Our ref: DOC21/236606-10
Your ref: SSD-10315

Mr Anthony Ko

Team Leader – Energy Resource Assessment
Planning and Assessment Division
Department of Planning, Industry and Environment
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Dear Mr Ko

**Bowmans Creek Windfarm (SSD-10315) – Review of Environmental Impact Statement**

I refer to your e-mail dated 26 March 2021 in which the Planning and Assessment Division (P&A) of the Department of Planning, Industry and Environment (the Department) invited Biodiversity and Conservation Division (BCD) for advice in relation to the Bowmans Creek Windfarm project (SSD 10315). I also refer to your e-mail dated 8 April 2021 in which P&A provided BCD with a copy of the Commonwealth Department of Agriculture, Water and Environment's advice on this project.

BCD have reviewed the Environmental Impact Statement, including relevant appendices, in relation to impacts on biodiversity (including matters of national environmental significance [MNES] under the *Environment Protection and Biodiversity Conservation Act 1999*). BCD reviewed the EIS in relation to flood risk and has no comment to provide on flood risk.

BCD has arranged to visit the site on 27 May 2021 (following previous postponements due to wet weather). Following this site inspection BCD may have additional comments on the biodiversity assessment for this project.

BCD's recommendations are provided in **Attachment A** and detailed comments are provided in **Attachment B** If you require any further information regarding this matter, please contact Steven Cox, Senior Team Leader Planning, Hunter Central Coast Branch, on 4927 3140 or via email at huntercentralcoast@environment.nsw.gov.au

Yours sincerely

**Joe Thompson**
**Director Hunter Central Coast Branch**
**Biodiversity and Conservation Division**

**Date: 24/5/2021**

Enclosure: Attachments A and B

**Attachment A**

# BCD's recommendations

# Bowmans Creek Windfarm Environmental Impact Statement

## Biodiversity

1. BCD recommends that the proponent undertakes targeted surveys for all potentially occurring threatened flora species in accordance with *Surveying threatened plants and their habitats: NSW survey guide for the Biodiversity Assessment Method* (DPIE 2020). Where surveys are not possible (due to safety or access reasons) either, the assumed presence technique should be applied, or an expert report should be prepared.

2. BCD recommends that the accredited assessor either assumes presence or prepares an expert report for areas of the project disturbance area that were not surveyed for potentially occurring threatened fauna species.

3. BCD recommends that the proponent lists all Plant Community Types (PCTs) considered as potential matches to on-ground vegetation and describes the selection process that matched the PCT for all biotic and abiotic factors.

4. BCD recommends that the proponent provides further detail of how PCTs were matched to *Biodiversity Conservation Act 2016* listed threatened ecological communities by commenting on all factors in their NSW Scientific Committee Final Determinations.

5. BCD recommends that the proponent completes and submits its final BAM 2017 assessment of the project before 22 October 2021 (including resolving all submissions on the EIS BDAR during the response to submissions stage of the project). Any changes to the BDAR after 22 October 2021, that are greater than minor, will require the BDAR to be prepared in accordance with BAM 2020.

6. BCD recommends that the proponent provides details of any flyways on the project area for any local migratory species.

7. BCD recommends that surveys are undertaken to identify any local flyways for bird and bat species and that the information collected is used to assess the impacts of turbine strike on protected species.

8. BCD recommends the proponent develops an adaptive management plan for vehicle strike, as per Section 9.4.2.4 of the BAM.

9. BCD recommends the proponent provides details of proposed post-construction mitigation measures to avoid impacts on threatened species.

10. BCD recommends the direct and indirect impacts of the project that cannot be avoided are described in terms of the frequency and intensity of direct and indirect impacts that are unable to be avoided.

11. BCD recommends the BAM accredited assessor certifies that the BDAR was finalised within 14 days of the exhibition of the EIS.

12. BCD recommends that additional data is provided to ensure that all requirements of the BDAR are met.

13. BCD recommends that numbered turbine locations are shown on all composite (zoomed-in) sets of figures and that the scale of the composite figures is improved so that project and ecological details can be clearly seen.

## Matters of National Environmental Significance

14. BCD recommends that additional information on the assessment of Matters of National Environmental Significance is provided in Appendix A of the BDAR.

