Department of Planning and Environment

Our ref: DOC23/1049018-3
Your ref: SSD-64834490

Cameron Ashe
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Request for Input – Secretary's Environmental Assessment Requirements – Brewongle Solar Farm (SSD-64834490)

Dear Cameron

Thank you for your email dated 21 November 2023 seeking input into the Department of Planning and Environment (DPE) Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environment Impact Statement (EIS) for the Brewongle Solar Farm Project (SSD-64777221).

The Biodiversity, Conservation and Science Directorate (BCS) has considered your request and provides recommended SEARs for the proposed development in **Attachments A** and **B**. In preparing the EIS, the proponent should refer to the relevant guidance material listed in **Attachment C.**

BCS recommends the EIS appropriately address the following:

1. Biodiversity and offsetting
2. Water and soils
3. Flooding

We recommend the proponent engage with BCS early to discuss survey and assessment requirements for any serious and irreversible impact (SAII) entities, including the Bathurst Grassland Earless Dragon (*Tympanocryptis mccartneyi*).

If you have any questions about this advice, please do not hesitate to contact Calvin Houlison, Senior Team Leader Planning on (02) 4224 419 or calvin.houlison@environment.nsw.gov.au.

Yours sincerely,

Calvin Houlison
Senior Team Leader, Planning North West
Biodiversity, Conservation & Science Directorate

1 December 2023

Attachment A – Standard Environmental Assessment Requirements

Attachment B – Project-specific Environmental Assessment Requirements

Attachment C - Guidance Material

Attachment A – Standard Environmental Assessment Requirements for Brewongle Farm Project (SSD 64834490)

Native Vegetation Regulatory Map – land categorisation

Clearing of native vegetation on land that meets the definition of Category 1 - Exempt Land (as defined under the Local Land Services Act 2013 (LLS Act)) does not require assessment or offsetting under the *Biodiversity Conservation Act 2016,* however the following must still be considered:

- **Prescribed impacts** as outlined in chapter 6 of the Biodiversity Assessment Method (2020). E.g. there are threatened fauna species whose habitat may include land which meets Category 1-Exempt criteria. Fauna survey on Category 1 land may be necessary to meet the requirements of the BAM.
- Potential impacts to **Matters of National Environmental Significance** under the *Environment Protection and Biodiversity Conservation Act 1999* on Category 1 – exempt land must also be considered.

Section 60F of the LLS Act provides the transitional arrangements that are in place until a comprehensive NVR Map is published. During the 'transitional period' assessors can make a reasonable approximation of land categorisation for unpublished layers, in consultation with the landholder.

Where a reasonable approximation is required, it is recommended that:

- assessors first identify whether land meets criteria for Category 2 - Regulated Land, prior to Category 1 - Exempt Land.
    - In some circumstances, land may meet multiple map criteria i.e. criteria for Category 2 - Regulated Land, AND Category 1 - Exempt Land
    - In most circumstances' Category 2 - Regulated Land criteria will determine the categorisation of the land, rather than Category 1 - Exempt Land criteria.

For State Significant Development (SSD)/State Significant Infrastructure (SSI) proposals that affect rural land as defined under Part 5A of the *Local Land Services Act 2013*, a draft Native Vegetation Regulatory Map is available upon request. This map as it relates to the development site must be requested from BCS during preparation of the Biodiversity Development Assessment Report (BDAR) and prior to the BDAR being submitted to the consent authority. Requests should be made via the Data Broker – data.broker@environment.nsw.gov.au.

Where Category 2 – Regulated land is mapped as present on a development site, this will be identified on the draft map supplied by the Data Broker and is land where the BAM must be applied. However, there are some Category 2 criteria for which state-wide comprehensive mapping is not currently incorporated within the draft map.

Where the draft map indicates that Category 1 – Exempt Land is present on a development site, early engagement with BCS is encouraged. To confirm at the site scale whether the criteria for Category 1 – Exempt Land is met:

- Site-based floristic assessment is required to verify the presence or absence of critically endangered ecological communities (CEECs), critically endangered plants and threatened grasslands
- Review of any *Environmental Planning and Assessment Act 1979* development consents or approvals applicable to the land is required to demonstrate whether the land has an existing obligation to be set aside for nature conservation; revegetation of native vegetation; or as a native vegetation offset.

