



Anthony Ko  
Team Leader  
DPE Planning  
[Anthony.Ko@planning.nsw.gov.au](mailto:Anthony.Ko@planning.nsw.gov.au)

Dear Mr Ko,

### **Paling Yards Wind Farm – Environmental Impact Statement (SSD-29064077)**

Thank you for your e-mail dated 9 October 2023 to the Biodiversity, Conservation and Science Directorate (BCS) of the Department of Planning and Environment (DPE) seeking advice on the Environmental Impact Statement (EIS) and Biodiversity Development Assessment Report (BDAR) for the Paling Yards Wind Farm. Please note that this advice represents the combined views of BCS and the NSW National Parks and Wildlife Service (NPWS).

We note that the Biodiversity Assessment Method Calculator (BAM-C) and an updated BDAR for the project were not submitted to us until 30 October 2023. Detailed review of a BDAR cannot commence until all the required data has been provided. Regrettably, we have not been able to meet the requested agency response deadline due to the delay in providing the required data.

We understand that the project comprises a wind farm with up to 47 wind turbine generators (WTG's) with a maximum blade tip height of 240 metres, approximately 7 kilometres of 132kV overhead powerlines, 1 kilometre of 500kV transmission lines and upgrades to the local road network to facilitate the haulage of turbines from the Port of Newcastle to the development site. The proposed development is immediately adjacent to and bounded by national park estate, which represents high quality habitat for flora and fauna species.

We have reviewed the Environmental Impact Statement (EIS) and supporting studies, most notably the Biodiversity Development Assessment Report (BDAR). As SEARs were reissued for the project in March 2022, this advice supersedes our comments in 2020 on the previous windfarm project MP10\_0053.

In summary, the BDAR is in our view likely to underestimate the biodiversity impacts and therefore biodiversity offset obligations of the proposal, and requires further information to demonstrate compliance with the NSW Biodiversity Assessment Method (BAM). We recommend that a revised BDAR is provided at Response to Submissions (RTS) stage which addresses the recommendations identified at **Attachment A**, to meet the requirements of the BAM and SEARs. Our key issues are summarised below:

- Survey effort has been very limited outside of the development footprint, and impacts of the proposed development on adjacent areas of high biodiversity value have been inadequately quantified
- Minimal bird and bat utilisation surveys (BBUS) have occurred, contrary to the guidance provided in our recommended SEARs that four seasons over two years of BBUS data is preferred. In addition, no flight path mapping has been provided. This means there is currently a lack of baseline data for quantifying potential turbine strike impacts and an accurate risk assessment of proposed turbine locations
- The mitigation measures provided in the BDAR are generic in nature, providing no detailed information on mitigation measures for wind farm related impacts. It is not currently possible accurately determine the risk of the project to biodiversity values, and further survey and detailed mitigation measures are recommended at the RTS stage

- It is unclear whether all components of the development that will impact on biodiversity values have been included in credit calculations. Further information is required on the ancillary infrastructure, asset protection zones (APZs) and road upgrades required for the development as any additional impacts to native vegetation will increase the credit obligation for the project
- Based on survey effort presented to date, we are unable to provide further comment on any impacts associated with threatened microbats or avifauna, including impacts to Serious and Irreversible Impact (SAIL) entities
- Indirect and prescribed impacts to areas of high biodiversity values, including Abercrombie River National Park, have not been adequately assessed or quantified in the EIS
- Consultation with NPWS as required by the SEARs has not occurred, and the EIS does not assess potential impacts on NPWS's ability to manage the nearby Abercrombie River National Park during wildfire events and pest control activities.

Further technical issues arising from our review of the BDAR are as follows:

- The project has not been assessed as a linear development with a 500m buffer. We note that the native vegetation cover has been coarsely mapped and the process for determining exotic vegetation across the project site requires further justification
- The allocation of vegetation integrity (VI) plots to plant community types (PCTs) requires revision. Following review of the spatial and floristic data, it appears that some VI plots may more closely align with plant community types (PCTs) that they have not been assigned to
- Detailed information on the methodology and survey effort for candidate species credit species have not been provided in the BDAR, and we are unable to determine whether adequate survey for threatened flora and fauna has occurred at this stage
- Insufficient justification has been provided for the removal of some species credit species from the BAM-C, potentially resulting in inaccurate species credit obligations
- There is a lack of accurate data to inform any calculation of offsets for prescribed impacts due to bird and bat turbine strike
- The BDAR has not been certified within the legislated timeframe of two weeks.

BCS and NPWS recommendations are provided in **Attachment A**. Detailed comments are provided from BCS in **Attachment B** and NPWS in **Attachment C**. We strongly recommend the proponent further engages with BCS and NPWS to address the issues raised at the RTS stage.

If you have any questions about this advice, please do not hesitate to contact Candice Larkin, Senior Conservation Planning Officer, via [candice.larkin@environment.nsw.gov.au](mailto:candice.larkin@environment.nsw.gov.au) or (02) 8217 2065.

Yours sincerely



**Sarah Carr**  
**Director North West**  
**Biodiversity, Conservation and Science Directorate**

21 November 2023

Attachment A – BCS & NPWS Recommendations

Attachment B – BCS Detailed Comments

Attachment C – NPWS Detailed Comments

## BCS and NPWS recommendations

### Paling Yards Wind Farm – Environmental Impact Statement

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APZ	Asset Protection Zone
BAM	Biodiversity Assessment Method
BAM-C	Biodiversity Assessment Method Calculator
BBAMP	Bird and Bat Adaptive Management Plan
BC Act	<i>Biodiversity Conservation Act 2016</i>
BCS	Biodiversity, Conservation and Science Directorate
BDAR	Biodiversity Development Assessment Report
BBUS	Bird and Bat Utilisation Survey
BUS	Bird Utilisation Survey
CEEC	Critically Endangered Ecological Community
CRAAR	Collision Risk Assessment Addendum Report
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
IBRA	Interim Biogeographic Regionalisation for Australia
LLS Act	<i>Local Land Services Act 2013</i>
MNES	Matters of National Environmental Significance
NPWS	National Parks Wildlife Service
NVR	Native Vegetation Regulatory Map
PCT	Plant Community Type
RSA	Rotor Swept Area
RTS	Response To Submissions
SAIL	Serious and Irreversible Impacts
SAT	Spot Assessment Technique
SEARs	Secretary's Environmental Assessment Requirements
SSD	State Significant Development
TEC	Threatened Ecological Community
TBDC	Threatened Biodiversity Data Collection
VI	Vegetation Integrity
WTG	Wind Turbine Generator

## **BCS Recommendations**

### **The proposed project has not complied with guidance provided in the SEARs, which may underestimate impacts and associated credit obligations**

- 1.1. Conduct fauna surveys in native vegetation within 500m of the proposed development site and document all important habitat features including hollow-bearing trees, caves and escarpments, as per the SEARs issued in February 2022 and section 8.3 of the BAM.
- 1.2. Conduct additional bird and bat utilisation surveys, preferably for four seasons over two consecutive years. Include the analysed survey data in the revised BDAR and update the impact assessment in accordance with section 6 of the BAM.
- 1.3. Include all clearing associated with the proposed development and associated biodiversity offset calculations in the BDAR.

### **Aspects of the development footprint, including ancillary infrastructure, are not clearly articulated in the BDAR**

- 2.1. Clarify whether all components of the development that will impact on biodiversity values, including ancillary and temporary facilities, have been included in the development corridor and subsequent biodiversity credit calculations.
- 3.1. Assess the biodiversity impacts of transport road upgrades, and include any impacts to biodiversity values in Section 1.3 of the BDAR and the subsequent biodiversity credit calculations.
- 3.2. Review the potential biodiversity impacts to Abercrombie Road adjacent to the project site. If the road has been included in the development footprint erroneously, revise the project layout mapping in the EIS and BDAR.

### **Revise the native vegetation cover percentage and vegetation mapping for the project**

- 4.1. Revise the native vegetation extent mapping for the project to comply with a linear-based assessment method in accordance with section 3.1.2 of the BAM.
- 4.2. Revise the BAM-C case if the updated vegetation mapping changes the vegetation cover class for the project.
- 5.1. Undertake finer scale vegetation extent mapping and include both woody and non-woody vegetation within the mapping.
- 6.1. Clearly justify how exotic vegetation has been determined in the project footprint.

### **Vegetation integrity plot data representativeness requires review**

- 7.1. Revise the spatial mapping and BDAR to include all vegetation integrity plots used in the BAM-C.

- 8.1 Justify inclusion of vegetation plots that are not located in the development corridor, in the BAM-C, including evidence that each plot is in the correct PCT and vegetation zone.
- 9.1 Review the vegetation mapping for Plot 18 and conduct further surveys to meet the minimum plot requirements for the PCT 654\_1 vegetation zone.
- 9.2 Conduct an audit of PCT 727 and PCT 1093 to ensure that all VI plots have been assigned to the correct vegetation zones, and revise the BAM-C if required as a result.

## **The exclusion of candidate species is not compliant with the BAM and may underestimate potential impacts**

- 10.1 Retain the pink-tailed legless lizard as a candidate species credit species, and determine presence of the species in the development corridor in accordance with section 5.2.4 of the BAM.
- 11.1 Conduct targeted surveys for the powerful owl during the breeding season. Alternatively, obtain an expert report or assume presence and generate a species polygon for the powerful owl.
- 12.1 Provide digital shape files that clearly demonstrate the survey effort applied for each candidate species credit species within the buffered development footprint.
- 12.2 Revise Figure 4-2 in the BDAR to include figures that clearly demarcate the survey effort applied for each candidate species credit species in accordance with Appendix K of the BAM.
- 13.1 Review and/or revise the candidate species exclusion determinations based on the information and recommendations contained within this response.
- 13.2 Provide a list of associated candidate species (according to the TBDC) for each vegetation zone, and provide justification for any candidate species exclusions from each associated vegetation zone.

## **The correct planning pathway must be identified and the certification of the BDAR must meet BC Act requirements**

- 14.1 Certify the BDAR in accordance with section 6.15(1) of the *Biodiversity Conservation Act 2016* and ensure it is submitted within 14 days of the certification date.
- 15.1 Revise the planning approval pathway for the Paling Yards Wind Farm in the BDAR and the BAM-C.

