LODGE
ENVIRONMENTAL

Date: 31 October 2023
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FLORA AND FAUNA ASSESSMENT

759 Oura Road
Eunanoreenya

PREPARED FOR
Adapt PM

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759 Oura Road, Eunanoreenya – Flora and Fauna Assessment

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TABLE OF CONTENTS

LIST OF TABLES, FIGURES & APPENDICES

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

Lodge Environmental were commissioned by Adapt PM to prepare this Flora and Fauna Assessment (FFA) to support a Development Application (DA) for a proposed development at Camp Kurrajong, 759 Oura Road, Eunanoreenya, NSW (Lot 3 – DP 751405) (herein referred to as the **Study Area**). The proposal includes the removal and replacement of existing buildings and upgrades to infrastructure, including accommodation, access road, carpark, effluent system, landscaping and other associated infrastructure.

This report describes the native vegetation, any threatened species, populations and communities and associated habitat features which were recorded within the Study Area in the context of an impact assessment. The information documented in this report has been obtained through desktop data searches and field surveying, with the inclusion of relevant legislative context, methods, and recommendations. This report will assist in informing a development application (DA) associated with the proposal.

1.1 PROJECT DESCRIPTION

The project address is 759 Oura Road, Eunanoreenya, NSW (Lot 3 – DP 751405), situated in the locality of Eunanoreenya, within the Local Government Area (LGA) of Wagga Wagga City Council, the consenting authority. The site is zoned as RE1 - Public Recreation and RU1 - Primary Production. The Study Area is comprised of some remnant native trees, with areas of planted native and exotic trees, amongst exotic grassland. An access road runs through the east of the Study Area, with an existing parade ground, parking bays and scattered buildings. The Study Area is occupied by a Scouts Camp and is frequently used for small to large gatherings of people and outdoor education activities. The proposed upgrade of the existing Scout Camp facilities is largely in response to an in increase in demand for community facilities such as Camp Kurrajong within the Wagga Wagga region. The existing facilities are aging and require an update to suitably meet the predicted demand.

1.2 OBJECTIVES

This report presents an assessment of possible impacts associated with the proposal at the Study Area and is based on a field investigation, a literature review of previous studies undertaken in the region, the consultation of relevant databases and a consideration of the objectives of Section 4 of the EP&A Act, the State BC Act, the Commonwealth EPBC Act and any relevant State Environmental Planning Policies (SEPP).

The environmental impacts of the development have been assessed via the Test of Significance pursuant to Section 7.3 BC Act 2016, the Matters of National Environmental Significance (MNES) under the EPBC Act, and the relevant clauses within the Wagga Wagga Local Environment Plan

(LEP 2010) and Wagga Wagga Development Control Plan (WCP 2010). The direct and indirect ongoing impacts of the development are addressed in this FFA.

Figure 1: Study Area and Proposal Elements

2.0 LEGISLATIVE CONTEXT

2.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The NSW EP&A Act is the principal planning legislation for the state, providing a framework for the overall environmental planning, and development assessment process. Various legislative instruments, such as the BC Act, NSW *Water Management Act 2000* (WM Act) and NSW *Rural Fires Act 2007* (RF Act) are integrated with the EP&A Act and have been reviewed below where relevant.

2.2 BIODIVERSITY CONSERVATION ACT 2016

The NSW BC Act aims to slow the decline of threatened species, populations and communities listed under the Act. The BC Act is integrated with the EP&A Act and requires consideration of whether a development (Part 4 of the EP&A Act) is likely to significantly affect threatened species, populations and ecological communities or their habitat.

The schedules of the BC Act lists species, populations and communities as endangered or vulnerable. All developments, land use changes or activities need to be assessed to determine if they will have an unacceptable impact on species, populations or communities listed on these schedules.

The potential impact of the development on any threatened species, populations or communities is assessed through application of an Assessment of Significance (AoS) under Section 7.3 of the BC Act at the development application stage. If the impacts on the area are found to be 'significant', a Biodiversity Development Assessment Report (BDAR) would be required as would concurrence from the Chief Executive of the NSW Environment, Energy and Sciences Group (EES) including application of the Biodiversity Assessment Methodology (BAM) and entering into the Biodiversity Offset Scheme (BOS). A BDAR would also be deemed necessary if the proposed subdivision were to involve clearance of vegetation mapped on the State Biodiversity Values Map (BVM), or involve native vegetation clearance above the thresholds tables within the BC Act (Table **1**).

Table 1: Offset scheme thresholds - area criteria

Minimum lot size associated with the property	Threshold for clearing, above which the BAM and offsets scheme applies
Less than 1 ha	0.25 ha or more
1 ha, and less than 40 ha	0.5 ha or more
40 ha, and less than 1,000 ha	**1 ha or more**
1,000 ha or greater	2 ha or more

2.3 ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

The Commonwealth EPBC Act aims to protect and encourage the recovery of threatened species, populations and communities listed under the Act. Under this Act an action will require approval from the Minister for the Environment if the action has, will have, or is likely to have, a significant impact on a MNES. MNES include listed threatened species and ecological communities, migratory species and wetlands of international importance protected under international agreements. Where applicable, the assessment criteria relevant to this Act must be drawn upon to determine whether there would be a significant impact on these species and hence whether referral to the Federal Environmental Minister is required.

2.4 LOCAL PLANNING INSTRUMENTS

2.4.1 Wagga Wagga Local Environment Plan 2010

The Wagga Wagga Local Environment Plan 2010 (LEP) is the principal planning instrument for the Wagga Wagga LGA. The LEP sets out the planning framework and establishes the requirements for the use and development of land in the LGA. The LEP provides broad direction regarding what types of development are permitted within specific land use zones.

2.4.2 Wagga Wagga Development Control Plan 2010

The Wagga Wagga Development Control Plan 2010 (DCP) aims to make detailed local provisions for all land within the LGA. Specifically, the DCP provides detailed construction, building and environmental controls for the types permitted land use described in the LEP. Environmental controls address issues such as biodiversity, bushfire prone land, trees, and vegetation.

3.0 METHODS

3.1 DATA AND LITERATURE REVIEW

Data records and relevant literature pertaining to the ecology of the Study Area and surrounding areas were reviewed. The material reviewed included:

- NSW BioNet, Atlas of NSW Wildlife database search (10km) (Accessed 3 October 2023)
- EES Threatened Species Profile Database (EES 2023) (Accessed 3 October 2023)
- EPBC Act Protected Matter Search Tool (10km) (Accessed 3 October 2023)
- Review of the State Biodiversity Mapping (Accessed 3 October 2023)
- NSW State Vegetation Mapping (3 October 2023)
- Trees Near Me NSW Vegetation (3 October 2023)
- Property Report (3 October 2023)
- Relevant Legislative Documents
- Aerial Photography

3.2 FIELD SURVEY

To address the FFA the following survey methods were undertaken on the 7th of October 2023 by ecologist Jack Talbert;

- Identification of plant species and vegetation communities present within the site.
- Search for signs of threatened species, observe and record significant flora and fauna – threatened and migratory species, other incidental fauna observations.
- Observe and record current disturbance and threats (e.g. weeds, trampling, litter).
- Identifying potential habitat for threatened fauna species/populations (e.g. hollow-bearing trees (HBTs), creeks, boulders etc).
- Recording presence of environmental weeds.
- Assess potential impacts of tree removal.
- Taking reference photographs of the entire site.

3.3 SURVEY WEATHER

The weather during the field survey is summarised in **Table 2** below.

Table 2: Weather recorded during field investigations.

Survey	Date	Min Temp (°C)	Max Temp (°C)	Rain (mm)	Wind
Site Survey	7.10.23	4.3	19.9	0	ESE 15 to SSE 6

Observations were drawn from the Bureau of Meteorology, Wagga Wagga AMO {station 072150}.

3.4 SURVEY LIMITATIONS

Survey was conducted during Spring and may be outside of the optimal survey period for some flora and fauna species. It is therefore possible that some species may not have been detected due to their seasonal geographic variation. Cryptic species may not have been obvious. However, habitat assessments were conducted to further predict the likelihood of species occurrence at the site. A conservative approach was applied in the assumption of the presence of species that could potentially occur within the site area. In this regard, the survey is considered adequate for the purposes of this report.

4.0 DESKTOP REVIEW

4.1 EXISTING VEGETATION AND BIODIVERSITY VALUES MAPPING

A review of the State Biodiversity Values Map was conducted on the 3rd of October 2023. The Study Area does not contain areas on the Biodiversity Values (BV) Map (**Figure 2**).

A review of NSW State Vegetation Type Map (DPE, 2022) identified four (4) Plant Community Types (PCTs) within the Study Area (**Figure 3**). These included the following:

- PCT 5 - River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion*and the eastern Riverina Bioregion
- PCT 76 - Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions
- PCT 74 - Yellow Box - River Red Gum tall grassy riverine woodland of NSW South Western Slopes Bioregion and Riverina Bioregion
- PCT 276 - Yellow Box grassy tall woodland on alluvium or parna loams and clays on flats in NSW South Western Slopes Bioregion

Two (2) additional PCTs were mapped nearby:

- PCT 249 - River Red Gum swampy woodland wetland on cowals (lakes) and associated flood channels in central NSW
- PCT 75 - Yellow Box - White Cypress Pine grassy woodland on deep sandy-loam alluvial soils of the eastern Riverina Bioregion and western NSW South Western Slopes Bioregion

