



Your ref: SSD-70611708

Our ref: DOC24/361880

Tatsiana Bandaruk
Team leader Environmental Assessments
Department of Planning, Housing and Infrastructure – NSW Planning Group
Via Major Projects Portal: PAE-70618959

Dear Tatsiana

Subject: Request for Secretary's Environmental Assessment Requirements – Conargo Wind Farm (SSD-70611708)

Thank you for your email dated 9 May 2024 seeking advice from the Biodiversity, Conservation and Science Group (BCS) of the NSW Department of Climate Change, Energy, the Environment and Water about the Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for this project.

BCS has reviewed the information supplied. The relevant documents reviewed are:

- Conargo Wind Farm Scoping Report, Arcadis May 2024
- Conargo Wind Farm Draft SEARs

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

BCS recommends that the EIS appropriately address the following:

1. Biodiversity
2. Flood Risk Management
3. Lands managed by the National Parks and Wildlife Service

The EIS should fully describe the proposal, the existing environment, and impacts of the development that may impact on flooding and biodiversity. 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 monitoring will need to align with the 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.

Biodiversity

The Scoping Report has identified threatened ecological communities under the *Biodiversity Conservation Act 2016* (BC Act) and *Environment Protection and Biodiversity Conservation Act*

1999 (EPBC Act) as present within the footprint and likely to be impacted by the proposed development, including:

- Weeping Myall Woodlands (endangered BC Act and EPBC Act)
- Natural Grasslands of the Murray Valley Plains (critically endangered EPBC Act).

For the EPBC Act TEC Natural Grasslands of the Murray Valley Plains, the BDAR must include a TEC equivalency assessment for each associated PCT and TEC based on floristic surveys and the Approved Conservation Listing Advice for each TEC.

The proximity of the proposed wind turbines to Yanco Creek raises concerns about potential impacts to species such as White-bellied Sea-eagle, Black Falcon, Square-tailed Kite, Little Eagle, and Superb Parrot, all of which may nest in habitat along the creek. BCS expects that an appropriate buffer is applied between wind turbines and Yanco Creek. Also, while the project will not be impacting Plains-wanderer mapped important habitat, we also encourage the avoidance of suitable Plains-wanderer habitat that is not on the important habitat map.

Minimum requirements for the biodiversity assessment are listed in Appendix K of the Biodiversity Assessment Method (BAM). Survey methods must be consistent with BAM requirements unless otherwise agreed with BCS. The Accredited Assessor preparing the Biodiversity Development Assessment Report (BDAR) should follow the BDAR template.

The BDAR must demonstrate in detail how the proposal has investigated and implemented all reasonable options to avoid and minimise impacts to all biodiversity values. These investigations should consider site selection, the location of project components (including infrastructure, turbines, and ancillary development components), and project design (including turbine design). Evidence to demonstrate avoidance and minimisation efforts should be supported by available data and scientific research.

The BDAR must provide an assessment of the impacts of the development on birds and bats, including blade strike, barotrauma, alteration to movement patterns, and cumulative impacts of other wind farms in the vicinity. The assessment must also include the preparation of a Bird and Bat Adaptive Management Plan (BBAMP) for the development, informed by mitigation measures proposed to manage impacts. Strategies for adaptive management and associated monitoring for the project will need to conform to the most current standards and guidelines for windfarm developments.

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.

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

Flood Risk Management

The project site is located within a broad floodplain to the north of Yanco Creek which receives perennial flows from the Murrumbidgee River system. The confluence with Billabong Creek is also a short distance downstream from the site boundary. Flooding across the site would likely occur due to flood flows in these systems as well as from local intense rainfall events. Such

events would activate the system of ephemeral creeks and wetlands that exist within and adjacent to the site.

Given this, it is important that the hydrology of the site be investigated to aid in site design and the placement of infrastructure to minimise flood risks. The EIS should specifically address the attached requirements for flooding and conduct flood modelling for the purposes of appropriately locating infrastructure and for assessing impacts, including on waterway crossings for site access.

Lands managed by the National Parks and Wildlife Service

The proposal is proximate to lands reserved under Part 4 of the *National Parks and Wildlife Act 1974*, being the South West Woodland Nature Reserve (South West Woodland Nature Reserve (Puckawidgee, Edgar, Steam Plains Precincts)). On behalf of NPWS, BCS requests that the recommendations listed in Attachment A (12) be included in the SEARs to ensure the EIS explicitly considers land and emergency management concerns with respect to land reserved under the NPW Act.

NPWS highlights that the South West Woodland Nature Reserve was reserved for its biodiversity and cultural values, and provides important habitat for the Swift Parrot and Little Eagle along with a number of other state and nationally listed birds and bats as specified for this reserve complex under the [South West Woodland Nature Reserve Statement of Management Intent](#).

This proposal is one of many major projects in proximity to the South West Woodland Nature Reserve complex. NPWS raises concerns about the cumulative impacts of these renewable developments and requests a detailed assessment of those impacts. Contact with the NPWS Riverina Area is through the Area Manager, via their office email at npws.riverina@environment.nsw.gov.au.