## **Assessment of prescribed and indirect impacts associated with the operation of the proposed project require extensive review**

- 16.1 Revise the BDAR to clearly articulate the level of survey effort applied for bird utilisation surveys.
- 16.2 Include a figure in the BDAR which contains all BUS locations used in the BBUS analysis provided in Appendix E. A digital shape file of the BUS locations should also be provided to BCS for review in the RTS.

- 16.3 Conduct additional surveys at vantage points within the landscape to collect data on fauna flight paths and inform management actions in the BBAMP.
- 16.4 Present flight path mapping for nomadic and migratory species, as required by section 6.1.5 of the BAM.
- 17.1 Undertake further bat utilisation surveys, including at-height surveys on wind masts, in accordance with a utilisation survey methodology developed in consultation with BCS.
- 18.1 Revise the turbine risk matrix in the Collision Risk Assessment Addendum Report to include quantifiable and measurable metrics for assessing the risk of individual turbines.
- 19.1 Revise the BDAR to provide site-specific mitigation measures that address the impacts associated with wind farm development.
- 19.2 Present a draft framework for a Bird and Bat Adaptive Management Plan, prior to development approval.
- 19.3 Prepare revised mitigation measures that are clearly defined and identify risks and consequences of all impacts.
- 19.4 Provide an overview of any proposed adaptive management strategies.
- 19.5 Present a prescribed impact biodiversity offset for bird and bat strike, developed in consultation with BCS.
- 20.1 Revise the MNES assessment and refer the Paling Yards Wind Farm to DCCEEW to determine whether the proposed development is a controlled action.

## NPWS Recommendations

1. Engage closely with NPWS to address the matters raised in this response, and other issues raised in the SEARs, and assess each issue in consultation with NPWS.
2. Recognise NPWS's needs to maintain ongoing access to Bell Perimeter Trail, Black Belt Trail and Quobleigh Fire Trail for park management and emergency purposes, and confirm these access routes will remain available during construction and operation of the wind farm. Obtain separate approval from NPWS if access to Bell Perimeter Trail is required.
3. Provide NPWS Kanangra Area with at least 7 days' notice via [npws.kanangra@environment.nsw.gov.au](mailto:npws.kanangra@environment.nsw.gov.au) where access to a track-in-use must be temporarily blocked, e.g. during erection of wind turbines located in proximity to the track-in-use, and where possible provide an alternative access route through the property.
4. Enter into a deed of agreement to grant an easement benefitting NPWS that provides ongoing legal access to the park's fire trails along a suitable route, if Crown road closures within the development site be proposed to facilitate construction or operation of the wind farm.
5. No encroachment in or access through Abercrombie River National Park is to occur as part of the development's construction or operation. Consideration of any potential encroachment or access would need to be subject to separate approval from NPWS.
6. Further assess, consider and document the potential impacts of the project on NPWS low-flight operations
7. Relocate turbines PY-7 and PY-18 to achieve a setback of at least 130 metres from blade tip to the canopy of trees in the NPWS estate.
8. Prepare the Emergency Management and Operations Plan in consultation with NPWS and the RFS, finalised to the satisfaction of both firefighting authorities, as a requirement of any project approval.
9. Further assess the impacts of the proposal on firefighting operations in consultation with NPWS, and consider the current version of the Abercrombie River National Park Reserve Fire Management Strategy and the Chifley Fire Access and Fire Trail Plan.

## BCS detailed comments

### Paling Yards Wind Farm – Environmental Impact Statement

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#### **The proposed project has not complied with guidance provided in the SEARs, which may underestimate impacts and associated credit obligations**

1. The EIS and BDAR do not address the biodiversity matters raised by BCS in the SEARs

We have reviewed the EIS, BDAR and the SEARs compliance table and note that several key biodiversity issues have not been adequately addressed.

The SEARs for the project were provided on 23 February 2022 (DOC22/112511). Our recommended SEARs included the following:

- fauna survey is to be conducted in native vegetation within 500 metres of the development site, including Abercrombie Rivers National Park
- all clearing associated with the project (including for roads, road widening, turbines, powerline, bushfire protection etc) needs to be included in the assessment and biodiversity offset calculations.
- hollow-bearing trees are to be quantified on the development site and in native vegetation within 500 meters of the development site.
- bird and bat flight paths are to be identified and assessed. Maps of habitual flight paths for nomadic and migratory species likely to fly over the site and maps of likely habitat for threatened aerial species resident on the site are to be included in the EIS
- where possible, bird and bat surveys for the environmental impact assessment should be conducted over four seasons per year for two years.

Section 8.3 of the BAM states that the BDAR must assess the prescribed impacts that development will, or is likely to have, on threatened entities and their habitat, including mapping all habitat features within turbine disturbance zones. There is no evidence in the BDAR or the EIS that any fauna surveys have been conducted in native vegetation in the national parks surrounding the proposed development, or that hollow-bearing trees or potential bat habitat in Abercrombie River National Park has been assessed. There are limited details on road upgrades, ancillary infrastructure and APZ's for the project. We consider it likely that the project would have additional direct impacts to biodiversity values which have not been captured in the BDAR.

We note the BDAR includes very limited information on mitigation measures for prescribed impacts and that no flight path mapping has been provided. Furthermore, section 7.3.1 of the BDAR indicates that bird utilisation surveys (BUS) occurred for a total of 16 days in 2021 across summer and spring, and that microbat surveys occurred in October 2021 for 7 nights.

We consider that the number of bird and bat utilisation surveys (BBUS) conducted is inadequate to accurately assess the biodiversity values of the site. We note that no further BBUS have been conducted since we issued our recommended SEARs, and that the NPWS has not been contacted to discuss the impacts of the proposed development on surrounding areas of high biodiversity value.

Based on survey effort presented to date, we are unable to provide further comment on any impacts associated with threatened microbats or avifauna, including impacts to Serious and Irreversible Impact (SAIL) entities. BCS cannot adequately assess impacts to microbats and

avifauna without interrogating quantifiable data collected from BBUS surveys. This matter will need to be revisited at the Response To Submissions (RTS) stage.

Section 6 of BAM requires prescribed additional biodiversity impacts to be assessed as part of the biodiversity offset scheme. This includes direct and indirect impacts on threatened and protected animals from turbine strikes from a wind farm.

The BDAR does not adequately identify the level of impact that the proposed wind turbines may have on microbats and avifauna. As such it is not possible at this stage to accurately identify measures that may aid in the avoidance or minimisation of prescribed biodiversity impacts.

### Recommendations

- 1.1 Conduct fauna surveys in native vegetation within 500m of the proposed development site and document all important habitat features including hollow-bearing trees, caves and escarpments, as per the SEARs issued in February 2022 and section 8.3 of the BAM
- 1.2 Conduct additional bird and bat utilisation surveys, preferably for four seasons over two consecutive years. Include the analysed survey data in the revised BDAR and update the impact assessment in accordance with section 6 of the BAM.
- 1.3 Include all clearing associated with the proposed development and associated biodiversity offset calculations in the BDAR.

## **Aspects of the development footprint, including ancillary infrastructure, are not clearly articulated in the BDAR**

### **2. The proposed development footprint requires clarification and potential revision**

Section 1.3 of the BDAR details the key development components of the project, including ancillary and temporary construction facilities. The figures provided in the BDAR contain some detail on the proposed ancillary infrastructure, however this could be improved by including a figure that clearly demarcates all development components including:

- Underground electrical and communication cable networks
- Asset protection zones (APZ's)
- Wind monitoring masts
- Temporary laydown areas and batching plants.

We note that APZs have not been included in the key development components detailed in section 1.3 of the BDAR. The overview of ancillary development impacts in Table 17 of the EIS also states that laydown areas or required APZs have not been included.

Table 69 of the EIS states that 10m APZ's will be applied around each wind monitoring mast and 20m APZ's will be established on all sides of the substation, switching station and operations and management buildings. Based on the figures provided in the BDAR, it is unclear whether APZs and wind masts have been incorporated into the development footprint. The spatial data and BDAR should be revised to clearly demarcate all development components.

The indicative site layout provided in Figure 12 of the EIS is also inconsistent with the project layout displayed in Figure 1.1 of the BDAR. One sub-station has not been assessed in the BDAR and associated spatial package (Figure 1). If the sub-station has been excised from the footprint, the EIS should be revised to show the current development footprint.



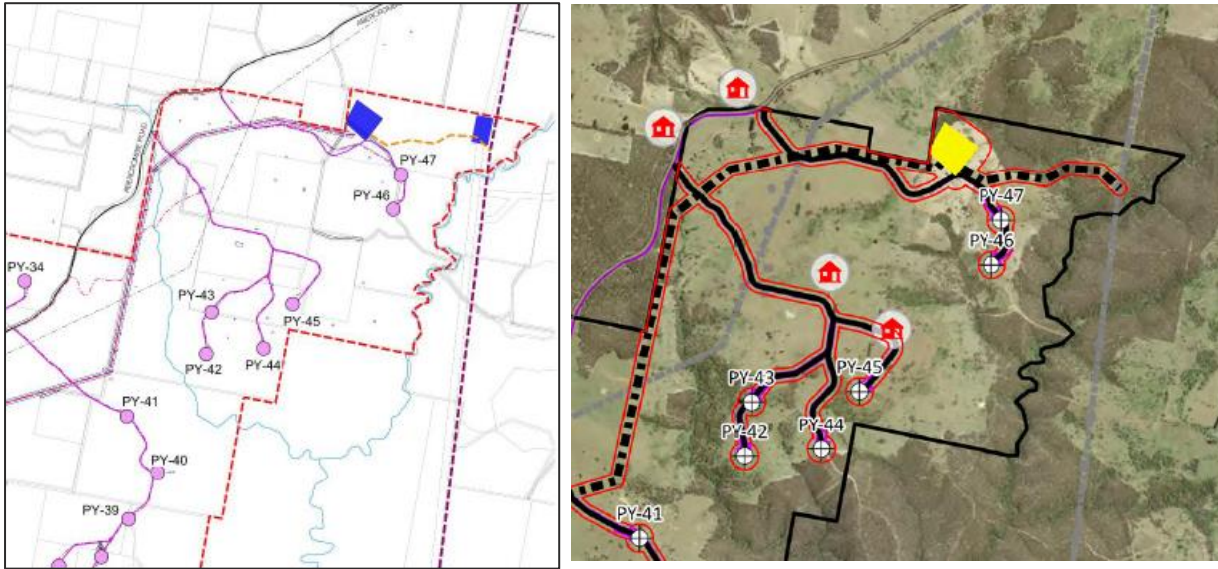


Figure 1 – Figure 12 in the EIS shows two sub-stations in the north-east corner (highlighted in blue) while Figure 1.1 of the BDAR only includes one sub-station (highlighted in yellow).

