



Your ref: SSD-70916707

Our ref: DOC24/388166

Tanja Ibsen
Planning Officer
Department of Planning, Housing and Infrastructure – NSW Planning Group
Via Major Projects Portal: PAE-70916717

Dear Tanja

Subject: Request for Secretary's Environmental Assessment Requirements – Gol Gol Solar Farm (SSD-70916707)

Thank you for your email dated 15 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:

- Gol Gol Solar Farm Scoping Report, Squadron Energy May 2024
- 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.

Biodiversity

The Scoping Report indicates that remnant vegetation will largely be avoided, but that small patches of native vegetation and paddock trees will be removed. The native vegetation being impacted may include threatened ecological communities (TEC) such as the Mallee Bird Community of the Murray Darling Depression Bioregion which is listed as Endangered under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and *Acacia melvillei* shrublands in the Riverina and Murray-Darling Depression bioregions which is

listed as endangered under the NSW *Biodiversity Conservation Act 2016* (BC Act). The threatened species habitat value of the vegetation being directly impacted needs to be determined as part of the EIS, along with an assessment of indirect impacts to the remnant native vegetation being retained within the proposed solar array. Mitigation measures must include an appropriate buffer between the development footprint and remaining native vegetation.

Minimum requirements for the biodiversity assessment are listed in Appendix K of the BAM. Minimum spatial data requirements for the Biodiversity Development Assessment Report (BDAR) submission are listed in Appendix D of the BAM Stage 2 Operational Manual. The Accredited Assessor preparing the BDAR is advised to follow the BDAR template. 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 BCS or uploaded with the parent case in the BAM Calculator (BAM-C).

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

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 Scoping Report indicates that the project site is located within the Murray River catchment and in proximity to Lake Gol Gol. Lake Gol Gol is known to be inundated when a regulated flow path joining the lake to the Murray River is activated during high river levels. BCS considers that the likelihood of riverine flood events impacting the project site is highly unlikely, even during extreme (equivalent to probable maximum) riverine flood events. However, BCS recommends that the proponent conduct a flood impact and risk assessment (FIRA) to validate this. The FIRA should be conducted in accordance with the NSW Flood Risk Management Manual (DPE 2023) and, where applicable, consistent with any Local Council adopted flood studies (FS) or flood risk management studies and plans (FRMS&P).

To date, the Wentworth Shire Council (Council) has not adopted a FS or FRMS&P. However, Council have recently commissioned the Wentworth FS (in preparation) to determine the riverine flood risk posed to the urban areas of Wentworth, Dareton, Buronga and Gol Gol. The study area associated with the Wentworth FS encompasses Lake Gol Gol and surrounds. BCS recommends that the proponent liaise with Council when preparing the FIRA to ensure consistency with the flood modelling produced as a part of the Wentworth FS.

Given that landscape is generally dominated by topography of low relief, it is likely that major overland flow flooding, as a result of localised rainfall events, represents the greatest flood risk

to the project site. Therefore, BCS recommends that the FIRA investigates the impact of major overland flow flooding on the project site.

The FIRA component of the EIS should address the flood risk management requirements in Attachment A and conduct flood modelling for the purposes of defining the impact of flood events on the site, and the impact of the proposed site infrastructure on flood behaviour.

Lands managed by the National Parks and Wildlife Service

As this proposal is proximate to lands reserved under Part 4 of the National Parks and Wildlife Act 1974, being Mallee Cliffs National Park. On behalf of NPWS, BCS requests that the recommendations as listed in Attachment A (11) be included in the SEARs to ensure the EIS explicitly considers land reserved under the NPW Act.

This proposal, Gol Gol Solar Farm (SSD 70916707), Gol Gol Battery Energy Storage System (SSD 70893706), Euston Wind Farm (SSD-62466963), Euston Mineral Sands (SSD-53674728), Mallee Wind Farm (SSD-53293710) and Mallee Solar Farm (SSD-69576706) are some of the proposed major projects in proximity Mallee Cliffs National Park. NPWS is most concerned about the cumulative impacts of these developments on the national park and requests a detailed assessment of those impacts (indirect and cumulative) specific to the natural and cultural values for which the national park was reserved as outlined in the Plan of Management: Mallee Cliffs National Park (nsw.gov.au). In particular, the national park, is being managed as both an important reintroduction site for extinct species in NSW, and in the NSW Saving Our Species management of threatened bird species. NPWS remains concerned that the habitat values that made the national park suitable may be adversely affected or degraded via impacts of the increasing amount of developments in proximity to this national park.

If contact with NPWS is required forward any request to the NPWS Manager, Lower Darling Area via npws.lowerdarling@environment.nsw.gov.au. NPWS has also partnered with the Australian Wildlife Conservancy to deliver the reintroduction (rewilding) program on Mallee Cliffs National Park, so the Australian Wildlife Conservancy should be added to the proposal's stakeholder list.

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
29 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 Gol Gol Solar Farm (SSD-70916707)

ATTACHMENT B – Guidance material

Attachment A Recommended Environmental Assessment Requirements for Gol Gol Solar Farm (SSD-70916707)

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>.
Flood Risk Management

6. 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.
7. 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.
8. 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.
9. 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).
10. 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 affection 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

11. The EIS must identify and assess:
- a. Location of the proposal and any ancillary development with respect to lands reserved or acquired under the National Parks and Wildlife Act 1974, and any routes used to access that land.
 - b. Natural (biodiversity – threatened birds) values as outlined in the Plan of Management: Mallee Cliffs National Park (nsw.gov.au), and NSW Saving Our Species management areas, listed priority species and connectivity in the landscape at risk from the proposed development.
 - c. Residual (direct, indirect and cumulative) impacts associated with the development include measures to prevent, control, abate, minimise, manage and monitor any impacts. Include an evaluation of the effectiveness and reliability of the proposed measures and quantify any residual impacts, and risks to NPWS managed lands.

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
<i>National Parks and Wildlife Act 1974</i>	https://legislation.nsw.gov.au/view/html/inforce/current/act-1974-080
<i>Wilderness Act 1987</i>	https://legislation.nsw.gov.au/view/html/inforce/current/act-1987-196
<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

Title	Web address
Ancillary rules: biodiversity conservation actions	https://www.environment.nsw.gov.au/research-and-publications/publications-search/ancillary-rules-biodiversity-conservation-actions
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/
Flood Impact and Risk Assessment Flood Risk Management Guideline LU01	https://www.environment.nsw.gov.au/research-and-publications/publications-search/flood-impact-and-risk-assessment
<u>National Parks and Wildlife Estate</u>	
Spatial data for NPWS-managed lands	https://datasets.seed.nsw.gov.au/dataset/npws-all-managed-land
Mallee Cliffs National Park Plan of Management (OEH, 2018)	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Parks-plans-of-management/mallee-cliffs-national-park-plan-management-180171.pdf
Mallee Cliffs National Park, Reserve Fire Management Strategy (NPWS, 2018)	https://www.environment.nsw.gov.au/research-and-publications/publications-search/mallee-cliffs-national-park-fire-management-strategy