

# BDAR WAIVER REQUEST

Panorama Battery Energy Storage System (BESS)  
Bathurst, NSW

Prepared for:

Panorama BESS SubCo Pty Ltd  
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## BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Panorama BESS SubCo Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

## DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
660.30234-R02-v3.0	22 March 2023	Joshua Drane	Jeremy Pepper	Joshua Drane

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# 1 Introduction

Panorama BESS SubCo Pty Ltd (Panorama BESS SubCo) is seeking approval for the construction, operation, and decommissioning of a Battery Energy Storage System (BESS) with a capacity of 100 Megawatts (MW) 200 Megawatt Hours (MWH) and associated ancillary infrastructure adjacent to an existing 132 kV substation operated by TransGrid. The project is to be constructed and operated on Lot 2 DP 864272 at 800 Mid-Western Highway, Evans Plains NSW.

The proposed development triggers the provisions for State Significant Development (SSD) under Clause 20, Schedule 1 of the *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP). As the project is classified as SSD, Secretary's Environmental Assessment Requirements (SEARs) for the Environmental Impact Statement (EIS) have been requested. As SSD projects are also subject to assessment under the *Biodiversity Conservation Act 2016* (BC Act), the preparation of a Biodiversity Development Assessment Report (BDAR) is required unless this requirement is waived by the NSW Department of Planning & Environment. The proponent is seeking to waive the requirements for the preparation of a BDAR via a BDAR waiver due to the limited biodiversity values at the site.

The following sections specifically address the information requirements of the DPIE (2019) "*How to apply for a Biodiversity Development Assessment Report Waiver for a Major Project Application*" guidelines (the 'BDAR waiver guidelines').

## 2 Site Particulars

### 2.1 Terminology and Definitions

Table 1 Site Particulars, Terminology and Definitions

Term	Definition
Subject land	Lot 2 DP 864272 and Lot 521 DP 603541
Address of subject land	800 Mid-Western Highway, Evans Plains NSW
Development site	The footprint of the works proposed as part of the subdivision (ie earthworks, roads and services) and the likely footprint of future residential development (ie building envelopes).
BESS	Battery Energy Storage System
Local Government Area	Bathurst Regional
Land zoning	RU1 – Primary Production under the Bathurst Regional Local Environmental Plan 2014 (LEP)

### 2.2 Administration Information

The BDAR waiver request requirements for administration are addressed in Table 2 below.

Table 2 Project Administration Information

Information Requirement	Project Information
<i>Proponent name and contact details</i>	<ul style="list-style-type: none"> <li>• Panorama BESS SubCo</li> <li>• Citic House, Level 4, Suite 4.02, 99 King Street, Melbourne, Victoria, 3000</li> <li>• Project contact: Chelsea Milles (chelsea.milles@canadiansolar.com)</li> </ul>
<i>Project ID (Information to identify which SSD or SSI project the request relates to and where the project is up to in the assessment process).</i>	<ul style="list-style-type: none"> <li>• 800 Mid-Western Highway, Evans Plains, NSW</li> <li>• SSD</li> <li>• SEARs Issued SSD- 50587460</li> <li>• EIS in preparation</li> </ul>
<i>Name and ecological qualifications of person completing Table 2</i>	<p>Joshua Drane of the following qualifications:</p> <ul style="list-style-type: none"> <li>• Bachelor of Environmental Science, Australian Catholic University 2017</li> </ul> <p>Jeremy Pepper of the following qualifications:</p> <ul style="list-style-type: none"> <li>• Bachelor of Science (Hons Class 1), University of NSW</li> <li>• Cert II Bushland Regeneration, NSW College of TAFE</li> <li>• Cert III Horticulture (Arboriculture), NSW College of TAFE</li> <li>• BAM Assessor (Accreditation No. BAAS17104)</li> </ul> <p>Hannah Centra of the following qualifications:</p> <ul style="list-style-type: none"> <li>• Bachelor of Environmental Science and Management, University of Newcastle 2021</li> </ul>

## 2.3 Site Details

The BDAR waiver request requirements for site details are addressed in Table 3 below.



Table 3 Site Details

Information Requirement	Project Information
<i>Street address, Lot and DP, local government area</i>	<p>The subject land is 800 Mid-Western Highway, Evans Plains NSW. The subject land is within the Bathurst Regional local government area and includes the following properties:</p> <ul style="list-style-type: none"> <li>• Lot 2 DP 864272</li> <li>• Lot 521 DP 603541 (TransGrid substation)</li> </ul>

Information Requirement	Project Information
<i>Description of existing development site, i.e., the area of land that is subject to the proposed development application. If any part of the land is considered 'Category 1– exempt land' information must be provided to demonstrate how the land meets the criteria<sup>1</sup> that applies to Category 1 – Exempt Land.</i>	The development site is shown in Figure 2. The proposed development site is located within a rural area and is largely exotic pastureland and existing driveway. The site is currently zoned 'RU1 - Primary Production' under the <i>Bathurst Regional Local Environmental Plan 2014</i> (LEP).
<i>Location map showing the development site in the context of surrounding areas and landscape features. Satellite image of site in context of adjoining sites.</i>	See Figure 1
<i>Site Map (to scale, ideally as a spatial shapefile).</i>	See Figure 2

<sup>1</sup> <https://www.lis.nsw.gov.au/sustainable-land-management/facts-sheets2/land-categorisation-and-the-land-management-framework>

