



Your ref: SSD-69799460
Our ref: DOC25/408266-9

Department of Planning, Housing and Infrastructure
Locked Bag 5022
PARRAMATTA NSW 2150

Attention: Ms Rita Hatem

Dear Ms Hatem

Subject: Tilbuster 2 Solar Farm EIS (SSD-69799460)

Thank you for your referral in the NSW Major Projects Portal dated 21 May 2025 seeking advice from the Conservation Programs, Heritage and Regulation Group (CPHR) of the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) on the Environmental Impact Statement (EIS) for the Tilbuster 2 Solar Farm project.

We have reviewed the exhibited EIS against the Secretary's Environmental Assessment Requirements (SEARs) provided by the Department of Planning, Housing and Infrastructure to the proponent on 15 July 2024.

In our opinion the EIS does not meet the Secretary's requirements for biodiversity.

In summary, the key issues are as follows:

- The development footprint is required to encompass all components of the proposed development.
- Opportunities to further avoid and minimise impacts on the White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW Western Slopes, South East Corner and Riverina Bioregions Critically Endangered Ecological Community (box-gum woodland CEEC) require further consideration.
- While 100 per cent of highest condition box-gum woodland CEEC will be retained, 48 per cent of the low-moderate condition will be cleared. Given the highly cleared nature of this community, additional retention of at least the low moderate condition woodland should be required in order to avoid a serious and irreversible impact (SAIL) on this CEEC. The consent authority should also consider Additional and Appropriate measures in determining the application.

A summary of our assessment and advice is provided in **Attachment A**. Our assessment and advice on SAIL entities is provided in **Attachment B**. Detailed comments and other issues which require further consideration are provided in **Attachment C**.

CPHR requests that where a Condition of Approval requires plans relating to biodiversity to be developed, that the Condition of Approval specify that the plans need to be developed in consultation with CPHR.

If you have any questions about this advice, please do not hesitate to contact Mr Dimitri Young, Senior Team Leader Planning North East, CPHR, via dimitri.young@environment.nsw.gov.au or 6659 8272.

Yours sincerely



GABRIELLE PIETRINI
Director North East
Conservation Programs, Heritage and Regulation Group

16 July 2025

Enclosures:

Attachment A: CPHR Assessment Summary for Tilbuster 2 Solar Farm Environmental Impact Statement (SSD-69799460)

Attachment B: Serious and Irreversible Impacts – Advice on SAI Entities

Attachment C: Detailed comments for Tilbuster 2 Solar Farm Environmental Impact Statement (SSD-69799460)

ATTACHMENT A

CPHR Assessment Summary for Tilbuster 2 Solar Farm Environmental Impact Statement (SSD-69799460)

In preparing this advice CPHR has reviewed the following documents:

- Tilbuster 2 Solar Farm Biodiversity Development Assessment Report, Ecosure November 2024 (BDAR)
- Tilbuster 2 Solar Farm Environmental Impact Assessment, GHD March 2025 (EIS)
- Tilbuster 2 Solar Farm Landscape and Visual Impact Assessment, GHD March 2025 (LVIA)

Key issues raised by CPHR are summarised below. These issues and recommendations are detailed in **Attachment C**, along with other minor issues, all of which need to be addressed prior to determination of the State Significant Development (SSD) application.

Key Assessment Issues

<i>The development footprint is required to include all components of the proposed development</i>	The assessor has not considered all components of the proposed development when determining the extent of the development footprint used in the BDAR. Recommended action: • The BDAR description of the proposed development footprint be reviewed and revised to clearly demonstrate that all components of the development have been considered in accordance with section 2(3) of the Biodiversity Assessment Method 2020 (BAM) and the remaining sections of the BDAR and the BAM Calculator (BAM-C) amended as required.
<i>Extent and Timing</i>	Pre-determination

<i>The BAM scattered trees streamlined assessment module has not been correctly applied</i>	The assessor has not considered all the scattered trees within the development footprint when applying the BAM scattered trees streamlined assessment model and has not aligned the plant community type (PCT) recorded within the scattered tree zone with the threatened ecological community (TEC) associated with the PCT. Recommended action: • The scattered tree assessment in the BDAR be revised to include all scattered trees within the proposed development footprint. • The BAM-C case for scattered trees be updated to include all scattered trees within the proposed development footprint and to acknowledge PCT 3359 is associated with a TEC.
<i>Extent and Timing</i>	Pre-determination