Furthermore, limited information has been provided about the layout of the electrical cable network in the EIS and the BDAR. We note that trenched electrical reticulation within access tracks can be difficult to achieve without significantly impeding construction schedules. The trenching required for electrical cables may not be able to be accessed by construction machinery without diverting outside of the development footprint. We recommend that the cable network is reviewed to ensure that the maximum amount of access track clearing required for construction has been captured within the BDAR.

All development components which will result in surface disturbance to biodiversity values must be accounted for in the development footprint, captured in the revised BDAR and calculated in the total direct impact required for the project.

### Recommendation

- 2.1 Clarify whether all components of the development that will impact on biodiversity values, including ancillary and temporary facilities, have been included in the development corridor and subsequent biodiversity credit calculations.
  
3. Any native vegetation that will be impacted by road upgrades requires assessment in the BDAR.

The EIS and BDAR should assess all likely biodiversity impacts, including transport route road upgrades required to facilitate the project, as required in our recommended SEARs. The EIS and the Paling Yards Route Study identifies that approximately 0.13 hectares of non-threatened native vegetation will be cleared to facilitate the transport of wind turbine generators, subject to confirmation at detailed design stage. The Paling Yards Route Study also states that major works are required on several sharp corners of O’Connell Rd in Oberon, and that embankment cutback and vegetation clearing will occur (Figure 2).

All activities which will result in surface disturbance to biodiversity values, including direct clearing, indirect impacts and prescribed impacts, should be defined in Section 1.3 of the BDAR, accounted for in the BDAR and included in biodiversity credit calculations. If the final road upgrade footprint will not be determined until the detailed design phase, a maximum clearing footprint should be determined and associated credit liability calculated.



Figure 2 – An example of one road modification that will be required on O’Connell Rd for the Paling Yards Wind farm - taken from the EIS Route Study – Newcastle to Paling Yards.

Further information on potential biodiversity impacts to Abercrombie Road should also be provided. A section of Abercrombie Road adjacent to the site boundary has been included in the development footprint, however no information has been provided on any potential upgrades to this section of road (Figure 3). BCS notes that no fauna or flora surveys have been conducted in this portion of the development footprint.

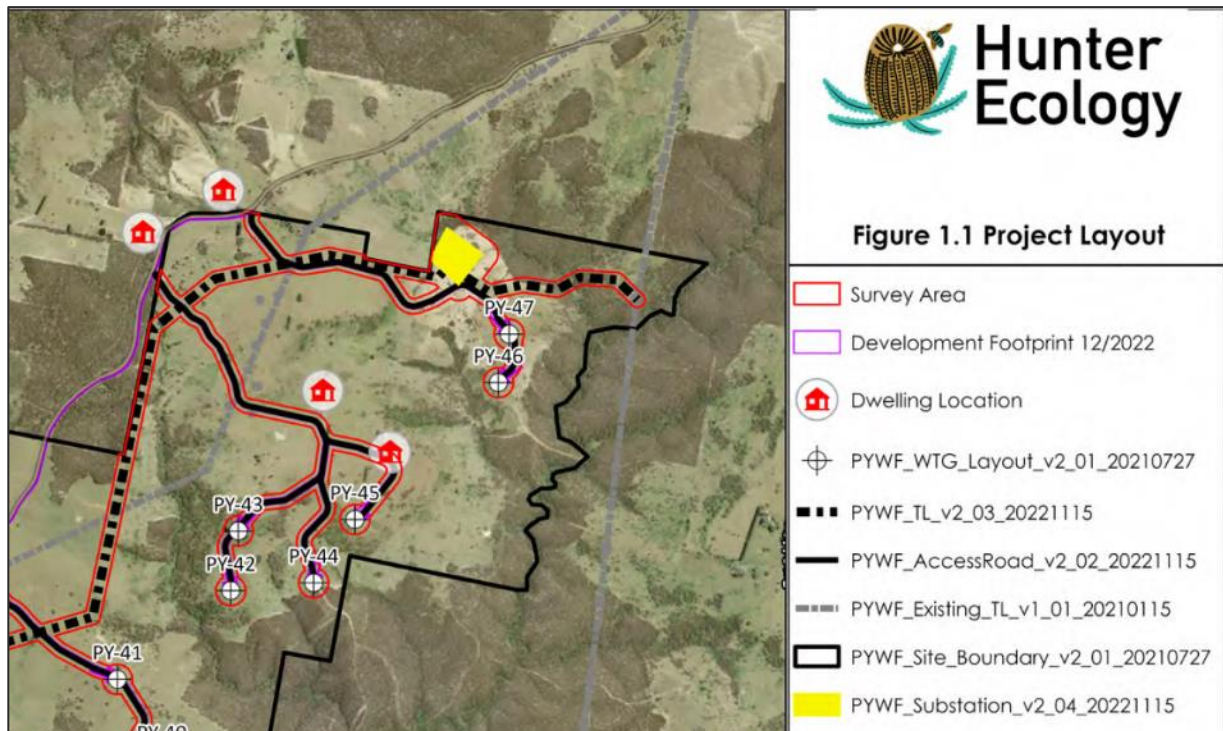


Figure 3 – A section of Abercrombie Rd adjacent to the site boundary has been included in the development footprint (emphasised in pink). No survey assessment has occurred for this section of road, and no detail on any potential impacts or upgrades has been included in the BDAR.

If road upgrades impacting on biodiversity values are required to facilitate the project, this should be detailed in the BDAR and BAM-C case. If the road has been included in the development footprint erroneously, this should be rectified in the BDAR and EIS.

### Recommendations

- 3.1 Assess the biodiversity impacts of transport road upgrades, and include any impacts to biodiversity values in Section 1.3 of the BDAR and the subsequent biodiversity credit calculations.
- 3.2 Review the potential biodiversity impacts to Abercrombie Road adjacent to the project site. If the road has been included in the development footprint erroneously, revise the project layout mapping in the EIS and BDAR.

## **Revise the native vegetation cover percentage and vegetation mapping for the project**

4. The native vegetation cover class requires revision, as the proposed development should be assessed using a linear-based method.

Typically, wind farm projects should be assessed as linear-shaped developments rather than site-based developments. The BAM 2020 glossary defines a linear-shaped development as any development that is generally narrow and extends across the landscape.

We note that the proposed Paling Yards Wind Farm conforms to the BAM definition of a linear-shaped development, however a site-based method has been applied. The landscape feature maps in the BDAR should be revised to include a 500m buffer along each side of the centre line of

the proposed development footprint, as demonstrated in Figure 2 of the BAM Operation Manual - Stage 1.

Section 3.2 of the BAM requires the BDAR to assess native vegetation cover on the subject land in relation to native vegetation cover across the broader area. The BDAR must identify the extent of woody and non-woody native vegetation cover within the assessment area.

The BDAR does not contain any mapping of native vegetation across the broader study area. Figure 3.1 of the BDAR indicates that native vegetation has only been mapped within the development footprint buffer area.

The BDAR and spatial mapping should be revised to include all native vegetation within the 500m buffer. The revised mapping should be used to derive the native vegetation cover percentage for the BAM-C calculator.

It should be noted that the revision of the native vegetation mapping within the 500m buffer zone may change the vegetation cover class of the project, which could impact the candidate species lists generated for the project.

### Recommendations

- 4.1 Revise the native vegetation extent mapping for the project to comply with a linear-based assessment method in accordance with section 3.1.2 of the BAM
  - 4.2 Revise the BAM-C case if the updated vegetation mapping changes the vegetation cover class for the project.
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5. The native vegetation extent mapping is inconsistent with aerial imagery and requires review.

We have reviewed the spatial data provided and note that there are several areas that appear to contain native vegetation that have not been included in the native vegetation mapping, nor assigned to a PCT. Examples of native vegetation that has not been included in the vegetation mapping are provided at Figure 4 below.

