

Our ref: DOC20/487000-1

Your ref: SSD 9697

Mandana Mazaheri

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Dear Ms Mazaheri

Bayswater Power Station Upgrade (SSD 9697) - Review of Environmental Impact Statement

I refer to your e-mail dated 19 June 2020 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 Bayswater Power Station Upgrade Project (SSD 9697).

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*) and flooding.

With respect to Aboriginal cultural heritage, BCD is no longer the relevant agency for Aboriginal cultural heritage matters. From 1 July 2020, the regulation of Aboriginal cultural heritage transferred to Heritage NSW. Any enquiries, assessments, requests for comment or matters relating to Aboriginal cultural heritage should now be sent to heritagemailbox@environment.nsw.gov.au. For this project (Bayswater Power Station Upgrade) we have forwarded your request to the Heritage NSW via their mailbox and they will respond separately.

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 Steve Lewer, Senior Regional Biodiversity Conservation Officer, on 4927 3158 or via email at rog.hcc@environment.nsw.gov.au

Yours sincerely



30 July 2020

STEVEN COX
Senior Team Leader Planning
Hunter Central Coast Branch
Biodiversity and Conservation Division
Enclosure: Attachments A and B

BCD's recommendations

Bayswater Power Station Upgrade (SSD 9697) – Review of Environmental Impact Statement

1. BCD recommends the lead / principal BAM accredited assessor (and their accreditation number) be identified in the BDAR and on the BAM calculator (including output reports), and that detailed summaries of prior experience are provided for all staff involved in the preparation of the BDAR.
2. BCD recommends the BAM accredited assessor submits the credit calculator via the NSW Biodiversity Accredited Assessor System prior to the submission of response to submissions report.
3. BCD recommends the BAM accredited assessor includes the plot field data sheets in the submitted BDAR prior to the submission of response to submissions report.
4. BCD recommends the BAM accredited assessor certifies that the BDAR was finalised within 14 days of the exhibition of the EIS.
5. BCD recommends the BDAR include detailed justification as to why the Plant Community Type 1691 and their variants do not meet the listing criteria for the NSW listed *Central Hunter Grey Box – Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions* endangered ecological community, as per the NSW Threatened Species Scientific Committee Final Determination.
6. The following threatened flora species require targeted surveys in accordance with the 2020 *Surveying threatened plants and their habitats - NSW survey guide for the Biodiversity Assessment Method (DPIE, 2020)* or an expert report or adequate justification to determine likely absence or presence:
 - *Cynanchum elegans* (White-flowered Wax Plant),
 - *Rhodamnia rubescens* (Scrub Turpentine), and
 - *Thesium australe* (Austral Toadflax).
7. The red goshawk requires further justification of its exclusion from further assessment or targeted surveys (in accordance with the BCD fauna survey guidelines) or an expert report.
8. BCD recommends that if the credit obligations for the threatened ground orchids, *Diuris tricolor* and *Prasophyllum petilum*, are reassessed prior to project approval, then the targeted surveys should: (i) be undertaken in accordance with the parallel transect method outlined *Surveying threatened plants and their habitats - NSW survey guide for the Biodiversity Assessment Method* (DPIE, 2020), (ii) survey the full habitat species polygon identified in the expert report (i.e. 160 hectares), (iii) utilise reference populations (such as Mangoola Coal Mine lease or Thomas Mitchell Drive) to determine optimal timing of flowering, and (iv) be undertaken during optimal seasonal conditions when the species is likely to be detected.
9. BCD recommends that the geographic distribution for *Prasophyllum petilum* be updated in the BDAR and expert report to include the record from Thomas Mitchell Drive, south of Muswellbrook.

10. BCD recommends that the accredited assessor demonstrate that the native vegetation within vegetation zones described as Non-native Vegetation - Exotic Grasslands is non-native and permissible for use under the Paddock Tree Calculator.
11. BCD recommends that the credit obligation for each clearing stage under the proposed clearing plan be outlined in the BDAR.
12. BCD recommends that the accredited assessor update the BDAR to include measures proposed to address the offset obligations.
13. BCD recommends that the BDAR and BAM calculator be updated to reflect possible changes requested during this review stage from the above recommendations.

Flooding and flood risk

14. No further flooding or flood risk assessment is required.

BCD's detailed comments

Bayswater Power Station Upgrade (SSD 9697) – Review of Environmental Impact Statement

Biodiversity

1. The accredited assessor for the BDAR needs to be identified

Under the *Biodiversity Conservation Act 2016* (the BC Act), a Biodiversity Development Assessment Report (BDAR), must be prepared by a person accredited under the accreditation scheme prepared under section 6.10 of the BC Act.

