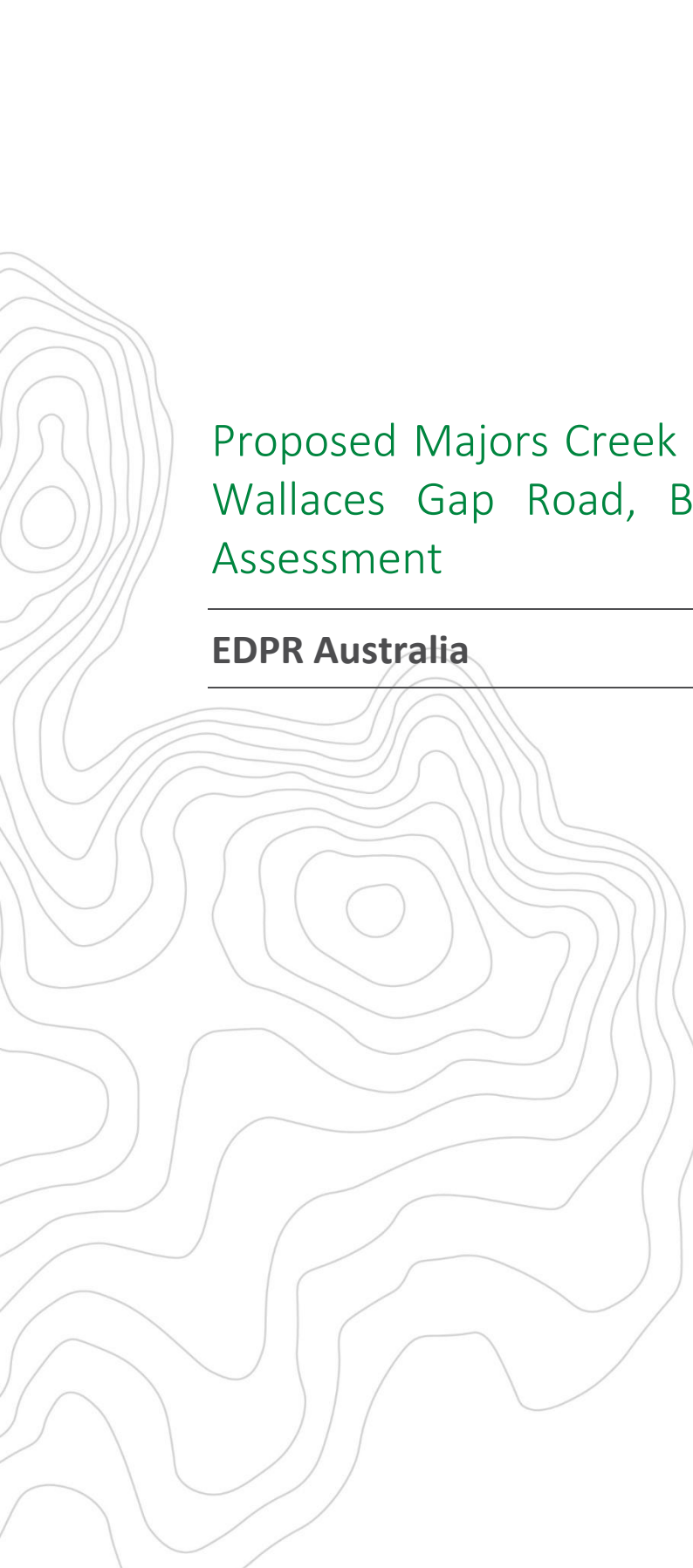


A stylized topographic map with green contour lines is positioned on the left side of the page, extending from the top left towards the bottom left.

# Proposed Majors Creek Solar Farm and Battery – 873 Wallaces Gap Road, Ballalaba – Flora and Fauna Assessment

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**EDPR Australia**

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# Contents

|                                                                           |           |
|---------------------------------------------------------------------------|-----------|
| <b>1. Introduction .....</b>                                              | <b>1</b>  |
| 1.1 The proposal .....                                                    | 1         |
| 1.2 Direct and indirect impacts.....                                      | 2         |
| 1.3 Subject site, study area and locality.....                            | 2         |
| 1.4 Biodiversity Offset Scheme .....                                      | 2         |
| 1.5 Topography, geology and soils .....                                   | 3         |
| 1.6 Disturbances .....                                                    | 3         |
| 1.7 Planning and legislation .....                                        | 10        |
| 1.7.1 Environmental Planning and Assessment Act 1979 .....                | 10        |
| 1.7.2 Biodiversity Conservation Act 2016 .....                            | 10        |
| 1.7.3 Environment Protection and Biodiversity Conservation Act 1999 ..... | 10        |
| <b>2. Methods .....</b>                                                   | <b>11</b> |
| 2.1 Database and literature review .....                                  | 11        |
| 2.2 Field surveys .....                                                   | 11        |
| 2.2.1 Flora surveys .....                                                 | 11        |
| 2.2.2 Fauna surveys .....                                                 | 11        |
| <b>3. Results .....</b>                                                   | <b>13</b> |
| 3.1 Database and literature review .....                                  | 13        |
| 3.2 Flora.....                                                            | 13        |
| 3.2.1 Threatened ecological communities.....                              | 13        |
| 3.2.2 Threatened flora .....                                              | 13        |
| 3.3 Fauna .....                                                           | 18        |
| 3.3.1 Fauna habitats .....                                                | 18        |
| <b>4. Impact assessment .....</b>                                         | <b>20</b> |
| 4.1 Impacts on vegetation communities .....                               | 20        |
| 4.2 Impacts on threatened ecological communities.....                     | 20        |
| 4.3 Impacts on threatened flora .....                                     | 20        |
| 4.4 Impacts on fauna habitats .....                                       | 20        |
| 4.5 Threatened species likelihood of occurrence .....                     | 21        |
| 4.6 Conclusion of Assessment of Significance .....                        | 21        |
| 4.7 Conclusion of EPBC assessment.....                                    | 21        |
| <b>5. Recommendations.....</b>                                            | <b>22</b> |
| <b>6. Conclusion.....</b>                                                 | <b>23</b> |
| <b>7. Bibliography .....</b>                                              | <b>25</b> |
| <b>Appendix A: Likelihood of occurrence .....</b>                         | <b>26</b> |
| <b>Appendix B: Test of significance.....</b>                              | <b>40</b> |
| <b>Appendix C: Proposed Pasture Improvement Program .....</b>             | <b>45</b> |

## List of Figures

|                                                                                                                                                                                    |    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Figure 1: The proposed concept plan.....                                                                                                                                           | 4  |
| Figure 2: The subject site and study area.....                                                                                                                                     | 5  |
| Figure 3: The approximate location of the subject site relative to the Biodiversity Values Map.....                                                                                | 6  |
| Figure 4: SVTM mapping of predicted PCTs within the subject land and immediate surrounds and location of Black Gum individuals within the subject land. ....                       | 14 |
| Figure 5: 1977 air photo of the subject land showing the deep green colour of the grassland within the subject land which is evidence of fertilising and pasture improvement. .... | 15 |

## List of Tables

|                                                                                    |    |
|------------------------------------------------------------------------------------|----|
| Table 1: Threatened species with the potential to be affected by the proposal..... | 21 |
|------------------------------------------------------------------------------------|----|

## Abbreviations

| Abbreviation | Description                                                                       |
|--------------|-----------------------------------------------------------------------------------|
| BAM          | Biodiversity Assessment Method                                                    |
| BC Act       | <i>NSW Biodiversity Conservation Act 2016</i>                                     |
| BDAR         | Biodiversity Development Assessment Report                                        |
| CEEC         | Critically Endangered Ecological Community                                        |
| DCCEEW       | Commonwealth Department of Climate Change, Energy, the Environment and Water      |
| DCCEEW (NSW) | NSW Department of Climate Change, Energy, the Environment and Water               |
| EEC          | Endangered Ecological Community                                                   |
| ELA          | Eco Logical Australia Pty Ltd                                                     |
| EP&A Act     | <i>NSW Environmental Planning and Assessment Act 1979</i>                         |
| EPBC Act     | <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i> |
| FM Act       | <i>NSW Fisheries Management Act 1994</i>                                          |
| FFA          | Flora and Fauna Assessment                                                        |
| GIS          | Geographic Information System                                                     |
| GPS          | Global Positioning System                                                         |
| IBRA         | Interim Biogeographic Regionalisation for Australia                               |
| LGA          | Local Government Area                                                             |
| NSW          | New South Wales                                                                   |
| OEH          | NSW Office of Environment and Heritage                                            |
| PCT          | Plant Community Type                                                              |
| SEPP         | State Environmental Planning Policy                                               |
| SSD          | State Significant Development                                                     |
| SSI          | State Significant Infrastructure                                                  |
| SVTM         | State Vegetation Type Map                                                         |
| TEC          | Threatened Ecological Community                                                   |
| VIS          | Vegetation Information System                                                     |
| WM Act       | <i>NSW Water Management Act 2000</i>                                              |

## Executive Summary

This report describes the biological environment and assesses the potential effects on threatened and migratory species, endangered populations and ecological communities of a proposed 5MW solar farm and battery, at Lot 81 DP755905, 873 Wallaces Gap Road, Ballalaba.

Direct impacts on flora and fauna arising from the proposal will be minimal given the already heavily modified nature of the footprint of the proposed development, which has a long history of agriculture, including ongoing sheep grazing, and which has been sprayed with herbicide twice over the last year and recently burnt as part of a pasture improvement program, with direct sowing of pasture grasses planned for March 2026 vegetation. As such, at the time of the surveys undertaken for this assessment almost the entirety of the footprint of the proposal comprised bare earth and stubble. Those parts of the development footprint that were not burnt or herbicide sprayed, which was limited to parts of the proposed access road, are heavily grazed by sheep and appear to support predominately exotic pasture grasses and weeds, and do not comprise any native vegetation communities.

For the purposes of this assessment, the pasture improvement activities that have been undertaken, and are planned, are not considered to comprise part of the solar farm proposal. As such, the proposal is not expected to involve the clearing of any native vegetation, and thus will not exceed the clearing threshold (1 ha) trigger for the Biodiversity Offset Scheme (BOS). The proposal will not encroach on land identified on the Biodiversity Values map nor will it otherwise trigger the BOS.

The State Vegetation Type Map (SVTM) mapping predicted that prior to recent pasture improvement activities, parts of the study area supported Plant Community Type (PCT) 3413 Monaro Kangaroo Grass Woodland-Grassland Complex. It is not possible to confirm this given the condition of the subject site at the time of the assessment. However, less disturbed parts of the subject land and immediately adjacent properties did support some of the characteristic species of PCT 3413. It is possible, although not certain, that the subject land would have supported natural temperate grassland (NTG) prior to European settlement, given the geology and landscape position. However, it is also possible that the grassland within the subject land and surrounding properties along Brick Kiln Creek is, in some part at least, derived from the clearing of grassy woodlands and forests, such as the PCT 3348 Southern Tableland Granites Ribbon Gum Grassy Forest, which occurs in the northern fringes of the subject land. Historic aerial photographs identify that pasture improvement activities have been occurring on the subject land for many decades. As such, if NTG was present within the subject land prior to recent activities, its conservation significance is likely to have been relatively low.

No threatened flora species were recorded within the study area during the survey period despite targeted surveys in potentially suitable habitats, and none are considered likely to occur there. Approximately 20 individuals of the threatened tree, *Eucalyptus aggregata* (Black Gum), which is listed as vulnerable under both the BC Act and EPBC Act, were detected in the far eastern parts of the subject land in the fenced off riparian area of Brick Kiln Creek. The species is locally common. None of the Black Gum individuals within the subject land will be adversely affected by the proposed development.

The fauna habitats within the study area are depauperate given the long history of disturbance and absence of native vegetation, rock habitats or woody debris. The study area does not include any important foraging, sheltering, rock or water habitats. Whilst the study area provides a small amount of low quality potential habitat for a range of native fauna species, including threatened species such as the Dusky Woodswallow, similar and superior habitats are widespread in adjacent areas, and elsewhere within the locality, and will continue to be available to these species.

The proposal will not affect any potentially important habitats for threatened fauna species, such as important nesting, breeding or roosting habitats and it will not sever any linkages between habitats or otherwise permanently restrict fauna movements.

An assessment of the effects of the proposal on threatened species, populations and ecological communities which may be directly or indirectly affected by the proposal was undertaken by applying the five factors from Section 7.3 of the *Biodiversity Conservation Act 2016*. This assessment concluded that the proposal is unlikely to have a significant effect on threatened species, populations or ecological communities or their habitats.

Following consideration of the administrative guidelines for determining significance under the Commonwealth *Environment Protection & Biodiversity Conservation Act 1999*, it is concluded that the proposal is unlikely to have a significant impact on matters of National Environmental Significance or Commonwealth land, and a referral to the Commonwealth Environment Minister is not necessary.

Notwithstanding the relatively minor impacts associated with the proposal, a number of impact mitigation and amelioration measures have been recommended to be incorporated into the proposal, as identified in Section 5.

# 1. Introduction

Eco Logical Australia Pty Ltd (ELA) was engaged by EDPR Australia to prepare a flora and fauna assessment to accompany a proposed 5MW solar farm and battery, at Lot 81 DP755905, 873 Wallaces Gap Road, Ballalaba (hereafter referred to as the subject land). This flora and fauna assessment provides the findings of a review of relevant literature, database searches and field survey. It also addresses relevant statutory considerations and makes recommendations to ameliorate the potential impacts of the proposal on vegetation and habitats.