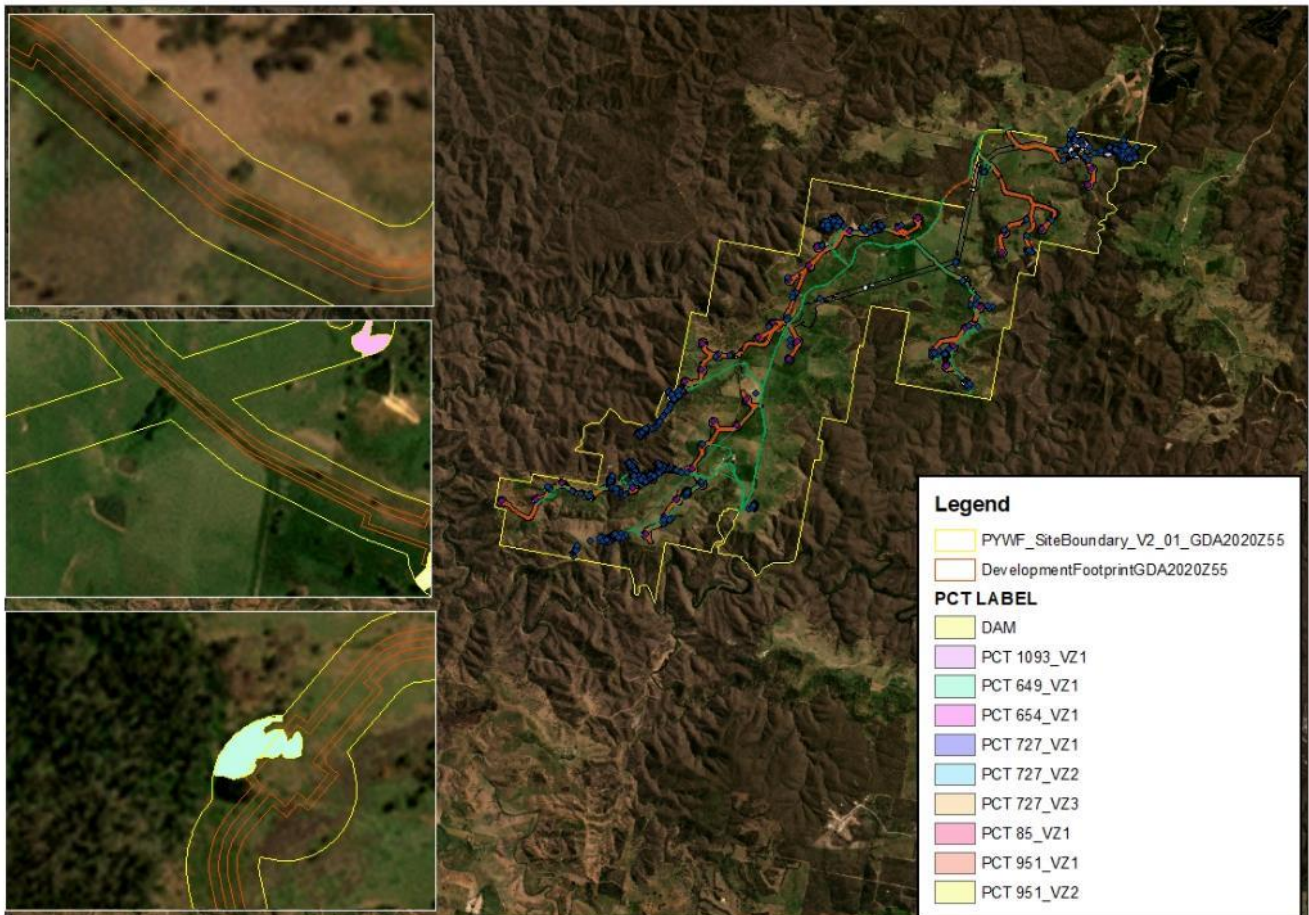


Figure 4 – Examples of areas that appear to contain native vegetation within the development footprint, that have not been included in the native vegetation mapping.

The native vegetation extent mapping should include all native vegetation including scattered trees and native ground cover. If the vegetation is planted or exotic, this should be clearly stated in the BDAR and delineated in the vegetation mapping.

#### Recommendation

- 5.1 Undertake finer scale vegetation extent mapping and include both woody and non-woody vegetation within the mapping.
6. The methodology used to determine non-native vegetation must be clearly articulated and supported with floristic data.

There are several areas that have been mapped as exotic vegetation throughout the project site. As areas of non-native vegetation do not require assessment under the BAM, they should be clearly justified in the BDAR. While Section 3.5 of the BDAR states that cleared grassland was overwhelmingly dominated by exotic species, it is not stated whether these grasslands were assessed through BAM plots, rapid vegetation assessments of another survey method.

Furthermore, we note that no surveys or vegetation integrity assessments were undertaken in the central portion of the transmission line easement (Figure 5). This is of particularly relevance for grassland vegetation in proximity to PCT 654 vegetation zones which are associated with Box Gum Woodland Critically Endangered Ecological Community (CEEC).

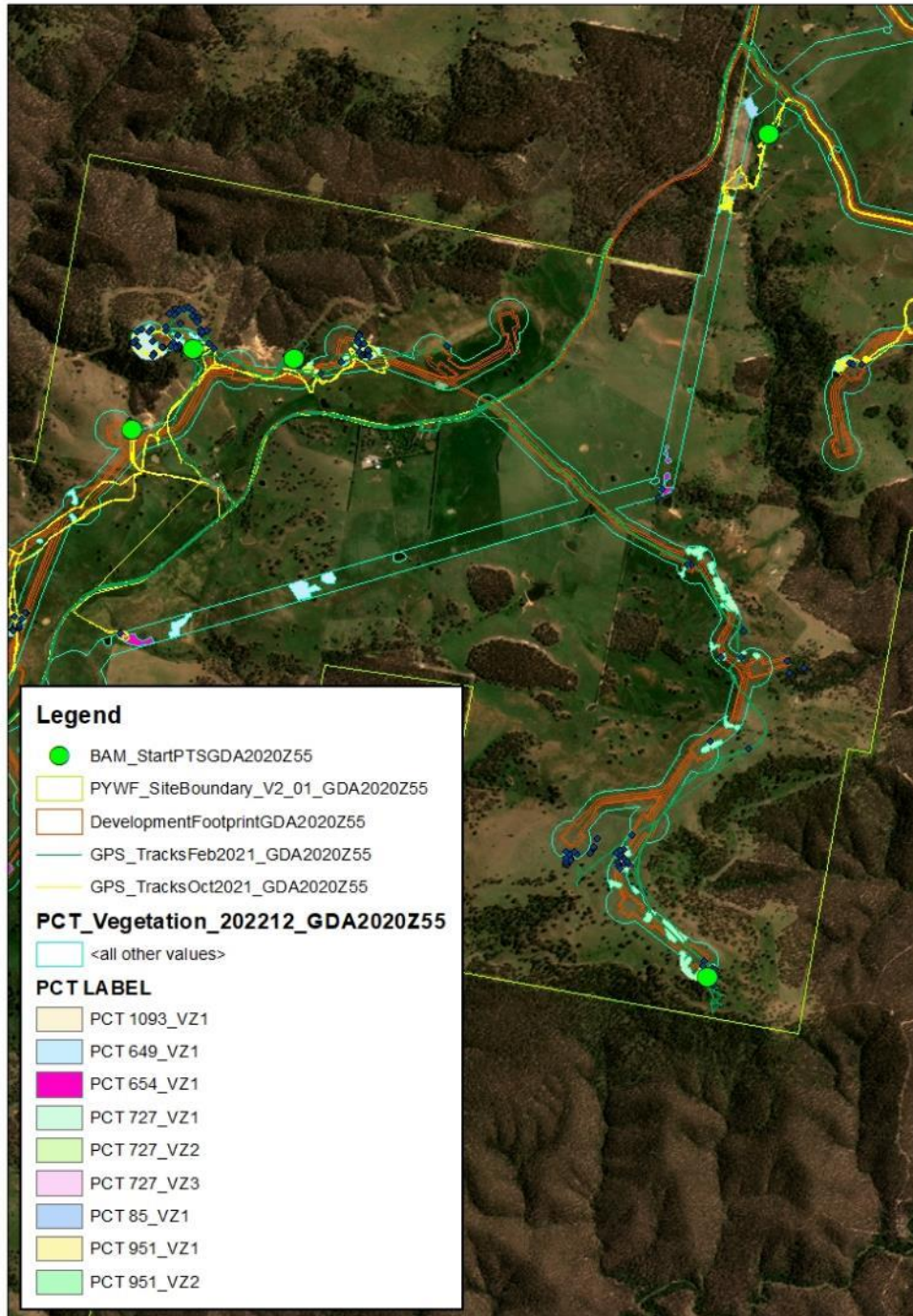


Figure 5 – Large areas of the development footprint have been mapped as exotic vegetation. No BAM plots or rapid vegetation assessments have occurred in these areas.

If the development footprint occurs on Category 1 – Exempt land, as defined by the *Local Land Services Act 2013* (LLS Act), then this should be clearly articulated in the BDAR using publicly available data sets, the Native Vegetation Regulatory Map (NVR), landholder records of land use and vegetation plot data taken from the project site.

Recommendation

6.1 Clearly justify how exotic vegetation has been determined in the project footprint.

## Vegetation integrity plot data representativeness requires review

7. Vegetation integrity plots have been included in the BAM-C but are absent from the spatial mapping and figures in the BDAR.

BCS has compared the vegetation integrity plot data provided in the BAM-C, the spatial files, and the spreadsheet of field data. We have identified that plot 19 and plot 20 have been entered into the BAM-C but are absent from the spatial files provided to BCS.

While Section 3.1 of the BDAR and Figure 3-1 identify 18 plot locations, there are 20 plots included in Table 3-2 and Appendix A of the BDAR. If additional plots have been completed and they are representative of relevant vegetation zones, they should be included in vegetation mapping and associated figures in the BDAR. If the plots are not within the development footprint, or have been deemed inappropriate for use, this should be clearly justified in the BDAR and rectified in the BAM-C case.

### Recommendation

- 7.1 Revise the spatial mapping and BDAR to include all vegetation integrity plots used in the BAM-C.

8. The representativeness of vegetation plots outside the development footprint requires further justification.

The spatial data indicates that 50% of the BAM plots are located outside of the buffered development footprint. Two vegetation plots are located a significant distance from the development footprint (over 500m). Where vegetation plots are not located within the development footprint, evidence that the plot is the correct PCT/vegetation zone, and that the plot data is consistent with other plot data collected in the vegetation zone must be provided.

This should include, but not be limited to, a table listing:

- Each plot located outside the buffered development footprint
- Justification, referencing appropriate evidence, to demonstrate each plot's representativeness of its equivalent vegetation zone within the development footprint and consistency with other plots collected within the same vegetation zone. This may include (but not be limited to) evidence the plot occurs in a continuous patch of vegetation that extends into the development footprint, and/or evidence that the plot occurs in the same paddock/area of land use management as that contained in the development footprint
- The distance between the plot and the nearest area of vegetation within the development corridor the plot is representing
- Reference to an informing map.

### Recommendation

- 8.1 Justify inclusion of vegetation plots that are not located in the development corridor, in the BAM-C, including evidence that each plot is in the correct PCT and vegetation zone.

## 9. Vegetation integrity plot locations are inconsistent with mapped vegetation zones.

We have audited the VI plots and identified inconsistencies between the spatial and floristic data for two vegetation zones. Plot 18 has been assigned to the PCT 654\_1 vegetation zone in the floristic data sheets and Table 3-2 of the BDAR. In the spatial data and Figure 3.2 of the BDAR, the plot is located in the PCT 649\_1 vegetation zone. If the vegetation is consistent with PCT 649, then the minimum VI plot number for PCT 654 has not been met and further survey is required.