LEGEND

-  Lot Boundary
-  State Border



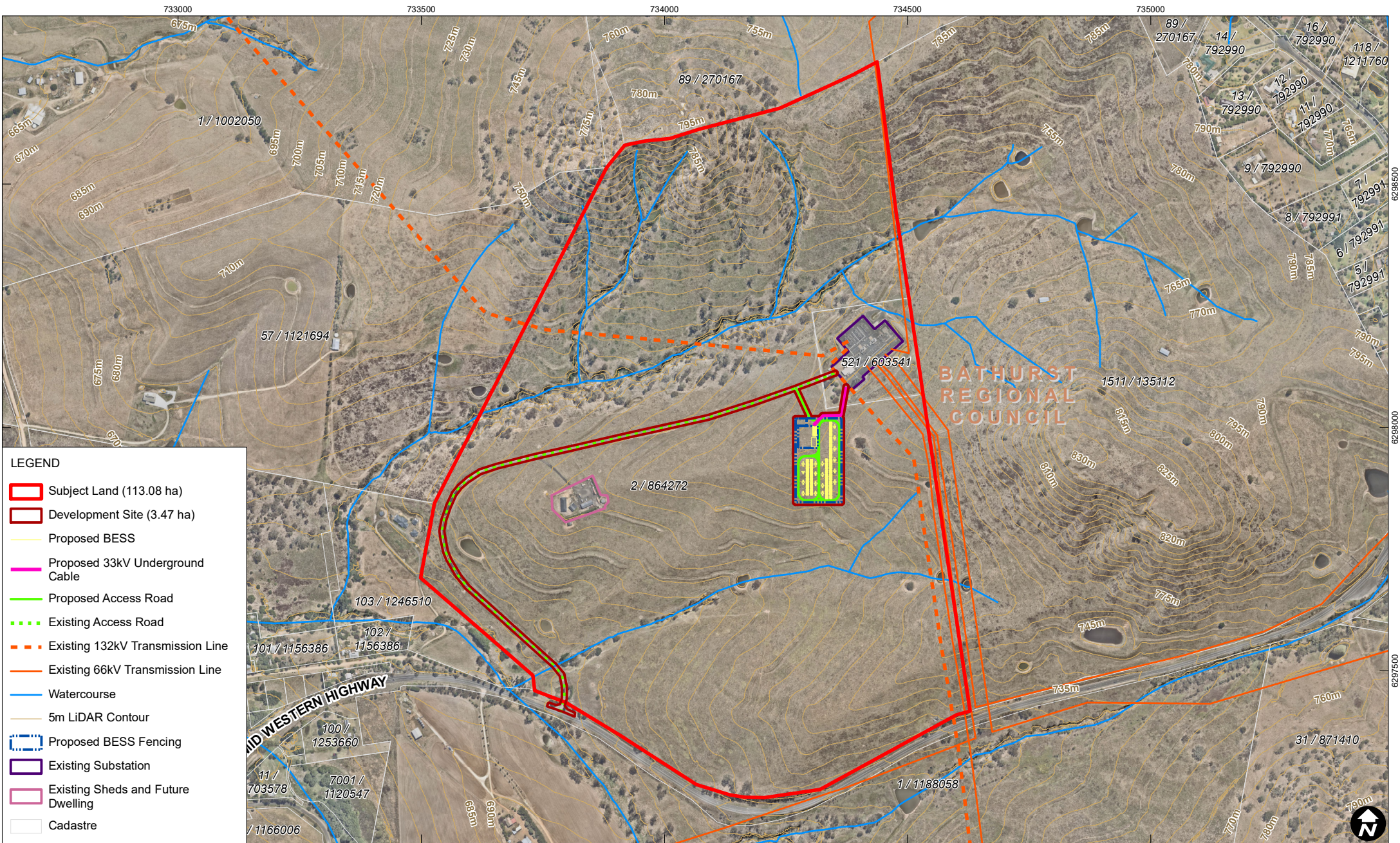
H:\Projects\SLR\660-Sr\WOL\660-30234-000000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR\66030234\_SR\_GL\_RegionalContext\_001.mxd



Data Source: Basedata, NSW SS, 2022, Geoscience Australia  
 Basemap supplied by ESRI and other sources

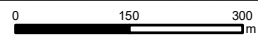
**REGIONAL CONTEXT OF THE SITE**

**FIGURE 1**



**LEGEND**

- Subject Land (113.08 ha)
- Development Site (3.47 ha)
- Proposed BESS
- Proposed 33kV Underground Cable
- Proposed Access Road
- Existing Access Road
- Existing 132kV Transmission Line
- Existing 66kV Transmission Line
- Watercourse
- 5m LiDAR Contour
- Proposed BESS Fencing
- Existing Substation
- Existing Sheds and Future Dwelling
- Cadastre



Scale: 1:10,000 at A4  
 Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 10-Mar-2023  
 Project Number: 660.30234.00000



Data Source: Basedata NSW SS, December 2021  
 Inset base supplied by © Department of Customer Service 2020  
 Aerial imagery supplied by Nearmap (October, 2022)  
 Elevation data supplied by DCS Spatial Services (July, 2019)

**SITE PLAN**

**FIGURE 2**

### 3 Proposed Development

The BDAR waiver request requirements for proposed development are addressed in Table 4 below.

Table 4 Proposed Development

Information Requirement	Project Information
<p><i>Project Description providing enough information to enable an understanding of the nature and scale of the proposed development and any associated activities (including construction etc.).</i></p>	<p>This proposed SSD seeks approval for the following:</p> <ul style="list-style-type: none"> <li>• Removal of exotic pastureland.</li> <li>• Installation and operation of a Battery Energy Storage System (BESS) including battery enclosures, inverters, and transformers.</li> <li>• Associated ancillary infrastructure including:               <ul style="list-style-type: none"> <li>• Trenching of 33kV underground cable connecting a 33kV switch building to the existing substation;</li> <li>• Formalisation of existing access from Mid-Western Highway and existing access road within Lot 2 DP 864272 to accommodate heavy vehicles;</li> <li>• Proposed access road from the BESS to connect to the existing access road within Lot 2 DP 864272;</li> <li>• Operations and maintenance (O&amp;M) building;</li> <li>• Stormwater management infrastructure, lighting, and security fencing; and</li> <li>• Construction laydown areas.</li> </ul> </li> </ul>
<p><i>Proposed Site Plan.</i></p>	<p>See Figure 2 for proposed development plan</p>

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## 4 Assessment of Impacts on Biodiversity Values

### 4.1 Overview

The development site is not mapped by the Biodiversity Values Map and Threshold Tool (DPE 2022a) as containing biodiversity values. The Biodiversity Values Map and Threshold Tool report is shown in Appendix C. Regional scale mapping (DPE 2022b) indicates that there is no native vegetation within the development site.

The vegetation within the development site contains only exotic pasture species, see Table 6 and Table 7 for further information on vegetation abundance and integrity.