The aim of this investigation was to assess the ecological impacts of the proposal on flora, fauna and habitats within the study area. The objectives of this investigation were:

- To identify and describe the flora species and vegetation communities present in the study area, their condition and conservation significance.
- To identify and describe the fauna habitats present in the study area and their condition.
- To identify the fauna species which are present or likely to occur in the study area, and describe their conservation significance.
- To assess the impacts of the proposal on vegetation, fauna, habitats, and other environmental features as necessary.
- To make recommendations regarding any environmental management and impact mitigation/amelioration measures, which can be implemented to limit the effects of the proposal on vegetation, fauna, habitats, and other environmental features as necessary.

## 1.1 The proposal

The proposal is to construct a 5MW solar farm and associated infrastructure on an approximately 14.1 ha portion of the subject land, which is approximately 40.17 ha in size. The proposed development includes 10,800 solar panels in approximately 120 tracker rows (solar modules), each 120 m in length. The height of each solar module will be approximately 2.0 m to 2.75 m and the mounting system will be constructed on piles that are driven into the ground, typically within depths of 1.5 m to 3.0 m. Each row of solar photovoltaic (PV) modules will rotate to track the sun across the sky from east to west each day.

The solar farm will also consist of an inverter station, which incorporates two inverter units, the high/medium voltage switchgear and transformers. The inverter station is ground mounted and incorporated on a 12.19 m skid. Allowance is made for a 2.9 m high battery energy storage system (BESS) on a 12.1 m skid alongside the inverter stations.

The solar farm will be surrounded by a 2.3 m high barbed wire security fence. A 10 m bushfire asset protection zone (APZ) will be maintained between the security fence and the solar modules. The internal high and low voltage cabling will be trenched to 0.6 m and 1.2 m respectively. The solar farm will be connected to the existing 22 kV powerline that runs just inside of the northern boundary of the subject land parallel to Wallaces Gap Road, via a new high voltage overhead powerline.

Access to and egress from the solar farm will be via the existing farm access road off Wallaces Gap Road and then via an existing farm track which will be upgraded to a 4 m wide trafficable surface contained within a 4 m wide access easement. A temporary car park will be created for the construction phase adjacent to a proposed laydown area. A 3 m wide and 3 m high vegetation screen of plantings is proposed on the western and eastern boundaries of the solar farm.

During construction, there is expected to be 50 personnel on site working from 7 am – 4 pm Monday to Friday, with approximately 30 personnel on site at any one time. It is anticipated there will be up to around 40 light vehicle trips per day, with a maximum of around 30 light vehicles on site at any one time. The construction stage is expected to take approximately 3 months. Once operational, the site will be unmanned, and maintenance is expected to be carried out quarterly by a crew of 2 – 3 people.

The subject land is a working sheep farm. The landowners are expected to continue sheep grazing around and within the solar farm security fenced area. The security fence has been designed through the existing dam within the site to allow the sheep access to water from both inside and out of the solar farm site.

Solar panels and related infrastructure will be decommissioned and removed upon cessation of operations. This is likely to occur within two years of the end of the project, which is expected to continue for approximately 35 years. The site can then be returned to the pre-development land use or as agreed to.

An overview of the proposal is shown in Figure 1 and further identified in Photos 1-6. A more detailed description of the proposal is also provided in the Statement of Environmental Effects for the proposal.

## 1.2 Direct and indirect impacts

Direct impacts on flora and fauna arising from the proposal will predominantly comprise the removal or further disturbance to approximately 14 ha of exotic pasture.

Indirect impacts associated with the proposal are expected to be minor as:

- The areas affected are already heavily disturbed and modified.
- The proposal will be implemented using low impact methods and with appropriate safeguards.

Whilst the proposal will result in increased noise and human activity and potential for roadkill, these increases will largely be temporary and concentrated to the construction phase. The proposal is not expected to have any substantial adverse impacts on habitat connectivity as the subject land is already heavily disturbed and largely clear of native vegetation.

## 1.3 Subject site, study area and locality

The “subject site” comprises those areas, as described in Section 1.1 and Figure 2, which will be directly impacted by the proposal. The “study area” extends approximately 20 m beyond the limits of the subject site, given that the bulk of the potential indirect impacts are not anticipated to extend far beyond the development footprint, as shown in Figure 2.

The locality for the purposes of this report is the area of land within a 5 km radius of the study area.

## 1.4 Biodiversity Offset Scheme

The proposal will not affect any land mapped within the Biodiversity Values Map as defined in the NSW Biodiversity Conservation Regulation 2017 (BC Reg), as shown in Figure 3. The paddocks within which the proposal is located had been sprayed with herbicide twice and burnt, as part of a pasture improvement program, prior to the surveys undertaken for this assessment.

At the time of the assessment, almost the entirety of the subject site was bare earth with burnt stubble, with only some heavily grazed down pasture remaining along the alignment of the proposed site access road. Direct sowing of pasture grasses was planned for the bulk of the subject site in March 2026. For the purposes of this assessment, the pasture improvement activities that have been undertaken, and are planned, are not considered to comprise part of the solar farm proposal. As such, the proposal is not expected to involve the clearing of any native vegetation and will not exceed the clearing threshold (1 ha) trigger for the Biodiversity Offset Scheme (BOS).

### 1.5 Topography, geology and soils

The study area occupies gently sloping generally east facing slopes at an altitude of between approximately 720 m and 740 m Australian Height Datum (AHD). According to MinView (2026), the western parts of the study area are underlain by the Toggannoggra Rhyolite which is a porphyritic rhyolitic ignimbrite, with the eastern parts being underlain by the Kain Porphyry which is a plagioclase-phyric coherent dacite. Soils within the study area appeared to be clay loams. The study area drains to Brick Kiln Creek, which is a tributary of the Shoalhaven River, joining the River approximately four kilometres to the north of the study area.

### 1.6 Disturbances

Most of the study area has already been heavily disturbed in association with the historic and ongoing agricultural development. In recent years the subject land has been used for sheep grazing. In the last few months the study area has been sprayed with herbicide twice and burnt as part of a pasture improvement program (see Appendix C) with direct sowing of pasture grasses planned for March 2026. At the time of the surveys undertaken for this assessment, the vast majority of the subject site was bare earth with burnt stubble, as shown in Photos 1-6, with only a few sedges and reeds around the small dam in the central parts of the subject site, and heavily grazed predominately exotic pasture grasses along the proposed access road, as shown in Photo 5.

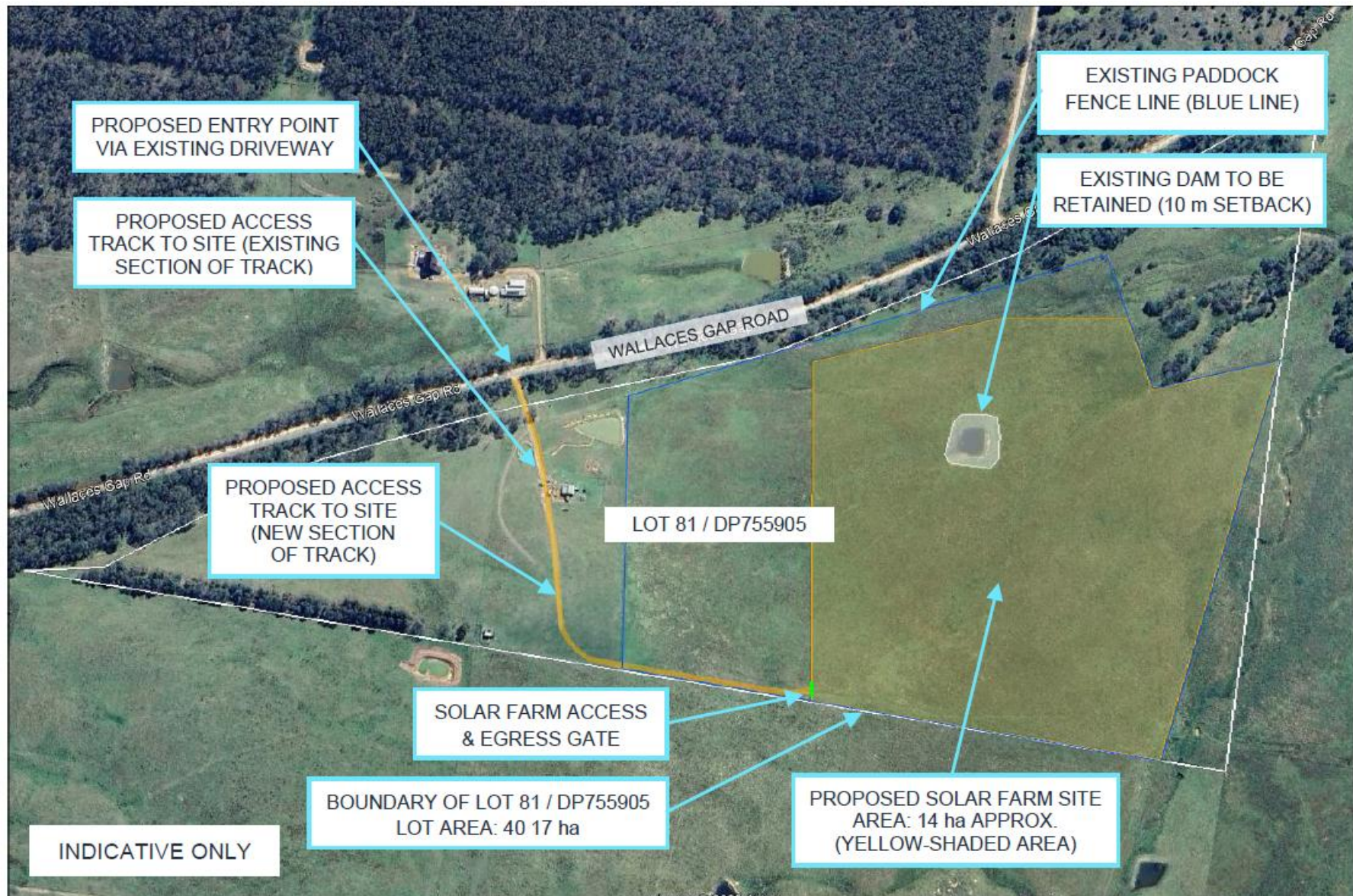
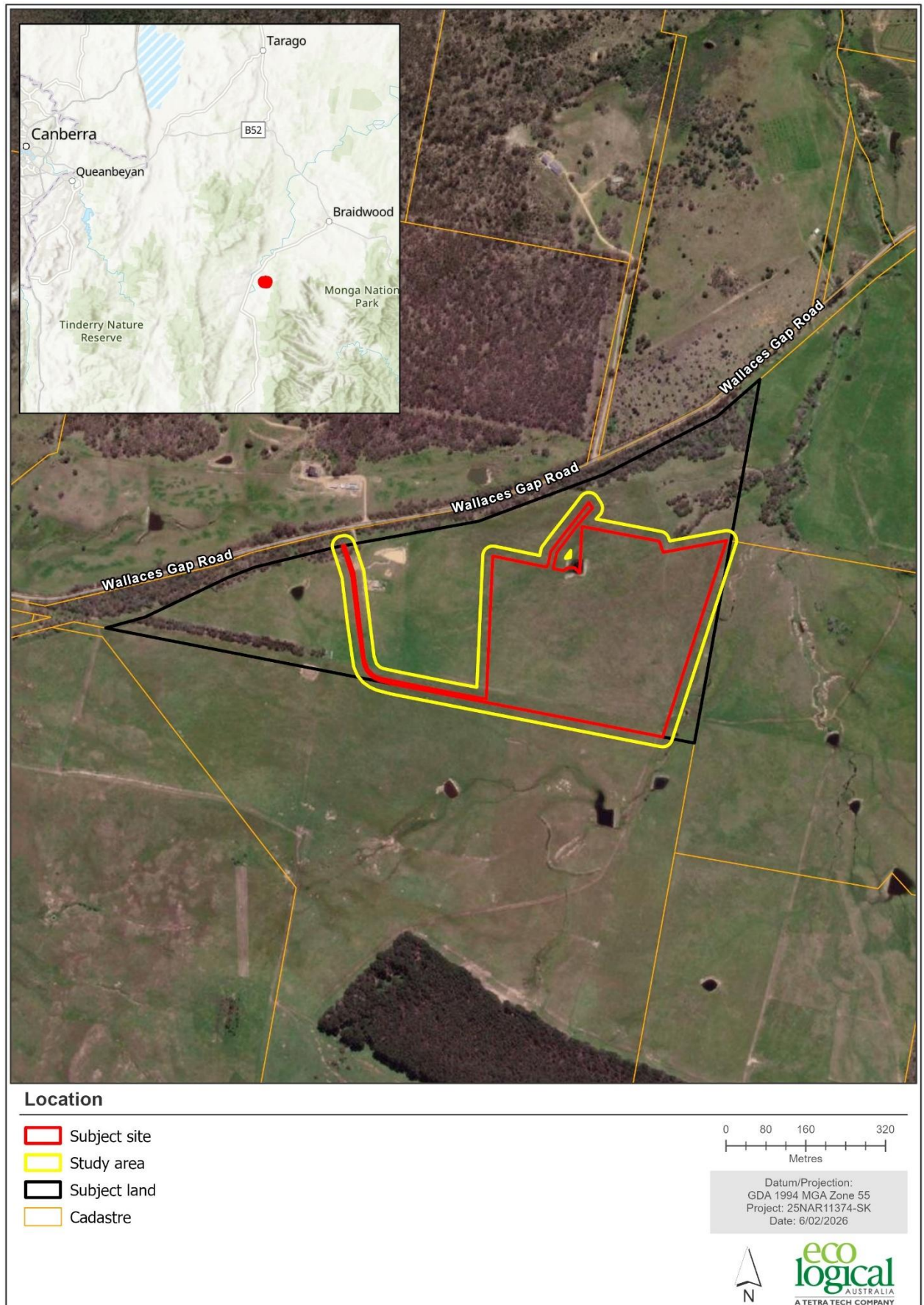