If you have any questions about this advice, please contact Simon Maffei, Senior Project Officer Planning, via planning.southwest@environment.nsw.gov.au or 02 6022 0646.

Yours sincerely



Adam Vey
22 May 2024

Director South West
Biodiversity, Conservation and Science Group
NSW Department of Climate Change, Energy, the Environment and Water

ATTACHMENT A – Recommended Environmental Assessment Requirements for Conargo Wind Farm (SSD-70611708)

ATTACHMENT B – Guidance material

Attachment A Recommended Environmental Assessment Requirements for Conargo Wind Farm (SSD-70611708)

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 it is determined 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 <i>Biodiversity Conservation Act 2016</i>.
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.

Flood Risk Management

7. The EIS must map the following features relevant to flooding as described in the Flood Risk Management Manual: the policy and manual for flood liable land (NSW Government 2023) 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 Flood Risk Management Manual: the policy and manual for flood liable land (2023).
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 of 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.

Lands managed by the National Parks and Wildlife Service

12. Lands managed by the National Parks and Wildlife Service

The EIS must identify and assess:

- a. location of the project (and any ancillary development) with respect to lands reserved (Part 4) or acquired (Part 11) under the *National Parks and Wildlife Act 1974*.
- b. cumulative impacts as they relate to the natural (biodiversity) values on/migrating to the South West Woodland Nature Reserve complex as reserved under *National Parks and Wildlife Act 1974* in the context of landscape connectivity, dependent migratory and threatened species, and key ecological functions of the land which will likely be disrupted, considering:
 - i. extent of, and escalating nature of cumulative impacts on that land, and
 - ii. duration of impacts, long-term threats and resulting outcomes to threatened and mitigatory species.
- (a) address any arising risks or restrictions imposed to land management operations undertaken by the National Parks and Wildlife Service as a result of the project, especially:
 - i. in the use of low flight aircraft for management and bush firefighting emergency response with reference to the [South West Woodland Nature Reserve \(Puckawidgee, Edgar, Steam Plains precincts\) Fire Management Strategy \(nsw.gov.au\)](#). Justify compliance with Australian Government Civil Aviation Safety Authority regulations, and

ii. interference to the functionality and operation of the emergency telecommunications systems used and scheduled for use by National Parks and Wildlife Service.

c. measures proposed to avoid, prevent, control, abate, minimise or manage direct and indirect impacts including an evaluation of their effectiveness and reliability.

Attachment B Guidance material

Title	Web address
<u>Relevant Legislation</u>	
<i>Biodiversity Conservation Act 2016</i>	www.legislation.nsw.gov.au/#/view/act/2016/63/full
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
<i>Environmental Planning and Assessment Act 1979</i>	https://legislation.nsw.gov.au/view/html/inforce/current/act-1979-203
<u>Biodiversity</u>	
Biodiversity Assessment Method 2020 (DPIE 2020)	https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity-offsets-scheme/accredited-assessors/biodiversity-assessment-method-2020
Biodiversity Assessment Method 2020 Operational Manual – Stage 1 (DPE 2022)	https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-manual-2020-operational-manual-stage-1
Biodiversity Assessment Method 2020 Operational Manual – Stage 2 (DPE 2023)	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 https://datasets.seed.nsw.gov.au/dataset/biodiversity-values-map
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	https://www.environment.nsw.gov.au/research-and-publications/publications-search/ancillary-rules-biodiversity-conservation-actions

Title	Web address
Ancillary rules: reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules	https://www.environment.nsw.gov.au/research-and-publications/publications-search/ancillary-rules-reasonable-steps-to-seek-like-for-like-biodiversity-credits
DPE 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) classification link for PCT database login page.	http://www.environment.nsw.gov.au/research/Visclassification.htm
NSW SEED Data Portal (access to online spatial data)	https://www.seed.nsw.gov.au/
Fisheries NSW policies and guidelines	https://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation
<u>Flood Risk Management</u>	
Flood Risk Management Manual: the policy and manual for flood liable land (2023)	https://www.environment.nsw.gov.au/topics/water/floodplains/floodplain-manual
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
<u>Lands managed by the National Parks and Wildlife Service</u>	
NSW National Parks and Wildlife Service (NPWS) Estate – NSW SEED Dataset	https://datasets.seed.nsw.gov.au/dataset/nsw-national-parks-and-wildlife-service-npws-estate3f9e7
NPWS South-West Woodland (Puckawidgee, Edgar & Steam Plains Precincts) – Reserve Fire Management Strategy (NPWS, 2012)	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Fire-management-strategies/south-west-woodland-puckawidgee-edgar-steam-plains-precincts-fire-management-strategy-120636.pdf
South-West Woodland Nature Reserve Statement of Management Intent (OEH, 2014)	https://www.environment.nsw.gov.au/research-and-publications/publications-search/south-west-woodland-nature-reserve-statement-of-management-intent

Title	Web address
NPWS Parks Policy – Managing parks prior to a plan of management	https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/managing-parks-prior-to-a-plan-of-management