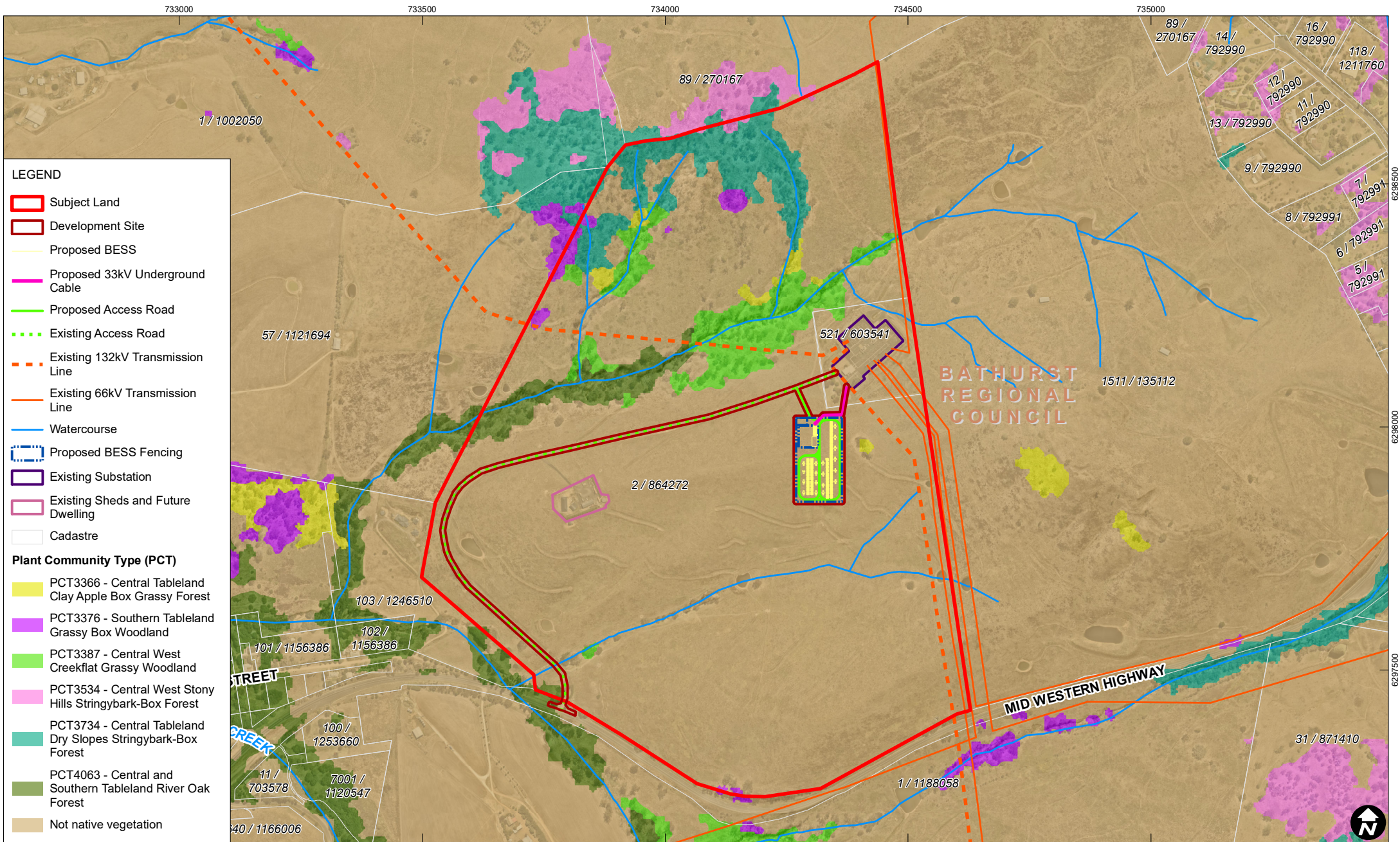
A licensed search of the BioNet Wildlife Atlas database (DPE 2022c) for records of threatened species within 10 km of the sites centre was undertaken on 24 October 2022 (see Appendix A). The search detected 91 records of 23 species. Most of the threatened species recorded are not likely to occur on the subject land due to geographic limitations, lack of suitable habitats and the disturbed and modified nature and condition of the site.

Majority of the threatened fauna species records are to the east of the subject land, towards Bathurst township. These records represent mobile species with the ability to travel long distances. The lack of tree canopy and native vegetation within the subject land provides limited habitat potential for threatened species and communities.

Mobile species recorded nearby that may be of relevance to the site include the Dusky Woodswallow, Little Eagle, Varied Sittella, Grey-headed Flying-fox, Yellow-bellied Sheath-tail-bat and Large Bent-winged Bat. There is some potential that the low laying culverts could be considered potential habitat for threatened microchiropteran bats ('microbats').

The proposed development site has been designed to avoid the removal of any native vegetation on the subject land. Based on the results of an ecological site inspection, the areas of exotic vegetation provide marginal artificial habitats for threatened species and removal of these features is not likely to result in a significant impact on threatened species.

An assessment of impacts on biodiversity values in accordance with the BDAR waiver requirements is provided in Table 5. An assessment of each of the specific requirements of the BC Act and BC Regulation are also included in Sections 4.2 to 4.9 in accordance with BDAR waiver guidelines.



Data Source: Basedata NSW SS, December 2021  
 Aerial imagery supplied by Nearmap (October, 2022)  
 State Vegetation Type Map (SVTM) © State Government of NSW and Department of Planning and Environment 2022

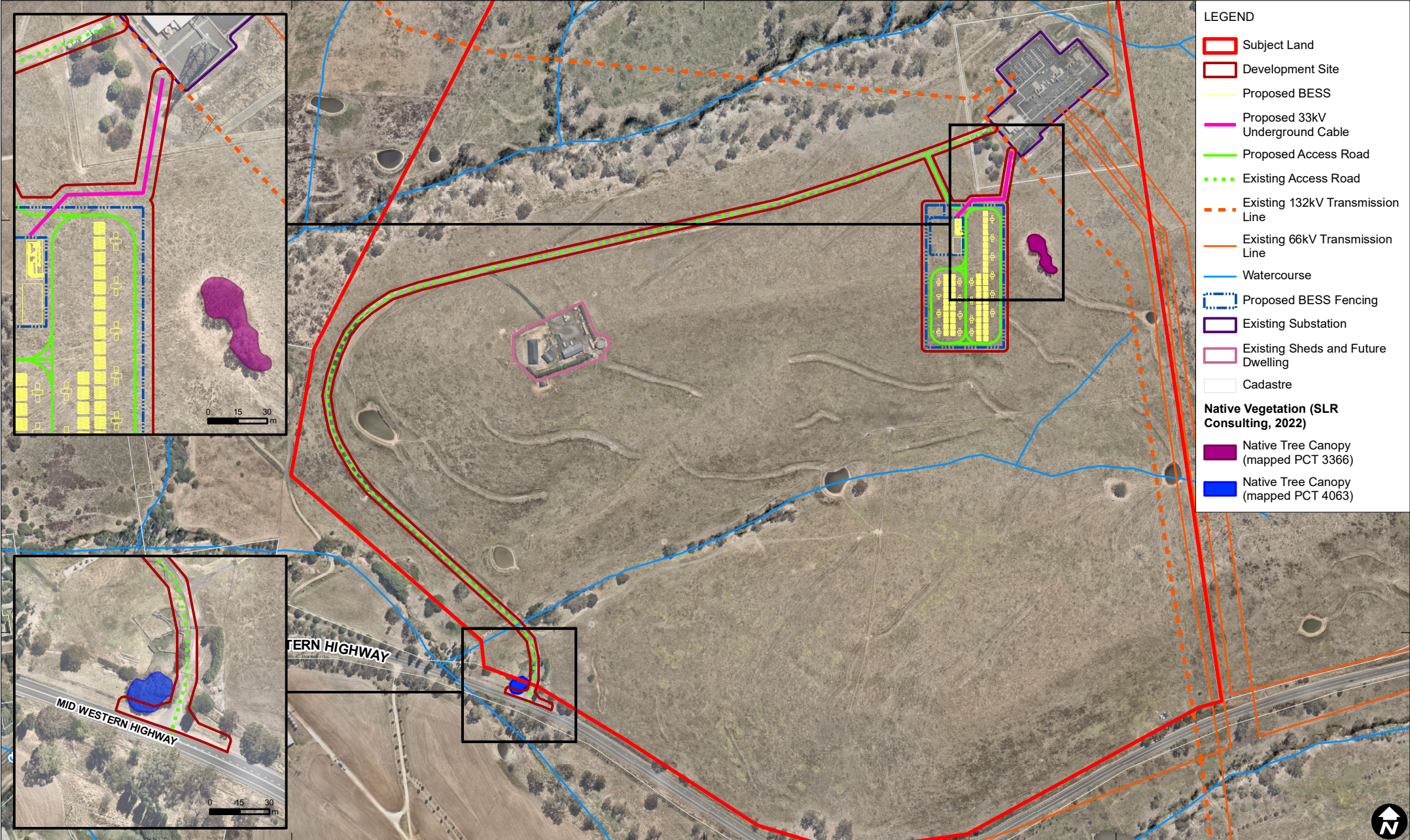
**REGIONAL MAPPED PCTs WITHIN THE SUBJECT LAND**