Figure 1: The proposed concept plan



**Figure 2: The subject site and study area**

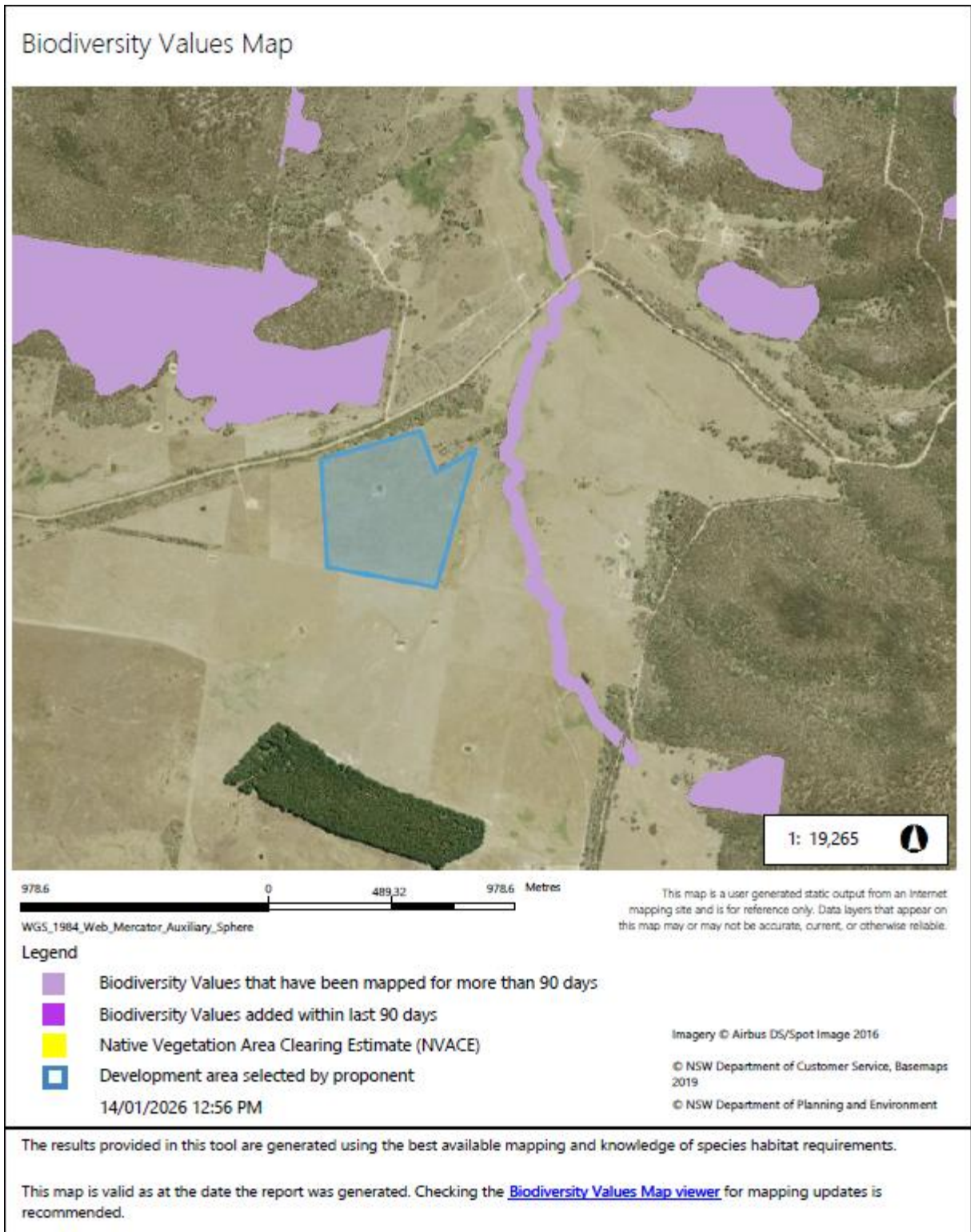


Figure 3: The approximate location of the subject site relative to the Biodiversity Values Map



**Photo 1: Looking east from the highpoint of the subject land across the paddock within which the solar farm is proposed.**



**Photo 2: Looking north across the location of the proposed solar farm towards Wallaces Gap Road showing the heavily degraded paddock which has been sprayed with herbicides and burnt in preparation for pasture improvement.**



**Photo 3: The existing farm dam within the subject site.**



**Photo 4: Looking west along the northern boundary of the subject land showing the 22 kV powerline that the solar farm will be connected to.**



**Photo 5:** The access to the solar farm will utilise an existing farm track which will be upgraded.



**Photo 6:** The access to the solar farm will be via the existing farm access from Wallaces Gap Road.

## 1.7 Planning and legislation

It is not the intention of this assessment to document all the legislation and planning instruments that are relevant to the proposal. A detailed analysis of the statutory environment is provided in the Statement of Environmental Effects for the proposal. However, the legislation and planning instruments which are relevant to the assessment of potential impacts on terrestrial flora and fauna are discussed in brief below.

### 1.7.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EPA Act) is the principal planning legislation for NSW, providing a framework for the overall environmental planning and assessment of development proposals. This proposal is to be assessed under Part 4 of the EPA Act. The EPA Act places a duty on the determining authority to adequately address a range of environmental matters including the maintenance of biodiversity and the likely impact to threatened species, populations and communities.

### 1.7.2 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) introduces a mandatory framework for addressing impacts on biodiversity from development and clearing, including the Biodiversity Offsets Scheme (BOS) and Biodiversity Assessment Method (BAM). The proposal will not trigger the BOS, as it will not affect any land identified on the Biodiversity Values map and the 1 ha native vegetation clearing threshold which applies to the subject land will not be exceeded. As such, a Biodiversity Development Assessment Report (BDAR) is not required and a flora and fauna assessment has been prepared. The impacts of the proposed development will be subject to a test of significance with respect to the Section 7.3 of the BC Act.

### 1.7.3 Environment Protection and Biodiversity Conservation Act 1999

The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a national scheme for protecting the environment and conserving biodiversity values. Approval from the Commonwealth Minister is required under the EPBC Act if the action will, or is likely to, have a significant impact on matters considered to be of national environmental significance (MNES). MNES relevant to the proposal include species and ecological communities that are listed under the Act. The EPBC Act does not define significant impact but identifies matters that are necessary to take into consideration.

## 2. Methods

### 2.1 Database and literature review

Data gathered during all field studies and the literature review was analysed and interpreted in accordance with the provisions of legislation and planning controls pertaining to flora and fauna. Threatened and migratory species, threatened populations and threatened ecological communities (TECs) that have been recorded, or have the potential to occur within the locality have been assessed for their likelihood to inhabit the study area (Appendix A).

### 2.2 Field surveys

ELA conducted flora and fauna surveys within the study area and surrounds on 13 January 2026.

#### 2.2.1 Flora surveys

A botanical survey was conducted in the study area by ELA Principal Ecologist Ryan Smithers on 13 January 2026.

##### 2.2.1.1 Community identification and floristic audit

The study area and immediate surrounds were surveyed to document the flora species present, including those of conservation significance, and the location and extent of vegetation communities including any TECs encountered. All flora species encountered within the study area were identified to species level where possible. A description of the vegetation was then prepared with general observations made of the wider area. The vegetation was classified to Plant Community Types (PCT) as identified in the Eastern NSW PCT Classification v1.1.

##### 2.2.1.2 Targeted searches

Specific searches for plant species of conservation significance known from the locality were conducted targeting areas of potential habitat for non-cryptic species. These surveys targeted *Eucalyptus aggregata*, *Balioskion longipes*, *Eriocaulon australasicum*, *Eucalyptus kartzoffiana*, *Lepidium aschersonii*, *Lepidium hyssopifolium*, *Persicaria elatior* and *Leucochrysum albicans* var. *tricolor*.

##### 2.2.1.3 Limitations

The floristic audit undertaken recorded as many species as possible and provides a comprehensive but not definitive species list. More species would be recorded during a longer survey over more seasons and years. Nevertheless, the techniques used in this investigation are considered adequate to gather the data necessary to identify potential ecological constraints to the proposal.

##### 2.2.1.4 Flora survey effort

The flora survey effort employed a total of five person-hours.

#### 2.2.2 Fauna surveys

Field investigations for fauna were conducted in conjunction with the flora surveys on 13 January 2026.

##### 2.2.2.1 Habitat analysis

A description of the fauna habitats in the study area was prepared because the type of habitat in an area influences which animals occur there, as well as diversity and abundance. This habitat assessment also has an important role in predicting threatened fauna likely to occur in an area. The information collected usually includes the type of vegetation present, the presence/absence of rock habitats, tree hollows,

ponds, streams, wetlands, foraging substrates and other features likely to attract threatened fauna. The study area and immediate surrounds were traversed to identify habitat components, which were recorded and described.

#### *2.2.2.2 Diurnal surveys*

Specific searches were conducted for habitats or resources of relevance for those threatened fauna species known from the locality, and which might be anticipated to occur given the vegetation communities and habitats present. In particular, searches were undertaken for habitats for threatened reptiles, and for hollow-bearing trees, raptors nests and wombat burrows.

Opportunistic fauna surveys involved observations of animal activity, habitat surveys and searches for indirect evidence of fauna. Diurnal mammal searches were conducted in areas of potential habitat across the study area, with emphasis on searches for scats, tracks, burrows, diggings and scratchings.

#### *2.2.2.3 Limitations*

The results of fauna surveys can be optimised by conducting investigations over a long period to compensate for the effect of unfavourable weather, seasonal changes and climatic variation. In general, the longer the survey the more species will be detected. Results can also be improved by using a wide range of techniques, since some species are more likely to be detected by a particular method.

However, surveys are subject to constraints that determine the amount of time allocated, the methods used and the timing of the work. Thus, the results should be viewed in the light of these limitations. Nevertheless, the techniques used in this investigation are considered adequate to gather the data necessary to identify potential ecological constraints to the proposal.

#### *2.2.2.4 Survey effort*

The fauna survey effort employed a total of five person-hours.

### 3. Results

#### 3.1 Database and literature review

Appendix A provides a list of threatened and migratory species and TEC that have been recorded from database searches within a 5 km radius of the study area. The potential for each of these species to occur in the study area and the importance of the habitats within the study area are also discussed in Appendix A, and a decision made regarding the need for further assessment in this report. Some species, such as shorebirds and waders, which are restricted to habitats that do not occur within the study area, have been excluded from Appendix A.

#### 3.2 Flora

At the time of the assessment almost the entirety of the subject site was bare earth and burnt stubble that was in the process of being readied for pasture improvement. The State Vegetation Type Map (SVTM) mapping predicted that prior to recent pasture improvement activities, parts of the study area supported Plant Community Type (PCT) 3413 Monaro Kangaroo Grass Woodland-Grassland Complex, as shown in Figure 4.

It is not possible to confirm this given the condition of the subject site at the time of the assessment. However, less disturbed parts of the subject land and immediately adjacent properties did support some of the characteristic species of PCT 3413 such as *Poa labillardierei* var. *labillardierei*, *Themeda triandra*, *Asperula conferta*, *Schoenus apogon* and *Juncus subsecundus*. Some of the burnt stubble within the subject site, as shown in Photo 7, did appear to be the remains of *Poa labillardierei* var. *labillardierei* tussocks, which was common in adjacent properties, as shown in Photo 8. It is noted, however, that the pasture on adjacent properties, whilst supporting native grasses and forbs, was also dominated by exotic pasture grasses and weeds such as *Anthoxanthum odoratum* (Sweet Vernal Grass), *Hypochaeris radicata* (Flatweed), *Plantago lanceolatus* (Lamb's Tongues) and *Rubus ulmifolius* (Blackberry).

##### 3.2.1 Threatened ecological communities

It is possible, although not certain, that the subject land would have supported natural temperate grassland (NTG) prior to European settlement, given the geology and landscape position, where frosts and cold air drainage would be frequent. NTG does occur in the locality and elsewhere around Braidwood, where it is thought to have been reasonably extensive in suitable habitats prior to European settlement. However, it is also possible that the grassland within the subject land and surrounding properties along Brick Kiln Creek is, in some part at least, derived from the clearing of grassy woodlands and forests, such as the PCT 3348 Southern Tableland Granites Ribbon Gum Grassy Forest, which occurs in the northern fringes of the subject land. Historic aerial photographs identify that pasture improvement activities have been occurring on the subject land for many decades, as shown in Figure 5. As such, if NTG was present within the subject land prior to recent activities, its conservation significance is likely to have been relatively low.

