Leppington Public School upgrade

Biodiversity Assessment Report

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Leppington Public School upgrade
Biodiversity Assessment Report

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CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

Acronym	Description
ALA	Atlas of Living Australia
BAM	Biodiversity Assessment Method
BC Act	Biodiversity Conservation Act 2016
BDAR	Biodiversity Development Assessment Report
BOM	Bureau of Meteorology
BOS	Biodiversity Offsets Scheme
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CPCP	Cumberland Plains Conservation Plan
DAWE	Department of Agriculture, Water and the Environment
DBH	Diameter at Breast Height
DPI	Department of Primary Industries
DPHI	Department of Planning, Housing and Infrastructure
DPIE	Department of Planning Industry and Environment
EFSG	Education Facilities Standards and Guidelines
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
ERM	Environmental Resources Management Australia Pty Ltd
GDE	Groundwater Dependent Ecosystem
GPS	Global Positioning System
IBRA	Interim Biogeographic Regionalisation for Australia
km	Kilometres
LPS	Leppington Public School
LGA	Local Government Area
LoO	Likelihood of Occurrence
MNES	Matters of National Environmental Significance
NSW	New South Wales
PCT	Plant Community Type
PMST	Protected Matters Search Tool
PS	Public School
REF	Review of Environmental Factors
SAII	Serious and Irreversible Impact
SEPP	State Environmental Planning Policy
SI-NSW	School Infrastructure NSW
SIS	Species Impact Statement

Acronym	Description
SRZ	Structural Root Zone
STARS	Significance of a tree Assessment Rating System
SWGC	South West Growth Centre
SPRAT	Species Profile and Threats Database
SVTM	State Vegetation Type Map
TEC	Threatened Ecological Community
TPZ	Tree Protection Zone
TSC Act	Threatened Species Conservation Act 1995
VIS	Vegetation Information System
WoNS	Weeds of National Significance

EXECUTIVE SUMMARY

Environmental Resources Management Australia Pty Ltd (ERM) has been engaged by The Department of Education (DoE) to prepare a Biodiversity Assessment Report for the proposed Leppington Public School (LPS) upgrade. The purpose of this Biodiversity Assessment Report is to support a Review of Environmental Factors (REF) under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This report has been prepared from the results of an ecological site inspection and preliminary biodiversity assessments conducted by ERM in 2022. This report presents the field survey findings and updated desktop analysis of potential flora, fauna and ecological communities present in the Project Area.

The objective of the Biodiversity Assessment Report is to identify and describe key biodiversity values within the Project Area and identify constraints that these may have on the proposed activity of the school including construction of new school buildings, and associated landscape works. The Project Area covers the grounds of LPS, located in the Camden Council Local Government Area (LGA), NSW.

Biodiversity values are defined as those species and communities listed as vulnerable, endangered or critically endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), and/or the NSW Biodiversity Conservation Act 2016 (BC Act). Bionet threatened species searches identified a total of 23 fauna species listed under the BC Act with six species also listed under the EPBC Act.

No threatened flora or fauna were detected during the June 2022 site inspection completed by an ERM ecologist. While the site inspection was conducted in 2022, the site conditions have not changed since completing this ecological survey and therefore, the findings of the site visit at that time can be relied upon.

One vegetation community that corresponds to a NSW Plant Community Type (PCT) was confirmed as present within the Project Area. The vegetation surveyed within the Project Area is consistent with the NSW Office of Environment & Heritage (OEH) description and characteristic species assemblages described by the NSW Scientific Committee for Cumberland Plain Woodland.

Despite the presence of some areas of significant conservation value on the LPS, in the form of the Cumberland Plain Woodland TEC, there are existing legal mechanisms under which these areas can be impacted without further assessment or development approvals.

The NSW Environment and Heritage Minister approved the Cumberland Plains Conservation Plan (CPCP) which provides biodiversity certification under Part 8 of the NSW Biodiversity Conservation Act 2016 (BC Act). This approval removes the need for landholders to seek their own biodiversity approvals under the BC Act for development on certified - urban capable land as long as they comply with planning controls under the CPCP, as set out in the Strategic Conservation Chapter of the State Environmental Planning Policy (SEPP) (Biodiversity and Conservation) 2021. The Project Area for the LPS upgrade is biocertified land under the former Sydney Region Growth Centres SEPP.

While the CPCP was approved in 2022, the South West Growth Centre (SWGC) was previously granted separate biodiversity certification in 2007 under the now superseded *Threatened Species Conservation Act 1995* (TSC Act). This SWGC area is currently recognised as an existing growth centre on the CPCP map. The LPS location is already classified as a 'certified area' under

the SWGC – Biodiversity Certification. This SWGC biocertification is also referenced in the EPBC Act strategic approval for the Sydney Growth Centres.

This certification means that any areas of certified land that are proposed for development or activity do not require a separate assessment and approval under the BC Act or the EPBC Act. Specifically, relevant to the proposal, Section 8.4(4) of the BC Act states that activities under Part 5 that are to be carried out on biodiversity certified land, is taken to be an activity that is *"not likely to significantly affect any threatened species or ecological community under this Act…"*. Despite this, to ensure a full and proper assessment of the activity, this report has been prepared to support the biodiversity findings in the REF that has been prepared for the DoE. This report also demonstrates consistency with the CPCP, which was granted approval in accordance with Part 10 Strategic Assessment of the impacts of the CPCP on matters protected by Part 3 of the EPBC Act.

Of the 24 trees identified for removal due to conflicts with the design, 23 are native trees, including seven *Eucalyptus elata* (River Peppermint), one *Eucalyptus tereticornis* (Forest Red Gum), five *Eucalyptus moluccana* (Grey Box), four *Callistemon viminalis (*Weeping Red Bottlebrush), three *Casuarina cunninghamiana* (River Oak), one *Eucalyptus scoparia* (Wallangarra White Gum), one *Eucalyptus grandis* (Flooded Gum), and one *Eucalyptus saligna* (Sydney Blue Gum).

Habitat features for native fauna in the Project Area are limited. The majority of the impacted trees have a Diameter at Breast Height (DBH) less than 50 cm, are less than 15 m in height, and are likely to have limited development of hollows that could be used for native fauna for roosting, nesting or breeding.

Though desktop investigations identified various potentially notable biodiversity features within and surrounding the Project Area, no threatened fauna of flora species were detected during the site visit. There are, however, areas that contain native vegetation that may provide potential foraging habitat for species such as the Grey-Headed Flying-fox. It is recommended that, where possible, these areas be retained, though given that the Project Area is classified as certified land under the SWGC biocertification, there will be no additional biodiversity assessment or approvals required for activities conducted in these areas.

1. INTRODUCTION

1.1 BACKGROUND AND PURPOSE

This Biodiversity Assessment Report has been prepared to support a REF for the Department of Education (DoE) for the Leppington Public School (LPS) upgrade (the activity). The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by *State Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37 of the T&I SEPP.

The proposed activity is for the upgrades to the existing LPS at 144 Rickard Road, Leppington, NSW, 2179 (the site).

The purpose of this report is to identify the ecological values within LPS to identify relevant mitigation measures and provide advice to inform the planning and development of design options currently being prepared by DoE. This report has been prepared to address the biodiversity assessment requirements to support a self-assessment of the activity under Part 5 of the EP&A Act (and relevant considerations of the BC Act). As LPS is located on certified-urban capable land under the Cumberland Plain Conservation Plan (CPCP), the project is to comply with the requirements of the *Cumberland Conservation Plan Guidelines for Infrastructure Development*. This report demonstrates how the activity complies with these requirements.

The proposed activity at LPS includes the construction of new school buildings and associated landscape works, to cater for future growth in enrolments. A review of the Vegetation Map – Cumberland Plain (VIS_4207) and the updated NSW State Vegetation Type Map (SVTM), version C1.1.M1 released on 23/06/2022 indicated that the LPS has areas of potential Cumberland Plain Woodland Threatened Ecological Community (TEC), within the Project Area. Additional desktop and a site inspection were recommended to verify the accuracy of the SVTM and to provide advice on biodiversity constraints that would need to be considered as part of the master planning process. The desktop assessment was supplemented by a half day site inspection with the architects (Pedavoli Architects) to confirm the native vegetation and threatened species habitats within the activity footprint and in the immediate surrounds (to inform any indirect impacts). Given the relatively small area of the Project Area and the preliminary nature of the biodiversity advice, the survey effort was limited to a general site inspection by an ERM ecologist to identify the extent and condition of Plant Community Types, TECs and habitat resources for threatened species and a Biodiversity Constraints Report was produced from the information gathered. For the purposes of this report, previous survey efforts and desktop analyses were referenced and updated where applicable.

Cumberland Plain Woodland TEC is listed as critically endangered in NSW under the Biodiversity Conservation Act 2016 (BC Act) and is a Serious and Irreversible Impact entity (SAII), meaning additional consideration is required to avoid and minimise impacts to this community. It is also listed as a TEC under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), with impacts requiring a potential referral to the Commonwealth for assessment.

1.2 PROJECT AREA AND DESCRIPTION

LPS is located at 144 Rickard Road, Leppington on the eastern side of Rickard Road, north of Ingleburn Road and south of Byron Road. The site has an area of 3.013 ha and comprises 4 allotments, legally described as:

- Lot 1 DP 127446
- Lot 1 DP 439310
- Lot 38E DP 8979
- Lot 39C DP 8979

The site currently comprises an existing co-education primary (K-6) public school with:

- 14 permanent buildings;
- 11 demountable structures (including 2 male/female toilet blocks);
- interconnected paths;
- covered walkways;
- play areas; and
- at-grade parking.

The site also contains locally listed heritage buildings along its southern boundary.

The buildings are 1 storey in height and there is a sports oval in the eastern portion of the site. The existing buildings are clustered in the north-western part of the site.

The Project Area is located within the Sydney Basin Bio Region, IBRA sub-region Cumberland. The Project Area is mapped as containing Cumberland Plain Woodland which is listed as critically endangered under the Biodiversity Conservation Act NSW. The Project Area is situated approximately 12 km southwest of Liverpool, NSW.

For the purpose of the desktop assessment a 5 km buffer was applied to the Project Area, with this region used to source information on the vegetation communities and threatened species records. The Project Area and the 5 km buffer used for desktop assessments are presented in Figure 1-1 and Figure 1-2

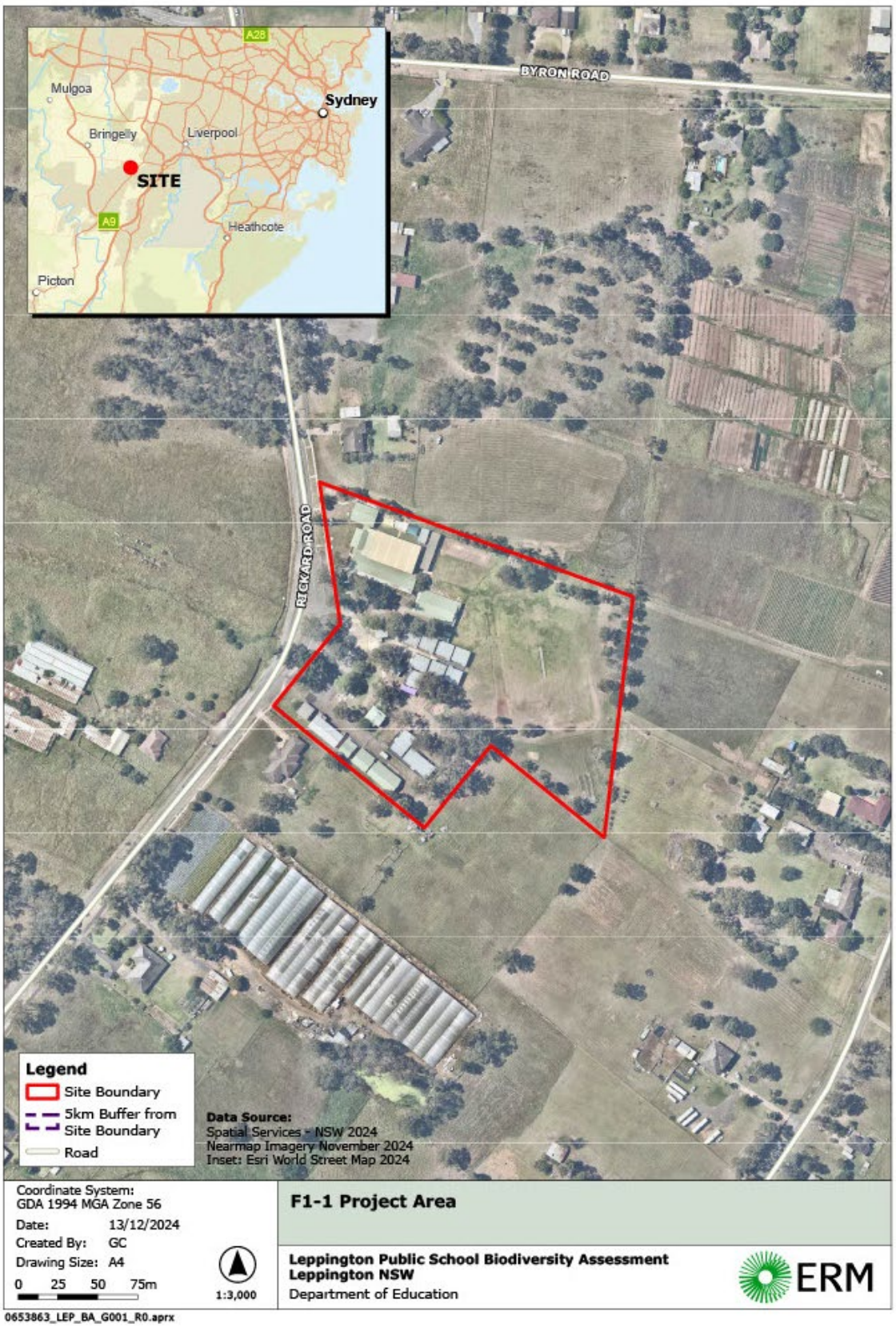


FIGURE 1-1 PROJECT AREA

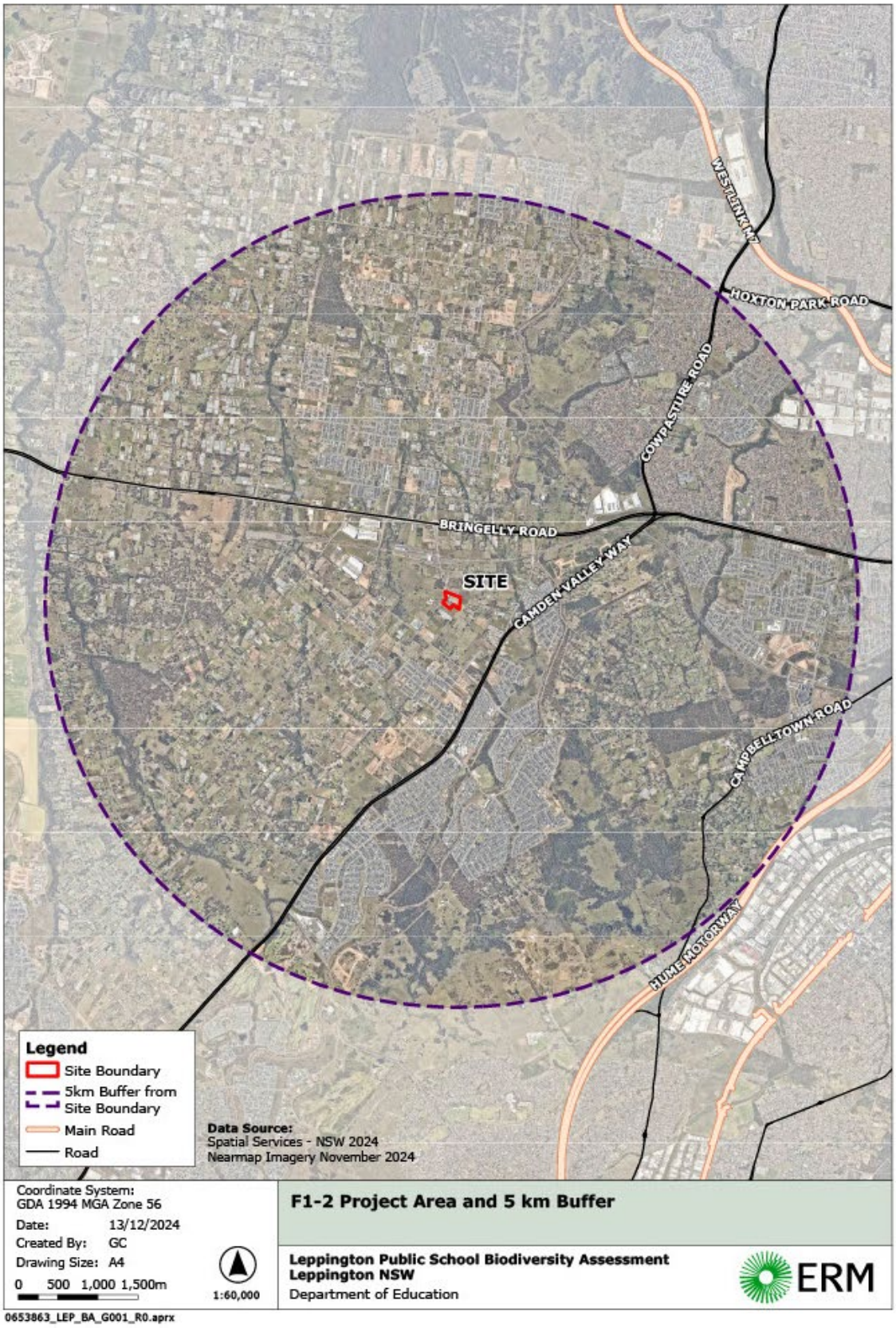


FIGURE 1-2 PROJECT AREA AND 5 KM BUFFER

1.3 PROPOSED ACTIVITY DESCRIPTION

The proposed activity involves upgrades to the existing LPS, including the following:

- Demolition of existing structures and trees;
- Erection of a new 3-storey teaching space along the northern boundary that includes 20 permanent teaching spaces and 3 support teaching spaces;
- Erection of a new hall and COLA comprising of a hall, canteen and OSHC hub towards the eastern boundary of site;
- Extension of the existing library (Building E) and adjoining playground;
- Upgraded sports and play facilities;
- Relocation of the Yarning Circle;
- Erection of a substation and upgrades to site services;
- Footpaths, fencing and associated works; and
- Landscaping.

The intent of the activity is to allow for upgrades to LPS that will provide a 'CORE 35' school standard in line with the Educational Facilities Standards and Guidelines (EFSG). The activity will increase the capacity of the school from 430 to 621 students.

Figure 1-3 below shows the scope of works for the proposed activity.

