839 Hill End Road - Ecology assessment

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Template 2.8.1

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Abbreviations

Abbreviation	Definition
AOBV	Area of Outstanding Biodiversity Value
APZ	Asset Protection Zone
BAM	Biodiversity Assessment Method
BC Act	*Biodiversity Conservation Act 2016*
BOS	Biodiversity Offset Scheme
BS Act	*Biosecurity Act 2015*
BVM	Biodiversity Values Map
CWLLS	Central West Local Land Services
DA	Development Application
DAFF	Department of Agriculture, Fisheries and Forestry
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPI	Department of Primary Industries
DPIE	Department of Planning, Industry and Environment
DPIRD	Department of Primary Industries and Regional Development
EEC	Endangered Ecological Community
ELA	Eco Logical Australia
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPBC Act	*Environment Protection Biodiversity Conservation Act 1999*
FM Act	*Fisheries Management Act 1995*
HBTs	Hollow-bearing trees
IBRA	Interim Biogeographic Regionalisation for Australia
LGA	Local Government Area
LLS	Local Land Service
MNES	Matters of National Environmental Significance
MWRC	Mid-Western Regional Council
NP	National Parks
NSW	New South Wales
OEH	Office of Environment and Heritage
PCT	Plant Community Type
PMST	Protected Matters Search Tool
RSWMP	Regional Strategic Weed Management Plans
SEED	Sharing and Enabling Environmental Data
SEPP	State Environmental Planning Policy
TEC	Threatened Ecological Community

Executive Summary

Eco Logical Australia (ELA) was engaged by Mr Terry Turner to undertake a test of significance for a proposed development at 839 Hill End Road (Lot 22 DP 1163342) to support a Development Application (DA) for a proposed residential development. The proposed development will include the construction of a single residential dwelling located within the locality of Erudgere, NSW, 2850. Based on the existing principal dwelling, preliminary designs for the new secondary dwelling and the required associated Asset Protection Zone (APZ) as stated in the previously completed Bush Fire Assessment, the development footprint and total area to be impacted for the project is approximately 5,500m^2.

The purpose of this report is to identify biodiversity values which will be impacted by the proposed works and to determine whether the Biodiversity Offset Scheme (BOS) will be triggered. Entry thresholds into the BOS include the following:

- whether the amount of native vegetation being cleared exceeds an area threshold
- whether the impacts occur on an area mapped on the Department of Planning, Industry and Environment (DPIE) Biodiversity Values Map
- whether a significant impact is likely on any threatened entity listed under the *Biodiversity Conservation Act 2016* (BC Act).

This report has been compiled in accordance with the Part 5 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act), and as per the requirements of Part 7 of the NSW *Biodiversity Conservation Act 2016* (BC Act). Relevant Matters of National Environmental Significance (MNES) listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) were also assessed within this report.

The biodiversity values of the study area were identified through a comprehensive data review and ecological field surveys. The data review included searches of relevant threatened species registers and background information, while field surveys involved vegetation validation and mapping, opportunistic fauna surveys and threatened fauna habitat assessment.

The desktop assessment identified one Plant Community Type (PCT) 3534 – Central West Stony Hills Stringybark-Box Forest as occurring within the study area. This was confirmed through ecological field surveys. No Threatened Ecological Communities (TECs) were determined to be in association with this PCT or located within the study area.

The project will involve clearing 3500 m^2 of native vegetation which is classified as PCT 3534. The clearing of native vegetation associated with the project is below the clearing threshold for the minimum lot size associated with the project (the minimum lot size is 12,000 m^2 which has an associated clearing threshold of > 0.5 ha). Additionally, the project will not impact on any areas mapped on the Biodiversity Values Map.

A total of fifty-two species listed under the BC Act and fifty-one species listed under the EPBC Act were identified from the data review as being recorded or having potential to occur within a 10 km radius of the study area. A likelihood of occurrence was undertaken for these species which determined that

potential habitat is present for thirty-one of these species, although only twenty-two threatened fauna species listed under the BC Act and thirteen threatened fauna species listed under the EPBC Act had the potential to be directly impacted. Assessments of significance were undertaken for these potentially impacted species under BC Act and EPBC Act provisions. No threatened flora or fauna species were recorded within the study area during field survey. Given this, and the small size of the proposed area of impact, assessments of significance concluded that the project will not result in a significant impact to threatened fauna or flora species.

One threatened entity listed under the NSW *Fisheries Management Act 1995* (FM Act) has been recorded within 10 km of the study area. The proposed development will not impact upon any FM Act listed entities or key fish habitat.

Mitigation measures have been proposed to ensure that potential impacts associated with the project are avoided, minimised, and contained.

To summarise, the project does not trigger the BOS:

- Clearing of native vegetation is less than the clearing threshold.
- The area to be impacted in not mapped on the Biodiversity Values Map.
- A significant impact to threatened species, populations or communities listed under the NSW BC Act or Commonwealth EPBC Act is not likely.

1. Introduction

1.1. Project description

Eco Logical Australia (ELA) was engaged by Mr Terry Turner to undertake a test of significance for a proposed development at 839 Hill End Road (Lot 22 DP 1163342) to support a Development Application (DA) for a proposed residential development. The proposed development will include the construction of a single residential dwelling located within the locality of Erudgere, NSW, 2850. Based on the existing principal dwelling, preliminary designs for the new secondary dwelling and the required associated Asset Protection Zone (APZ) as stated in the previously completed Bush Fire Assessment, the development footprint and total area to be impacted for the project is approximately 5,500m^2.

1.2. Study area

The proposed development site is located within Lot 22 DP 1163342 at 839 Hill End Road, Erudgere (Figure 1). The study area is in the Mid-Western Regional Council (MWRC) Local Government Area (LGA) within the South Western Slopes Interim Biogeographic Regionalisation for Australia (IBRA) Region and Inland Slopes IBRA Subregion

The study area is approximately 5,500 m^2 in size, with some minor clearing existing on the crest of the hill where a small pre-existing dwelling and garden are located and where the proposed dwelling is to be built (approximately 2,000 m^2 in area). Given that this is a residential development in a bushland setting, this assessment included the footprint of the proposed building, the existing development and a 30 m buffer around this as per the Asset Protection Zone (APZ) requirements stated in the associated Bush Fire Assessment.

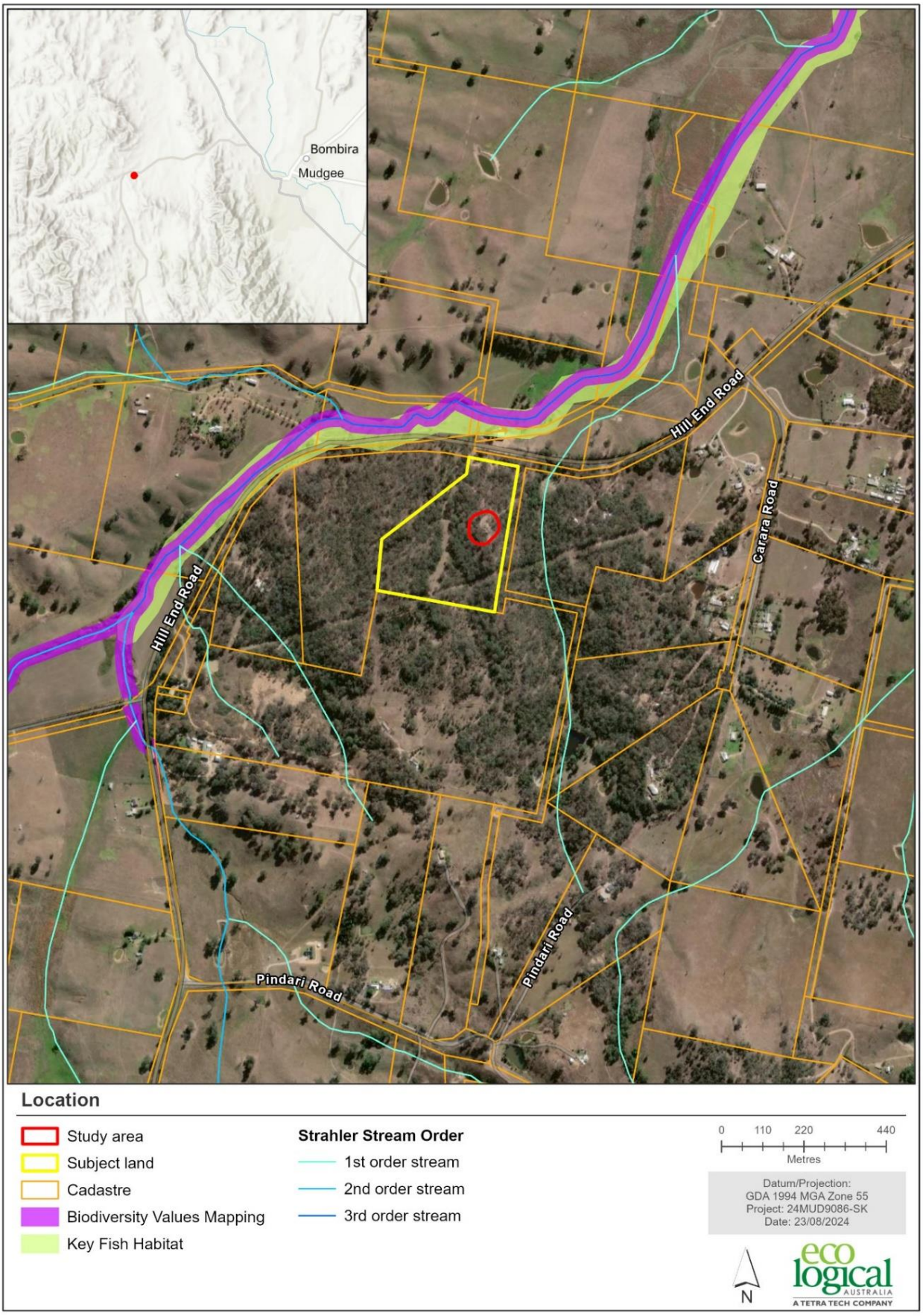

Figure 1: Biodiversity values map and key fish habitat

1.3 Report objectives

The key objectives of this report are to:

- Provide a description of the ecological values present within the study area, including the identification of threatened species, populations (or their habitat) and ecological communities that have the potential to occur in the study area.
- Determine whether the Biodiversity Offset Scheme (BOS) is triggered and therefore a Biodiversity Development Assessment Report (BDAR) is required.
- Determine and assess the significance of any impacts associated with the proposed project upon threatened species, populations and ecological communities listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) and / or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EBPC Act), in accordance with Section 7.3 of the BC Act and / or the *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance* under the EPBC Act (DPIE 2013).
- Provide a series of impact mitigation strategies for implementation as part of the proposed project.

1.4 Legislative context

Relevant legislation is outlined in Table 1.