##### 3.2.2 Threatened flora

The subject site does not provide suitable habitat for any of the threatened flora species known from the region given its highly modified state. However, the threatened tree, *Eucalyptus aggregata* (Black Gum), which is listed as vulnerable under both the BC Act and EPBC Act, was detected in the far eastern parts of the subject land in the fenced off riparian area of Brick Kiln Creek, as shown in Figure 4 and Photo 10. The species is locally common.



Figure 4: SVTM mapping of predicted PCTs within the subject land and immediate surrounds and location of Black Gum individuals within the subject land.



Figure 5: 1977 air photo of the subject land showing the deep green colour of the grassland within the subject land which is evidence of fertilising and pasture improvement.



**Photo 7: The condition of the vegetation within the subject site is poor as it is being prepared for pasture improvement.**



**Photo 8: Looking south from the subject site showing the vegetation within the subject site that has been herbicide sprayed and burnt, and the pasture on the adjacent property which is a mix of exotic pasture grasses and weeds and native grasses such as *Poa labillardierei* var. *labillardierei*.**



**Photo 9: Beyond the subject site, riparian areas in the eastern extremities of the subject land have been fenced out for many years, and now support moderate condition grassy woodland.**



**Photo 10: The woodland to the immediate east of the subject site supports at least 20 individuals of the threatened tree *Eucalyptus aggregata* (Black Gum).**

### 3.3 Fauna

#### 3.3.1 Fauna habitats

The fauna habitats within the study area are very low quality given the level of historic and ongoing modification. A search of the Bionet Atlas did not identify any threatened fauna species records within the study area.

No hollow-bearing trees were identified within the study area so there is no potential breeding, roosting or denning habitat for hollow-dependent fauna species. In fact, there are only one of two trees within the entire study area, occurring primarily adjacent to the access from Wallaces Gap Road.

The study area provides a small amount of potential foraging habitat for common mammal species such as *Vombatus ursinus* (Common Wombat) and common macropods in the locality, such as *Macropus giganteus* (Eastern Grey Kangaroos).

There is one very minor patch of rock outcropping within the study area, as shown in Photo 11, but there are no areas of partially embedded rock habitat and no areas of good condition native grassland. As such, the study area is highly unlikely to provide potential habitat for threatened grassland reptiles such as the *Aprasia parapulchella* (Pink-tailed Legless lizard), *Suta flagellum* (Striped Legless Lizard) or *Tympanocryptis lineata* (Canberra Grassland Earless Dragon), which are associated with partially embedded rock habitat, woody debris and better condition native grasslands.

The subject site is practically devoid of other sheltering habitat, with only a single small piece of woody debris habitat observed, as shown in Photo 12, under which a single *Hemiergis decresiensis* (Three-toed Earless Skink) was observed.

No raptors nests were observed within the subject land during the survey period.

The lower parts of the subject site support a small farm dam on a very degraded ephemeral drainage line, as shown in Photo 3. This is the only water habitat within the subject site, so water habitats are very limited. The limited water habitats within the study area provide a small foraging and breeding resource for frogs such as *Crinia signifera* (Common Eastern Froglet) and possibly other species such as *Limnodynastes dumerilii* (Eastern Banjo Frog), *Litoria verreauxii* (Whistling tree Frog), and *Limnodynastes tasmaniensis* (Spotted Marsh Frog), although no frogs were calling during the diurnal survey period.

The study area would be utilised by exotic species such as *Oryctolagus cuniculus* (Rabbits) and *Vulpes vulpes* (Red Fox).



**Photo 11: The small area of rock outcropping is the only area of rock habitat within the entire study area. It is just beyond the subject site.**



**Photo 12: This weathered and decaying tree trunk is the only piece of woody debris within the study area.**

## 4. Impact assessment

### 4.1 Impacts on vegetation communities

The proposal will not have any impacts on native vegetation communities, given that the entirety of the subject site has been subject to a program of pasture improvement, and the subject site does not currently support any native vegetation communities. Those parts of the subject site that were not burnt or herbicide sprayed are heavily grazed by sheep and appear to support predominately exotic pasture grasses and weeds and do not comprise any native vegetation communities.

### 4.2 Impacts on threatened ecological communities

The subject site does not support any native vegetation communities and as such the proposal will not affect any threatened ecological communities (TECs).

The remnant native vegetation on the margins of the subject land, beyond the study area, may comprise TECs such as, the Natural Temperate Grassland of the South Eastern Highlands EEC (NTG), which listed under the EPBC Act, and the Werriwa Tablelands Cool Temperate Grassy Woodland in the South Eastern Highlands and South East Corner Bioregions, which is listed as a Critically Endangered Ecological Community (CEEC) under the BC Act. However, the proposal will not affect this vegetation either directly or indirectly.

### 4.3 Impacts on threatened flora

A search of the Bionet Atlas did not detect any threatened flora species records within the study area and none were observed during the fieldwork undertaken for this assessment, despite targeted surveys in potentially suitable habitat. The habitats within the subject site are already generally too heavily modified to support threatened flora species and will be further degraded by the planned sowing of exotic perennial pasture grasses. The dam margins and poorly drained area below it were searched for threatened flora species associated with wet areas and none were detected. Whilst approximately 20 Black Gum individuals were detected to the immediate east of the study area, it is considered highly unlikely that any Black Gum individuals or any other threatened flora species occur within the subject site nor that any will be adversely affected by the proposed development.

### 4.4 Impacts on fauna habitats

Whilst the study area provides a small amount of very degraded potential foraging habitat for a range of highly mobile native fauna species, including threatened species such as the Dusky Woodswallow, similar and superior habitats are widespread in adjacent areas, and elsewhere within the locality, and will continue to be available to these species. The impacts associated with the proposal are limited to the modification of a relatively small amount of predominately exotic pasture none of which provides important fauna habitats. The water habitats within the study area will remain and will continue to be available to any fauna species which may use them. The proposal is not anticipated to have any adverse impacts on connectivity, despite the proposed 2.3 m high security fence, given that access to surrounding habitats will not be prevented, with any non-flying fauna traversing the subject land, such as wombats and macropods, able to go around the fenced area.

Under these circumstances, the impacts of the proposal on fauna habitats are relatively minor and acceptable.

## 4.5 Threatened species likelihood of occurrence

As a result of database searches and field surveys, the threatened species and communities identified in Table 1 are known or considered to have the potential to occur within the study area (Appendix A). The potential impact of the proposal on these entities has been assessed (Appendix B) pursuant to relevant statutory assessments.

**Table 1: Threatened species with the potential to be affected by the proposal**

| Scientific Name                        | Common Name       | FM Act | BC Act | EPBC Act | Occurrence |
|----------------------------------------|-------------------|--------|--------|----------|------------|
| <b>Fauna</b>                           |                   |        |        |          |            |
| <i>Artamus cyanopterus cyanopterus</i> | Dusky Woodswallow | —      | V      | —        | Potential  |
| <b>Flora</b>                           |                   |        |        |          |            |
| <i>Eucalyptus aggregata</i>            | Black Gum         | —      | V      | V        | Known      |

V = Vulnerable

## 4.6 Conclusion of Assessment of Significance

A test of significance under Section 7.3 of the BC Act was undertaken for those threatened species and ecological communities known within the study area and immediate surrounds or with potential to occur there (Table 1). The outcome of the assessment was that it is highly unlikely that the proposal would significantly impact on those threatened entities assessed (Appendix B).

Recommendations have been provided in Section 5 to further ameliorate the potential impacts of the proposal.

## 4.7 Conclusion of EPBC assessment

An impact assessment under the EPBC Act was undertaken on threatened species with the potential to occur within the study area and immediate surrounds (Table 1).

The outcome of this assessment was that it is highly unlikely that the development would significantly impact on the threatened entities assessed (Appendix B). A referral to the Commonwealth under the EPBC Act is not recommended.

## 5. Recommendations

To further mitigate the potential impacts of the proposal, the following recommendations for impact mitigation and amelioration are suggested.

### **Vegetation and habitat management**

1. All disturbance should be kept to the minimum required to achieve the proposal.
2. Appropriate safeguards should be in place during the proposed works to limit the potential for invasive plants or pathogens, chemicals or any other pollutants to enter the environment in association with the proposed development.
3. The proposed screening plantings should comprise native species that are endemic to the Ballalaba area.

### **Sediment control**

4. Appropriate sediment control measures should be implemented prior to any work for the proposal and retained in place until exposed areas of soil or vegetation are stabilised and/or revegetated.
5. Drainage management and sediment control measures are to have particular regard to the prevention of any sedimentation of watercourses.

## 6. Conclusion

This report describes the biological environment and assesses the potential effects on threatened and migratory species, endangered populations and ecological communities of a proposed 5MW solar farm and battery, at Lot 81 DP755905, 873 Wallaces Gap Road, Ballalaba.

Direct impacts on flora and fauna arising from the proposal will be minimal given the already heavily modified nature of the footprint of the proposed development, which has a long history of agriculture, including ongoing sheep grazing. The bulk of the subject site has also been sprayed with herbicide twice over the last year and recently burnt as part of a pasture improvement program, with direct sowing of pasture grasses planned for March 2026 vegetation. For the purposes of this assessment, the pasture improvement activities that have been undertaken, and are planned, were not considered to comprise part of the solar farm proposal. As such, the proposal is not considered to trigger the NSW BOS.

The SVTM mapping predicts that prior to recent pasture improvement activities, parts of the study area supported PCT 3413 Monaro Kangaroo Grass Woodland-Grassland Complex. It is not possible to confirm this given the condition of the subject site, however the less disturbed parts of the subject land and immediately adjacent properties did support some of the characteristic species of PCT 3413. It is possible, although not certain, that the subject land would have supported NTG prior to European settlement, given the geology and landscape position. However, historic aerial photographs identify that pasture improvement activities have been occurring on the subject land for many decades, and as such, if NTG was present within the subject land prior to recent activities, its conservation significance is likely to have been relatively low.

No threatened flora species were recorded within the study area during the survey period despite targeted surveys in potentially suitable habitats, and none are considered likely to occur there. Approximately 20 individuals of the threatened tree, *Eucalyptus aggregata* (Black Gum), which is listed as vulnerable under both the BC Act and EPBC Act were detected in the far eastern parts of the subject land in the fenced off riparian area of Brick Kiln Creek. None of the Black Gum individuals within the subject land will be adversely affected by the proposed development.

The fauna habitats within the study area are depauperate given the long history of disturbance and absence of native vegetation, rock habitats or woody debris. The proposal will not affect any potentially important habitats for threatened fauna species, such as important nesting, breeding or roosting habitats and it will not sever any linkages between habitats or otherwise permanently restrict fauna movements.

An assessment of the effects of the proposal on threatened species, populations and ecological communities which may be directly or indirectly affected by the proposal was undertaken by applying the five factors from Section 7.3 of the *Biodiversity Conservation Act 2016*. This assessment concluded that the proposal is unlikely to have a significant effect on threatened species, populations or ecological communities or their habitats.

Following consideration of the administrative guidelines for determining significance under the *Commonwealth Environment Protection & Biodiversity Conservation Act 1999*, it is concluded that the proposal is unlikely to have a significant impact on matters of National Environmental Significance or Commonwealth land, and a referral to the Commonwealth Environment Minister is not necessary.

Notwithstanding the relatively minor impacts on vegetation and fauna habitats associated with the proposal, the impact mitigation measures described in Section 5 are also recommended to be incorporated into the proposal.

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## Appendix A: Likelihood of occurrence

### **Summary of initial assessment to determine the likelihood of occurrence of threatened species, populations and ecological communities in the proposal site.**

An assessment of likelihood of occurrence was made for threatened and migratory species identified from the database search. Species that have specific habitat requirements that do not occur within the study area have been excluded such as shorebirds and wader.

Five terms for the likelihood of occurrence of species are used in this report. This assessment was based on database or other records, presence or absence of suitable habitat, features of the study area, results of the field survey and professional judgement.

