



Your ref: SSD-48160216  
Our ref: DOC24/736122-1

Rita Hatem  
Planning Officer  
Department of Planning, Housing and Infrastructure

By email: [rita.hatem@planning.nsw.gov.au](mailto:rita.hatem@planning.nsw.gov.au)

Dear Rita

**Subject: Maison Dieu Solar Farm**

Thank you for your Major Projects Portal request dated 6 September 2024 seeking advice from the Biodiversity, Conservation and Science (BCS) Group of the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) on the Maison Dieu Solar Farm Environmental Impact Statement (EIS).

BCS has reviewed the EIS and our response is outlined in Attachment A.

If you have any further questions about this issue, please contact our Hunter Central Coast Planning Team at [huntercentralcoast@environment.nsw.gov.au](mailto:huntercentralcoast@environment.nsw.gov.au).

Yours Sincerely

Joe Thompson  
**Director Hunter Central Coast  
Biodiversity, Conservation and Science**

30 October 2024

Enclosure – Attachment 1

## Attachment 1 - BCS Comments

### Project Name

In preparing this advice BCS has reviewed the following documents:

- *Maison Dieu Solar Farm – Biodiversity Development Assessment Report* prepared by Biosis dated 4 June 2024

Detailed feedback about the Applicant's response to BCS's advice on the EIS is provided in the table below.

### Key Assessment Issues

1.	LLS Land categorisation assessment not adequate	<p>A significant portion of the Subject Land has been classified as Category 1 land, and therefore exempt from further assessment under the Biodiversity Offsets Scheme (BOS). It is not clear in the BDAR the assessment process used to determine this categorisation, such as how applicable criteria in the <i>Local Land Services Act 2013</i> (LLS Act) and Regulation have been met and the application of the Interim Grasslands and Groundcover Assessment Method.</p> <p><b>Recommended action:</b></p> <p><i>Provide details of how Category 1 land was determined, in accordance with criteria specified in the LLS Act and Regulation, and results of fieldwork undertaken in accordance with the Interim Grasslands and Groundcover Assessment Method.</i></p>
	<i>Extent and Timing</i>	Pre-determination

2.	Further detail required to support PCT determination	<p>Evidence for the selection of Plant Community Types (PCTs) in the BDAR is lacking. There is no description on the selection process for relevant PCTs considered during the determination, and justification why certain PCTs were excluded from consideration. The determination only provides justification for the final selected PCTs.</p> <p><b>Recommended action:</b></p> <p><i>Amend the PCT determination to provide an analysis that considers all PCTs at a sub-regional or greater scale in accordance with S3.3 of the BAM Operational Manual – Stage 1. This may include a filtering process from the Bionet Vegetation Classification and/or Plot to PCT Assignment Tool exports.</i></p>
	<i>Extent and Timing</i>	Pre-determination

3.	Further evidence required to support TEC determination and mapping	<p>Table 4 of the BDAR determines PCT 3431 to be commensurate with Central Hunter Grey Box—Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions Threatened Ecological Community (TEC). It also states that the TEC determination includes degraded derived forms such as derived native grassland (DNG). However, areas on site containing vegetation zones mapped as PCT 3431 DNG Low and PCT 3431 Moderate have been excluded from the TEC mapping.</p> <p><b>Recommended action:</b></p>
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		<i>Additional justification is required to explain why areas of PCT 3431 mapped as DNG Low &amp; Moderate (Figure 6) have been excluded from the TEC mapping (Figure 8).</i>
	<i>Extent and Timing</i>	Pre-determination

4.	Insufficient number of BAM plots within vegetation zone 4015_Moderate	<p>The number of BAM plots is insufficient for vegetation zone 4015_Moderate. The area of this vegetation zone is 8.38ha, which requires 3 plots to be undertaken in accordance with Table 3 of the BAM. Only 2 plots were undertaken in this zone, with 1 of these located outside the Project Area.</p> <p><b>Recommended action:</b></p> <p><i>Additional plots are required within vegetation zone 4015_Moderate.</i></p>
	<i>Extent and Timing</i>	Pre-determination

5.	Insufficient survey effort for threatened orchids	<p>The BDAR has stratified floristic habitat condition into two types, Type 1 (highly cleared) and Type 2 (forest/woodland). Targeted surveys for orchids <i>Diuris tricolor</i>, <i>Prasophyllum sp. Wybong</i>, and <i>Pterostylis chaetophora</i> were excluded from Type 1 areas based on the justification of unsuitable habitat. However, there is little detail in the BDAR to justify this exclusion and no consideration of using the 2-Phase Grid methodology to survey these areas.</p> <p><i>Diruis tricolor</i> is known to occur in degraded grassland with populations located approx. 20km to the north-west. In addition, review of plot data shows that DNG plots still support a decent amount of native grass cover including <i>Sporobolus creber</i>, <i>Bothriochloa macra</i>, and <i>Chloris spp.</i> This indicates Type 1 areas may represent suitable habitat to warrant surveys for these threatened orchid species.</p> <p><b>Recommended action:</b></p> <p><i>Additional information should be provided about the methodology used to determine Type 1 and Type 2 habitat, and further justification on the exclusion of flora survey within Type 1 habitat. It is also unclear which parts of the site make up Type 1 and Type 2 habitat and a map should be added to the BDAR to show this.</i></p> <p><i>If suitable justification cannot be provided additional targeted surveys should be undertaken, or the species assumed to be present, or an expert report provided that justifies their exclusion.</i></p>
	<i>Extent and Timing</i>	Pre-determination