Furthermore, it is unclear why Plot 7 has been assigned to the PCT 727\_1 vegetation zone when it is located near Plot 8 in a homogenous patch of woodland identified as conforming to PCT 1093. Plot 7 contains *Eucalyptus rossi*, a diagnostic upper stratum species that is not associated with PCT 727, but is associated with PCT 1093.

The BAM-C and vegetation mapping should be reviewed to address the inconsistencies identified in this response.

### Recommendations

- 9.1 Review the vegetation mapping for Plot 18 and conduct further surveys to meet the minimum plot requirements for the PCT 654\_1 vegetation zone.
- 9.2 Conduct an audit of PCT 727 and PCT 1093 to ensure that all VI plots have been assigned to the correct vegetation zones, and revise the BAM-C if required as a result.

## **The exclusion of candidate species is not compliant with the BAM and may underestimate potential impacts**

## 10. Inadequate justification has been provided for removal of the pink-tailed legless lizard from the candidate species list

Table 4-4 of the BDAR indicates that the pink-tailed legless lizard (*Aprasia parapulchella*) was excluded from further assessment, as the subject land is north of Grabben Gullen. We have reviewed the Threatened Biodiversity Data Collection (TBDC) and the species profile page, and note that no such geographic constraint exists for the pink-tailed legless lizard.

The species is known to occur in the Crookwell Interim Biogeographic Regionalisation of Australia (IBRA) subregion, and associated PCT's occur within the development footprint. Therefore, the pink-tailed legless lizard should be retained as a candidate species credit species, and its presence determined in accordance with section 5.2.4 of the BAM with the results presented in the revised BDAR.

### Recommendation

- 10.1 Retain the pink-tailed legless lizard as a candidate species credit species, and determine presence of the species in the development corridor in accordance with section 5.2.4 of the BAM.

## 11. Targeted surveys for the powerful owl should be conducted during the breeding season, and further survey effort is required.

Section 5.3 of the BDAR states that threatened species surveys should comply with threatened species survey guides, and that any surveys that occur outside of the targeted survey window for these species will require a clear justification to vary the timing.



We have reviewed the survey effort for the powerful owl (*Ninox strenua*) and note that the species was not surveyed during the appropriate survey window, with Table 4-6 of the BDAR identifying that all hollows were inspected for evidence of use prior to and after the breeding period.

This is not considered appropriate justification to vary the timing of targeted surveys for the powerful owl in accordance with the TBDC and species profile, for the following reasons:

- The powerful owl is less responsive to call playback outside of the breeding season. The call playback survey method is unreliable outside of the targeted survey window for the species (May-August).
- Outside of the breeding season, the powerful owl roosts in dense vegetation and can have a home range of up to 4000 ha. The species is highly mobile and unlikely to be reliant on nest hollows in spring and summer. Therefore, inspecting hollows for evidence of use outside the breeding season is not an appropriate survey method.
- The species polygon for the powerful owl is applied to breeding habitat, not foraging habitat. The breeding habitat cannot be determined outside of the breeding period for the species.

Targeted surveys should be conducted for the powerful owl during the breeding season (May-August). Alternatively, an expert report can be obtained to exclude the species, or the powerful owl can be assumed present, a species polygon generated and an appropriate credit liability determined.

### Recommendation

11.2 Conduct targeted surveys for the powerful owl during the breeding season. Alternatively, obtain an expert report or assume presence and generate a species polygon for the powerful owl.

## 12. The survey effort for candidate species requires further clarification

From our review of the spatial data and the BDAR, we are unable to determine the level of survey effort that has been applied for several candidate species within the buffered development footprint. The spatial data and Figure 4-2 of the BDAR identify several point locations for survey techniques such as call playback and camera trapping, but no information is provided on any survey transects (Figure 6).

From a review of the spatial data, it is difficult to distinguish between grid point searches, potential pedestrian traverses and traverses potentially undertaken via vehicle whilst driving between search locations. It is unclear which species were targeted during the track surveys, where each species was surveyed and what conditions the surveys occurred under (i.e. diurnal or nocturnal surveys).

Data should be provided for each candidate species, including but not limited to digital shape files of all survey locations, transects and vegetation grids, as per Appendix K of the BAM.

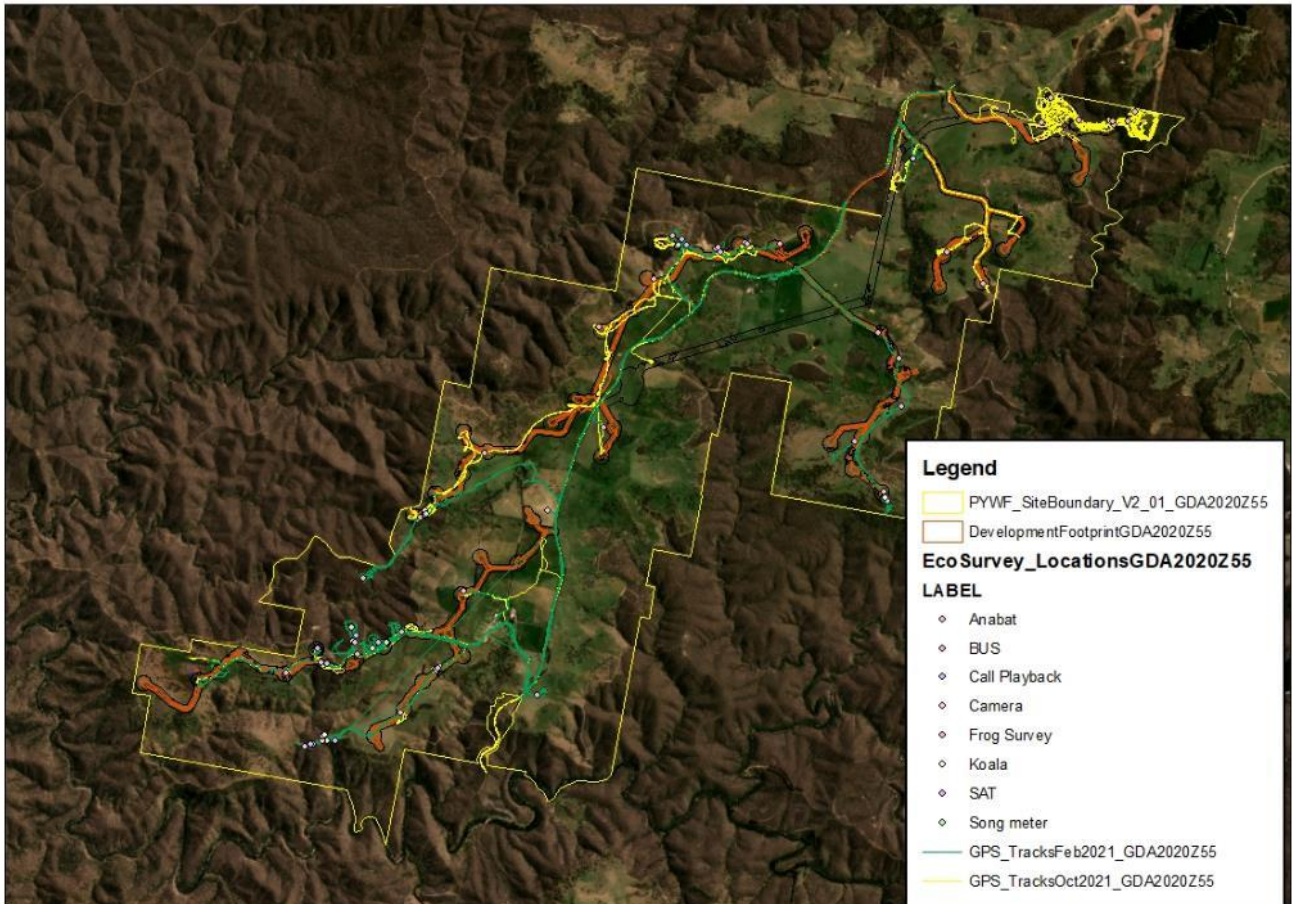


Figure 6 – Survey effort for the proposed Paling Yards Wind Farm. The ‘GPS\_Tracks’ logs do not contain any information about which species were targeted, or the conditions in which the surveys were conducted.

In addition, Section 4.3.1 of the BDAR identifies that some threatened species survey locations occur outside of the survey area, and it is suggested these locations are representative of habitats within the survey area.

This approach is not supported, as a surrogate vegetation patch cannot be used to determine threatened species presence or absence within the development footprint. If there is insufficient evidence to support the removal of candidate threatened species, further survey effort is required. Alternatively, an expert report can be obtained or the species can be assumed present, as per section 5.2 of the BAM.

The spatial data and BDAR are currently ambiguous about the level of survey effort for threatened species. Further detailed review of the candidate species credit species survey effort will be undertaken at RTS stage, when updated data is supplied.

### Recommendations

- 12.1 Provide digital shape files that clearly demonstrate the survey effort applied for each candidate species credit species within the buffered development footprint.
- 12.2 Revise Figure 4-2 in the BDAR to include figures that clearly demarcate the survey effort applied for each candidate species credit species in accordance with Appendix K of the BAM.

13. The targeted survey effort for threatened flora and fauna should be reviewed in accordance with the TBDC and threatened species guidelines

A preliminary review of Table 4-3 of the BDAR has identified several apparent inconsistencies in the survey effort for flora and fauna species. Some examples of these inconsistencies have been documented in Table 1 below.