The terms for likelihood of occurrence are defined below:

- “yes” = the species was or has been observed on the site
- “likely” = a medium to high probability that a species uses the site
- “potential” = suitable habitat for a species occurs on the site, but there is insufficient information to categorise the species as likely to occur, or unlikely to occur
- “unlikely” = a very low to low probability that a species uses the site
- “no” = habitat on site and in the vicinity is unsuitable for the species.

| Scientific name                 | Common name             | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Conservation status |          | Likelihood of occurrence |
|---------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|--------------------------|
|                                 |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | BC Act              | EPBC Act |                          |
| THREATENED FLORA                |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |          |                          |
| <i>Baloskion longipes</i>       | Dense Cord-rush         | Commonly found in swamps or depressions in sandy alluvium, sometimes growing with sphagnum moss. Also occurs in swails within tall forest, and in Black Gum ( <i>Eucalyptus aggregata</i> ) Woodland. The potential habitat within the study area was searched for this species and it was not detected despite being conspicuous.                                                                                                                                                                         | V                   | V        | No                       |
| <i>Caladenia tessellata</i>     | Thick Lip Spider Orchid | Currently known from two disjunct areas; one population near Braidwood on the Southern Tablelands and three populations in the Wyong area on the Central Coast. It is found in grassy sclerophyll woodland on clay loam or sandy soils, or low woodland with stony soil. There is no suitable habitat within the study area.                                                                                                                                                                               | E                   | V        | No                       |
| <i>Calochilus pulchellus</i>    | Pretty Beard Orchid     | This species is restricted to damp heath, heathy woodland and open forest in the Jervis Bay area. It also occurs in eastern Victoria. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                                  | E                   | E        | No                       |
| <i>Calotis glandulosa</i>       | Mauve Burr Daisy        | This species appears to be a coloniser of bare patches and occurs, often on roadsides, in the subalpine habitats of the Australian Alps. The species is also known from montane grasslands dominated by Poa species, Natural Temperate Grassland dominated by Kangaroo Grass, and Snow Gum Woodlands in the Monaro and Shoalhaven regions. Locally it is known from the Captains Flat area. The study area does not provide suitable habitat for the species given the active pasture improvement program. | V                   | V        | No                       |
| <i>Dillwynia glaucula</i>       | Michelago Parrot-pea    | Michelago Parrot-pea is recorded from five areas on the NSW Southern Tablelands: near Windellama, where the species is locally abundant, near Mongarlowe, in Nadgigomar Nature Reserve near Braidwood, north-east of Michelago and at Numeralla. There is no suitable habitat within the study area.                                                                                                                                                                                                       | E                   | -        | No                       |
| <i>Diuris ochroma</i>           | Pale Golden Moths       | This species grows in grassland and grassy woodland in the mountains of SE NSW between Bemboka and Cabramurra at altitudes of between 1000-1500 m. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                     | V                   | V        | No                       |
| <i>Dodonaea procumbens</i>      | Trailing Hop-bush       | Grows in Natural Temperate Grassland or fringing eucalypt woodland of Snow Gum ( <i>Eucalyptus pauciflora</i> ). Also found in open bare patches of sandy-clay soils and often along roadsides. Typically associated with vertically tilted shale outcrops. Confined mainly to the Monaro and particularly between Michelago and Cooma. There is no suitable habitat within the study area.                                                                                                                | V                   | V        | No                       |
| <i>Eriocaulon australasicum</i> | Austral Pipewort        | This species is known from swamps and sedgelands in mud in ephemeral water bodies. The study area provides only a very small amount of degraded potential habitat for this species. The potential habitat was searched and the species was not detected.                                                                                                                                                                                                                                                   | E                   | E        | Unlikely                 |

| Scientific name                                   | Common name          | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Conservation status |          | Likelihood of occurrence |
|---------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|--------------------------|
|                                                   |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | BC Act              | EPBC Act |                          |
| <i>Eucalyptus aggregata</i>                       | Black Gum            | In NSW, found in the Central and Southern Tablelands, in the South Eastern Highlands Bioregion and on the western fringe of the Sydney Basin Bioregion. Alluvial soils, on cold, poorly-drained flats and hollows adjacent to creeks and small rivers. Usually occurs in open woodland with a grassy groundlayer. The species occurs in immediately adjacent to the study area.                                                                                                                                                                                                                                                                          | V                   | V        | Yes                      |
| <i>Eucalyptus kartzoffiana</i>                    | Araluen Gum          | Araluen Gum is found in the Araluen, Bendethera and Majors Creek area, south of Braidwood. Grows near rivers, in grassy or shrubby woodland or in wet sclerophyll forest on moderately fertile sandy soil on granite. The potential habitat within the study area was searched for this species and it was not detected despite being conspicuous.                                                                                                                                                                                                                                                                                                       | V                   | V        | No                       |
| <i>Eucalyptus stenostoma</i>                      | Jilliga Ash          | This small to medium sized gum is restricted to the south east corner and the south eastern highland regions of NSW. The majority of records are in Wadbilliga and Deua National Parks within the Bega Valley, Eurobodalla and Snowy Monaro Regional local government areas. occurs in dry forests and woodlands. It grows on rhyolite outcrops, hornfels, sandstone, mudstone, slate and granitoid rocks. It occurs on very steep slopes, rocky hill tops and ridgelines with shallow soils. It often has a characteristic downhill lean. There is no suitable habitat within the study area.                                                           | E                   | E        | No                       |
| <i>Grevillea renwickiana</i>                      | Nerriga Grevilea     | Known from only a few individuals distributed between four sites in the Mongarlowe area. It is associated with low woodlands and Stunted She-oak heathlands. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                         | E                   | -        | No                       |
| <i>Lepidium aschersonii</i>                       | Spiny Peppercross    | The Spiny Peppercross is a small perennial herb endemic to mainland southern Australia, where it is widely but patchily distributed from New South Wales to Western Australia. Much of its habitat has been lost to agriculture, and remaining populations are mostly small, isolated and at risk from a range of threats including grazing, weed invasion, wetland drainage and other forms of habitat destruction. It occurs in periodically wet sites such as gilgai depressions and the margins of freshwater and saline marshes and shallow lakes, usually on heavy clay soil. The potential habitat was searched and the species was not detected. | E                   | E        | No                       |
| <i>Lepidium hyssopifolium</i>                     | Aromatic Peppercross | This small perennial herb is known from two populations, one near Bathurst and another near Crookwell. The species is thought to have occurred in both grassy woodland and grassland and is a disturbance opportunist. This species is considered unlikely to occur within the study area given the highly modified nature of the potential habitat and the absence of records in the locality.                                                                                                                                                                                                                                                          | V                   | V        | Unlikely                 |
| <i>Leucochrysum albicans</i> var. <i>tricolor</i> | Hoary Sunray         | The Hoary Sunray is associated primarily with Grassy Woodlands on the southern and central tablelands and is locally common in places within the LGA. The species persists in areas that are not heavily grazed and as such commonly occurs in road reserves. It is known locally from the Manar area. The species was not detected within the study area despite being fairly conspicuous.                                                                                                                                                                                                                                                              | -                   | E        | No                       |

| Scientific name               | Common name            | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Conservation status |          | Likelihood of occurrence |
|-------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|--------------------------|
|                               |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | BC Act              | EPBC Act |                          |
| <i>Persicaria elatior</i>     | Tall Knotweed          | This erect herb grows in damp places in riparian forests, gallery rainforests, swamps, marshes, intermittent wetlands, aquatic environments, and disturbed areas at no particular altitude. The species was not detected within the study area despite being fairly conspicuous.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | V                   | V        | No                       |
| <i>Persoonia oxycoccoides</i> | -                      | This prostrate to spreading shrub is endemic to New South Wales where it is currently known from the Wingecarribee Shire in the south-eastern portion of the Central Tablelands, with the easternmost records in the municipality of Kiama, and a south-western outlier at Tallong in Goulburn-Mulwaree Shire in the Southern Tablelands. The historical northern limit of distribution is Colo Vale; the eastern limit is Budderoo National Park and environs (between Jamberoo and Robertson); and the southern and western limits are Tallong. It is known from Budderoo and Morton National Parks, Upper Nepean State Conservation Area and Stingray Swamp Flora Reserve. The species was not detected within the study area despite being fairly conspicuous.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | E                   | E        | No                       |
| <i>Pomaderris cotoneaster</i> | Cotoneaster Pomaderris | Recorded in NSW from the Nungatta area, northern Kosciuszko National Park (near Tumut), the Tantawangalo area in South-East Forests National Park and adjoining freehold land, Badgery's Lookout near Tallong, the Yerranderie area, the Canyonleigh area and Ettrema Gorge in Morton National Park. Generally found in dry sclerophyll forest, often on skeletal soil. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | E                   | E        | No                       |
| <i>Pomaderris pallida</i>     | Pale Pomaderris        | This species has been recorded in a number of locations within the Southern Tablelands and usually grows in shrub communities surrounded by Brittle Gum and Red Stringybark or <i>Callitris</i> spp. woodland. The development site provides only very marginal potential habitat for the species and it was not detected there despite targeted survey and being fairly conspicuous.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | V                   | V        | No                       |
| <i>Pomaderris parrisiae</i>   | Parris' Pomaderris     | Parris' Pomaderris is a shrub or small tree to 9 m found on skeletal soils in rocky shrubland or tall open forest chiefly on escarpment ranges. There is no suitable habitat for the species in the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | V                   | V        | No                       |
| <i>Prasophyllum petilum</i>   | Tarengo Leek Orchid    | Tarengo Leek Orchid reaches to 35 cm tall. This species can be distinguished from the more common onion orchids ( <i>Microtis</i> spp.) that grow in its habitat by the pinkish-purple base to the leaf. The flowering time for this species varies from north to south. Populations around Muswellbrook and Ilford tend to flower in September, with the Boorowa and Hall populations flowering in October and the Queanbeyan area and Delegate populations in December. Annual abundance varies significantly depending on winter and early spring rainfall, biomass and potentially other variables including the severity of winter frosts. Natural populations are known from a total of five sites in NSW. These are near Boorowa, Queanbeyan area, Ilford, Delegate and a newly recognised population c.10 km west of Muswellbrook. It also occurs at Hall in the Australian Capital Territory. Grows in open sites within Natural Temperate Grassland at the Boorowa and Delegate sites. Also grows in grassy woodland in association with River Tussock <i>Poa labillardieri</i> , Black Gum <i>Eucalyptus aggregata</i> and tea-trees <i>Leptospermum</i> spp. near Queanbeyan and within the grassy groundlayer dominated by Kangaroo Grass under Box-Gum Woodland at Ilford (and Hall, ACT). The small area of marginal | E                   | E        | Unlikely                 |

| Scientific name                                      | Common name                | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Conservation status |          | Likelihood of occurrence |
|------------------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|--------------------------|
|                                                      |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | BC Act              | EPBC Act |                          |
|                                                      |                            | potential habitat within the study area is too degraded to support this species which is typically associated with poorly drained areas in high quality grassy woodlands and grasslands.                                                                                                                                                                                                                                                                                                                                                                                             |                     |          |                          |
| <i>Rhizanthella slateri</i>                          | Eastern Underground Orchid | In NSW, currently known from fewer than 10 locations, including near Bulahdelah, the Watagan Mountains, the Blue Mountains, Wiseman's Ferry area, Agnes Banks and near Nowra. Sclerophyll forest in shallow to deep loams, usually where the soil is disturbed. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                  | V                   | E        | Unlikely                 |
| <i>Rutidosia leiolepis</i>                           | Monaro Golden Daisy        | Found in the Natural Temperate Grasslands of Monaro and in the sub-alpine grasslands in Kosciuszko National Park. Grows on basalt, granite and sedimentary substrates. The potential habitats within the study area are too degraded to support this species.                                                                                                                                                                                                                                                                                                                        | V                   | V        | Unlikely                 |
| <i>Senecio macropus</i>                              | Large-fruit Groundsel      | The Large-fruit Groundsel is a small perennial plant endemic to south-eastern Australia, where it occurs in South Australia and Victoria, and formerly occurred in Tasmania. There are about 15 populations containing about 36,000 plants, although almost all plants (about 35,000) occur in just one population. Major threats include habitat disturbance and destruction, weed invasion and competition. The development site provides only very marginal potential habitat for the species and it was not detected there despite targeted survey and being fairly conspicuous. | -                   | V        | No                       |
| <i>Thesium australe</i>                              | Austral Toadflax, Toadflax | In eastern NSW, this species is found in very small populations scattered along the coast, and from the Northern to Southern Tablelands. It grows in grassland on coastal headlands or grassland and grassy woodland away from the coast. The potential habitats within the study area are too degraded to support this species.                                                                                                                                                                                                                                                     | V                   | V        | Unlikely                 |
| <i>Xerochrysum palustre</i>                          | Swamp Everlasting          | Grows in swamps and bogs which are often dominated by heaths. Also grows at the edges of bog margins on peaty soils with a cover of shrubs or grasses. Found in Kosciuszko National Park and the eastern escarpment south of Badja. Flowers appear from November to March. There is no suitable habitat for the species within the study area.                                                                                                                                                                                                                                       | -                   | V        | No                       |
| <i>Zieria adenophora</i>                             | Araluen Zieria             | Associated with granite outcrops at one site north of Araluen. There is no suitable habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                   | E                   | CE       | No                       |
| THREATENED ECOLOGICAL COMMUNITIES                    |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |          |                          |
| Araluen Scarp Grassy Forest                          |                            | This grassy woodland dominated by characteristic eucalypts such as <i>Eucalyptus maidenii</i> (Maiden's blue gum), <i>E. melliodora</i> (yellowbox), <i>E. tereticornis</i> (forest redgum), and <i>Angophora floribunda</i> (rough-barked apple) is restricted to escarpment slopes and ridges of the Araluen and surrounding valleys in south-eastern New South Wales. There is no suitable habitat within the study area.                                                                                                                                                         |                     | -        | No                       |
| Brogo Vine Forest of the South East Corner Bioregion |                            | The Brogo Vine Forest is a sclerophyll forest with a canopy dominated by eucalypts with an occasional substratum of rainforest trees, with an open, shrubby mid-storey and diverse groundcover of forbs, grasses and ferns. A diversity of                                                                                                                                                                                                                                                                                                                                           | -                   | E        | No                       |