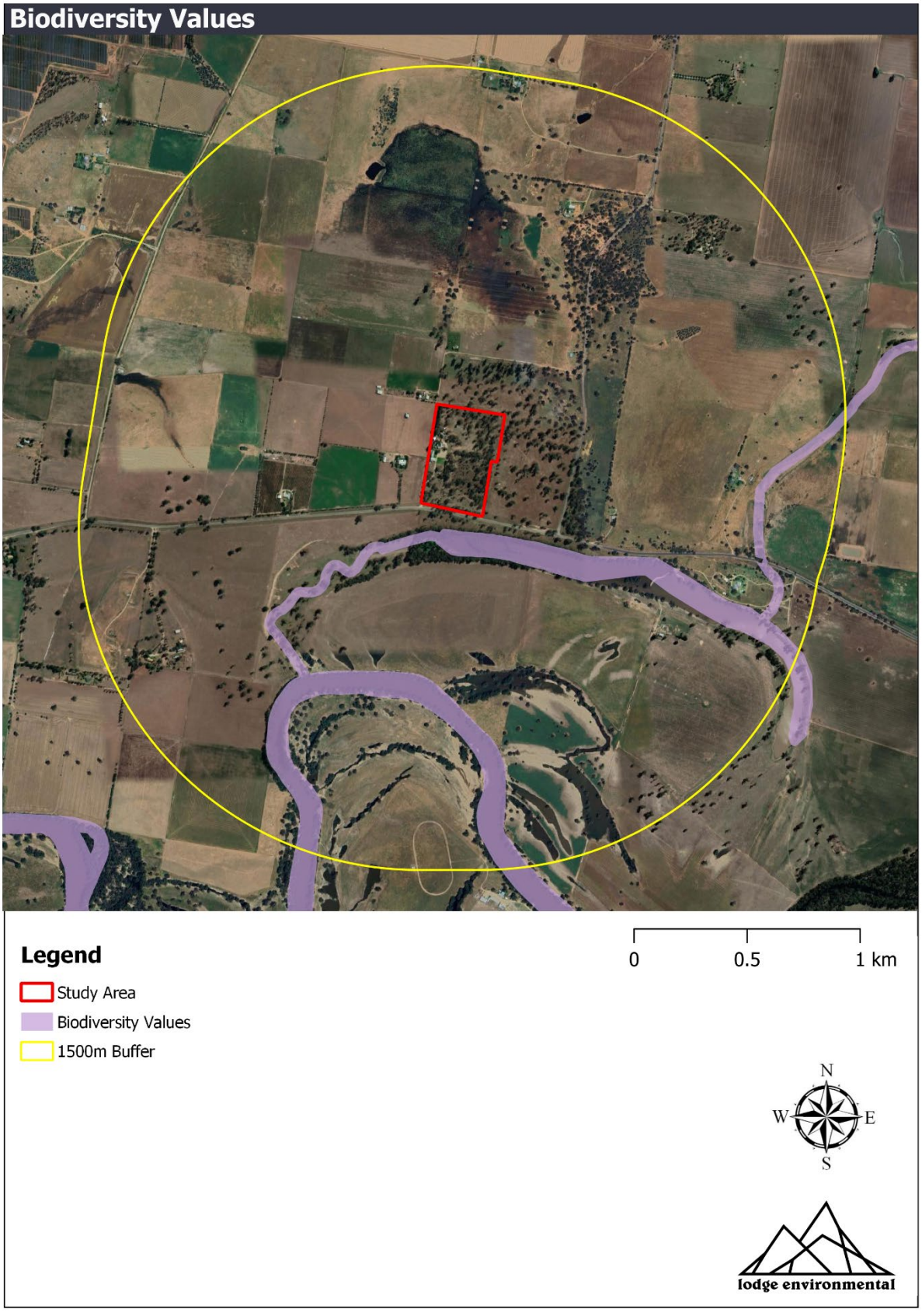

Figure 2: Biodiversity Values Mapping

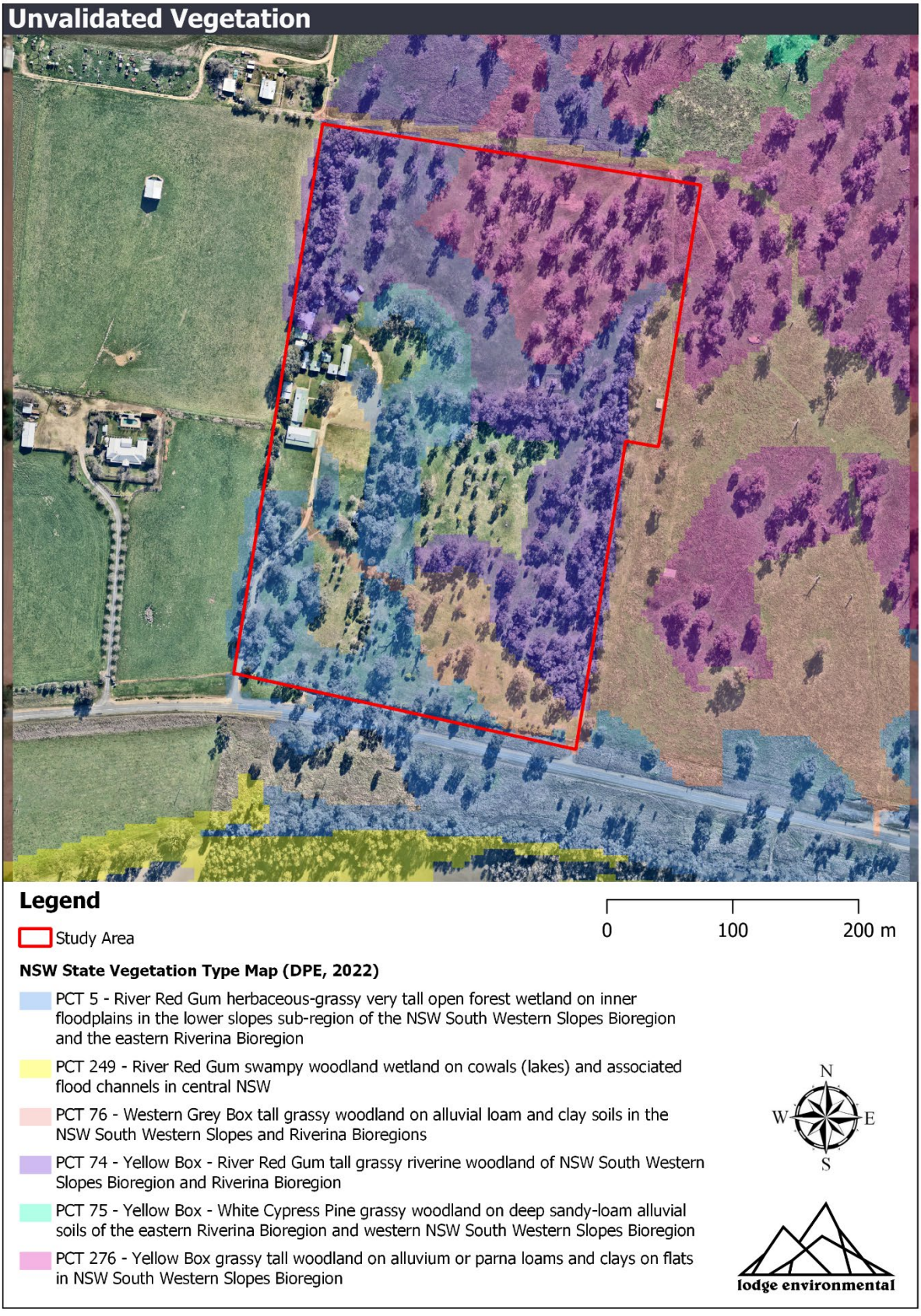

Figure 3: Unvalidated Vegetation (DPE, 2022)

4.2 THREATENED FLORA SPECIES

A review of the BC Act and EPBC Act databases identified 2 threatened plants listed under the BC Act and/or the EPBC Act that have been previously recorded, or are considered to have habitat within 10km of the site (**Figure 4**). This initial compilation of potentially occurring species informed the site survey, providing an indication of which species required consideration within the Study Area. An assessment of the likelihood of occurrence of threatened flora species within the site is available in **Appendix A** and was used to guide the field survey methodology.

4.3 THREATENED FAUNA SPECIES

A review of the BC Act and EPBC Act databases identified 39 threatened fauna listed under the BC Act and/or the EPBC Act that have been previously recorded, or are considered to have habitat, within 10km of the site (**Figure 4**). An assessment of the likelihood of occurrence of threatened fauna species within the site is available in **Appendix A** and was used to guide the field survey methodology.

The following fauna were identified as having a medium to high potential prior to the field survey.

- Superb Parrot (*Polytelis swainsonii*)
- Brown Treecreeper (eastern subspecies)(*Climacteris picumnus victoriae*)
- Black-chinned Honeyeater (*Melithreptus gularis gularis*)

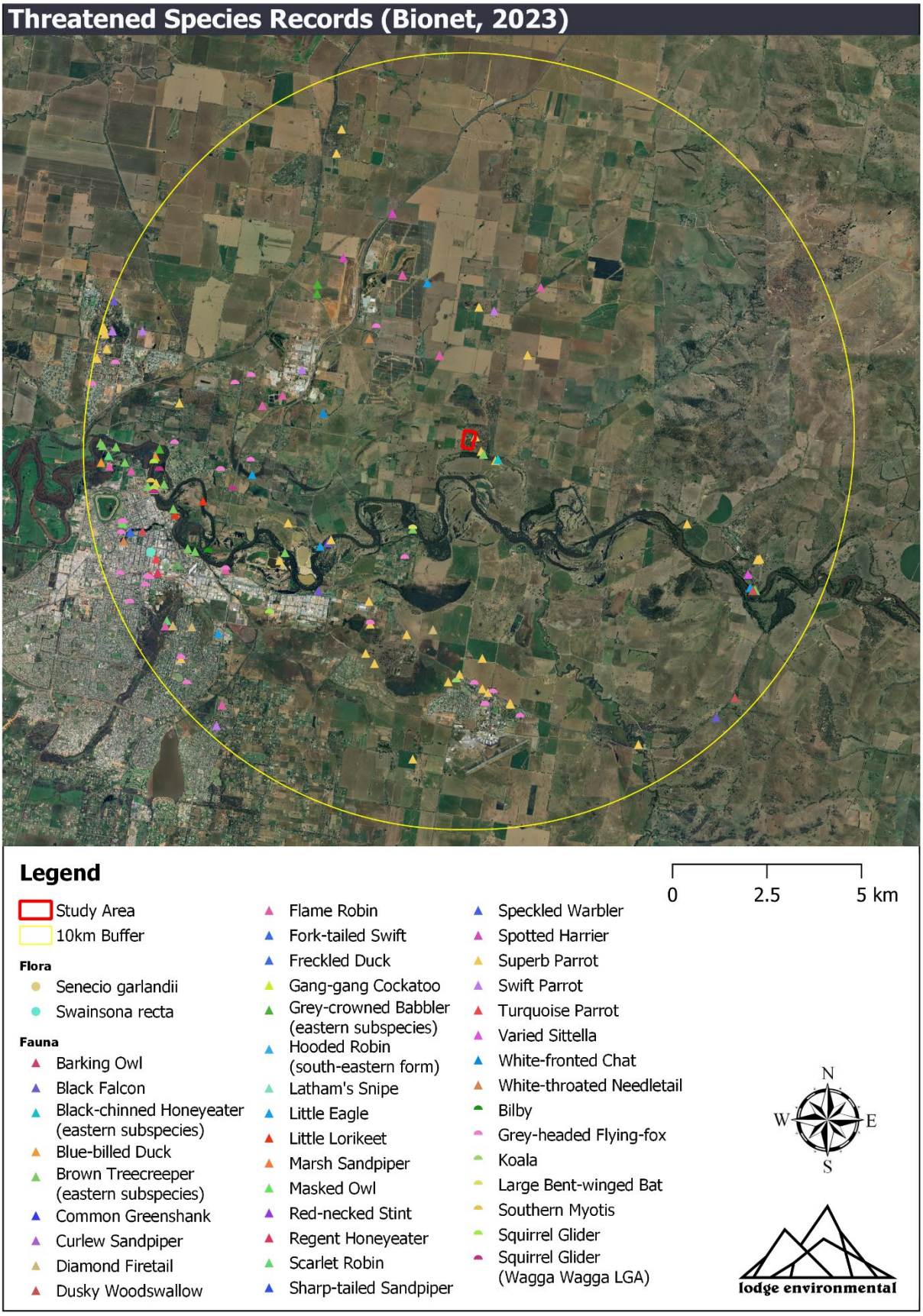

Figure 4: Threatened species records within 10km of the site (BioNet 2023)

4.4 RELEVANT LOCAL CLAUSES

4.4.1 Biodiversity Clause (7.3)

The Study Area is covered by the Wagga Wagga LEP Biodiversity clause (7.3) (**Figure 5**), as it contains land identified as "Biodiversity" on the Terrestrial Biodiversity Map. The objectives of this clause are to protect, maintain or improve the diversity of the native vegetation, including—

(a) protecting biological diversity of native flora and fauna, and

(b) protecting the ecological processes necessary for their continued existence, and

(c) encouraging the recovery of threatened species, communities or populations and their habitats.

Development consent must not be granted to development on land to which this clause applies unless the consent authority has considered the matters contained within **Table 2** below, and the consent authority is satisfied that the development is consistent with the objectives of this clause, also described in **Table 2**.

Table 3: Terrestrial Biodiversity clause considerations.