Table 1 – Inconsistencies in survey effort for the proposed Paling Yards Wind Farm

Species	Survey Method	BCS comment	Recommendation
<b>Buttercup doubletail</b>	Parallel field traverse	No survey effort was applied in the PCT 951 vegetation zones in October for the Turbine 35-41 cluster	Conduct additional targeted surveys to determine the presence or absence of the species, obtain an expert report or assume presence within all associated vegetation zones
<b>Brush-tailed phascogale</b>	Species has been omitted from Table 4-3 of the BDAR	No information has been provided on the survey effort for this species.  The TBDC states that baited camera traps must be in place for a minimum of 4 weeks. As such, any survey effort that may have been applied for this species would still be insufficient	Conduct additional targeted surveys to determine the presence or absence of the species, obtain an expert report or assume presence within all associated vegetation zones
<b>Eastern pygmy-possum</b>	Camera trapping  Spotlighting	No camera traps have been deployed in the northern section of the proposed development or in the Turbine 35-41 cluster.  The TBDC notes that the species is very hard to detect via spotlighting. In the absence of camera trapping, it is unlikely that these areas have been surveyed adequately.	Conduct additional targeted surveys to determine the presence or absence of the species, obtain an expert report or assume presence within all associated vegetation zones
<b>Koala</b>	Spot Assessment Technique (SAT)  Call playback	No targeted koala survey techniques were used in the northern section of the proposed development.	Conduct additional targeted surveys to determine the presence or absence of the species, obtain an expert report or

Species	Survey Method	BCS comment	Recommendation
	Spotlighting	<p>Furthermore, Section 4.1 of the Koala Biodiversity Assessment Guide states that SAT surveys should not be undertaken within three days of rainfall.</p> <p>A review of Table 4-5 of the BDAR indicates that several SAT surveys occurred during a period of rainfall, or in the days immediately after.</p>	assume presence within all associated vegetation zones
<b>Little eagle</b>	<p>Nest searches</p> <p>Bird Utilisation Survey (BUS)</p>	<p>BUS is not a targeted survey method for finding raptor nests.</p> <p>No nest searches or transects occurred in the turbine 35-41 cluster during the breeding season for the little eagle.</p>	Conduct additional targeted surveys to determine the presence or absence of the species, obtain an expert report or assume presence within all associated vegetation zones
<b>Yellow-spotted tree frog</b>	<p>Nocturnal aural-visual surveys</p> <p>Call playback</p> <p>Tadpole searches</p>	<p>Surveys were not conducted during the survey timeframe provided in the TBDC.</p> <p>The BDAR references a paper that was published in 1996. Recent observations of the species indicate that the species is most likely to call in November and December. BCS does not support the justification for surveying outside of the breeding window.</p>	Conduct additional targeted surveys to determine the presence or absence of the species, obtain an expert report or assume presence within all associated vegetation zones

It should be noted that the above list of candidate species requiring further justification and evidence may be subject to change once the native vegetation mapping has been revised and digital files with detailed survey effort provided.

We note that many candidate species have not been surveyed adequately across all PCTs and sections of the development footprint. Table 4-3 should be revised to include each vegetation zone the candidate species are associated with (according to the TBDC) and justification for any vegetation zones that have not been surveyed. This information is required for us to review the appropriateness of all species credit species exclusions from associated vegetation zones.

## Recommendations

- 13.1 Review and/or revise the candidate species exclusion determinations based on the information and recommendations contained within this response.
- 13.2 Provide a list of associated candidate species (according to the TBDC) for each vegetation zone, and provide justification for any candidate species exclusions from each associated vegetation zone.

## **The BDAR must be certified to meet BC Act requirements and the correct planning pathway identified**

14. The BAM-C and BDAR should be submitted to the consent authority within 14 days of certifying the BDAR.

In accordance with section 6.15(1) of the *Biodiversity Conservation Act 2016*, a BDAR must be certified by the accredited assessor within 14 days of submission of the development application. To meet this requirement, a BDAR must be certified by signing and dating the first page within 14 days of the relevant submission date of the EIS. In addition, the date of submission of the BDAR must be within 14 days of the date shown on the relevant finalised credit report generated using the BAM-C.

The BDAR for the project was certified by the accredited assessor on 8 September 2023, while it is understood that the EIS was submitted to DPE on 9 October 2023. As such the BDAR was certified more than 14 days prior to submission of the EIS.

Furthermore, the BAM-C credit report was finalised on 8 September 2023. The BDAR must be submitted by the accredited assessor within 14 days of finalising the BAM-C credit report.

## Recommendation

- 14.1 Certify the BDAR in accordance with section 6.15(1) of the *Biodiversity Conservation Act 2016* and ensure it is submitted within 14 days of the certification date.

15. The planning approval pathway in the BDAR and BAM-C must be correctly identified as a state significant development application.

Chapter 2 of the *State Environmental Planning Policy (Planning Systems) 2021* identifies the planning approval pathway for any State Significant Development (SSD) to be assessed under Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The project meets the threshold to be determined as an SSD application.

The BAM-C case and Section 1.1 of the BDAR state that the proposed wind farm has been assessed under Part 5 of the EP&A Act, rather than an SSD major project. The BDAR and BAM-C should both be updated with the correct planning pathway for the proposed development.

## Recommendation

- 15.1 Revise the planning approval pathway for the Paling Yards Wind Farm in the BDAR and the BAM-C.

## Assessment of prescribed and indirect impacts associated with the operation of the proposed project requires extensive review

16. The method for bird utilisation survey is unclear and requires clarification. Flight path mapping has not been provided and should be supplied, as per our recommended SEARs.

Section 2.1 of Appendix E of the BDAR states:

*“Hunter Ecology and ERM, undertook two separate bird utilisation survey events representing the 2021 Summer (02/2021) and Spring (10/2021) survey events. Each survey event consisted of monitoring 20-24 fixed observation points strategically placed throughout development footprint.*

*Due to changes in development layout over time, some monitoring points have been removed and others added between surveys. Monitoring points 5, 18 and 20 were made redundant after the Summer (02/2021) survey event and additional monitoring points 21-24 were added during the Spring (10/2021) survey event.”*

We understand from our review of the BDAR that 20 bird utilisation surveys (BUS) were conducted in the summer survey event, and 20 BUS were conducted in the spring survey event. The BDAR does not detail the survey methodology for BUS site selection, nor indicate whether any replicates were completed to capture bird activity throughout the day.

The BDAR should be revised to clearly articulate the total number of BUS events for each season and provide further detail on the number of replicates for each season, if any replicates have occurred. This information could be presented in a table which captures the time and date for each survey at each location.

Our review of the spatial data and Figure 4-2 of the BDAR indicates that some BUS locations have been excluded. The BDAR should be revised to include a single map that includes all BUS locations used in the BBUS analysis of prescribed and indirect impacts. A digital shape file should also be provided for our review in the RTS.

Flight path data is an important component of the risk assessment for any wind farm development as it has the potential to inform whether there are any high-risk areas for locating turbines. Section 5.2 of the BDAR states:

*“Effort was made to identify habitual flight paths for the confirmed species; however, maps of habitual flight paths were not generated, as the relevant species were deemed to potentially occur or move through anywhere in the Subject Site”.*

We note that this statement has not been adequately justified or supported with evidence. Targeted flight path surveys were not addressed in the EIS or provided in the spatial data package. Flight path mapping generates data to enable the assessment of the impacts of wind turbine strikes on protected animals. The project’s Bird and Bat Adaptive Monitoring Program (BBAMP) requires rigorous data to establish a baseline for the on-going monitoring of the impacts of operating turbines on birds and microbats.

The risk of potential impacts during operation increases where there are uncertainties and gaps in the data presented at project assessment stage. A significantly more rigorous and comprehensive approach to post-approval adaptive management would be required in this instance, based on the data collected and presented to date. This may include requiring triggers and contingencies for all impacts that have the potential to occur and/or are uncertain.

We recommend that the proponent conduct additional surveys at vantage points in the landscape to map the flight paths of all species which have been identified to fly at Rotor Swept Area (RSA) height, and that flight path mapping be provided as required by the BAM.

Recommendations

- 16.1 Revise the BDAR to clearly articulate the level of survey effort applied for bird utilisation surveys.
  - 16.2 Include a figure in the BDAR which contains all BUS locations used in the BBUS analysis in Appendix E. A digital shape file of the BUS locations should also be provided to BCS for review in the RTS.
  - 16.3 Conduct additional surveys at vantage points within the landscape to collect data on fauna flight paths and inform management actions in the BBAMP.
  - 16.4 Present flight path mapping for nomadic and migratory species, as required by section 6.1.5 of the BAM.
17. The bat utilisation survey effort is insufficient and indirect impacts to threatened microbats are uncertain.

Section 3.1.2 of Appendix E of the BDAR states that bat utilisation surveys were undertaken at five locations over seven nights in February 2021, using two Anabat Express detectors and three Anabat Swift detectors. Table 3-2 of Appendix E and the spatial data indicate that Anabat surveys were conducted in 8 locations (Figure 7).

Detector Name	(Model Serial no.)	Deployment Dates	Latitude	Longitude	Site Code
Anabat1	(Swift SN583085)	3-4 Feb	-34.1259	149.7623	A1-1
		5-9 Feb	-34.1583	149.7276	A1-2
Anabat2	(Swift SN583108)	2-4 Feb	-34.1261	149.7678	A2-1
		5-9 Feb	-34.1261	149.7116	A2-2
Anabat3	(Express SN542982)	3-6 Feb	-34.1857	149.7299	A3-1
		7-9 Feb	-34.1757	149.7138	A3-2
Anabat4	(Express SN54294)	2-9 Feb	-34.1732	149.723	A4-1
Anabat6	(Express SN507220)	2-6 Feb	-34.1733	149.7183	A6-1

Figure 7 – Table 3-2 of the Bird and Bat Utilisation Survey Report in Appendix E of the BDAR

We note that the variation in deployment duration or the limitations of the different anabat models has not been justified. Furthermore, the lack of survey effort across the proposed development (Figure 8) has not been discussed. Section 3.1.4 of Appendix E of the BDAR states:

*“The echolocation recording devices utilised during the survey are limited to recording in the immediate location that the detector has been deployed and is not likely to reliably record calls further than 20-30m away.”*

Given the limitations of the devices used, the inconsistency in survey methods and the lack of survey coverage across the development footprint, we consider that the bat utilisation surveys for the site could not address indirect impacts to microbats.