| Scientific name                                                                     | Common name | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Conservation status |          | Likelihood of occurrence |
|-------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|--------------------------|
|                                                                                     |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | BC Act              | EPBC Act |                          |
|                                                                                     |             | vines and climbers in the ground layer and mid-storey are a key characteristic of this community. Patches of dry rainforest with fig-dominated canopies are commonly found within or adjacent to Brogo Vine Forest on rocky outcrops. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     |          |                          |
| Dry rainforests of south-east New South Wales and eastern Victoria                  |             | Dry rainforests of south-east New South Wales and eastern Victoria are restricted to small patches within the South East Corner IBRA7 bioregion, and potentially in the eastern parts of the South East Coastal Plain bioregion and just within the boundary of the South Eastern Highlands bioregion. The community typically occurs in relatively fire-protected niches, often among rocky outcrops, screes or limestone cliffs and cliff bases, steep upper granite slopes, heads of gullies, and rain shadow valleys, often with north or west-facing aspects. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | E                   | CE       | No                       |
| Lowland Grassy Woodland in the South East Corner Bioregion                          |             | This community typically occurs as a grassy woodland but may also exhibit a more open forest structure. The canopy is dominated by <i>Eucalyptus tereticornis</i> (Forest Red Gum) and/or <i>Angophora floribunda</i> (Rough-barked Apple). It is associated tree species include <i>E. globoidea</i> (white stringybark) and <i>E. bosistoana</i> (coastal grey box). <i>E. pauciflora</i> (snow gum) or <i>E. melliodora</i> (yellow box) may be dominant in some areas. A shrub layer is often present as an open to sparse layer, typically with <i>Acacia mearnsii</i> (black wattle) or <i>Ozothamnus diosmifolius</i> (sago flower). Some patches have a dense shrub layer and consist mainly of <i>Bursaria spinosa</i> (sweet bursaria). Typically, there is a near continuous groundcover dominated by grasses and forbs. Derived grasslands are included as part of the ecological community. Rainshadow areas of the south coast and hinterland of New South Wales. Currently known to occur within the Bega Valley, Eurobodalla and Palerang Local Government Areas. Typically occurs in undulating terrain up to 500 m in elevation on granitic substrates (e.g. adamellites, granites, granodiorites, gabbros, etc.) but may also occur on locally steep sites and on acid volcanic, alluvial and fine-grained sedimentary substrates. There is no suitable habitat within the study area. | E                   | CE       | No                       |
| Natural Temperate Grassland of the Southern Tablelands (NSW and ACT)                |             | This community is associated with valley floors, margins of frost hollows, foot-slopes and undulating terrain between about 600 m and 1400 m occurring on a variety of substrates. It is possible that a degraded form of this community occurred within the study area prior to recent pasture improvement activities however it was not possible to assess its presence at the time this assessment was undertaken. It is highly unlikely that the community would be present within the study area once the planned sowing of exotic pasture is completed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                   | E        | No                       |
| White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland |             | Box Gum Woodland occurs where rainfall is between 400 mm and 1200 mm per annum, on moderate to highly fertile soils at altitudes of 170 m to 1200 m. It occurs in an arc along the western slopes and tablelands of the Great Dividing Range from Southern Queensland through NSW to central Victoria. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | E                   | E        | No                       |

| Scientific name                                | Common name                   | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Conservation status |          | Likelihood of occurrence |
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|                                                |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | BC Act              | EPBC Act |                          |
| FROGS                                          |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |          |                          |
| <i>Heleioporus australiacus flavopunctatus</i> | Southern Giant Burrowing Frog | The Southern Giant Burrowing Frog is found in south eastern NSW and Victoria, south from Nowra. Habitat includes heath, woodland and open dry sclerophyll forest on a variety of soil types except those that are clay based. Breeds in ephemeral streams with permanent or semi-permanent pools. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                         | E                   | E        | No                       |
| <i>Litoria castanea</i>                        | Yellow-spotted Frog           | Resides in permanent ponds or slow flowing streams with emergent vegetation such as bulrushes. This species was not recorded in the wild from the 1970s until it was rediscovered in 2009 at a site near Yass. There is no suitable habitat for the species within the development site. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                  | CE                  | E        | No                       |
| <i>Litoria watsoni</i>                         | Watson's Tree Frog            | This species can be found on the plateaus and eastern slopes of the Great Dividing Range from Watagan State Forest in NSW south to Buchan in Victoria. It has only very recently been re-recorded in southern NSW within the last decade (Nadgee). It breeds in the upper reaches of permanent streams and perched swamps or in larger pools and dams. Non-breeding habitat includes heath-based forests and woodlands. There is no suitable habitat within the study area.                                                                                                                                                                   | E                   | E        | No                       |
| FISH                                           |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |          |                          |
| <i>Macquaria australasica</i>                  | Macquarie Perch               | The Macquarie Perch is a riverine, schooling species. It prefers clear water and deep, rocky holes with lots of cover. As well as aquatic vegetation, additional cover may comprise of large boulders, debris and overhanging banks. Spawning occurs just above riffles (shallow running water). The Macquarie Perch was once widespread through the cooler upper reaches of the southern tributaries of the Murray-Darling river system in Victoria and New South Wales (Anonymous 1974; McDowall 1996), however its distribution did not usually extend to the sources of these rivers. There is no suitable habitat within the study area. | -                   | E        | No                       |
| <i>Mordacia praecox</i>                        | Non-parasitic Lamprey         | Unlike most parasitic lamprey species, the precocious lamprey is entirely a freshwater species, completing its life cycle in rivers and never migrating to brackish or marine systems. Consequently, it is restricted to individual river basins. Within each river system, specimens of the precocious lamprey have only been reported relatively close to the coast (< 50 km). There is no suitable habitat within the study area.                                                                                                                                                                                                          | -                   | E        | No                       |
| <i>Prototroctes maraena</i>                    | Australian Grayling           | Currently, the Australian Grayling occurs in streams and rivers on the eastern and southern flanks of the Great Dividing Range, from Sydney, southwards to the Otway Ranges of Victoria and in Tasmania. The species is found in fresh and brackish waters of coastal lagoons, from Shoalhaven River in NSW to Ewan Ponds in South Australia. It is absent from the inland Murray-Darling system. There is no suitable habitat within or close to the study area.                                                                                                                                                                             | E                   | V        | No                       |

| Scientific name                        | Common name                  | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Conservation status |          | Likelihood of occurrence |
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|                                        |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BC Act              | EPBC Act |                          |
| INSECTS                                |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                     |          |                          |
| <i>Keyacris scurra</i>                 | Key's Matchstick Grasshopper | This species is found in a wide range of vegetation types in south-east NSW including wet sclerophyll forest, montane low forest, dry woodlands, heathland and montane grasslands. It is flightless and does not disperse large distances i.e. < 10 m. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | E                   | E        | No                       |
| <i>Synemon plana</i>                   | Golden Sun Moth              | Natural Temperate Grasslands and grassy Box-Gum Woodlands in which groundlayer is dominated by <i>Austrodanthonia</i> spp. (wallaby grasses). There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | E                   | E        | No                       |
| REPTILES                               |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                     |          |                          |
| <i>Aprasia parapulchella</i>           | Pink-tailed Lizard           | Worm Inhabits sloping, open woodland areas with predominantly native grassy ground layers, particularly those dominated by Kangaroo Grass. Sites are typically well-drained, with rocky outcrops or scattered, partially-buried rocks. Appear to spend considerable time in burrows below rocks; the burrows have been constructed by and are often still inhabited by small black ants and termites. The study area does not support suitable habitat for the species.                                                                                                                                                                                                                                                                                                                                                                                                                                     | V                   | V        | No                       |
| BIRDS                                  |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                     |          |                          |
| <i>Anthochaera phrygia</i>             | Regent Honeyeater            | Inhabits temperate woodlands and open forests of the inland slopes of south-east Australia, particularly Box-Ironbark woodland, and riparian forests of <i>Casuarina cunninghamiana</i> (River She-oak). These woodlands have significantly large numbers of mature trees, high canopy cover and abundance of mistletoes. This species makes nomadic movements following winter flowering eucalypt species. Two of three known key breeding areas are in NSW: the Capertee Valley and the Bundarra-Barraba region. The other breeding area is in Chiltern, Victoria. They breed between July and January and usually nest in horizontal branches or forks in tall mature <i>Eucalyptus</i> spp. and <i>Casuarina/Allocasuarina</i> spp. (She-oaks). There is no suitable foraging or breeding habitat present for this species in the development site and it is highly unlikely that it would occur there. | CE                  | CE       | No                       |
| <i>Aphelocephala leucopsis</i>         | Southern Whiteface           | This species inhabits dry woodlands with a sparse grassy understorey where it forages for insects and vegetable matter on the ground. The habitats within the study area are unsuitable for the species.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | V                   | V        | No                       |
| <i>Artamus cyanopterus cyanopterus</i> | Dusky Woodswallow            | Dusky woodswallows are widespread in eastern, southern and southwestern Australia. The species occurs throughout most of New South Wales, but is sparsely scattered in, or largely absent from, much of the upper western region. Most breeding activity occurs on the western slopes of the Great Dividing Range. They primarily inhabit dry, open eucalypt forests and woodlands, including mallee associations, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and groundcover of grasses or sedges and fallen woody debris. It has also been recorded in shrublands, heathlands and very occasionally in moist forest or rainforest. Also found in farmland, usually                                                                                                                                                                                                | V                   | -        | Potential                |

| Scientific name                  | Common name                            | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Conservation status |          | Likelihood of occurrence |
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|                                  |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | BC Act              | EPBC Act |                          |
|                                  |                                        | at the edges of forest or woodland. It is unlikely that the species would occur within the study area given the absence of canopy and understorey.                                                                                                                                                                                                                                                                                                                                                                                    |                     |          |                          |
| <i>Botaurus poiciloptilus</i>    | Australasian Bittern                   | This species favours permanent freshwater wetlands with tall, dense vegetation, particularly bulrushes and spikerushes. It hides during the day amongst dense reeds and feeds at night. It breeds during summer with nest built in secluded places in densely vegetated wetlands on a platform of reeds. There is no habitat for the species within the study area.                                                                                                                                                                   | V                   | E        | No                       |
| <i>Callocephalon fimbriatum</i>  | Gang-gang Cockatoo                     | During summer the species is typically observed in dense, tall, wet forests of mountains and gullies, alpine woodlands. In winter they occur at lower altitudes in drier more open forests and woodlands, particularly box-ironbark assemblages. They sometimes inhabit woodland, farms and suburbs in autumn/winter. The species is well known from the locality however it is unlikely that the species would occur within the study area given the absence of canopy and understorey.                                              | E                   | E        | Unlikely                 |
| <i>Calyptorhynchus lathamii</i>  | South-eastern Glossy Black-Cockatoo    | This species occurs in forests and woodlands where She-oak feeding resources are prevalent and large tree hollows exist for breeding. There is no foraging or breeding habitat for the species within the study area and it is highly unlikely that it would occur there.                                                                                                                                                                                                                                                             | V                   | V        | No                       |
| <i>Climacteris picumnus</i>      | Brown Treecreeper (eastern subspecies) | This species occurs in Eucalypt forests and woodlands of inland plains and slopes of the Great Dividing Range. It is not usually found in woodlands with a dense shrub layer. Fallen timber is an important habitat component for foraging. It is a sedentary species and is resident in many locations throughout its range, and is present in all seasons or year-round at many sites. Hollows in standing dead or live trees and tree stumps are essential for nesting. There is no habitat for the species within the study area. | V                   | V        | No                       |
| <i>Daphoenositta chrysoptera</i> | Varied Sittella                        | Inhabits eucalypt forests and woodlands, mallee and Acacia woodland across NSW from the coast to the far west. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                             | V                   | -        | No                       |
| <i>Falco hypoleucos</i>          | Grey Falcon                            | The Grey Falcon is sparsely distributed in NSW, chiefly throughout the Murray-Darling Basin, with the occasional vagrant east of the Great Dividing Range. Usually restricted to shrubland, grassland and wooded watercourses of arid and semi-arid regions, although it is occasionally found in open woodlands near the coast. It is highly unlikely it would occur within the study area.                                                                                                                                          | E                   | V        | No                       |
| <i>Gallinago hardwickii</i>      | Latham's Snipe                         | Any vegetation around wetlands, in sedges, grasses, lignum, reeds and rushes and also in saltmarsh and creek edges on migration. They also use crops and pasture. The subject land does not provide any potential habitat for the species and it would not occur there.                                                                                                                                                                                                                                                               | -                   | V        | No                       |