FIGURE 1-3 PROPOSED ACTIVITY (SOURCE: PEDAVOLI ARCHITECTS, OVERALL SITE PLAN)

2. LEGISLATIVE AND POLICY CONTEXT

This Biodiversity Assessment Report has been undertaken with consideration of Commonwealth, State and Local regulatory frameworks and associated legislation. Table 2-1 summarises the relevant legislation and policies applicable to this ecological assessment.

TABLE 2-1 KEY LEGISLATION AND POLICY CONTEXT

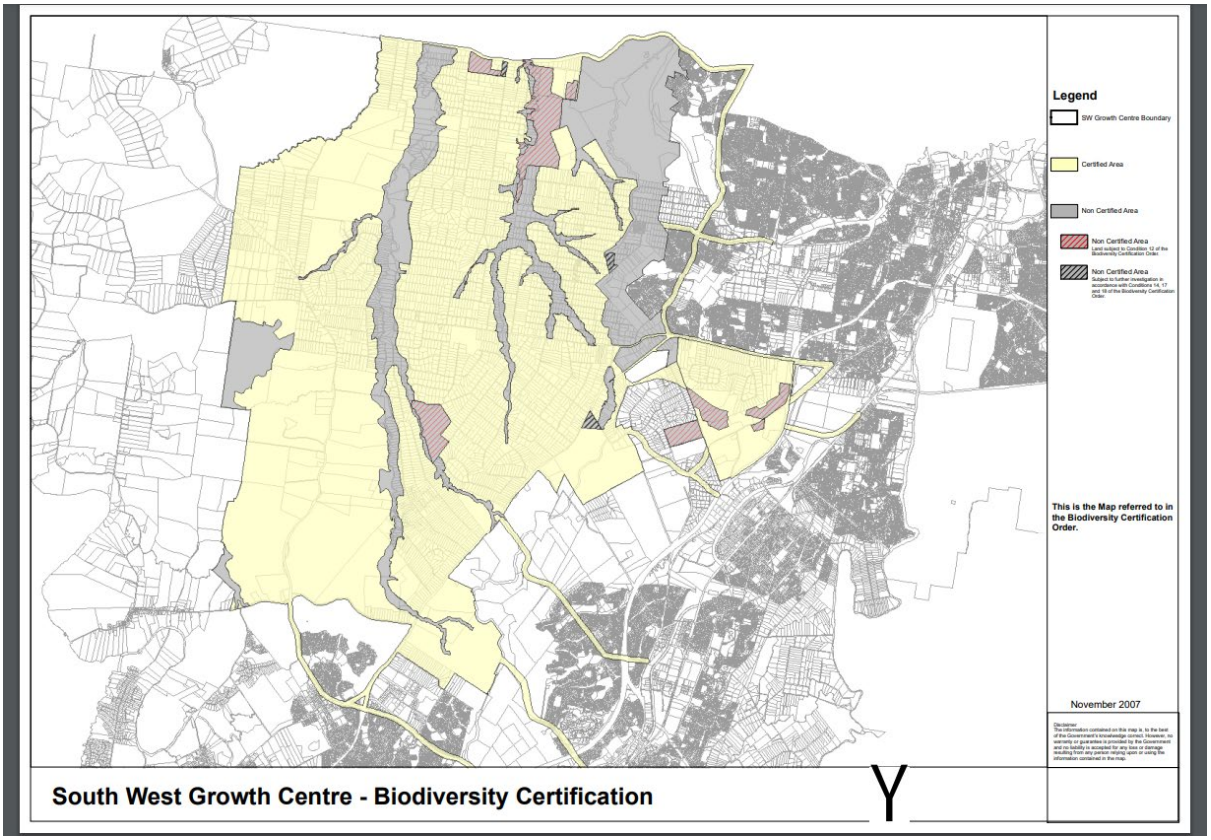
Commonwealth Legislation
Environment Protection and Biodiversity Conservation Act 1999
The EPBC Act requires approval of the Commonwealth Minister for the Environment for actions that are likely to have a significant impact on Matters of National Environmental Significance (MNES) as assessed in accordance with the EPBC Significant Impact Guidelines 1.1. The EPBC Act is administered by the Commonwealth Department of Agriculture, Water and the Environment (DAWE) and lists threatened species, ecological communities and other MNES and provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places—defined in the EPBC Act as matters of national environmental significance. Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest is also listed as a critically endangered TEC under the EPBC Act. The area of PCT 3320 and Cumberland Plain Woodland within the Project Area does not meet the condition requirements to be considered an EPBC Act listed threatened TEC.
NSW Statutory Legislation and Guidelines
Biodiversity Conservation Act 2016 (BC Act)
The BC Act came into effect on 25 August 2017. The BC Act replaced the NSW *Threatened Species Conservation Act 1995*, the NSW *Nature Conservation Trust Act 2001* and parts of the NSW *National Parks and Wildlife Act 1974* (NP&W Act). The BC Act establishes mechanisms for: • The management and protection of listed threatened species of native flora and fauna (excluding fish and marine vegetation) and threatened ecological communities (TECs). • The listing of threatened species, TECs and key threatening processes. • The development and implementation of recovery and threat abatement plans. • The declaration of critical habitat. • The consideration and assessment of threatened species impacts in development assessment process. • Biodiversity Offsets Scheme (BOS), including the Biodiversity Values Map and Biodiversity Assessment Method (BAM) to identify serious and irreversible impacts (SAII). The BC Act establishes a new regulatory framework for assessing and offsetting biodiversity impacts on proposed developments. Where development consent is granted, the authority may impose as a condition of consent an obligation to retire a number and type of biodiversity credits determined under the BAM. Desktop investigations and the site inspection completed by an ERM ecologist confirmed the presence of PCT 3320 within the Project Area, however the LPS site is covered by an existing biocertification agreement, as described in the below row which is relevant to the assessment of biodiversity as part of any future approvals process.

Cumberland Plain Conservation Plan (CPCP) and the South West Growth Centre (SWGC) - Biodiversity Certification

The NSW Environment and Heritage Minister approved the CPCP which provides biodiversity certification under Part 8 of the NSW Biodiversity Conservation Act 2016 (BC Act). This approval removes the need for landholders to seek their own biodiversity approvals under the BC Act for development on certified - urban capable land as long as they comply with planning controls under the CPCP, as set out in the Strategic Conservation Chapter of the SEPP (Biodiversity and Conservation) 2021.

While the CPCP was approved in 2022, the SWGC was previously granted separate biodiversity certification in 2007 under the now superseded *Threatened Species Conservation Act 1995* (TSC Act). This SWGC area is currently recognised as an existing growth centre on the CPCP map. The figure below shows that the LPS location is already classified as a 'certified area' under the SWGC – Biodiversity Certification, with the approximate location of the school shown by a red box.

This certification means that any areas of certified land that are proposed for development do not require a separate assessment and approval under the BC Act.



3. METHODS

3.1 DESKTOP ASSESSMENT METHODOLOGY

A number of desktop sources were reviewed to identify ecological values that may occur within the Project Area. The databases and other key sources considered are listed in Table 3-1

The Protected Matters Search Tool (PMST) and BioNet results were cross-checked using Atlas of Living Australia (ALA) database locations of records in the context of the actual Project Area.

This desktop review provides information on species known or likely to occur within the Project Area only, based on species records identified within a 5 km buffer of the Project Area. The 5 km buffer used for desktop searches is shown in Figure 1-2.

TABLE 3-1 DATABASES USED FOR DESKTOP ANALYSIS

Information Source	Name	Data Description
Department of Climate Change, Environment, Energy and Water (DCCEEW)	Protected Matters Search Tool (PMST)	This report provides general guidance on Matters of National Environmental Significance (MNES) and other matters protected by the EPBC Act in the Project Area. An updated PMST search for this report was conducted on 11/12/24.
DCCEEW	Species Profile and Threats Database (SPRAT)	The SPRAT profiles and associated conservation advice documents were consulted for the following reasons: They provide detailed information • Species distribution • Species habitat preferred and general The conservation advice documents are particularly important for assessing TECs found in field surveys, against the listed TEC guidelines. SPRAT searches were conducted for this report on 11/12/24.
NSW Seed Portal	Vegetation Communities Mapping	This search tool provides mapping of Plant Community Types (PCT) and spatial displays of threatened species recorded through the BioNet Atlas. Data from the BioNet Atlas is used to extract threatened flora and fauna species records within the Project Area and 5 km buffer. Utilisation of the SEED tool for this report was conducted on 11/12/24.
ala.org.au	Atlas of Living Australia	Australia national biodiversity database (supported by the National Collaborative Research Infrastructure Strategy, CSIRO). Database contains records accessed through an interactive spatial portal. Threatened species are searched to identify known records in proximity to the Project Area. ALA was utilised for this report on 11/12/24.
NSW Department of Environment and Heritage	BioNet	Provides information and records of PCTs, threatened flora and fauna and invasive flora and fauna. An updated Bionet search for this report was conducted on 11/12/24.

Consistent with the accepted approach for biodiversity assessment, a likelihood of occurrence assessment was undertaken, informed by desktop sources. Desktop sources identified a number of fauna and flora species listed under the EPBC Act and/or NSW BC Act that have been recorded previously or are predicted to occur within an approximately 10 km^2 buffer centered on the Project Area.

The likelihood of occurrence approach refines the desktop generated list using site-specific and species-specific habitat information. Desktop sources are indicative only and likelihood rankings, particularly in regard to the presence of preferred habitat, are conservative. The assessment ranks the likelihood of the species occurring within the Project Area through analysis of species distribution information and the presence of specific habitat attributes as identified through the desktop analysis and field survey. The criteria applied are outlined in Table 3-2

TABLE 3-2 LIKELIHOOD OF OCCURRENCE CRITERIA

	Preferred habitat exists	Suitable habitat exists[1]	Habitat does not exist[2]
Records within the Study Area (based on field investigations)	Known	Known	Known
Records in the Locality[3]	Likely	Potential	Unlikely
No records in the Locality, but the Project site is within known distribution	Potential	Potential	Unlikely
No records in the Locality, and the Project site is outside of distribution	Unlikely	Unlikely	Unlikely

[1]Habitat may be considered potential, but not known suitable because: some desired habitat features may be present, but not all; habitat may have poor connectivity; or habitat may be known to be disturbed; or suitable habitat requires confirmation.
[2]Based on sources reviewed and/or field survey results.
[3]'Locality' refers to a 10 km buffer of the Study Area.

3.2 FIELD ASSESSMENT METHODOLOGY

3.2.1 VEGETATION ASSESSMENT

Vegetation within the Project Area was systematically mapped and checked against PCT mapping within the locality. Vegetation assessment included:

- Ground truthing and mapping of vegetation communities;
- determination and survey of native flora; and
- identification and mapping of threatened flora species where present.

3.2.2 FAUNA AND FAUNA HABITAT

Native fauna within the Project Area were recorded on an opportunistic basis. Fauna were recorded either through direct sighting or call. Indirect observation of fauna was also noted through tracks, scratches and scats where observed.

Fauna habitat where observed was recorded including foraging, roosting and breeding habitat such as fruiting and flowering flora species, hollows, nests, woodpiles and logs, and water bodies.

All fauna habitat observed was recorded using GPS to map specific locations.

4. RESULTS

4.1 DESKTOP RESULTS

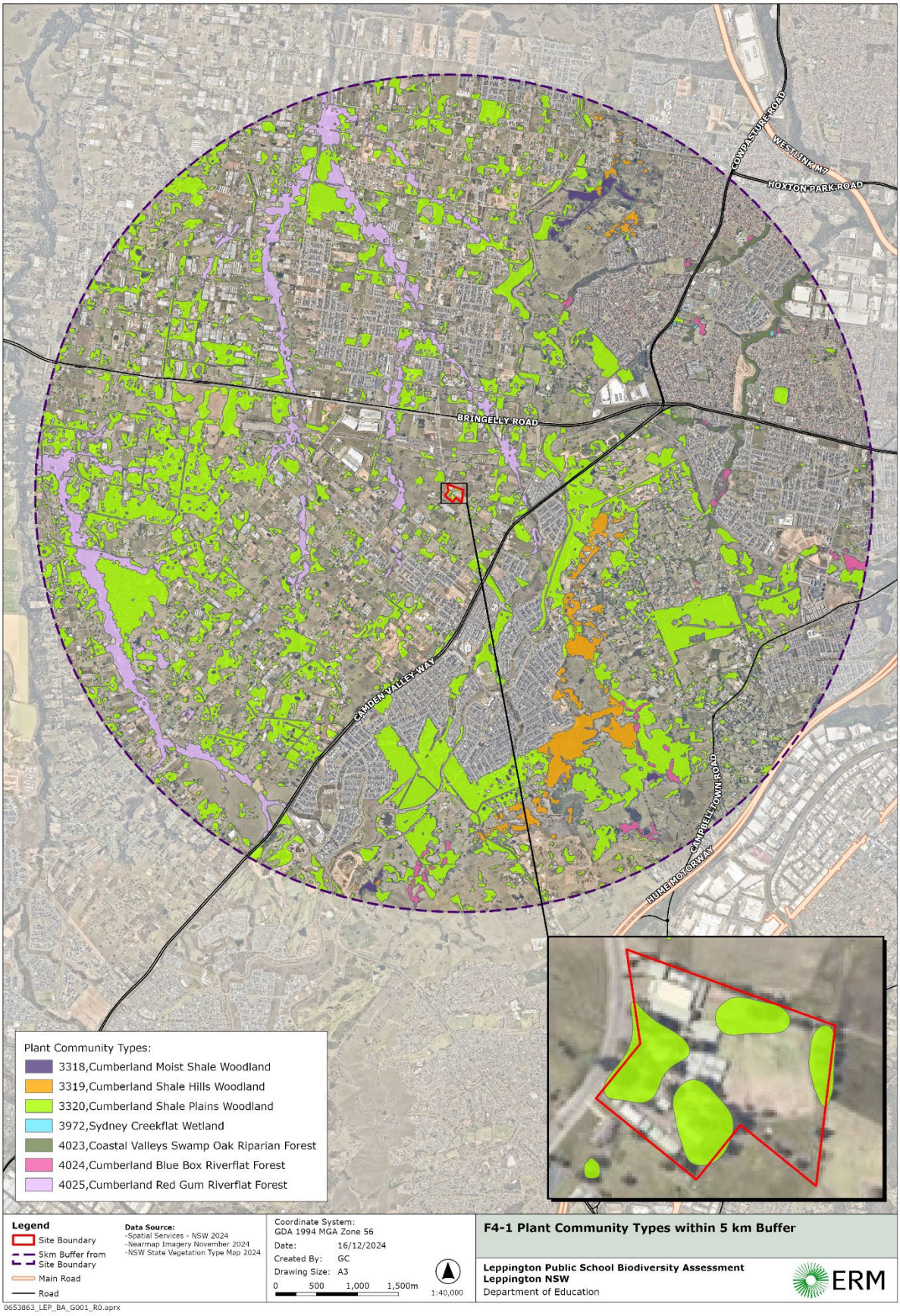
4.1.1 PLANT COMMUNITY TYPES AND BC ACT TECS

Plant Community Types (PCT) mapping from the NSW State Vegetation Type Map (SVTM), version C2.0.M2.0 released in November 2024 identified a total of seven PCTs within a 5km buffer of the Project Area, all of which are associated with a EPBC Act and NSW BC Act listed Threatened Ecological Community (TEC). PCT types are presented in Table 4-1 and shown in Figure 4-1

Of the seven PCTs mapped within the 5 km buffer area, only PCT 3320 (Cumberland Shale Plains Woodland) is mapped within the Project Area.

TABLE 4-1 PLANT COMMUNITY TYPES (SVTM) AND TECS

Plant Community Type	Relevant TEC (EPBC Act and BC Act)	PCT ID
Cumberland Moist Shale Woodland	Moist Shale Woodland in the Sydney Basin Bioregion (BC Act endangered) Western Sydney Dry Rainforest and Moist Woodland on Shale (EPBC Act critically endangered)	3318
Cumberland Shale Hills Woodland	Cumberland Plain Woodland in the Sydney Basin Bioregion (BC Act critically endangered) Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (EPBC Act critically endangered)	3319
Cumberland Shale Plains Woodland	Cumberland Plain Woodland in the Sydney Basin Bioregion (BC Act critically endangered) Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (EPBC Act critically endangered)	3320
Sydney Creekflat Wetland	Sydney Freshwater Wetlands in the Sydney Basin Bioregion (BC Act endangered)	3972
Coastal Valleys Swamp Oak Riparian Forest	Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (BC Act endangered) Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland ecological community (EPBC Act endangered)	4023
Cumberland Blue Box Riverflat Forest	River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (BC Act endangered) River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria (EPBC Act critically endangered)	4024
Cumberland Red Gum Riverflat Forest	River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (BC Act endangered) River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria (EPBC Act critically endangered)	4025