The consent authority must consider:	Proposal Context:
a) any potential adverse impact of the proposed development on any of the following— (i) a native vegetation community, (ii)the habitat of any threatened species, population or ecological community, (iii) a regionally significant species of plant, animal or habitat, (iv) a habitat corridor, (v) a wetland, (vi) the biodiversity values within a reserve, including a road reserve or a stock route, (b) any proposed measures to be undertaken to ameliorate any such potential adverse impact.	The proposed development will be sited to largely avoid impacts on native vegetation and threatened species or communities. The proposal will not have adverse effects on wildlife corridors, wetlands or overall biodiversity value. Where avoidance of native vegetation removal is not possible, revegetation works will be implemented to replace any lost vegetation or threatened species habitat, to ameliorate this impact. Key to the project design has been to utilise the existing facilities layout and avoid tree removal as much as possible. The majority of the proposal is sited outside of the Terrestrial Biodiversity mapped areas.

Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development is consistent with the objectives of this clause and—

(a) the development is designed, sited and managed to avoid any potential adverse environmental impact, or

(b) if a potential adverse impact cannot be avoided, the development—

(i) is designed and sited so as to have minimum adverse impact, and

(ii) incorporates effective measures so as to have minimal adverse impact, and

(iii) mitigates any residual adverse impact through the restoration of any existing disturbed or modified area on the site.

4.4.2 Riparian Lands Clause (7.5)

The Study Area is covered by the Riparian Lands and Waterways clause (7.5)(**Figure 5**), as it contains land identified as "Water" on the Water Resource Map. The objectives of this clause are to protect or improve—

(a) water quality within waterways, and

(b) stability of the bed and banks of waterways, and

(c) aquatic and riparian habitats, and

(d) ecological processes within waterways and riparian areas, and

(e) threatened aquatic species, communities, populations and their habitats, and

(f) scenic and cultural heritage values of waterways and riparian areas, and

(g) catchment protection to prevent increased sediment loads and stream bank erosion from entering lakes, rivers and waterways.

Development consent must not be granted to development on land to which this clause applies unless the consent authority has considered the matters contained within **Table 3** below.

Table 4: Riparian land and waterways clause considerations

The consent authority must consider:	Proposal Context:
(a) any potential adverse impact on any of the following— (i) water quality within the waterway, (ii) aquatic and riparian habitats and ecosystems, (iii) stability of the bed, shore and banks of the waterway, (iv) the free passage of fish and other aquatic organisms within or along the waterway, (v) habitat of any threatened species, population or ecological community, (b) whether or not it is likely that the development will increase water extraction from the waterway for domestic or stock use and the potential impact of any extraction on the waterway, (c) proposed measures to ameliorate any potential adverse impact.	The Study Area does not contain an existing waterway and as such the development will **not**: a) have any adverse effects on the listed entities b) extract water from a waterway The development is sited to ensure any runoff or natural water flow following rain is managed and directed in the appropriate manner. The development is sited to protect groundwater systems by not interacting with groundwater. Any potential adverse environmental impact will be managed to minimise or mitigate this impact.

Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development is consistent with the objectives of this clause and—

(a) the development is designed, sited and managed to avoid any potential adverse environmental impact, or

(b) if a potential adverse impact cannot be avoided, the development—
  (i) is designed and sited so as to have minimum adverse impact, and
  (ii) incorporates effective measures so as to have minimal adverse impact, and
  (iii) mitigates any adverse impact through the restoration of any existing disturbed area on the land.

Figure 5: Wagga Wagga LEP clauses

5.0 FIELD SURVEY RESULTS

5.1 EXISTING ENVIRONMENT

The Study Area is largely used as a Scouts Camp with numerous facilities spread out across the lot. Facilities include toilet blocks, gear sheds, septic systems, bunk cabins, halls and office buildings. Sheep grazing is also undertaken within the fenced yards. The entire Study Area is managed with either frequent lawn mowing or sheep grazing, resulting in a largely exotic ground layer of exotic species including *Arctotheca calendula* (Cape Daisy) and *Cenchrus clandestinus* (Kikuyu). Landscaping has favoured suitable native plantings, including *Melaleuca stypheloides* (Prickly Leaved Paperbark), *Callistemon* sp., *Brachychiton populneus* (Kurrajong), various suitable eucalyptus species including *Eucalyptus melliodora* (Yellow Box) and *Eucalyptus blakelyi* (Blakely' s Red Gum), which has acted to embellish the value of the Study Area for native fauna.

Large, likely remnant, eucalyptus species, predominantly *Eucalyptus melliodora* (Yellow Box), were recorded throughout the Study Area, increasing in coverage further from the built structures, however some large trees were present adjacent to buildings and parking lots. The large eucalyptus trees had numerous tree hollows, nest boxes, and nests.

The tree cover within the Study Area is expected to facilitate the movement and foraging of more mobile native fauna species (i.e. birds and arboreal mammals) between the Study Area and the wider locality. The large eucalyptus trees with hollows are providing considerable nesting opportunities for arboreal mammals, microbats and birds.

The Study Area is considered to provide the following fauna habitat:

- Intact canopy suitable for foraging by arboreal mammals and birds.
- Habitat bearing trees providing shelter and roosting opportunities for birds, microbats and arboreal mammals.
- Leaves, flowers and fruits from native vegetation that is included in the diet of many native animals.
- Flowering trees as source of pollen and nectar.
- Fissured branches and shedding bark providing shelter and nesting material.

The Study Area did not contain creeks, large boulders or other notable habitat features.

5.2 VEGETATION COMMUNITIES

Following the field assessment and consideration of the available data, two vegetation zones were validated within the Study Area being;

- PCT 75 - Yellow Box - White Cypress Pine grassy woodland on deep sandy-loam alluvial soils of the eastern Riverina Bioregion and western NSW South Western Slopes Bioregion
- No PCT (Exotic/cleared vegetation)

Figure 6 depicts the validated vegetation with the Study Area and **Table 5** and **Table 6** provide a detailed description of the vegetation zones recorded.

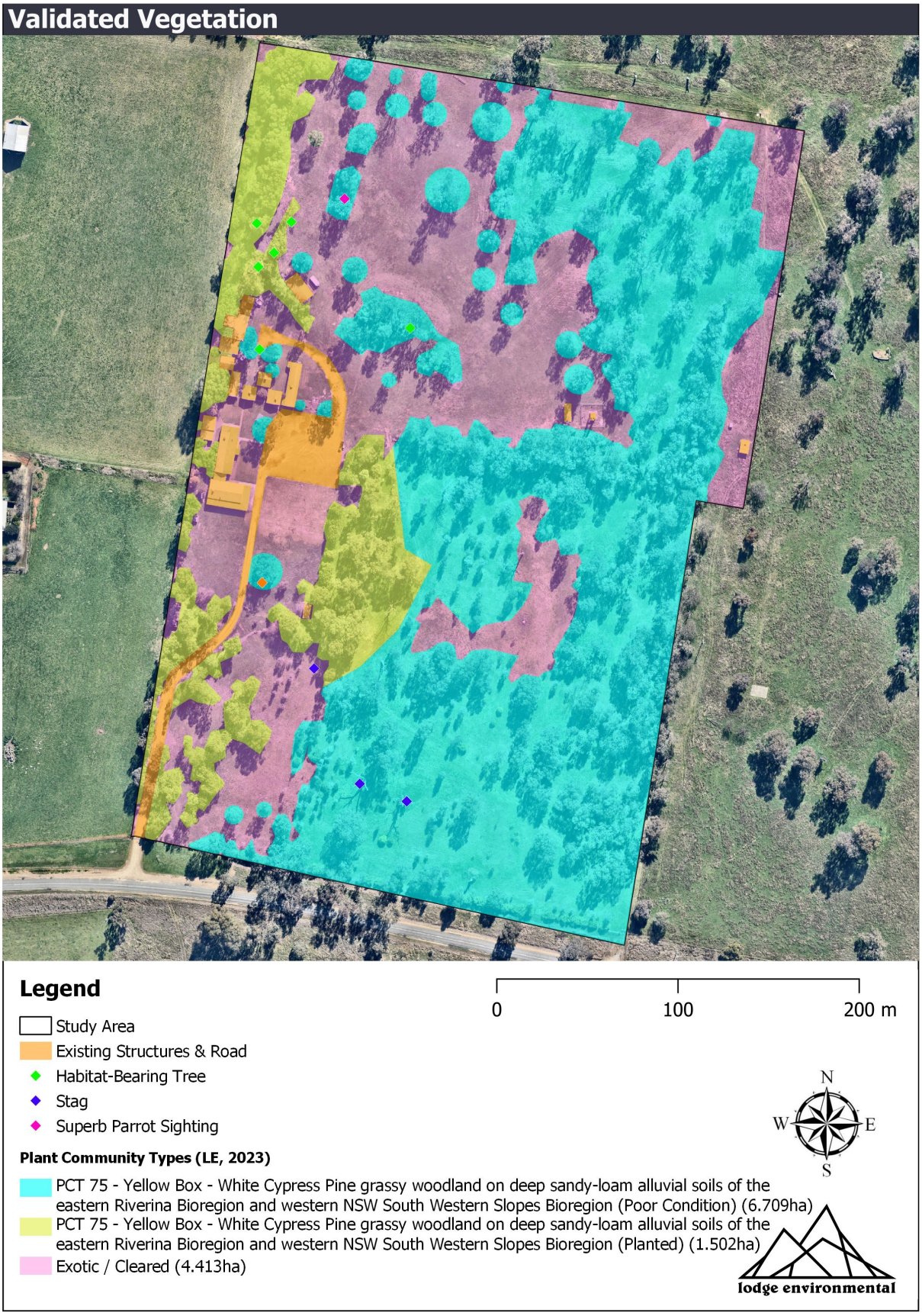

Figure 6: Validated Vegetation

Table 5: PCT 75 attributes and Study Area description.

PCT 75 - Yellow Box - White Cypress Pine grassy woodland on deep sandy-loam alluvial soils of the eastern Riverina Bioregion and western NSW South Western Slopes Bioregion			
PCT ID	75		
Vegetation formation	Semi-arid Woodland (Shrubby sub-formation)		
Vegetation class	Riverine Sandhill Woodlands		
Extent within Study Area	8.175 ha		
BioNet General Description	Mid-high to tall woodland dominated by Yellow Box (*Eucalyptus melliodora*) and White Cypress Pine (*Callitris glaucophylla*) sometimes with Kurrajong (*Brachychiton populneus*). The small tree Buloke (*Allocasuarina luehmannii*), may be present. Shrub species are sparse and may include Hooked Needlewood (*Hakea tephrosperma*), Pittosporum angustifolium, Deane's Wattle (*Acacia deanei* subsp. *deanei*), Emu Bush (*Eremophila longifolia*), Punty Bush (*Senna artemisoides* subsp. *filicifolia*, Thorny Saltbush (*Rhagodia spinescens*), Western Golden Wattle (*Acacia decora*) and *Maireana decalvans*. Ground cover density varies with the seasons but is usually sparse and includes the small shrub *Enchylaena tomentosa*; the grasses *Austrostipa scabra*, *Chloris truncata*, *Themeda australis* and *Poa sieberiana*; the forbs *Sida corrugata*, *Dichopogon fimbriatus*, *Calostemma purpureum*, *Solanum esuriale*, *Dianella revoluta* var. *revoluta*, *Wahlenbergia luteola* and *Microseris lanceolata* may occur. Weed species may be abundant and they include *Heliotropium europaeum, Marrubium vulgare* and *Cucumis myriocarpus* subsp. *leptodermis*. This community occurs on well drained, deep, medium and light textured, sandy-loam soils, often on sandy rises, or sandhills on floodplains or on rolling downs. Mainly found west of the line between Temora and Culcain and between Naranderra and Urana with western limits south west of Darlington Point and north to Boree Creek in the lower slopes sub-region of the NSW South Western Slopes and eastern Riverina Bioregions. This community has largely been eliminated by clearing and cropping and is endangered and very poorly represented in protected areas.		
Study Area Occurrence	The occurrence of this PCT within the Study Area was represented by a canopy dominated by *Eucalyptus melliodora* (Yellow Box) and *Brachychiton populneus* (Kurrajong). Lesser dominant canopy species included the following planted natives; *Eucalyptus blakelyi* (Blakely' s Red Gum), *Corymbia ficifolia* (Red Flowering Gum), *Eucalyptus albens* (White Box) and *Eucalyptus crebra* (Narrow-leaved Ironbark). A mid stratum was absent, with the exception of garden plantings including *Melaleuca stipoides* (Prickly Paperbark), *Acacia elongata* (Slender Wattle), *Acacia dealbata* (Silver Wattle) and *Bursaria spinosa* (Sweet Bursaria). The ground stratum was dominated by exotic pasture and weed species including *Trifolium* sp., *Lolium multiflorum* (Annual Rye Grass), *Cenchrus clandestinus* (Kikuyu Grass), *Malva neglecta* (Dwarf Mallow), *Euphorbia peplus* (Petty Surge), *Plantago lanceolata* (Lamb' s Tongue), *Phalaris aquatica* (Harding Grass), *Taraxacum officinale* (Common Dandelion), *Avena fatua* (Common Wild Oat) and *Arctotheca calendula* (Cape Daisy). Native grasses included *Microlaena stipoides* (Weeping Grass) and *Lomandra bracteata* (Small Mat-rush). *Echium plantagineum* (Patterson' s Curse) was recorded in small numbers.		
PCT Justification: Characteristic species recorded within the Study Area	Upper Stratum Species: *Eucalyptus melliodora* *Brachychiton populneus*	Mid Stratum Species: -	Ground Stratum Species: -