Table 1: Legislative context

Name	Relevance to the project
Environment Protection and Biodiversity Conservation Act 1999	The EPBC Act aims to protect Matters of National Environmental Significance (MNES) including wetlands of international importance, threatened species and communities and listed migratory species. An action that may or is likely to have a significant impact on MNES should be referred to the Commonwealth to determine whether it is a Controlled Action that requires approval from the Commonwealth. Based on the desktop assessment, fifty-four MNES may occur near the study site, however based on the likelihood of occurrence and field surveys only thirteen of these would potentially be impacted by the proposed development. Assessments of significance concluded that none are likely to be significantly impacted by the project.
Environmental Planning and Assessment Act 1979	Part 4 of the EP&A Act applies to activities requiring consent. A determining authority must consider to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity. Assessments of significance for impacts to threatened species and endangered ecological communities (EECs) have been prepared in accordance with Part 4 of the Act and the report addresses the relevant requirements of s228 of the *Environmental Planning and Assessment Regulation 2000*. Tests of significance determined that no threatened species will be significantly impacted by the project.
Biodiversity Conservation Act 2016	The purpose of the BC Act is to maintain a healthy and productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development. The BC Act includes a mandatory framework for addressing impacts on biodiversity from development and vegetation clearing. The following triggers for entry into the BOS have been considered and determined that a BDAR is not required:

Name	Relevance to the project
	• The amount of clearing of native vegetation area threshold, inclusive of any clearing required for a bushfire Asset Protection Zone (APZ) and access tracks. The minimum lot size for this development is 12,000m^2 so clearing of 0.5 ha (5,000m^2) or more of native vegetation would trigger the BOS. The project will result in the clearing and/ or alteration of approximately 3500m^2, and therefore the clearing threshold will not be triggered (OEH 2024c). • The impacts occur on an area mapped on the Biodiversity Values Map (BVM) or within an Area of Outstanding Biodiversity Value (AOBV). The study area does not breach any areas of significance (Figure 1, above). • The proposed impacts are likely to significantly affect threatened species or ecological communities, or their habitats, following the application of the Test of Significance - Part 7.3 of the BC Act. Assessments of significance for the impact to threatened species and endangered ecological communities in accordance with Section 7.3 of the Act determined that no threatened species or communities will be impacted by the proposed development; therefore, this criterion is not triggered.
Fisheries Management Act 1995	The *Fisheries Management Act 1995* (FM Act) provides for the protection, conservation, and recovery of threatened species defined under the Act. It also makes provision for the management of threats to aquatic threatened species, populations and ecological communities defined under the FM Act, as well as the protection of fish and fish habitat in general. No aquatic habitats or species will be impacted by the project.
Biosecurity Act 2015	The Biosecurity Act 2015 (BA Act) provides a framework for the prevention, elimination and minimisation of biosecurity risks posed by biosecurity matter, dealing with biosecurity matter, carriers and potential carriers, and other activities that involve biosecurity matter, carriers, or potential carriers. Whilst the BA Act provides for all biosecurity risks, implementation of the BA Act for weeds is supported by Regional Strategic Weed Management Plans (RSWMP) developed for each region in NSW. Appendix 1 of the Central Tablelands Regional Strategic Weed Management Plan 2023-2027 (MWRC 2022) identifies the priority weeds for control at a regional scale. One priority weed was identified within the study area, *Hypericum perforatum* (St John's Wort). Mitigation protocols have been suggested below in Section 4: Impact Assessment.
State Environmental Planning Policy – Koala Habitat Protection 2021	MWRC is listed as one of the Councils to which *State Environmental Planning Policy Koala Habitat Protection 2021* applies. Core Koala habitat means an area with a resident population of koalas, evidenced by attributes such as breeding females, recent sightings, and historical records. Potential Koala habitat means areas of native vegetation where the trees of the types listed in Schedule 3 constitute at least 15% of the total number of trees in the upper or lower strata of the tree component. No core koala habitat is located in the study area, although potential koala habitat exists. A Koala Plan of Management is not required as the trees to be removed by this development are being cleared as an APZ in accordance with Planning for Bush Fire Protection.

2. Methodology

2.1. Literature and data review

A literature review and data audit were undertaken to identify the potential presence of any threatened species, populations and ecological communities listed under the BC Act and / or the EPBC Act likely to be present within the study area. The following databases were reviewed prior to conducting the field survey:

- Commonwealth EPBC Act Protected Matters Search Tool (PMST), within a 10 km radius of the study area (results can be seen in Appendix G; DCCEEW 2024a)
- Species Profile and Threats Database (DCCEEW 2024b)
- NSW BioNet Atlas Search for threatened species, populations and ecological communities that may have previously been recorded and are listed under the NSW BC Act within a 10 km radius of the study area (results can be seen in Appendix F; OEH 2024a)
- NSW Threatened Species Profiles (OEH 2024b)
- NSW Biodiversity Values Map and Threshold Tool (DPIE 2024a)
- Sharing and Enabling Environmental Data (SEED) Vegetation Type Mapping (DPIE 2024b)
- *Mid-Western Regional Council Local Environmental Plan 2012* (MWRC 2012)
- Department of Primary Industries (DPI) Key Fish Habitat Mapping (DPIRD 2024).

Appendix A identifies the threatened flora, fauna, and ecological communities (TECs) returned by database searches as well as the likelihood of occurrence within the study area.

Likelihood of occurrence was determined by reviewing records of the area returned by the database searches, consideration of habitat available and habitat quality given in-field surveys and using expert knowledge of species' ecology.

Five terms for the likelihood of occurrence of species are used, as defined below:

- 'yes' = the species was or has been previously recorded within the study area
- 'likely' = medium to high probability that a species utilises the study area
- 'potential' = suitable habitat exists for a species, but there is insufficient information to categorise the species as likely or unlikely to occur
- 'unlikely'= a very low to low probability that a species utilises the study area
- 'no' = habitat within the study area and immediately adjacent to the study area is non-existent or otherwise unsuitable for a species.

2.2. Site assessment

A field assessment was undertaken by ELA Ecologists on 9 August 2024 to identify and assess the impact of the project on ecological values within the study area. Photos and notes were taken regarding general site condition and biodiversity values, as well as any opportunistic recordings of flora and fauna, including threatened species. The entire study area was traversed on foot. A list of recorded flora from the study area is provided in Appendix B.

Habitat for potentially occurring threatened and migratory fauna species returned by the literature and data review was assessed across the entire study area, including hollow-bearing trees (HBTs) and key foraging resources, with incidental observations of all fauna species recorded during the field survey (Appendix C).

2.2.1. Vegetation mapping

Native vegetation occurring within the study area was mapped to NSW Plant Community Types (PCTs) using the dominant species within each stratum present at the time of the survey and data pertaining to topography, soil type and geology. Vegetation within the study area was mapped during the field survey using Collector for ArcGIS. Data was collected to make an assessment on the following:

- Vegetation condition
- PCT number and description using BioNet Vegetation Classification database (OEH 2024d)
- Assessment against the listing criteria for TECs listed under the BC Act and/ or the EPBC Act.

2.2.2. Threatened flora surveys

A total of thirteen threatened flora species were noted from the data review as being recorded or having potential habitat within a 10km radius of the study area. Five of these species were deemed likely to occur within the study area.

The entire study area was traversed on foot, with opportunistic searches undertaken for the listed species. A full list of flora species observed within the study site during the field survey is provided in Appendix B.

2.2.3. Threatened fauna surveys

A total of forty-seven threatened fauna species listed under the BC and/ or EPBC Act and an additional six migratory classified fauna species listed under the EPBC Act were identified from the data review as being recorded or having potential habitat within a 10km radium of the study area. These species are presented in Appendix A. Of these species twenty-four, were deemed likely to occur within the study area. A further one aquatic species listed under the FM Act was identified from the data review as having been recorded or having potential habitat within the Sawpit Creek, near the boundary of the study area (DPIRD 2024).

Habitat for potentially occurring threatened fauna species was assessed across the entire study area, including, but not limited to:

- Hollow bearing trees
- Large woody debris
- Surface rock and rock outcrops
- Stick nests
- Waterbodies:

Incidental observations of all fauna species recorded during the field survey. A list of all fauna species recorded during the field survey is provided in Appendix B.

2.3. Impact assessment – FM Act listed species

The FM Act provides for the protection, conservation, and recovery of threatened species defined under the Act. It also makes provision for the management of threats to aquatic threatened species, populations and ecological communities defined under the FM Act, as well as the protection of fish and fish habitat in general.

Four aquatic species listed under the FM Act and / or EPBC Act were identified during the data review as being recorded or having potential habitat within 10 km of the study area (DPIRD 2024; DCCEEW 2024a). These species include:

- Southern Purple Spotted Gudgeon (*Mogurnda adspersa*)
- Murray Cod (*Maccullochella peelii*)
- Flathead Galaxias (*Galaxias rostratus*)
- Macquarie Perch (*Macquaria australasica*)

A likelihood of occurrence assessment was undertaken for these species. Due to the absence of aquatic habitat within the study area, it was determined that these species do not have potential to occur within the study area.

2.4. Impact assessment – BC Act listed species

Under Section 7.3 of the BC Act, an assessment of significance of impacts is required for the purposes of determining whether a proposed development or activity is likely to significantly affect threatened species, TECs or their habitat.

A total of sixty BC Act listed threatened entities were identified from the data review as being previously recorded or having potential habitat within 10 km of the study area. This included forty-one threatened fauna species, eleven threatened flora species and eight TECs.

A likelihood of occurrence assessment was undertaken for these threatened entities (Appendix A) which determined that twenty-two threatened fauna species, no threatened flora species and no TECs listed under the BC Act have potential to occur within the study area. An assessment of significance was undertaken for these threatened entities in accordance with Section 7.3 of the BC Act. The BC Act assessment of significance is provided in Appendix D.

2.5. Impact assessment – EPBC Act listed species

The EPBC Act Administrative Guidelines on Significance sets out 'Significant Impact Criteria' that area to be used to assist in determining whether a proposed action is likely to have significant impact on MNES (DCCEEW 2013). Matters listed under the EPBC Act as being of national environmental significance are as follows:

- 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.

Specific 'Significant Impact Criteria' are provided for each MNES above, and with separate criteria provided for species listed as endangered, vulnerable, and migratory (within the 'listed threatened species and ecological communities' matter.

A total of fifty-four threatened or migratory entities listed under the EPBC Act were identified from the data review as being previously recorded or having potential habitat within 10km of the study area. This included thirty-five threatened fauna species, an additional six migratory bird species, ten threated flora species and three TECs.

A likelihood of occurrence assessment was undertaken for these listed species and ecological communities and is detailed in Appendix A and determined that thirteen of these fauna species, no flora species and no TECs listed under the EPBC Act have the potential to occur within the study area. An assessment of significance was undertaken for these threatened entities and is detailed in Appendix E.

3. Results

3.1. Vegetation communities

Aerial imagery and regional vegetation mapping assessed as part of the data review indicated that the study area consisted of open forest, with some existing cleared land to the north-east of the study area. Two existing vehicular tracks are present leading from the proposed development site to the entry/ exit gate of the Lot. The desktop assessment indicated the potential presence of nine TECs, these being listed in APPENDIX A.

The vegetation pattern was confirmed during the field survey which identified one PCT, as shown in Table 2 and Figure 2 below. This PCT is discussed further in Section 3.1.1 below. No TECs were identified.

Table 2: PCTs mapped within the study area

PCT number	PCT name	Vegetation formation and class	Area (m^2) within study area
3534	Central West Stony Hills Stringybark-Box Forest	Dry Sclerophyll Forests (Shrub/grass sub formation); North-west Slopes Dry Sclerophyll Woodlands	3,500
Cleared			2,000
Total area			5,500

Figure 2: PCT mapping

3.1.1. PCT 3534 Central West Stony Hills Stringybark-Box Forest

The study area contains 3,500 m^2 of PCT 3534 Central West Stony Hills Stringybark-Box Forest. Consistent with the PCT description (OEH 2024d), the overstory consists of *Angophora floribunda* (Rough-barked Apple) and *Eucalyptus dealbata* (Hill Redgum) and *Eucalyptus rossii* (Inland Scribbly Gum) to a lesser extent. The midstory species consist of *Dillwynia sericea* (Showy Parrot-pea), *Cryptandra spinescens*, *Olearia elliptica* (Sticky Daisy Bush), *Hibbertia obtusifolia* (Hoary Guinea Flower), *Acacia buxifolia* (Box-leaf Wattle), *Ozothamnus diosmifolius* (Rice Flower), *Cassinia sifton* (Sifton Bush), *Cassinia quinquefaria* (Cough-bush) and *Melichrus urceolatus* (Urn Heath). Groundcover species consist of a diversity of grasses, graminoids and tough forbs in line with the PCT description, including *Goodenia hederacea* (Forest Goodenia), *Gonocarpus tetragynus* (Common Raspwort), *Aristida ramosa* (Purple Wiregrass) and *Microlaena stipoides* (Weeping Grass). Site photos of PCT 3534 are provided in Figure 3 and Figure 4 below.