COMPASTURE ROAD
WESTLINK M7
HOXTON PARK ROAD
BRINGELLY ROAD
CAMDEN VALLEY WAY
CAMPBELLTOWN ROAD
HUME MOTORWAY
Plant Community Types:
3318,Cumberland Moist Shale Woodland
3319,Cumberland Shale Hills Woodland
3320,Cumberland Shale Plains Woodland
3972,Sydney Creekflat Wetland
4023,Coastal Valleys Swamp Oak Riparian Forest
4024,Cumberland Blue Box Riverflat Forest
4025,Cumberland Red Gum Riverflat Forest
Legend
Site Boundary
5km Buffer from Site Boundary
Main Road
Road
Data Source:
-Spatial Services - NSW 2024
-Nearmap Imagery November 2024
-NSW State Vegetation Type Map 2024
Coordinate System:
GDA 1994 MGA Zone 56
Date: 16/12/2024
Created By: GC
Drawing Size: A3
0 500 1,000 1,500m
1:40,000
F4-1 Plant Community Types within 5 km Buffer
Leppington Public School Biodiversity Assessment
Leppington NSW
Department of Education
ERM
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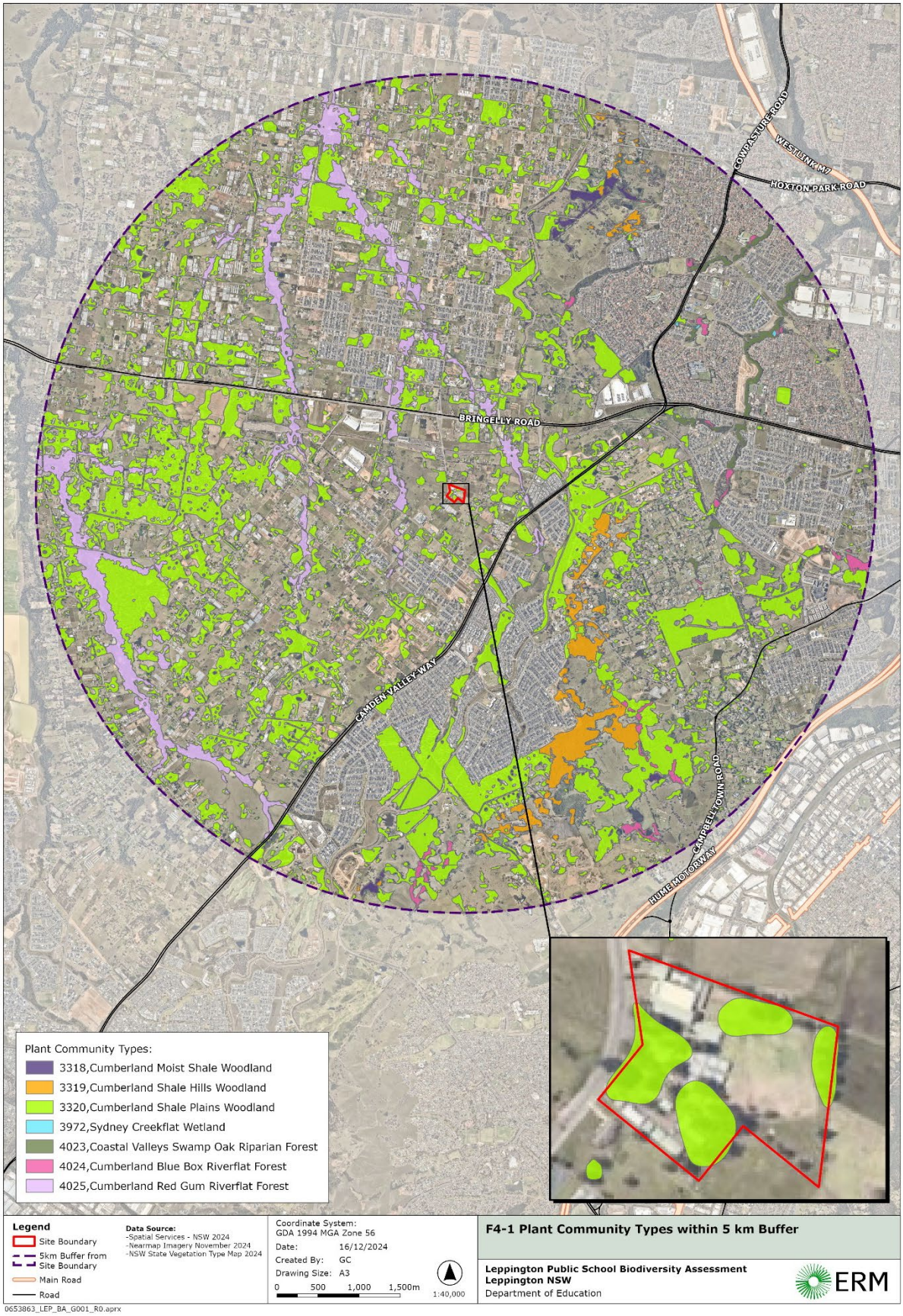

FIGURE 4-1 PLANT COMMUNITY TYPES WITHIN 5 KM BUFFER

4.1.2 EPBC ACT THREATENED ECOLOGICAL COMMUNITIES

PMST searches identified nine Threatened Ecological Communities (TEC) with the potential to occur within a 5 km buffer of the Project Area while the Plant Community Types (PCT) BioNet Search identified twelve TECs in this area. TECs and their descriptions identified in the PMST and Bionet are outlined in Table 4-2

TABLE 4-2 POTENTIAL TECS FROM PMST

TEC	Description	EPBC Act
Blue Gum High Forest of the Sydney Basin Bioregion	A moist, tall open forest community, with dominant canopy trees of Sydney Blue Gum *Eucalyptus saligna* and Blackbutt *Eucalyptus pilularis*. Forest Oak *Allocasuarina torulosa* and Sydney Red Gum *Angophora costata* also occur. Species adapted to moist habitat such as Lilly Pilly *Acmena smithii*, Sandpaper Fig *Ficus coronata*, Rainbow Fern *Calochleana dubia* and Common Maidenhair *Adiantum aethiopicum* may also occur (OEH 2024)	Critically Endangered
Castlereagh Scribbly Gum and Agnes Banks Woodlands of the Sydney Basin Bioregion	The Castlereagh Scribbly Gum and Agnes Banks Woodlands ecological community is typically a low woodland, with canopy species reaching an average 15 m in height, but with some trees growing to around 20 m (Benson, 1981; Keith, 2004; Tozer et al., 2010). The ecological community's understorey has a prominent and diverse mid-layer of sclerophyll shrubs. It typically has a patchy ground cover of sedges and grasses. (OEH 2024)	Endangered
Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland ecological community	The ecological community occurs in coastal catchments, mostly at elevations of less than 20 m above sea-level (ASL) that are typically found within 30 km of the coast. However, this distance varies by catchment. The canopy layer is dominated by Swamp Oak *Casuarina glauca*. This often occurs as a relatively uniform upper layer of swamp oak, with height and density dependent on the local environmental conditions. A number of *Eucalyptus spp*. can emerge from the canopy, with typical examples including Forest Red *Eucalyptus tereticornis*, Bangalay *Eucalyptus botryoides*, Flooded Gum *Eucalyptus grandis*, Woollybutt *Eucalyptus longifolia*, or Swamp Mahogany *Eucalyptus robusta*. (OEH 2024)	Endangered
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Coastal Swamp Sclerophyll Forests are typically found on a wide range of soils that are waterlogged or intermittently to episodically inundated. The vegetation composition of Coastal Swamp Sclerophyll Forests varies with latitude and is determined by the frequency and duration of water inundation (which may be freshwater or brackish flows) and the salinity and nutrient content of the soil. In the northern extent, the canopy is typically dominated or co-dominated by Broad-leaved Paperbark *Melaleuca quinquenervia* and Swamp Mahogany *Eucalyptus robusta*. Swamp Oak *Casuarina glauca* and Cabbage Tree Palm *Livistona australis* are frequently present but never dominant. In some areas, other melaleuca species may be locally common canopy or sub-canopy trees. Other eucalypt trees, for example, Pink Bloodwood *Corymbia intermedia* or Forest Red Gum *Eucalyptus tereticornis* may be scattered through the canopy in some areas. In the southern part of the ecological community's range, Bangalay *Eucalyptus botryoides* is more likely to be present and Swamp Paperbark *Melaleuca ericifolia* is the dominant paperbark, forming a typically lower and denser scrub-forest. (OEH 2024)	Endangered

TEC	Description	EPBC Act
Coastal Upland Swamps in the Sydney Basin Bioregion	The vegetation of the Coastal Upland Swamp may include tall open scrubs, tall closed scrubs, closed heaths, open graminoid heaths, sedgelands and fernlands. Larger examples may include a complex of these structural forms. The flora comprising the upland swamp is diverse there are 73 plant species listed as characterising the ecological community. The total species list is much greater and is likely to exceed 200 species of vascular plants. (OEH 2024).	Endangered
Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion	Ranges from open forest to low woodland, with a canopy dominated by Broad-leaved Ironbark *Eucalyptus fibrosa* and Paperbark *Melaleuca decora*. The canopy may also include other eucalypts such as Woolybutt (*Eucalyptus longifolia*). The dense shrubby understorey consists of Prickly-leaved Paperbark *Melaleuca nodosa* and Peach Heath *Lissanthe strigosa*, with a range of 'pea' flower shrubs, such as *Dillwynia tenuifolia,* Hairy Bush-pea *Pultenaea villosa* and Gorse Bitter Pea *Daviesia ulicifolia* (can be locally abundant). The sparse ground layer contains a range of grasses and herbs. Contains many more species and other references should be consulted to identify these. (OEH 2024)	Critically Endangered
Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest lies in a coastal valley rain shadow ccypying the driest part of the Cumberland Plain. This ecological community ranges from grassy woodland to forest. The tree canopy is typically dominated by grey box (*Eucalyptus moluccana*), forest red gum (*Eucalyptus tereticornis*) and/or red ironbark (*Eucalyptus fibrosa*), with smaller trees and shrubs growing underneath. The understorey is typically dominated by the ground layer and contains a variety of perennial native grasses and other non-woody plants. It is predominately associated with clay soils derived from Wianamatta Shale geology.	Critically Endangered
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	The structure of the ecological community is generally a tall open forest to woodland, but there may be localised areas of closed forest and/or low forest, often associated with disturbance (including flooding). The structure tends to be lower and less dense in the wider floodplains, whereas taller denser forests occur in the more confined floodplains. The canopy is dominated by eucalypt species, often with several species present. The canopy may exceed 40 m in height, but can be considerably shorter, for example in regrowth stands or where growth is inhibited (such as on waterlogged sites or in areas with lower rainfall). When intact, the canopy typically has between 40 and 60 percent crown cover, with large trees often containing hollows; but crown cover may be as low as 20 percent. Areas of higher crown cover also occur. A mid-layer of small trees or sub-canopy may be present with scattered to dense shrubs. For example, Melaleuca, Leptospermum and related genera may form dense thickets beneath eucalypt canopies or in gaps between trees. The mid-layer may be sparser in lower rainfall areas, or where partially cleared, grazed or frequently burnt. The ecological community often has climbers and vines extending into the mid-storey and canopy.	Critically Endangered

TEC	Description	EPBC Act
Shale Sandstone Transition Forest of the Sydney Basin Bioregion	Occurs at the edges of the Cumberland Plain, where clay soils from the shale rock intergrade with earthy and sandy soils from sandstone, or where shale caps overlay sandstone. The boundaries are indistinct, and the species composition varies depending on the soil influences. The main tree species include Forest Red Gum *Eucalyptus tereticornis*, Grey Gum (*Eucalyptus punctata*), stringybarks (*Eucalyptus globoidea* and/or *E. eugenioides*) and ironbarks (Euca. fibrosa and/or *E. crebra*). Areas of low sandstone influence (more clay-loam soil texture) have an understorey that is closer to Cumberland Plain Woodland. Shale Sandstone Transition Forest in the Sydney Basin Bioregion contains many more species than described for the canopy (above) and other references should be consulted to identify these.	Critically Endangered
Subtropical and Temperate Coastal Saltmarsh	The Subtropical and Temperate Coastal Saltmarsh (hereafter Coastal Saltmarsh) ecological community occurs within a relatively narrow margin of the Australian coastline, within the subtropical and temperate climatic zones south of the South-east Queensland IBRA bioregion boundary at 23° 37' latitude along the east coast and south of (and including) Shark Bay at 26° on the west coast. The ecological community spans six State jurisdictions: Queensland (southern), New South Wales, Victoria, Tasmania, South Australia and Western Australia (south-western)	Vulnerable
Turpentine-Ironbark Forest of the Sydney Basin Bioregion	The Turpentine-Ironbark Forest of the Sydney Basin Bioregion originally existed as a forest with either a shrubby or grassy understorey characteristic species include: Turpentine *Syncarpia glomulifera* and Ironbarks *Eucalyptus spp.* are dominant. Turpentine occurs throughout the ecological community but the associated tree species varies with local abiotic conditions. Grey Ironbark *Eucalyptus paniculata*, Narrow-leaved Ironbark *Eucalyptus crebra*, Red Ironbark *Eucalytpus fibrosa*, and Grey Gum (E. punctata) are common tree species in the Cumberland Plain. On the plateaux shale caps, Grey Ironbark and Mountain Mahogany *Eucalyptus notabilis* may become common in association with Turpentine. At the upper end of its rainfall/elevation range the Turpentine-Ironbark Forest of the Sydney Basin Bioregion may be dominated by Blue Gum (*E. salign*aa, Mountain Grey Gum *Eucalyptu cypellocarpa*, Round-leaved Gum *Eucalyptus deanei* or Grey Gum (OEH 2022).	Critically Endangered
Western Sydney Dry Rainforest and Moist Woodland on Shale	The dry rainforest form is a low, closed forest dominated by non-eucalypts—notably Prickly-leaved aperbark *Melaleuca styphelioides*, Hickory Wattle *Acacia implexa* and Native Quince *Alectryon subcinereus*, while White Euodia *Melicope micrococca* may also be common. The moist woodland form has a more open canopy dominated by eucalypts, notably forest red gum *Eucalyptus tereticornis* and Grey Box *Eucalyptus moluccana*). The vegetation underneath the canopy includes a variable presence of shrubs, and a generally sparse cover of grasses, ferns and other herbs. Vines and scramblers are typically present, though are most common in the dry rainforest form. The ecological community is characterised by a good representation of moisture-dependent species, such as broad-leaved shrubs and ferns. (OEH 2024)	Critically Endangered

4.1.3 THREATENED SPECIES RECORDS

Threatened species searches (BioNet) identified 23 fauna species listed under the BC Act, with six fauna species also listed under the EPBC act. The desktop searches identified five records of threatened flora within the 5km search area, with three flora species also listed under the EPBC Act. Threatened species identified within a 5 km buffer of the Project Area are presented in Table 4-3.

TABLE 4-3 THREATENED FAUNA AND FLORA RECORDS IN LOCALITY

Species	Common Name	NSW BC Act	EPBC Act
Meridolum corneovirens	Cumberland Plain Land Snail	Endangered	-
Pteropus poliocephalus	Grey-headed Flying Fox	Vulnerable	Vulnerable
Litoria aurea	Green and Golden Bell Frog	Endangered	Vulnerable
Phascolarctos cinereus	Koala	Endangered	Endangered
Burhinus grallarius	Bush Stone-curlew	Endangered	-
Lathamus discolor	Swift Parrot	Endangered	Critically Endangered
Hirundapus caudacutus	White-Throated Needletail	Vulnerable	Vulnerable
Circus assimilis	Spotted Harrier	Vulnerable	-
Haliaeetus (Pontoaetus) leucogaster	White-Bellied Sea-Eagle	Vulnerable	-
Hieraaetus (Hieraaetus) morphnoides	Little Eagle	Vulnerable	-
Ninox strenua	Powerful Owl	Vulnerable	-
Gallinago (Gallinago) hardwickii	Latham's Snipe	Vulnerable	Vulnerable
Parvipsitta pusilla	Little Lorikeet	Vulnerable	-
Neophema (Neophema) pulchella	Turquoise Parrot	Vulnerable	-
Daphoenositta (Neositta) chrysoptera	Varied sittella	Vulnerable	-
Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	-
Saccolaimus flaviventris	Yellow-Bellied Sheath-Tailed Bat	Vulnerable	-
Micronomus norfolkensis	Eastern Coastal Free-Tailed Bat	Vulnerable	-

Species	Common Name	NSW BC Act	EPBC Act
Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	-
Myotis macropus	Southern myotis	Vulnerable	-
Scoteanax rueppellii	Greater Broad-Nosed Bat	Vulnerable	-
Miniopterus australis	Little Bent-Winged Bat	Vulnerable	-
Miniopterus orianae oceanensis	Large Bent-Winged Bat	Vulnerable	-
Acacia pubescens	Downy Wattle	Vulnerable	Vulnerable
Pimelea spicata	Spiked Riceflower	Endangered	Endangered
Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Vulnerable
Marsdenia viridiflora R.Br. subsp. Viridiflora	Native Pear	Endangered	-
Pultenaea pedunculata	Matted Bush-Pea	Endangered	-

4.1.4 LIKELIHOOD OF OCCURRENCE

A total of 82 threatened species were considered within the Likelihood of Occurrence (LoO) Assessment, of these none are known within the Project Area, 16 are likely to occur, 13 have the potential to occur, and the remaining are unlikely to occur on the Project Area. Species known or likely to occur are presented in Table 4-4. All fauna species are highly mobile species, such as birds and bats, and their presence within the Project Area is likely to be as vagrants, only visiting occasionally for foraging.

The LoO Assessment indicated that no EPBC Act listed threatened species are known to occur on and three EPBC Act listed threatened species are considered likely to occur on the Project Area.

The complete LoO Assessment is provided in Appendix A.

TABLE 4-4 THREATENED SPECIES LIKELY TO OCCUR WITH THE SITE

Scientific Name	Common Name	NSW BC Act	EPBC Act
Likely			
Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	-
Daphoenositta chrysoptera	Varied Sittella	Vulnerable	-
Hieraaetus morphnoides	Little Eagle	Vulnerable	-
Ninox strenua	Powerful Owl	Vulnerable	-
Hirundapus caudacutus	White-Throated Needletail	Vulnerable	Vulnerable
Lathamus discolor	Swift Parrot	Endangered	Critically Endangered
Parvipsitta pusilla	Little Lorikeet	Vulnerable	-
Micronomus norfolcensis	Eastern Coastal Free-tailed Bat	Vulnerable	-
Miniopterus australis	Little Bent-Winged Bat	Vulnerable	-
Miniopterus orianae oceanensis	Large Bent-winged Bat	Vulnerable	-
Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	-
Myotis macropus	Southern Myotis	Vulnerable	-
Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Vulnerable
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable	-
Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable	-
Pultenaea pedunculata	Matted Bush-Pea	Endangered	-

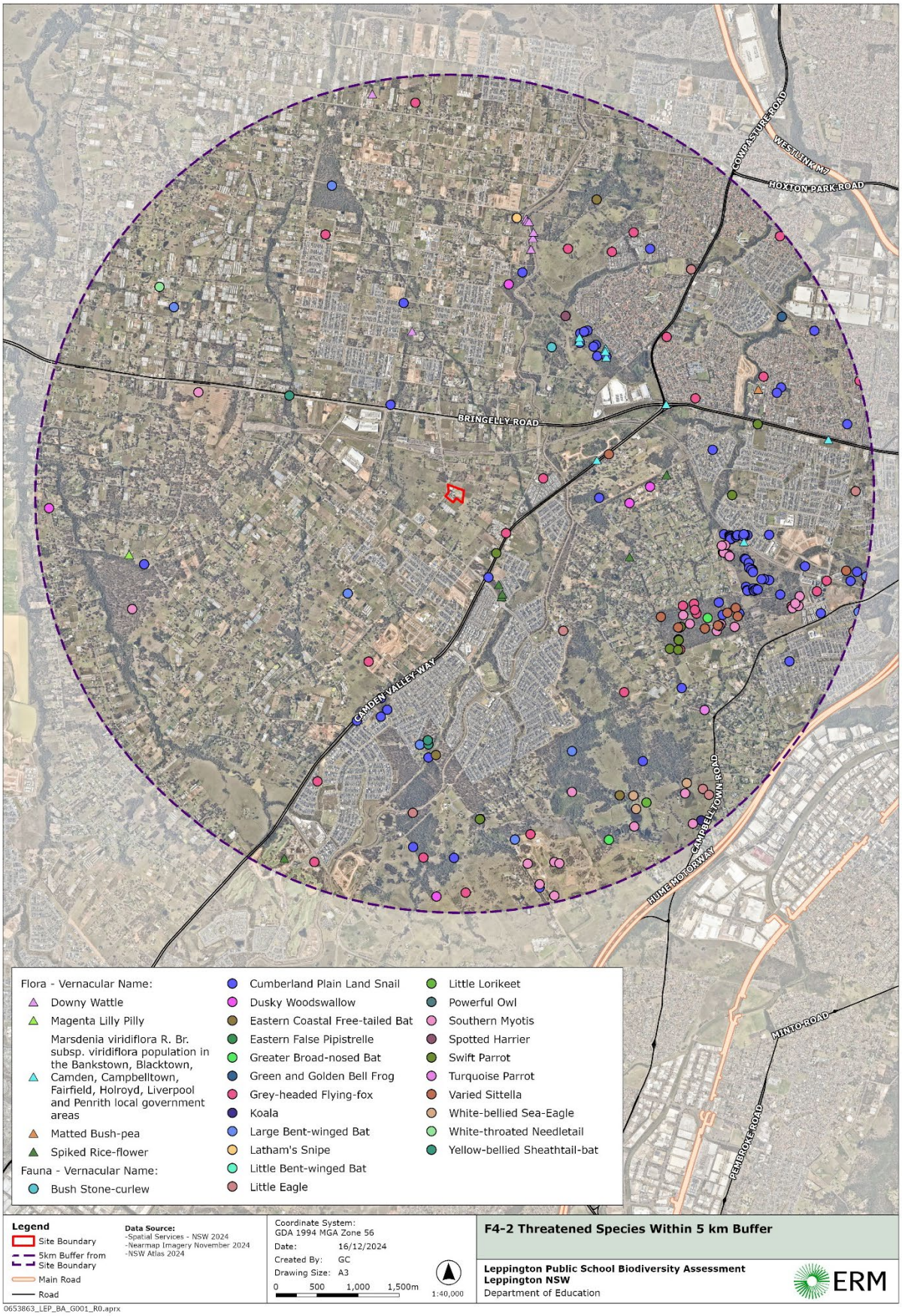

FIGURE 4-2 THREATENED SPECIES WITHIN 5 KM BUFFER

4.1.5 INVASIVE/PEST SPECIES

The BioNet Atlas search reported 13 invasive species, five of which are floral species of National Significance (WoNS), within a 10 km radius of the Leppington Public School.