TEC Status	There are three TECs associated with PCT 75, being: Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions – Endangered under the BC Act. White Box - Yellow Box - Blakely' s Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions – Critically Endangered under the BC Act. White Box-Yellow Box-Blakely' s Red Gum Grassy Woodland and Derived Native Grassland – Critically Endangered under the EPBC Act.
Estimate of percent cleared	92%
Condition	Zone 1: Poor – largely represented by large, remnant Yellow Box scattered paddock trees over an exotic ground layer and absent mid stratum, Zone 2: Planted – planted trees less than an estimated 15 years old, representative of the Box Gum Woodland assemblage as well as other non-representative natives. All introduced as part of the current landscaping regime.
PCT 75 Photo	Poor PCT 75: 

	Planted PCT 75: 

Table 6: No PCT vegetation description

No PCT – Cleared / Exotic	
PCT ID	No PCT
Extent within Study Area	4.413 ha
Study Area Occurrence	The area of Cleared / Exotic was represented by managed lawn, parking bays, and pastures with exotic species *Trifolium* sp., *Lolium multiflorum* (Annual Rye Grass), *Cenchrus clandestinus* (Kikuyu Grass), *Malva neglecta* (Dwarf Mallow), *Euphorbia peplus* (Petty Surge), *Plantago lanceolata* (Lamb' s Tongue), *Phalaris aquatica* (Harding Grass), *Taraxacum officinale* (Common Dandelion), *Avena fatua* (Common Wild Oat) and *Arctotheca calendula* (Cape Daisy) dominant throughout. The existence of the pasture species suggests a history of seeding for livestock grazing, with sheep noted.

No PCT photo

5.3 THREATENED ECOLOGICAL COMMUNITIES

The PCT which was determined the best fit for the site vegetation, PCT 75, is associated with three (3) Threatened Ecological Communities (TECs). The relevant diagnostic attributes are outlined in **Table 7**. Accordingly, the native vegetation mapped as PCT 75 within the Study Area is considered to align with **White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland, Critically Endangered under the BC Act**.

Table 7: Relevant Final Determination Diagnostic Attributes

Threatened Ecological Community	Relevant Final Determination Diagnostic Attributes	Relevance to Site Vegetation
Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions – Endangered under the BC Act.	The tree layer is dominated by *Callitris glaucophylla* (White Cypress Pine), as per Final Determination (TSSC, 2011).	This species was not recorded within the Study Area.
White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions – Critically Endangered under the BC Act.	Characteristic tree species include one or more of the following species in varying proportions and combinations - *Eucalyptus albens* (White Box), *Eucalyptus melliodora* (Yellow Box) or *Eucalyptus blakelyi* (Blakely's Red Gum), as per final determination (TSSC, 2012).	***Eucalyptus melliodora* (Yellow Box) and *Eucalyptus blakelyi* (Blakely's Red Gum) were recorded within the Study Area.**
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland – Critically Endangered under the EPBC Act.	Has, or previously had, an overstorey dominated or co-dominated, by E. albens and/or E. melliodora (yellow box) and/or E. blakelyi. Has a predominantly native ground layer. Tussock grasses are conspicuous in the ground layer, a range of broad-leaved forbs and petaloid monocots. Shrub cover is <30% (TSSC, 2023)	The vegetation within the Study Area did not contain a predominantly native ground layer.

5.4 FLORA

A total of 42 species were recorded during the site inspection (21 natives and 21 exotic). A species list is provided in **Appendix B**.

There were two weed species within the Study Area listed as priority weeds in the Riverina Regional Strategic Weed Management Plan 2023-2027, being:

- *Echium plantagineum* (Patterson's curse).

- *Onopordum* spp. (Scotch Thistle)

5.4.1 Threatened Flora Species

No threatened flora species were identified or located within the Study Area.

5.5 FAUNA

A total of 22 fauna species were identified within the Study Area. A species list is included in **Appendix C**. Targeted surveys were not conducted as part of this assessment.

5.5.1 Threatened Fauna Species

One threatened fauna species, the Superb Parrot (*Polytelis swainsonii*) was identified within the Study Area (**Figure 7**). A pair of Superb Parrot were present throughout the day feeding off the flowering Yellow Box trees. It is possible that they also utilise the site for nesting within the large tree hollows prolific across the Study Area.

Figure 7: Superb Parrot foraging within Study Area

In general, the habitat potential of the vegetation within the proposal impact area is less desirable for threatened species such as the Superb Parrot to utilise as the trees present are mostly planted, and are younger native species currently providing foraging habitat only with less hollows compared to the broader Study Area outside of the impact area.

The following observations were noted:

- Study Area lacks structural diversity (no native ground or mid stratum present);
- Species diversity was low, with landscaping favouring limited species diversity;
- There are numerous large Habitat Bearing Trees within the Study Area to be retained;
- Native landscaping is providing excellent foraging habitat for birds and arboreal mammals;
- There are no natural boulders, caves, overhangs or crevices;

- There are no established creek areas to provide habitat; and
- There is minimal juvenile recruitment of trees or shrubs.

In general, the habitat potential of the Study Area for specialist native species, such as listed threatened species is poor, with the exception of locally occurring listed bird species. The remnant native trees may be utilised as foraging habitat by the following threatened species:

- Superb Parrot (*Polytelis swainsonii*)
- Brown Treecreeper (eastern subspecies)(*Climacteris picumnus victoriae*)
- Black-chinned Honeyeater (*Melithreptus gularis gularis*)

5.5.2 Biodiversity and Conservation SEPP (2021)

Chapter 4 (Koala Habitat Protection 2021) of the SEPP aims to encourage the conservation and management of areas of natural vegetation that provide habitat for Koalas to support a permanent free-living population over their present range and reverse the current trend of Koala population decline.

There is only one Koala record within 10km of the Study Area, being over 6km to the south. This record is from 1966. The lack of Koala occupation within the surrounds of the Study Area warrants no further consideration of Chapter 4 (Koala Habitat Protection 2021).

6.0 IMPACT ASSESSMENT

6.1 SUMMARY OF IMPACTS

Direct Impacts

Figure 7 depicts the Study Area and the various associated impacts assessed within this report. The impacts are summarised in **Table 8** and below:

- A total of 0.713 ha of native vegetation associated with PCT 75 is assessed as impacted.
- 14 trees are proposed for direct removal as they fall within the construction footprint. These trees are located along the western boundary directly adjacent to the existing entrance drive and buildings.
- An extension of the existing effluent system has been sited within planted eucalypts (**Figure 9**). It is unlikely that tree removal will be required, however, the area of the effluent system has been included within the impact assessment.
- Removal of planted acacias is required for the new parking lot in the south of the Study Area.
- 2 large eucalypts are located within the APZ (**Figure 10**). These trees are considered to potentially pose a risk to human safety, with large limbs that could drop onto cars or site users. An Arborist should be engaged to provide a tree safety assessment. Where possible, tree removal should be a last resort, with dangerous limbs removed as a first course of action. Regardless, as these trees fall within the APZ, they have been considered as removed and the impact assessment and recommendations within this report are provided in this context.
- A further ~0.32 ha of planted native vegetation is proposed for APZ management and may require occasional tree thinning. These areas contain predominantly planted Kurrajongs in rows (**Figure 12**).
- Habitat features were recorded within two HBTs within the impact area, detailed below;
    - 7 medium sized hollows
    - 2 small sized hollows
    - 1 bird nest
- All vegetation to be impacted is in a poor condition and largely consists of planted native species.

The layout has been purposefully designed to maximise the usage of the existing camp facilities footprint, with existing buildings to be removed and replaced. Similarly, the effluent system has been designed to tie in with the existing system, with a minor expansion in the north, located between the trunks of a planted row of native species (**Figure 9**). The majority of the impact footprint is comprised of the Asset Protection Zone (APZ) – a managed area surrounding habitable dwellings that is to be maintained to a reduced fuel level. The APZ largely already corresponds to the fuel load requirements, however, minor thinning of the canopy trees may be required from

time to time. Accordingly, a conservative approach has been undertaken within this report and the impact assessment has assumed entire removal of the vegetation within the APZ. The majority of the vegetation within the APZ is planted.

All native eucalypts are to be retained within the broader Study Area, and appropriate tree protection measures implemented during construction.

No threatened flora is to be impacted by the proposal.

Table 8: Native Vegetation Impact Outcome

Vegetation Zone	Direct Impact	APZ Impact
PCT 75 – Yellow Box – White Cypress Pine grassy woodland on deep sandy-loam alluvial soils // Box Gum Woodland (BC Act) (Critically Endangered) **(Poor Condition)**	0.203 ha	0.02 ha
PCT 75 – Yellow Box – White Cypress Pine grassy woodland on deep sandy-loam alluvial soils // Box Gum Woodland (BC Act) (Critically Endangered) **(Planted Condition)**	0.187 ha	0.299 ha
Total	**0.71 ha**	

Within the Study Area, a further 7.462 ha of more consolidated PCT 75 is to be retained, including an estimated 100 habitat bearing trees, which will continue to provide foraging and breeding habitat for native fauna, including the Superb Parrot.

Indirect impacts

The proposal is not considered to introduce any considerable additional indirect impacts on important vegetation or fauna habitat as the Scout Camp is already occupying the Study Area. The proposal is not considered to introduce any new land use patterns. The construction footprint is not within a location that is considered to fragment any biodiversity linkages.

The proposal is not considered to have any indirect impacts outside of the impact area.

