Department of Planning and Environment

Elisha Dunn
Department of Planning and Environment
4 Parramatta Square
PARRAMATTA NSW 2150

Our Ref: DOC22-1006935
Your Ref: SSD-50725708

Via Major Projects Portal: PAE-50766458

29 November 2022

Dear Ms Dunn

Subject: Request for Secretary's Environmental Assessment Requirements – Dinawan Wind Farm (SSD 50725708)

Thank you for your email dated 15 November 2022 seeking input from the Biodiversity and Conservation Division (BCD) into the Department of Planning and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for the Dinawan Wind Farm (SSD 50725708).

BCD have reviewed the supplied documents, being:

- Dinawan Wind Farm Scoping Report, EMM, November 2022
- Draft SEARs for agencies, DPE

We provide SEARs for the proposed development in **Attachment A.** Guidance material is listed in **Attachment B**.

BCD recommends that the EIS appropriately address the following:

1. Biodiversity
2. Flooding

The EIS should fully describe the proposal, the existing environment, including threatened species habitat not associated with vegetation communities such as paddock trees, and impacts of the development including the location and extent of all proposed works that may impact on flooding and biodiversity. The scale and intensity of the proposed development should dictate the level of investigation. It is important that all conclusions are supported by adequate data. The assessment must include all ancillary infrastructure associated with the project such as roads, water and power supplies, and Rural Fire Service requirements for asset protection. Strategies for adaptive management and associated monitoring for the project will need to conform to current NSW and Australian standards and guidelines for windfarm developments. Note that regional-scale Plant Community Type (PCT) mapping may not be accurate at a site scale so should not be relied upon for the assessment.

<u>Biodiversity</u>

The anticipated impact will need to be determined as part of the EIS using the Biodiversity Assessment Method 2020 (BAM) and documented in a Biodiversity Development Assessment Report (BDAR). Survey methods must be consistent with BAM requirements, unless otherwise agreed with BCD. Minimum requirements for the biodiversity assessment are listed in Appendix K of the BAM. The Accredited Assessor preparing the BDAR is advised to follow the BDAR template (DPE 2022).

The *Biodiversity Conservation Act 2016* (BC Act) sections 6.2(d) and s6.4(1) set out the requirement to apply the 'avoid, minimise, offset' hierarchy for development approvals. The proposal must demonstrate that impacts to threatened biodiversity have, in the first instance, been avoided.

The Scoping Report has identified numerous threatened ecological communities under the BC Act and *Environment Protection and Biodiversity Conservation Act 1999* as present within the footprint and likely to be impacted by the proposed development, including:

- Weeping Myall Woodlands (endangered BC Act and EPBC Act)
- Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions (endangered BC Act)
- Natural Grasslands of the Murray Valley Plains (critically endangered EPBC Act)

BCD note that the Scoping Report identifies PCTs 44 and 46 as not being associated with the EPBC TEC of *Natural Grasslands of the Murray Valley Plains* and being derived PCTs. This assessment would require further justification and clarification based on floristic surveys and the Approved Conservation Listing Advice for this TEC and the justification of PCT 44 and 46.

Section 6.2.1(ii) identifies the threatened flora and fauna known or predicted to occur in the project site. From this list, *Leptorhynchos orientalis* and *Swainsona murrayana* were both recorded in the Project EnergyConnect – East EIS (SSI 9172452) from within or adjacent to the boundary of the Dinawan Wind Farm site. The threatened fauna from this list includes numerous birds that have been found to be particularly susceptible to collision with wind turbines, including raptors such as the Black Falcon. A full assessment of the risk to bird and bat species and how such risk may be mitigated must be completed to inform the preparation of a Bird and Bat Adaptive Management Plan for the development.

The proposal site also contains mapped important habitat areas for the Plains-wanderer which is listed as endangered under the BC Act and critically endangered under the EPBC Act. BCD note that the Scoping Report indicates that mapped important habitat will be avoided but reiterates the need to avoid clearing native vegetation and impacts to Plains-wanderer habitat for turbines or ancillary infrastructure.

Due to the nature of the development the project must document commitments to mitigation measures proposed to manage impacts, including impacts which are uncertain, in accordance with Section 8.4 of the BAM 2020.