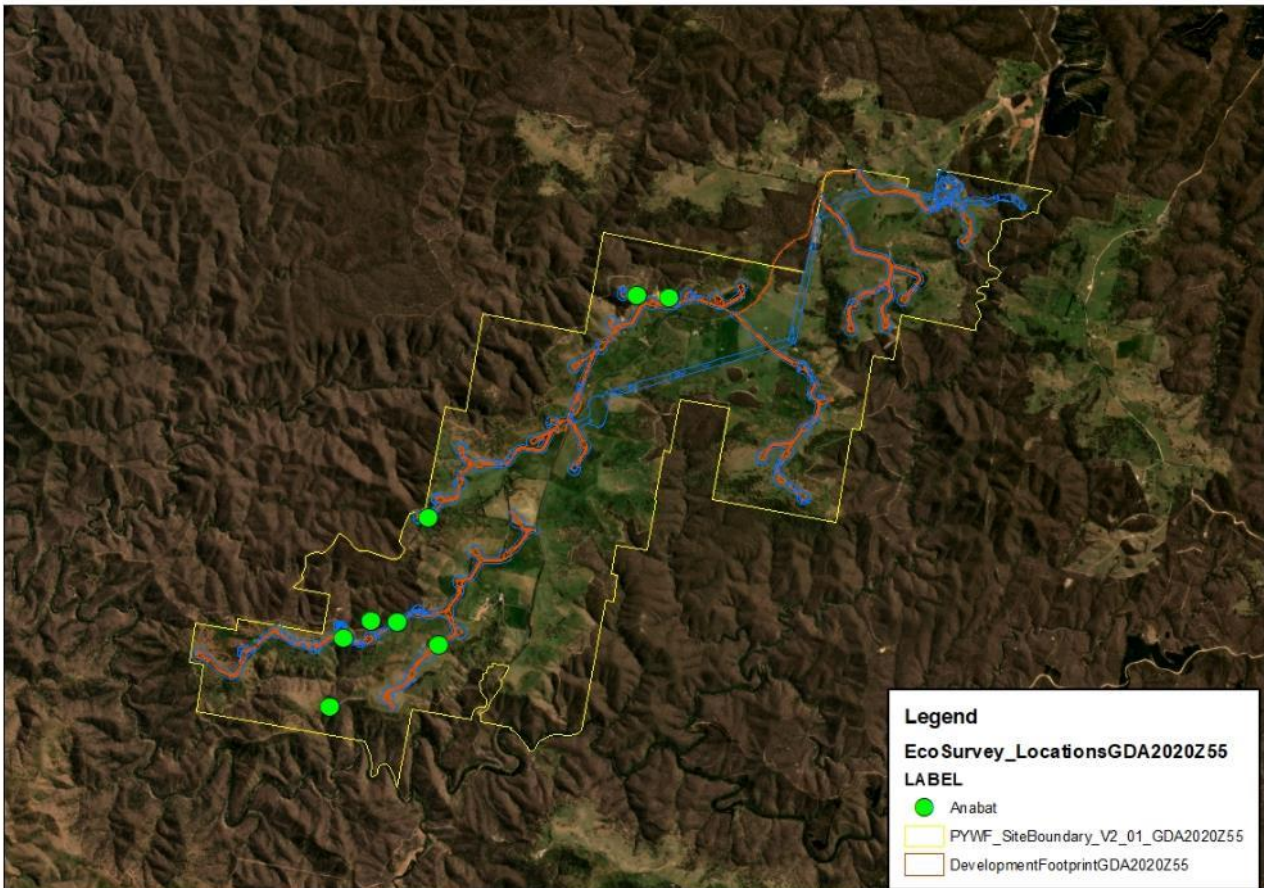


Figure 8 – Microbat survey effort across the proposed Paling Yards Wind Farm

In addition, all bat detectors were placed near ground level and no bat call data was recorded at-height from detectors set on wind masts. The bat utilisation assessment does not include any information on species flying at rotor swept height, where strike impacts are likely to occur. This limitation was acknowledged in section 3.1.4 of Appendix E in the BDAR, but no survey occurred to further assess microbats likely to be impacted by turbine strike or barotrauma.

Further bat utilisation surveys should be undertaken in consultation with BCS and should include the use of ultrasonic detectors at-height on wind masts.

#### Recommendation

17.1 Undertake further bat utilisation surveys, including at-height surveys on wind masts, in accordance with a utilisation survey methodology developed in consultation with BCS.

### 18. The turbine risk assessment requires revision

The turbine risk assessment in section 2.2.2 of the Collision Risk Assessment Addendum Report (CRAAR) states that turbine risk was assessed against the following parameters:

- Proximity to potential microbat roosts and foraging habitat
- Proximity to corridors and likely movement pathways
- Proximity to raptor nests
- Canopy buffer to RSA.



It is unclear how the turbine risk matrix analysis was conducted, due to the very limited survey undertaken in native vegetation surrounding the proposed development site. The proximity to potential microbat habitat or raptor nests cannot be quantified if fauna surveys have not been conducted.

We note that the risk matrix does not include any measurable metrics of the risk associated with the distance to potential habitat for birds or bats (i.e. <200m is high risk, <500m is moderate risk) and it appears that turbine risk has been assessed against the presence of species observed flying at RSA during a single BUS survey.

Given the lack of data and the high level of uncertainty in single survey events, the metrics used in the turbine risk assessment are not considered to be quantifiable or appropriate.

We recommend that the proponent apply a risk matrix that considers the conservation status of species that may be present in the landscape, their behaviour and ecology and the proximity of WTG's to native vegetation that is likely to be used by fauna.

A suggested risk matrix has been provided in Table 2 below. A suggested method for categorising the turbine risk is also provided in Table 3. Higher risk turbines can reduce risk iteratively by introducing mitigation and avoidance measures.

Table 2 – Suggested recommended criteria for identifying turbine strike risk for birds and bats.

Criteria	Description
<b>Turbine Strike Consequence</b>	
<b>Severe</b>	Critically endangered species and/or a species listed as at risk of a serious and irreversible impact
<b>Major</b>	Endangered species (BC Act or EPBC Act)
<b>Moderate</b>	Vulnerable species (BC Act or EPBC Act) or non-threatened at-risk species, such as Wedge-tailed Eagle and the White striped Free-tailed Bat
<b>Minor</b>	Protected (non-threatened) species (or no species detected).
<b>Turbine Strike Likelihood</b>	
<b>Very Likely</b>	<b>Very High</b> likelihood of turbine strike based on any of the following being located within <b>200m</b> of the proposed turbine location: <ul style="list-style-type: none"> <li>• Resident threatened species habitat or non-threatened raptor species habitat</li> <li>• Migratory or nomadic species habitual flight path</li> <li>• Landscape feature/s likely to increase bird and/or bat activity (including distance to nearest canopy, waterbodies, riparian corridors, updraft locations, caves etc)</li> </ul>
<b>Likely</b>	<b>High</b> likelihood of turbine strike based on any of the following being located within <b>500m</b> of the proposed turbine location: <ul style="list-style-type: none"> <li>• Resident threatened species habitat or non-threatened raptor species habitat</li> <li>• Migratory or nomadic species habitual flight path</li> </ul>

	<ul style="list-style-type: none"> <li>Landscape feature/s likely to increase bird and/or bat activity (including distance to nearest canopy, waterbodies, riparian corridors, updraft locations, caves etc)</li> </ul>
<b>Moderately likely</b>	<p><b>Moderate</b> likelihood of turbine strike based on any of the following being located within <b>1000m</b> of the proposed turbine location:</p> <ul style="list-style-type: none"> <li>Resident threatened species habitat or non-threatened raptor species habitat</li> <li>Migratory or nomadic species habitual flight path</li> <li>Landscape feature/s known or predicted to increase bird and/or bat activity (including distance to nearest canopy, waterbodies, riparian corridors, updraft locations, caves etc)</li> </ul>
<b>Less likely</b>	<p><b>Low</b> likelihood of turbine strike based on any of the following being located greater than <b>1000m</b> away (or not detected):</p> <ul style="list-style-type: none"> <li>Resident threatened species habitat or non-threatened raptor habitat</li> <li>Migratory or nomadic species habitual flight path</li> <li>Landscape feature/s known or predicted increase bird and/or bat activity (including distance to nearest canopy, waterbodies, riparian corridors, updraft locations, caves etc)</li> </ul>

Table 3 – Suggested turbine risk categorisation matrix

Likelihood Criteria	Consequence Criteria				
		Severe	Major	Moderate	Minor
Very Likely	Very High	Very High	Very High	Very High	High
Likely	Very High	High	High	High	Moderate
Moderately Likely	Very High	High	High	Moderate	Low
Less Likely	High	Moderate	Moderate	Low	Low

An adjustment to the risk rating may be appropriate if site-specific considerations are not adequately represented in the risk assessment. For example, downgrading of a risk category may be appropriate where the existing outcome is dependent on a species determined to be vagrant.

Alternatively, an increase in the risk ratings may be justified in certain circumstances, for example where agricultural land use creates food sources for carrion feeders (e.g. stocking lambs in paddocks containing turbines), or where the decision-maker deems pre-operational surveys insufficient.

#### Recommendation

18.1 Revise the turbine risk matrix in the Collision Risk Assessment Addendum Report to include quantifiable and measurable metrics for assessing the risk of individual turbines.

## 19. The BDAR does not contain clear mitigation measures for minimising impacts associated with wind farms

Section 8 of the BDAR contains generic mitigation measures for the proposed development. We note that the proponent has committed to developing and implementing a Bird and Bat Adaptive Management Plan (BBAMP) to mitigate impacts, but no BBAMP framework has been provided, nor have specific wind farm mitigation measures been presented in the BDAR. A draft BBAMP framework should be provided at the RTS stage.

Table 8-1 of the BDAR also provides brief dot points on 'all impacts' and clearing of native vegetation and habitat features. No mitigation measures have been provided to address the potential barrier effects of the project or the noise generated by the construction and operation of the wind farm.

Section 8.4 of the BAM states that the proponent must identify measures to mitigate and manage impacts to biodiversity. The BDAR must:

- Document mitigation measures proposed to manage impacts
- Identify any measures for which there is risk of failure
- Evaluate the risk and consequence of any impacts likely to remain after mitigation measures have been applied
- Document any proposed adaptive management strategies.

Detailed information on any mitigation measures and/or evaluation of risk that will remain after any mitigation measures have been applied should be presented in the revised BDAR.