Appendix 10 – Staff Contributions indicates which Kleinfelder Pty Ltd employees are accredited assessors and provided input into the BDAR. However, this table does not identify which of these accredited assessors (and their accreditation number) is the lead assessor responsible for the overall delivery of the BDAR, BAM calculator (BAMC), surveys and data input into the overall report. Nor does Table 10 provide detailed summaries of each person's experience to justify their inclusion in the BDAR. Clause 6.8 of the *Biodiversity Conservation Regulation 2016* sets out the minimum requirements for a BDAR which includes the requirement to include details of the accreditation of the person preparing the report and suitable experience of any other persons used in the preparation of the BDAR.

Furthermore, the accredited assessors name and assessor number who completed the BAMC is not identified on any of the BAMC output reports (e.g. Paddock Tree Report, BAM Predicted Species Reports, BAM Candidate Species Reports and BAM Biodiversity Credit Reports).

Recommendation 1

BCD recommends the lead / principal BAM accredited assessor (and their accreditation number) be identified in the BDAR and on the BAM calculator (including output reports), and that detailed summaries of prior experience are provided for all staff involved in the preparation of the BDAR.

2. The Accredited Assessor should submit the credit calculator via the NSW BAAS.

The credit calculator used in the BDAR to determine the credit requirements (both ecosystem and species) has not been submitted via the NSW Biodiversity Accredited Assessor System (BAAS). This is required to finalise BCD's assessment of the BDAR.

BCD reviews an accredited assessors credit calculator files to determine if the BAM has been applied correctly, that the BDAR and calculator use the same data and selected parameters (i.e. 'drop down menus'), and that the biodiversity credit requirements (both ecosystem and species) are consistent between the BDAR and the credit calculator.

Recommendation 2

BCD recommends the BAM accredited assessor submits the credit calculator via the NSW Biodiversity Accredited Assessor System prior to the submission of response to submissions report.

3. Copies of plot field data sheets should be provided

The plot field data sheets have not been included in the Biodiversity Development Assessment Report (BDAR). Providing field data sheets is a requirement under the Biodiversity Assessment Method (BAM; OEH 2017, see Appendix 10). BCD reviews the plot field data sheets to ensure consistency between the data sheets, the BDAR and the credit calculator.

In this instance, BCD requires such plot data to:

- check the veracity of the Plant Community Types (PCTs) chosen in the BDAR, and
- determine whether certain variants (vegetation zones) of *PCT 1691: Narrow-leaved Ironbark – Grey Box grassy woodland* (e.g. regrowth) meet the listing criteria in the NSW Threatened Species Scientific Committee Final Determination for the *Central Hunter Grey Box – Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions* endangered ecological community (EEC) as listed under the *Biodiversity Conservation Act 2016* (the BC Act).

Recommendation 3

BCD recommends the BAM accredited assessor includes the plot field data sheets in the submitted BDAR prior to the submission of response to submissions report.

4. Accredited assessor needs to certify BDAR was finalised within 14 days of the exhibition of the EIS

Section 6.15 (Currency of a biodiversity assessment report) of the 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 so submitted.

The BAM accredited assessor has not certified that the BDAR was finalised within 14 days of exhibition of the EIS.

Recommendation 4

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

5. Further justification is required as to why certain PCTs or their variants are not considered Threatened Ecological Communities

BCD notes that Section 3.2.2.1 of the BDAR provides detailed justification as to why PCT 1691 and its variants (vegetation zones) do not meet the listing criteria for the federally listed *Central Hunter Valley eucalypt forest and woodland* critically endangered ecological community (CEEC) under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). However, the same level of justification is not provided for the same PCT and variants for the NSW listed *Central Hunter Grey Box – Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions* EEC.

Recommendation 5

BCD recommends the BDAR include detailed justification as to why the Plant Community Type 1691 and their variants do not meet the listing criteria for the NSW listed *Central Hunter Grey Box – Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions* endangered ecological community, as per the NSW Threatened Species Scientific Committee Final Determination.

6. Further justification is needed as to why certain threatened flora were not assessed

BCD notes that a number of threatened flora listed in Appendix 2 – Threatened Species Database Search (of the BDAR) which is part of the process in developing a ‘candidate species’ list are described as having ‘*Suitable habitat or... marginal habitat present within the Study Area. However, no known records within locality*’. It appears these species have been discounted from further assessment and surveying on the basis that there are no known records of them within the locality. Under the BAM, a species can be removed from the potential or ‘candidate species’ list if they have not been recorded within the IBRA sub region the development is located within. However, BCD notes the following threatened flora species which have been identified in Appendix 2 as having suitable / marginal habitat on site do occur within the appropriate IBRA Subregion, that being ‘Hunter’ (as per BioNet records, accessed July 2020):