At the time of the survey, exotic richness and associated groundcover was very low. The exotic species *Hypericum perforatum* (St John's Wort) was present toward the north-east of the study area, contributing to less than 5% of overall groundcover. This may be more prevalent but at the time of the study the plants were senescing. *Hypericum perforatum* is a weed of regional significance and thus should be managed accordingly (CWLLS 2022). Bar the sections historically cleared and the area around the existing dwelling, the PCT is in moderate to good condition.

Figure 3: *Angophora floribunda, Eucalyptus dealbata* and *Eucalyptus rossii* canopy and *Olearia elliptica, Cassinia Sifton* and *Dillwynia sericea* midstory within PCT 3534

Figure 4: *Olearia elliptica* and *Hibbertia obtusifolia* midstory (background) and *Gonocarpus tetragynus, Aristida ramosa* and *Austrostipa scabra* groundcover (foreground) within PCT 3534

3.2. Threatened Flora

A likelihood of occurrence assessment (Appendix A) for threatened flora species within the study area determined that the following species have potential to occur within the study area:

- Ausfield's Wattle (*Acacia ausfeldii*)
- Small Purple Pea (*Swainsona recta*)
- Silky Swainson-pea (*Swainsona sericea*)
- Hoary Sunray (*Leucochrysum albicans* var. *tricolor*)
- Capertee Stringybark *(Eucalyptus cannonii*)

Reference populations of *Swainsona sericea* and *Swainsona recta*, at the nearby Mudgee Common, and *Leucochrysum albicans* var. *tricolor* at Pyramul Road, were visited to conform that these species were identifiable at time of survey. *Eucalyptus cannonii* and *Acacia ausfeldii* can be identified year-round, with presence of reproductive material.

Threatened flora species records returned by the database search within a 10km radius of the study area is provided in Figure 5. No threatened flora species listed under the BC Act and/ or EPBC Act were identified during the field survey. A full list of flora species identified in the study area during the field survey is provided in Appendix B.

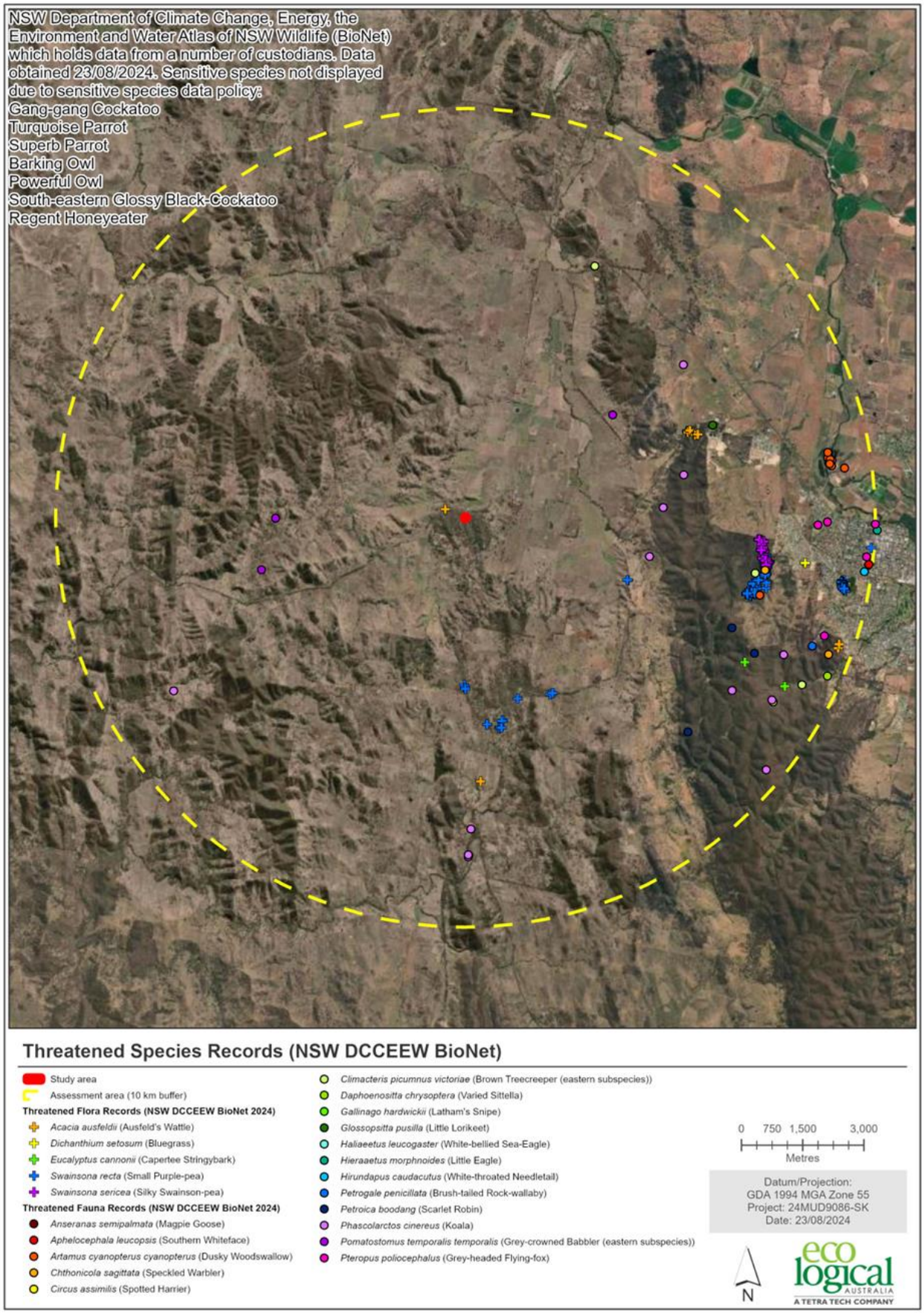

Figure 5: Threatened flora and fauna species records

3.3. Threatened Fauna

A total of fifty-four fauna species were identified from the data review as being recorded or having potential habitat within a 10 km radius of the study area.

Upon review of the literature and historical records for these species, as well as field habitat assessment, twenty-four of these species were deemed as potentially occurring within the study area, and included:

- Barking Owl (*Ninox connivens*)
- Brown Treecreeper (eastern subspecies; *Climacteris picumnus victoriae*)
- Diamond Firetail (*Stagonopleura guttata*)
- Gang-gang Cockatoo (*Callocephalon fimbriatum*)
- Grey Crowned Babbler (eastern subspecies; *Pomatostomus temporalis*)
- Grey Falcon (*Falco hypoleucos*)
- Koala (*Phascolarctos cinereus*)
- Little Eagle (*Hieraaetus morphnoides*)
- Little Lorikeet (*Glossopsitta pusilla*)
- Major Mitchell's Cockatoo (*Cacatua leadbeateri*)
- Powerful Owl (*Ninox strenua*)
- Satin Flycatcher (*Myiagra cyanoleuca*)
- Scarlet Robin (*Petroica boodang*)
- South-Eastern Hooded Robin (*Melanodryas cucullate*)
- Southern Whiteface (*Aphelocephala leucopsis*)
- Speckled Warbler (*Pyrrholaemus sagittatus*)
- Spotted Harrier (*Circus assimilis*)
- Spotted-tailed Quoll (*Dasyurus maculatus maculatus*)
- Striped Legless Lizard (*Delma impar*)
- Superb Parrot (*Polytelis swainsonii*)
- Swift Parrot (*Lathamus discolor*)
- Varied Sittella (*Daphoenositta chrysoptera*)
- White-Throated Needletail (*Hirundapus caudacutus*)
- White-bellied Sea-Eagle (*Haliaeetus leucogaster*).

Potential habitat for these species within the study area is of low to moderate quality but with limited disturbance existing outside the impact footprint of the project. The field survey identified one stag within the study area, which was deemed unsuitable for use as either shelter or roosting/ nesting by any threatened species due to it being completely hollow from base to top and therefore offering fauna little refuge to the elements (Figure 6). It is likely that this will be removed as a part of the disturbance footprint of the proposed dwelling. No other hollow bearing trees, stick nests, significant large woody debris or rocky habitat was identified within the study area.

No threatened fauna species were recorded during the field survey, however given the presence of suitable habitat, assessments of significance were carried out for each of these species under both the BC Act (Appendix D) and EPBC Act provisions (Appendix E).

A full list of fauna species opportunistically recorded in the study area during the field survey are presented in Appendix C. Historical threatened fauna species records returned by the database search within 10 km of the study are shown in Figure 5 above.

Figure 6: Dead hollow-bearing tree (stag) observed within study site. Expected to be removed as part of disturbance footprint. Unsuitable for threatened species habitat

4. Impact assessment

4.1. Impacts to vegetation and threatened flora

The proposed project will result in the removal and/or disturbance of approximately 3,500 m^2 of native vegetation (Table 2 above). The proposed project will not impact upon any TECs or threatened flora species. Only a small number of mature trees are to be removed as part of the project.

The likelihood of occurrence determined that *Acacia ausfeldii, Swainsona sericea, Leucochrysum albicans* var. *tricolor*, *Eucalyptus cannonii* and *Swainsona recta* have the potential to exist within the study area; however, field survey concluded that these species were not present on site and therefore no test of significance was required.

4.2. Impacts to threatened fauna

No threatened fauna species have been recorded historically or during field surveys within the study are. Despite this, potential habitat for twenty-four threatened or migratory fauna species occurs within the study area.

Assessments of significance were carried out for these species under both the BC Act (Appendix D) and EPBC Act (Appendix E) provisions. Given the minimal size of the proposed disturbance footprint in relation to the surrounding higher quality habitat present within the adjacent area, these assessments concluded that the project will not result in a significant impact to threatened fauna species.

4.3. Impact mitigation

Recommended mitigation measures to ensure potential impacts of the proposed works are contained and avoided include the following:

- The disturbance limit for the project should be clearly delineated using temporary fencing, ropes and/ or flagging tape.
- Minimise the potential for the establishment and spread of weeds within and adjacent to the proposed project area through the restriction of vehicle access and requirements for the washdown of vehicles, machinery, and footwear. All equipment, footwear and clothing should be free from mud, dirt and vegetation debris prior to entry and leaving the proposed work area.
- Sediment fences should be installed prior to construction to mitigate against the effects of sedimentation to catchments downhill of the development.
- Treat existing *Hypericum perforatum* present within the study area. For specific directions to eliminate this pest species engage with a qualified agronomic consultant (e.g. LLS or MWRC biosecurity officer). Management should be ongoing to address underlying weed seedbed.

5. Conclusion

This flora and fauna impact assessment was undertaken in accordance with Part 5 of the EP&A Act and in accordance with Part 7 of the BC Act. Relevant MNES listed under the EPBC Act were also assessed within this report. The biodiversity values of the study area were identified through a comprehensive data review and ecological field surveys. The data review included searches of the relevant threatened species databases, whilst the field survey included vegetation validation, vegetation mapping, targeted flora surveys, opportunistic fauna surveys and threatened fauna habitat mapping. The study area (approximately 5,500 m^2) is comprised of 3,500 m^2 of PCT 3534 and 2,000 m^2 of cleared area.