**FIGURE 3**

733500

734000

734500



- LEGEND**
- Subject Land
  - Development Site
  - Proposed BESS
  - Proposed 33kV Underground Cable
  - Proposed Access Road
  - Existing Access Road
  - Existing 132kV Transmission Line
  - Existing 66kV Transmission Line
  - Watercourse
  - Proposed BESS Fencing
  - Existing Substation
  - Existing Sheds and Future Dwelling
  - Cadastre
- Native Vegetation (SLR Consulting, 2022)**
- Native Tree Canopy (mapped PCT 3366)
  - Native Tree Canopy (mapped PCT 4063)

0 15 30  
m

0 15 30  
m

0 150 300  
m

Scale: 1:6,000 at A4  
Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 15-Mar-2023  
Project Number: 660.30234.00000



Data Source: Basedata NSW SS, December 2021  
Aerial imagery supplied by Nearmap (October, 2022)

**NATIVE VEGETATION WITHIN THE DEVELOPMENT SITE**

**FIGURE 4**

H:\Projects-SLR\660-Srv\WOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR\66030234\_BDARWaiver\_G2\_NativeVegDevSite\_002.mxd

Table 5 Impacts on Biodiversity Values

Information Requirement	Project Information
<p>Complete Table 2 below on Biodiversity Values.</p> <p>For each biodiversity value, the proponent must either:</p> <ul style="list-style-type: none"> <li>explain why the value is not relevant to the proposed development</li> <li>where a biodiversity value may be relevant, provide an explanation of how impacts have been avoided and identify the likelihood and extent of any remaining impacts of the proposed development, including impacts prescribed under clause 6.1 of the BC Regulation.</li> </ul> <p>A biodiversity value is not relevant to a proposed development if the value is not present on the development site and there is no potential for direct or indirect impacts on the biodiversity value if it occurs off-site.</p>	<p>See Sections 4.2 to 4.9</p>
<p>Where one or more biodiversity values may be relevant to the proposed development, Table 2 is to be completed by a suitably qualified person with tertiary qualifications in natural sciences including subjects that relate to the observation and description of terrestrial biodiversity and landforms, and at least three years of work experience in environmental assessment including field identification of plant and animal species and habitats. The person does not need to be an accredited person under the BC Act.</p>	<p>This BDAR waiver request has been completed by ecologist Joshua Drane who has approximately 5 years of environmental consulting experience. This report has also been reviewed by BAM Accredited Assessor Jeremy Pepper (#BAAS17104), who has approximately 25 years of ecological consulting experience. Qualifications for Joshua, Jeremy and Hannah are provided in “admin” section above.</p>
<p>Attach any additional information required where biodiversity values are relevant to the site. E.g. Vegetation Map (indicating plant community types), Ecology Reports, Water Quality data, BioNet Atlas, Directory of Important Wetlands (DIWA), migratory bird flyway information.</p>	<p>Regional vegetation mapping (DPE, 2022b) within the subject land is displayed in Figure 3. There is a small area of native vegetation mapped by DPE (2022b) on the southwest corner development site along Mid-Western Highway. This patch is mapped as PCT 4063 – ‘Central and Southern Tableland River Oak Forest’.</p> <p>Another small patch of five trees is located adjacent (outside of the development site) to the east of the BESS facility. These trees are mapped as PCT 3366 – ‘Central Tableland Clay Apple Box Grassy Forest’. The five trees were identified as Yellow Box <i>Eucalyptus melliodora</i>. As the understory only contained exotic pasture species, the confirmation of the PCT is extremely difficult. <i>Eucalyptus melliodora</i> is listed within the PCT 3366 tree species list (DPE, 2022c), therefore, the State Vegetation Type Mapping is assumed correct.</p> <p>See Appendix A for BioNet Atlas search results. Photographs from a site inspection that was undertaken by Joshua Drane on 26 October 2022 are included in Appendix B.</p>

## 4.2 Vegetation Abundance

Vegetation abundance means the “*occurrence and abundance of vegetation at a particular site*”. Vegetation abundance is addressed in accordance with the requirements of Section 1.4(b) of the BC Regulation.

Table 6 Vegetation Abundance

Explain and document potential impacts including additional impacts prescribed under the BC Regulation	Project Information
<p>Where vegetation is present on the development site, provide a map on digital aerial photography or the best available imagery of the development site showing:</p> <ul style="list-style-type: none"> <li>• native vegetation (including grasslands and other non-woody vegetation types) and non-native vegetation</li> <li>• the area of land that is directly impacted by the proposed development, including related infrastructure such as roads, pipelines, access tracks, temporary material stockpiles, asset protection zones and powerlines, if applicable.</li> </ul> <p>Describe how the proposed development avoids impacts on native vegetation and identify the likelihood and extent of any remaining impacts including removal of isolated or cultivated native plants.</p>	<p>A small area of native vegetation canopy overlaps the development site. This small patch of native vegetation in the southwest corner of the development site on the Mid-Western Highway carriageway, consists of remnant native trees with an exotic grass understory, See Figure 4.</p> <p>The patch of native trees to the west of the access entry include:</p> <ul style="list-style-type: none"> <li>• Four Ribbon Gum <i>Eucalyptus viminalis</i></li> <li>• One Blakely's Red Gum <i>Eucalyptus blakelyi</i></li> </ul> <p>A second patch (outside of the development site) of native trees resides to the east of the proposed BESS facility. This patch of native trees to the east of the BESS includes:</p> <ul style="list-style-type: none"> <li>• Five Yellow Box <i>Eucalyptus melliodora</i></li> </ul> <p>None of the above native trees are proposed for removal. The trees are to be retained <i>in situ</i> and subject to standard tree protection measures during construction, in accordance with Australian Standard AS 4970-2009 Protection of trees of development sites ('AS 4970'). This would reduce the likelihood of any incidental impacts on retained trees.</p> <p>A number of planted trees are present within the substation property, with the main species being exotic pine trees (<i>Pinus</i> sp.), as well as Mugga Ironbark <i>Eucalyptus sideroxylon</i> and Blakely's Red Gum <i>E. blakelyi</i>. The development footprint (ie the alignment of the proposed trench) avoids any impact to these planted trees, as displayed in Figure 4.</p>

## 4.3 Vegetation Integrity

Vegetation integrity means the “degree to which the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near-natural state”. Vegetation integrity is addressed in Table 7 in accordance with the requirements of Section 1.5(2)(a) of the BC Act.