**Attachment B**

# BCD's detailed comments

# Bowmans Creek Windfarm Environmental Impact Statement

## Biodiversity

### 1. The targeted flora surveys do not meet the requirements of the BAM

The targeted flora surveys documented in the Biodiversity Development Assessment Report (BDAR) have not been undertaken in accordance with the requirements of the Biodiversity Assessment Method 2017 (BAM) or the *Surveying threatened plants and their habitats: NSW survey guide for the Biodiversity Assessment Method* (DPIE 2020, the Flora Survey Guidelines). The random meander survey technique and point locations of 80 metre diameter searches used by the proponent are not supported by the Flora Survey Guidelines. As a result, some areas outside the project's disturbance footprint have been surveyed and large sections of the project disturbance footprint have not been surveyed for threatened flora species. We estimate only about 14 hectares of the 515 hectares of the project disturbance area (3 per cent) has been surveyed for threatened flora species.

Section 4.4 of the Flora Survey Guidelines provides a two-phase grid-based systematic survey approach that may be undertaken when large areas of suitable habitat exist for a threatened flora species. The BDAR (page 23) indicates that the grid-based approach was not suitable for the project as grid locations mostly occurred in inaccessible areas or outside the disturbance area. As a result, the proponent has developed an alternative approach of 28 randomly located 80 metre radius survey areas and 16 other survey areas. Relatively few turbine locations were surveyed, and large portions of other disturbance areas were not surveyed.

Section 4.4 of the Flora Survey Guideline recommends that any departure from the grid-based approach are discussed with the Department. BCD is not aware of any approach to discuss the proposed alternative approach used. BCD does not support the alternative approach as:

- a large area approach should only be applied to individual targeted flora species that have a suitable habitat area greater than 50 hectares, not to all potential threatened species within the area of the project. Any threatened flora species with a potential habitat area less than 50 hectares should be surveyed across the entire potential habitat area (all areas that are accessible and safe to survey) using parallel transects undertaken in accordance with the Flora Survey Guidelines.
- it appears to have sampled only 3 per cent of the total project disturbance area (the total area of potential threatened flora species habitat does not appear to be identified in the BDAR).
- it appears to include areas that will not be disturbed, further decreasing the percentage of the project disturbance area that has been surveyed.
- BCD is unable to determine how the locations of the survey points were chosen
    - it is unclear how the locations of the searches are related to the potential habitat areas of each of the individual threatened flora species
- the Flora Survey Guidelines do not support the use of the random meander technique.

Section 6.5.1.3 of the BAM 2017 requires the Flora Survey Guidelines to be used, and requires targeted surveys within each of the survey areas to be undertaken with parallel transects, where the maximum spacing of the transects is set by the habit of the targeted species, and the density of the vegetation. The following text summarises the parallel transect requirements for the threatened flora species identified in the BDAR as potentially occurring.

Trees, mallee trees and tall shrubs (>6 metres tall) – transects up to 40 metres apart in open vegetation or up to 20 metres apart in dense vegetation.

- *Acacia pendula* Endangered Population in the Hunter catchment
- *Angophora inopina*
- *Eucalyptus glaucina*
- *Rhodamnia rubescens*
- *Rhodomyrtus psidioides*

Medium shrubs (1-6 metres tall) – transects up to 20 metres apart in open vegetation, or up to 10 metres apart in dense vegetation.

- *Callistemon linearifolius*
- *Grevillea parviflora* subsp. *parviflora*
- *Ozothamnus tesselatus*
- *Prostanthera cineolifera*
- *Pomaderris queenslandica*
- *Senna acclinis*

Sub-shrubs – transects up to 15 metres apart in open vegetation or up to 5 metres apart in dense vegetation.

- *Acacia bynoeana*

Herbs and forbs – transects up to 10 metres apart in open vegetation or up to 5 metres apart in dense vegetation.

- *Asperula asthenes*
- *Monotaxis macropus*
- *Rutidosis heterogama*
- *Thesium australe*

Orchids, epiphytes and climbers – transects up to 10 metres apart in open vegetation or up to 5 metres apart in dense vegetation.

- *Cynanchum elegans*
- *Diuris tricolor*

- *Cymbidium canaliculatum*
- *Pterostylis chaetophora*
- *Pterostylis gibbosa*

In order to show that the proponent has conducted the appropriate survey effort for threatened flora species for the project, the following information is required:

1. A description of the potential habitat areas for each of the 21 threatened flora species which includes as a minimum, the PCTs (or parts thereof) which form potential habitat for each species, and the area (hectares) of potential habitat for each species. This information could be added to Table 4 of the BDAR.