- *Cynanchum elegans* (White-flowered Wax Plant) – know from the Lower Hunter on Ash Island and the Upper / Central Hunter from south of Denman, Singleton Army Base and near Broke;
- *Rhodamnia rubescens* (Scrub Turpentine) – various localities from the Central and Lower Hunter, including Cessnock, Beresfield, Fletcher and Minmi; and
- *Thesium australe* - has been recorded from the Dartbrook area and from grassland near the Mangoola Mine; patches of Kangaroo Grass (*Themeda triandra*) grassland offer suitable habitat for this species; Kangaroo Grass recorded for the subject site (as per Appendix 3 – Flora and Fauna Species List).

If the assessor proposes to remove a species from the list of candidate species (including species from the threatened species database search) then appropriate justification must be provided in the BDAR, such as lack of suitable habitat or evidence it does not occur with the IBRA subregion. In instances where appropriate justification is not provided then appropriate targeted surveying in accordance with *Surveying threatened plants and their habitats - NSW survey guide for the Biodiversity Assessment Method* (DPIE, 2020) is required or an expert report is provided.

Recommendation 6

The following threatened flora species require further justification for their exclusion from the list of candidate species, or targeted surveys in accordance with the 2020 *Surveying threatened plants and their habitats - NSW survey guide for the Biodiversity Assessment Method* (DPIE, 2020) or an expert report:

- *Cynanchum elegans* (White-flowered Wax Plant)
- *Rhodamnia rubescens* (Scrub Turpentine)
- *Thesium australe* (Austral Toadflax).

7. Further justification is needed for the red goshawk

The threatened red goshawk (*Erythrotriorchis radiatus*) is listed as having ‘*Marginal habitat present within the Study Area, however, no known records*’ in Appendix 2 – Threatened Species Database Search (of the BDAR). It appears that this species has been discounted from further assessment and surveying on the basis that there are no known records within the locality. Under the BAM, a species can be removed from the potential or ‘candidate species’ list if they have not been recorded within the IBRA sub region the development is located within. However, BCD notes the red goshawk has been recorded north of Singleton within the Hunter IBRA Subregion (as per BCD’s BioNET, accessed July 2020).

If the assessor proposes to remove a species from the list of candidate species (including species from the threatened species database search) then appropriate justification must be provided in the BDAR, such as lack of suitable habitat or evidence it does not occur with the IBRA subregion. In instances where appropriate justification is not provided then appropriate targeted surveying in accordance with BCD's fauna survey guidelines (as listed on the BCD's website

<https://www.environment.nsw.gov.au/surveys/GuidelinesForCarryingOutASurvey.htm>, or an expert report, is required.

Recommendation 7

The red goshawk requires further justification of its exclusion from further assessment or targeted surveys (in accordance with the BCD fauna survey guidelines) or an expert report.

8. Targeted surveys for the threatened ground orchids will need to be undertaken in accordance with DPIE 2020 and advice from the accredited expert

The BDAR indicates that the 'species credit' obligation for two of the predicted threatened ground orchids, *Diuris tricolor* and *Prasophyllum petilum* (syn. *Prasophyllum* species 'Wybong' under the EPBC Act) have been based on an expert report (Appendix 8 of the BDAR) as they were assumed present. Due to sub-optimal conditions for the flowering season of these two orchids, and the lack of flowering at local reference populations, an expert report was undertaken to determine the habitat suitability of the Study Area for these species (this included the mapping of species habitat polygons for each species). The expert report determined that approximately 160 hectares of habitat will be potentially impacted by the proposed development. The credit obligations for both species are presented in the BAM Biodiversity Credit Reports (Appendix 7 of the BDAR).

The retirement of biodiversity credits will occur in a staged manner as clearing for each portion of the Project will not occur immediately. A separate clearing staging plan will be prepared prior to the commencement of works. This plan will set out the biodiversity credit obligation for each stage of clearing and will be approved by DPIE prior to commencement. As a result seasonal surveys could possibly occur pre-approval (depending on seasonal conditions) to refine the area of habitat for the species. In the absence of such surveys the biodiversity credit obligation for the species has been determined by the expert report.

Any targeted surveys must:

- a. be undertaken in accordance with the parallel transect method outlined *Surveying threatened plants and their habitats - NSW survey guide for the Biodiversity Assessment Method* (DPIE, 2020)
- b. survey the full habitat species polygon identified in the expert report (i.e. 160 hectares)
- c. utilise reference populations (such as Mangoola Coal Mine or Thomas Mitchell Drive) to determine optimal timing of flowering
- d. be undertaken during optimal seasonal conditions when the species is likely to be detected. BCD recommends consultation with the species expert in determining optimal survey times.