Table 7 Vegetation Integrity

Explain and document potential impacts including additional impacts prescribed under the BC Regulation	Project Information
<p><i>Describe the vegetation integrity and any impacts on vegetation integrity of identified plant communities. For example, information on impacts from proposed development to vegetation cover, structure, condition and function. This can include details on the presence of weeds, disturbance, planted native vegetation and species and growth form diversity.</i></p>	<p>Although there is a small patch of native vegetation mapped within the development, the development footprint has been intentionally located to avoid impacts on this vegetation. The patch of native vegetation comprise several individuals of Ribbon Gum <i>Eucalyptus viminalis</i>, with a ground layer comprised entirely of exotic grasses and forbs, with a unsealed gravel road also present.</p> <p>Given the low number of native species present within the patch (being only one or two tree species), it can be surmised that composition score under the BAM is low. Similarly, with no native shrub or ground layers, structure scores will be low for the patch. And with no ecosystem function features, such as litter, tree hollows and fallen logs present, function score is expected to be very low. Accordingly, vegetation integrity (VI) of the patch can be assumed to be low.</p> <p>Moreover, the remaining vegetation across the site to be disturbed by the proposed works is composed largely of exotic pasture grass; accordingly, these areas do not qualify as a native PCT and cannot be assigned a VI score. Accordingly, VI score and biodiversity values across the majority of the site are low to negligible.</p> <p>In any case, as there is no proposed removal of trees as part of the proposed development, it is not expected that the proposal will impact on the vegetation integrity of any native vegetation.</p> <p>To ensure no incidental impacts occur during construction phase of the project, best practice tree protection measures are to be in place in accordance with AS 4970. This will include fencing, signage and trunk/branch protection where needed along the access road.</p>

## 4.4 Habitat Suitability

Habitat suitability means the "degree to which the habitat needs of threatened species are present at a particular site". Habitat suitability for potentially relevant threatened species and communities is addressed in Table 8 in accordance with the requirements of Section 1.5(2)(b) of the BC Act.

Table 8 Habitat Suitability

Explain and document potential impacts including additional impacts prescribed under the BC Regulation	Project Information
<p><i>Identify any threatened species or ecological communities or their habitat on the development site. Describe how the proposed development avoids impacts on habitat suitability and identify the likelihood and extent of any remaining impacts including the impacts of development on the following habitat of threatened species or ecological communities:</i></p> <ol style="list-style-type: none"> <li>1. <i>karst, caves, crevices, cliffs and other geological features of significance</i></li> <li>2. <i>rocks</i></li> <li>3. <i>human-made structures</i></li> <li>4. <i>non-native vegetation (prescribed under clause 6.1(1)(a) of the BC Regulation).</i></li> </ol> <p><i>Impacts may include the removal or modification (e.g. noise, light, etc.) of the habitat of threatened species or ecological communities.</i></p>	<p>Threatened fauna species which may potentially utilise artificial habitats (culverts and exotic pastureland) within the subject land include highly mobile species such as bats and birds. The ecological site inspection undertaken on 26 October 2022, involved inspection of the culverts and vegetation for potential microbat roosts in accordance with the DPIE 2019 BDAR waiver guidelines (ie using a torch and bat detector to search for roosts), as well as searches for hollows and nests and other signs of fauna activity. No evidence of microbats was detected and no nests were found. The site does not contain any natural rocks, karst, caves, crevices, cliffs and other geological features of significance.</p> <p>The potential for microbat habitat within the culverts on site was determined to be marginal due to a lack of suitable open cracks and crevice and ongoing disturbances due to active use. The culverts in the south of the site contain potential habitat for microbats, as the underside of the culvert roofs have swallow mud nests (see Appendix B site photos). However, at the time of the site inspection there were no signs of bat usage (eg urine stains, droppings and remains) and no bats were detected with a handheld bat detector. The non-native vegetation on the site is unlikely to be important habitat for any potential threatened species using the site. The culverts are not proposed for removal or replacement.</p> <p>No threatened flora species were detected during the ecological site inspection and the development site does not represent suitable habitat for threatened flora due to a lack of native vegetation.</p> <p>The development site only contains a small area of native vegetation, consisting of overhanging <i>Eucalyptus viminalis</i> canopy. Although the development site contains an area of native tree canopy, there is no proposed removal of trees and no impact on any native vegetation.</p> <p>The development site does not contain any threatened flora habitats or threatened ecological communities and the prescribed impact features of the site, including human-made structures and non-native vegetation, are unlikely to provide any important habitat for any threatened species of fauna potentially using the site. Currently the site is used as a small cattle farm. The proposed BESS facility and access road will potentially increase noise, dust and light. The potential increase is unlikely to result in a significant impact on any potential threatened species using the site.</p>

## 4.5 Threatened Species Abundance

Threatened species abundance means the "occurrence and abundance of threatened species or threatened ecological communities, or their habitat, at a particular site". Threatened species abundance is addressed in Table 9 in accordance with the requirements of Section 1.4(a) of the BC Regulation.

Table 9 Threatened Species Abundance

Explain and document potential impacts including additional impacts prescribed under the BC Regulation	Project Information
<p><i>Describe how the proposed development avoids impacts on threatened species abundance and identify the likelihood and extent of any remaining impacts including:</i></p> <ul style="list-style-type: none"> <li>• <i>Impacts of vehicle strikes on threatened species of animals or on animals that are part of a threatened ecological community (prescribed under clause 6.1(1)(f) of the Regulation).</i></li> <li>• <i>Impacts on threatened species, for example, microbats, associated with the demolition of human-made structures (prescribed by 6.1 (1) a (iii) of the Regulation).</i></li> <li>• <i>Impacts on threatened species habitat associated with non-native vegetation (prescribed by 6.1 (1) a (iv) of the Regulation).</i></li> <li>• <i>Impacts on threatened species habitat associated with non-natural water bodies (prescribed by 6.1 (1) a (iii) of the Regulation). For example, threatened frogs such as the green and golden bell frog in landfill areas, drains and brick pits.</i></li> </ul>	<p>The proposed development avoids the removal of any native vegetation. The proposed development will only involve the removal of exotic pastureland that could represent marginal foraging habitat for mobile threatened species such as birds and bats. With respect to remaining impacts:</p> <ul style="list-style-type: none"> <li>• Due to the slow speeds of vehicles travelling across the site impacts of vehicle strikes on threatened species of animal are considered negligible and equivalent to existing vehicle traffic conditions.</li> <li>• As detailed in Section 4.4, the potential for microbat habitat within the culvert structures on site was determined to be marginal and there was no evidence of bats using the culverts. As there is no proposed removal of the culverts, impacts on threatened species associated with the demolition of human-made structures are likely to be negligible.</li> <li>• The potential impact on threatened species due to removal of planted native and non-native vegetation as proposed (see Figure 2) is likely to be negligible.</li> <li>• There are no proposed changes to the existing culverts and drainage lines, as such there will likely be negligible impacts on potential threatened species habitat associated with water bodies.</li> </ul>

## 4.6 Habitat Connectivity

Habitat connectivity means the "degree to which a particular site connects different areas of habitat of threatened species to facilitate the movement of those species across their range". Habitat connectivity is addressed in Table 10 in accordance with the requirements of Section 1.4(c) of the BC Regulation.

Table 10 Habitat Connectivity

Explain and document potential impacts including additional impacts prescribed under the BC Regulation	Project Information
<i>Identify whether the development site contributes to habitat connectivity. Describe how the proposed development avoids impacts on habitat connectivity and identify the likelihood and extent of any remaining impacts of development on the connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range (prescribed under clause 6.1(1)(b) of the BC Regulation).</i>	There is no native vegetation within the development site proposed for removal and is very minimal native vegetation in the locality. The mapped native vegetation within the subject land that runs along a tributary of Evans Plains Creek (see Figure 3 and Figure 4), connects two larger patches of native vegetation mapped to the north and southeast of the subject land. As the potential threatened species are highly mobile, this vegetation is unlikely to provide important habitat connective value. However, the trees on the development site are not proposed for removal, therefore there is no impact to habitat connectivity.