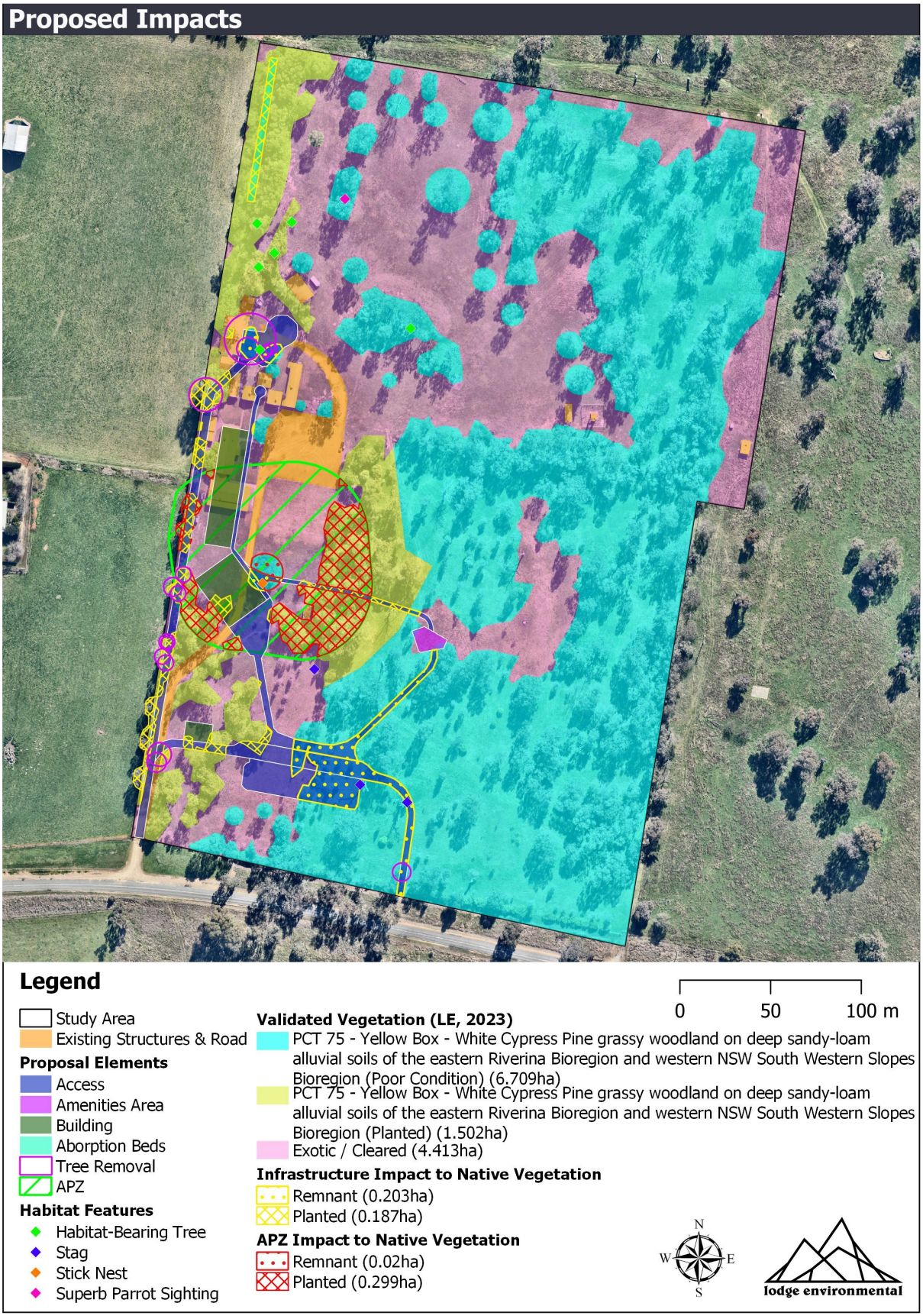

Figure 8: Proposed development impacts to native vegetation.

Figure 9: Area of proposed effluent system trench extension - to be spaced between tree trunks

Figure 10: HBTs within APZ

Figure 11: Planted Acacia to be cleared for new parking lot

Figure 12: Row of Kurrajong within APZ

6.2 BIODIVERSITY OFFSET SCHEME ENTRANCE

The proposal is not considered to trigger entrance into the Biodiversity Offset Scheme. A summary of the three entrance thresholds are detailed below.

6.2.1 Native vegetation clearance threshold

The proposed development will impact a maximum of 0.71 ha of native vegetation. The impact to native vegetation is below the Biodiversity Offset Scheme entrance threshold of 1 ha for a minimum lot size of less than 200 ha.

6.2.2 Biodiversity Values Mapping

The proposed impact areas do not intersect any land overlain by the Biodiversity Values Mapping.

6.2.3 Assessments of Significance

Assessments of Significance (AoS) were applied where necessary. The AoS are discussed below in Section 6.4.

6.3 SIGNIFICANCE ASSESSMENTS

6.3.1 Assessment of Significance under the EP&A Act and BC Act

Assessments using the criteria provided under the EP&A Act (i.e. Assessment of Significance (AoS)) must be taken into account by consent or determining authorities when considering a development proposal or development application. This enables a decision to be made as to whether there is likely to be a significant impact on the species and hence if entry into the Biodiversity Offset Scheme (BOS) is required.

The results of the field survey have been used to inform whether significance assessments are required and for any listed species and communities. Significance assessments have been undertaken (**Appendix D**) for the following entities:

- Superb Parrot (*Polytelis swainsonii*)
- Brown Treecreeper (eastern subspecies)(*Climacteris picumnus victoriae*)
- Black-chinned Honeyeater (*Melithreptus gularis gularis*)
- White Box - Yellow Box - Blakely' s Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions (BGW)

After undertaking the AoS for the Superb Parrot, Brown Treecreeper, Black-chinned Honeyeater and BGW, the proposal, under its current layout, is not considered to have any significant impact on these species.

6.3.2 EPBC Act Significant Impact Guidelines

The EPBC Act establishes a process for assessing the environmental impact of activities and developments where MNES may be affected. The process includes the application of Significant Impact Criteria (SIC) for listed threatened species and ecological communities that represent a MNES that will be impacted as a result of the proposed action. Significant impact guidelines that outline a number of criteria have been developed by the Commonwealth, to provide assistance in conducting the assessment and help decide whether or not a referral to the Commonwealth is required.

- Superb Parrot (*Polytelis swainsonii*)

On application of the SIC, it is determined that the proposed development is unlikely to result in a significant impact to MNES (threatened and migratory species), including Super Parrot.

7.0 RECOMMENDATIONS

This report assesses the removal of a small area of largely planted vegetation to be impacted by the proposal described within this report only. The following recommendations are provided to minimise potential impacts to threatened and non-threatened vegetation communities, flora and fauna that could result from the proposed action:

- Reduce vegetation clearance as much as possible. The removal and or disturbance of indigenous vegetation on the property should only be that required to construct and maintain the proposed Scout Camp facilities upgrade. Where possible, trees should be trimmed instead of removed entirely.
- Landscaping should aim to use species endemic to the area – specifically species within the Box Gum Woodland assemblage. This will ensure that a considerable amount of foraging habitat is maintained for local fauna and native pollinators.
- Only the vegetation within the 0.71 ha to be impacted, as outlined in this report is to be removed. Any further tree removal would require a secondary assessment.
- Construction activities should be limited to normal construction hours to limit disturbance to nesting birds.
- Trees shall be felled into already disturbed areas to avoid damaging adjacent vegetation.
- Woody debris from felled trees should be relocated into the surrounding treed landscape to provide ground habitat.
- 2 Habitat Bearing Trees, consisting of 7 medium hollows, 2 small, and one nest, are proposed for removal. These trees shall be felled via a slow drop technique implemented by qualified arborists. Hollow limbs and the nest must be roped to the ground where they can be inspected by an ecologist and any residing fauna safely relocated. Habitat Bearing Tree felling is to be supervised by a suitably trained ecologist.
- 10 Nest Boxes or Artificial Hollows are to be installed to offset the hollows and nest loss at a ratio of 1:1.
- At least 14 Box Gum Woodland *Euclayptus* species or *Brachychiton populneus* are to be planted e within the proposed landscaping areas to offset the proposed tree loss.
- Care must be taken when moving equipment near vegetation to be retained. If works appear to encroach on retained trees, advice from a qualified Arborist should be gained to infer appropriate tree protection measures. Generally, the Tree Protection Zone (TPZ) is a hypothetical estimation of the area required to protect a tree from adverse construction and development activities. It is calculated for each tree by multiplying diameter at breast height (DBH) by 12 and is a radius measured in metres from the centre of trunk. It is understood that encroachments into the TPZ can occur for 10% of the zone in accordance with AS4970-2009 Protection of trees on development sites.
- Two weeds recorded are listed under the Riverina Regional Strategic Weed Management Plan 2023-2027, being *Echium plantagineum* (Patterson' s curse), and *Onopordum* spp.

(Scotch Thistle). The land manager has a general biosecurity duty to restrict the spread of these species. Accordingly, these species should be eradicated on detection. Both species were in low numbers and can be removed by hand-tools on detection.

- Adequate erosion and sediment control measures should be in place at all times during construction in accordance with best practice guidelines (Landcom 2004), including:
    - sediment fencing
    - vehicle and machinery movement confined to designated work areas.
    - consideration given to weather, with works stopped if the onset of heavy rain is deemed likely to cause soil erosion or soil structure damage.

8.0 CONCLUSION

Through the completion of the surveys conducted as part of this report, no threatened flora was recorded within the Study Area. One threatened fauna species was identified within the Study Area during the site investigation being a pair of Superb Parrot (*Polytelis swainsonii*). The species was recorded foraging within mature Yellow Box throughout the day. It is likely the substantial stand of Yellow Box trees retained throughout the Study Area are utilised by the species for breeding, with the proposal not considered to sterilise the Study Areas potential to continue to be used by the species for foraging and breeding.

Impacts totalling 0.713 ha are proposed to occur to an area of PCT 75 Yellow Box - White Cypress Pine grassy woodland. This PCT meets the definition of the Critically Endangered Ecological Community (CEEC) *White Box Yellow Box Blakely' s Red Gum Woodland (BC Act)*. The CEEC did not meet the Commonwealth EPBC Act listing criteria. The majority of the impacts are to occur to planted trees representative of PCT 75 (0.49 ha), with minor impacts to the more mature, larger scattered paddock trees with hollows (0.22 ha).

Assessments of Significance (AoS) were undertaken for the Box Gum Woodland CEEC and associated potential foraging or breeding use of the impact area by known and potentially occurring species (Super Parrot, Brown Treecreeper and Black-chinned Honeyeater). After undertaking each AoS, the proposal, under its current layout, is not considered to have any significant impact on threatened species, ecological communities or populations such that a viable local population will be placed at risk of extinction.

This Flora and Fauna Assessment has adequately considered threatened species and communities in the context of the proposed development in the Study Area by:

- Conducting a field survey;
- adopting the precautionary principle in the assessment of threatened entities; and
- designating appropriate recommendations to minimise potential impacts to threatened species that may transiently occur on the site as well as any other fauna.

The assessments contained within this report have determined that the proposed development is unlikely to have a significant effect on any listed communities or species or their habitat in accordance with the EP&A Act, BC Act and EPBC Act provided the recommendations contained in this report are adhered to. There will not be an impact on any active and mapped areas of Biodiversity Value, nor will there be an impact on native vegetation above the relevant impact threshold.

Therefore, the preparation and submission of a BDAR or referral to the Commonwealth is not required.

9.0 REFERENCES

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10.0 LIMITATIONS

This report and the associated services performed by Lodge Environmental are in accordance with the scope of services set out in the contract between Lodge Environmental and the Client. The scope of services was defined by the requests of the Client, by the time and budgetary constraints imposed by the Client, and by the availability of access to Site.