<i>Survey effort applied for some candidate fauna species does not meet the requirements of the BAM</i>	The survey effort for threatened forest owls and koala (<i>Phascolarctos cinereus</i>) does not meet the requirements specified in the threatened biodiversity data collection (TBDC) or survey guidelines published by the Department. Recommended action: • Targeted surveys for threatened forest owls and koala on the subject land be completed in accordance with survey method requirements specified in the TBDC and survey guidelines published by the Department.
---	--

	Figure 10 of the BDAR be revised to show the location and extent of spotlighting survey transects within each vegetation zone (VZ) on the subject land.
<i>Extent and Timing</i>	Pre-determination

<i>The extent of the species polygon for southern myotis has been underestimated</i>	The species polygon prepared for the southern myotis (<i>Myotis macropus</i>) does not meet the species polygon requirements specified in the BAM threatened bat survey guidelines published by the Department. Recommended action: - The species polygon and BAM-C calculations for southern myotis be revised to consider PCTs within 200m of all suitable waterbodies for the species on or within 200m of the subject land. - Page 41 of the BDAR be revised to acknowledge both PCT 3352 and PCT 3359 are associated with southern myotis in the TBDC.
<i>Extent and Timing</i>	Pre-determination

<i>The barrier effects of security fencing on habitat connectivity require further consideration</i>	The assessor has not considered the potential barrier effects of proposed perimeter fencing on fauna access to the riparian zone and other native vegetation remnants to be retained on the development site. Recommended action: Proposed perimeter fencing be placed as close as possible to the solar arrays and internal roads to minimise isolation of retained native vegetation and optimise potential for fauna movement along the Duval Creek riparian zone.
<i>Extent and Timing</i>	Pre-determination

<i>Opportunities to further avoid and minimise impacts on the box-gum woodland CEEC require further consideration</i>	More opportunities may exist on the subject land to avoid areas of higher condition box-gum woodland CEEC by relocating solar panel infrastructure from higher condition areas within VZ 1 into areas of lower condition within VZ 2, and to further minimise impacts by protecting these remnants via conservation mechanisms. Recommended actions: - The proponent investigates opportunities to relocate solar panel infrastructure from higher condition remnants of box-gum woodland CEEC in VZ 1 to lower condition remnants in VZ 2. - The BDAR be revised to include protection of avoided CEEC remnants on the subject land through an appropriate mechanism, such as a Conservation Agreement under the <i>Biodiversity Conservation Act 2016</i> (BC Act).
<i>Extent and Timing</i>	Pre-determination

<i>The project in its current form is likely to have a SAIL on the box-gum woodland CEEC</i>	There is a real chance the project will contribute significantly to the box-gum woodland CEEC becoming extinct by continuing its rapid decline (Principle 1) and further reducing its ecological function on the subject land and adjoining areas (Principle 2). Recommended action: The applicant be required to retain additional areas of at least the low moderate condition woodland, or
--	--

	The Consent Authority consider requiring the applicant to identify and implement Additional and Appropriate measures to compensate for the loss of the box-gum woodland CEEC, should the project be approved.
<i>Extent and Timing</i>	Pre-determination