- Amphibian pest species: 1;
- Invertebrate pest species: 1;
- Mammal pest species: 6; and
- Flora pest species: 5.

Invasive species within 10 km of Leppington Public School are presented in Table 4-5 below.

TABLE 4-5 INVASIVE SPECIES RECENTLY RECORDED WITHIN LEPPINGTON PUBLIC SCHOOL AND ITS 10KM BUFFER

Scientific Name	Common Name	WoNS
Invasive Amphibian		
Rhinella marina	Cane Toad	
Invasive Invertebrates		
Apis mellifera	Honey Bees	
Invasive Mammals		
Canis sp.	Wild Dog	
Felis catus	Cat	
Sus scrofa	Pig	
Vulpes vulpes	Red Fox	
Oryctolagus cuniculus	European Rabbit	
Capra hircus	Feral Goat	
Invasive Plants		
Alternanthera philoxeroides	Alligator mowing	✓
Chrysanthemoides monilifera subsp. rotundata	Bitou Bush	✓
Chrysanthemoides monilifera subsp. monilifera	Boneseed	✓
Eichhornia crassipes	Water Hyacinth	✓
Cytisus scoparius	Scotch Broom	✓

4.2 FIELD SURVEY RESULTS

Field surveys for LPS were conducted by ERM Principal Ecologist Matt Davis on 16th of June 2022. No rainfall was recorded in the week prior to the survey (station number 067061 approximately 3 km from Project Area). The temperature on this day ranged from 3°C to 21°C (station number 067108 approximately 10 km from Project Area) (BOM 2022).

4.2.1 FAUNA AND FAUNA HABITATS

No threatened fauna species were observed during the June 2022 field survey however, the Project Area was found to contain habitat suitable for foraging, roosting and nesting for a range of birds and bats that are highly adapted to urban areas. The lack of ground-dwelling fauna species is due to the highly modified nature of the site as a result of practices such as mowing.

Large eucalyptus species were observed in the Project Area which provide suitable foraging habitat for nectivorous bird species (i.e. Rainbow Lorikeet) and Flying Fox (*Pteropus spp*.) during flowering periods as well as sheltering and food resources for arboreal mammals such as Brushtail and Ringtail Possums. Hollows present in the larger, older eucalypts are potential habitat for parrots, including the critically endangered Swift Parrot and the vulnerable Superb Parrot.

Smaller hollows can provide roosting habitat for species of smaller bat species such as the Eastern Coastal Free-tailed Bat, while existing infrastructure such as buildings and sheds can provide habitat for both smaller and larger species of bat. The mix of native and exotic tree species are foraging and nesting habitat for many common urban birds such as Australian Magpies and honeyeaters.

4.2.2 FLORA

No threatened flora species were observed during the June 2022 field survey and given the modified and managed condition of the native vegetation communities, the occurrence of any threatened flora species is considered unlikely.

4.2.3 PLANT COMMUNITY TYPES

Ground-truthing of PCTs in the Project Area confirmed the presence of PCT 3320 – Cumberland Shale Plains Woodland that meets the definition of the Cumberland Plain Woodland TEC. The June 2022 fieldwork found areas of three different levels of constraint across the Project Area (Figure 4-3).

The areas indicated by pink polygons are areas of PCT 3320 identified and are of high constraint. These areas were found in a modified condition, with retained, mature Grey Box (*Eucalyptus moluccana*) trees over an exotic lawn understory and no shrub layer and are defined as a small patch of Cumberland Plain Woodland (Photograph 4-1). This PCT is listed as a critically endangered TEC and a 'serious and irreversible impact entity' (SAII) under the BC Act, although the condition of the community in the project area is only a result of the retained trees, with no native groundcovers or shrubs present.

The areas indicated by green polygons are of medium constraint. These areas were found to have native vegetation in a regrowth condition (Photograph 4-2). These areas should be avoided if possible.

The areas indicated by blue polygons are of low constraint. These areas were found to have planted/urban/landscaped vegetation and provide some habitat value for urban-adapted and common fauna (Photograph 4-3). As the proposal for this activity is under Part 5 of the *Environmental Planning and Assessment Act 1979* and the land is biodiversity certified, under the BC Act provisions a Biodiversity Development Assessment Report (BDAR) and/or Species Impact Statement (SIS) is not required for activities conducted in these areas.

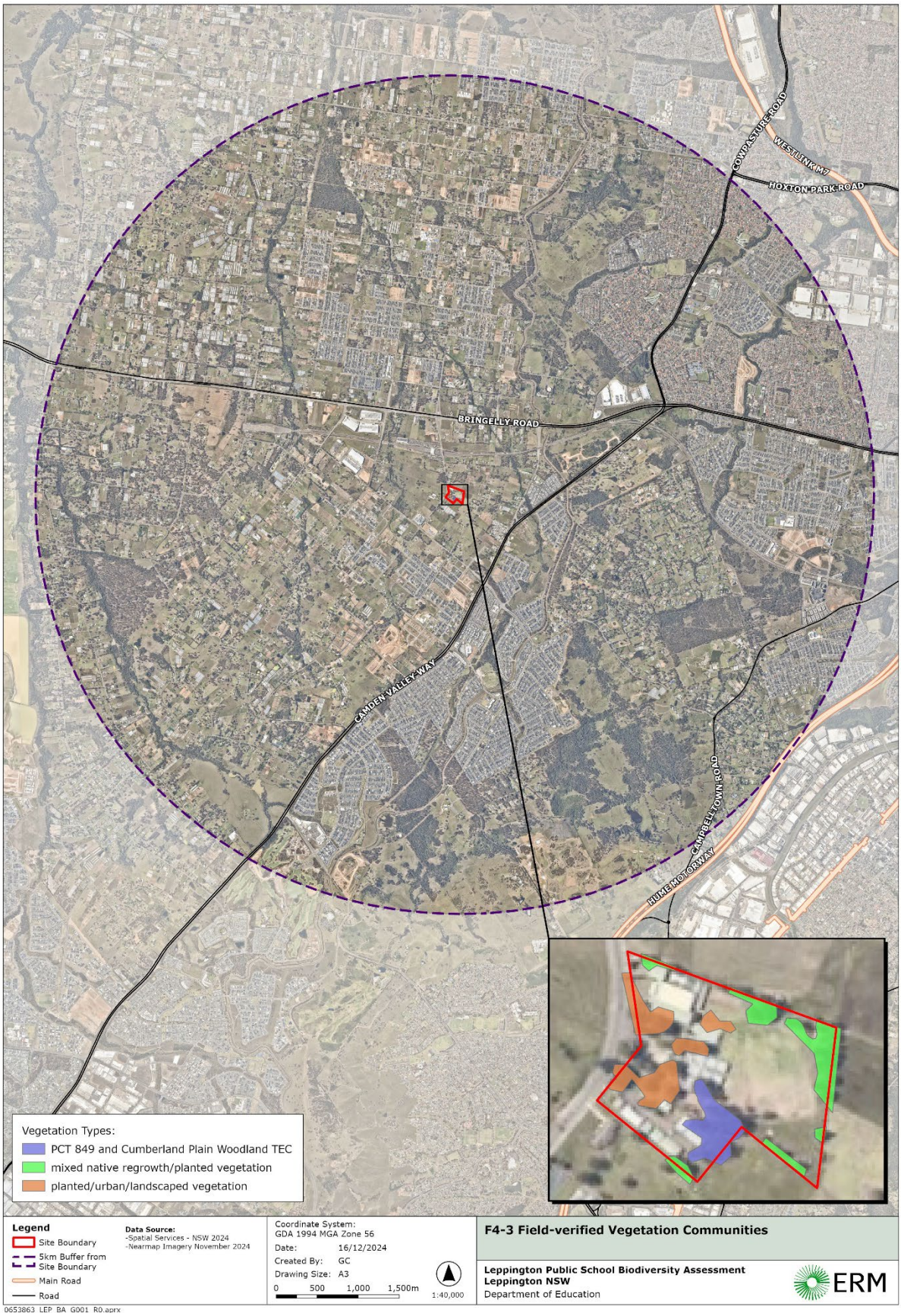

FIGURE 4-3 FIELD-VERIFIED VEGETATION COMMUNITIES

PHOTOGRAPH 4-1 GREY BOX TREES IN AREA OF MODIFIED PCT 3320

PHOTOGRAPH 4-2 PLANTED/REGROWTH NATIVE TREES IN SOUTH-EAST CORNER OF SITE

PHOTOGRAPH 4-3 PLANTED AND MAINTAINED GARDENS WITH NATIVE TREES

5. IMPACT ASSESSMENT

5.1 ARBORICULTURAL IMPACT ASSESSMENT

An Arboricultural Impact Assessment was conducted to assess individual trees that may be impacted by the proposed activity. The *Arboricultural Impact Assessment Report* (Allied Tree Consultancy, 2025), details the species, height, DBH, crown spread, age, crown class, vitality rating, Safe Useful Life Expectancy (SULE) rating, Significance of a tree Assessment Rating System (STARS) rating, Tree Protection Zone (TPZ) and Structural Root Zone (SRZ) for each individual tree (numbered 1 – 148).

Based on the proposed activity design, the Arboricultural Impact Assessment separates the individual trees into five categories:

- TPZ/SRZs outside of the proposed design that can be retained without further consideration or additional considerations;
- Trees directly conflicting with the design that are proposed to be removed;
- Trees directly conflicting with the cut/fill that are proposed to be removed;
- Trees subject to a minor encroachment that can largely be retained; and
- Trees subject to a major encroachment that will required additional Arboricultural management and mitigation measures if they are to be retained.

In summary, 95 trees (Trees No. 5-10, 16, 17, 31-36, 40-62, 67-89, 90-96, 100, 110-113, 115-117, 119-126, 129-131, 133-137, 141-144 and 148) can be retained based on conditions assigned to the work methodology, while the 24 remaining trees (Trees No. 4, 14, 15, 18-31, 63-66, 128 and 146-147), will require removal to accommodate the design. Table 5-1 details the individual trees that have the potential to be directly impacted by the current design of the proposed development (all trees directly conflicting with the design and construction methodology).

Of the 24 trees identified for removal due to conflicts with the design 23 are native trees, including seven *Eucalyptus elata* (River Peppermint), one *Eucalyptus tereticornis* (Forest Red Gum), five *Eucalyptus moluccana* (Grey Box), four *Callistemon viminalis (*Weeping Red Bottlebrush), three *Casuarina cunninghamiana* (River Oak), one *Eucalyptus scoparia* (Wallangarra White Gum), one *Eucalyptus grandis* (Flooded Gum), and one *Eucalyptus saligna* (Sydney Blue Gum).

Habitat features for native fauna are limited. The majority of the impacted trees have a DBH less than 50 cm, are less than 15 m in height, and are likely to have limited development of hollows that could be used for native fauna for roosting, nesting or breeding.

See the full Arboricultural Impact Assessment Report (Allied Tree Consultancy, 2025), for a full assessment of all trees and recommended management measures.

TABLE 5-1 SUMMARY OF IMPACTED TREES

Tree No.	Scientific Name	Common Name	Height (m)	DBH (m)
4	*Eucalyptus moluccana*	Grey Box	14	0.34 0.23 0.27
14	*Pinus radiata*	Monterey Pine[A]	10	0.64[B]
15	*Eucalyptus scoparia*	Wallangarra White Gum[A]	6	0.27[B,C]
18	*Eucalyptus elata*	River Peppermint[A]	8	0.29
19	*Eucalyptus elata*	River Peppermint[A]	9	0.26
20	*Eucalyptus elata*	River Peppermint[A]	10	0.35
21	*Eucalyptus elata*	River Peppermint[A]	10	0.25
22	*Eucalyptus tereticornis*	Forest Red Gum[A]	8	0.28
23	*Eucalyptus grandis*	Flooded Gum[A]	10	0.50
24	*Casuarina cunninghamiana*	River Oak	10	0.78[B]
25	*Callistemon viminalis*	Weeping Red Bottlebrush	5	0.37[B]
26	*Casuarina cunninghamiana*	River Oak	11	0.95[B,C]
27	*Callistemon viminalis*	Weeping Red Bottlebrush	5	0.27 0.14[B]
28	*Eucalyptus elata*	River Peppermint[A]	9	0.28
29	*Eucalyptus elata*	River Peppermint[A]	9	0.27
30	*Eucalyptus elata*	River Peppermint[A]	11	0.30
31	*Casuarina cunninghamiana*	River Oak	11	0.54
63	*Eucalyptus moluccana*	Grey Box	8	0.26[B]
64	*Eucalyptus moluccana*	Grey Box	8	0.21
65	*Eucalyptus moluccana*	Grey Box	7	0.17[B]
66	*Eucalyptus moluccana*	Grey Box	6	0.16
128	*Eucalyptus saligna*	Sydney Blue Gum	6	0.07
146	*Callistemon viminalis*	Weeping Red Bottlebrush	5	0.14 0.13
147	*Callistemon viminalis*	Weeping Red Bottlebrush	6	0.40[B,C]

A. Incomplete identification of species due to insufficiently available plant material
B. Diameter taken below 1.4 m due to low stem bifurcation
C. Estimate due to the overgrown area and/or limited access
D. Deciduous species, void of foliage at the time of assessment
E. Level 3 assessment required to determine the accurate rating

5.2 CUMBERLAND PLAIN CONSERVATION PLAN GUIDELINES FOR INFRASTRUCTURE DEVELOPMENT

The *Cumberland Conservation Plan Guidelines for Infrastructure Development* applies to activities or infrastructure development that are identified as 'essential infrastructure', and Part 5 activities under the *Environmental Planning and Assessment Act 1979* (EP&A Act) that are carried out on land identified as 'avoided land', 'strategic conservation area' or 'certified- urban capable land' by Strategic Conservation Planning 2022. These guidelines aim to guide infrastructure development and activities to maintain consistency across CPCP's commitments and actions, and to avoid, minimise and mitigate impacts to biodiversity from infrastructure.

Assessment of potential impacts against objectives and mitigation requirements of Section 3.3, Table 1 of the *Cumberland Conservation Plan Guidelines for Infrastructure Development* is outlined in Table 5-2.

LPS lies approximately 20 km south-east of the Orchid Hills Defence Establishment, and as there are no waterway habitats present in the Project area, works will not impact surface water flow and water quality of Blaxland Creek. Therefore, no mitigation measures for waterway protection and management are required for the LPS upgrade.

TABLE 5-2 PROPOSED MITIGATION MEASURES FOR THE LPS UPGRADE

Mitigation Number/Name	Aspect/Section	Mitigation Measures	Reason for Mitigation
Fauna and Flora Habitat Management	Demolition/Construction stages	If microbats, grey-headed flying fox camps and/or birds-of-prey are found during works, the immediate area around the wildlife and/or its nest is to be isolated from work, and consultation with a suitably qualified and competent ecologist is to be carried out to address concerns and limit the potential of direct physical harm to the wildlife or loss of habitat.	Protection of native fauna
	Prior to works/Demolition/Construction stages	Pathogens such as *Phytophthora cinnamomi* and myrtle rust can impact potential foraging and roosting habitat for native fauna. To prevent the spread of such pathogens, contractors should be familiarized with signs of as *P. cinnamomi* and myrtle rust, and any sightings observed in the Project Area should be reported to the NSW Biodiversity Conservation Trust. Plants infected with myrtle rust should be sprayed with fungicide and enclosed in a plastic bag 3-4 days post-spray, and then disposed of into a normal waste bin.	Protection of native fauna and flora
	Demolition/Construction stages	Due to the highly modified nature of the Project Area from practices such as mowing, it is unlikely that Weeds of National Significance (WoNS) will pose a significant risk to the ecological	Protection of native flora

Mitigation Number/Name	Aspect/Section	Mitigation Measures	Reason for Mitigation
		communities, species and habitat present at the site. As the risk is low, mitigation is unlikely to be required, however if a WoNS is located within the Project Area, appropriate management measures for the treatment, removal and disposal of WoNS (dependent on the species) should be addressed in the manner recommended by relevant state and federal Government authorities.	
Threatened Ecological Communities (TECs) Management	Prior to start of works	A Certified Arborist will be required to prepare a Tree Management Plan (TMP) prior to initiation of the works. This plan should outline the conditions of the activity, and all workers should be briefed in a site induction about the requirements, as per the *Arboricultural Impact Assessment Report* (Allied Tree Consultancy, 2025).	Protection of TECs

6. SUMMARY AND RECOMMENDATIONS

The desktop investigations for this Biodiversity Assessment Report identified a number of potential notable biodiversity features both within and around the broader landscape of the Project Area in the form of threatened fauna species records and TEC mapping.

