



Your ref: SSD-74990235

Our ref: DOC24-702657

Shannon Blackmore  
Principal Planning Officer Assessments  
Department of Planning, Housing and Infrastructure – NSW Planning Group  
Via Major Projects Portal: PAE-75031457

Dear Shannon

**Subject: Request for Secretary's Environmental Assessment Requirements – West Nyangay Solar Farm (SSD-74990235)**

Thank you for your email dated 22 August 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:

- *West Nyangay Solar Farm – Scoping Report – Request for SEARS* prepared by Urbis dated July 2024 (hereafter referred to as 'Scoping Report')

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

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 the site is mostly remnant native vegetation. As a result, most of the site is likely to be Category 2 regulated land where the Biodiversity Assessment Method (BAM) applies. This will result in large areas requiring survey effort over multiple seasons and years. The EIS will need to include an assessment of indirect impacts to any remnant vegetation occurring in the proposed solar array. Mitigation measures must include an appropriate buffer between the development footprint and any areas retained/avoided for biodiversity values.

Section 6.1.1.1 and Table 12 of the Scoping Report states that candidate serious and irreversible impact (SAIL) entities may occur on site. Detailed consideration should be given to avoidance of SAIL entities. Impacts must be adequately assessed in accordance with the BAM and Threatened Biodiversity Database Collection (TBDC) for each entity.

The Scoping Report does not detail whether remnant vegetation will be cleared or retained within the solar panel array. Any proposed partial reduction in vegetation integrity scores in direct impact areas based on retention of vegetation components during construction and operation must be fully justified including supporting literature (in accordance with section 8.1.1(2) of the BAM and section 2.2 and 2.3 of the BAM Operational Manual – Stage 2).

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 (Table 7) of the BAM Stage 2 Operational Manual. When the BDAR is submitted, we request that the BAM accredited assessor provides spatial data directly to BCS and other digital data can be uploaded into the Biodiversity Offset and Agreement Management System (BOAMS). The Accredited Assessor preparing the BDAR should follow the BDAR template.

Given the location of the project in the South West Renewable Energy Zone (SW REZ), the proponents must set out how impacts to biodiversity will be avoided and minimised. The cumulative biodiversity impacts of electricity generation in the SW REZ 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 state if the proposal has been referred to the Australian Government or whether it is already determined to be a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999*.

### Flood Risk Management

The Scoping Report indicates that the project site is located within the lower Murrumbidgee River catchment. Generally, this area is dominated by topography of low relief, resulting in a network of ephemeral flow paths dividing the landscape.

The project site will likely be subject to major overland flow flooding when local intense rainfall events activate ephemeral flow paths, particularly Nyangay and Curtains Creek. However, both Nyangay and Curtains Creeks may also be activated during major riverine flood events originating in the Murrumbidgee River.

A previous hydrology assessment completed for an adjacent proposed development in the SW REZ (SSD-50629707) indicates that the general area is prone to flooding when breakouts from the Murrumbidgee River develop during major flood events. The extent of the hydraulic modelling prepared in the hydrology assessment encompasses this project site. Modelling indicates that much of the project site may be inundated to depths >1 m during an extreme Murrumbidgee River flood event. Modelling also indicates that the Nyangay Creek is first activated during a 1% annual exceedance probability (AEP) Murrumbidgee River flood event.

Given the likely flood risks for the project site, BCS recommends that the proponent prepare a robust Flood Impact Risk Assessment (FIRA) investigating both major overland flow and riverine

flooding. 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. The FIRA should be prepared in accordance with the NSW Flood Risk Management Manual 2023.