Assessments of significance were undertaken for twenty-two fauna species listed as threatened under the BC Act and undertaken for thirteen fauna species under the EPBC Act (Appendix D and Appendix E). Due to the absence of records within the study area, the small size of the projected impact area, and presence of suitable and higher quality habitat in the area surrounding the study area, the assessments of significance concluded that the project will not result in a significant impact to these threatened fauna or flora species.

Additionally, the project will not impact on any area mapped on the NSW Biodiversity Values Map, as seen in Figure 1, above (DPIE 2024a). No TECs listed under the BC Act and/ or the EPBC Act were identified during the field survey.

The total impacts to native vegetation will be approximately 3,500 m^2. As such, the project is below the associated threshold and does not trigger entry into the NSW Biodiversity Offsets Scheme.

Mitigation measures have been proposed to ensure that potential impacts associated with the project are avoided, minimised, and contained.

6. References

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Appendix A – Likelihood of occurrence

Table 3: Likelihood of occurrence

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
THREATENED ECOLOGICAL COMMUNITIES							
Coolac-Tumut Serpentinite Shrubby Woodland in the NSW South Western Slopes and South Eastern Highlands Bioregions		E		Vegetation growing on soils derived from serpentinite in the Coolac-Tumut-Gundagai area of NSW. Largest occurrence occurs on Honeysuckle Range to the east of Tumut, extending from Argalong to the Murrumbidgee River. Smaller areas occur near Coolac and Gundagai.	No – not identified during field survey	No	No
Fuzzy Box Woodland on alluvial Soils of the South Western Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions		E		Occurs upon the alluvial or colluvial soils of the South Western Slopes, Brigalow Belt South, and Darling Riverine Plains bioregions. Predominately in the Dubbo-Narromine-Parkes-Forbes area. Generally located on brown loam or clay soil types within slight depressions or historic waterways on undulating plains or flats of western slopes. Often occurs upslope of *Eucalyptus camaldulensis* communities above frequently inundated areas of a floodplain or colluvial soils on lower slopes and valley flats.	No – not identified during field survey	No	No
Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia		E	E	Central New South Wales through northern and central Victoria into South Australia. In NSW, found in the southern subregions of the Brigalow Belt South bioregion, the eastern subregions of the Darling Riverine Plain bioregion, the NSW South Western Slopes bioregion, and the eastern subregions of the Cobar Peneplain bioregion. Flat to undulating plains, low slopes and rises and, to a lesser extent, drainage depressions and flats. May extend to more elevated hillslopes on the fringes of its range. Often occurs on productive soils derived from alluvial or colluvial materials.	No – not identified during field survey	No	No
Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions		E		Occurs predominately within the Riverina and South West Slopes regions of NSW down to the Victorian border. It includes Albury to the east and may extend out west towards Hay. This community also extends across the slopes and plains in Central and Northern NSW up to the Queensland border. This includes Yetman and Inverell in the North, Molong to the east of the Central Slopes and plains and out towards Nymagee to the west.	No – not identified during field survey	No	No

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
				Associated with fertile red-brown soils of the western slopes and plains of NSW, arising in areas with an average annual rainfall of 375-800 mm and mean maximum temperature of 22- 26°C.			
Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion		CE		Monaro Grassy Woodland (MGW) occurs in the Southern Tablelands of NSW. Geographically, the community is located between Captains Flat in the north, Bombala in the south the crest of the Great Dividing Range to the east and Adaminaby to Ingenyra to the west. Distribution is heavily influenced by the extensive rain-shadow centred on the Monaro Tableland. Occupying broad valley floors and slopes and low rises of the moderately undulating tablelands on a wide variety of substrates including basalt, fine-grained sedimentary rocks, granite, acid volcanics and alluvium.	No – not identified during field survey	No	No
Natural Temperate Grassland of the South Eastern Highlands			CE	Generally, corresponds with the Monaro, Murrumbateman, Bungonia, and Crookwell subregions of the South Eastern Highlands bioregion. Remnants are known to be in various sub-regions of the Hawkesbury/Nepean, Lachlan, Murrumbidgee, and Southern Rivers Catchment Management Regions of NSW. Ridges, crests, hillsides, undulating plains, valleys and lower slopes, creeks, drainage lines and river flats. Usually associated with heavy textured soils with low nutrient levels.	No – not identified during field survey	No	No
Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions		E		Corresponds with the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions. Typically occupies red-brown loamy sands with alkaline sub-soils on the alluvial plain of the Murray River and its tributaries, and on parts of the sandplain in south-western NSW.	No – not identified during field survey	No	No
Werriwa Tablelands Cool Temperate Grassy Woodland in the South Eastern Highlands and South East Corner Bioregions		CE		Occur in the Southern Tablelands of NSW, occupying broad valley floors and gentle slopes and low rises of the moderately undulating Southern Tablelands of NSW. It has been commonly recorded on a wide variety of substrates including basalt, fine-grained sedimentary rocks, granite, acid volcanics and alluvium but rarely on steep ridge lines on the tablelands. Geographically, it occurs on the eastern fall of the Great Dividing Range between Golspie in the north and Majors Creek in the south. The community has been recorded as far to the east as Marulan and as far west as Carwoola.	No – not identified during field survey	No	No

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland		CE	CE	Occurs in an arc along the western slopes and tablelands of the Great Dividing Range from Southern Queensland through NSW to central Victoria. In NSW, it occurs in the Brigalow Belt South, Nandewar, New England Tableland, Sydney Basin, NSW North Coast, South Eastern Highlands, South East Corner, NSW South Western Slopes and Riverina Bioregions. Areas where rainfall is between 400 and 1,200 mm per annum, on moderate to highly fertile soils at altitudes of 170 m to 1,200 m.	No – not identified during field survey	No	No
FAUNA							
Actitis hypoleucos	Common Sandpiper		M	Can be found along all coastlines and many inland wetlands of Australia. When in Australia populations tend to be concentrated in northern and western Australia. Inhabit both saline and freshwater wetlands, preferring the muddy edges or rocky shores.	No – no foraging or breeding habitat present	No	No
Anseranas semipalmata	Magpie Goose	V		Historically widespread across northern and eastern Australia, habitat destruction during the 1900s saw reduced numbers in NSW. Mainly found in or near shallow wetlands (less than 1 m deep) with dense growth of rushes or sedges, feeding mainly on aquatic vegetation.	No – no foraging or breeding habitat present	No	No
Anthochaera phrygia	Regent Honeyeater	E	CE	Inland slopes of south-east Australia, and less frequently in coastal areas. In NSW, most records are from the North-West Plains, North-West and South-West Slopes, Northern Tablelands, Central Tablelands and Southern Tablelands regions; also recorded in the Central Coast and Hunter Valley regions. Habitat includes eucalypt woodland and open forest, wooded farmland and urban areas with mature eucalypts, and riparian forests of *Casuarina cunninghamiana*. It mainly feeds on nectar from eucalypts and mistletoes, and it prefers taller and larger diameter trees for foraging.	No - limited foraging trees within the area surveyed. Breeding habitat not present	No	No
Aphelocephala leucopsis	Southern Whiteface	V	V	Occur across most of mainland Australia south of the tropics, from the north-eastern edge of the Western Australia wheatbelt, east to the Great Dividing Range. Ground-foraging in nature, they prefer low tree densities and an herbaceous understory litter cover. Tree hollows and crevices are essential for roosting and nesting.	Potential – foraging habitat present only and historically observed within 10km of study area	Yes	Yes

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
Aprasia parapulchella	Pink-tailed Legless Lizard	V	V	In NSW, only known from the Central and Southern Tablelands, and the South Western Slopes. Habitat includes sloping, open woodland areas with predominantly native grassy ground layers, rocky outcrops or scattered, partially buried rocks.	No – partially buried rocks not present	No	No
Apus pacificus	Fork-tailed Swift		M	Recorded in all regions of NSW. Habitat includes riparian woodland, swamps, low scrub, heathland, saltmarsh, grassland, spinifex sandplains, open farmland and inland and coastal sand-dunes.	No - no foraging or breeding habitat present	No	No
Botaurus poiciloptilus	Australasian Bittern	E	E	Found over most of NSW except for the far north-west. Habitat includes permanent freshwater wetlands with tall, dense vegetation, particularly *Typha spp*. and *Eleocharis spp*.	No - no foraging or breeding habitat present	No	No
Calidris acuminata	Sharp-tailed Sandpiper		M, V	Summer migrant. Spends non-breeding season in Australia, predominately the south-east. They are widespread across both inland and coastal areas during this time, although inland occurrence tends to be on passage. Habitat includes shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh, or other low vegetation.	No - no foraging or breeding habitat present	No	No
Calidris ferruginea	Curlew Sandpiper	E	CE, M	Occurs along the entire coast of NSW, and sometimes in freshwater wetlands in the Murray-Darling Basin. Habitat includes littoral and estuarine habitats, including intertidal mudflats, non-tidal swamps, lakes, and lagoons on the coast and sometimes inland.	No - no foraging or breeding habitat present	No	No
Calidris melanotos	Pectoral Sandpiper		M	Summer migrant to Australia. Widespread but scattered in NSW. East of the Great Divide, recorded from Casino and Ballina, south to Ulladulla. West of the Great Divide, widespread in the Riverina and Lower Western regions. Habitat includes shallow fresh to saline wetlands, including coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains, and artificial wetlands.	No - no foraging or breeding habitat present	No	No
Callocephalon fimbriatum	Gang-gang Cockatoo	E	E	In NSW occurs from south-east coast to the Hunter region, and inland to the Central Tablelands and south-west slopes. Isolated records show occurrence as far north as Coffs Harbour and as far west as Mudgee.	Potential - foraging habitat present only	Yes	Yes

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
				Location varies seasonally, with mountainous forests and woodlands being preferable in Spring and Summer and dryer more open eucalypt forests and woodlands at lower altitudes, particularly Box-Gum and Box-Ironbark assemblages.			
Calyptorhynchus lathami	Glossy Black-Cockatoo	V	V	In NSW, widespread along coast and inland to the southern tablelands and central western plains, with a small population in the Riverina. Habitat includes open forest and woodlands of the coast and the Great Dividing Range where stands of sheoak occur.	No – no foraging or breeding habitat present	No	No
Chalinolobus dwyeri	Large-eared Pied Bat	V	E	Recorded from Rockhampton in Qld south to Ulladulla in NSW. Largest concentrations of populations occur in the sandstone escarpments of the Sydney basin and the NSW north-west slopes. Habitat includes wet and dry sclerophyll forests, *Callitris spp.* dominated forest, woodland, sub-alpine woodland, edges of rainforests and sandstone outcrop country.	Unlikely - no adequate roosting habitat present	No	No
Chthonicola sagittata	Speckled Warbler	V		Patchy distribution throughout south-eastern Queensland, the eastern half of NSW and into Victoria. Most frequently reported in the hills and tablelands of the Great Dividing Range. Sighting recorded near build location in 2012. Lives in a wide range of eucalyptus dominated communities that have a grassy understory, often on rocky ridges or in gullies. Typical habitat would include scattered native tussock grasses, a sparse shrub layer, some eucalypt regrowth, and an open canopy. The diet consists of seeds and insects, with most foraging taking place on the ground around tussocks and under bushes and trees.	Potential – foraging habitat present and historically observed within 10km of study area	Yes	Yes
Circus assimilis	Spotted Harrier	V		Found throughout the Australian mainland, except in densely forested or wooded habitats, and rarely in Tasmania. Habitat includes grassy open woodland, inland riparian woodland, grassland, shrub steppe, agricultural land, and edges of inland wetlands.	Potential – foraging habitat present	Yes	Yes
Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	V	V	From eastern through central NSW, west to Corowa, Wagga Wagga, Temora, Forbes, Dubbo, and Inverell. Habitat includes eucalypt woodlands and dry open forest. Feed on variety of invertebrate nectar from *Eucalyptus sideroxylon* and *Melaleuca spp*. Sap from unidentified eucalypt species are also eaten, along with lizards.	Potential – foraging habitat present only and historically observed within 10km of study area	Yes	Yes
Daphoenositta chrysoptera	Varied Sittella	V		Distribution in NSW is nearly continuous from the coast to the far west.	Potential – foraging and breeding habitat present	Yes	Yes