ATTACHMENT B SERIOUS AND IRREVERSIBLE IMPACTS – ADVICE ON SAI ENTITIES

SAI Entity: box-gum woodland CEEC

	Steps	CPHR Recommendation
1	Identify relevant entities at risk of SAI	The BDAR includes a SAI assessment for the box-gum woodland CEEC. The project is expected to impact 49.78 ha of CEEC, consisting of 44.11 ha of woody vegetation and 5.67 ha of non-woody vegetation. The candidate SAI entities assessed in the BDAR accord with the BAM. The assessor has provided sufficient consideration and explanation to justify the SAI entity selected for further assessment.
2	Evaluation of the current extinction risk of the impacted entities	The box-gum woodland CEEC meets the following SAI principles as set out in clause 6.7 of the Biodiversity Conservation Regulation 2017: Principle 1 – the ecological community is currently in a rapid decline, and Principle 2 – the ecological community is subject to very high environmental degradation or disruption of biotic processes or interactions. The Conservation Assessment for Box Gum Woodland CEEC¹ states: <i>“available data shows over 90% of the original extent of this ecological community has been cleared. Of the remaining area, a large proportion of it has been modified and occurs as trees over a predominantly exotic understorey. The Committee judge that less than 5% of the original extent of the ecological community remains of sufficient condition and size* to be included in the listed ecological community, having undergone a decline of 95% or more”.</i> The accredited assessor has evaluated the current extinction risk appropriately.
3	Detail measures taken to avoid impacts on the entity	The total extent of box-gum woodland CEEC on the subject land is 116.54 ha. The project design is expected to retain 66.74 ha (57.27 per cent) of CEEC on site, which would consist of: • 26.64 ha (100 per cent) of the highest condition CEEC, • 22.62 ha (52.05 per cent) of the low-moderate condition CEEC,

¹ NSW Threatened Species Scientific Committee (2020) *Conservation Assessment of White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland*. NSW Government.
<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Scientific-Committee/Determinations/2020/white-box-yellow-box-final-determination-conservation-assessment.pdf?la=en&hash=F8E09AABE537A9AB6CBBBD7A38BCE44956C0D986#:~:text=Summary%20of%20Conservation%20Assessment,under%20Criteria%20A3%20and%20D3>.

	Steps	CPHR Recommendation
		• 10.31 ha (30.68 per cent) of the low condition CEEC, and • 7.17 ha (55.79 per cent) of the lowest condition non-woody CEEC. CPHR considers the proponent's efforts to avoid woody areas of the CEEC could be expanded, to avoid a higher proportion of the low-moderate condition CEEC either by reducing the overall development footprint or by relocating components of the project into lower condition remnants of the CEEC on the subject land.
4	Evaluate the impacts from the proposal	The project would directly impact 49.78 ha of the CEEC, including: • 44.11 ha of woodlands (i.e. woodland and open woodland), and • 5.67 ha of grasslands. These impacts are likely to increase the extinction risk of the CEEC by further reducing its extent and contributing to degradation and disruption of biotic processes.
5	Provide advice on whether the proposal is likely or unlikely to result in SAI	There is a real chance the project will contribute to the CEEC's continued rapid decline (Principle 1) and will further reduce ecological function of this community on the subject land and adjoining areas (Principle 2).

ATTACHMENT C Detailed comments for Tilbuster 2 Solar Farm Environmental Impact Statement (SSD-69799460)

The BDAR in Appendix J of the EIS does not meet the Secretary's requirements for biodiversity.

Specific comments on the BDAR and related sections in the EIS are set out below.

The BDAR is to meet all the requirements specified in the BAM

Appendix K of the BAM requires the assessor to submit to the consent authority the following assessment components either in or with the BDAR:

- all report maps as separate jpeg files
- plot field data (excel format)
- plot field data sheets
- species polygon map in jpeg format
- individual digital shapefiles of:
 - subject land boundary
 - assessment area
 - cadastral boundary of subject land
 - areas of native vegetation cover
 - landscape features
 - PCT boundaries within subject land
 - TEC boundaries within subject land
 - vegetation zone boundaries within the subject land
 - floristic vegetation survey and vegetation integrity plots
 - alternative and final proposal footprint (where relevant)
 - direct and indirect impact zones
 - extent of TECs at risk of an SAI within the subject land
 - parcels of land proposed for land-based conservation measures.

The assessor has not included these components either in the BDAR or uploaded as supporting information in the BOAMS case.

Recommended action:

1. The BDAR and/or BOAMS case be updated to provide all assessment components specified in Appendix K of the BAM.

The development footprint needs to include all components of the proposed development

In section 1.3.2 of the BDAR the assessor has described the development footprint as the land directly impacted by the proposal, including the solar array, perimeter fence, access roads, transmission line footprint and known temporary construction areas. The assessor then states in section 1.3.4 of the BDAR that a temporary construction compound and laydown area would be located outside the development footprint but within the development site.