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

Yours sincerely



Adam Vey

5 September 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 West Nyangay Solar Farm

ATTACHMENT B – Guidance material

## Attachment A      Recommended Environmental Assessment Requirements for West Nyangay Solar Farm (SSD-74990235)

Sources of guidance material for terms in [blue](#) are in Attachment B

| Biodiversity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. Biodiversity impacts related to the proposed development are to be assessed in accordance with <a href="#">Section 7.9 of the Biodiversity Conservation Act 2016</a> using the <a href="#">Biodiversity Assessment Method (BAM) 2020</a> and documented in a <a href="#">Biodiversity Development Assessment Report (BDAR)</a>. The BDAR must include information in the form detailed in the <a href="#">Biodiversity Conservation Act 2016 (s6.12)</a>, <a href="#">Biodiversity Conservation Regulation 2017 (s6.8)</a> and the BAM, unless it is determined that the proposed development is not likely to have any significant impact on biodiversity values.</p>                                                                                                                                                                                                            |
| <p>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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p>3. The BDAR must include details of the measures proposed to address the offset obligation as follows;</p> <ul style="list-style-type: none"> <li>a. The total number and classes of biodiversity credits required to be retired for the development/project;</li> <li>b. The number and classes of like-for-like biodiversity credits proposed to be retired;</li> <li>c. The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules;</li> <li>d. Any proposal to fund a <a href="#">biodiversity conservation action</a>;</li> <li>e. Any proposal to make a payment to the Biodiversity Conservation Fund.</li> </ul> <p>If seeking approval to use the variation rules, the BDAR must contain details of the <a href="#">reasonable steps</a> that have been taken to obtain requisite like-for-like biodiversity credits.</p> |
| <p>4. The BDAR must be submitted with all digital spatial data associated with the survey and assessment as per Appendix K of the BAM.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>5. The BDAR must be prepared by a person accredited in accordance with the <a href="#">Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017</a> under s6.10 of the <i>Biodiversity Conservation Act 2016</i>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Flood Risk Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>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:</p> <ul style="list-style-type: none"> <li>a. Flood prone land.</li> <li>b. Flood planning area, the area below the flood planning level.</li> <li>c. Hydraulic categorisation (floodways and flood storage areas).</li> <li>d. Flood hazard.</li> </ul>                                                                                                                                                                                                                                                                                                    |
| <p>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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p>8. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:</p> <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                                                                      |
| <p>9. Modelling in the EIS must consider and document:</p> <ul style="list-style-type: none"> <li>a. Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies.</li> <li>b. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood.</li> <li>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.</li> <li>d. Relevant provisions of the Flood Risk Management Manual: the policy and manual for flood liable land (2023).</li> </ul> |
| <p>10. The EIS must assess the impacts on the proposed development on flood behaviour, including:</p> <ul style="list-style-type: none"> <li>a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.</li> <li>b. Consistency with Council Floodplain Risk Management Plans.</li> <li>c. Consistency with any Rural Floodplain Management Plans.</li> <li>d. Compatibility with the flood hazard of the land.</li> </ul>                                                                                                                                                                                                                                                             |

- 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.