Prior to the BDAR being submitted to the consent authority, the accredited assessor should submit a proposed land categorisation method to the BCS North West Planning team at rog.nw@environment.nsw.gov.au for review.

For more information, see *Determining native vegetation land categorisation for application in the Biodiversity Offsets Scheme*

Biodiversity

1. The EIS must assess biodiversity impacts related to the proposed development 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), unless:
    a) a BDAR waiver is granted, or
    b) the site is on biodiversity certified land.

    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.
2. The BDAR must apply the avoid, minimise and offset hierarchy including assessing all direct, indirect, uncertain and prescribed impacts in accordance with the BAM.
3. The BDAR must be submitted with all spatial data associated with the survey and assessment as per Appendix K of the BAM.
4. 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 conduct ecological rehabilitation (if a mining project);
    f) 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.
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 contain a summary of the commitments set out in the BDAR to avoid, minimise and mitigate the biodiversity impacts of development that are to be implemented, post approval, by their inclusion in a Biodiversity Management Plan (BMP). The preparation of a BMP to fulfil the avoid and minimise requirements of the BDAR must be included as a condition of consent/approval, unless otherwise agreed with BCS. The BMP must include detailed measures to minimise impacts on biodiversity, monitoring and reporting requirements, proposed adaptive management measures, performance criteria recommended to meet states outcomes, remedial actions to be undertaken if actions fail to achieve stated outcomes, and any additional actions relevant to the management of biodiversity.
NOTE – A BDAR template and guidance document has been created to assist accredited assessors to prepare a BDAR. It has been developed in accordance with best practice, minimum information requirements, and to support BDAR reviewers. The BDAR Template can be found *here* and the Guidance for the BDAR Template can be found *here*. Supporting digital data as per Appendix K of the BAM is also required to be submitted.

Controlled Actions under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
If the proposed development is likely to be a 'Controlled Action' under the EPBC Act, the accredited assessor should contact the BCS North West Planning team at *rog.nw@environment.nsw.gov.au* prior to submission of the EIS. The BCS North West Planning team can provide guidance on the minimum information requirements for the EIS for any entities that have been or are likely to be deemed a 'Controlled Action'.

Water and soils

7. The EIS must map the following features relevant to water and soils including:
   a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map)
   b. Rivers, streams, wetlands, estuaries (as described in s4.2 of the Biodiversity Assessment Method)
   c. Wetlands as described in s4.2 of the Biodiversity Assessment Method.
   d. Groundwater
   e. Groundwater dependent ecosystems
   f. Proposed intake and discharge locations

9. The EIS must describe background conditions for any water resource likely to be affected by the development, including:
   a. Existing surface and groundwater
   b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations
   c. Water Quality Objectives (as endorsed by the NSW Government *http://www.environment.nsw.gov.au/ieo/index.htm*) including groundwater as appropriate that represent the community's uses and values for the receiving waters.
   d. Where locally derived indicators and guideline values are not available for the relevant Water Quality Objectives, the EIS must refer to the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG, 2018).

10. The EIS must assess the impacts of the development on water quality, including:
   a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction, using the *Risk-based framework for considering waterway health outcomes in strategic land use planning decisions*.
   b. Identification of proposed monitoring of water quality or required changes to existing monitoring programs
   c. How the development meets the objects of the Coastal Management Act 2016 and management objectives of relevant Coastal Management Areas defined under this Act
   d. Consistency with any relevant certified Coastal Management Program (or Coastal Zone Management Plan)

11. EIS must assess the impact of the development on hydrology, including:
   a. Water balance including quantity, quality and source

b. Effects to downstream rivers, wetlands, estuaries, marine waters (including marine protected areas) and floodplain areas
c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems
d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (e.g. river benches)
e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water
f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options
g. Identification of proposed monitoring of hydrological attributes