2. A description of vegetation density at the time of survey across the areas surveyed. Photos from all surveyed areas are required to support the classification of this vegetation as either 'open vegetation' or 'dense vegetation'.

3. A description of how the parallel transects undertaken for each threatened flora species comply with the requirement of the Flora Survey Guidelines. Shapefiles should be provided for all surveys undertaken that identify how each survey relates to each target flora species.

4. A figure showing the location of cliffs and steep slopes that were unable to be safely surveyed, with GIS shapefiles and the areas calculated (hectares). This figure should include numbered turbine locations.

5. A figure showing the location of areas where access was not available, including the total area (hectares). This figure should include numbered turbine locations.

6. Figures showing the location of parallel transects undertaken that includes PCT mapping and numbered turbine locations.

Where there is more than 50 hectares of potential habitat for a threatened flora species, BCD recommends that the accredited assessor discusses the proposed survey approach with BCD prior to undertaking surveys.

Where areas cannot be surveyed due to very steep slopes, cliffs, or access not being granted, sections 6.4.1.21 and 6.5.1.1 of BAM 2017 require either the assumed presence technique to be applied, or an expert report to be prepared, to determine the likely habitat polygon for each threatened flora species.

### Recommendation 1

BCD recommends that the proponent undertakes targeted surveys for all potentially occurring threatened flora species in accordance with *Surveying threatened plants and their habitats: NSW survey guide for the Biodiversity Assessment Method* (DPIE 2020). Where surveys are not possible (due to safety or access reasons) either, the assumed presence technique should be applied, or an expert report should be prepared.

## 2. Unsurveyed fauna habitat areas require an expert report or assumed presence

Section 3,4 'Fauna Survey' of the BDAR describes how drought conditions, steep slopes and cliffs, and limited land access meant that it was not possible to survey across all areas of potential fauna habitat. Section 6.4.1.20 of BAM 2017 requires the accredited assessor to determine the presence or absence of fauna candidate species present, including in areas that are not accessible. Where access is not possible, the presence or absence can be determined

by assuming that the species is present, or by obtaining an expert report (section 6.4.1.21 of BAM 2017). The presence or absence of the following ten threatened fauna species has not been assessed in unsurveyed areas of potential habitat:

- Gang-gang cockatoo
- Glossy black-cockatoo
- White-bellied sea-eagle
- Little eagle
- Square-tailed kite
- Barking owl
- Masked owl
- Powerful owl
- Large-eared pied bat
- Southern myotis.

Figures should be provided showing the areas of the project disturbance area that were not surveyed for the above species. Unsurveyed areas will require either assumed presence or an expert report to be prepared. Where assumed presence is applied, BCD recommends the accredited assessor discusses the process used to identify areas of assumed presence for each species with BCD.

### Recommendation 2

BCD recommends that the accredited assessor either assumes presence or prepares an expert report for areas of the project disturbance area that were not surveyed for potentially occurring threatened fauna species.

## 3. Further details are required for matching on-ground vegetation to a PCT

Section 5.2 'Plant Community Types' of the BDAR provides the justification for Plant Community Type (PCT) selection of on-ground vegetation as being based on the presence of characteristic species per stratum, Interim Biogeographic Regionalisation for Australia (IBRA) region and IBRA subregion, and other factors (e.g. vegetation structure, position in landscape) to support the matched PCT. However, the PCT descriptions provided do not list other possible matching PCTs, how a decision was made where similar options were available, or the confidence of the final match. Section 5.2 of the BDAR should be updated to include the list of all PCTs considered, the closeness of fit in relation to floristic composition, vegetation structure, soils, position in landscape, substrate, geographic location, and the overall confidence of the match.

### Recommendation 3

BCD recommends that the proponent lists all Plant Community Types (PCTs) considered as potential matches to on-ground vegetation and describes the selection process that matched the PCT for all biotic and abiotic factors.

## 4. Further details are required for matching TECs

Section 5.2 'Plant Community Types' includes a discussion for each of the 19 PCTs about whether or not they meet the definition of a threatened ecological community (TEC) or not. The description provided for each PCT is very brief, and they do not mention all aspects of the relevant TEC final determinations. BCD recommends that the proponent provides details about how the vegetation on ground was matched to a TEC for all sections of the final determination, and to identify the confidence of each element considered.

### Recommendation 4

BCD recommends that the proponent provides further detail of how PCTs were matched to *Biodiversity Conservation Act 2016* listed threatened ecological communities by commenting on all factors in their NSW Scientific Committee Final Determinations.

