

Your ref: SSD-61842974

Our ref: DOC23/773911

Megan Ramsdale  
Environmental Assessment Officer  
Department of Planning and Environment – Planning Group  
Via Major Projects Portal: PAE-61847467

Dear Megan

**Subject: Request for Secretary's Environmental Assessment Requirements – Hume North Battery Energy Storage System (BESS) SSD-61842974**

Thank you for your referral dated 31 August 2023 seeking input from the Biodiversity and Conservation Division (BCD) into the Department of Planning and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for the Hume North BESS SSD-61842974.

BCD have reviewed the *Hume North BESS Scoping Report* prepared by Jacobs, dated 22 August 2023. We provide SEARs for the proposed development in **Attachment A**. Guidance material is listed in **Attachment B**.

BCD recommends that the EIS appropriately address the biodiversity and flooding. The EIS should fully describe:

- the proposal
- the existing environment, including threatened species habitat not associated with vegetation communities such as paddock trees
- impacts of the development including the location and extent of all proposed works that may impact on flooding and biodiversity.

The scale and intensity of the proposed development should dictate the level of investigation. It is important that all conclusions are supported by adequate data. The assessment must include all ancillary infrastructure associated with the project such as roads, water and power supplies, and Rural Fire Service requirements for asset protection.

Biodiversity

BCD staff meet with representatives from Jacobs on 29 June 2023 for a preliminary discussion on the biodiversity assessment approach for this project. Preliminary advice was provided on site specific matters, including the assessment of Sloane's Froglet, Squirrel Glider, derived native grasslands and planted vegetation. This advice should inform the EIS, along with the considerations in this letter.

Minimum requirements for the biodiversity assessment are listed in Appendix K of the Biodiversity Assessment Method 2020 (BAM). The Accredited Assessor preparing the Biodiversity Development Assessment Report (BDAR) is advised to follow the BDAR template. When the BDAR is submitted, we request that the BAM accredited assessor provides spatial data directly to BCD. While other digital data can be uploaded into the Biodiversity Offset and Agreement Management System (BOAMS), there is currently no function to upload zip or spatial files.

Given the proportion of land that has already been cleared in the surrounding region, the proponents must set out how impacts to biodiversity will be avoided and minimised. The cumulative impact of development in the surrounding region, including to mature scattered trees and native grassland values, should be assessed through application of the Cumulative Impact Assessment Guidelines for State Significant Projects.

Regarding the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, 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.

### Flooding

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.

If you have any questions regarding this advice, please contact Claire Coulson, Senior Conservation Planning Officer, via [rog.southwest@environment.nsw.gov.au](mailto:rog.southwest@environment.nsw.gov.au) or 02 6022 0636.

Yours sincerely



Andrew Fisher  
8 September 2023

**Senior Team Leader Planning South West, Biodiversity and Conservation Division**  
**Environment and Heritage Group**  
**Department of Planning and Environment**

ATTACHMENT A – Recommended Environmental Assessment Requirements for Hume North BESS SSD-61842974  
ATTACHMENT B – Guidance material

**Attachment A Recommended Environmental Assessment Requirements for Hume North BESS SSD-61842974**

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

<p><b>Biodiversity</b></p>
<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 DPE determines 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 and Appendix D of the BAM Operations Manual – Stage 2.</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 <a href="#">Biodiversity Conservation Act 2016</a>.</p>
<p><b>Flooding</b></p>
<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> <li>e. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.</li> <li>f. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>k. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.</li> </ul>

**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> <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>
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)</b>	<a href="http://www.environment.nsw.gov.au/research/Visclassification.htm">http://www.environment.nsw.gov.au/research/Visclassification.htm</a>

Title	Web address
classification link for PCT database login page.	
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>Flooding</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/flood-plain-manual">https://www.environment.nsw.gov.au/topics/water/floodplains/flood-plain-manual</a>
Australian Rainfall and Runoff: A Guide to Flood Estimation	<a href="http://arr.ga.gov.au/">http://arr.ga.gov.au/</a>
NSW Climate Impact Profile	<a href="climatechange.environment.nsw.gov.au/">climatechange.environment.nsw.gov.au/</a>
Climate Change Impacts and Risk Management	<a href="http://www.environment.gov.au/climate-change/adaptation/publications/climate-change-impact-risk-management">www.environment.gov.au/climate-change/adaptation/publications/climate-change-impact-risk-management</a>