We also recommend that an offset for prescribed impacts of bird and bat strike be developed and presented at RTS stage, in accordance with sections 6.3 and 6.6(2) of the BC Act and clause 6.1 of the *Biodiversity Conservation Regulation 2017* (BC Reg). Further data is required to accurately determine appropriate offset for bird and bat strike, as discussed throughout this response. An offset proposal should be developed in further consultation with BCS and presented in the revised BDAR.

### Recommendations

- 19.1 Revise the BDAR to provide site-specific mitigation measures that address the impacts associated with wind farm development.
- 19.2 Present a draft framework for a Bird and Bat Adaptive Management Plan, prior to development approval.
- 19.3 Prepare revised mitigation measures that are clearly defined and identify risks and consequences of all impacts.
- 19.4 Provide an overview of any proposed adaptive management strategies.
- 19.5 Determine a prescribed impact biodiversity offset for bird and bat strike, developed in consultation with BCS.

## 20. The proponent should ensure that the MNES assessment has been adequately addressed.

The EIS states that a previous decision issued in 2005 confirmed that the proposal was referred to the Commonwealth Government to determine whether or not the project would be a controlled action, due to impacts on matters of national environmental significance (MNES) under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. An updated

EPBC Act referral is currently being prepared in light of changes to the project footprint and turbine locations.

The previous referral occurred 18 years ago, and is therefore unlikely to include all threatened entities which are now listed. We therefore support re-referral the project be referred to the Department of Climate Change, Energy the Environment and Water (DCCEEW) to determine whether it is a controlled action prior to the submission of the RTS.

#### Recommendation

**20.1** Revise the MNES assessment and refer the Paling Yards Wind Farm to DCCEEW to determine whether the proposed development is a controlled action.

## Attachment C

### NPWS detailed comments

#### Paling Yards Wind Farm – Environmental Impact Statement

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##### 1. Consultation during the EIS's preparation

Our recommended SEARs specified that the proponent must “carry out detailed consultation” with several listed local, State and Commonwealth Government authorities. NPWS was specified as one of those authorities.

NPWS has no record of any contact by the proponent or its consultants. The only consultation with NPWS documented in the Community and Stakeholder Engagement Report of Appendix FF (Table 3.3), is the input we provided (as part of the advice from the department's BCSD dated on 23 February 2022) in response to the referral from DPE Planning for input to SEARs.

This request for input was not initiated by the proponent, occurred before the issuing of the SEARs and should not be considered adequate consultation by the proponent.

Further, it seems most of the issues raised in the advice of 23 February 2022 have not been addressed in the EIS which raises issues around the adequacy of the consultation process.

##### Recommendation

1. Engage closely with NPWS to address the matters raised in this response, and other issues raised in NPWS's input to SEARs, and assess each issue in consultation with NPWS.

##### 2. Access to or through Abercrombie River National Park

The SEARs required assessment of potential impact of the development on Abercrombie River National Park in accordance with *Development adjacent to National Parks and Wildlife Service lands* (DPIE 2020) (the Guidelines). It is unclear from Appendix B [SEARs Compliance Table] if this assessment was included in the EIS.

One of the matters highlighted in the NPWS guidelines is access to park. Section 2.10 of the Guidelines states:

*Maintaining legal and viable access to NPWS land is important in ensuring park values are conserved and that NPWS can undertake its functions as the manager of the land. Where proposals include changes to local access... any potential impacts to park access should be assessed.*

*Proposals that remove, destroy, obstruct or limit access to a strategic or tactical fire trail have the potential to impede NPWS's ability to undertake preventative bushfire hazard reduction and to respond in the event of a bushfire. Even temporary closures of or obstruction to fire trails can cause significant risk to life, property and park values.*

The proposed wind farm is located on or near existing tracks-in-use that provide access to fire trails in Abercrombie River National Park, namely:

- PY-18 and PY-19 are located on the route used to access Black Belt Trail
- PY-9, PY-10, PY-11, PY-12, PY-13 and PY-14 are on the route used to access Bell Perimeter Trail.
- PY-21, PY-22, PY-23 on the route to access Quobleigh Fire Trail.

It is noted that Quobleigh Fire Trail has been identified as a Strategic Cat 1 Trail under the Chifley *Fire Access Fire Trail Plan* and so should not be considered a 'Secondary trail' as indicated on Figure 6-1 of Appendix P [Bush Fire Risk Assessment].

To assist with effective park management and emergency response, NPWS will need to work with the proponent and landowner in regards to use of existing tracks to ensure that access will be maintained during the construction and operations of the proposed Paling Yards Windfarm.

It is unclear from the EIS if the proposed wind farm will require the closure of the Crown road reserves in the vicinity of these tracks-in-use, such as (for example) the road reserve across Lot 51 DP621232 or on the boundaries of Lots 2 or 27 DP753019, or Lots 13 or 18 DP753037. NPWS would object to any proposed Crown road closure unless an easement was granted by the landowner to provide secure ongoing access across the development site for NPWS to access these fire trails. Management only access would be required.

NPWS notes that there is limited detail on the new road construction to occur within the development site. It appears from Appendix W [Mapping Sets] that a new trail is proposed to be constructed on Lot 3 DP753019 to provide access to vicinity of PY-5, PY-6 or PY-7. Access to these sites is currently provided by Bell Perimeter Trail which, where it traverses Abercrombie River National Park, is a Category 9 fire trail. This trail is not available to access Black Bett Mountain or other nearby areas during construction or operation of the wind farm.

### Recommendations

2. Recognise NPWS's needs to maintain ongoing access to Bell Perimeter Trail, Black Belt Trail and Quobleigh Fire Trail for park management and emergency purposes, and confirm these access routes will remain available during construction and operation of the wind farm. Obtain separate approval from NPWS if access to Bell Perimeter Trail is required.
3. Provide NPWS Kanangra Area with at least 7 days' notice via [npws.kanangra@environment.nsw.gov.au](mailto:npws.kanangra@environment.nsw.gov.au) where access to a track-in-use must be temporarily blocked, eg. during erection of wind turbines located in proximity to the track-in-use, and where possible provide an alternative access route through the property.
4. Enter into a deed of agreement to grant an easement benefitting NPWS that provides ongoing legal access to the park's fire trails along a suitable route, if Crown road closures within the development site be proposed to facilitate construction or operation of the wind farm.
5. No encroachment in or access through Abercrombie River National Park is to occur as part of the development's construction or operation. Consideration of any potential encroachment or access would need to be subject to separate approval from NPWS.

### 3. Hindrance to low-flight operations

NPWS is concerned that the operational area for aerial pest shooting, aerial baiting and firefighting will be disrupted by the proposed configuration of the wind turbine generators.

Our recommended SEARs required the EIS to:

- assess potential impacts on aviation safety considering use of emergency helicopter access (same as the below point)
- consider the impact to aerial pest control and fire management operations in the Abercrombie River National Park
- assess the impact of the turbines on the safe and efficient aerial application of agricultural fertilisers and pesticides in the vicinity of the turbines and transmission line.

The EIS and Appendix I [Aviation Impact Assessment] does not address these requirements and were prepared without any consultation with NPWS.

Given the specific mention of the national park in the SEARs, NPWS should have been identified as a 'key agency stakeholder' in the preparation of the Aviation Impact Assessment. NPWS understands that CASA has identified that "aeronautical studies commissioned by wind farm

proponents can lack independence and down-play the extent and impact of the wind farm proposal on aviation activities” [source: CASA’s report on consultation on their draft Advisory Circular 139.E-05 v1.0].

NPWS’s low-flight aerial operational areas typically extends to the boundaries of its parks but, following construction of the wind farm, these flights in Abercrombie River National Park will need to be buffered to avoid turbulence wake, limiting coverage along the park’s boundaries and the effectiveness of pest control programs.

Based on the coordinates provided in Appendix W [Mapping Sets], the base of two of the turbines (PY-7 and PY-18) appear to be approximately 105 metres from the boundary of Abercrombie River National Park. For a turbine with a maximum height of 240 metres (to blade tip) and blade lengths of 80 metres, NPWS considers a setback of 105 metres to be insufficient to ensure impacts from turbulence do not impact biodiversity values in the park. Elsewhere, wind farm proposals have been required to have a setback of 130 metres from blade tip to either the canopy of trees growing on the boundary of the park or the surveyed boundary of the park.

#### Recommendations

6. Further assess, consider and document the potential impacts of the project on NPWS low-flight operations
7. Relocate turbines PY-7 and PY-18 to achieve a setback of at least 130 metres from blade tip to the canopy of trees in the NPWS estate.

#### 4. Fire management planning

NPWS welcomes the commitment in Appendix P [Bushfire Risk Assessment] that there will be ongoing consultation with NPWS during the detailed design and preparation of the Emergency Management and Operations Plan. This recognises NPWS’s role as a lead firefighting authority in responding to wildfires in the neighbouring park and one of the firefighting authorities that will be involved in responding to fires on the development site.

Given the lack of consultation to date from the proponent, NPWS urges this commitment to be specifically included in conditions of consent.

NPWS notes however that Appendix P just considers bushfire risk – it does not consider potential impacts to firefighting operations. This lack of consideration of the potential impacts to NPWS’s firefighting operations remains a significant omission in the EIS.

#### Recommendations

8. Prepare the Emergency Management and Operations Plan in consultation with NPWS and the RFS, finalised to the satisfaction of both firefighting authorities, as a requirement of any project approval.
9. Further assess the impacts of the proposal on firefighting operations in consultation with NPWS, and consider the current version of the Abercrombie River National Park Reserve Fire Management Strategy and the Chifley Fire Access and Fire Trail Plan.

#### 5. Radio communications

NPWS operates a land-mobile radio network which provides voice communication services to support field operations and incident management.

The radio network has base stations across NSW, and NPWS deploys mobile stations during fire incidents. The radio network facilitates interoperability with the Rural Fire Service and other emergency service organisations during major incidents.

Appendix CC [Electromagnetic Interference Assessment] recognises that wind turbines may cause electromagnetic interference with VHF radio signals.

NPWS notes however that the NSW Telco Authority and NSW Police were both consulted on the proposal and have requested the relocation of turbines from the vicinity of their communication tower. NPWS supports this recommendation.

#### Recommendation

10. Consult further with NPWS on the revised wind farm configuration, that incorporates the changes recommended in Appendix CC [Electromagnetic Interference Assessment].