6.	Inconsistencies with flora survey methodology	<p>Table 16 of the BDAR states that grid based surveys were undertaken for <i>Acacia pendula</i> and <i>Pomaderris queenslandica</i>, however there is no other explanation in the BDAR on the methodology of these surveys.</p> <p><b>Recommended action:</b></p> <p><i>Provide more detail on the methodology used for grid based surveys.</i></p>
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	<i>Extent and Timing</i>	Pre-determination
7.	Insufficient survey effort for <i>Litoria aurea</i>	<p>The BDAR states that surveys were not undertaken on site for <i>Litoria aurea</i> due to degraded habitat. However, it is noted that dams are present on site containing fringing macrophytes and there also looks to be a larger more permanent dam/waterbody in the eastern portion of the Project Area, just outside the disturbance footprint which is connected to a 3rd order stream. There is also one recent Bionet record for this species within 2km of the site. Given that <i>Litoria aurea</i> are known to occur within disturbed habitats with poor water quality, the site could provide suitable breeding and dispersal habitat in favourable conditions.</p> <p><b>Recommended action:</b></p> <p><i>Provide additional details on the habitat assessment undertaken to support the exclusion of targeted surveys for Litoria aurea, including photos of potential habitat (dams, creeks) that show lack of water and fringing vegetation. Alternatively undertake targeted surveys for Litoria aurea, assume presence or provide a report from a species expert that supports excluding it from assessment.</i></p>
	<i>Extent and Timing</i>	Pre-determination
8.	Insufficient avoidance of Striped Legless Lizard habitat	<p>The BDAR states that the project will impact approximately 19.5% of Striped Legless Lizard habitat within the Study Area, equating to approximately 75ha. As stated in S5.1, avoidance of Striped Legless Lizard habitat is difficult as it inhabits degraded DNG areas on site which are the most suitable for development. However there needs to be additional details provided to demonstrate avoidance of habitat for this species, particularly in the south-eastern portion of the site where there is a high concentration of Delmar records.</p> <p><b>Recommended action:</b></p> <p><i>Further avoidance of areas of high quality habitat for the Striped Legless Lizard should be considered in the eastern portion of the project area. This could include extending the disturbance footprint/design further into Cat 1 areas in the south west.</i></p>
	<i>Extent and Timing</i>	Pre-determination
9.	The loss of hollow bearing trees is not addressed adequately	<p>No additional measures are proposed to ameliorate the loss of hollow bearing trees such as nest box replacement and ongoing monitoring.</p> <p><b>Recommended action:</b></p> <p><i>Measures to address the loss of hollow bearing trees should be included in the BDAR.</i></p>
	<i>Extent and Timing</i>	Pre-determination

10.	Additional mitigation measures required for Striped Legless Lizard	<p>Striped Legless Lizard habitat encompasses most of the site making any further avoidance problematic. Therefore, the BDAR should place greater emphasis on minimising impacts prior to relying on offsetting residual impacts. The majority of mitigation measures are focused on minimising impacts during construction as part of the construction environmental management plan (CEMP), with minimal consideration of ongoing operational management. Therefore, the biodiversity management plan (BMP) measures outlined in the BDAR should also apply to operation within an OEMP for a nominal timeframe (i.e. 5-10 years post construction), in particular monitoring and adaptive management.</p> <p><b>Recommended action:</b></p> <p><i>Provide additional mitigation measures in the BDAR to reduce construction and operational impacts on Striped Legless Lizard. Measures in the CEMP and BMP/OEMP could include the following:</i></p> <ul style="list-style-type: none"> <li>• <i>Undertake Delmar translocation within the footprint prior to construction works. This could be done by installing artificial cover boards/tiles (i.e. 3 months prior). Any Delmar found under tiles are to be relocated to suitable areas outside the development footprint at a distance greater than 60m to minimise the potential for individuals to move back into the site. Opportunistic relocation could also be undertaken as part of pre-clearance surveys.</i></li> <li>• <i>Include an ongoing monitoring program to determine if Delmar is utilising habitat within/under the solar arrays the utilising artificial tiles methodology. This can help inform adaptive management to promote Delmar habitat within the footprint.</i></li> </ul>
	<i>Extent and Timing</i>	Pre-determination