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
				Inhabits eucalypt forests and woodlands, mallee, and acacia woodland. Feeds on arthropods gleaned from crevices in rough or decorticating bark, dead branches, standing dead trees and small branches and twigs in the tree canopy.	and historically observed within 10km of study area		
Dasyurus maculatus	Spotted-tailed Quoll	V	E	Found on the east coast of NSW, Tasmania, eastern Victoria, and north-eastern Qld. Habitat includes rainforest, open forest, woodland, coastal heath, and inland riparian forest, from the sub-alpine zone to the coastline. They kill and eat a variety of prey, including gliders, possums, small wallabies, rats, birds, bandicoots, rabbits, insects and reptiles. They also scavenge on carrion and may take domestic fowl.	Potential – foraging habitat present only	Yes	Yes
Delma impar	Striped Legless Lizard	V	V	In NSW, occurs in the Southern Tablelands, the South West Slopes and possibly on the Riverina. Habitat includes Natural Temperate Grassland, secondary and modified grassland, and open Box-Gum woodland.	Potential – foraging and breeding habitat present	Yes	Yes
Falco hypoleucos	Grey Falcon	E	V	Found in arid and semi-arid zones. In NSW, found chiefly throughout the Murray-Darling Basin, with the occasional vagrant east of the Great Dividing Range. Habitat includes shrubland, grassland and wooded watercourses, occasionally in open woodlands near the coast. Records of Australia have recorded this species around the Mudgee Region.	Potential – foraging and breeding habitat present	Yes	Yes
Galaxias rostratus	Flathead Galaxias	CE	CE	Known from the southern part of the Murray Darling Basin. Recorded in the Macquarie, Lachlan, Murrumbidgee, and Murray Rivers (near Tintaldra) and wetland areas near Howlong in NSW. Habitat includes still or slow-moving water bodies such as wetlands or lowland streams. They are associated with rock, sandy bottoms and aquatic vegetation.	No – no waterways or bodies of water present	No	No
Gallinago hardwickii	Latham's Snipe		M, V	Migrant to east coast of Australia, extending inland west of the Great Dividing Range in NSW. Habitat includes freshwater, saline or brackish wetlands up to 2000m above sea-level; usually freshwater swamps, flooded grasslands, or heathlands.	No - no foraging or breeding habitat present	No	No
Glossopsitta pusilla	Little Lorikeet	V		In NSW, found from the coast westward as far as Dubbo and Albury. Habitat includes dry, open eucalypt forests and woodlands, including remnant woodland patches and roadside vegetation.	Potential – foraging habitat present only and historically observed within 10km of study area	Yes	Yes

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
Grantiella picta	Painted Honeyeater	V	V	Widely distributed in NSW, predominantly on the inland side of the Great Dividing Range but avoiding arid areas. Habitat includes Boree, Brigalow and Box-Gum woodlands and Box-Ironbark Forests. A specialist feeder on the fruits of mistletoes growing on woodland eucalypts and acacias. Prefers mistletoes of the genus *Amyema.*	No – mistletoe absent	No	No
Haliaeetus leucogaster	White-bellied Sea-Eagle	V		Predominately occurring along the coastline of mainland Australia, inland distribution extends to larger waterways. Birds have though been recorded in or flying over a variety of terrestrial habitats. Prefer terrestrial habitats such as sand dunes, tidal flats, grassland, heathland, woodland, and forest near large expanses of water.	Potential – foraging habitat present only and historically observed within 10km of study area	Yes	Yes
Hieraaetus morphnoides	Little Eagle	V		Throughout the Australian mainland, except for the most densely forested parts of the Dividing Range escarpment. Habitat preference includes open eucalypt forest, woodland, or open woodland, including sheoak or acacia woodlands and riparian woodlands of interior NSW. Nests in tall living trees within a remnant patch, where pairs build a large stick nest in winter.	Potential – foraging and breeding habitat present and historically observed within 10km of study area	Yes	Yes
Hirundapus caudacutus	White-throated Needletail		M, V	All coastal regions of NSW, inland to the western slopes and inland plains of the Great Divide. Occur most often over open forest and rainforest, as well as heathland, and remnant vegetation in farmland.	Potential – foraging habitat present only and historically observed within 10km of study area	Yes	Yes
Lathamus discolor	Swift Parrot	E	CE	Migrates from Tasmania to mainland in Autumn-Winter. In NSW, the species mostly occurs on the coast and south west slopes. Habitat includes Box-Ironbark forests and woodlands. Favoured feed trees include winter flowering species such as *Eucalyptus robusta*, *Corymbia maculata*, *C. gummifera*, *E. tereticornis*, *E. sideroxylon*, *and E. albens*.	Potential - no suitable hollows or preferred feed source within study area. Possible foraging habitat present	Yes	Yes
Leipoa ocellata	Malleefowl	E	V	Arid and semi-arid zones. In NSW, populations occur in the southwest Mallee centred on Mallee Cliffs NP and extending east to near Balranald; in the Scotia Mallee west of the Darling River; and in the Goonoo Forest near Dubbo. Recorded less recently in the Pilliga forests, around Cobar and Goulburn River NP.	No - no foraging or breeding habitat present	No	No

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
				Habitat is predominantly mallee communities. Less frequently found in other eucalypt woodlands, such as Inland Grey Box, Ironbark or Bimble Box Woodlands, or other woodlands dominated by Mulga or native Cypress Pine species.			
Litoria booroolongensis	Booroolong Frog	E	E	Restricted to NSW and north-eastern Victoria, predominantly along the western-flowing streams of the Great Dividing Range. Several populations have recently been recorded in the Namoi catchment. Habitat includes permanent streams with some fringing vegetation cover such as ferns, sedges, or grasses.	No – no waterways or bodies of water present	No	No
Lophochroa leadbeateri	Major Mitchell's Cockatoo	V		In NSW, occurs across the arid and semi-arid inland, as far east as Bourke and Griffith, and sporadically even further east. Habitat includes wide range of treed and treeless inland habitats, always within easy reach of water.	Likely – foraging habitat present only	Yes	Yes
Maccullochella peelii	Murray Cod		V	Throughout most of the Murray Darling Basin except for some localised extinctions. Some translocated populations exist outside the species' natural distribution in impoundments and waterways (Cataract Dam and the Nepean River system in NSW). Habitat includes clear rocky streams to slow flowing, turbid rivers, and billabongs. Frequently found in the main river channel and larger tributaries; also, in floodplain channels when they contain water.	No - no waterways or bodies of water present	No	No
Macquaria australasica	Macquarie Perch	E	E	Murray-Darling Basin (particularly upstream reaches) of the Lachlan, Murrumbidgee and Murray rivers, and parts of south-eastern coastal NSW, including the Hawkesbury and Shoalhaven catchments. Habitat includes river and lake habitats, especially the upper reaches of rivers and their tributaries.	No - no waterways or bodies of water present	No	No
Melanodryas cucullata cucullata	South-eastern Hooded Robin	E	E	Widespread across Australia, bar driest deserts and wetter coastal areas. Distributed between Brisbane and Adelaide and throughout much of inland NSW. Prefers lightly wooded country, usually open eucalypt woodland, acacia scrub and mallee. Requires a structurally diverse habitat in terms of height and type of vegetation.	Likely – foraging and breeding habitat present	Yes	Yes
Mogurnda adspersa	Southern Purple	E		The Southern Purple Spotted Gudgeon occurs in the Murray-Darling basin as well as parts of coastal northern NSW and Queensland.	No - no waterways or bodies of water present	No	No

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
	Spotted Gudgeon			The western population of the Southern Purple Spotted Gudgeon was previously widespread in the Murray, Murrumbidgee and Lachlan River systems and tributaries of the Darling, but has experienced a significant decline in recent times. They are now considered to be rare in inland NSW. The species can be found in a variety of habitats such as rivers, creeks, streams, and billabongs with slow-flowing or still waters. Cover in the form of aquatic vegetation, overhanging vegetation from river banks, leaf litter, rocks or snags are important for the species.			
Motacilla flava	Yellow Wagtail		M	Regular summer migrant to mostly coastal Australia. In NSW recorded Sydney to Newcastle, the Hawkesbury and inland in the Bogan LGA. Habitat includes swamp margins, sewage ponds, saltmarshes, playing fields, airfields, ploughed land, lawns.	No - no foraging or breeding habitat present	No	No
Myiagra cyanoleuca	Satin Flycatcher		M	In NSW, widespread on and east of the Great Divide and sparsely scattered on the western slopes, with very occasional records on the western plains. Habitat includes eucalypt-dominated forests, especially near wetlands, watercourses, and heavily vegetated gullies.	Potential - foraging habitat present only	Yes	Yes
Neophema chrysostoma	Blue-winged Parrot	V	V	Distribution varies seasonally. Occur in western parts of NSW during autumn to early spring. Some occurrences in south-eastern NSW and eastern Victoria during southern breeding-season migration. Inhabit a range of habitats from coastal, sub-coastal and inland areas through to semi-arid zones. Prefer grasslands and grassy woodlands and are often found near wetlands both near coast and in semi-arid zones.	No – minimal preferred food source present. No breeding habitat present.	No	No
Ninox connivens	Barking Owl	V		Wide but sparse distribution in NSW, avoiding the most central arid regions. Core populations exist on the western slopes and plains and in some northeast coastal and escarpment forests. Habitat includes woodland and open forest, including fragmented remnants and partly cleared farmland, wetland and riverine forest.	Potential - foraging habitat present only	Yes	Yes
Ninox strenua	Powerful Owl	V		In NSW, it is widely distributed throughout the eastern forests from the coast inland to tablelands, with scattered records on the western slopes and plains. Habitat includes woodland, open sclerophyll forest, tall open wet forest, and rainforest.	Potential - foraging habitat present only	Yes	Yes

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
Numenius madagascariensis	Eastern Curlew		CE, M	Summer migrant to Australia. Primarily coastal distribution in NSW, with some scattered inland records. Habitat includes estuaries, bays, harbours, inlets and coastal lagoons, intertidal mudflats or sandflats, ocean beaches, coral reefs, rock platforms, saltmarsh, mangroves, freshwater/brackish lakes, saltworks and sewage farms.	No – no foraging or breeding habitat present	No	No
Nyctophilus corbeni	Corben's Long-eared Bat	V	V	Distribution coincides approximately with the Murray Darling Basin; the Pilliga Scrub region is the distinct stronghold for this species. Habitat includes mallee, *Allocasuarina luehmannii* and box eucalypt- dominated communities, especially box/ironbark/cypress-pine vegetation.	Unlikely - no adequate roosting habitat present	No	No
Petauroides volans	Greater Glider		V	Eastern Australia, from the Windsor Tableland in north Queensland through to central Victoria (Wombat State Forest). Habitat includes eucalypt forests and woodlands. It is typically found in highest abundance in taller, montane, moist eucalypt forests with relatively old trees and abundant hollows.	Unlikely – relatively small tree size and no suitable hollows present	No	No
Petrogale penicillata	Brush-tailed Rock-wallaby	E	V	In NSW they occur from the Queensland border in the north to the Shoalhaven in the south, with the population in the Warrumbungle Ranges being the western limit. Habitat includes rocky escarpments, outcrops, and cliffs with a preference for complex structures with fissures, caves, and ledges.	No – no preferred rock-based habitat present	No	No
Petroica boodang	Scarlet Robin	V		In NSW, it occurs from the coast to the inland slopes. Species forages on small insects and other invertebrates which are taken from the ground or logs. They also forage in the shrub and canopy layer. Habitat includes dry eucalypt forests and woodlands, and occasionally in mallee, wet forest, wetlands, and tea-tree swamps.	Potential – foraging and breeding habitat present and historically observed within 10km of study area	Yes	Yes
Phascolarctos cinereus	Koala	E	E	In NSW it mainly occurs on the central and north coasts with some populations in the west of the Great Dividing Range. There are sparse and possibly disjunct populations in the Bega District, and at several sites on the southern tablelands. Habitat includes eucalypt woodlands and forests. Feed on the foliage of more than 70 eucalypt species and 30 non-eucalypt species, but in any one area will select preferred browse species.	Potential – eucalyptus species present and historically observed within 10km of study area	Yes	Yes