## 4.7 Threatened Species Movement

Threatened species movements mean the “*degree to which a particular site contributes to the movement of threatened species to maintain their lifecycle*”. Threatened species movements are addressed in Table 11 in accordance with the requirements of Section 1.4(d) of the BC Regulation.

Table 11 Threatened Species Movement

Explain and document potential impacts including additional impacts prescribed under the BC Regulation	Project Information
<p><i>Describe how the proposed development avoids impacts on threatened species movement and identify the likelihood and extent of any remaining impacts of development on movement of threatened species that maintains their lifecycle (prescribed under clause 6.1(1)(c) BC Regulation).</i></p>	<p>The development site forms part of a cleared grazing landscape and does not support vegetated corridors (contiguous canopy links), riparian corridors or other habitats that supports movement through the landscape of threatened fauna species.</p> <p>Additionally, the proposed development footprint has been designed to allow retention of existing paddock trees.</p> <p>Mobile threatened species (such as the Grey-headed Flying-fox and microbats) could potentially forage over the site and could occasionally use the limited and fragmented tree canopy that is present as a food resource; however the trees on site are unlikely to facilitate movements for these species for important life cycle stages. The proposed development would not have any conceivable impacts on threatened species movements. The exotic pastureland is not considered important habitat to any threatened species. Therefore, the removal of the exotic groundcover vegetation on the site is not considered to impact threatened species and their lifecycles.</p>

## 4.8 Flight Path Integrity

Flight path integrity means the “*degree to which the flight paths of protected animals over a particular site are free from interference*”. Flight path integrity is addressed in Table 12 in accordance with the requirements of Section 1.4(e) of the BC Regulation.

Table 12 Flight Path Integrity

Explain and document potential impacts including additional impacts prescribed under the BC Regulation	Project Information
<p><i>Identify whether flight paths of protected animals occur over the development site. Protected animals are animals of a species listed or referred to in Schedule 5 of the BC Act. They include any species of birds, mammals, amphibians or reptiles that are native to Australia or that periodically or occasionally migrate to Australia.</i></p> <p><i>Describe how the proposed development avoids impacts on flight path integrity and identify the likelihood and extent of any remaining impacts.</i></p> <p><i>Note: The impacts of wind turbine strikes on protected animals are prescribed under clause 6.1(1)(e) of the BC Regulation. It is, therefore, unlikely that a BDAR waiver would be issued for a proposed wind farm.</i></p>	<p>Migratory birds (such as the Fork-tailed Swift) are likely to fly over the site from time to time; however, such species are largely on the wing and would not utilise the site for roosting or nesting.</p> <p>Accordingly, the proposed development is unlikely to have any measurable impact on the flight paths of this species or other migratory birds. The proposed development is not likely to have any conceivable impacts on the flight path integrity of any protected species.</p>

## 4.9 Water Sustainability

Water sustainability means the "degree to which water quality, water bodies and hydrological processes sustain threatened species and threatened ecological communities at a particular site". Water sustainability is addressed in Table 13 in accordance with the requirements of Section 1.4(f) of the BC Regulation.

Table 13 Water Sustainability

Explain and document potential impacts including additional impacts prescribed under the BC Regulation	Project Information
<p><i>Describe how the proposed development avoids impacts on water sustainability and identify the likelihood and extent of any remaining 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) (prescribed under clause 6.1(1)(d) of the BC Regulation).</i></p>	<p>There is a mapped stream (Strahler stream order 2) that crosses the southern portion of the development site. This stream is an ephemeral drainage line that crosses the access road through existing culverts and eventually feeds into Evans Plains Creek. The stream is a tributary of Evans Plain's Creek to the west. There is no proposed changes to the existing culvert and creek. The proposed development will avoid impacts on water sustainability through implementation of best practise erosion and sediment control. The proposed development is not likely to have any adverse effects on water sustainability.</p> <p>During construction phase, standard erosion and sediment soil management techniques (ie erosion mats and blankets, revegetation, sediment fences, sand bags, sediment traps, etc.) are to be followed where needed to reduce potential impacts to hydrological processes.</p>

## 5 Conclusions

### Existing Biodiversity Values

The majority of the subject land has been historically cleared for grazing and pasture and shows signs of a long history of disturbance. The vegetation of the development site is largely a grassland composed of exotic pasture species with isolated stands of native eucalypt trees, occurring near the entrance to the site and as a small stand of paddock trees in the central-eastern parts of the site. The small copse of paddock trees in the central parts of the site is located east of the proposed BESS facility and comprises a narrow band of trees growing amongst exotic pasture grass and has been classified as a degraded form of PCT 3366 - Central Tableland Clay Apple Box Grassy Forest. This patch consists of five mature Yellow Box *Eucalyptus melliodora* trees surrounded by widespread exotic pasture. There are no native shrub layer or groundcover species. PCT 3366 is associated with the TEC Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregion (Tableland Basalt Forest). The original proposed location of the BESS was moved to avoid this patch of trees.

A small stand of trees also occurs near the site entrance on the Mid-Western Highway and has been identified as a low condition form of PCT 4063 Central and Southern Tableland River Oak Forest. Similarly, the patch of trees contains a native canopy layer, but no native species are present in the shrub layer or groundcover. The groundcover contains exotic grasses and gravel. Although the canopy overlaps the development site, the proposed entrance road works will not require the removal of any trees. PCT 4063 is not associated with any TECs.

An area of planted trees was identified within the substation property. The trees consist mainly of exotic pines (*Pinus* spp.) and some planted native Mugga Ironbark *Eucalyptus sideroxylon* and Blakely's Red Gum *E. blakelyi* with mown lawn.

No habitats or resources for threatened species are present within the development site. The vegetation identified on the development site is unlikely to provide important habitat connectivity or flight paths for any threatened species potentially using the site. No hollow-bearing trees or other resources of potential importance to native fauna are present on the site. Potential microbat habitat was detected in the culverts located in southern portion of the site (adjacent to the Mid-Western Highway entrance). The culverts contain swallow mud nests; however there was no evidence of microbat usage and it is unlikely that the culverts represents suitable breeding habitat for any threatened species.

According to the Biodiversity Values Map, the site is not identified as containing areas of high biodiversity value.

### Avoidance Measures Applied and Mitigation Measures

The current proposed layout of the development has been amended through an iterative design process to avoid impacts on biodiversity values. In this regard, the original concept layout included placement of the proposed battery storage facility partly within an existing patch of native vegetation (identified as PCT 3366). The proposed location of the battery was shifted in the amended layout to avoid the patch of PCT 3366, thereby avoiding any direct impacts on native vegetation (and on biodiversity values in general).

The proposed path of the trenched underground cable was also amended to avoid the planted trees within the substation.