The proposed temporary construction compound and laydown area identified in Figure E.1 of the EIS represents a known temporary construction area, which must be included in the development footprint assessed in the BDAR (refer to Figure 1 below).

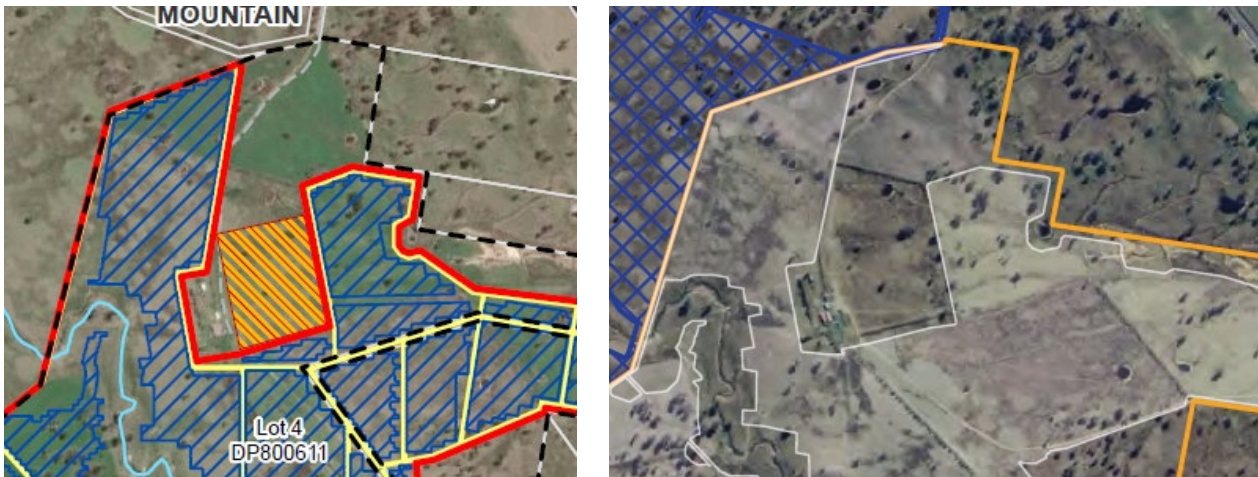


Figure 1: The proposed temporary construction compound (left image - orange hatching) has not been included in the BDAR development footprint (right image – white polygon).

The proposed development footprint shown in Figure 1 of the BDAR does not include all sections of the proposed perimeter fence illustrated in the master plan contained in Appendix 2 of the BDAR (refer to Figure 2 below). The perimeter fence will result in direct impact for construction and long-term indirect impact on retained ecological communities within the fenced area by restricting access to some fauna species required for propagule exchange and maintenance of vegetation structure (e.g. macropods).