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
Polytelis swainsonii	Superb Parrot	V	V	In NSW, occurs on inland slopes of the Great Divide and on adjacent plains, especially along the major river-systems. Habitat includes Box-Gum woodland, Box-Cypress-pine and Boree woodlands and River Red Gum Forest. Feed in trees and understorey shrubs and on the ground and their diet consists mainly of grass seeds and herbaceous plants. Also eaten are fruits, berries, nectar, buds, flowers, insects and grain.	Likely – foraging habitat present only	Yes	Yes
Pomatostomus temporalis	Grey-crowned Babbler (eastern subspecies)	V		In NSW, occurs on the western slopes of the Great Dividing Range, and as far as Louth and Balranald on the western plains. Also occurs in woodlands in the Hunter Valley and in some locations on the north coast. Has been reported within 10km of study site. Species forages on trunks and branches of eucalypts and other woodland trees as well as on the ground, digging and probing amongst litter and tussock grasses. Habitat includes open woodland habitats; favours Box-Gum woodlands on the slopes and Box-cypress and open Box woodlands on alluvial plains.	Potential – foraging habitat present only and historically observed within 10km of study site	Yes	Yes
Pseudomys novaehollandiae	New Holland Mouse, Pookila	V	V	Fragmented distribution, largely restricted to the coast of central and northern NSW, with one inland occurrence near Parkes recorded. Range includes open heathland, open woodland with heathland understory and vegetated sand dunes. Deeper top soils and softer substrates are preferred, indicative of its burrowing nature.	No – no foraging and breeding habitat present	No	No
Pteropus poliocephalus	Grey-headed Flying-fox	V	V	Along the eastern coast of Australia, from Bundaberg in Qld to Melbourne in Victoria. Habitat includes subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths, and swamps as well as urban gardens and cultivated fruit crops.	No – no suitable foraging or roosting habitat present	No	No
Pycnoptilus floccosus	Pilotbird		V	Endemic to south-east Australia. Lowland subspecies occurs in forests from the Blue Mountains NSW, around the sclerophyll forests of eastern Australia, down to Dandenong, Victoria. Can be found in both wet sclerophyll forests in temperate zones and dry sclerophyll forests and woodlands occupying dry slopes and ridges. Being a terrestrial, they prefer dense forests with heavy undergrowth.	No - no foraging or breeding habitat present	No	No
Rhipidura rufifrons	Rufous Fantail		M	Coastal and near coastal districts of northern and eastern Australia, including on and east of the Great Divide in NSW.	No – no foraging and breeding habitat present	No	No

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
				Habitat includes wet sclerophyll forests, subtropical and temperate rainforests. Sometimes drier sclerophyll forests and woodlands.			
Rostratula australis	Australian Painted Snipe	E	E	In NSW most records are from the Murray-Darling Basin. Other recent records include wetlands on the Hawkesbury River and the Clarence and lower Hunter Valleys. Habitat includes swamps, dams, and nearby marshy areas (OEH 2019b).	No – no foraging and breeding habitat present	No	No
Stagonopleura guttata	Diamond Firetail	V	V	Endemic to south-eastern Australia, being widespread throughout NSW. Concentration of records are from Northern, Central and Southern Tablelands, the Northern, Central and South Western Slopes and the North Western Plains and Riverina. Habitat includes grassy eucalypt woodlands, open forest, mallee, and Natural Temperate Grassland. Often found in riparian areas and sometimes lightly wooded farmland.	Likely - foraging and breeding habitat present	Yes	Yes
FLORA							
Acacia ausfeldii	Ausfeld's Wattle	V		East of Dubbo in the Mudgee-Ulan-Gulgong area of the NSW South Western Slopes bioregion, as well as the Brigalow Belt South, South Eastern Highlands, and the Sydney Basin bioregions. Reported near build site in 2016. Habitat includes eucalypt woodland in sandy soil, often in remnant roadside patches of woodland. This species was not identified in the field survey.	No – field survey did not detect this species	Yes	No
Dichanthium setosum	Bluegrass	V	V	Dichanthium setosum occurs on the New England Tablelands, North West Slopes and Plains and the Central Western Slopes of NSW. Associated with heavy basaltic black soils and red-brown loams with clay subsoil. Associated with several species including white and yellow box. Often observed in moderately disturbed areas such as cleared woodlands, grassy roadside remnants, and highly disturbed pasture.	No – no suitable habitat present	No	No
Eucalyptus cannonii	Capertee Stringybark	V		Predominantly restricted to the central tablelands and slopes of NSW from east of Bathurst to Wallerawang near Lithgow, north along the western edge of Wollemi National Park and north-west to Mudgee. Also, north of Goulburn River National Park between Dunedoo and Merriwa. Habitat includes sclerophyll woodland on shallow soil on rises.	No – field survey did not detect this species	Yes	No

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
Euphrasia arguta		E	CE	Historical records occur near Mudgee but hasn't been recorded since the early explorers. In NSW, recently recorded only from Nundle area of the north western slopes and tablelands, from near the Hastings River and from the Barrington Tops. Habitat includes eucalypt forest with a mixed grass and shrub understorey, disturbed areas, along roadsides.	No – no suitable habitat present	No	No
Lepidium aschersonii	Spiny Peppercress	V	V	In NSW, occurs in the marginal central-western slopes and north-western plains regions. Found on ridges of Gilgai clays, dominated by *Eucalyptus macrocarpa.*	No – no suitable habitat present	No	No
Leucochrysum albicans var. tricolor	Hoary Sunray		E	In NSW it occurs on the Southern Tablelands and adjacent areas in an area roughly bounded by Albury, Bega, and Goulburn. Habitat includes grassland, woodland, and forest, generally on relatively heavy soils.	No – field survey did not detect this species	Yes	No
Ozothamnus tesselatus		V	V	Restricted to a few locations in an east-west zone south of Bunnan and between west Bylong and east Ravensworth. Habitat is eucalypt woodland.	No – no suitable habitat present	No	No
Prasophyllum petilum	Tarengo Leek Orchid	E	E	Four sites in NSW: at Boorowa, Captains Flat, Ilford, and Delegate. Also, experimentally introduced at Bowning Cemetery NSW. Habitat includes Natural Temperate Grassland, grassy woodland, and Box-Gum woodland.	No – no suitable habitat present	No	No
Prasophyllum sp. Wybong (C. Phelps ORG 5269)	A Leek-orchid		CE	Endemic to NSW, it is known from near Ilford, Premer, Muswellbrook, Wybong, Yeoval, Inverell, Tenterfield, Currabubula, and the Pilliga area. Most populations are small, although the Wybong population contains by far the largest number of individuals. Known to occur in open eucalypt woodland and grassland.	No – no suitable habitat present	No	No
Swainsona recta	Small Purple-pea	E	E	Queanbeyan and Wellington-Mudgee areas. Historically also recorded at Carcoar, Culcairn, and Wagga Wagga. Recorded at multiple sites near build site. Habitat includes grassland, open woodland and open forests dominated by *Eucalyptus blakelyi, E. melliodora, E. rubida,* and *E. goniocalyx.*	No – field survey did not detect this species	Yes	No
Swainsona sericea	Silky Swainson Pea	V		Silky Swainson-pea has been recorded from the Northern Tablelands to the Southern Tablelands and further inland on the slopes and plains. There is one isolated record from the far north-west of NSW. Habitat varies between, natural temperate grassland, Snow Gum woodland, Box-Gum woodland and sometimes in association with cypress-pines.	No – field survey did not detect this species	Yes	No

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and habitat (DPIE 2024a)	Likelihood of Occurrence	Habitat or species on site directly or indirectly impacted	Test of Significance Required
Thesium australe	Austral Toadflax	V	V	In eastern NSW it is found in very small populations scattered along the coast, and from the Northern to Southern Tablelands. Habitat includes grassland on coastal headlands or grassland and grassy woodland away from the coast.	No – no suitable habitat present	No	No
Tylophora linearis		V	E	In NSW, found in the Barraba, Mendooran, Temora and West Wyalong districts in the northern and central western slopes. Records include Crow Mountain near Barraba, Goonoo, Pilliga West, Cumbil, and Eura State Forests, Coolbaggie Nature Reserve, Goobang National Park, and Beni Conservation Area. Habitat includes dry scrub, open forest, dry woodlands of *Eucalyptus fibrosa*, *Eucalyptus sideroxylon*, *Eucalyptus albens*, *Callitris endlicheri*, *Callitris glaucophylla* and *Allocasuarina luehmannii*.	No – no suitable habitat present	No	No

BC Act Key: V = Vulnerable, E = Endangered, CE = Critically Endangered

EPBC Act Key: V = Vulnerable, E = Endangered, CE = Critically Endangered, M = migratory under the Bonn Convention, JAMBA, CAMBA or RoKAMBA agreements

Appendix B – Flora species list

Table 4: Flora species list

Scientific name	Common name	Native/Exotic
Acacia buxifolia	Box-leaf wattle	Native
Angophora floribunda	Rough-barked apple	Native
Aristida ramosa	Purple wiregrass	Native
Aristida vagans	Threeawn speargrass	Native
Austrostipa scabra	Rough speargrass	Native
Cassinia quinquefaria	Cough-bush	Native
Cassinia sifton	Sifton bush	Native
Cheilanthes sieberi	Poison rock fern	Native
Cryptandra spinescens		Native
Dillwynia sericea	Showy parrot-pea	Native
Eucalyptus dealbata	Hill redgum	Native
Eucalyptus rossii	Inland scribbly gum	Native
Gonocarpus tetragynus	Common raspwort	Native
Goodenia hederacea	Forest goodenia	Native
Hardenbergia violacea	Purple coral pea	Native
Hibbertia obtusifolia	Hoary guinea flower	Native
Hovea heterophylla	Creeping hovea	Native
Hydrocotyle laxiflora	Stinking Pennywort	Native
Hypericum perforatum	St John's wort	Exotic
Lysimachia arvensis	Scarlet Pimpernel	Native
Melichrus urceolatus	Urn Heath	Native
Microlaena stipoides	Weeping grass	Native
Olearia elliptica	Sticky daisy bush	Native
Ozothamnus diosmifolius	Rice flower	Native
Poa labillardierei	Poa Tussock	Native
Stypandra glauca	Nodding Blue-lily	Native
Themeda triandra	Kangaroo grass	Native

Appendix C – Fauna species list

Table 5: Fauna species list

Scientific name	Common name	Native/Introduced
Acanthiza nana	Yellow thornbill	Native
Caligavis chrysops	Yellow-faced honeyeater	Native
Corvus coronoides	Australian raven	Native
Cracticus nigrogularis	Pied butcherbird	Native
Dacelo novaeguineae	Kookaburra	Native
Gymnorhina tibicen	Magpie	Native
Malurus cyaneus	Superb fairy wren	Native
Manorina melanocephala	Noisy miner	Native
Rhipidura leucophrys	Willie wagtail	Native

Appendix D – BC Act assessment of significance

Under Section 7.3 of the NSW BC Act the test of significance is to be considered for the purpose of determining whether a proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats. This test has been applied to species listed under the BC Act that are potentially impacted by the proposed project.