Flooding

12. The EIS shall include a flood impact and risk assessment (FIRA). As a minimum the FIRA must:
    a. Consider the relevant provisions of the NSW Flood Risk Management Manual (2023) and associated guides, and existing council and government studies, information and requirements
    b. Identify and describe existing flood behaviour on the site and its surrounding areas for the full range of events, including 5% AEP, 1% AEP, PMF and 0.5% AEP or 0.2% AEP and provide an assessment of the compatibility of the development and its users with flood behaviour. This may require flood modelling where existing flood information is not available
    c. Determine and describe changes in post development flood behaviour, impacts of flooding on existing community and on the development and its future community for full range of events, 5% AEP, 1% AEP, PMF and 0.5% AEP or 0.2% AEP. This will typically require flood modelling
    d. Consider impacts of climate change due to both sea level rise and increase in rainfall intensities considering relevant Council and government advice. The 0.5% AEP or 0.2% AEP events can be used to provide an understanding of the scale of change of flood behaviour relative to the 1% AEP event
    e. Propose and assess the effectiveness of management measures required to minimise the impacts and risks of flooding to the development and its users and existing community

    Note:

    - The scope of a FIRA is intended to be consistent with the Draft EHG FIRA Guide, which is being finalised currently.
    - The FIRA will need to be tailored to suit the project being considered, whilst maintaining consistency with the FIRA guide.

Attachment B – Project Specific Environmental Assessment Requirements for Brewongle Solar Farm Project (SSD-64834490)

Biodiversity

13. The assessment should include all components of the proposal, including any ancillary activities such as road infrastructure, connecting pipelines and transmission lines etc.
14. The following prescribed impacts in accordance with Clause 6.1 of the BC Act are to be assessed:
    - the impacts of development on the following habitat of threatened species or ecological communities—
        - karst, caves, crevices, cliffs and other geological features of significance
        - rocks
        - human made structures
        - non-native vegetation
    - the impacts of development on the connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range
    - the impacts of development on movement of threatened species that maintains their lifecycle
    - the impacts of development on water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities (including from subsidence or upsidence resulting from underground mining or other development)
    - the impacts of wind turbine strikes on protected animals
    - the impacts of vehicle strikes on threatened species of animals or on animals that are part of a threatened ecological community.
15. Offsets for prescribed impacts are to be considered if avoidance and mitigation measures are not applicable, or will not result in the complete reduction of prescribed impacts occurring. The assessment and calculation of a predicted offset obligation in accordance with section 7.14 of the Biodiversity Conservation Act 2016 and section 10.1 of the BAM should be presented in the BDAR.
16. Cumulative impacts should be assessed through application of the Cumulative Impact Assessment for State Significant Projects guidance (DPE, Oct 2022).

Attachment C – Guidance Material

Title	Web address
Relevant Legislation	
Biodiversity Conservation Act 2016	*https://www.legislation.nsw.gov.au/#/view/act/2016/63/full*
Coastal Management Act 2016	*https://www.legislation.nsw.gov.au/#/view/act/2016/20/full*
SEPP (Resilience and Hazards) 2021	*https://legislation.nsw.gov.au/view/whole/html/inforce/current/epi-2021-0730*
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	*https://www.legislation.gov.au/Series/C2004A00485*
Environmental Planning and Assessment Act 1979	*https://legislation.nsw.gov.au/view/html/inforce/current/act-1979-203*
Fisheries Management Act 1994	*https://legislation.nsw.gov.au/view/html/inforce/current/act-1979-203*
Marine Estate Management Act 2014	*https://legislation.nsw.gov.au/view/html/inforce/current/act-2014-072*
National Parks and Wildlife Act 1974	*https://legislation.nsw.gov.au/view/html/inforce/current/act-1974-080*
Protection of the Environment Operations Act 1997	*https://legislation.nsw.gov.au/view/html/inforce/current/act-1997-156*
Water Management Act 2000	*https://legislation.nsw.gov.au/view/html/inforce/current/act-2000-092*
Wilderness Act 1987	*https://legislation.nsw.gov.au/view/html/inforce/current/act-1987-196*

Title	Web address
Biodiversity	
Biodiversity Assessment Method 2020 & assessor resources (including legislation, manuals, BDAR templates, survey guidelines, registers and databases)	*https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-2020* *https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/accredited-assessors/assessor-resources*
Guidance to assist a decision maker to determine a serious and irreversible impact	*https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/guidance-decision-makers-determine-serious-irreversible-impact-190511.pdf*
Policy and guidelines for fish habitat conservation and management	*https://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation*
List of national parks	*http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx*
Revocation, recategorisation and road adjustment policy	*https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/revocation-recategorisation-and-road-adjustment*
Guidelines for developments adjacent to national parks and other reserves	*https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/development-guidelines*
SEED Data Portal (access to online spatial & environmental data)	*http://seed.nsw.gov.au/*
Determining native vegetation land categorisation	*Determining native vegetation land categorisation for application in the Biodiversity Offsets Scheme*