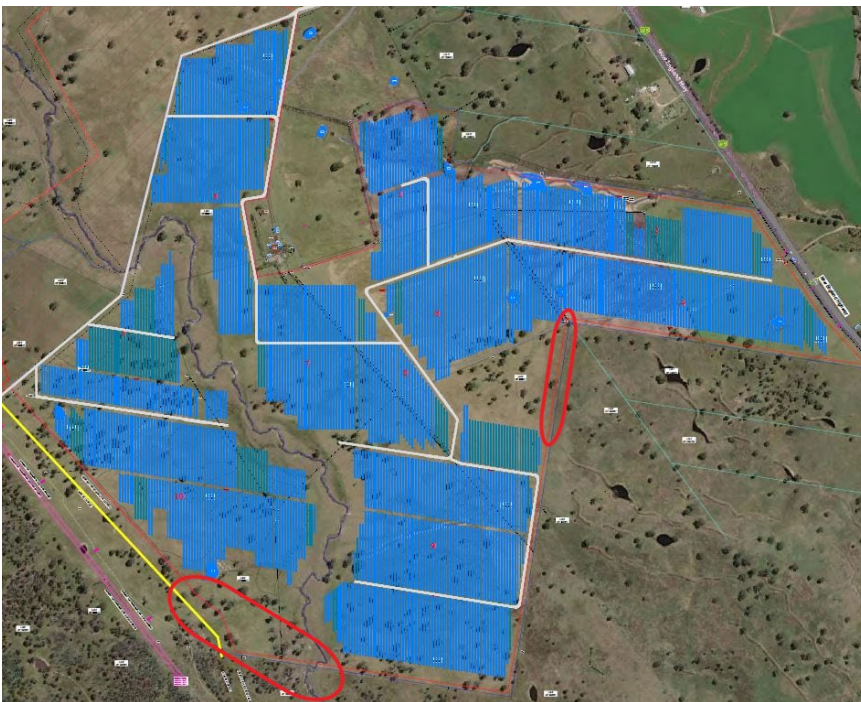


Figure 2: Sections of proposed security fencing not included in the development footprint assessed in the BDAR (broken red lines within the red polygons).

Reference is made in section 6.12.3 of the EIS to a proposed 10 m bushfire asset protection zone (APZ) to be established along the western side of the development footprint (between the proposal and the bushfire prone land), which is to be maintained as an inner protection area. It is unclear if the proposed APZ has been included in the development footprint and impacts assessed in the BDAR.

Reference is made to installing erosion controls in section 6.2.4 of the EIS as part of a soil and water management plan. There is no mention of erosion controls in the development footprint

description in the BDAR. Therefore, it is unclear if the development footprint assessed in the BDAR has included the location of any proposed erosion controls (e.g. sediment control basins).

Recommended action:

2. The BDAR description of the proposed development footprint be reviewed and revised to clearly demonstrate that all components of the development have been considered in accordance with section 2(3) of the BAM and the remaining sections of the BDAR and the BAM-C amended as required.

The BAM scattered trees streamlined assessment module has not been correctly applied

The assessor has used the scattered trees streamlined assessment module in Appendix B of the BAM to assess the impact of clearing scattered trees on the subject land as defined in section B.1 of the BAM. However, the assessor has not included several scattered trees on the subject land east of BAM plots 7 and 11 (refer to Figure 3 below).



Figure 3: Scattered trees on the subject land (in red circles) not included in the scattered trees streamlined assessment.

In the BAM-C, the assessor has correctly assigned PCT 3359 to the scattered tree vegetation zone. However, the assessor has selected “not a TEC” for the vegetation zone in the BAM-C, which is incorrect given PCT 3359 is associated with the box-gum woodland CEEC.

Recommended actions:

3. The scattered tree assessment in the BDAR be revised to include all scattered trees within the proposed development footprint.
4. The BAM-C case for scattered trees be updated to include all scattered trees within the proposed development footprint and to acknowledge PCT 3359 is associated with a TEC.

Reporting of habitat constraints is inconsistent between candidate species

The assessor has indicated habitat constraints for the large-eared pied-bat (i.e. cliffs and/or within 2 km of rocky areas containing caves, overhangs, escarpments, outcrops or crevices, or within 2 km of old mines or tunnels) are not present on the subject land (refer to Figure 4 below). However, when identifying habitat constraints for *Grevillea beadleana*, the assessor has indicated in the BAM-C that cliffs and escarpments, which also represent habitat constraints for the large-eared pied bat, are present on or within 200m of the subject land.

<i>Chalinolobus dwyeri</i> Large-eared Pied Bat	☐ Cliffs ☐ Within two kilometres of rocky areas containing caves, overhangs, escarpments, outcrops, or crevices, or within two kilometres of old mines or tunnels
<i>Dichanthium setosum</i> Bluegrass	--
<i>Eucalyptus magnificata</i> Northern Blue Box	--
<i>Eucalyptus nicholii</i> Narrow-leaved Black Peppermint	--
<i>Grevillea beadleana</i> Beadle's Grevillea	☒ Cliffs ☒ or within 200m Escarpments ☒ or within 200m Rocky areas ☒ or within 200m

Figure 4: Inconsistent reporting of habitat constraints between candidate species in the BAM-C.

Recommended action:

5. The BDAR and BAM-C be reviewed and amended to clarify whether cliffs, escarpments or rocky areas containing caves occur on or within 2km of the subject land.