Species that have been assessed against the test of significance were identified through the development of the likelihood of occurrence (Appendix A). The following species have been assessed:

- Barking Owl (*Ninox connivens*)
- Brown Treecreeper (eastern subspecies; *Climacteris picumnus victoriae*)
- Diamond Firetail (*Stagonopleura guttata*)
- Gang-gang Cockatoo (*Callocephalon fimbriatum*)
- Grey Crowned Babbler (eastern subspecies; *Pomatostomus temporalis*)
- Grey Falcon (*Falco hypoleucos*)
- Koala (*Phascolarctos cinereus*)
- Little Eagle (*Hieraaetus morphnoides*)
- Little Lorikeet (*Glossopsitta pusilla*)
- Major Mitchell's Cockatoo (*Cacatua leadbeateri*)
- Powerful Owl (*Ninox strenua*)
- Scarlet Robin (*Petroica boodang*)
- South-Eastern Hooded Robin (*Melanodryas cucullate*)
- Southern Whiteface (*Aphelocephala leucopsis*)
- Speckled Warbler (*Pyrrholaemus sagittatus*)
- Spotted Harrier (*Circus assimilis*)
- Spotted-tailed Quoll (*Dasyurus maculatus maculatus*)
- Striped Legless Lizard (*Delma impar*)
- Superb Parrot (*Polytelis swainsonii*)
- Swift Parrot (*Lathamus discolor*)
- Varied Sittella (*Daphoenositta chrysoptera*)
- White-bellied Sea-Eagle (*Haliaeetus leucogaster*)

The following questions are to be considered for the purposes of determining whether a proposed development or activity is likely to significantly affect threatened flora and fauna, ecological communities, or their habitats:

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

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, in relation to the habitat of a threatened species or ecological community:

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

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

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,

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),

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 BC Act Assessment of Significance is detailed in Table 6. No endangered ecological communities will be impact upon by the proposed project, so question b. is not applicable. No areas of declared outstanding biodiversity value have been mapped within the study area and the proposed project will not directly or indirectly impact upon any declared area of outstanding biodiversity value, as such question d. has also been addressed.

Table 6: Assessment of significance for BC Act listed species

Species	A	C	E	Conclusion
Threatened woodland birds: • Brown Treecreeper (eastern subspecies) • Varied Sittella • Grey-crowned Babbler (eastern subspecies) • Scarlet Robin • South-eastern Hooded Robin • Speckled Warbler • Diamond Firetail • Southern Whiteface	The study area provides low quality potential habitat for threatened nesting woodland birds. Due to the absence of records and the low quality of potential nesting/roosting habitat within the study area, combined with the presence of higher quality habitat in the surrounding area, it is unlikely that the proposed project will adversely affect the life cycles of these species such that local populations are likely to be placed at risk of extinction.	The proposed development will likely result in the clearing of a maximum 3,500 m^2 of potential foraging and nesting habitat for these species. A small number of trees are being removed as part of the proposed project, but there is unlikely to be any significant impact to habitat availability for these bird species. Due to the small extent of the proposed disturbance footprint, the already disjunct nature of the habitat proposedly to be removed and the mobile nature of these species, the planned project is unlikely to result in habitat fragmentation detrimental to the long-term survival of these species in the locality. The study area provides low quality potential habitat with higher quality habitat present in areas surrounding the study area. Additionally, the absence of records from the study area indicates that the removal of this habitat is unlikely to affect the long-term survival of these species in the locality.	The proposed project constitutes one key threatening process relevant to these species, clearing of native vegetation. Due to the small scale (maximum 3,500 m^2) and low quality of potential habitat for these highly mobile species, it is unlikely that the proposed project will increase the impact of this key threatening process on these species.	After considering the previous questions, it has been determined that the proposed project is unlikely to have a significant impact on the threatened woodland bird species assessed.

Species	A	C	E	Conclusion
Threatened cockatoo and parrot species: • Superb Parrot • Gang-gang Cockatoo • Little Lorikeet • Swift Parrot • Major Mitchell's Cockatoo	The study area provides low quality potential habitat for threatened cockatoo and parrot species. Due to the absence of records and the absence of adequate hollow bearing trees recorded during the field survey within the study area, combined with the presence of higher quality habitat in the surrounding area, it is unlikely that the proposed project will adversely affect the life cycles of these species such that local populations are likely to be placed at risk of extinction.	These species forage in native and exotic vegetation. The proposed project will likely result in the clearing of a maximum of 3500m^2 of potential foraging habitat for these species. A small number of trees, shrubs and grasses are being removed as part of the proposed project, but there is unlikely to be any significant impact to habitat availability for these bird species. Due to the small extent of the proposed disturbance footprint, the already disjunct nature of the potential habitat to be removed and the mobile nature of these species, the proposed project is unlikely to result in habitat fragmentation detrimental to the long-term survival of these species in the locality. The study area provides low quality potential foraging habitat and nil nesting habitat, with higher quality habitat present in areas surrounding the study area. Additionally, the absence of records from the study area indicates that the removal of this habitat is unlikely to affect the long-term survival of these species in the locality.	The proposed project constitutes one key threatening process relevant to these species, clearing of native vegetation. Due to the small scale (maximum 3500m^2) and low quality of potential foraging habitat and absence of hollow-bearing trees for these highly mobile species, it is unlikely that the proposed project will increase the impact of this key threatening process on these species.	After considering the previous questions, it has been determined that the proposed project is unlikely to have a significant impact on the threatened cockatoo and parrot species assessed.

Species	A	C	E	Conclusion
Threatened birds of prey: • Grey Falcon • Little Eagle • Spotted Harrier • White-bellied Sea-Eagle	The study area provides moderate quality potential habitat for threatened birds of prey. Due to the absence of records and the absence of large (>40cm) stick nests recorded during the field survey within the study area, combined with the presence of higher quality habitat in the surrounding area, it is unlikely that the proposed project will adversely affect the life cycles of these species such that local populations are likely to be placed at risk of extinction.	These species forage in native and exotic vegetation. The proposed project will likely result in the clearing of a maximum of 3,500 m^2 of potential foraging habitat for these species. A small number of trees are being removed as part of the proposed project, but there is unlikely to be any significant impact to habitat availability for these bird species. Due to the small extent of the proposed disturbance footprint, the already disjunct nature of the potential habitat to be removed and the mobile nature of these species, the proposed project is unlikely to result in habitat fragmentation detrimental to the long-term survival of these species in the locality. The study area provides low quality potential foraging habitat, with higher quality habitat present in areas surrounding the study area. Additionally, the absence of records from the study area indicates that the removal of this habitat is unlikely to affect the long-term survival of these species in the locality.	The proposed project constitutes one key threatening process relevant to these species, clearing of native vegetation. Due to the small scale (maximum 3,500 m^2) and low quality of potential foraging habitat for these highly mobile species, it is unlikely that the proposed project will increase the impact of this key threatening process on these species.	After considering the previous questions, it has been determined that the proposed project is unlikely to have a significant impact on the threatened birds of prey species assessed.

Species	A	C	E	Conclusion
Threatened owl species: • Barking Owl • Powerful Owl	The study area provides low quality potential habitat for threatened owl species. Due to the absence of records and the absence of adequate hollow bearing trees recorded during the field survey within the study area, combined with the presence of higher quality habitat in the surrounding area, it is unlikely that the proposed project will adversely affect the life cycles of these species such that local populations are likely to be placed at risk of extinction.	These species forage in native and exotic woodland. The proposed project will likely result in the clearing of a maximum of 3,500 m^2 of potential foraging habitat for these species. A small number of trees are being removed as part of the proposed project, but there is unlikely to be any significant impact to habitat availability for these bird species. Due to the small extent of the proposed disturbance footprint, the already disjunct nature of the potential habitat to be removed and the mobile nature of these species, the proposed project is unlikely to result in habitat fragmentation detrimental to the long-term survival of these species in the locality. The study area provides low quality potential foraging habitat, with higher quality habitat present in areas surrounding the study area. Additionally, the absence of records from the study area indicates that the removal of this habitat is unlikely to affect the long-term survival of these species in the locality.	The proposed project constitutes one key threatening process relevant to these species, clearing of native vegetation. Due to the small scale (maximum 3,500 m^2) and low quality of potential foraging habitat and absence of hollow-bearing trees for these highly mobile species, it is unlikely that the proposed project will increase the impact of this key threatening process on these species.	After considering the previous questions, it has been determined that the proposed project is unlikely to have a significant impact on the threatened owl species assessed.

Species	A	C	E	Conclusion
Arboreal mammals: • Koala	The Study Area provides potential habitat for arboreal mammals. Due to the absence of records, the absence of primary food tree species recorded during the field survey within the study area, the small-scale impact and presence of higher quality habitat in the surrounding area, it is unlikely that the proposed project will adversely affect the life cycles of this species such that local populations are likely to be placed at risk of extinction.	These species forage in native and largely undisturbed habitat. The proposed project will likely result in the clearing of a maximum of 3,500 m^2 of potential foraging habitat for this species. A small number of trees are being removed as part of the proposed project, but there is unlikely to be any significant impact to habitat availability. Due to the small extent of the proposed disturbance footprint and fact that it will not remove passage corridors, the proposed project is unlikely to result in habitat fragmentation detrimental to the long-term survival of these species in the locality. The study area provides low quality potential foraging habitat, with higher quality habitat present in areas surrounding the proposed disturbance footprint. Additionally, the absence of records from the study area indicates that the removal of this habitat is unlikely to affect the long-term survival of these species in the locality.	The proposed project constitutes one key threatening process relevant to these species, clearing of native vegetation. Due to the small scale (maximum 3,500 m^2) and absence of preferred food tree species it is unlikely that the proposed project will increase the impact of this key threatening process on these species.	After considering the previous questions, it has been determined that the proposed project is unlikely to have a significant impact on the threatened arboreal mammal species assessed.

Species	A	C	E	Conclusion
Semi-arboreal mammals: • Spotted-tailed Quoll	The Study Area provides potential habitat for semi-arboreal mammals. Due to the absence of records, the absence of habitat features such as hollow-bearing trees, rocky outcrops and large fallen logs recorded during the field survey within the study area and the small-scale impact and presence of higher quality habitat in the surrounding area, it is unlikely that the proposed project will adversely affect the life cycles of this species such that local populations are likely to be placed at risk of extinction.	These species forage in native and exotic woodland. The proposed project will likely result in the clearing of a maximum of 3,500 m^2 of potential foraging habitat for this species. A small number of trees are being removed as part of the proposed project, but there is unlikely to be any significant impact to habitat availability. Due to the small extent of the proposed disturbance footprint and fact that it will not remove passage corridors, the proposed project is unlikely to result in habitat fragmentation detrimental to the long-term survival of these species in the locality. The study area provides low quality potential foraging habitat, with higher quality habitat present in areas surrounding the proposed disturbance footprint. Additionally, the absence of records from the study area indicates that the removal of this habitat is unlikely to affect the long-term survival of these species in the locality.	The proposed project constitutes one key threatening process relevant to these species, clearing of native vegetation. Due to the small scale (maximum 3,500 m^2) and absence of key habitat features it is unlikely that the proposed project will increase the impact of this key threatening process on these species.	After considering the previous questions, it has been determined that the proposed project is unlikely to have a significant impact on the threatened semi-arboreal mammal species assessed.