| Scientific name                        | Common name                | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Conservation status |          | Likelihood of occurrence |
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| <i>Grantiella picta</i>                | Painted Honeyeater         | The Painted Honeyeater is a nomadic species that occurs predominantly on the inland slopes of the Great Dividing Range. It inhabits Boree/ Weeping Myall ( <i>Acacia pendula</i> ), Brigalow ( <i>A. harpophylla</i> ) and Box-Gum Woodlands and Box-Ironbark Forests. It is a specialist feeder on the fruits of mistletoes growing on woodland eucalypts and acacias, preferring mistletoes of the genus <i>Amyema</i> . Nesting occurs from spring to autumn in a small, delicate nest hanging within the outer canopy of drooping <i>Eucalyptus</i> spp., <i>Allocasuarina</i> and <i>Casuarina</i> spp. (She-oaks), <i>Melaleuca</i> sp. (Paperbark) or Mistletoe branches. The study area does not provide suitable habitat for this species.                                                                                                                                         | V                   | V        | No                       |
| <i>Hieraaetus morphnoides</i>          | Little Eagle               | This species occupies open eucalypt forest, woodland and open woodland where breeding pairs nest in tall living trees within a remnant patch. No evidence of the species was recorded within the subject land during the survey period, and whilst it is possible that it may forage within the study area from time to time it is highly unlikely that the species would occur within the study area given the extensive larger patches of forest or woodland that occur within the locality and which provide far superior potential foraging and nesting habitat.                                                                                                                                                                                                                                                                                                                        | V                   | -        | Unlikely                 |
| <i>Hirundapus caudacutus</i>           | White-throated Needletail  | The White-throated Needletail is recorded in all coastal regions of Qld and NSW, extending inland to the western slopes of the Great Divide and occasionally onto the adjacent inland plains. In Australia, the White-throated Needletail is almost exclusively aerial, flying at heights of less than 1 m up to more than 1000 m above the ground. They are recorded most often above wooded areas, including open forest and rainforest, and may also fly between trees or in clearings, below the canopy, but are less commonly recorded flying above woodland. The species also occurs over heathland, but less often over treeless areas such as grassland or swamps. When flying above farmland, Needletails are more often recorded above partly cleared pasture, plantations or remnant vegetation at the edge of paddocks. This species is unlikely to land within the study area. | -                   | V, M     | Unlikely                 |
| <i>Lathamus discolor</i>               | Swift Parrot               | This species breeds in Tasmania during Spring and Summer and migrates to the Australian south-east mainland between March and October. On the mainland they occur where Eucalypts are flowering profusely, or where there are abundant lerp infestations. Favoured feed trees include winter flowering species such as <i>Eucalyptus robusta</i> (Swamp Mahogany), <i>Corymbia Maculata</i> (Spotted Gum), <i>C. gummifera</i> (Red Bloodwood), <i>E. sideroxylon</i> (Mugga Ironbark), and <i>E. albens</i> (White Box). The study area does not provide suitable habitat for this species.                                                                                                                                                                                                                                                                                                | E                   | CE       | No                       |
| <i>Melanodryas cucullata cucullata</i> | South-eastern Hooded Robin | This species is widespread, found across Australia, except for the driest deserts and the wetter coastal areas - northern and eastern coastal Queensland and Tasmania. However, it is common in few places, and rarely found on the coast. It is considered a sedentary species, but local seasonal movements are possible. It generally prefers lightly wooded country, usually open eucalypt woodland, and often occurs in or near clearings or open areas. It requires structurally diverse habitats featuring mature eucalypts, saplings, some small shrubs and a ground layer of moderately tall native grasses. There is no habitat for the species within the study area.                                                                                                                                                                                                            | V                   | V        | No                       |

| Scientific name              | Common name        | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Conservation status |          | Likelihood of occurrence |
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| <i>Neophema chrysostoma</i>  | Blue-winged Parrot | Blue-winged parrots breed on mainland Australia south of the Great Dividing Range in southern Victoria from Port Albert in Gippsland west to Nelson, and sometimes in the far south-east of South Australia, and the north-western, central and eastern parts of Tasmania. A partial migrant, variable numbers of birds migrate across Bass Strait in winter, apparently making the flight non-stop based on the scarcity of records from the Bass Strait islands. During the non-breeding period, from autumn to early spring, birds are recorded from northern Victoria, eastern South Australia, south-western Queensland and western New South Wales, with some birds reaching south-eastern New South Wales and eastern Victoria, particularly on the southern migration. Blue-winged parrots inhabit a range of habitats from coastal, sub-coastal and inland areas, through to semi-arid zones. They tend to favour grasslands and grassy woodlands and are often found near wetlands both near the coast and in semi-arid zones. Blue-winged parrots breed in Tasmania, coastal south-eastern South Australia and southern Victoria. During the breeding season (spring and summer), birds occupy eucalypt forests and woodlands (Higgins 1999). Blue-winged parrots form monogamous pairs. Nests are made in hollows, preferably with a vertical opening, in live or dead trees or stumps. There is no suitable habitat for the species within the study area. | V                   | V        | No                       |
| <i>Neophema pulchella</i>    | Turquoise Parrot   | This species lives on the edges of eucalypt woodland adjoining clearings, timbered ridges and creeks in farmland. It nests in tree hollows, logs or posts, from August to December. It lays four or five white, rounded eggs on a nest of decayed wood dust. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | V                   | -        | No                       |
| <i>Ninox strenua</i>         | Powerful Owl       | Powerful Owls are associated with a wide range of wet and dry forest types with a high density of prey, such as arboreal mammals, large birds and flying foxes. Large trees with hollows at least 0.5 m deep are required for shelter and breeding. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | V                   | -        | No                       |
| <i>Pachycephala olivacea</i> | Olive Whistler     | This species is usually associated with moist tall forests at high elevations but has been occasionally recorded at lower altitudes. Breeding occurs above 300m within habitats providing both a thick understorey and moderate canopy. In the alps the species is more typically associated with subalpine woodlands with a heathy understorey. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | V                   | -        | No                       |
| <i>Petroica boodang</i>      | Scarlet Robin      | This species is found in south-eastern Australia and south-west Western Australia. In NSW it occupies open forests and woodlands from the coast to the inland slopes. The Scarlet Robin breeds in drier eucalypt forests and temperate woodlands, often on ridges and slopes, within an open understorey of shrubs and grasses. Abundant logs and coarse woody debris are important structural components of its habitat. In autumn and winter it migrates to more open habitats such as grassy open woodland or paddocks with scattered trees. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | V                   | -        | No                       |
| <i>Petroica phoenicea</i>    | Flame Robin        | The Flame Robin is found in south-eastern Australia (Queensland border to Tasmania, western Victoria and south-east South Australia). In NSW it breeds in upland moist eucalypt forests and woodlands, often on ridges and slopes,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | V                   | -        | No                       |

| Scientific name              | Common name          | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Conservation status |          | Likelihood of occurrence |
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|                              |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | BC Act              | EPBC Act |                          |
|                              |                      | in areas of open understorey. It migrates in winter to more open lowland habitats such as grassland with scattered trees and open woodland on the inland slopes and plains. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |          |                          |
| <i>Petroica rodinogaster</i> | Pink Robin           | The Pink Robin is found in Tasmania and the uplands of eastern Victoria and far south-eastern NSW, almost as far north as Bombala. It inhabits rainforest and tall, open eucalypt forest, particularly in densely vegetated gullies. In the alps the species is more typically associated with subalpine woodlands with a heathy understorey and Montane Forests rather than alpine heaths. There is no suitable habitat for the species within the study area.                                                                                                                                                                                                                                                                                                   | V                   | -        | No                       |
| <i>Polytelis swainsonii</i>  | Superb Parrot        | The Superb Parrot is found throughout eastern inland NSW. On the South-western Slopes their core breeding area is roughly bounded by Cowra and Yass in the east, and Grenfell, Cootamundra and Coolac in the west. Birds breeding in this region are mainly absent during winter, when they migrate north to the region of the upper Namoi and Gwydir Rivers. The other main breeding sites are in the Riverina along the corridors of the Murray, Edward and Murrumbidgee Rivers where birds are present all year round. It is estimated that there are less than 5000 breeding pairs left in the wild. They occur in Box-Gum, Box-Cypress-pine and Boree Woodlands and River Red Gum Forest. The study area does not provide suitable habitat for this species. | V                   | V        | No                       |
| <i>Pycnoptilus floccosus</i> | Pilotbird            | The Pilotbird occurs in temperate wet sclerophyll forests and occasionally temperate rainforest, where there is dense undergrowth with abundant debris. There is no suitable habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | V                   | V        | No                       |
| <i>Rostratula australis</i>  | Australian Snipe     | Painted In NSW, records of the Painted Snipe are from the Murray-Darling Basin, including the Paroo wetlands, Lake Cowal, Macquarie Marshes, Fivebough Swamp, and swamps near Balldale and Wanganella. Other important locations with recent records include wetlands on the Hawkesbury River and the Clarence and lower Hunter Valleys. It prefers the fringes of swamps, dams and nearby marshy areas, where there is a cover of grasses, Lignum, low scrub or open timber. It nests on the ground amongst tall vegetation, such as grasses, tussocks or reeds. There is no habitat for the species within the study area.                                                                                                                                      | E                   | E        | No                       |
| <i>Stagonopleura guttata</i> | Diamond Firetail     | Found in grassy eucalypt woodlands, open forests, mallee, Natural Temperate Grasslands, riparian areas and sometimes lightly wooded farmlands. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | V                   | V        | No                       |
| MAMMALS                      |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |          |                          |
| <i>Chalinolobus dwyeri</i>   | Large-eared Pied Bat | This species has been recorded from Rockhampton in Qld south to Ulladulla in NSW. The largest concentrations of populations occur in the sandstone escarpments of the Sydney basin and the NSW north-west slopes. It occupies wet and dry sclerophyll forests, Cyprus Pine dominated forest, woodland, sub-alpine woodland, edges of rainforests and sandstone outcrop country. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                        | V                   | E        | No                       |

| Scientific name                       | Common name                                   | Habitat associations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Conservation status |          | Likelihood of occurrence |
|---------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|--------------------------|
|                                       |                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BC Act              | EPBC Act |                          |
| <i>Dasyurus maculatus maculatus</i>   | Spotted-tailed Quoll (SE mainland population) | The Spotted-tailed Quoll has been recorded across a range of habitat types, including rainforest, open forest, woodland, coastal heath and inland riparian forest, from the sub-alpine zone to the coastline. It uses hollow-bearing trees, fallen logs, small caves, rock outcrops and rocky-cliff faces as den sites. It is mostly nocturnal, and spends most of the time on the ground, although is also an excellent climber and will hunt in tree hollows and prey on roosting birds and gliders. There is no habitat for the species within the study area.                                                                                                                                                                                                                           | V                   | E        | No                       |
| <i>Falsistrellus tasmaniensis</i>     | Eastern False Pipistrelle                     | This bat roosts predominantly in tree hollows and forages in forests, seeming to prefer wet habitats with larger trees. Suitable foraging and roosting habitat is not available within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | V                   | -        | No                       |
| <i>Miniopterus orianae oceanensis</i> | Large Bent-wing Bat                           | This bat uses caves as roosting sites and forests for foraging. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | V                   | -        | No                       |
| <i>Myotis macropus</i>                | Southern Myotis                               | Will occupy most habitat types such as mangroves, paperbark swamps, riverine monsoon forest, rainforest, wet and dry sclerophyll forest, open woodland and River Red Gum woodland, as long as they are close to water. The bat forages over streams and pools catching insects and small fish by raking their feet across the water surface (Churchill 1998). When roosting it is most commonly associated with caves, however, this species has been observed to roost in tree hollows, amongst vegetation, under bridges, in mines, tunnels and stormwater drains. The species apparently has specific roost requirements, and only a small percentage of available caves, mines, tunnels and culverts are used. There is no suitable foraging or roosting habitat within the study area. | V                   | -        | No                       |
| <i>Petauroides volans</i>             | Southern Greater Glider                       | This species is associated with tall moist forests. There is no suitable habitat within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | E                   | E        | No                       |
| <i>Petaurus australis</i>             | Yellow-bellied Glider                         | This species is restricted to tall mature forests, preferring productive tall open sclerophyll forests with a mosaic of tree species including some that flower in winter. Large hollows within mature trees are required for shelter, nesting and breeding. The study area does not provide suitable habitat for this species.                                                                                                                                                                                                                                                                                                                                                                                                                                                             | V                   | V        | No                       |
| <i>Petrogale penicillata</i>          | Brush-tailed Rock-wallaby                     | This species prefers rocky habitats, including loose boulder-piles, rocky outcrops, steep rocky slopes, cliffs, gorges and isolated rock stacks. The nearest known population is more than 50 km southeast of the study area. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | E                   | V        | No                       |
| <i>Phascolarctos cinereus</i>         | Koala                                         | In NSW, it mainly occurs on the central and north coasts, with some populations in the west of the Great Dividing Range. There is no habitat for the species within the study area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | E                   | E        | No                       |
| <i>Pseudomys fumeus</i>               | Smoky Mouse                                   | Occurs in heath on ridge tops and slopes in sclerophyll forests, heathland and open forest along the coast and inland to sub-alpine regions. Occasionally occurs in ferny gullies. The study area does not provide suitable habitat for this species.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | E                   | E        | No                       |

| Scientific name                                         | Common name               | Habitat associations                                                                                                                                                                                                                                                                                                                                                         | Conservation status |          | Likelihood of occurrence |
|---------------------------------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|--------------------------|
|                                                         |                           |                                                                                                                                                                                                                                                                                                                                                                              | BC Act              | EPBC Act |                          |
| <i>Pseudomys novaehollandiae</i>                        | New Holland Mouse         | This species is known to inhabit open heathlands, open woodlands with heathland understorey, and vegetated sand dunes. The sites where the species is known from typically have very sandy soils. There is no habitat for the species within the study area.                                                                                                                 | V                   | V        | No                       |
| <i>Pteropus poliocephalus</i>                           | Grey-headed Flying-Fox    | Inhabits a wide range of habitats including rainforest, mangroves, paperbark forests, wet and dry sclerophyll forests and cultivated areas. Camps are often located in gullies, typically close to water, in vegetation with a dense canopy. There are no camps in the locality and the species would not occur within the study area.                                       | V                   | V        | No                       |
| <i>Scoteanax rueppellii</i>                             | Greater Broad-nosed Bat   | Associated with moist gullies in mature coastal forest, or rainforest, east of the Great Dividing Range. Suitable foraging and roosting habitat is not available within the study area.                                                                                                                                                                                      | V                   | -        | No                       |
| MIGRATORY TERRESTRIAL SPECIES LISTED UNDER THE EPBC ACT |                           |                                                                                                                                                                                                                                                                                                                                                                              |                     |          |                          |
| <i>Hirundapus caudacutus</i>                            | White-throated Needletail | See above                                                                                                                                                                                                                                                                                                                                                                    | -                   | V, M     | Unlikely                 |
| <i>Motacilla flava</i>                                  | Yellow Wagtail            | Frequents open wetlands along the bare shores of freshwater swamps, crops and bare bore drains, as well as short-grassed fields and rocky coasts. The study area does not provide suitable habitat for this species.                                                                                                                                                         | -                   | M        | No                       |
| <i>Myiagra cyanoleuca</i>                               | Satin Flycatcher          | Satin Flycatchers inhabit heavily vegetated gullies in eucalypt-dominated forests and taller woodlands, and, on migration, occur in coastal forests, woodlands, mangroves and drier woodlands and open forests. The study area does not provide suitable habitat for this species.                                                                                           | -                   | M        | No                       |
| <i>Rhipidura rufifrons</i>                              | Rufous Fantail            | The Rufous Fantail inhabits the coastal and near coastal districts of northern and eastern Australia, including on and east of the Great Divide in NSW. It is often found in sclerophyll forests and subtropical and temperate rainforest. It sometimes inhabits drier sclerophyll forests and woodlands. The study area does not provide suitable habitat for this species. | -                   | M        | No                       |