BCD notes that the project occurs within multiple native vegetation formations and PCTs within the Riverina Bioregion where limited clearing of native vegetation or pasture improvement has occurred. Such areas are likely to be Category 2 land where the BAM applies, which is likely to result in large areas requiring survey effort over multiple seasons and years.

Where targeted surveys in associated PCTs have not been completed for candidate species due to access constraints (e.g. landholder access or prolonged flooding), species must be assumed present until targeted survey effort can be completed prior to project approval and preferably before EIS exhibition. However, the assumed presence approach does not enable those species/locations to be considered in avoid and minimise.

Given the location of the proposal in relation to the South West Renewable Energy Zone, the cumulative impact of electricity generation in the surrounding region should be assessed through application of the Cumulative Impact Assessment Guidelines for State Significant Projects.

If the EIS and associated BDAR do not comply with the BAM, further surveys during the Response to Submissions (RTS) period will be required which may prolong the approval process. BCD discourages this approach and understands that no approvals will be issued based on assumed presence and post approval surveys due to proponent timelines.

When the BDAR is submitted, we request that the BAM accredited assessor provides the required spatial data which reflects the figures within the BDAR directly to BCD. We do not require jpeg files.

While other digital data can be uploaded into the Biodiversity Offset and Agreement Management System (BOAMS), there is currently no function to upload zip or spatial files.

The EIS should identify any relevant Matters of National Environmental Significance, and whether the proposal has been referred to the Australian Government or already determined to be a controlled action under the EPBC Act.

Flooding

The project site is located within the Lower Murrumbidgee River Catchment and is located largely between the Coleambally Outfall Drain and Delta Creek. There are likely numerous ephemeral creek channels and wetlands across the project site through generally flat topography likely creating a broad floodplain. There is also a possibility that these channels will not only be activated through local rainfall events but also through connection to the Yanco Creek floodplain through breakouts during major flood events. Given this , it is important that the hydrology of the site be investigated to aid in the site design and the placement of infrastructure to minimise flood risks.

The EIS should specifically address the attached requirements for flooding and conduct appropriately detailed quantitative flood modelling for the purposes of locating infrastructure and for assessing impacts, including on waterway crossings for site access.

If you have any questions about this advice, please contact Simon Maffei, Senior Project Officer Planning via rog.southwest@environment.nsw.gov.au or 02 6983 4923.

Yours sincerely

Andrew Fisher
Senior Team Leader Planning
South West Branch
Biodiversity and Conservation Division
Department of Planning and Environment

ATTACHMENT A – Recommended Environmental Assessment Requirements for Dinawan Wind Farm (SSD 50725708)
ATTACHMENT B – Guidance material

Attachment A – Recommended Environmental Assessment Requirements for Dinawan Wind Farm (SSD 50725708)

Sources of guidance material for terms in blue are in Attachment B

Biodiversity
1. Biodiversity impacts related to the proposed development are to be assessed in accordance with Section 7.9 of the *Biodiversity Conservation Act 2016* using the Biodiversity Assessment Method (BAM) 2020 and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the *Biodiversity Conservation Act 2016* (s6.12), Biodiversity Conservation Regulation 2017 (s6.8) and the BAM, unless DPE determines that the proposed development is not likely to have any significant impact on biodiversity values.
2. The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect, uncertain and prescribed impacts in accordance with the BAM.
3. The BDAR must include details of the measures proposed to address the offset obligation as follows; a. The total number and classes of biodiversity credits required to be retired for the development/project; b. The number and classes of like-for-like biodiversity credits proposed to be retired; c. The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules; d. Any proposal to fund a biodiversity conservation action; e. Any proposal to make a payment to the Biodiversity Conservation Fund. If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits.
4. The BDAR must be submitted with all digital spatial data associated with the survey and assessment as per Appendix K of the BAM.
5. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*.
6. The EIS must assess the impact of wind turbine strikes on protected animals including; a) Predict the likelihood of impact on aerial species resident in, or likely to fly over, the project area, including but not limited to bat/bird strike and barotrauma. b) Predict the rate of impact per turbine per year for species likely to be affected. c) Justify predictions of likelihood of impact and rates of impact with reference to relevant literature and other published sources of information. d) Predict the consequences of impacts for the persistence of bioregional populations, with reference to relevant literature and other published sources of information.

e) Predict and map the likely zone of disturbance around wind turbines for aerial species resident in, or likely to fly over, the project area, with reference to relevant literature and other published sources of information.