## 5. BAM 2017 BDARs must be finalised by 22 October 2021

The biodiversity assessment for this project has been done using the BAM 2017. However, if the BDAR requires changes that impact on credit numbers during the Response to Submissions stage, and if those matters aren't addressed and submitted to the Department before 22 October 2021 (the end of the transition period for the BAM 2017, as per clause 6.31 of the Biodiversity Conservation Regulation 2017), then the proponent will need to update the BDAR to comply with BAM 2020. Any new BDAR under BAM 2020 will have to be re-certified by the accredited assessor.

### Recommendation 5

BCD recommends that the proponent completes and submits its final BAM 2017 assessment of the project before 22 October 2021 (including resolving all submissions on the EIS BDAR during the response to submissions stage of the project). Any changes to the BDAR after 22 October 2021, that are greater than minor (e.g. typo-grammatical errors), will require the BDAR to be prepared in accordance with BAM 2020.

## 6. Migratory flyways have not been assessed

The BDAR does not include an assessment of mapped flyways for migratory species as required under Section 4.2.1.11 of the BAM 2017. The BDAR instead makes reference to advice from BCD in a letter dated 13 June 2020. The letter recommended the accredited assessor develop a methodology for identifying flyways [based on their understanding of the project site], undertake that methodology and present the results in the BDAR. Instead, BCD's letter was misinterpreted and an assessment of flyways for migratory species has not been undertaken. The methodology suggested below in recommendation 7 to identify flyways for protected species could also assist in the identification of flyways for migratory species.

### Recommendation 6

BCD recommends that the proponent provides details of any flyways on the project area for any local migratory species.

## 7. An assessment of potential flyways is required

Further survey work is required to identify any local flyways and to assess the likely impacts of wind turbine strike on protected animals. Section 9.2.1.8 of the BAM requires a detailed assessment of the impacts of wind turbine strikes on protected species. Section 8.2.3 'Turbine Strike/Barotrauma' of the BDAR identifies seven bird and bat species (wedge-tailed eagle, spotted harrier, regent honeyeater, swift parrot, large-eared pied bat, large bent-winged bat, and the white-striped freetail bat) that have been identified as being most at risk from this

windfarm project. The selection of these seven species was shown in Appendix C, and the blade strike risk assessment was provided in Appendix D. However, not all of the 11 requirements of Section 9.2.1.8 of the BAM have been met. The following information should be provided:

- Predict the rate of impact per turbine per year for the species likely to be affected
- Predict the cumulative impact of any blade strike on the local population of the large bent-winged bat
- Map the following significant landscape & habitat features: water bodies, tree height, mature trees, rock outcrops, any mapped important areas for the regent honeyeater & swift parrot within the area covered by the map, cliffs, overhangs or escarpments. – BCD notes that maps of native vegetation extent (Figure 7.1 to 7.5), Plant Community Type (Figure 8.1 to 8.5), records of threatened fauna species and raptor species (Figure 11) and hollow-bearing trees and raptor nests within the subject land (Figure 15) have been presented in the BDAR.
- Predict & describe indirect impacts on aerial species for migratory pathways, breeding, feeding & resting
- Predict the likely cost of avoidance behaviour by migratory species
- Predict the cumulative impact of local windfarms on movement patterns and use of habitat.

Further survey will be required to identify any local flyways for migratory and protected species, and to assess the risks of blade strike for each species. BCD recommends the following survey approach:

<u>Microbat survey</u>

- Anabat recorders are to be placed in the project area, with one recorder at every second wind turbine site. Each anabat is to record calls for a minimum of five nights during each season, over a 12-month period. Ideally all turbines sites will be surveyed during the same five night period (if possible), or as a minimum, each bank of turbines should be surveyed during the same five night period. Each season the turbines surveyed should be switched to the turbines not surveyed in the previous season, resulting in each turbine being surveyed during two seasons.

<u>Bird survey</u>

- Survey points are to be established at each turbine location, or where turbines occur within 500 metres of each other, at a centre point or the highest point in the landscape between them. Any sites found to be unsuitable because they were unsafe, or have restricted views are to be moved to locations that are safe and offer clear views of the turbine location(s) to be surveyed.
- Survey sites require a minimum of 270° field of view with minimal obstructions within 200 metres.
- Four replicate surveys are to be conducted at each site each season. An observer will be at each site, each season, for a minimum of one hour of survey, before 11 am or within four hours of sunset, recording location, direction and height of bird flights within 500 metres of turbine locations (along with number of birds and species).