Recommendation 8

BCD recommends that if the credit obligations for the threatened ground orchids, *Diuris tricolor* and *Prasophyllum petilum*, are reassessed prior to project approval, then the targeted surveys should: (i) be undertaken in accordance with the parallel transect method outlined *Surveying threatened plants and their habitats - NSW survey guide for the Biodiversity Assessment Method* (DPIE, 2020), (ii) survey the full habitat species polygon identified in the expert report (i.e. 160 hectares), (iii) utilise reference populations (such as

Mangoola Coal Mine lease or Thomas Mitchell Drive) to determine optimal timing of flowering, and (iv) be undertaken during optimal seasonal conditions when the species is likely to be detected.

9. The BDAR and expert report on *Prasophyllum petilum* geographic information needs to be updated

The expert report incorrectly states that ‘*There are no validated populations of Prasophyllum petilum outside of the Wybong (Mangoola Coal mine) locality (c. 28 km WNW)*’ of the Study Area. There is another BioNet record of *Prasophyllum petilum* on Thomas Mitchell Drive, south of Muswellbrook.

Recommendation 9

BCD recommends that the geographic distribution for *Prasophyllum petilum* be updated in the BDAR and expert report to include the record from Thomas Mitchell Drive, south of Muswellbrook.

10. The accredited assessor needs to demonstrate that vegetation meets the definition of non-native groundcover to use the paddock tree calculator

With respect to using the paddock tree calculator the accredited assessor needs to demonstrate that the native vegetation meets the definition of native vegetation that comprises the groundcover, which is:

- I. less than 50% of the cover of indigenous species of vegetation, and
- II. not less than 10% of the area is covered with vegetation (whether dead or alive), and
- III. the assessment is made at the time of year when the proportion of the amount of indigenous vegetation in the area to the amount of non-indigenous vegetation in the area is likely to be at its maximum.

Given it appears that no plots or transects were conducted in the vegetation zones identified as Non-native Vegetation - Exotic Grasslands, the vegetation present may not meet the definition outlined above for non-native groundcover. Additional BAM plots or appropriate justification is required from the accredited assessor to demonstrate that these communities are non-native and permissible for use under the Paddock Tree Calculator.

Recommendation 10

BCD recommends that the accredited assessor demonstrate that the native vegetation within vegetation zones described as Non-native Vegetation - Exotic Grasslands is non-native and permissible for use under the Paddock Tree Calculator.

11. The credit obligation for each clearing stage should be presented in the BDAR

The BDAR (in the Executive Summary and Section 6.2.3 Retirement of Biodiversity Credits) notes the retirement of biodiversity credits will occur in a staged manner as clearing for each portion of the Project will not occur immediately. As such a separate clearing staging plan will be prepared prior to the commencement of works. From this plan the required biodiversity credits for each stage will be determined based on areas of impacts to each vegetation zone, and the retirement of biodiversity credits will occur prior to the commencement of each stage. This plan will be set out in a separate document to the BDAR and will be approved by DPIE prior to commencement of disturbance works.

The credit obligation for each stage should be outlined in the BDAR. This should include details on the size / area of each stage, the PCT(s) affected, and the type and number of credits to be retired (i.e. both species and ecosystem credits).

Recommendation 11

BCD recommends that the credit obligation for each clearing stage under the proposed clearing plan be outlined in the BDAR.

12. The BDAR should include details of the measures proposed to address the offset obligation

The BDAR does not provide any details of the measures proposed to address the offset obligations. BCD's Secretary's Environmental Assessment Requirements (dated 21 November 2018) indicate that the BDAR must include details of the measures proposed to address the offset obligation such as:

- The total number and classes of biodiversity credits required to be retired for the development/project;
- The number and classes of like-for-like biodiversity credits proposed to be retired;
- The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules;
- Any proposal to fund a biodiversity conservation action;
- Any proposal to conduct ecological rehabilitation (if a mining project);
- Any proposal to make a payment to the Biodiversity Conservation Fund.

Recommendation 12

BCD recommends that the accredited assessor update the BDAR to include measures proposed to address the offset obligations.

13. BCD recommends that the BDAR and BAM calculator be updated to account for the requested changes

Given the above recommendations, BCD recommends that the accredited assessor update the BDAR and BAM calculator as part of the 'Response to Submissions' phase.

Recommendation 13

BCD recommends that the BDAR and BAM calculator be updated to reflect changes requested from the above recommendations.

Flooding and flood risk

14. BCD is satisfied with the assessment

BCD is satisfied that the proponent has adequately identified and addressed any impacts.

Recommendation 14

No further flooding or flood risk assessment is required.