Key mitigation measures recommended for the construction phase are:

- Tree protection - existing paddock trees and trees adjacent to the site entrance will be subject to standard tree protection measures for construction sites, consistent with AS 4970.
- Erosion and sedimentation control – standard measures should be installed during construction, consistent with the Blue Book (Landcom 2004)

No impacts on biodiversity values are anticipated during the operation phase of the development; accordingly, no mitigation measures are necessary or proposed for the operational phase.

### Impacts on Biodiversity Values

The development only proposes the removal of pasture vegetation consisting of exotic grasses and forbs. No native vegetation, including any native trees, is proposed for removal.

The exotic vegetation and structures proposed for removal are not likely important habitat for any threatened species potentially utilising the site.

There is no proposed change to the existing culverts for drainage lines on the site. As such, the project is unlikely to impact the hydrological processes of the site. Standard erosion and sediment controls are recommended during construction to ensure no indirect impacts to watercourses and hydrological processes.

### Conclusion

The subject land contains very limited or negligible biodiversity values. The only notable feature of biodiversity value is a small patch of native trees, which through the application of avoidance measures in the design of the layout, will be retained *in situ*. The proposed development will require disturbance to areas of exotic pasture grass, which provide only negligible to marginal foraging habitat for some highly mobile threatened fauna species. The removal of this vegetation is not likely to result in a significant impact on any threatened species. The site does not contain any vegetated links or fauna movement corridors and the proposed development will not affect movement of threatened or migratory species through the landscape. Consequently, the project is unlikely to have a significant impact on the limited biodiversity values of the site. On this basis, we hereby request a waiving of the requirements of the SEARs and the BC Act to the extent that a BDAR is not required for the project application.

## 6 References

DPE 2022a, "*Biodiversity Value Map*", Department of Planning and the Environment (NSW), Sydney, NSW. Retrieved from: <https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap>.

DPE 2022b, "*NSW State Vegetation type Map*", Department of Planning and Environment (NSW), Sydney, NSW. Retrieved from: <https://datasets.seed.nsw.gov.au/dataset/nsw-state-vegetation-type-map>.

DPE 2022c, "*BioNet Atlas of NSW Wildlife*", Department of Planning and the Environment (NSW), Sydney, NSW. Retrieved from: [https://www.environment.nsw.gov.au/atlaspublicapp/UI\\_Modules/ATLAS\\_/AtlasSearch.aspx](https://www.environment.nsw.gov.au/atlaspublicapp/UI_Modules/ATLAS_/AtlasSearch.aspx).

DPIE 2019, "*How to apply for a biodiversity development assessment report waiver for a Major Project Application*", Department of Planning, Industry and Environment, Sydney NSW. Retrieved from: <https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity-offsets-scheme/landholders-and-developers/biodiversity-development-assessment-report-waiver>.

Landcom 2004, *Managing Urban Stormwater: Soils and Construction 'Blue Book' 4th Edition*, Landcom, NSW Government

# Appendix A: BioNet Atlas Search Results

Table A1 BioNet Atlas Search Results within 10 km of Site

Kingdom	Class	Scientific Name	Common Name	NSW status	Comm. status	Records
Animalia	Aves	<i>Anseranas semipalmata</i>	Magpie Goose	V,P		1
Animalia	Aves	<i>Apus pacificus</i>	Fork-tailed Swift		C,J,K	1
Animalia	Aves	<i>Hieraaetus morphnoides</i>	Little Eagle	V		3
Animalia	Aves	<i>Falco subniger</i>	Black Falcon	V		3
Animalia	Aves	<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	V	E	4
Animalia	Aves	<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (eastern subspecies)	V		1
Animalia	Aves	<i>Chthonicola sagittata</i>	Speckled Warbler	V		3
Animalia	Aves	<i>Anthochaera phrygia</i>	Regent Honeyeater	E4A	CE	9
Animalia	Aves	<i>Melithreptus gularis gularis</i>	Black-chinned Honeyeater (eastern subspecies)	V		2
Animalia	Aves	<i>Daphoenositta chrysoptera</i>	Varied Sittella	V		4
Animalia	Aves	<i>Artamus cyanopterus cyanopterus</i>	Dusky Woodswallow	V		18
Animalia	Aves	<i>Stagonopleura guttata</i>	Diamond Firetail	V		3
Animalia	Mammalia	<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	V	E	2
Animalia	Mammalia	<i>Phascolarctos cinereus</i>	Koala	E1	E	4
Animalia	Mammalia	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V	V	6
Animalia	Mammalia	<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail-bat	V		12
Animalia	Mammalia	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	V	V	1
Animalia	Mammalia	<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	V		5
Plantae	Flora	<i>Lepidium hyssopifolium</i>	Aromatic Peppergrass	E1	E	3
Plantae	Flora	<i>Swainsona sericea</i>	Silky Swainson-pea	V		3
Plantae	Flora	<i>Eucalyptus pulverulenta</i>	Silver-leafed Gum	V	V	1
Plantae	Flora	<i>Euphrasia scabra</i>	Rough Eyebright	E1,3		1
Plantae	Flora	<i>Zieria obcordata</i>	Granite Zieria	E1	E	1

Key: BC Act (species listing under the *Biodiversity Conservation Act 2016*); EPBC Act (species listing under the *Environment Protection and Biodiversity Conservation Act 1999*); V (vulnerable); E1 and E (endangered); E4A and CE (critically endangered); E2 (endangered population); E4 and X (extinct) C, J, K (migratory species - China, Japan and/or Korea migratory bird agreements). Data from the BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1°C; ^^ rounded to 0.01°C. Copyright the State of NSW through the Department of Planning, Industry and Environment. Search criteria : Licensed Report of all Valid Records of Threatened (listed on BC Act 2016) ,Commonwealth listed ,CAMBA listed ,JAMBA listed or ROKAMBA listed Entities in selected area. Report generated on 24/10/2022 3:45 PM