- Nests of any threatened raptor species in the project area will be monitored during the survey periods to determine the frequency, flight route, destination (where possible) and flight height range of birds using the site.

Data from the microbat surveys should be collated to show, the number of passes of each species each night at each turbine location, shown by season. The total number of all passes by all microbat species should also be shown for each turbine location, for each season, and across all seasons.

Data from the bird surveys should be analysed to show as a minimum:

- the number of passes each season, and total across all seasons, of each species, and all species, within the likely path of each turbine's rotor blades (include a 10 metre buffer beyond the end of the rotor blades).
- the number of passes each season, and total across all seasons, of each species, and all species, in each 100 metre zone extending out to 500 metres from turbine locations.
- an analysis of possible flyways around turbine locations for each species (including migratory species, see Recommendation 6 above) and all species, across each season.

### Recommendation 7

BCD recommends that surveys are undertaken to identify any local flyways for bird and bat species and that the information collected is used to assess the impacts of turbine strike on protected species.

## 8. An adaptive management plan for vehicle strike is recommended

Section 8.6.2 'Vehicle Strike' describes three mitigation measures for the prescribed impacts of vehicle strike for the project. However, no management actions are proposed for uncertain impacts of vehicle strike. BCD recommends that the proponent develops an adaptive management plan for vehicle strike, as described in Section 9.4.2.4 of the BAM.

### Recommendation 8

BCD recommends the proponent develops an adaptive management plan for vehicle strike, as per Section 9.4.2.4 of the BAM.

## 9. More details are required on post-construction mitigation measures to avoid impacts on threatened species

Table 26 in the BDAR presents mitigation measures prior to, and during construction, but not after construction. This does not meet the requirements of Section 9.1.1.2 of the BAM.

### Recommendation 9

BCD recommends the proponent provides details of proposed post-construction mitigation measures to avoid impacts on threatened species.

## 10. More details are required on the impact assessment of the project

Chapter 8 'Impact assessment' describes the direct and indirect impacts of the project on vegetation and other biodiversity. However, it is not clear how the assessment of, for example Table 25 'Indirect impacts of the Project', describes the frequency or intensity of indirect impacts as required by Sections 9.1 and 9.2 of the BAM.

### Recommendation 10

BCD recommends the direct and indirect impacts of the project that cannot be avoided are described in terms of the frequency and intensity of direct and indirect impacts that are unable to be avoided.

## 11. The BDAR should be finalised within 14 days of the exhibition of the EIS

Section 6.15 (Currency of a biodiversity assessment report) of the *Biodiversity Conservation Act 2016* (BC Act) indicates that a biodiversity assessment report cannot be submitted in connection with a relevant application unless the accredited person certifies in the report that the report has been prepared on the basis of the requirements of (and information provided under) the biodiversity assessment method as at a specified date and that date is within 14 days of the date the report is submitted.

The BAM accredited assessor has not certified that the Biodiversity Development Assessment Report (BDAR) was finalised within 14 days of exhibition of the Environmental Impact Statement (EIS).

### Recommendation 11

BCD recommends the BAM accredited assessor certifies that the BDAR was finalised within 14 days of the exhibition of the EIS.

## 12. Further information is required to meet the full requirements of a BDAR

The BDAR was checked against the minimum information requirements in Table 25 of the *Biodiversity Assessment Method 2017*, and the following details were not found:

1. A discussion of the credit classes for ecosystem credits does not appear to have been included in the BDAR. BCD notes that copies of the 'BAM Biodiversity Credit Report (Like for like)' reports from each of the BAM Calculator files have been provided in Appendix E of the BDAR.

2. Figures 1.2 to 1.5 (Site Map) are presented at 1:22,727 scale. This is coarser than the 1:10,000 scale required for showing native vegetation extent (section 5.1.1.4 of the BAM). New maps at the 1:10,000 scale should be provided.

3. Section 6.3 of the BDAR requires a table that provides habitat details for each of the candidate species considered for this project, and whether they are present on the Study Area.

### Recommendation 12

BCD recommends that additional data is provided to ensure that all requirements of the BDAR are met.