Survey effort applied for some candidate fauna species does not meet the requirements of the BAM

Targeted surveys for three threatened forest owls – barking owl (*Ninox connivens*), powerful owl (*Ninox strenua*) and masked owl (*Tyto novaehollandiae*) – were only undertaken for three consecutive nights. Survey method advice contained in the TBDC specifies surveys be conducted over at least six nights, preferably spread across multiple weeks.

Although acoustic recorders may be used to survey for forest owls in some circumstances, the assessor's use of acoustic recorders was not targeted at detecting forest owls and was not done in accordance with the requirements specified in the TBDC.

The sampling density of the koala SAT survey within western and northern patches of VZ 2 on the subject land was not consistent with section 4.1.3 of the koala BAM survey guide published by the Department.

The route taken when performing spotlighting transects to detect koalas and other nocturnally active candidate fauna species has not been shown on Figure 10 of the BDAR. The length and location of spotlighting transects must be illustrated in the BDAR to demonstrate adequacy of survey effort, particularly with respect to targeted koala survey.

Recommended actions:

6. Targeted surveys for threatened forest owls and koalas on the subject land be completed in accordance with survey method requirements specified in the TBDC and survey guidelines published by the Department.
7. Figure 10 of the BDAR be revised to show the location and extent of spotlighting survey transects within each VZ on the subject land.

The extent of the species polygon for southern myotis has been underestimated

Table 1 of the threatened bat survey guidelines published by the Department requires the species polygon for southern myotis to align with PCTs associated with the species on the subject land that are within 200 m of mapped suitable waterbodies on or within 200m of the subject land. The assessor has not considered suitable habitat for the species within 200m of several waterbodies, which are located on or within 200m of the subject land (refer to Figure 5 below).



Figure 5: Suitable foraging waterbodies for southern myotis on or within 200 m of the subject land but not considered by the assessor when preparing the species polygon.

The assessor has indicated on page 41 of the BDAR that southern myotis is not associated with either PCT 3352 or PCT 3359. However, the TBDC lists both PCTs as being associated with southern myotis.

Recommended actions:

8. The species polygon and BAM-C calculations for southern myotis be revised to consider PCTs within 200m of all suitable waterbodies for the species on or within 200m of the subject land.
9. Page 41 of the BDAR be revised to acknowledge both PCT 3352 and PCT 3359 are associated with southern myotis in the TBDC.

The barrier effects of security fencing on habitat connectivity have not been considered

In section 5.1.4 of the BDAR, the assessor has indicated north-south habitat connectivity would be maintained by providing a movement corridor along the Duval Creek riparian zone. However, the assessor has not considered the potential barrier effects of proposed perimeter fencing on fauna access to the riparian zone and other native vegetation remnants to be retained on the development site.

If habitat connectivity is not considered in the design and location of perimeter fencing, then long-term indirect impacts may arise on the floristic composition and structure of remnant vegetation retained within the development site (refer to Figure 6 below) by the fencing restricting access for

some fauna species that exchange propagules and maintain vegetation structure (e.g. macropods).