## Attachment B      Guidance material

| Title                                                                                          | Web address                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Relevant Legislation</u></b>                                                             |                                                                                                                                                                                                                                                                                                                                                                                   |
| <i>Biodiversity Conservation Act 2016</i>                                                      | <a href="http://www.legislation.nsw.gov.au/#/view/act/2016/63/full">www.legislation.nsw.gov.au/#/view/act/2016/63/full</a>                                                                                                                                                                                                                                                        |
| <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>              | <a href="http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/">www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/</a>                                                                                                                                                                                                                                          |
| <i>Environmental Planning and Assessment Act 1979</i>                                          | <a href="https://legislation.nsw.gov.au/view/html/inforce/current/act-1979-203">https://legislation.nsw.gov.au/view/html/inforce/current/act-1979-203</a>                                                                                                                                                                                                                         |
| <b><u>Biodiversity</u></b>                                                                     |                                                                                                                                                                                                                                                                                                                                                                                   |
| Biodiversity Assessment Method 2020 (DPIE 2020)                                                | <a href="https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity-offsets-scheme/accredited-assessors/biodiversity-assessment-method-2020">https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity-offsets-scheme/accredited-assessors/biodiversity-assessment-method-2020</a>                                                                 |
| Biodiversity Assessment Method 2020 Operational Manual – Stage 1 (DPE 2022)                    | <a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-manual-2020-operational-manual-stage-1">https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-manual-2020-operational-manual-stage-1</a>                                                                     |
| Biodiversity Assessment Method 2020 Operational Manual – Stage 2 (DPE 2023)                    | <a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-operational-manual-stage-2">https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-operational-manual-stage-2</a>                                                                               |
| BDAR Template (DPE 2022)                                                                       | <a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/guidance-for-the-biodiversity-development-assessment-report-template">https://www.environment.nsw.gov.au/research-and-publications/publications-search/guidance-for-the-biodiversity-development-assessment-report-template</a>                                                         |
| BAM Assessor Resources (including links to Survey Guidelines, Registers and Databases)         | <a href="https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/accredited-assessors/assessor-resources">https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/accredited-assessors/assessor-resources</a>                                                                                                                                 |
| BAM Assessor FAQ                                                                               | <a href="https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/accredited-assessors/assessor-questions-and-answers">https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/accredited-assessors/assessor-questions-and-answers</a>                                                                                                         |
| Biodiversity Values Map                                                                        | <a href="http://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap">www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap</a><br><a href="https://datasets.seed.nsw.gov.au/dataset/biodiversity-values-map">https://datasets.seed.nsw.gov.au/dataset/biodiversity-values-map</a>                                                                                                         |
| Guidance to assist a decision maker to determine a serious and irreversible impact (DPIE 2019) | <a href="https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/guidance-decision-makers-determine-serious-irreversible-impact-190511.pdf">https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/guidance-decision-makers-determine-serious-irreversible-impact-190511.pdf</a> |
| Ancillary rules: biodiversity conservation actions                                             | <a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/ancillary-rules-biodiversity-conservation-actions">https://www.environment.nsw.gov.au/research-and-publications/publications-search/ancillary-rules-biodiversity-conservation-actions</a>                                                                                               |

| Title                                                                                                                         | Web address                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ancillary rules: reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules  | <a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/ancillary-rules-reasonable-steps-to-seek-like-for-like-biodiversity-credits">https://www.environment.nsw.gov.au/research-and-publications/publications-search/ancillary-rules-reasonable-steps-to-seek-like-for-like-biodiversity-credits</a> |
| DPE Threatened Species Profiles                                                                                               | <a href="http://www.environment.nsw.gov.au/threatenedspeciesapp/">www.environment.nsw.gov.au/threatenedspeciesapp/</a>                                                                                                                                                                                                                  |
| BioNet Atlas                                                                                                                  | <a href="http://www.environment.nsw.gov.au/wildlifeatlas/about.htm">www.environment.nsw.gov.au/wildlifeatlas/about.htm</a>                                                                                                                                                                                                              |
| BioNet Vegetation Classification – see <b>NSW Plant Community Type (PCT) classification</b> link for PCT database login page. | <a href="http://www.environment.nsw.gov.au/research/Visclassification.htm">http://www.environment.nsw.gov.au/research/Visclassification.htm</a>                                                                                                                                                                                         |
| NSW SEED Data Portal (access to online spatial data)                                                                          | <a href="https://www.seed.nsw.gov.au/">https://www.seed.nsw.gov.au/</a>                                                                                                                                                                                                                                                                 |
| Fisheries NSW policies and guidelines                                                                                         | <a href="https://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation">https://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation</a>                                                                                                                                             |
| <b><u>Flood Risk Management</u></b>                                                                                           |                                                                                                                                                                                                                                                                                                                                         |
| Flood Risk Management Manual: the policy and manual for flood liable land (2023)                                              | <a href="https://www.environment.nsw.gov.au/topics/water/floodplains/floodplain-manual">https://www.environment.nsw.gov.au/topics/water/floodplains/floodplain-manual</a>                                                                                                                                                               |
| Australian Rainfall and Runoff: A Guide to Flood Estimation                                                                   | <a href="http://arr.ga.gov.au/">http://arr.ga.gov.au/</a>                                                                                                                                                                                                                                                                               |
| Flood Impact and Risk Assessment, Flood Risk Management Guideline LU01                                                        | <a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/flood-impact-and-risk-assessment">https://www.environment.nsw.gov.au/research-and-publications/publications-search/flood-impact-and-risk-assessment</a>                                                                                       |