f) Map significant landscape and habitat features within the zone of disturbance for species likely to be affected, including but not limited to hollow bearing trees, nest trees, microbat habitat and important habitat for migratory species.

g) Predict the likelihood and describe the nature of indirect impacts on aerial species resident in, or likely to fly over, the project area including but not limited to barriers to migratory pathways and breeding, feeding and resting resources.

h) For migratory species, predict the impact of avoidance behaviour relative to migration distances and the availability of suitable habitat for breeding, feeding and resting over the migration route, with reference to relevant literature and other sources of published information.

i) Justify prediction of likelihood and nature of impact, with reference to relevant literature and other published sources of information.

j) Predict the cumulative impact of the project together with existing wind farms with respect to movement patterns and the use of adjacent habitat and provide justification for these predictions.

Flooding

7. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including:
   a. Flood prone land.
   b. Flood planning area, the area below the flood planning level.
   c. Hydraulic categorisation (floodways and flood storage areas).
   d. Flood hazard.

8. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 5% Annual Exceedance Probability (AEP), 1% AEP flood levels and the probable maximum flood, or an equivalent extreme event.

9. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:
   a. Current flood behaviour for a range of design events as identified in 7 above. This includes the 0.5% and 0.2% AEP year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.

10. Modelling in the EIS must consider and document:
    a. Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies.
    b. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood.

c. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazards and hydraulic categories. d. Relevant provisions of the NSW Floodplain Development Manual 2005.
11. The EIS must assess the impacts on the proposed development on flood behaviour, including: a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure. b. Consistency with Council Floodplain Risk Management Plans. c. Consistency with any Rural Floodplain Management Plans. d. Compatibility with the flood hazard of the land. e. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land. f. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site. g. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses. h. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the SES and Council. i. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the SES and Council. j. Emergency management, evacuation and access, and contingency measures for the development considering the full range or flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the SES. k. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

Attachment B – Guidance material

Title	Web address
Relevant Legislation	
Biodiversity Conservation Act 2016	www.legislation.nsw.gov.au/#/view/act/2016/63/full
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
Environmental Planning and Assessment Act 1979	www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
Biodiversity	
Biodiversity Assessment Method 2020 (DPIE 2020)	https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-2020
BAM 2020 Operational Manual – Stage 1	https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-manual-2020-operational-manual-stage-1
BAM Operational Manual Stage 2	https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-operational-manual-stage-2
BDAR Template (DPE 2022)	https://www.environment.nsw.gov.au/research-and-publications/publications-search/guidance-for-the-biodiversity-development-assessment-report-template
BAM Assessor Resources (including links to Survey Guidelines, Registers and Databases)	https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/accredited-assessors/assessor-resources
BAM Assessor FAQ	https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/accredited-assessors/assessor-questions-and-answers
Biodiversity Values Map	www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap
Guidance to assist a decision maker to determine a serious and irreversible impact (DPIE 2019)	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/guidance-decision-makers-determine-serious-irreversible-impact-190511.pdf
Ancillary rules: biodiversity conservation actions	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-biodiversity-actions-170496.pdf
Ancillary rules: reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-reasonable-steps-170498.pdf
DPIE Threatened Species Profiles	www.environment.nsw.gov.au/threatenedspeciesapp/
BioNet Atlas	www.environment.nsw.gov.au/wildlifeatlas/about.htm
BioNet Vegetation Classification – see **NSW Plant Community Type (PCT)**	http://www.environment.nsw.gov.au/research/Visclassification.htm

Title	Web address
classification link for PCT database login page.	
NSW SEED Data Portal (access to online spatial data)	https://www.seed.nsw.gov.au/
Fisheries NSW policies and guidelines	www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation
Cumulative Impact Assessment Guidelines for Significant Projects	www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/Policy-and-legislation/SSPT-Guidelines/GD1259-RAF-Assessing-Cumulative-Impacts-Guide-final.pdf
Water	
Flooding	
Floodplain development manual	www.environment.nsw.gov.au/floodplains/manual.htm
Australian Rainfall and Runoff: A Guide to Flood Estimation	http://arr.ga.gov.au/
NSW Climate Impact Profile	climatechange.environment.nsw.gov.au/
Climate Change Impacts and Risk Management	www.environment.gov.au/climate-change/adaptation/publications/climate-change-impact-risk-management