Species	A	C	E	Conclusion
Reptiles: • **Striped Legless Lizard**	The Study Area provides potential habitat for small reptiles. Due to the absence of records, the absence of habitat features such as fallen logs, rocky outcrops and surface rocks recorded during the field survey within the study area, the small-scale impact and presence of higher quality habitat in the surrounding area, it is unlikely that the proposed project will adversely affect the life cycles of this species such that local populations are likely to be placed at risk of extinction.	These species forage in native and exotic grassland. The proposed project will likely result in the clearing of a maximum of 3,500 m^2 of potential foraging habitat for this species. A small number of tussock-like grasses are being removed as part of the proposed project, but there is unlikely to be any significant impact to habitat availability. Due to the small extent of the proposed disturbance footprint, the proposed project is unlikely to result in habitat fragmentation detrimental to the long-term survival of these species in the locality. The study area provides low quality potential foraging habitat, with higher quality habitat present in areas surrounding the proposed disturbance footprint. Additionally, the absence of records from the study area indicates that the removal of this habitat is unlikely to affect the long-term survival of these species in the locality.	The proposed project constitutes one key threatening process relevant to these species, clearing of native vegetation. Due to the small scale (maximum 3,500 m^2) and absence of key habitat features it is unlikely that the proposed project will increase the impact of this key threatening process on these species.	After considering the previous questions, it has been determined that the proposed project is unlikely to have a significant impact on the threatened reptile species assessed.

Appendix E – EPBC Act assessment of significance

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

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 critically endangered, endangered, and vulnerable under the EPBC Act.

The relevant 'Significant Impact Criteria' have been applied to the following species:

- Vulnerable species
    - Brown Treecreeper (eastern subspecies; *Climacteris picumnus victoriae*)
    - Grey Falcon (*Falco hypoleucos*)
    - White-throated Needletail (*Hirundapus caudacutus*)
    - Diamond Firetail (*Stagonopleura guttata*)
    - Striped Legless Lizard (*Delma impar*)
    - Superb Parrot (*Polytelis swainsonii*)
    - Southern Whiteface (*Aphelocephala leucopsis*)

- Endangered species
    - Koala (*Phascolarctos cinereus*)
    - South-eastern Hooded Robin (*Melanodryas cucullata cucullata*)
    - Spotted-tailed Quoll (*Dasyurus maculatus*)
    - Gang-gang Cockatoo (*Callocephalon fimbriatum*)

- Critically endangered species
    - Swift Parrot (*Lathamus discolor*)

- Migratory species
    - Satin Flycatcher (*Myiagra cyanoleuca*)
    - White-throated Needletail (*Hirundapus caudacutus*)

Table 7: Assessment of Significance for the EPBC Act listed vulnerable species (Brown Treecreeper (eastern subspecies) (DCCEEW 2023a), Grey Falcon (DCCEEW 2022a), White-throated Needletail (DCCEEW 2019), Diamond Firetail (DCCEEW 2023b), Striped Legless Lizard (DCCEEW 1999), Superb Parrot (DCCEEW 2022b), Southern Whiteface (DCCEEW 2023c))

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:	
Lead to a long-term decrease in the size of an important population of a species	There are no records of these species or any corresponding important populations in the study area. Total extent of vegetation clearing is 3,500 m^2. There is a more suitable, quality habitat surrounding the study area. It is unlikely that the proposed works will lead to a long-term decrease in the size of a population.
Reduce the area of occupancy on an important population	There are no records of these species or any corresponding important populations in the study area. Even so, the availability of better quality, undisturbed and alternative habitat outside the study area indicate that it is unlikely that the proposed works will reduce the area of occupancy of these species, if present.
Fragment an existing important population into two or more populations	There is no important population of these species within the impact area. However, given the extent of vegetation removal and highly mobile nature of these species, they will not be susceptible to fragmentation.
Adversely affect habitat critical to the survival of the species	No habitat critical to the survival of these species is present within the study area. Given the absence of records within the study area, combined with the small scale of the disturbance footprint, it is unlikely that the proposed project will adversely impact upon the survival of this species.
Disrupt the breeding cycle on an important population	Given the absence of records, combined with the small scale of the disturbance footprint, it is unlikely that the proposed project will disrupt the breeding cycle of an important population.
Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	Given the absence of records within the study area, combined with the small scale of the disturbance footprint and the presence of large areas of higher quality habitat in the areas surrounding Mudgee, it is unlikely that the proposed project will result in a decline of the species.
Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	No harmful invasive species are expected to become established in areas of potential habitat for this species as a result of the proposed project. Mitigation measures have also been proposed to limit the potential spread and/or introduction of invasive species.
Introduce disease that may cause the species to decline, or	No disease that may cause this species to decline is likely to be introduced by the proposed project
Interfere substantially with the recovery of the species.	After considering the above statements, the proposed project is unlikely to interfere with the future recovery of these species.

Table 8: Assessment of Significance for the EPBC Act listed endangered species (Koala (DCCEEW 2022c), South-eastern Hooded Robin (DCCEEW 2023d), Spotted-tailed Quoll (DCCEEW 2016), Gang-gang Cockatoo (2022d)) and critically endangered species (Swift Parrot (2024c))

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:	
Lead to a long-term decrease in the size of an important population of a species	There are no records of these species or any corresponding important populations in the study area. Total extent of vegetation clearing is 3,500 m^2. There is a more suitable, quality habitat surrounding the study area. It is unlikely that the proposed works will lead to a long-term decrease in the size of a population.
Reduce the area of occupancy on an important population	There are no records of these species or any corresponding important populations in the study area. Even so, the availability of better quality, undisturbed and alternative habitat outside the study area indicate that it is unlikely that the proposed works will reduce the area of occupancy of these species, if present.
Fragment an existing important population into two or more populations	Most of the listed species are highly mobile and given the extent of vegetation removal, will not be impacted by fragmentation. Arboreal and semi-arboreal mammals as well as reptiles are more susceptible to fragmentation, but the small number of trees and/ or habitat features to be removed is unlikely to impede movement. Movement corridors will remain in place.
Adversely affect habitat critical to the survival of the species	No habitat critical to the survival of these majority of these species is present within the study area, bar the South-Eastern Hooded Robin. Given the absence of records and the low quality of potential habitat within the study area and higher quality of the surrounding area, combined with the small scale of the disturbance footprint, it is unlikely that the proposed project will adversely impact upon the survival of these species. Care should be taken to maintain the quality of surrounding habitat.
Disrupt the breeding cycle on an important population	Given the absence of records and lack of preferred breeding and/ or foraging habitat within the study area combined with the small scale of the disturbance footprint, it is unlikely that the proposed project will disrupt the breeding cycle of an important population.
Modify, destroy, remove, or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	Given the absence of records, combined with the small scale of the disturbance footprint and the presence of large areas of higher quality habitat in the areas surrounding Mudgee, it is unlikely that the proposed project will result in a decline of the species.
Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	No harmful invasive species are expected to become established in areas of potential habitat for this species because of the proposed project. Mitigation measures have also been proposed to limit the potential spread and/or introduction of invasive species.
Introduce disease that may cause the species to decline, or	No disease that may cause this species to decline is likely to be introduced by the proposed project

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:	
Interfere substantially with the recovery of the species.	After considering the above statements, the proposed project is unlikely to interfere with the future recovery of these species.

Table 9: Assessment of Significance for the EPBC Act listed migratory species (Satin Flycatcher, White-throated Needletail (DCCEEW 2015))

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:	
Substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles, or altering hydrological cycles), destroy or isolate an area of important habitat for a migratory species	The proposed minor vegetation removal (including canopy clearance) will impact a small area of potential foraging habitat for these species. Due to the species being highly mobile, it is unlikely the clearing will modify, destroy, remove, isolate, or decrease the availability or quality of habitat to the extent that the species is likely to decline. Rehabilitation is recommended to offset the environmental impact of the proposed work. Areas of intact equivalent habitat will remain outside of the study area, undisturbed by the activity.
Result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species, or	The proposed minor vegetation removal (including canopy clearance) will not result in invasive species that are harmful to this species becoming established in the species' habitat.
Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a migratory species.	Due to the highly mobile nature of the species, it is unlikely that disturbance to the potential foraging habitat will disrupt the lifecycle of a population.
Interfere substantially with the recovery of the species.	After considering the above statements, the proposed project is unlikely to interfere with the future recovery of these species.

Appendix F – BioNet Atlas search results

Data from the BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory, and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1°C; ^^ rounded to 0.01°C. Copyright the State of NSW through the Department of Planning, Industry and Environment. Search criteria : Public Report of all Valid Records of Threatened (listed on BC Act 2016) ,Commonwealth listed ,CAMBA listed ,JAMBA listed or ROKAMBA listed Entities in selected area [North: -32.54 West: 149.42 East: 149.52 South: -32.64] returned a total of 19 records of 4 species.

Report generated on 7/08/2024 12:30 PM

Kingdom	Class	Family	Species Code	Scientific Name	Exotic	Common Name	NSW status	Comm. status	Records	Info
Animalia	Aves	Acanthizidae	0504	*Chthonicola sagittata*		Speckled Warbler	V,P		S	
Animalia	Aves	Pomatostomidae	8388	*Pomatostomus temporalis temporalis*		Grey-crowned Babbler (eastern subspecies)	V,P		2	
Plantae	Flora	Fabaceae (Faboideae)	3056	*Swainsona recta*		Small Purple-pea	E1	E	15	
Plantae	Flora	Fabaceae (Mimosoideae)	3708	*Acacia ausfeldii*		Ausfeld's Wattle	V		1	

Figure 7: BioNet Atlas search results

Appendix G – Protected Matters Search Tool results

Australian Government
Department of Climate Change, Energy, the Environment and Water

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2024

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	4
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	3
Listed Threatened Species:	38
Listed Migratory Species:	10

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	17
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	3
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)	[Resource Information]
Ramsar Site Name	Proximity
Banrock station wetland complex	800 - 900km upstream from Ramsar site
Riverland	800 - 900km upstream from Ramsar site
The coorong, and lakes alexandrina and albert wetland	900 - 1000km upstream from Ramsar site
The macquarie marshes	200 - 300km upstream from Ramsar site

Listed Threatened Ecological Communities		[Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	Community likely to occur within area
Natural Temperate Grassland of the South Eastern Highlands	Critically Endangered	Community may occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area

Listed Threatened Species		[Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		

Scientific Name	Threatened Category	Presence Text
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat likely to occur within area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat may occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat likely to occur within area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area
FISH		
Galaxias rostratus Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow [84745]	Critically Endangered	Species or species habitat may occur within area
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area
PLANT		
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area
Ozothamnus tesselatus [56203]	Vulnerable	Species or species habitat may occur within area
Prasophyllum petilum Tarengo Leek Orchid [55144]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Prasophyllum sp. Wybong (C.Phelps ORG 5269) a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area
Swainsona recta Small Purple-pea, Mountain Swainson-pea, Small Purple Pea [7580]	Endangered	Species or species habitat may occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
REPTILE		
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat may occur within area
Migratory Wetlands Species		

Scientific Name	Threatened Category	Presence Text
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area overfly marine area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat may occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area

Extra Information

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Burrendong Wind Farm	2021/8916	Controlled Action	Assessment Approach
Not controlled action			
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
Not controlled action (particular manner)			
Aerial baiting for wild dog control	2006/2713	Not Controlled Action (Particular Manner)	Post-Approval

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