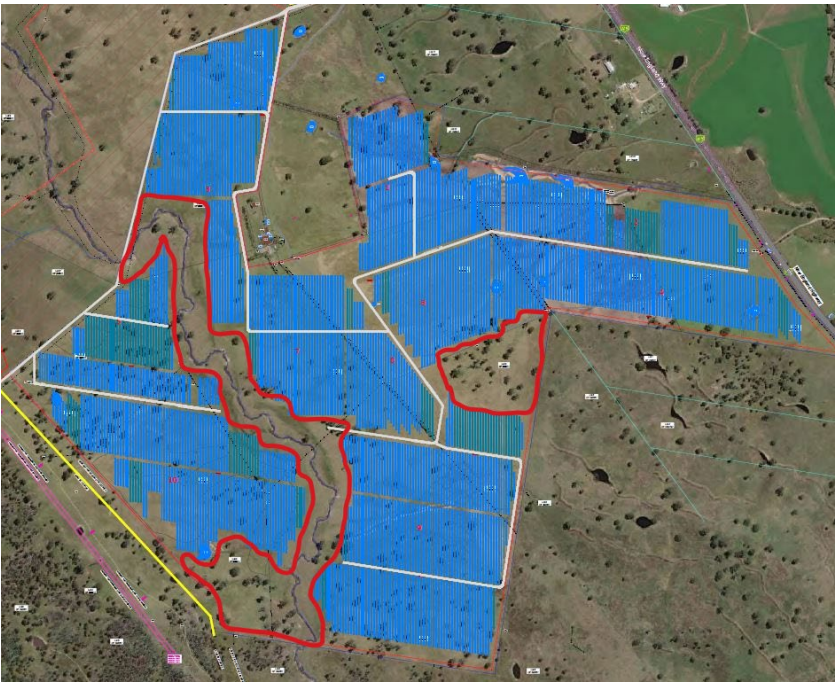


Figure 6: The main areas of native vegetation (in red polygons) retained within the development site, which would be isolated by the location of proposed perimeter fencing.

These indirect impacts of perimeter fencing can be reduced by realigning the fence as close to the solar arrays and internal roads as possible to minimise isolation of retained native vegetation and maintain fauna movement along the Duval Creek riparian zone (refer to Figure 7 below).

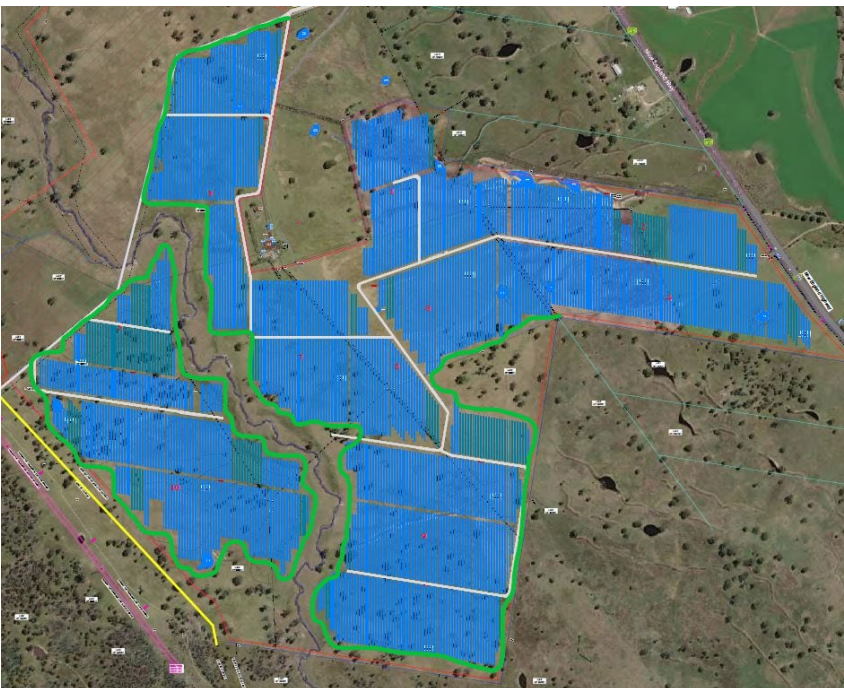
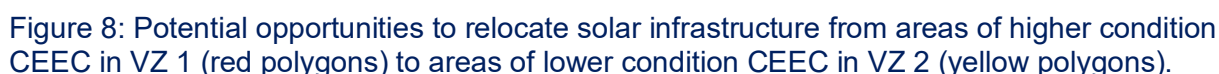


Figure 7: Indicative re-alignment of perimeter fencing (green lines) closer to the solar arrays and internal roads to minimise isolation of retained remnants of native vegetation.

10. Proposed perimeter fencing be placed as close as possible to the solar arrays and internal roads to minimise isolation of retained native vegetation and optimise potential for fauna movement along the Duval Creek riparian zone.

In section 5.1.4 of the BDAR, the assessor has indicated biodiversity constraints have been avoided or minimised in the project design by locating solar panel arrays and ancillary facilities where the native vegetation is in the poorest condition.

However, at a desktop level, there appear to be more opportunities available on the subject land for the proponent to avoid areas of higher condition box-gum woodland CEEC by relocating solar panel infrastructure from higher condition areas within VZ 1 into areas of lower condition within VZ 2 (refer to Figure 8 below).