## Appendix B: Test of significance

### Test of significance pursuant to section 7.3 of the BC Act: Five-part test

An assessment of the effects of the proposal on threatened species, populations and ecological communities which may be directly or indirectly affected by the proposal may be carried out by applying the five factors from Section 7.3 of the BC Act.

This test of significance is presented below for the following threatened entities:

#### Threatened fauna

- *Artamus cyanopterus cyanopterus* (Dusky Woodswallow)

#### Threatened flora

- *Eucalyptus aggregata* (Black Gum)

*(a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,*

### Vulnerable Species

#### Fauna

##### **Dusky Woodswallow *Artamus cyanopterus cyanopterus* (Potential occurrence).**

The Dusky Woodswallow primarily inhabits dry, open eucalypt forests and woodlands, including mallee associations, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and ground-cover of grasses or sedges and fallen woody debris. They are widespread in eastern, southern and south-western Australia. The species occurs throughout most of New South Wales, but is sparsely scattered in, or largely absent from, much of the upper western region. There are numerous records of the species throughout the locality.

The subject land and surrounds provide habitat for the species, as does much of the woodland and forest in the region. Whilst the proposal will modify and may reduce the habitat available to the species by a very small amount, there are extensive areas of similar habitat within the locality, that will not be affected by the proposal and which will continue to be available to the species.

The proposal will not disrupt the life cycle of the Dusky Woodswallow such that a viable local population of the species is likely to be placed at risk of extinction.

#### Flora

##### **Black Gum *Eucalyptus aggregata* (Known occurrence).**

In NSW, Black Gum is found in the Central and Southern Tablelands, in the South Eastern Highlands Bioregion and on the western fringe of the Sydney Basin Bioregion. It occurs on alluvial soils, on cold, poorly-drained flats and hollows adjacent to creeks and small rivers, usually in open woodland with a grassy groundlayer.

The species occurs approximately 100 m to the east of the subject site in association with Brick Kiln Creek where approximately 20 individuals were observed.

The proposed development will not have any adverse impacts on the Black Gum population associated with Brick Kiln Creek. Historic air photos suggest that the location of Black Gum individuals on the subject land was almost devoid of trees and other native vegetation in 1968 so the population would appear to be recovering well since the riparian areas were fenced off. It is possible that some of the Black Gum individuals were planted however the species is common locally in similar habitats, so it is more likely that they comprise a natural occurrence.

Given the absence of direct impacts and the low risk of adverse indirect impacts on the Black Gum individuals on the subject land, it is considered highly unlikely that the proposal will disrupt the life cycle of the local population of Black Gum such that it is likely to be placed at risk of extinction.

*(b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:*

*(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or*

*(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,*

The proposal will not adversely impact any TECs.

*(c) in relation to the habitat of a threatened species or ecological community:*

*(i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and*

The proposal will affect up to approximately 14 ha of highly degraded habitat which is not expected to be important for any threatened flora or fauna species.

The proposal will not adversely impact any TECs.

*(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and*

The proposed development will not sever connectivity between the fauna habitats within the study area and contiguous habitats, or isolate any fauna populations which may occur within the study area.

The effects of the proposal on habitat connectivity will be minor and the native fauna which may occur within the study area from time to time, will continue to be able to either traverse the study area or go around it to access contiguous habitats.

*(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality,*

The habitat to be removed by the proposal is highly unlikely to be important to the long-term survival of the Dusky Woodswallow. Extensive areas of similar and superior habitats for this highly mobile species occur elsewhere in the locality and region and will remain available to these species.

The proposal will not affect any known habitat for Black Gum. The preferred riparian habitats for the species within the subject land have already been fenced off and will continue to be available to the species.

*d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),*

The proposed development will not affect any area of outstanding biodiversity value.

*(e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.*

The proposed development will not contribute to any key threatening processes.

## EPBC Act Significant Impact Criteria

The EPBC Act Administrative Guidelines on Significance set out ‘**Significant Impact Criteria**’ that are to be used to assist in determining whether a proposed action is likely to have a significant impact on matters of national environmental significance. Matters listed under the EPBC Act as being of national environmental significance include:

- Listed threatened species and ecological communities;
- Listed migratory species;
- Wetlands of International Importance;
- The Commonwealth marine environment;
- World Heritage properties;
- National Heritage places;
- Nuclear actions; and
- Great Barrier Reef.

Specific ‘**Significant Impact Criteria**’ are provided for each matter of national environmental significance except for threatened species and ecological communities in which case separate criteria are provided for species listed as endangered and vulnerable under the EPBC Act.

Threatened and migratory species listed under the EPBC Act that are considered likely or potentially to occur within the study area are given in **Appendix A** of the Report. No Commonwealth listed species are considered likely to occur within the study area.

The relevant Significant Impact Criteria have been applied to determine the significance of impacts associated with the proposal.

| Matters to be addressed                                                                | Impact                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (a) any environmental impact on a World Heritage Property or National Heritage Places; | No. The proposal does not impact on a World Heritage Property or a National Heritage Place as addressed in the SEE.<br><br>(listed natural: Australian Alpine National Parks and Reserves; nominated historic: Snowy Mountains Scheme NSW). |
| (b) any environmental impact on Wetlands of International Importance;                  | No. The proposal will not affect any part of Ramsar wetland.                                                                                                                                                                                |
| (c) any impact on Commonwealth Listed Critically Endangered or Endangered Species;     | No. The study area does not provide any potential habitat for any Commonwealth listed endangered species.:                                                                                                                                  |
| (d) any impact on Commonwealth Listed Vulnerable Species;                              | No. The study area does not provide habitat for any Commonwealth listed vulnerable species.                                                                                                                                                 |
| (e) Any impact on a Commonwealth                                                       | No. The proposal will not impact any Commonwealth listed endangered ecological communities.                                                                                                                                                 |

| Matters to be addressed                                                | Impact                                                                              |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Endangered Ecological Community                                        |                                                                                     |
| (f) any environmental impact on Commonwealth Listed Migratory Species; | No. The proposal will not have any adverse impacts on any listed migratory species. |
| (g) does any part of the Proposal involve a Nuclear Action;            | No. The project does not include a Nuclear Action.                                  |
| (h) any environmental impact on a Commonwealth Marine Area;            | No. There are no Commonwealth Marine Areas within the study area.                   |
| (i) In addition, any direct or indirect impact on Commonwealth lands   | No. The project does not directly or indirectly affect Commonwealth land.           |

## Appendix C: Proposed Pasture Improvement Program

7 October 2024

Terry Neilsen  
873 Wallaces Gap road  
Braidwood NSW 2621  
Ph: 0403820126  
Email: [neilsenandsonsplumbing@hotmail.com](mailto:neilsenandsonsplumbing@hotmail.com)  
cc. Stephen Shea

Dear Terry,

Following the recent inspection of your property, please find your final agronomy plan (overleaf) for the property for 2024-2026 (based on recent soil test results). This is based on the following establishment plan to sow a productive perennial pasture for grazing under & around the proposed EDP solar farm (22 ha in total, as shown in Figure 1, overleaf):

- Year 1 (spring 2024):
  - (i) apply spring fallow as a knockdown herbicide to prevent weed seed set;
  - (ii) topdress soil amendments (e.g. lime) to correct soil fertility issues prior to sowing introduced perennial pasture;
  - (iii) maintain weed free fallow over summer;
- Year 2 (autumn 2025): establish introduced perennial pasture.

Please do not hesitate to contact me if you have any queries.

Regards,



Roger Garnsey B. Rur. Sc. (Hons.), M. Ag. Sc.

| Time of year             | Paddock name  | Area (ha) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Cost* (\$/ha) | Total cost (\$) |
|--------------------------|---------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|
| <b>2024</b>              |               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                 |
| October                  | Solar paddock | 22        | By mid-October, apply the following sprayfallow for knockdown control of grass & broadleaf weeds (including pin rush & poa tussock) to prevent weed seed set in preparation for establishment of perennial pasture in autumn 2025:<br><b>3.2 L Glyphosate CT/ha + 10 g Brushoff/ha + 200 mL Genwett 1000 (or similar non-ionic surfactant)/100 L + 200 mL Wetter TX (for improved silver grass control)/100 L</b><br>• Apply a minimum of 100 L/ha spraymix using a flat fan or AI nozzle to produce a MEDIUM-COARSE spray droplet to minimise drift whilst obtaining adequate coverage;<br>• Do not graze for 7 days after application;<br>• Do not apply if significant rainfall is likely within 6 hours of application.<br><br>1. Burn areas of heavy trash in accordance with fire restrictions.<br>2. Maintain weed free fallow over summer by controlling summer germinating weeds (e.g. couch grass, crab grass) to reduce weed burden & conserve soil moisture e.g. 2.5 L Glyphosate CT/ha + 200 mL Genwett 1000/100 L. | 50            | 1100            |
| November 2024-March 2025 |               |           | 1. Burn areas of heavy trash in accordance with fire restrictions.<br>2. Maintain weed free fallow over summer by controlling summer germinating weeds (e.g. couch grass, crab grass) to reduce weed burden & conserve soil moisture e.g. 2.5 L Glyphosate CT/ha + 200 mL Genwett 1000/100 L.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 50            | 1100            |
|                          |               |           | In accordance with recent soil test results, topdress with <b>2.5 t fine ag lime/ha</b> to correct soil acidity + <b>350 kg 1 &amp; 1 Super Potash blend/ha</b> to correct low Phosphorus, Potassium & Sulphur levels in the soil prior to establishing an introduced perennial pasture.<br>For 22 ha, you will need to order in total 55 t fine ag lime + 8 x 1 t bulk bags of 1 & 1 Super Potash fertilizer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 120<br>400    | 2640<br>8800    |
| TOTAL 2024               |               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               | 13640           |
| <b>2025</b>              |               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                 |
| February                 | Solar paddock | 22        | Establish perennial pasture as follows:<br>1. Apply knockdown herbicide, e.g. 2.5 L Glyphosate CT/ha + 300 mL Kamba 500/ha + 150 mL Genwett 1000/100 L + 100 mL Le mat/ha (to be advised based on weeds present);<br>2. 7 days later direct drill the following perennial pasture mix with <b>125 kg Croplift 15/ha</b> :<br>* 1.5 kg Australian phalaris/ha<br>* 1.5 kg Holdfast phalaris/ha<br>* 6 kg Hummer tall fescue/ha<br>* 1 kg Lazuly cocksfoot/ha<br>* 3 kg Riverina sub clover (inoculated & lime coated)/ha<br>* 3 kg Goulburn sub clover (inoculated & lime coated)/ha<br>* 1 kg Storm white clover (inoculated & lime coated)/ha<br>3. ASAP after sowing & before pasture emergence, apply <b>100 mL Talstar 250EC insecticide/ha + 50 mL Dual Gold/ha</b> to provide residual insect/weed control (Note: low rate of 50 mL Dual Gold/ha used to minimise effect on tall fescue which is sensitive to this per-emergent herbicide).                                                                                | 500           | 11000           |
| TOTAL 2025               |               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               | 11000           |
| <b>2026+</b>             |               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                 |
| February                 | Solar paddock | 22        | Topdress each summer (annually) with <b>200 kg Single Superphosphate/ha</b> to maintain optimum soil fertility & pasture productivity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 100           | 2200            |
| TOTAL 2026+              |               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               | 2200            |

\* Approximate costs include GST. Contract spraying @\$25/ha. Contract sowing @\$100/ha.