No threatened fauna or flora species were detected during the field survey. Vegetation within the project area can be classified into three categories. Of least constraint are the areas of planted/urban/landscaped vegetation, which provide some habitat value for urban-adapted and common fauna. These areas are present around the existing infrastructure on the north of the school grounds and to the west of the sports field. As the proposal for this activity is under Part 5 of the *Environmental Planning and Assessment Act 1979* and the land is biodiversity certified, under the BC Act provisions a Biodiversity Development Assessment Report (BDAR) and/or Species Impact Statement (SIS) is not required for activities conducted in these areas.

The *Arboricultural Impact Assessment Report* (Allied Tree Consultancy, 2025) identified 119 trees within the vicinity of the LPS upgrade. Based on encroachment into the area of proposed activity, 24 of these trees impact the proposed design and will require removal. Existing trees in the area of activity will to be removed along the northern boundary, some of which fall under the moderate constraint category. A minimal number of trees are also projected to be removed along the eastern and western boundaries of the Project Area, as outlined in the Landscape Concept Plan (Taylor Brammer Landscape Architects, 2025).

Removal of trees in these areas has the potential to reduce foraging habitat for species such as the Grey-headed Flying-fox, however, given the Project Area is within an area of certified land under the SWGC biocertification, no additional biodiversity assessment or approvals are required for tree removal. As habitat features for native fauna are limited, and the majority of impacted trees have a DBH of less than 50 cm and are less than 15 m in height, the removal of these trees is not considered to have a significant impact to the biodiversity values of the site.

As informed by desktop surveys and ground-truthed during the field investigation, an area of Cumberland Plain Woodland TEC is present on the site, located in the south-west of the Project Area. This ecological community is listed as critically endangered and a 'serious and irreversible impact entity' (SAII) under the BC Act. Despite the area being found in a modified condition, with an exotic lawn understory and no shrub layer, the vegetation still meets the definition of a small patch of Cumberland Plain Woodland. As per the Landscape Concept Plan (Taylor Brammer Landscape Architects, 2025) any existing trees that have been identified as belonging to the Cumberland Plain Woodland TEC will be retained and protected.

From a regulatory perspective, LPS is located within an area of certified land under the existing SWGC – Biodiversity Certification. This certification is prepared at a strategic level across the SWGC area and for developments that require impacts to biodiversity in certified land, no additional assessments or approvals are required under the BC Act. Additionally, as LPS is located on certified-urban capable land as identified in the CPCP, landholders are not required to seek further biodiversity approval before developing the land, subject to compliance with planning controls laid out in the CPCP.

Further to the biocertification, the SGWC plan is also subject to a strategic approval under the EPBC Act, so any impacts to certified land do not require referral and additional assessment.

The nature and extent of impacts within the Project Area are also not at a sufficient size or scale to cause a significant impact to any MNES protected under the EPBC Act.

Based on findings from the desktop analysis and site inspection, and accounting for mitigation and compensatory strategies, the proposed LPS upgrade is unlikely to have a significant effect on the ecological values present within the Project Area. Any potential impacts should be able to be adequately mitigated through the recommended measures detailed in this report.

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APPENDIX A PMST RESULTS

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: 11-Dec-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	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	7
Listed Threatened Species:	58
Listed Migratory Species:	12

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:	28
Commonwealth Heritage Places:	None
Listed Marine Species:	24
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:	2
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	22
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

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	Buffer Status
Castlereagh Scribbly Gum and Agnes Banks Woodlands of the Sydney Basin Bioregion	Endangered	Community likely to occur within area	In feature area
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community likely to occur within area	In buffer area only
Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion	Critically Endangered	Community likely to occur within area	In feature area
Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	Critically Endangered	Community likely to occur within area	In feature area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community likely to occur within area	In feature area
Shale Sandstone Transition Forest of the Sydney Basin Bioregion	Critically Endangered	Community may occur within area	In buffer area only
Western Sydney Dry Rainforest and Moist Woodland on Shale	Critically Endangered	Community likely to occur within area	In feature 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	Buffer Status
BIRD			
Anthochaera phrygia			
Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
FISH			
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area	In feature area
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
FROG			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Heleioporus australiacus](#) Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Litoria aurea](#) Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat likely to occur within area	In feature area
INSECT			
[Austrocordulia leonardi](#) Sydney Hawk Dragonfly [84741]	Endangered	Species or species habitat may occur within area	In buffer area only
MAMMAL			
[Chalinolobus dwyeri](#) Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area	In feature area
[Dasyurus maculatus maculatus (SE mainland population)](#) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
[Petauroides volans](#) Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area	In feature area
[Petaurus australis australis](#) Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Petrogale penicillata](#) Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[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 known to occur within area	In feature area
[Pseudomys novaehollandiae](#) New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pteropus poliocephalus](#) Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
PLANT			
[Acacia bynoeana](#) Bynoe's Wattle, Tiny Wattle [8575]	Vulnerable	Species or species habitat may occur within area	In feature area
[Acacia pubescens](#) Downy Wattle, Hairy Stemmed Wattle [18800]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Allocasuarina glareicola](#) [21932]	Endangered	Species or species habitat likely to occur within area	In feature area
[Cryptostylis hunteriana](#) Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Cynanchum elegans](#) White-flowered Wax Plant [12533]	Endangered	Species or species habitat known to occur within area	In feature area
[Eucalyptus benthamii](#) Camden White Gum, Nepean River Gum [2821]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
[Genoplesium baueri](#) Yellow Gnat-orchid, Bauer's Midge Orchid, Brittle Midge Orchid [7528]	Endangered	Species or species habitat may occur within area	In feature area
[Grevillea parviflora subsp. parviflora](#) Small-flower Grevillea [64910]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Haloragis exalata subsp. exalata](#) Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat may occur within area	In feature area
[Melaleuca deanei](#) Deane's Melaleuca [5818]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat may occur within area	In feature area
Persoonia hirsuta Hairy Geebung, Hairy Persoonia [19006]	Endangered	Species or species habitat may occur within area	In buffer area only
Persoonia nutans Nodding Geebung [18119]	Endangered	Species or species habitat known to occur within area	In feature area
Pimelea curviflora var. curviflora [4182]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pimelea spicata Spiked Rice-flower [20834]	Endangered	Species or species habitat known to occur within area	In feature area
Pomaderris brunnea Rufous Pomaderris, Brown Pomaderris [16845]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterostylis gibbosa Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood [4562]	Endangered	Species or species habitat may occur within area	In buffer area only
Pterostylis saxicola Sydney Plains Greenhood [64537]	Endangered	Species or species habitat likely to occur within area	In feature area
Pultenaea parviflora [19380]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Rhizanthella slateri Eastern Underground Orchid [11768]	Endangered	Species or species habitat may occur within area	In feature area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Syzygium paniculatum Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat may occur within area	In feature area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area	In feature area
REPTILE			
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pandion haliaetus](#) Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Commonwealth Trading Bank of Australia		
Commonwealth Land - Commonwealth Trading Bank of Australia [13346]	NSW	In buffer area only
Commonwealth Land - Commonwealth Trading Bank of Australia [13347]	NSW	In buffer area only
Communications, Information Technology and the Arts - Telstra Corporation Limited		
Commonwealth Land - Australian Telecommunications Commission [13340]	NSW	In buffer area only
Commonwealth Land - Australian Telecommunications Corporation [13343]	NSW	In buffer area only
Commonwealth Land - Overseas Telecommunications Commission (Australia) [13339]	NSW	In buffer area only
Commonwealth Land - Telstra Corporation Limited [15966]	NSW	In buffer area only
Defence		
Defence - BRINGELLY RADIO RECEIVING STATION [10190]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Defence - INGLEBURN AREA (Bardia Barracks) [10199]	NSW	In buffer area only
Defence - INGLEBURN AREA (Bardia Barracks) [10196]	NSW	In buffer area only
Defence - Defence Housing Authority		
Commonwealth Land - Defence Housing Authority [13344]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15668]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13345]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13348]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13349]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15665]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15664]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15667]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15456]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15666]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15568]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15454]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15457]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15458]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15455]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15567]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15566]	NSW	In buffer area only
Unknown		
Commonwealth Land - [15663]	NSW	In buffer area only
Commonwealth Land - [13352]	NSW	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Apus pacificus](#) Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
[Bubulcus ibis as Ardea ibis](#) Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
[Chalcites osculans as Chrysococcyx osculans](#) Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
[Haliaeetus leucogaster](#) White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
[Lathamus discolor](#) Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature 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	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sterna striata			
White-fronted Tern [799]		Migration route may occur within area	In feature area
Symposiachrus trivirgatus as Monarcha trivirgatus			
Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Edmondson	Regional Park	NSW	In buffer area only
Kemps Creek	Nature Reserve	NSW	In buffer area only

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
construction of a regional scale stormwater detention basin, spillway and outlet	2011/5819	Controlled Action	Post-Approval	In buffer area only
Emerald Hills residential & commercial estate development, Camden Valley Way, Leppington, NSW	2013/6999	Controlled Action	Post-Approval	In buffer area only
Lyn Parade Extension	2004/1392	Controlled Action	Post-Approval	In feature area
M12 Motorway Project, Luddenham, NSW	2018/8286	Controlled Action	Post-Approval	In buffer area only
Residential subdivision Lot 400 Strathyre Road, Prestons, NSW	2015/7627	Controlled Action	Post-Approval	In buffer area only
Sale of surplus land at Ingleburn	2007/3567	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
Clearance of 6.3ha of Cumberland Plain Woodland for industrial subdivision cnr of Old Walgrove and W	2004/1445	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
construction of a road linking Newbridge Road and Nuwarra Road	2004/1843	Not Controlled Action	Completed	In buffer area only
Construction of Pipelines and Reservoirs at Ingleburn Army Camp as Part of the H	2009/4844	Not Controlled Action	Completed	In buffer area only
Development of a car & truck parking area at the Boral site	2011/6134	Not Controlled Action	Completed	In buffer area only
Electricty Substation at Old Wallgrove Road	2005/2220	Not Controlled Action	Completed	In buffer area only
gas main installation from Eastern Creek to Erskine Park	2005/2235	Not Controlled Action	Completed	In buffer area only
Green Valley NSW residential developmemt	2003/1236	Not Controlled Action	Completed	In buffer area only
Greenway Park Stage 3 residential subdivision	2004/1622	Not Controlled Action	Completed	In feature area
Hoxton Park Residential development	2011/6103	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Residential Development in Edmonston Park	2009/4832	Not Controlled Action	Completed	In buffer area only
Residential Subdivision Braidwood Drive	2011/5940	Not Controlled Action	Completed	In buffer area only
Wonderland Business Park Precinct, Stage 1, Lot D1	2004/1626	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				
Northern Expansion of the Camden Gas Project	2012/6638	Referral Decision	Completed	In buffer area only

Bioregional Assessments			[Resource Information]
SubRegion	BioRegion	Website	Buffer Status

SubRegion	BioRegion	Website	Buffer Status
Sydney	Sydney Basin	BA website	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will 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 this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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APPENDIX B BIONET RESULTS

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Amphibia	Hylidae	Litoria aure	Green and	E1,P	V	22/02/2022	22/02/2022	60	-33.9406	150.8545	56	301711	6242362
Aves	Apodidae	Hirundapu	White-thro	V,P	V,C,J,K	6/01/2010	6/01/2010	1	-33.9481	150.7894	56	295712	6241401
Aves	Apodidae	Hirundapu	White-thro	V,P	V,C,J,K	19/11/2019	19/11/2019		-33.9358	150.7726	56	294132	6242726
Aves	Ardeidae	Botaurus p	Australasia	E1,P	E	14/07/2009	14/07/2009	2	-33.9231	150.8536	56	301589	6244300
Aves	Ardeidae	Botaurus p	Australasia	E1,P	E	3/11/2011 21:00	3/11/2011 21:00	1	-34.0136	150.7529	56	292500	6234058
Aves	Accipitrida	Circus ass	Spotted Ha	V,P		4/04/2015	4/04/2015	1	-33.94	150.826	56	299076	6242368
Aves	Accipitrida	Circus ass	Spotted Ha	V,P		19/09/2017	19/09/2017	1	-33.9152	150.7584	56	292764	6244981
Aves	Accipitrida	Circus ass	Spotted Ha	V,P		31/05/1986	3/08/1986	4	-33.9334	150.8697	56	303105	6243190
Aves	Accipitrida	Haliaeetus	White-belli	V,P		14/07/2009	14/07/2009	1	-33.9231	150.8536	56	301589	6244300
Aves	Accipitrida	Haliaeetus	White-belli	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.9915	150.8406	56	300550	6236681
Aves	Accipitrida	Haliaeetus	White-belli	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.9928	150.8336	56	299901	6236526
Aves	Accipitrida	Haliaeetus	White-belli	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.9943	150.8339	56	299935	6236366
Aves	Accipitrida	Haliaeetus	White-belli	V,P		1/01/1992	21/08/2008	3	-33.9834	150.7576	56	292863	6237414
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		23/09/1998	11/11/1998	1	-33.9667	150.8716	56	303355	6239490
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		31/05/2004	3/06/2004		-33.9351	150.8427	56	300605	6242940
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		16/02/2016	16/02/2016		-33.9599	150.8637	56	302608	6240236
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.9922	150.8428	56	300749	6236608
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.9929	150.8435	56	300822	6236536
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		7/08/2019	7/08/2019		-34.0045	150.8272	56	299341	6235214
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		15/03/2001	15/03/2001		-33.9468	150.8667	56	302855	6241690
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		22/01/1985	22/01/1985	1	-33.9287	150.859	56	302105	6243690
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		3/02/1985	3/02/1985	1	-33.9287	150.859	56	302105	6243690
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		21/04/1985	21/04/1985	1	-33.9287	150.859	56	302105	6243690
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		26/12/1986	26/12/1986	1	-33.9984	150.8678	56	303078	6235970
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		19/04/2013	19/04/2013	1	-33.9753	150.8631	56	302583	6238527
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		13/06/2014	13/06/2014	1	-34.0069	150.8336	56	299937	6234958
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		31/08/2007 14:30	31/08/2007 14:30	1	-33.9048	150.8525	56	301445	6246321
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		31/08/2007 9:45	31/08/2007 9:45	1	-33.9745	150.8248	56	299050	6238534
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		26/04/2007 17:20	26/04/2007 17:20	1	-33.9942	150.8045	56	297215	6236316
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		13/05/2014 10:10	13/05/2014 10:10	1	-33.9724	150.8476	56	301146	6238814
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		18/03/2014 10:00	18/03/2014 10:00	1	-33.9656	150.8459	56	300978	6239572
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		31/03/2014 10:00	31/03/2014 10:00	1	-33.9744	150.8454	56	300947	6238591
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		20/01/2004 13:00	20/01/2004 13:00	1	-33.906	150.7991	56	296505	6246085
Aves	Accipitrida	Hieraaetus	Little Eagle	V,P		11/07/2006 10:00	11/07/2006 10:00	1	-33.94	150.8755	56	303649	6242461
Aves	Accipitrida	Lophoictin	Square-tail	V,P,3		26/03/2021 9:54	26/03/2021 9:54		-33.9438	150.8781	56	303901	6242049
Aves	Accipitrida	Lophoictin	Square-tail	V,P,3		26/03/2021 10:00	26/03/2021 10:00		-33.8902	150.835	56	299791	6247911
Aves	Accipitrida	Lophoictin	Square-tail	V,P,3		19/09/2017	19/09/2017	1	-33.9269	150.7579	56	292747	6243687
Aves	Falconidae	Falco subn	Black Falc	V,P		4/05/1991	4/05/1991	1	-33.9287	150.859	56	302105	6243690
Aves	Burhinidae	Burhinus g	Bush Ston	E1,P		1/01/1930	31/12/1950		-33.9378	150.8642	56	302605	6242690
Aves	Burhinidae	Burhinus g	Bush Ston	E1,P		1/01/1930	31/12/1950		-33.9434	150.8241	56	298905	6241990
Aves	Scolopacic	Gallinago h	Latham's S	V,P	V,J,K	25/02/2022	25/02/2022	17	-33.893	150.7661	56	293427	6247463
Aves	Scolopacic	Gallinago h	Latham's S	V,P	V,J,K	19/09/2017	19/09/2017	2	-33.9208	150.7596	56	292895	6244370
Aves	Scolopacic	Gallinago h	Latham's S	V,P	V,J,K	19/09/2017	19/09/2017	2	-33.9196	150.7597	56	292898	6244501
Aves	Scolopacic	Gallinago h	Latham's S	V,P	V,J,K	19/09/2017	19/09/2017	2	-33.9202	150.7597	56	292896	6244431
Aves	Scolopacic	Gallinago h	Latham's S	V,P	V,J,K	6/01/2010	6/01/2010	1	-33.9481	150.7894	56	295712	6241401
Aves	Scolopacic	Gallinago h	Latham's S	V,P	V,J,K	26/09/2021	26/09/2021		-33.9291	150.8199	56	298482	6243565
Aves	Psittacidae	Glossopsit	Little Lorik	V,P		19/09/2017	19/09/2017	1	-33.9269	150.7579	56	292747	6243687