Lodge Environmental derived the data in this report primarily from visual inspections, and, limited survey and analysis made on the dates indicated. In preparing this report, Lodge Environmental has relied upon, and presumed accurate, certain information provided by government authorities, the Client and others identified herein. The report has been prepared on the basis that while Lodge Environmental believes all the information in it is deemed reliable and accurate at the time of preparing the report, it does not warrant its accuracy or completeness and to the full extent allowed by law excludes liability in contract, tort or otherwise, for any loss or damage sustained by the Client arising from or in connection with the supply or use of the whole or any part of the information in the report through any cause whatsoever.

The data, findings, observations, conclusions and recommendations in the report are based solely upon the state of the Site at the time of the investigation. The passage of time, manifestation of latent conditions or impacts of future events (e.g. changes in legislation, scientific knowledge, land uses, etc) may render the report inaccurate. In those circumstances, Lodge Environmental shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of the report.

This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the provisions of the agreement between Lodge Environmental and the Client. Lodge Environmental accepts no liability or responsibility whatsoever and expressly disclaims any responsibility for or in respect of any use of or reliance upon this report by any third party or parties.

It is the responsibility of the Client to accept if the Client so chooses any recommendations contained within and implement them in an appropriate, suitable and timely manner.

Appendices

Appendix A: Threatened flora and fauna likelihood table

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
Ecological Communities						
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland		**CE**	**CE**	**The ecological community is broadly distributed in an arc along the western slopes and tablelands of the Great Dividing Range from Southern Queensland through NSW and ACT, to Victoria. The ecological community is known to occur on hilly to undulating landscapes in areas with soils of moderate fertility derived from a range of lithologies, including alkaline and acid volcanics, granites, sediments, serpentinites and metamorphics. It generally occurs in areas where average rainfall is between 400 and 900 mm per annum on moderate to highly fertile soils at altitudes of 170 m to 1200 m. Typically an open grassy woodland with medium height trees.**	**Moderate**	**Yes** **(BC Act only, EPBC Act condition class not recorded within impact area)**
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia		-	E	Occupies a position in the landscape that is transitional between the temperate woodlands and forests of the lower slopes and tablelands of south-eastern Australia, and the semi-arid communities further inland. The ecological community typically occurs in landscapes of low-relief on productive soils derived from alluvial or colluvial materials but may occur on a range of substrates. The ecological community tends to occupy drier sites of the belt of grassy woodlands in south-eastern Australia, within a rainfall zone of 375 -700 mm/year.	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
Weeping Myall Woodlands		-	E	The Weeping Myall Woodlands occur in a range from open woodlands to woodlands, generally 4-12 m high, in which Weeping Myall (Acacia pendula) trees are the sole or dominant overstorey species. The Weeping Myall Woodlands generally occur on flat areas, shallow depressions or gilgais on raised (relict) alluvial plains. These areas are not associated with active drainage channels and are rarely if ever flooded (White et al. 2002; Keith 2004). The ecological community occurs on black, brown, red-brown or grey clay or clay loam soils. generally occurs as part of a mosaic of sparse to open woodlands and treeless shrublands and grasslands.	Low	No
Flora						
Woolly Ragwort	*Senecio garlandii*	V	-	This daisy is found between Temora, Bethungra and Albury and possibly Burrinjuck near Yass. The largest populations are at The Rock and Mt Tabletop (and surrounds). There is a single population in Victoria at Chiltern. Woolly Ragwort occurs on sheltered slopes of rocky outcrops.	Low	No
Small Purple-pea	*Swainsona recta*	E1	E	Grows in association with understorey dominants that include Kangaroo Grass Themeda australis, poa tussocks Poa spp. and spear-grasses Austrostipa spp.	Medium	No. not recorded
Winged Pepper-cress	*Lepidium monoplocoides*	E	E	Occurs on seasonally moist to waterlogged sites, on heavy fertile soils, with a mean annual rainfall of around 300-500 mm. Predominant vegetation is usually an open woodland dominated by Allocasuarina luehmannii (Bulloak) and/or	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
				eucalypts, particularly Eucalyptus largiflorens (Black Box) or Eucalyptus populnea (Poplar Box). The field layer of the surrounding woodland is dominated by tussock grasses.		
Tarengo Leek Orchid	*Prasophyllum petilum*	E	E	Grows in open sites within Natural Temperate Grassland at the Boorowa and Delegate sites. Also grows in grassy woodland in association with River Tussock Poa labillardieri, Black Gum Eucalyptus aggregata and tea-trees Leptospermum spp. near Queanbeyan and within the grassy groundlayer dominated by Kanagroo Grass under Box-Gum Woodland at Ilford (and Hall, ACT).	Low	No
Sand-hill Spider-orchid	*Caladenia arenaria*	E	E	Currently only known to occur in the Riverina between Urana and Narranderra. Occurs in woodland with sandy soil, especially that dominated by White Cypress Pine (Callitris glaucophylla).	Low	No
Slender Darling-pea	*Swainsona murrayana*	V	V	Has been collected from clay-based soils, ranging from grey, red and brown cracking clays to red-brown earths and loams. Grows in a variety of vegetation types including bladder saltbush, black box and grassland communities on level plains, floodplains and depressions and is often found with Maireana species. Plants have been found in remnant native grasslands or grassy woodlands that have been intermittently grazed or cultivated.	Low	No
Aves						
Regent Honeyeater	*Anthochaera phrygia*	E4A,P,2	CE	Mainly inhabits temperate woodlands and open forests of the inland slopes of south-east Australia. These woodlands have significantly large numbers of mature trees, high canopy cover and abundance of mistletoes.	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
Southern Whiteface	*Aphelocephala leucopsis*		V	Live in a wide range of open woodlands and shrublands where there is an understorey of grasses or shrubs, or both. These areas are usually in habitats dominated by acacias or eucalypts on ranges, foothills and lowlands, and plains. Southern whiteface forage almost exclusively on the ground, favouring habitat with low tree densities and an herbaceous understorey litter cover.	Low	No
Fork-tailed Swift	*Apus pacificus*	P	C,J,K	This species is listed as a migratory marine bird.	Low	No
Dusky Woodswallow	*Artamus cyanopterus cyanopterus*	V,P		The species occurs throughout most of New South Wales, but is sparsely scattered in, or largely absent from, much of the upper western region. Most breeding activity occurs on the western slopes of the Great Dividing Range. Primarily inhabit dry, open eucalypt forests and woodlands, including mallee associations, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and ground-cover of grasses or sedges and fallen woody debris	Low	No
Australasian Bittern	*Botaurus poiciloptilus*	E	E	Favours permanent freshwater wetlands with tall, dense vegetation, particularly bullrushes (Typha spp.) and spikerushes (Eleocharis spp.	Low	No
Sharp-tailed Sandpiper	*Calidris acuminata*	P	C,J,K	The Sharp-tailed Sandpiper prefers the grassy edges of shallow inland freshwater wetlands.	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
Curlew Sandpiper	*Calidris ferruginea*	E1,P	CE,C,J,K	It generally occupies littoral and estuarine habitats, and in New South Wales is mainly found in intertidal mudflats of sheltered coasts.	Low	No
Red-necked Stint	*Calidris ruficollis*	P	C,J,K	This species is listed as a migratory marine bird.	Low	No
Gang-gang Cockatoo	*Callocephalon fimbriatum*	V,P,3	E	In New South Wales, the Gang-gang Cockatoo is distributed from the south-east coast to the Hunter region, and inland to the Central Tablelands and south-west slopes. The Gang-gang Cockatoo prefers tall montane forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests during summer, these being at higher altitudes. In winter, this species occurs at lower altitudes in drier, more open eucalypt forests and woodlands, or in dry forest in coastal areas.	Low	No
South-eastern Glossy Black-Cockatoo	*Calyptorhynchus lathami lathami*	V	V	Inhabits open forest and woodlands of the coast and the Great Dividing Range where stands of sheoak occur. Black Sheoak (Allocasuarina littoralis) and Forest Sheoak (A. torulosa) are important foods.	Low	No
Speckled Warbler	*Chthonicola sagittata*	V,P		The Speckled Warbler lives in a wide range of Eucalyptus dominated communities that have a grassy understorey, 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. Large, relatively undisturbed remnants are required for the species to persist in an area.	Low	No
Spotted Harrier	*Circus assimilis*	V,P		The Spotted Harrier occurs throughout the Australian mainland, with individuals dispersing widely in NSW and comprise of a single	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
				population. This species occurs in grassy open woodland including Acacia and mallee remnants, inland riparian woodland, grassland and shrub steppe. It is found most commonly in native grassland, but also occurs in agricultural land, foraging over open habitats including edges of inland wetlands.		
Brown Treecreeper (eastern subspecies)	*Climacteris picumnus victoriae*	**V,P**		**Found in eucalypt woodlands (including Box-Gum Woodland) and dry open forest of the inland slopes and plains inland of the Great Dividing Range; mainly inhabits woodlands dominated by stringybarks or other rough-barked eucalypts, usually with an open grassy understorey, sometimes with one or more shrub species; also found in mallee and River Red Gum (Eucalyptus camaldulensis) Forest bordering wetlands with an open understorey of acacias, saltbush, lignum, cumbungi and grasses; usually not found in woodlands with a dense shrub layer; fallen timber is an important habitat component for foraging; also recorded, though less commonly, in similar woodland habitats on the coastal ranges and plains.**	**Moderate**	**Yes**
Varied Sittella	*Daphoenositta chrysoptera*	V,P		Inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, 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.	Low	No
White-fronted Chat population in the Sydney	*Epthianura albifrons*	E2,V,P		The White-fronted Chat is found across the southern half of Australia, from southernmost Queensland to southern Tasmania, and across to	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
Metropolitan Catchment Management Area				Western Australia as far north as Carnarvon. Nests in the Sydney region have also been seen in low isolated mangroves. Nests are usually built about 23 cm above the ground (but have been found up to 2.5 m above the ground).		
Black Falcon	*Falco subniger*	V,P		The Black Falcon is widely, but sparsely, distributed in New South Wales, mostly occurring in inland regions. There is assumed to be a single population in NSW that is continuous with a broader continental population, given that falcons are highly mobile, commonly travelling hundreds of kilometres (Marchant & Higgins 1993).	Low	No
Latham's Snipe	*Gallinago hardwickii*	P	J,K	Occurs in permanent and ephemeral wetlands up to 2000 m above sea-level.Migratory Wetlands Species.	Low	No
Little Lorikeet	*Glossopsitta pusilla*	V,P		The Little Lorikeet is distributed widely across the coastal and Great Divide regions of eastern Australia from Cape York to South Australia. NSW provides a large portion of the species' core habitat with lorikeets found westward as far as Dubbo and Albury. Forages primarily in the canopy of open Eucalyptus Forest and woodland, yet also finds food in Angophora, Melaleuca and other tree species. Riparian habitats are particularly used, due to higher soil fertility and hence greater productivity. Additionally, isolated flowering trees in open country, (paddocks, roadside remnants and urban trees) also help sustain viable populations of the species.	Low	No
Painted Honeyeater	*Grantiella picta*	V	V	Inhabits Boree/ Weeping Myall (Acacia pendula), Brigalow (A. harpophylla) and Box-Gum Woodlands and Box-Ironbark Forests.	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
				A specialist feeder on the fruits of mistletoes growing on woodland eucalypts and acacias. Prefers mistletoes of the genus Amyema.		
Little Eagle	*Hieraaetus morphnoides*	V,P		The Little Eagle is found throughout the Australian mainland apart from the most densely forested areas of the Dividing Range escarpment. It occurs as a single population throughout NSW. The species occupies open eucalypt forest, woodland or open woodland. Sheoak or Acacia woodlands and riparian woodlands of interior NSW are also used.	Low	No
White-throated Needletail	*Hirundapus caudacutus*	P	V,C,J,K	Almost exclusively aerial. Takes insects on wing over a range of habitat types. Recorded most often above wooded areas, including open forest and rainforest. Migratory Terrestrial Species.	Low	No
Swift Parrot	*Lathamus discolor*	E1,P	CE	The Swift Parrot migrates to the Australian south-east mainland between February and October. In NSW the species is generally found on the coast and southwest slopes. Favoured feed trees include winter flowering species such as Eucalyptus robusta (Swamp Mahogany), Corymbia maculata (Spotted Gum), C. gummifera (Red Bloodwood), E. tereticornis (Forest Red Gum), E. sideroxylon Mugga Ironbark) and E. albens (White Box).	Low	No
Major Mitchell's Cockatoo (eastern)	*Lophochroa leadbeateri leadbeateri*		E	Inhabits a wide range of treed and treeless inland habitats, always within easy reach of water. Feeds mostly on the ground, especially on the seeds of native and exotic melons and on the seeds of species of saltbush, wattles and cypress pines.	Low	No
Hooded Robin (south-eastern form)	*Melanodryas cucullata cucullata*	V,P		The Hooded Robin is widespread, found across Australia, except for the driest deserts and the wetter coastal areas (northern and eastern	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
				coastal QLD and TAS), rarely found on the coast. Prefers lightly wooded country, usually open eucalypt woodland, acacia scrub and mallee, often in or near clearings or open areas. Requires structurally diverse habitats featuring mature eucalypts, saplings, some small shrubs and a ground layer of moderately tall native grasses.		
Black-chinned Honeyeater (eastern subspecies)	*Melithreptus gularis gularis*	V,P		Occupies mostly upper levels of drier open forests or woodlands dominated by box and ironbark eucalypts, especially Mugga Ironbark (Eucalyptus sideroxylon), White Box (E. albens), Inland Grey Box (E. microcarpa), Yellow Box (E. melliodora), Blakely's Red Gum (E. blakelyi) and Forest Red Gum (E. tereticornis).	Moderate	Yes
Turquoise Parrot	*Neophema pulchella*	V,P,3		Lives on the edges of eucalypt woodland adjoining clearings, timbered ridges and creeks in farmland.	Low	No
Blue-winged Parrot	*Neophema chrysostoma*		V	Blue-winged parrots inhabit a range of habitats from coastal, sub-coastal and inland areas, through to semi-arid zones. They tend to favour grasslands and grassy woodlands and are often found near wetlands both near the coast and in semi-arid zones	Low	No
Barking Owl	*Ninox connivens*	V,P,3		Inhabits woodland and open forest, including fragmented remnants and partly cleared farmland. It is flexible in its habitat use, and hunting can extend in to closed forest and more open areas.	Low	No
Blue-billed Duck	*Oxyura australis*	V,P		The Blue-billed Duck prefers deep water in large permanent wetlands and swamps with dense aquatic vegetation. The species is completely aquatic, swimming low in the water along the	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
				edge of dense cover. It will fly if disturbed, but prefers to dive if approached.		
Plains-wanderer	*Pedionomus torquatus*		CE	Plains-wanderers live in semi-arid, lowland native grasslands that typically occur on hard red-brown soils. These grasslands support a high diversity of plant species, including a number of state and nationally threatened species. Habitat structure appears to play a more important role than plant species composition. Preferred habitat of the Plains-wanderer typically comprises 50% bare ground, 10% fallen litter, and 40% herbs, forbs and grasses. Most of the grassland habitat of the Plains-wanderer is <5 cm high, but some vegetation up to a maximum of 30 cm is important for concealment, as long as grass tussocks are spaced 10-20 cm apart.	Low	No
Scarlet Robin	*Petroica boodang*	V,P		Lives in dry eucalypt forests and woodlands. The understorey is usually open and grassy with few scattered shrubs. Its habitat usually contains abundant logs and fallen timber: these are important components of its habitat.	Low	No
Flame Robin	*Petroica phoenicea*	V,P		Breeds in upland tall moist eucalypt forests and woodlands, often on ridges and slopes. Prefers clearings or areas with open understoreys. The ground layer of the breeding habitat is dominated by native grasses and the shrub layer may be either sparse or dense.	Low	No
Superb Parrot	*Polytelis swainsonii*	**V,P,3**	**V**	**Inhabit Box-Gum, Box-Cypress-pine and Boree Woodlands and River Red Gum Forest. In the Riverina the birds nest in the hollows of large trees (dead or alive) mainly in tall riparian River Red Gum Forest or Woodland. On the South West Slopes nest trees can be in open Box-Gum Woodland or isolated paddock trees. Species known to be used are**	**Known**	**Yes**