Title	Web address
Cumulative Impact Assessment for State Significant Projects guidance	*Cumulative Impact Assessment Guidelines for State Significant Projects – October 2022 (nsw.gov.au)*
Conservation lands	
Guidelines for developments adjacent to NPWS managed lands	*https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/development-guidelines*
National parks and other lands managed by NPWS	**List** *https://www.nationalparks.nsw.gov.au/visit-a-park* **Spatial data** *https://datasets.seed.nsw.gov.au/dataset/npws-all-managed-land* **Recategorisation & adjustments** *https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/revocation-recategorisation-and-road-adjustment*
Water and Soils	
Water	
Water Quality Objectives	*http://www.environment.nsw.gov.au/ieo/index.htm*
Australian and New Zealand Guidelines for Fresh and Marine Water Quality	*https://www.waterquality.gov.au/anz-guidelines*
Water Quality Guidelines Mixing zones	*https://www.waterquality.gov.au/anz-guidelines/resources/key-concepts/mixing-zones*
Approved methods for the sampling and analysis of water pollutants in NSW (2022)	*https://www.epa.nsw.gov.au/licensing-and-regulation/licensing/environment-protection-licences/licensing-under-poeo-act-1997/licensing-to-regulate-water-pollution/approved-methods-for-sampling-and-analysing-water-pollutants*

Title	Web address
Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions.	*https://www.environment.nsw.gov.au/research-and-publications/publications-search/risk-based-framework-for-considering-waterway-health-outcomes-in-strategic-land-use-planning*
Soils	
Acid Sulfate Soils Planning Maps via Data.NSW	*http://data.nsw.gov.au/data/*
Acid Sulfate Soils Manual (Stone et al. 1998)	*http://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf*
National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT. (Sullivan, L, Ward, N, Toppler, N and Lancaster, G. 2018a).	*https://www.waterquality.gov.au/sites/default/files/documents/dewatering-acid-sulfate-soils.pdf*
National Acid Sulfate Soils guidance: National acid sulfate soils sampling and identification methods manual, Department of Agriculture and Water Resources, Canberra ACT. (Sullivan, L, Ward, N, Toppler, N and Lancaster, G. 2018b).	*https://www.scu.edu.au/media/scueduau/eal/documents/National-acid-sulfate-soils-sampling-and-indentification-methods-manual.pdf*

Title	Web address
National Acid Sulfate soils Guidance: Overview and management of monosulfidic black ooze (MBO) accumulations in waterways and wetlands, Department of Agriculture and Water Resources, Canberra ACT. (Sullivan, LA, Ward, NJ, Bush, RT, Toppler, NR, Choppala, G. 2018c)	*https://www.scu.edu.au/media/scueduau/eal/documents/Overview-and-management-of-monosulfidic-black-ooze-MBO-accumulations-in-waterways-and-wetlands.pdf*
National Acid sulfate soils guidance: Guidelines for the dredging of acid sulfate soil sediments and associated dredge spoil management, Department of Agriculture and Water Resources, Canberra, ACT (Simpson, SL, Mosley, L, Batley, GE and Shand P. 2018).	*https://www.waterquality.gov.au/sites/default/files/documents/dredging-sediments-spoil.pdf*
National Acid Sulfate Soils Guidance: Guidance for the dewatering of acid sulfate soils in shallow groundwater environments, Department of Agriculture and Water Resources, Canberra, ACT. (Shand, P, Appleyard, S, Simpson, SL, Degens, B, Mosley, LM 2018)	*https://www.waterquality.gov.au/sites/default/files/documents/dewatering-acid-sulfate-soils.pdf*

Title	Web address
Flooding	
Floodplain development manual	*https://www.environment.nsw.gov.au/topics/water/floodplains/floodplain-manual*
NSW Climate Impact Profile	*http://climatechange.environment.nsw.gov.au/*
Floodplain Risk Management Guidelines	*http://www.environment.nsw.gov.au/topics/water/coasts-and-floodplains/floodplains/floodplain-guidelines*
Australian Rainfall and Runoff: A Guide to Flood Estimation	*http://arr.ga.gov.au/*