11.	Ongoing use of residual land within the Project Area not adequately assessed	<p>It is not clear what the ongoing function of residual land will be i.e. land outside the footprint within the Subject Land. Ideally these areas of should be managed under an approved conservation measure such as a BMP.</p> <p><b>Recommended action:</b></p> <p><i>Provide additional details on the ongoing management of residual land to strengthen the avoid and minimise assessment. Ideally residual land should be managed under a BMP. Include the proposed BMP area within appropriate figures in the BDAR.</i></p> <p><i>Alternatively, the feasibility of establishing a biodiversity stewardship agreement (BSA) over the broader Study Area could be further investigated. That way like for like credits can potentially be generated from habitat directly adjacent to the development site rather than sourcing an offsite BSA.</i></p> <p><i>If the residual land is not protected through an approved conservation measure, then it should be treated as impacted and is to be assessed as such.</i></p>
	<i>Extent and Timing</i>	Pre-determination

12.	Assessment of <i>Chalinolobus dwyeri</i> species polygon	<p>It is not clear how potential habitat features for <i>Chalinolobus dwyeri</i> (caves, scarps, cliffs, rock overhangs, disused mines) were assessed within 2km of the site. Given the species was recorded on site, the mining history of the locality, and recent Bionet records, it should be assumed habitat features occur within 2km of the site.</p> <p><b>Recommended action:</b></p> <p><i>A species habitat polygon should be mapped for PCTs on the subject land that are within 2 kilometres of potential roost habitat features in accordance with the 'Species credit threatened bats and their habitats' guideline, and associated credits calculated.</i></p>
	<i>Extent and Timing</i>	Pre-determination

13.	More detail required for Forest Owl survey approach	<p>Forest Owl call playback surveys were undertaken prior to new guidelines being released and are therefore not in accordance with the threatened biodiversity data collection (TBDC). However, it is noted that 2 x acoustic recorders (audio moths) were deployed, which is supported by the TBDC.</p> <p><b>Recommended action:</b></p> <p><i>Provide additional details of survey approach for Forest Owls in accordance with the TBDC survey guidelines for forest owls (points 1-5) to help justify the survey effort.</i></p>
	<i>Extent and Timing</i>	Pre-determination

14.	Insufficient diurnal bird survey coverage	<p>Targeted diurnal bird surveys were only undertaken along part of a watercourse in the north-western portion of the site (as shown in Figure 9). The survey effort is not considered adequate as it does not cover suitable habitat within forested areas in the eastern half of the site.</p> <p><b>Recommended action:</b></p> <p><i>Additional justification is required detailing why diurnal bird transects were not undertaken in the eastern portion of the site.</i></p>
	<i>Extent and Timing</i>	Pre-determination

15.	Issues relating to works within and adjacent to a 3 <sup>rd</sup> order watercourse	<p>The project should reconsider the feasibility of solar arrays to the north of the 3<sup>rd</sup> order watercourse. The proposal will result in direct impact to the waterway via a crossing and potential indirect/prescribed impacts to riparian vegetation (EEC).</p> <p><b>Recommended action:</b></p> <p><i>If development is required to the north of the 3<sup>rd</sup> order watercourse, additional discussion is required in the BDAR to detail how impacts to the waterway and habitat connectivity will be avoided/minimised. For example, to mitigate impacts to connectivity through the site the project should consider widening the vegetated riparian zone (VRZ) of this watercourse and including measures within a CEMP/BMP to</i></p>
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		<i>manage potential impacts including any proposed restoration works. Widening the VRZ of the 3rd order watercourse will also improve the outcome of avoid and minimise considering the loss of a 1st order watercourse in more degraded land in the south of the site.</i>
	<i>Extent and Timing</i>	Pre-determination

16.	Further detail required on the assessment of indirect impacts	<p>The extent of potential indirect impacts is shown in the BDAR as a 30m buffer from the edge of the Disturbance Footprint. Table 40 in the BDAR refers to measures contained within a CEMP to address indirect impacts, however this is not suitable to manage long term operational indirect impacts.</p> <p><b>Recommended action:</b></p> <p><i>Additional details are required detailing proposed measures in a BMP to adequately manage the indirect impacts in Table 40. Otherwise, a partial loss of vegetation integrity (VI) within the 30m buffer should be assumed and additional credits estimated accordingly in accordance with S2.4.1 of the BAM Operational Manual Stage 2.</i></p>
	<i>Extent and Timing</i>	Pre-determination

17.	Insufficient survey effort for camera trapping and Koala SATs	<p>The layout of spot assessment techniques (SATs) for Koalas and camera traps does not encompass forested areas in the northern portion of the Project Area. While some of these areas are located outside the Disturbance Footprint it is assumed they form part of connected habitat throughout the site and therefore should have been included in surveys. In addition the majority of SATs were undertaken within grassland areas which do not look like they contain the required number of trees to undertake a SAT (30).</p> <p><b>Recommended action:</b></p> <p><i>Additional justification is required in the BDAR to explain why camera trapping and SATs were not undertaken within forested areas in the north of the Project Area.</i></p>
	<i>Extent and Timing</i>	Pre-determination