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Aves	Psittacidae	Glossopsit	Little Lorik	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.9936	150.8353	56	300059	6236443
Aves	Psittacidae	Glossopsit	Little Lorik	V,P		14/05/2014 15:55	14/05/2014 15:55	1	-33.9724	150.8476	56	301146	6238814
Aves	Psittacidae	Glossopsit	Little Lorik	V,P		29/10/2014 8:50	29/10/2014 9:30	2	-33.9676	150.8701	56	303217	6239396
Aves	Psittacidae	Glossopsit	Little Lorik	V,P		9/11/2011	9/11/2011		-33.9157	150.8415	56	300449	6245097
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	26/03/2019 9:47	26/03/2019 9:50	10	-33.9229	150.7694	56	293800	6244150
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	18/05/2004	18/05/2004	1	-33.96	150.8474	56	301105	6240190
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	18/05/2004	15/05/2006		-33.9523	150.851	56	301414	6241051
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	16/05/2014	16/05/2014	20	-33.9758	150.84	56	300450	6238430
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	28/05/2014	28/05/2014	80	-33.9744	150.8403	56	300477	6238584
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	20/06/2014	20/06/2014	20	-33.9758	150.84	56	300454	6238421
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	2/08/2014	2/08/2014	3	-33.9659	150.8162	56	298232	6239479
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	26/03/2019	26/03/2019	10	-33.9229	150.7694	56	293800	6244150
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	9/05/2020	9/05/2020	1	-33.995	150.8133	56	298034	6236241
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	13/09/2020	13/09/2020	5	-33.995	150.8133	56	298033	6236240
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	16/05/2014 9:30	16/05/2014 9:30	7	-33.9768	150.8388	56	300344	6238316
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	16/05/2014 9:30	16/05/2014 9:30	4	-33.9768	150.8388	56	300344	6238316
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	13/05/2014 8:00	13/05/2014 8:00	18	-33.9769	150.8399	56	300448	6238302
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	13/05/2014 8:00	13/05/2014 8:00	9	-33.9769	150.8399	56	300448	6238302
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	14/05/2014 14:50	14/05/2014 14:50	5	-33.9769	150.8399	56	300448	6238302
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	16/05/2014 8:30	16/05/2014 8:30	1	-33.9733	150.8478	56	301172	6238713
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	13/05/2014 9:16	13/05/2014 9:16	2	-33.9744	150.84	56	300448	6238575
Aves	Psittacidae	Lathamus	Swift Parro	E1,P	CE	10/03/2014 16:35	16/05/2014 20:30	40	-33.9744	150.84	56	300448	6238575
Aves	Psittacidae	Neophema	Turquoise I	V,P,3		1/06/2009	1/06/2009		-33.9836	150.8432	56	300767	6237570
Aves	Strigidae	Ninox conr	Barking Ow	V,P,3		6/12/2011	6/12/2011	3	-34.0038	150.7707	56	294114	6235179
Aves	Strigidae	Ninox conr	Barking Ow	V,P,3		20/08/2018	20/08/2018		-33.9182	150.8635	56	302488	6244859
Aves	Strigidae	Ninox strer	Powerful O	V,P,3		19/06/2012	19/06/2012	1	-34.0109	150.871	56	303397	6234593
Aves	Strigidae	Ninox strer	Powerful O	V,P,3		18/05/2021	18/05/2021		-34.008	150.8619	56	302549	6234893
Aves	Strigidae	Ninox strer	Powerful O	V,P,3		21/07/2014 18:35	21/07/2014 20:10	1	-33.9744	150.8454	56	300947	6238591
Aves	Strigidae	Ninox strer	Powerful O	V,P,3		18/05/2021	18/05/2021		-34.0046	150.8633	56	302671	6235281
Aves	Tytonidae	Tyto novae	Masked Ov	V,P,3		27/05/2015	27/05/2015		-33.9271	150.857	56	301915	6243862
Aves	Acanthizid	Chthonico	Speckled V	V,P		1/11/2003	30/11/2003		-33.9218	150.8562	56	301830	6244450
Aves	Acanthizid	Chthonico	Speckled V	V,P		9/03/1993	9/03/1993		-33.8961	150.8015	56	296705	6247190
Aves	Meliphagid	Anthochae	Regent Hor	E4A,P,2	CE	19/10/2012	19/10/2012	1	-34.01	150.88	56	304229	6234709
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		24/01/2002 8:25	24/01/2002 8:45		-34.0151	150.7456	56	291828	6233878
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		7/09/2009	7/09/2009		-33.9553	150.8313	56	299602	6240685
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		14/05/2015 10:40	14/05/2015 10:40	6	-33.8953	150.8123	56	297700	6247300
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		9/03/1993	9/03/1993		-33.8961	150.8015	56	296705	6247190
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		15/01/1999	15/01/1999	1	-33.9729	150.8465	56	301045	6238755
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		15/01/1999 10:25	15/01/1999 10:25	6	-33.9732	150.8377	56	300238	6238704
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		27/04/2007 11:20	27/04/2007 11:20	2	-34.0192	150.8758	56	303863	6233686
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		30/08/2007 8:25	31/08/2007 8:25	2	-33.9686	150.8623	56	302494	6239268
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		31/08/2007 9:05	31/08/2007 9:05	6	-33.9626	150.8725	56	303427	6239955
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		31/08/2007 14:30	31/08/2007 14:30	2	-33.9048	150.8525	56	301445	6246321
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		31/08/2007 14:50	31/08/2007 14:50	2	-33.9137	150.855	56	301698	6245338
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		17/01/2004 6:30	17/01/2004 6:50	1	-33.9002	150.8054	56	297080	6246747
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		13/05/2014 10:10	13/05/2014 10:10	1	-33.9724	150.8476	56	301146	6238814
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		16/05/2014 8:30	16/05/2014 8:30	2	-33.9733	150.8478	56	301172	6238713

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		6/10/2014 10:00	6/10/2014 10:00	2	-33.9704	150.8651	56	302756	6239074
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		8/10/2014 10:00	8/10/2014 10:00	3	-33.9663	150.8736	56	303533	6239539
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		10/10/2014 7:25	10/10/2014 8:05	2	-33.9702	150.865	56	302749	6239093
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		10/10/2014 7:25	10/10/2014 8:05	2	-33.9702	150.865	56	302749	6239093
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		29/10/2014 10:10	29/10/2014 10:50	1	-33.9643	150.8738	56	303547	6239761
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		29/10/2014 10:10	29/10/2014 10:50	2	-33.9643	150.8738	56	303547	6239761
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		7/01/2015 7:25	7/01/2015 8:05	1	-33.9633	150.874	56	303569	6239873
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		8/10/2014 7:30	8/10/2014 7:50	2	-33.9704	150.8651	56	302756	6239074
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		25/05/2006 7:40	25/05/2006 8:00	5	-33.897	150.8131	56	297778	6247110
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		10/03/2014 6:30	16/05/2014 20:30	2	-33.9744	150.84	56	300448	6238575
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		15/05/2014 16:00	15/05/2014 16:00	2	-33.9743	150.8452	56	300931	6238600
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		16/05/2014 9:20	16/05/2014 9:20	4	-33.9746	150.8435	56	300771	6238563
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		16/05/1996	16/05/1996	15	-33.8915	150.7994	56	296505	6247690
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		24/05/1996	24/05/1996	1	-33.8915	150.7994	56	296505	6247690
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		26/05/1996	26/05/1996	2	-33.8915	150.7994	56	296505	6247690
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		27/02/2006 7:06	27/02/2006 7:06	10	-33.904	150.7992	56	296513	6246303
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		24/02/2006 16:21	24/02/2006 16:21	3	-34.016	150.7437	56	291651	6233770
Aves	Neosittida	Daphoeno	Varied Sitt	V,P		14/05/2015 10:40	14/05/2015 10:40	6	-33.8917	150.8123	56	297700	6247700
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		24/01/2002 8:25	24/01/2002 8:45		-34.0151	150.7456	56	291828	6233878
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		24/02/2011 7:00	24/02/2011 15:00		-33.9364	150.8186	56	298385	6242754
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		19/09/2017	19/09/2017	1	-33.927	150.757	56	292671	6243677
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		18/01/1999 8:15	18/01/1999 8:15	5	-33.9589	150.8366	56	300105	6240290
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		18/01/1999 8:15	18/01/1999 8:15	3	-33.9607	150.8339	56	299855	6240090
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		26/04/2007 9:15	26/04/2007 9:35	4	-34.0034	150.8074	56	297504	6235298
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		30/08/2007 17:45	30/08/2007 17:45	2	-33.9658	150.8735	56	303526	6239600
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		18/09/2007 12:45	18/09/2007 12:45	2	-33.903	150.8524	56	301432	6246524
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		19/10/2014 11:14	19/10/2014 11:14	5	-33.9731	150.8638	56	302646	6238766
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		27/02/2006 11:43	27/02/2006 11:43	6	-33.9287	150.762	56	293129	6243498
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		27/02/2006 11:57	27/02/2006 11:57	5	-33.9599	150.7574	56	292786	6240029
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		24/02/2006 16:21	24/02/2006 16:21	2	-34.016	150.7437	56	291651	6233770
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		12/06/2006 14:47	12/06/2006 14:47	1	-33.9469	150.7458	56	291683	6241447
Aves	Artamidae	Artamus cy	Dusky Woo	V,P		12/06/2006 14:50	12/06/2006 14:50	2	-33.9348	150.7401	56	291124	6242776
Aves	Petroicida	Petroica ph	Flame Rob	V,P		1/01/1930	31/12/1950		-33.9378	150.8642	56	302605	6242690
Aves	Petroicida	Petroica ph	Flame Rob	V,P		9/03/1993	9/03/1993		-33.8961	150.8015	56	296705	6247190
Aves	Petroicida	Petroica ph	Flame Rob	V,P		13/01/2004 6:45	13/01/2004 7:05	1	-33.9055	150.7991	56	296509	6246137
Mammalia	Dasyuridae	Dasyurus r	Spotted-ta	V,P	E	10/11/1985	31/12/1990	1	-33.9054	150.8694	56	303005	6246290
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	4/04/2019	3/04/2021	2	-34.0068	150.7668	56	293765	6234837
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	7/06/2017	7/06/2019		-34.0183	150.8463	56	301135	6233720
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	7/06/2017	7/06/2019		-33.9957	150.8425	56	300728	6236227
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	1/07/2004	30/06/2006		-34.0093	150.872	56	303485	6234771
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	1/01/1980	30/06/2006	2	-34.0098	150.8697	56	303277	6234714
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	15/02/2017	15/02/2017	1	-34.0177	150.8727	56	303575	6233839
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	23/08/2014	23/08/2014	1	-34.0167	150.8721	56	303516	6233952
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	10/06/2015	10/06/2015	1	-34.0165	150.8766	56	303928	6233987
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	10/07/2003	10/07/2003		-33.9058	150.8429	56	300555	6246190
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	8/07/2002	10/07/2002		-33.9104	150.8481	56	301055	6245690
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	8/07/2003	10/07/2003		-33.9104	150.8433	56	300605	6245690

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	17/04/2017	17/04/2017	1	-33.9685	150.8712	56	303321	6239295
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	13/09/2011	13/09/2011	1	-34.0164	150.8771	56	303975	6233993
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	6/12/2016	6/12/2016	2	-34.0138	150.8798	56	304223	6234283
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	2/01/1976	1/01/1978		-34.009	150.8635	56	302704	6234790
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	12/09/2024 7:53	12/09/2024 7:53	1	-34.0108	150.8775	56	303997	6234611
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	14/08/2022 7:57	14/08/2022 7:57	2	-34.0146	150.8796	56	304199	6234201
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	14/08/2022 8:40	14/08/2022 8:40	1	-34.0163	150.8772	56	303984	6234010
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	19/08/2022 6:49	19/08/2022 6:49	2	-34.0158	150.8775	56	304007	6234057
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	20/08/2022 7:42	20/08/2022 7:42	2	-34.0144	150.8796	56	304201	6234222
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	21/08/2022 7:02	21/08/2022 7:02	1	-34.0121	150.8796	56	304196	6234473
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	21/08/2022 8:00	21/08/2022 8:00	2	-34.0144	150.8796	56	304201	6234222
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	24/08/2022 6:55	24/08/2022 6:55	2	-34.016	150.8773	56	303989	6234040
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	31/08/2022 7:45	31/08/2022 7:45	2	-34.0141	150.8789	56	304134	6234256
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	1/09/2022 6:45	1/09/2022 6:45	2	-34.0025	150.8703	56	303320	6235520
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	2/09/2022 7:47	2/09/2022 7:47	2	-34.0141	150.8789	56	304134	6234256
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	16/09/2022 8:04	16/09/2022 8:04	1	-34.0144	150.8794	56	304183	6234219
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	27/12/2019 17:44	27/12/2019 17:44	1	-34.018	150.8751	56	303793	6233812
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	19/06/2022 7:47	19/06/2022 7:47	2	-34.0041	150.8699	56	303284	6235341
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	22/06/2022 7:51	22/06/2022 7:51	1	-34.0041	150.8699	56	303285	6235339
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	17/07/2022 7:59	17/07/2022 7:59	1	-34.0131	150.8773	56	303991	6234357
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	20/07/2022 7:59	20/07/2022 7:59	2	-34.0131	150.8773	56	303991	6234357
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	26/09/2022 7:12	26/09/2022 7:12	2	-34.0144	150.8787	56	304121	6234222
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	31/08/2022	31/08/2022		-34.0167	150.8742	56	303709	6233952
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	24/03/2013	24/03/2013		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	10/10/2014	10/10/2014		-34.0118	150.8544	56	301872	6234463
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	9/12/2016	9/12/2016	1	-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	16/09/2013	16/09/2013		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	9/10/2015	9/10/2015		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	31/10/2016	31/10/2016	1	-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	15/09/2017	15/09/2017		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	8/02/2018	8/02/2018		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	12/12/2017	12/12/2017		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	23/08/2018	23/08/2018		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	11/10/2014	11/10/2014		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	18/10/2014	18/10/2014		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	6/12/2016	6/12/2016		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	13/09/2011	13/09/2011		-34.0046	150.8633	56	302672	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	29/10/2021	29/10/2021		-34.0046	150.8633	56	302671	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	21/12/2021	21/12/2021		-34.0046	150.8633	56	302671	6235281
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	6/11/2021	6/11/2021		-34.0155	150.8767	56	303933	6234096
Mammalia	Phascolarc	Phascolarc	Koala	E1,P	E	7/11/2021	7/11/2021		-34.0164	150.8784	56	304100	6233992
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	19/07/2022 20:10	19/07/2022 20:10		-33.9684	150.8725	56	303441	6239304
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	19/12/2022 12:56	19/12/2022 12:56		-33.9598	150.8769	56	303825	6240270
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	25/02/2022	25/02/2022		-33.893	150.7661	56	293427	6247463
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	27/10/2011	27/10/2011	1	-33.9227	150.8573	56	301928	6244347
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	8/09/2015 12:00	8/09/2015 12:00		-33.9968	150.8199	56	298647	6236057
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	21/11/2005	25/11/2005		-34.0111	150.7813	56	295112	6234397

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatu	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	21/11/2005	25/11/2005		-33.9993	150.7914	56	296016	6235718
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/02/2009	9/02/2009		-33.8995	150.8327	56	299604	6246875
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	10/02/2009	10/02/2009		-33.9094	150.8514	56	301354	6245809
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	19/09/2017	19/09/2017	1	-33.9242	150.7581	56	292758	6243981
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	27/07/2018 12:16	27/07/2018 12:16		-33.99	150.8796	56	304150	6236927
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	4/04/2002	4/04/2002	1	-33.9126	150.8443	56	300705	6245440
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	4/04/2002	4/04/2002	1	-33.9326	150.8265	56	299105	6243190
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/01/2004	14/01/2004		-33.9104	150.8433	56	300605	6245690
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	29/10/2003	29/10/2003	6	-34.0063	150.8371	56	300255	6235040
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	3/11/2003	3/11/2003	2	-34.0063	150.8371	56	300255	6235040
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	19/04/2004	19/04/2004		-33.9309	150.8352	56	299905	6243390
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	5/11/2004	5/11/2004		-33.9578	150.8226	56	298805	6240390
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	6/01/2010	6/01/2010	1	-33.9481	150.7894	56	295712	6241401
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	19/01/2010	20/01/2010		-33.9125	150.8536	56	301562	6245476
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	1/10/1995	30/04/1996		-33.9069	150.8542	56	301605	6246090
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	15/02/1999 21:40	15/02/1999 21:40	1	-33.9721	150.8406	56	300505	6238840
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	15/02/1999 20:40	15/02/1999 20:40	1	-33.9729	150.8424	56	300671	6238747
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	6/06/2018 21:50	6/06/2018 22:05	2	-33.9919	150.8759	56	303812	6236712
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	30/08/2007 18:05	30/08/2007 18:05	2	-33.9692	150.8672	56	302954	6239212
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	31/08/2007 10:00	31/08/2007 10:00	1	-33.9745	150.8248	56	299050	6238534
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	26/04/2007 8:30	26/04/2007 8:30	2	-33.9991	150.8057	56	297344	6235773
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	18/12/2014 23:15	18/12/2014 23:15	2	-33.9704	150.8651	56	302756	6239074
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	27/11/2014 20:55	27/11/2014 20:55	2	-33.9731	150.8638	56	302646	6238766
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	27/11/2014 21:55	27/11/2014 21:55	1	-33.9663	150.8736	56	303533	6239539
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	26/11/2014 21:30	26/11/2014 21:30	1	-33.9702	150.8651	56	302761	6239096
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	20/01/2004 20:30	20/01/2004 20:30	2	-33.8912	150.8089	56	297384	6247751
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	4/05/2004 19:00	4/05/2004 20:05	2	-33.9002	150.8054	56	297080	6246747
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/03/2014 20:25	9/03/2014 20:50	1	-33.9719	150.8421	56	300640	6238865
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/03/2014 21:00	9/03/2014 21:34	10	-33.9725	150.8422	56	300651	6238791
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/03/2014 22:00	9/03/2014 22:10	10	-33.9769	150.8402	56	300471	6238306
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	10/03/2014 21:40	10/03/2014 22:10	2	-33.9724	150.8549	56	301827	6238834
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	17/06/2014 18:00	17/06/2014 19:25	2	-33.9744	150.8454	56	300947	6238591
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	21/07/2014 18:35	21/07/2014 20:10	4	-33.9744	150.8454	56	300947	6238591
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	25/03/2014 21:42	25/03/2014 22:00	2	-33.9744	150.84	56	300448	6238575
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	26/03/2014 20:09	26/03/2014 20:30	2	-33.9744	150.84	56	300448	6238575
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	26/03/2014 20:00	26/03/2014 20:30	1	-33.9744	150.84	56	300448	6238575
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/03/2014 20:00	9/03/2014 20:00	20	-33.9744	150.84	56	300448	6238575
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	10/03/2014 20:15	10/03/2014 20:15	10	-33.9663	150.8461	56	300992	6239491
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	10/03/2014 20:20	10/03/2014 20:20	1	-33.9666	150.8467	56	301055	6239463
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	21/10/2014 20:30	21/10/2014 20:30	5	-33.9663	150.8736	56	303533	6239539
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	30/10/2011	30/10/2011		-33.9135	150.8766	56	303688	6245401
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	16/11/2016	16/11/2016		-33.9185	150.8489	56	301147	6244794
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	1/09/2015	1/09/2015		-33.9637	150.8175	56	298351	6239725
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	10/11/2014	10/11/2014		-33.9305	150.7946	56	296152	6243361
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	20/08/2014	20/08/2014		-33.9425	150.8393	56	300309	6242114
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	25/11/2016	25/11/2016		-33.9637	150.8175	56	298351	6239725
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	28/01/2015	28/01/2015		-33.9162	150.8068	56	297248	6244966