It would also be appropriate to further minimise impacts by establishing conservation mechanisms to ensure areas of box-gum woodland CEEC proposed to be avoided and retained on the subject land are protected in-perpetuity.

11. The proponent investigates opportunities to relocate solar panel infrastructure from higher condition remnants of box-gum woodland CEEC in VZ 1 to lower condition remnants in VZ 2.
12. The BDAR be revised to include protection of avoided CEEC remnants on the subject land through an appropriate mechanism, such as a Conservation Agreement under the *Biodiversity Conservation Act 2016*.

A nest box management plan will be required for minimising impacts on displaced hollow-dependent fauna

The proposed mitigation measures listed in Table 14 of the BDAR for minimising impacts on displaced resident fauna have not included installing alternative sheltering resources for displaced hollow-dependent fauna. Typically, projects involving rapidly removing large numbers of hollow-bearing trees (HBTs) include, as a mitigation measure, the proponent preparing and implementing a nest box management plan (NBMP), which aims to provide at least temporary sheltering resources for displaced hollow-dependent fauna. A NBMP is usually informed by the hollow-dependent fauna species known or likely to occur on the subject land and the location, abundance and types of hollows likely to be removed and retained on site.

Recommended action:

13. The BDAR be revised to include preparation of a NBMP as a mitigation measure to minimise the potential impacts of HBT removal on displaced hollow-dependent fauna.

The BDAR contains insufficient detail about the proposed koala food tree plantings

The assessor has recommended in the executive summary of the BDAR that *“the loss of koala food trees (>20cm diameter at breast height) and impacts to koala habitat be compensated through compensatory planting of koala habitat or feed tree species”*. However, the BDAR does not contain any estimates of koala food trees to be removed or compensatory tree plantings. The BDAR also does not illustrate where on the subject land the tree plantings would be established. Such information is required by the consent authority to determine the feasibility of the proposed mitigation measure.

Recommended action:

14. The BDAR be revised to include estimates of koala food trees to be removed and planted as part of the project, along with a map showing the proposed tree planting locations.

The scope and implementation timing of management plans requires clarification

Table 16 of the BDAR lists several proposed management plans, including a biodiversity management plan (BMP), pest and weed management plan (PWMP), ecological restoration plan (ERP), landscape plan (LP), and operational management plan (OMP).

The plans contain overlapping elements of biodiversity management, revegetation, restoration, weed control, and monitoring (refer to Table 1 below).

Table 1: Overlap of components between the proposed management plans.

Management measure	BMP	PWMP	ERP	LP	OMP
Revegetate development site	yes		yes	yes	
Restore Duval Ck. Riparian zone	yes		yes	yes	
Monitoring and maintenance of restoration areas			yes		yes
Weed control	yes	yes	yes		
Weed monitoring		yes			yes

There is also significant overlap in the proposed timing of implementation of the various plans throughout the project stages (refer to Table 2 below).

Table 2: Overlap of implementation timing between the proposed management plans.

Management plan	Pre-construction	Construction	Operations	Decommissioning
BMP	yes	yes		yes
PWMP	yes	yes	yes	yes
ERP	yes	yes	yes	yes
LP		yes		
OMP			yes	

The overlapping management actions and implementation timing between the various management plans is confusing and could result in one or more management actions being overlooked or incorrectly implemented.

Recommended actions:

15. Section 6.5 of the BDAR be revised to include a clear comparative summary of the proposed biodiversity-related management plans in terms of their aims, actions, timing and responsibility for implementation.
16. The BDAR be revised to include a map identifying which areas within the development site are proposed to be revegetated and restored in accordance with the various biodiversity-related management plans.

There is inconsistency between the aims and expectations of proposed CEEC management

One of the aims of the adaptive management strategy stated in section 6.6 of the BDAR is to improve the condition and ecological function of retained vegetation (including TECs) on the subject land. Yet, the assessor has indicated in section 7.1 of the BDAR that the condition of retained remnants of the box-gum woodland CEEC on the development site is likely to remain unchanged.

Recommended action:

17. The BDAR be revised to ensure the stated aims of the proposed biodiversity management are consistent with the expected outcomes, particularly with respect to the future condition of remnant box-gum woodland CEEC retained on the development site.