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
				Blakely's Red Gum, Yellow Box, Apple Box and Red Box.		
Grey-crowned Babbler (eastern subspecies)	*Pomatostomus temporalis temporalis*	V,P		The Grey-crowned Babbler is found in open forests and woodlands, favouring inland plains with an open shrub layer, little ground cover and plenty of fallen timber and leaf litter. May be seen along roadsides and around farms. In south-east Melbourne, small populations survive on golf courses.	Low	No
Australian Painted Snipe	*Rostratula australis*	E	E	Prefers fringes of swamps, dams and nearby marshy areas where there is a cover of grasses, lignum, low scrub or open timber. Nests on the ground amongst tall vegetation, such as grasses, tussocks or reeds.	Low	No
Diamond Firetail	*Stagonopleura guttata*	V,P		It is widely distributed in NSW, with a concentration of records from the Northern, Central and Southern Tablelands, the Northern, Central and South Western Slopes and the North West Plains and Riverina. Not commonly found in coastal districts. Found in grassy eucalypt woodlands, including Box-Gum Woodlands and Snow Gum Eucalyptus pauciflora Woodlands. Also occurs in open forest, mallee, Natural Temperate Grassland, and in secondary grassland derived from other communities. Often found in riparian areas (rivers and creeks), and sometimes in lightly wooded farmland.	Low	No
Freckled Duck	*Stictonetta naevosa*	V,P		Prefer permanent freshwater swamps and creeks with heavy growth of Cumbungi, Lignum or Tea-tree. During drier times they move from ephemeral breeding swamps to more permanent waters such as lakes, reservoirs, farm dams and sewage ponds.	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
Common Greenshank	*Tringa nebularia*	P	C,J,K	Migratory Marine Birds	Low	No
Marsh Sandpiper	*Tringa stagnatilis*	P	C,J,K	Migratory Marine Birds	Low	No
Masked Owl	*Tyto novaehollandiae*	V,P,3	-	The masked owl records fall within approximately 90% of NSW, excluding the most arid north-western corner. This species lives in dry eucalypt forests and woodlands (with a sparse mid-storey layer, but with patches of dense low ground cover) from sea level to 1100 m.	Low	No
Mammalia						
Spotted-tail Quoll	*Dasyurus maculatus maculatus (SE mainland population)*	V	E	Spotted-tailed quolls live in various environments, including forests, woodlands, coastal heathlands and rainforests. They are sometimes seen in open country or on grazed areas and rocky outcrops.	Low	No
Bilby	*Macrotis lagotis*	Extinct	V	Once widespread in arid, semi-arid and relatively fertile areas, the Bilby is now restricted to arid regions and remains a threatened species. The Bilby prefers arid habitats because of the spinifex grass and acacia shrub.	Low	No
Large Bent-winged Bat	*Miniopterus orianae oceanensis*	V,P	-	Caves are the primary roosting habitat, but also use derelict mines, storm-water tunnels, buildings and other man-made structures.Form discrete populations centred on a maternity cave that is used annually in spring and summer for the birth and rearing of young. Maternity caves have very specific temperature and humidity regimes.	Low	No
Southern Myotis	*Myotis macropus*	V,P	-	Generally roost in groups of 10 - 15 close to water in caves, mine shafts, hollow-bearing trees, storm water channels, buildings, under bridges and in dense foliage.	Low	No
Corben's Long-eared Bat	*Nyctophilus corbeni*	V	V	Inhabits a variety of vegetation types, including mallee, bulloke Allocasuarina leuhmanni and box	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
				eucalypt dominated communities, but it is distinctly more common in box/ironbark/cypress-pine vegetation that occurs in a north-south belt along the western slopes and plains of NSW and southern Queensland.		
Squirrel Glider	*Petaurus norfolcensis*	V,P	-	Inhabits mature or old growth Box, Box-Ironbark woodlands and River Red Gum forest west of the Great Dividing Range and Blackbutt-Bloodwood forest with heath understorey in coastal areas.	Low	No
Koala	*Phascolarctos cinereus*	E1,P	E	Open eucalypt forest and woodland, containing a variety of 'preferred' feed trees	Low	No
Grey-headed Flying-fox	*Pteropus poliocephalus*	V,P	V	Occur in subtropical and temperate rainforests, tall sclerophyll forests.	Low	No
Amphibia						
Sloane's Froglet	*Crinia sloanei*	E	E	It is typically associated with periodically inundated areas in grassland, woodland and disturbed habitats.	Low	No
Growling Grass Frog	*Litoria raniformis*	-	V	Permanent or seasonally flooded water bodies used for breeding. In semi-arid NSW, seasonal flooding of wetland systems necessary for breeding to occur. Aquatic vegetation provides microhabitats for foraging and shelter for both frogs and tadpoles.	Low	No
Insecta						
Key' s Matchstick Grasshopper	*Keyacris scurra*	E	-	Typically found in native grasslands and grassy woodlands but it has also been recorded in other vegetation associations usually containing a native grass understory (especially kangaroo grass Themeda triandra) and known food plants (particularly Asteraceae).	Low	No
Reptilia						
Pink-tailed Worm-lizard	*Aprasia parapulchella*	V	V	Inhabits sloping, open woodland areas with predominantly native grassy groundlayers,	Low	No

Common Name	Scientific Name	Legislation		Habitat Associations	Likelihood of Occurrence	Further Significance Assessment Undertaken
		BC Act	EPBC Act			
				particularly those dominated by Kangaroo Grass (Themeda australis). Sites are typically well-drained, with rocky outcrops or scattered, partially-buried rocks.		

Key. V=Vulnerable, E=Endangered, Ep=Endangered Population, CE=Critically Endangered, M=Migratory.
Species habitat associations have been informed predominantly from EES (2023) and DotEE (2023) species profiles.