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	21/12/2016	21/12/2016		-34.0005	150.8757	56	303812	6235751
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	17/08/2015	17/08/2015		-33.9775	150.7991	56	296678	6238158
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	4/06/2017	4/06/2017		-33.9775	150.7991	56	296678	6238158
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	24/04/2014	24/04/2014		-34.0003	150.8585	56	302219	6235740
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	4/12/2016	4/12/2016		-33.892	150.7752	56	294268	6247592
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	19/11/2016	19/11/2016		-33.892	150.7752	56	294268	6247592
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	3/03/2015	3/03/2015		-34.015	150.8376	56	300325	6234068
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	7/11/2014	7/11/2014		-33.9883	150.8635	56	302657	6237082
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	27/02/2017	27/02/2017		-34.0145	150.8387	56	300427	6234129
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	31/01/2015	31/01/2015		-33.9145	150.8669	56	302799	6245276
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/03/2017	9/03/2017		-33.8944	150.8441	56	300644	6247459
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	4/02/2017	4/02/2017		-33.9114	150.877	56	303729	6245633
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	14/02/2017	14/02/2017		-34.0157	150.8564	56	302064	6234029
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	25/10/2015	25/10/2015		-33.9476	150.8742	56	303548	6241616
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	2/11/2015	2/11/2015		-33.9184	150.8748	56	303535	6244854
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	26/12/2016	26/12/2016		-33.8929	150.8646	56	302535	6247664
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	3/05/2017	3/05/2017		-33.9357	150.8691	56	303048	6242931
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	18/04/2017	18/04/2017		-33.9344	150.8757	56	303654	6243084
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	20/06/2016	20/06/2016		-34.014	150.8506	56	301527	6234210
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	27/10/2016	27/10/2016		-33.9858	150.8787	56	304057	6237386
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	4/12/2012	4/12/2012		-33.9331	150.8323	56	299639	6243151
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/02/2015	9/02/2015		-33.9417	150.8721	56	303341	6242265
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	21/10/2013	21/10/2013		-33.9358	150.7726	56	294132	6242726
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	27/10/2013	27/10/2013		-33.9358	150.7726	56	294132	6242726
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	7/12/2016	7/12/2016		-33.9417	150.8721	56	303341	6242265
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	29/10/2012	29/10/2012		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	4/11/2012	4/11/2012		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	14/03/2015	14/03/2015		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	11/03/2017	11/03/2017		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	18/04/2017	18/04/2017		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	23/01/2017	23/01/2017		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	24/01/2013	24/01/2013		-33.9295	150.8571	56	301931	6243592
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	12/10/2012	12/10/2012		-33.9029	150.8671	56	302794	6246560
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	5/02/2013	5/02/2013		-33.9029	150.8671	56	302794	6246560
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	6/03/2013	6/03/2013		-33.9029	150.8671	56	302794	6246560
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	7/11/2013	7/11/2013		-33.9029	150.8671	56	302794	6246560
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	22/11/2012	22/11/2012		-33.9916	150.7651	56	293570	6236529
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	29/03/2013	29/03/2013		-33.9916	150.7651	56	293570	6236529
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	8/01/2018	8/01/2018		-33.9901	150.876	56	303817	6236912
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	22/01/2018	22/01/2018		-33.917	150.8714	56	303221	6245001
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	16/11/2017	16/11/2017		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	23/01/2018	23/01/2018		-34.0184	150.8175	56	298474	6233651
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	26/10/2017	26/10/2017		-33.9322	150.8784	56	303905	6243331
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	26/10/2017	26/10/2017		-33.9322	150.8784	56	303905	6243331
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	3/11/2017	3/11/2017		-33.8928	150.8558	56	301718	6247657
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	25/05/2018	25/05/2018		-33.9699	150.7965	56	296422	6238989

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	3/11/2017	3/11/2017		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	3/11/2017	3/11/2017		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	22/11/2017	22/11/2017		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	17/01/2019	17/01/2019		-33.9358	150.7726	56	294132	6242726
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	18/01/2019	18/01/2019		-33.9331	150.8323	56	299639	6243151
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	27/01/2019	27/01/2019		-33.9417	150.8721	56	303341	6242265
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	31/01/2019	31/01/2019		-33.9331	150.8323	56	299639	6243151
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	10/02/2019	10/02/2019		-34.0165	150.8404	56	300586	6233909
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	16/04/2019	16/04/2019		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	20/01/2019	20/01/2019		-33.9417	150.8721	56	303341	6242265
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	27/01/2019	27/01/2019		-34.0184	150.8175	56	298474	6233651
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	31/01/2019	31/01/2019		-33.9417	150.8721	56	303341	6242265
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	4/02/2019	4/02/2019		-33.8912	150.8699	56	303024	6247864
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	6/03/2019	6/03/2019		-34.0184	150.8175	56	298474	6233651
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	5/05/2019	5/05/2019		-34.0031	150.8112	56	297859	6235346
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	19/05/2019	19/05/2019		-33.9814	150.8327	56	299790	6237786
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	10/08/2018	10/08/2018		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	28/03/2019	28/03/2019		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	17/05/2019	17/05/2019		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	26/10/2019	26/10/2019		-33.9926	150.7427	56	291503	6236372
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	26/10/2019	26/10/2019		-33.9926	150.7427	56	291503	6236372
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	31/10/2019	31/10/2019		-33.9699	150.7965	56	296422	6238989
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	8/12/2019	8/12/2019		-33.9417	150.8721	56	303341	6242265
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	15/03/2020	15/03/2020		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	15/06/2020	15/06/2020		-34.0184	150.8175	56	298474	6233651
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	14/06/2020	14/06/2020		-34.0046	150.8633	56	302672	6235281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	20/02/2020	20/02/2020		-33.9147	150.8428	56	300567	6245212
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	22/02/2020	22/02/2020		-33.9417	150.8721	56	303341	6242265
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	5/03/2015	5/03/2015		-33.9009	150.8646	56	302556	6246776
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	25/01/2017	25/01/2017		-33.913	150.8622	56	302360	6245428
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	10/02/2017	10/02/2017		-33.9478	150.8645	56	302656	6241580
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	7/02/2017	7/02/2017		-33.9637	150.8175	56	298351	6239725
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	13/01/2017	13/01/2017		-33.9317	150.8545	56	301687	6243340
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	19/01/2018	19/01/2018		-34.0115	150.8613	56	302507	6234511
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	2/07/2020	2/07/2020		-33.9471	150.8519	56	301486	6241632
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	6/01/2021	6/01/2021		-34.0186	150.7489	56	292141	6233499
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	12/01/2021	12/01/2021		-33.9708	150.8583	56	302135	6239016
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	22/01/2021	22/01/2021		-33.9493	150.8428	56	300655	6241367
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	31/01/2021	31/01/2021		-33.8925	150.8678	56	302833	6247713
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	6/02/2021	6/02/2021		-33.8925	150.8678	56	302833	6247713
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/02/2021	9/02/2021		-33.9251	150.8672	56	302850	6244100
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	13/02/2021	13/02/2021		-34.0171	150.7746	56	294512	6233715
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	29/03/2021	29/03/2021		-33.9147	150.8789	56	303910	6245281
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	14/03/2021	14/03/2021		-33.9162	150.8068	56	297248	6244966
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	14/03/2021	14/03/2021		-33.8925	150.7971	56	296290	6247577
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/05/2021	9/05/2021		-33.9696	150.8596	56	302256	6239145
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	23/05/2021	23/05/2021		-33.9179	150.8506	56	301301	6244870

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	1/07/2020	1/07/2020		-33.9417	150.8721	56	303341	6242265
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	10/02/2021	10/02/2021		-33.9182	150.8635	56	302488	6244859
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/07/2021	9/07/2021		-34.007	150.8379	56	300329	6234964
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	14/11/2021	14/11/2021		-33.9905	150.792	56	296055	6236699
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	19/02/2022	19/02/2022		-33.9941	150.8702	56	303288	6236459
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	5/04/2022	5/04/2022		-33.922	150.8649	56	302631	6244438
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	29/04/2022	29/04/2022		-34.0006	150.8694	56	303225	6235726
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	29/10/2022	29/10/2022		-33.9699	150.7965	56	296422	6238988
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	14/03/2023	14/03/2023		-33.9987	150.8723	56	303495	6235949
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	22/03/2023	22/03/2023		-33.999	150.8567	56	302053	6235881
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	9/04/2023	9/04/2023		-34.0155	150.874	56	303691	6234083
Mammalia	Pteropodid	Pteropus p	Grey-head	V,P	V	12/05/2023	12/05/2023		-34.0003	150.7469	56	291907	6235524
Mammalia	Emballonu	Saccolaim	Yellow-bell	V,P		1/10/2014	1/10/2014		-33.9867	150.8067	56	297406	6237149
Mammalia	Emballonu	Saccolaim	Yellow-bell	V,P		31/10/2017	2/11/2017		-33.9863	150.8067	56	297400	6237200
Mammalia	Emballonu	Saccolaim	Yellow-bell	V,P		6/01/2010	6/01/2010	1	-33.9481	150.7894	56	295712	6241401
Mammalia	Molossida	Micronom	Eastern Co	V,P		17/10/2008	18/10/2008	1	-33.9251	150.7956	56	296229	6243956
Mammalia	Molossida	Micronom	Eastern Co	V,P		17/10/2008	18/10/2008	1	-33.9381	150.7744	56	294307	6242478
Mammalia	Molossida	Micronom	Eastern Co	V,P		23/09/1998	11/11/1998	1	-33.9667	150.8716	56	303355	6239490
Mammalia	Molossida	Micronom	Eastern Co	V,P		14/12/2005	14/12/2005		-33.9927	150.8318	56	299735	6236530
Mammalia	Molossida	Micronom	Eastern Co	V,P		7/09/2009	7/09/2009		-33.9553	150.8313	56	299602	6240685
Mammalia	Molossida	Micronom	Eastern Co	V,P		10/07/2013	11/07/2013		-34.0001	150.8236	56	299000	6235700
Mammalia	Molossida	Micronom	Eastern Co	V,P		1/10/2014	1/10/2014		-33.9879	150.8077	56	297497	6237021
Mammalia	Molossida	Micronom	Eastern Co	V,P		8/09/2015 12:00	8/09/2015 12:00		-34.0023	150.821	56	298759	6235447
Mammalia	Molossida	Micronom	Eastern Co	V,P		21/11/2005	21/11/2005		-34.0111	150.7813	56	295112	6234397
Mammalia	Molossida	Micronom	Eastern Co	V,P		21/11/2005	21/11/2005		-33.9993	150.7914	56	296016	6235718
Mammalia	Molossida	Micronom	Eastern Co	V,P		9/02/2009	9/02/2009		-33.907	150.8431	56	300578	6246060
Mammalia	Molossida	Micronom	Eastern Co	V,P		10/02/2009	10/02/2009		-33.9026	150.8364	56	299953	6246538
Mammalia	Molossida	Micronom	Eastern Co	V,P		26/04/2017	26/04/2017		-34.0001	150.8236	56	299000	6235700
Mammalia	Molossida	Micronom	Eastern Co	V,P		9/03/2010	9/03/2010		-33.9711	150.7681	56	293800	6238800
Mammalia	Molossida	Micronom	Eastern Co	V,P		4/03/2002	4/03/2002		-33.9126	150.8443	56	300705	6245440
Mammalia	Molossida	Micronom	Eastern Co	V,P		9/01/2004	14/01/2004		-33.9104	150.8433	56	300605	6245690
Mammalia	Molossida	Micronom	Eastern Co	V,P		19/01/2001	19/01/2001	1	-33.9475	150.7774	56	294605	6241440
Mammalia	Molossida	Micronom	Eastern Co	V,P		15/02/1999 19:55	15/02/1999 19:55	1	-33.9735	150.8438	56	300805	6238690
Mammalia	Molossida	Micronom	Eastern Co	V,P		3/03/1999	3/03/1999	1	-33.9026	150.842	56	300465	6246550
Mammalia	Molossida	Micronom	Eastern Co	V,P		3/03/1999	3/03/1999	2	-33.9026	150.842	56	300465	6246550
Mammalia	Molossida	Micronom	Eastern Co	V,P		2/03/1999	2/03/1999	18	-33.9273	150.8304	56	299455	6243790
Mammalia	Molossida	Micronom	Eastern Co	V,P		4/03/1999 20:25	4/03/1999 20:25	1	-33.9976	150.8302	56	299605	6235990
Mammalia	Molossida	Micronom	Eastern Co	V,P		9/03/2014 18:00	13/03/2014 7:00		-33.9745	150.8401	56	300463	6238571
Mammalia	Molossida	Micronom	Eastern Co	V,P		9/03/2014 18:00	13/03/2014 7:00		-33.9745	150.8474	56	301133	6238583
Mammalia	Molossida	Micronom	Eastern Co	V,P		9/03/2014 18:00	11/03/2014 7:00		-33.9742	150.8456	56	300969	6238613
Mammalia	Molossida	Micronom	Eastern Co	V,P		9/03/2014 18:00	11/03/2014 7:00		-33.9663	150.8462	56	301001	6239486
Mammalia	Molossida	Micronom	Eastern Co	V,P		9/03/2014 18:00	12/03/2014 7:00		-33.9667	150.8469	56	301072	6239443
Mammalia	Molossida	Micronom	Eastern Co	V,P		10/03/2014 18:00	13/03/2014 7:00		-33.9731	150.8406	56	300508	6238726
Mammalia	Molossida	Micronom	Eastern Co	V,P		11/03/2014 18:00	15/03/2014 7:00		-33.9655	150.8464	56	301018	6239580
Mammalia	Molossida	Micronom	Eastern Co	V,P		11/03/2014 18:00	17/03/2014 7:00		-33.9749	150.845	56	300918	6238534
Mammalia	Molossida	Micronom	Eastern Co	V,P		13/03/2014 18:00	16/03/2014 7:00		-33.9726	150.855	56	301837	6238810
Mammalia	Molossida	Micronom	Eastern Co	V,P		13/03/2014 18:00	16/03/2014 7:00		-33.9724	150.8559	56	301912	6238837

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Mammalia	Molossida	Micronomu	Eastern Co	V,P		13/03/2014 18:00	17/03/2014 7:00		-33.9713	150.856	56	301926	6238954
Mammalia	Molossida	Micronomu	Eastern Co	V,P		13/03/2014 18:00	17/03/2014 7:00		-33.9741	150.8415	56	300588	6238619
Mammalia	Molossida	Micronomu	Eastern Co	V,P		19/10/2014 18:00	24/10/2014 7:00		-33.9641	150.8734	56	303509	6239782
Mammalia	Molossida	Micronomu	Eastern Co	V,P		19/10/2014 18:00	21/10/2014 7:00		-33.9673	150.8732	56	303506	6239436
Mammalia	Molossida	Micronomu	Eastern Co	V,P		19/10/2014 18:00	24/10/2014 7:00		-33.9702	150.8651	56	302758	6239095
Mammalia	Molossida	Micronomu	Eastern Co	V,P		19/10/2014 18:00	21/10/2014 7:00		-33.9693	150.8648	56	302735	6239195
Mammalia	Molossida	Micronomu	Eastern Co	V,P		26/10/2014 18:00	30/10/2014 7:00		-33.9733	150.8641	56	302678	6238747
Mammalia	Molossida	Micronomu	Eastern Co	V,P		24/10/2014 18:00	30/10/2014 7:00		-33.9666	150.8727	56	303452	6239506
Mammalia	Molossida	Micronomu	Eastern Co	V,P		21/10/2014 18:00	24/10/2014 7:00		-33.9701	150.8661	56	302855	6239107
Mammalia	Molossida	Micronomu	Eastern Co	V,P		21/10/2014 18:00	24/10/2014 7:00		-33.9717	150.8665	56	302891	6238935
Mammalia	Molossida	Micronomu	Eastern Co	V,P		30/05/2019	30/05/2019		-33.9916	150.7651	56	293570	6236529
Mammalia	Molossida	Micronomu	Eastern Co	V,P		30/05/2019	30/05/2019		-33.9916	150.7651	56	293570	6236529
Mammalia	Molossida	Micronomu	Eastern Co	V,P		30/05/2019	30/05/2019		-33.9916	150.7651	56	293570	6236529
Mammalia	Molossida	Micronomu	Eastern Co	V,P		30/05/2019	30/05/2019		-33.9916	150.7651	56	293570	6236529
Mammalia	Molossida	Micronomu	Eastern Co	V,P		26/06/2019	26/06/2019		-33.9699	150.7965	56	296422	6238989
Mammalia	Molossida	Micronomu	Eastern Co	V,P		30/05/2019	30/05/2019		-33.9916	150.7651	56	293570	6236529
Mammalia	Molossida	Micronomu	Eastern Co	V,P		30/05/2019	30/05/2019		-33.9916	150.7651	56	293570	6236529
Mammalia	Molossida	Micronomu	Eastern Co	V,P		30/05/2019	30/05/2019		-33.9916	150.7651	56	293570	6236529
Mammalia	Molossida	Micronomu	Eastern Co	V,P		30/05/2019	30/05/2019		-33.9916	150.7651	56	293570	6236529
Mammalia	Molossida	Micronomu	Eastern Co	V,P		30/05/2019	30/05/2019		-33.9916	150.7651	56	293570	6236529
Mammalia	Molossida	Micronomu	Eastern Co	V,P		30/05/2019	30/05/2019		-33.9916	150.7651	56	293570	6236529
Mammalia	Vespertilio	Falsistrellu	Eastern Fa	V,P		17/10/2008	18/10/2008	1	-33.9251	150.7956	56	296229	6243956
Mammalia	Vespertilio	Falsistrellu	Eastern Fa	V,P		5/11/2015 12:00	5/11/2015 12:00		-33.9388	150.8635	56	302538	6242569
Mammalia	Vespertilio	Falsistrellu	Eastern Fa	V,P		21/11/2005	21/11/2005		-34.0111	150.7813	56	295112	6234397
Mammalia	Vespertilio	Falsistrellu	Eastern Fa	V,P		21/11/2005	21/11/2005		-33.9993	150.7914	56	296016	6235718
Mammalia	Vespertilio	Falsistrellu	Eastern Fa	V,P		6/01/2010	6/01/2010	1	-33.9481	150.7894	56	295712	6241401
Mammalia	Vespertilio	Falsistrellu	Eastern Fa	V,P		20/01/2010	20/01/2010		-33.9164	150.8523	56	301449	6245033
Mammalia	Vespertilio	Falsistrellu	Eastern Fa	V,P		20/01/2010	20/01/2010		-33.9129	150.8535	56	301560	6245429
Mammalia	Vespertilio	Falsistrellu	Eastern Fa	V,P		16/12/2009	16/12/2009		-33.9056	150.8473	56	300966	6246227
Mammalia	Vespertilio	Falsistrellu	Eastern Fa	V,P		15/02/1999 19:55	15/02/1999 19:55	11	-33.9735	150.8438	56	300805	6238690
Mammalia	Vespertilio	Falsistrellu	Eastern Fa	V,P		15/02/1999 19:55	15/02/1999 19:55	5	-33.9735	150.8438	56	300805	6238690
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		17/10/2008	19/10/2008	1	-33.91	150.7962	56	296251	6245634
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		9/12/2022	9/12/2022		-33.9632	150.8746	56	303623	6239890
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		9/12/2022	9/12/2022		-33.9579	150.8774	56	303864	6240482
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		9/12/2022	9/12/2022		-33.9584	150.8771	56	303840	6240423
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		25/02/2022	25/02/2022	2	-33.893	150.7661	56	293427	6247463
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		10/07/2013	11/07/2013		-34	150.8195	56	298614	6235699
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		10/07/2013	11/07/2013		-34.0036	150.8229	56	298941	6235308
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		10/07/2013	11/07/2013		-33.9999	150.823	56	298938	6235718
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		10/07/2013	11/07/2013		-34.0041	150.8294	56	299542	6235261
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		8/09/2015 12:00	8/09/2015 12:00		-34.0023	150.821	56	298759	6235447
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		26/04/2017	26/04/2017		-34.0001	150.8236	56	299000	6235700
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		31/10/2017	2/11/2017		-33.9863	150.8067	56	297400	6237200
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		9/03/2010	9/03/2010		-33.9711	150.7681	56	293800	6238800
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.9962	150.8336	56	299911	6236150
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.9927	150.8404	56	300532	6236554
Mammalia	Vespertilio	Myotis ma	Southern M	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.9927	150.8404	56	300532	6236554

