operation of the solar infrastructure has the potential to adversely impact on surface water quality and the connecting watercourses (the Gara River, and Commissioners Waters), which can impact the NP values as these enter the Gara Gorge in the NPWS Estate. Impact assessment should include the potential for contamination from the proposal site entering the NP. Mitigation measures should include environmental monitoring with provisions to collect baseline data prior to commencement of works.

The EIS should also address fire management as it relates to the NP interface and the bushfire potential from and to the facility. This may require the provision of an adequate bushfire asset protection zone and fire management zones between solar farm infrastructure and the NP. The proponent should refer to the NPWS fire management planning (see the Fire Management Strategy for the Macleay Gorges Reserves 2018) and should engage with the NPWS about opportunities to improve joint bushfire planning in this locality.

Amenity and environmental quality impacts should be assessed in adequate detail in the EIS, as visual impacts affect the heritage and social values of the NP. Noting that the EIS acknowledged sightline impacts to the NP entry road, with solar infrastructure being visible from Blue Hole Road and internal park facilities at the Blue Hole Picnic Area (a popular local swimming area). Notably these impacts are rated as a high impact. The solar array will also have visual implications for the Waterfall walking track, with all areas potentially experiencing glint and/or glare from the infrastructure. These have not been adequately assessed or mitigated as part of the EIS to date.

The NP and the Gondwana Rainforests are subject to cumulative impacts from several State Significant Developments occurring in this locality. Although this is mentioned in the EIS, cumulative impact considerations were not adequate with no clear statement on the nature of the perceived cumulative impact.

BCD Recommendation

7. Further information is required in the EIS to address the NPWS Estate issues relating to acknowledgement of existing NPWS Estate values, and potential direct and indirect impacts on NPWS Estate and its values including, but not limited to, sedimentation, erosion, stormwater runoff, fire management, visual amenity at Blue Hole Road, Blue Hole Picnic Area and the Waterfall Walking Track, and cumulative impacts from state significant developments in the locality.