Appendix B: Flora Species List

Scientific name	Common name	Native	Exotic
Box-Leaf Wattle	Acacia buxifolia	x	
Silver Wattle	Acacia dealbata	x	
Early Green Wattle	Acacia decurrens	x	
Slender Wattle	Acacia elongata	x	
Black Wattle	Acacia mearnsii	x	
Sheep Sorrell	Acetosella vulgare		x
Black She-Oak	Allocasuarina littoralis	x	
Cape Daisy	Arctotheca calendula		x
Wild Oats	Avena fatua		x
Currajong	Brachychiton populneus	x	
Sweet Bursaria	Bursaria spinosa	x	
Bottlebrush	Callistemon sp	x	
Kikuyu Grass	Cenchrus clandestinus		x
Red Flowering Gum	Corymbia ficifolia	x	
Patterson's Curse	Echium plantegenium		x
White Box	Eucalyptus albens	x	
Blakely's Red Gum	Eucalyptus blakelyi	x	
Narrow-leaved Ironbark	Eucalyptus crebra	x	
Yellow Box	Eucalyptus melliodora	x	
Petty Spurge	Euphorbia peplus		x
Narrow-Leaved Ash	Fraxinus angustifolia		x
Purple Coral Pea	Hardenbergia violacea	x	
Flatweed	Hyperchaeris radicata		x
Juncus	Juncus spp.	x	
Ryegrass	Lolium multiflorum		x
Small mat-rush	Lomandra bracteata	x	
Hairy Bird's-foot Trefoil	Lotus subbiflorus		x
Pimpernell	Lysimachia spp.		x
Dwarf Mallow	Malva neglecta		x
River Bottlebrush	Melaleuca paludicola	x	
Prickly-Leaved Paperbark	Melaleuca stypheloides	x	
Wilson's Honey-Myrtle	Melaleuca wilsonii	x	
Weeping Grass	Microleana stipoides	x	
Scotch Thistle	Onopordum acanthium		x
Harding Grass	Phalaris aquatica		x

Pine	Pinus spp.		x
Lambs Tongue	Plantago lanceolata		x
Common Dandelion	Taraxacum officinal		x
Hare's-foot Clover	Trifolium arvense		x
White Clover	Trifolium repens		x
Clover	Trifolium sp.		x
Small Nettle	Urtica urens		x

Appendix C: Fauna Species List

Class Name	Scientific Name	Common Name
Aves	*Corcorax melanorhamphos*	White Winged Choughs
	Anthochaera chrysoptera	Little Wattle Bird
	Eolophus roseicapilla	Galah
	Gymnorhina tibicen	Magpie
	Malurus cyaneus	Superb Fairy Wren
	Corvus coronoides	Crow
	Manorina melanocephala	Noisy Miner
	Coracina novaehollandiae	Black Faced Cuckoo Shrike
	Cacatua galerita	Sulphur Crested Cockatoo
	Platycercus eximius	Eastern Rosella
	Rhipidura leucophrys	Willy Wagtail
	Acanthiza pusilla	Brown Thornbill
	Sericornis frontalis	White Browed Scrubwren
	Polytelis swainsonii	**Superb Parrot**
	Dacelo novaeguineae	Kookaburra
	Todiramphus sanctus	Sacred Kingfisher
	Vanellus miles	Masked Lap Wing
	Aquila audax	Wedge Tailed Eagle
	Threskiornis moluccus	White Ibis
	Grallina cyanoleuca	Magpie Lark
	Philemon corniculatus	Noisy Friar Bird
	Psephotus haematonotus	Red Rumped Parrot

Bold denotes threatened species

Appendix D: Assessment of Significance

Threatened Ecological Communities

White Box - Yellow Box - Blakely' s Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions – Critically Endangered (BC Act)

Characterised by the presence or prior occurrence of White Box, Yellow Box and/or Blakely's Red Gum and a generally grassy understorey. The trees may occur as pure stands, mixtures of the three species or in mixtures with other trees, including wattles. The ecological community is broadly distributed in an arc along the western slopes and tablelands of the Great Dividing Range from Southern Queensland through NSW and ACT, to Victoria. The ecological community is known to occur on hilly to undulating landscapes in areas with soils of moderate fertility derived from a range of lithologies, including alkaline and acid volcanics, granites, sediments, serpentinites and metamorphics. It generally occurs in areas where average rainfall is between 400 and 900 mm per annum on moderate to highly fertile soils at altitudes of 170 m to 1200 m. Typically an open grassy woodland with medium height trees.

Just under 0.7 ha of BGW will be impacted with 7.5 ha being retained.

> **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,**

Not applicable.

> **B. in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:**
>
> **i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or**
>
> **ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,**

The total area of native vegetation being removed is about 0.7 ha and comprised of predominantly planted species, not mature trees. This leaves 7.5 ha of BGW being retained. This loss is such a small relative area that it is not considered 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.

> **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**

The development is removing about 0.7 ha of BGW, a loss of habitat which is considered very minimal and would not result in the fragmentation or isolation of any areas of contiguous BGW.

The area to be removed is so small that it is not considered important to the long-term survival of the community.

D. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding value (either directly or indirectly)

There are no Areas of Outstanding Biodiversity Value within the Study Area with reference to the Areas of Outstanding Biodiversity Value register – accessed 12/10/23.

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 threatened process.

There is one key threatening process, as listed in Schedule 4 of the BC Act, of relevance to the proposed vegetation clearance:

- Clearing of native vegetation

The proposal would involve the clearing of about 0.7 ha of BGW, with all representative canopy species to be retained and only scattered understorey species to be removed. As this removal is very minimal, the proposal is unlikely to exacerbate the impacts of this key threatening process.

Conclusion

The proposal is unlikely to constitute a significant impact on Box Gum Woodland given the following:

- the proposal would remove about 0.7 ha of BGW;
- 7.5 ha of BGW area within the Study Area is to be retained
- the vegetation to be removed would not isolate or fragment BGW at a local scale.

As such, a Species Impact Statement or BDAR is not recommended with respect to the potentially affected species.

Threatened Birds

Superb Parrot (*Polytelis swainsonii*) – Vulnerable (BC Act)

This species inhabits Box-Gum, Box-Cypress-pine and Boree woodlands and River Red Gum Forest. In the Riverina, superb parrots nest in the hollows of large trees (dead or alive) mainly in tall riparian River Red Gum forest or woodland. On the South West Slopes and Southern Tablelands nest trees can be in open Box-Gum woodland or isolated living or dead paddock trees. Species known to be used are Blakely' s Red Gum, Yellow Box, Apple Box and Red Box. Superb Parrots nest in tree hollows with an entrance diameter of 6 cm or wider, and that are at least 3.5 m above the ground and nest in small colonies, often with more than one nest in a single tree. They feed in trees and understorey shrubs and on the ground and their diet consists mainly of grass seeds and herbaceous plants.

Black-chinned Honeyeater (eastern subspecies) (*Melithreptus gularis gularis*) – Vulnerable (BC Act)

This species occupies mostly upper levels of drier open forests or woodlands dominated by box and ironbark eucalypts, especially Mugga Ironbark (*Eucalyptus sideroxylon*), White Box (*E. albens*), Inland Grey Box (*E. microcarpa*), Yellow Box (*E. melliodora*), Blakely's Red Gum (*E. blakelyi*) and Forest Red Gum (*E. tereticornis*). The species breeds solitarily or as a pair, from June to December, creating and using a nest placed high in the crown of a tree.

This species was not recorded, however suitable foraging habitat exists.

Brown Treecreeper (eastern subspecies) (*Climacteris picumnus victoriae*) – Vulnerable (BC Act)

The Brown Treecreeper is endemic to eastern Australia and occurs in eucalypt forests and woodlands of inland plains and slopes of the Great Dividing Range. It is less commonly found on coastal plains and ranges.

The western boundary of the range of Climacteris picumnus victoriae runs approximately through Corowa, Wagga Wagga, Temora, Forbes, Dubbo and Inverell and along this line the subspecies intergrades with the arid zone subspecies of Brown Treecreeper Climacteris picumnus picumnus which then occupies the remaining parts of the state.

The eastern subspecies lives in eastern NSW in eucalypt woodlands through central NSW and in coastal areas with drier open woodlands such as the Snowy River Valley, Cumberland Plains, Hunter Valley and parts of the Richmond and Clarence Valleys.

The species is found in n eucalypt woodlands (including Box-Gum Woodland) and dry open forest of the inland slopes and plains inland of the Great Dividing Range; mainly inhabits woodlands dominated by stringybarks or other rough-barked eucalypts, usually with an open grassy understorey, sometimes with one or more shrub species; also found in mallee and River Red Gum (*Eucalyptus camaldulensis*).

This species was not recorded, however suitable foraging habitat exists.

> **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,**

The removal of scattered trees is unlikely to have an impact on the above-listed species, such that a local population will be put at risk of extinction. Large native trees with habitat features, that will continue to provide seasonal foraging resources and breeding habitat, will be retained within the Study Area.

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,

Not applicable

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

The proposal is only removing about 0.7 ha of habitat, which would not result in the fragmentation or isolation of any areas of foraging habitat for this species. 7.5 ha of native vegetation will be retained, including large eucalypts. The small relative area of habitat to be removed is not considered important to the long-term survival of the species. The areas to be affected would not act as a foraging link between two areas of foraging habitat.

C. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding value (either directly or indirectly)

There are no Areas of Outstanding Biodiversity Value within the Study Area with reference to the Areas of Outstanding Biodiversity Value register – accessed 19/10/23.

D. 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 threatened process.

There is one key threatening process, as listed in Schedule 4 of the BC Act, of relevance to the proposed vegetation clearance:

- Clearing of native vegetation

The proposal would involve the clearing of only 0.7 ha of native vegetation, most of which is planted. Most of the large remnant native trees and 7.5 ha of native vegetation will be retained. Therefore, the proposal is unlikely to exacerbate the impacts of this key threatening process.

Conclusion

The proposal is unlikely to constitute a significant impact on the Superb Parrot given the following:

- the proposal would only remove 0.7 ha of habitat, leaving 7.5 ha;

- the native vegetation to be removed would not isolate or fragment other foraging resources at a local scale.
- Large native trees with habitat-bearing features are to be retained.

As such, a Species Impact Statement or BDAR is not recommended with respect to the potentially affected species.

Appendix F: Significant Impact Criteria

Superb Parrot (*Polytelis swainsonii*) – Vulnerable (EPBC Act)

This species inhabits Box-Gum, Box-Cypress-pine and Boree woodlands and River Red Gum Forest. In the Riverina, superb parrots nest in the hollows of large trees (dead or alive) mainly in tall riparian River Red Gum forest or woodland. On the South West Slopes and Southern Tablelands nest trees can be in open Box-Gum woodland or isolated living or dead paddock trees. Species known to be used are Blakely' s Red Gum, Yellow Box, Apple Box and Red Box. Superb Parrots nest in tree hollows with an entrance diameter of 6 cm or wider, and that are at least 3.5 m above the ground and nest in small colonies, often with more than one nest in a single tree. They feed in trees and understorey shrubs and on the ground and their diet consists mainly of grass seeds and herbaceous plants.

Two Super Parrots were recorded within the Study Area. The Study Area provides foraging habitat and suitable tree hollows for breeding. 7 suitable tree hollows are proposed for removal, with over 100 more available within the remaining over 7 ha of BGW.

Criterion a: lead to a long-term decrease in the size of an important population of a species

No important populations have been recorded within the Study Area.

Criterion b: reduce the area of occupancy of an important population

No important populations have been recorded within the Study Area.

Criterion c: fragment an existing important population into two or more populations

Only 0.7 ha of scattered native vegetation removal is associated with the proposed development, and hence it will not fragment any habitat. As such, above-listed species that may utilise the Study Area for foraging will not be isolated from surrounding populations.

Criterion d: adversely affect habitat critical to the survival of a species

7.5 ha of native vegetation will be retained including large eucalypts with habitat features. As such, the removal of a small area of less than 0.7 ha of vegetation is not considered habitat critical to the survival of the species.

Criterion e: disrupt the breeding cycle of an important population

No important populations have been recorded within the Study Area.

Criterion f: Adversely affect habitat critical to the survival of a species; modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

The vegetation to be removed is a small area and habitat features within larger surrounding trees are to be retained. This small area of habitat is not critical to the survival of this species. As such, the proposed development will not adversely affect habitat that is critical to this species' survival to the extent that the species will decline.

Criterion g: Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat

The proposed development will not result in the establishment of an invasive species that is harmful to the Superb Parrot.

Criterion h: Introduce disease that may cause the species to decline

The project will not result in the introduction of a disease that is harmful to the Superb Parrot.

Criterion i: Interfere substantially with the recovery of the species

The proposed development will not interfere with any recovery or conservation efforts for the species.

Conclusion

The proposed action is not considered to constitute a significant impact on the Superb Parrot. As such, referral to the Commonwealth is not required.

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