## 13. The details in figures are difficult to see

Except for Figure 3, numbered turbine locations are not shown on the figures in the BDAR. Numbered turbine locations are useful reference points when interpreting or referring to the figures, particularly the sets of five zoomed-in figures to show project or ecological details. The broad scale of the composite figures (only five zoomed-in figures) also makes it difficult to see project or ecological details in the figures. Composite figures should be shown at a scale where details can be clearly seen (this may require 10 or more figures per set of composite figures).

### Recommendation 13

BCD recommends that numbered turbine locations are shown on all composite (zoomed-in) sets of figures and that the scale of the composite figures is improved so that project and ecological details can be clearly seen.

## Matters of National Environmental Significance

### 14. Further information is required on the assessment of Matters of National Environmental Significance

Appendix A of the BDAR is the Assessment of Matters of National Environmental Significance (MNES) for the project.

BCD will undertake a bilateral assessment of MNES for the Commonwealth Department of Agriculture, Water and the Environment (DAWE). Some information is presented in Appendix A however, additional information specific to the assessment of MNES for the project is required. Appendix A should contain the following information:

- Identification of all EPBC Act-listed matters, which may include threatened species, threatened communities, migratory species, and other environmental matters listed under the Act (as per DAWE's Referral Decision dated 3 June 2020), that occur or are predicted to occur on the proposed development site and in the vicinity. This includes a copy of the MNES Protected Matters Search results and any other EPBC Act-listed matters, such as threatened species, threatened communities and migratory species identified by the proponent from desk-top analysis or site surveys.

- Details are required of how survey effort for EPBC Act-listed threatened species met BAM requirements, and, where available, Commonwealth survey requirements – such as the *Draft Survey Guidelines for Australia's Threatened orchids: Guidelines for detecting orchids listed as 'threatened* under the *Environment Protection and Biodiversity Conservation Act 1999*' (DoEE, 2013). This is required for *Acacia bynoeana*, *Angophora inopina*, *Asperula asthenes*, *Cryptostylis hunteriana*, *Cynanchum elegans*, *Eucalyptus parramattensis* subsp. *decadens*, *Eucalyptus pumila*, *Eucalyptus glaucina*, *Grevillea parviflora* subsp. *parviflora*, *Melaleuca biconvexa Ozothamnus tesselatus*, *Prasophyllum* sp. Wybong, *Prostanthera cineolifera*, *Pterostylis gibbosa*, and *Thesium australe*.

- The proponent must provide a statement about the potential impact (i.e. likely significant, low risk of impact or not occurring) to any of the matters listed in the Referral Decision (dated 3 June 2020), such as threatened species and communities that occur or are predicted to occur on the proposed development site and in the vicinity. Where DAWE has determined a likely significant impact will occur for an endangered community or species this must be discussed, the impact quantified, and appropriate offsets proposed.

  For those species, communities and other matters that the Commonwealth have determined are likely to be significantly impacted by the project, but that the proponent considers will not be impacted, the proponent must provide robust evidence in support of their conclusion, e.g. maps of habitat or known distribution in relation to the project area. For all other species and communities with potential to be impacted by the project, but are considered not likely to be impacted, then justification is required for why those species are not being further assessed.

- Provide a summary of the results of the BAM assessment of the impacts or likely impacts of the project on MNES. This includes direct, indirect, facilitated and downstream impacts. Measures to avoid and mitigate impacts must be provided. The

assessment must include a description of the quantum and nature of these impacts on each affected MNES matter, such as threatened species and communities listed in the referral decision, plus any added by the proponent, and the consequences of those impacts on the species and communities. The nature and significance of the impacts must be discussed in the context of any relevant Conservation Advice Recovery Plans and Threat Abatement Plans.

- Provide a copy of the Protected Matters Search Tool results, and the parameters of the search.

- An assessment of the 'significant impact criteria' for each threatened species and ecological community. These criteria are provided in the 'Matters of National Environmental Significance: Significant impact guidelines 1.1 *Environment Protection and Biodiversity Conservation Act* 1999 (DoE, 2013).

- For threatened species and communities and migratory species, identify whether any EPBC Act-listed species have not been assessed by the BAM, i.e. migratory species, and describe how they have been assessed in accordance with the SEARs.

- Details of any offsets proposed in relation to residual significant adverse impacts, how they provide a like-for-like outcome, and how any land-based offsets will be secured. This must include an analysis of how the proposed offsets will contribute to the conservation and long-term protection of the species and communities. This must include an assessment of any indirect impacts that may require offsetting.

## Recommendation 14

BCD recommends that additional information on the assessment of Matters of National Environmental Significance is provided in Appendix A of the BDAR.