# Appendix B: Site Photographs

Photo 1 Trees adjacent to the west at subject land access road entry



Photo 2 *Eucalyptus melliodora* to the east of the proposed BESS facility



Photo 3 Culvert along subject land access road to substation



Photo 4 Culvert with mud nests along access road



Photo 5 Culvert at subject land access road entry and *Eucalyptus viminalis*



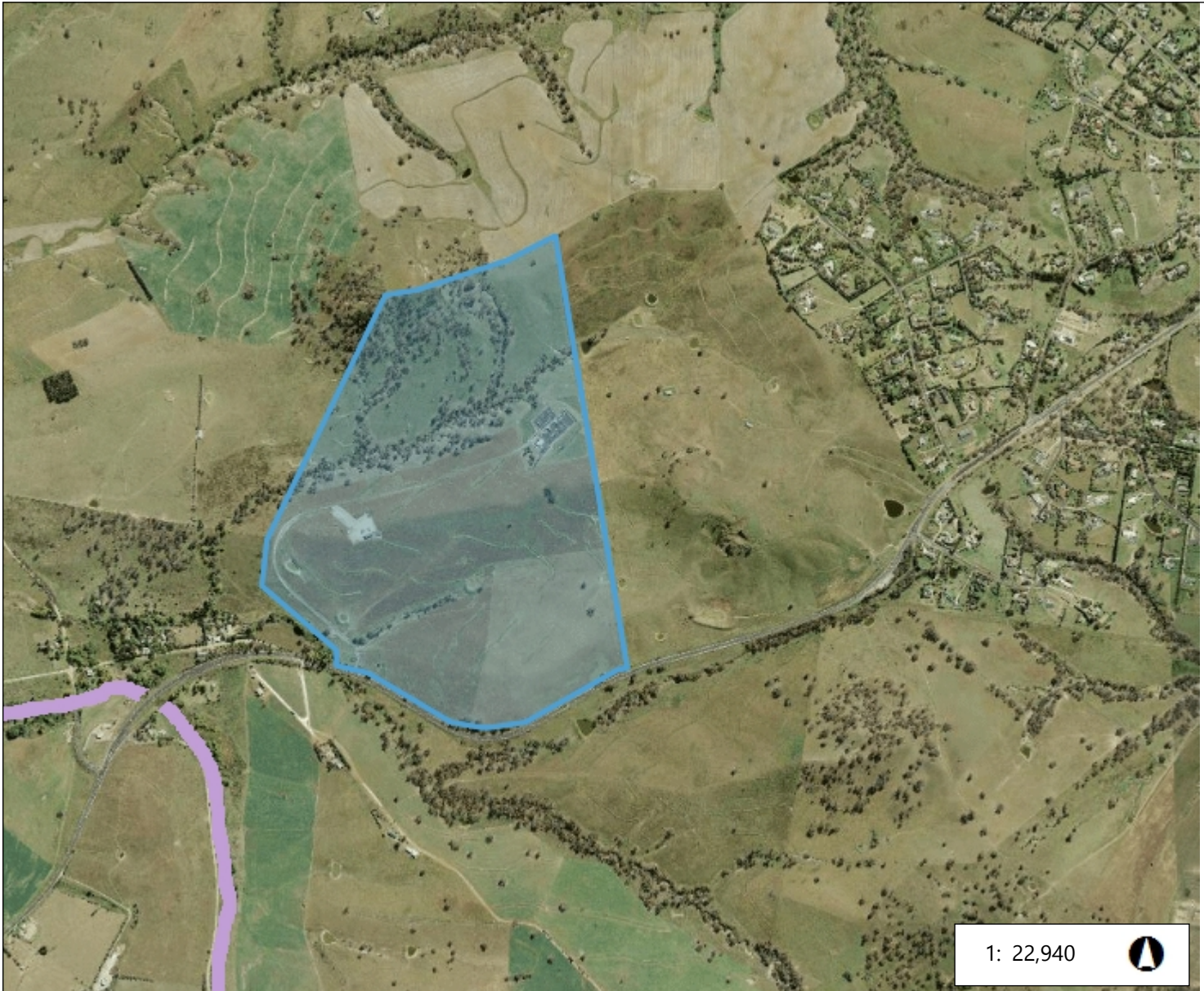
Photo 6 Existing Access Road



# Appendix C:

## BMAT Report

# Biodiversity Values Map



1,165.3 0 582.67 1,165.3 Metres

WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

## Legend

- Biodiversity Values that have been mapped for more than 90 days
- Biodiversity Values added within last 90 days

## Notes

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Ms Chelsea Milles  
Project Development Manager  
Canadian Solar

via email: chelsea.milles@canadiansolar.com

21/04/2023

Dear Ms Milles

**Subject: Panorama Battery Energy Storage System (SSD- 50587460) – Request to waive the need for a Biodiversity Development Assessment Report under the *Biodiversity Conservation Act 2016***

I refer to your correspondence requesting the issue of a waiver from the requirement for a Biodiversity Development Assessment Report (BDAR) to be submitted as part of the State significant development (SSD) application for the Panorama Battery Energy Storage System (SSD-50587460).

Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) provides the following in relation to an application for SSD:

*“Any such application is to be accompanied by a biodiversity development assessment report unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.”*

The authority of the “*Planning Agency Head*” to determine whether a proposed development is “*not likely to have any significant impact on biodiversity values*” has been delegated to Directors within the Planning and Assessment Division of the Department.

Accordingly, I have reviewed the application of the test of significance under sections 1.5 and 7.3 of the BC Act and clause 1.4 of the *Biodiversity Conservation Regulation 2017* and considered the information provided in the BDAR waiver request. I have determined that the development is not likely to have any significant impacts on biodiversity values and that the application does not need to be accompanied by a BDAR. A waiver under section 7.9 is therefore granted for the proposed development (being the Panorama Battery Energy Storage System (SSD-50587460)).

The delegated *Environment Agency Head* of Biodiversity Conservation and Science Directorate of the Department (BCS) has also granted a waiver, and a copy of that waiver is attached.

This waiver is issued in respect of the proposed development detailed in the BDAR waiver request for the proposed Panorama Battery Energy Storage System, dated 22 March 2023. Amendments to the development may require a further waiver to be sought and issued.

Should you have any enquiries regarding the above matter, please contact Nestor Tsambos on 9274 6348 or Nestor.Tsambos@dpie.nsw.gov.au

Yours sincerely,



Iwan Davies  
**Director, Energy Assessments**  
**As delegate of the Secretary**

Attached: BCD BDAR Waiver Panorama Battery Energy Storage System Determination 17/2/2023

Attachment A – Determination

***Determination under clause 7.9(2) of the Biodiversity Conservation Act***

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**2016**

I, Sarah Carr, Director North West, Biodiversity and Conservation Division of the Department of Planning and Environment, under clause 7.9(2) of the *Biodiversity Conservation Act 2016*, determine that the proposed development is not likely to have any significant impact on biodiversity values and therefore a Biodiversity Development Assessment Report (BDAR) **is not required**.

**Proposed development** means the development as described in Schedule 1. If the proposed development changes so that it is no longer consistent with this description, a further request to waive the requirement for a BDAR must be lodged or a BDAR prepared.

If you do not lodge the development application related to this determination for the proposed development within 2 years of the issue date of this determination, you must either prepare a BDAR or lodge a new request to have the BDAR requirement waived.

**Date: 11/04/2023**



**Sarah Carr**  
**Director North West**  
**Biodiversity and Conservation Division**  
**Environment and Heritage Group**

## **SCHEDULE 1 – Description of the proposed development**

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This BDAR waiver applies to the proposed development as described in the BDAR Waiver Request Panorama Battery Energy Storage System, Bathurst NSW (March 2023).

The subject land is 800 Mid-Western Highway, Evans Plains NSW. The subject land is within the Bathurst Regional local government area and includes the following properties:

- Lot 2 DP 864272
- Lot 521 DP 603541

This proposed project involves:

- Removal of exotic pastureland.
- Installation and operation of a SolBank Battery Energy Storage System (BESS) including battery enclosures, inverters, and transformers.
- Associated ancillary infrastructure including:
  - A 33kV underground cable connecting a 33kV switch building to the existing substation.
  - Formalisation of existing access from Mid-Western Highway and existing access road within Lot 2 DP 864272 to accommodate heavy vehicles.
  - Proposed access road from the BESS to connect to the existing access road within Lot 2 DP 864272.
  - Operations and maintenance building.
  - Stormwater management infrastructure, lighting, and security fencing, and
  - Construction laydown areas.