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.996	150.8414	56	300627	6236186
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		10/07/2003	10/07/2003		-33.9045	150.8423	56	300505	6246340
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		8/07/2002	10/07/2002		-33.9104	150.8481	56	301055	6245690
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		8/07/2003	10/07/2003		-33.9104	150.8433	56	300605	6245690
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		19/01/2001	19/01/2001	1	-33.9475	150.7774	56	294605	6241440
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		24/11/1993	24/11/1993		-33.9242	150.7586	56	292805	6243990
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		6/01/2010	6/01/2010	1	-33.9481	150.7894	56	295712	6241401
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		19/01/2010	19/01/2010		-33.9069	150.8518	56	301389	6246088
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		20/01/2010	20/01/2010		-33.9129	150.8535	56	301560	6245429
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		16/12/2009	16/12/2009		-33.9056	150.8473	56	300966	6246227
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		16/02/1999	16/02/1999	1	-33.9667	150.87	56	303205	6239490
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		4/03/1999	4/03/1999	1	-33.9923	150.8255	56	299155	6236570
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		4/03/1999	4/03/1999	1	-33.9923	150.8255	56	299155	6236570
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		19/01/2004 21:10	19/01/2004 21:25		-33.8912	150.8089	56	297384	6247751
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		21/01/2004	21/01/2004		-33.905	150.7988	56	296480	6246194
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		9/03/2014 18:00	13/03/2014 7:00		-33.9745	150.8401	56	300463	6238571
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		9/03/2014 18:00	13/03/2014 7:00		-33.9745	150.8474	56	301133	6238583
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		9/03/2014 18:00	11/03/2014 7:00		-33.9742	150.8456	56	300969	6238613
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		9/03/2014 18:00	11/03/2014 7:00		-33.9663	150.8462	56	301001	6239486
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		9/03/2014 18:00	12/03/2014 7:00		-33.9667	150.8469	56	301072	6239443
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		10/03/2014 18:00	13/03/2014 7:00		-33.9731	150.8406	56	300508	6238726
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		11/03/2014 18:00	15/03/2014 7:00		-33.9655	150.8464	56	301018	6239580
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		11/03/2014 18:00	17/03/2014 7:00		-33.9749	150.845	56	300918	6238534
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		13/03/2014 18:00	16/03/2014 7:00		-33.9726	150.855	56	301837	6238810
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		13/03/2014 18:00	16/03/2014 7:00		-33.9724	150.8559	56	301912	6238837
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		13/03/2014 18:00	17/03/2014 7:00		-33.9713	150.856	56	301926	6238954
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		13/03/2014 18:00	17/03/2014 7:00		-33.9741	150.8415	56	300588	6238619
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		25/03/2014 19:50	25/03/2014 20:20		-33.9656	150.8459	56	300978	6239572
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		14/04/2014 18:25	14/04/2014 18:55		-33.9721	150.8554	56	301872	6238868
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		14/04/2014 20:15	14/04/2014 20:45		-33.9744	150.8454	56	300947	6238591
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		19/10/2014 18:00	24/10/2014 7:00		-33.9702	150.8651	56	302758	6239095
Mammalia	Vespertilio	Myotis ma	Southern N	V,P		24/10/2014 18:00	30/10/2014 7:00		-33.9666	150.8727	56	303452	6239506
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		17/10/2008	18/10/2008	1	-33.9381	150.7744	56	294307	6242478
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		23/09/1998	11/11/1998	1	-33.9667	150.8716	56	303355	6239490
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		5/11/2015 12:00	5/11/2015 12:00		-33.9388	150.8635	56	302538	6242569
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		21/11/2005	21/11/2005		-34.0111	150.7813	56	295112	6234397
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		21/11/2005	21/11/2005		-33.9993	150.7914	56	296016	6235718
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		22/02/2006	22/02/2006		-33.9108	150.7512	56	292092	6245461
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		31/10/2017	2/11/2017		-33.9863	150.8067	56	297400	6237200
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		9/01/2004	14/01/2004		-33.9104	150.8433	56	300605	6245690
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		19/01/2001	19/01/2001	1	-33.9475	150.7774	56	294605	6241440
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		24/11/1993	24/11/1993		-33.9242	150.7586	56	292805	6243990
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		6/01/2010	6/01/2010	1	-33.9481	150.7894	56	295712	6241401
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		19/01/2010	19/01/2010		-33.9044	150.8493	56	301143	6246359
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		19/01/2010	19/01/2010		-33.9069	150.8518	56	301389	6246088
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		20/01/2010	20/01/2010		-33.9129	150.8535	56	301560	6245429
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		15/02/1999 19:55	15/02/1999 19:55	1	-33.9735	150.8438	56	300805	6238690

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		15/02/1999 19:55	15/02/1999 19:55	4	-33.9735	150.8438	56	300805	6238690
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		4/03/1999 20:25	4/03/1999 20:25	1	-33.9976	150.8302	56	299605	6235990
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		19/01/2004	19/01/2004		-33.9003	150.8056	56	297095	6246730
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		9/03/2014 18:00	13/03/2014 7:00		-33.9745	150.8401	56	300463	6238571
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		9/03/2014 18:00	13/03/2014 7:00		-33.9745	150.8474	56	301133	6238583
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		9/03/2014 18:00	11/03/2014 7:00		-33.9663	150.8462	56	301001	6239486
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		10/03/2014 18:00	13/03/2014 7:00		-33.9731	150.8406	56	300508	6238726
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		11/03/2014 18:00	15/03/2014 7:00		-33.9655	150.8464	56	301018	6239580
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		13/03/2014 18:00	16/03/2014 7:00		-33.9726	150.855	56	301837	6238810
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		13/03/2014 18:00	16/03/2014 7:00		-33.9724	150.8559	56	301912	6238837
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		13/03/2014 18:00	17/03/2014 7:00		-33.9741	150.8415	56	300588	6238619
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		19/10/2014 18:00	24/10/2014 7:00		-33.9641	150.8734	56	303509	6239782
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		19/10/2014 18:00	24/10/2014 7:00		-33.9702	150.8651	56	302758	6239095
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		24/10/2014 18:00	30/10/2014 7:00		-33.9666	150.8727	56	303452	6239506
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		21/10/2014 18:00	24/10/2014 7:00		-33.9701	150.8661	56	302855	6239107
Mammalia	Vespertilio	Scoteanax	Greater Br	V,P		5/02/2019	5/02/2019		-33.9926	150.7427	56	291503	6236372
Mammalia	Miniopteric	Miniopteru	Little Bent-	V,P		10/07/2013	11/07/2013		-34.0001	150.8236	56	299000	6235700
Mammalia	Miniopteric	Miniopteru	Little Bent-	V,P		9/03/2014 18:00	13/03/2014 7:00		-33.9745	150.8474	56	301133	6238583
Mammalia	Miniopteric	Miniopteru	Little Bent-	V,P		9/03/2014 18:00	11/03/2014 7:00		-33.9663	150.8462	56	301001	6239486
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		17/10/2008	18/10/2008	1	-33.9251	150.7956	56	296229	6243956
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		17/10/2008	18/10/2008	1	-33.9381	150.7744	56	294307	6242478
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		9/12/2022	9/12/2022		-33.9579	150.8774	56	303864	6240482
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		12/08/2014	12/08/2014		-33.915	150.8455	56	300818	6245183
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		1/10/2014	1/10/2014		-33.9867	150.8056	56	297299	6237146
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		8/09/2015 12:00	8/09/2015 12:00		-33.9974	150.8179	56	298460	6235991
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		26/04/2017	26/04/2017		-34.0001	150.8236	56	299000	6235700
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		31/10/2017	2/11/2017		-33.9863	150.8067	56	297400	6237200
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		9/03/2010	9/03/2010		-33.9711	150.7681	56	293800	6238800
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.9962	150.8336	56	299911	6236150
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		7/06/2018 10:30	7/06/2018 10:30		-33.996	150.8414	56	300627	6236186
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		19/01/2001	19/01/2001	1	-33.9475	150.7774	56	294605	6241440
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		19/01/2010	19/01/2010		-33.9069	150.8518	56	301389	6246088
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		15/02/1999	15/02/1999		-33.9676	150.8711	56	303305	6239390
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		3/03/1999	3/03/1999	5	-33.9026	150.842	56	300465	6246550
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		3/03/1999	3/03/1999	8	-33.9026	150.842	56	300465	6246550
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		4/03/1999	4/03/1999	1	-33.9878	150.8256	56	299155	6237070
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		31/08/2007 16:20	31/08/2007 16:20	3	-33.9058	150.8447	56	300725	6246195
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		26/04/2007 17:45	26/04/2007 21:15		-33.9942	150.8045	56	297215	6236316
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		9/03/2014 18:00	13/03/2014 7:00		-33.9745	150.8401	56	300463	6238571
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		9/03/2014 18:00	13/03/2014 7:00		-33.9745	150.8474	56	301133	6238583
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		9/03/2014 18:00	11/03/2014 7:00		-33.9742	150.8456	56	300969	6238613
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		9/03/2014 18:00	11/03/2014 7:00		-33.9663	150.8462	56	301001	6239486
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		9/03/2014 18:00	12/03/2014 7:00		-33.9667	150.8469	56	301072	6239443
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		10/03/2014 18:00	13/03/2014 7:00		-33.9731	150.8406	56	300508	6238726
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		11/03/2014 18:00	15/03/2014 7:00		-33.9655	150.8464	56	301018	6239580
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		11/03/2014 18:00	17/03/2014 7:00		-33.9749	150.845	56	300918	6238534
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		13/03/2014 18:00	16/03/2014 7:00		-33.9726	150.855	56	301837	6238810

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		13/03/2014 18:00	16/03/2014 7:00		-33.9724	150.8559	56	301912	6238837
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		13/03/2014 18:00	17/03/2014 7:00		-33.9713	150.856	56	301926	6238954
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		13/03/2014 18:00	17/03/2014 7:00		-33.9741	150.8415	56	300588	6238619
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		25/03/2014 19:50	25/03/2014 20:20		-33.9656	150.8459	56	300978	6239572
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		14/04/2014 18:25	14/04/2014 18:55		-33.9721	150.8554	56	301872	6238868
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		14/04/2014 20:15	14/04/2014 20:45		-33.9744	150.8454	56	300947	6238591
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		19/10/2014 18:00	24/10/2014 7:00		-33.9641	150.8734	56	303509	6239782
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		19/10/2014 18:00	21/10/2014 7:00		-33.9673	150.8732	56	303506	6239436
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		19/10/2014 18:00	24/10/2014 7:00		-33.9702	150.8651	56	302758	6239095
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		19/10/2014 18:00	21/10/2014 7:00		-33.9693	150.8648	56	302735	6239195
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		26/10/2014 18:00	30/10/2014 7:00		-33.9733	150.8641	56	302678	6238747
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		19/10/2014 18:00	21/10/2014 7:00		-33.9725	150.8648	56	302739	6238836
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		24/10/2014 18:00	30/10/2014 7:00		-33.9666	150.8727	56	303452	6239506
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		21/10/2014 18:00	24/10/2014 7:00		-33.9701	150.8661	56	302855	6239107
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		21/10/2014 18:00	24/10/2014 7:00		-33.9717	150.8665	56	302891	6238935
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		27/11/2014 20:45	27/11/2014 21:15		-33.9731	150.8638	56	302646	6238766
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		27/11/2014 21:45	27/11/2014 22:40		-33.9663	150.8736	56	303533	6239539
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		18/03/2013	18/03/2013		-33.9699	150.7965	56	296422	6238989
Mammalia	Miniopteric	Miniopteru	Large Bent	V,P		15/08/2018	15/08/2018		-33.9295	150.8571	56	301931	6243592
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/07/2008	14/07/2008	1	-33.9732	150.8588	56	302185	6238749
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/07/2008	14/07/2008	1	-33.9732	150.8588	56	302185	6238749
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/07/2008	14/07/2008	1	-33.9732	150.8588	56	302185	6238749
Gastropod	Camaenid	Meridolum	Cumberlar	E1		23/10/2022 21:04	23/10/2022 21:04	1	-33.9681	150.8736	56	303542	6239345
Gastropod	Camaenid	Meridolum	Cumberlar	E1		23/11/2022 8:03	23/11/2022 8:03	1	-33.9609	150.8764	56	303787	6240143
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 19:46	7/12/2022 19:46		-33.9644	150.8747	56	303633	6239755
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 21:59	7/12/2022 21:59		-33.9585	150.8769	56	303821	6240415
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 22:08	7/12/2022 22:08	2	-33.9584	150.8769	56	303821	6240423
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 22:12	7/12/2022 22:12		-33.9586	150.8768	56	303819	6240408
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 22:19	7/12/2022 22:19		-33.9586	150.8769	56	303826	6240408
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 22:19	7/12/2022 22:19		-33.9586	150.877	56	303829	6240407
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 22:36	7/12/2022 22:36		-33.9585	150.8771	56	303839	6240411
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 22:47	7/12/2022 22:47		-33.9586	150.877	56	303836	6240408
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 23:01	7/12/2022 23:01		-33.9583	150.877	56	303833	6240438
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 23:08	7/12/2022 23:08		-33.9585	150.8771	56	303844	6240411
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 23:12	7/12/2022 23:12		-33.9584	150.877	56	303836	6240429
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 23:16	7/12/2022 23:16		-33.9584	150.877	56	303835	6240423
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 23:20	7/12/2022 23:20		-33.9584	150.877	56	303830	6240424
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/12/2022 23:22	7/12/2022 23:22		-33.9585	150.877	56	303834	6240420
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/12/2022 22:35	8/12/2022 22:35	4	-33.9605	150.8765	56	303794	6240190
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/12/2022 22:42	8/12/2022 22:42	4	-33.9605	150.8765	56	303792	6240188
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/12/2022 22:42	8/12/2022 22:42		-33.9605	150.8765	56	303793	6240189
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/12/2022 23:13	8/12/2022 23:13		-33.9605	150.8765	56	303792	6240194
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/12/2022 23:18	8/12/2022 23:18	2	-33.9604	150.8765	56	303791	6240198
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/12/2022 23:25	8/12/2022 23:25		-33.9604	150.8765	56	303792	6240201
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/12/2022 23:36	8/12/2022 23:36	3	-33.9604	150.8766	56	303798	6240203
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/12/2022 23:56	8/12/2022 23:56		-33.9605	150.8766	56	303800	6240193
Gastropod	Camaenid	Meridolum	Cumberlar	E1		9/12/2022 0:01	9/12/2022 0:01		-33.9604	150.8766	56	303799	6240199

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Gastropod	Camaenid	Meridolum	Cumberlar	E1		9/12/2022 0:08	9/12/2022 0:08		-33.9604	150.8766	56	303799	6240198
Gastropod	Camaenid	Meridolum	Cumberlar	E1		9/12/2022 0:21	9/12/2022 0:21		-33.9605	150.8766	56	303799	6240191
Gastropod	Camaenid	Meridolum	Cumberlar	E1		5/12/2023	5/12/2023		-33.927	150.7407	56	291163	6243644
Gastropod	Camaenid	Meridolum	Cumberlar	E1		23/09/1998	11/11/1998	5	-33.9667	150.8716	56	303355	6239490
Gastropod	Camaenid	Meridolum	Cumberlar	E1		1/01/1999	1/01/1999		-33.9815	150.8006	56	296830	6237715
Gastropod	Camaenid	Meridolum	Cumberlar	E1		16/09/2002	16/09/2002		-33.9881	150.8067	56	297405	6236990
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/12/2005	14/12/2005		-33.989	150.8349	56	300017	6236948
Gastropod	Camaenid	Meridolum	Cumberlar	E1		6/12/2007	6/12/2007		-33.9508	150.8693	56	303101	6241250
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/09/2009	7/09/2009		-33.9553	150.8313	56	299602	6240685
Gastropod	Camaenid	Meridolum	Cumberlar	E1		24/11/2009	24/11/2009		-33.9962	150.879	56	304102	6236243
Gastropod	Camaenid	Meridolum	Cumberlar	E1		22/07/2021	22/07/2021		-33.9848	150.7609	56	293163	6237275
Gastropod	Camaenid	Meridolum	Cumberlar	E1		12/06/2014	12/06/2014	4	-33.9685	150.8151	56	298137	6239186
Gastropod	Camaenid	Meridolum	Cumberlar	E1		3/09/2014 10:00	3/09/2014 10:00	12	-33.9382	150.8047	56	297103	6242527
Gastropod	Camaenid	Meridolum	Cumberlar	E1		3/09/2014 10:30	3/09/2014 10:30	4	-33.9493	150.8027	56	296944	6241290
Gastropod	Camaenid	Meridolum	Cumberlar	E1		12/08/2014	12/08/2014		-33.915	150.8455	56	300818	6245183
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/01/2015	29/01/2015		-33.9839	150.7974	56	296536	6237437
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/01/2015	29/01/2015		-33.9835	150.8005	56	296826	6237488
Gastropod	Camaenid	Meridolum	Cumberlar	E1		16/06/2015	16/06/2015		-33.9518	150.8704	56	303211	6241140
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/09/2015 12:00	8/09/2015 12:00		-34.0027	150.821	56	298759	6235407
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9643	150.8463	56	301006	6239711
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	2	-33.9646	150.847	56	301076	6239684
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9645	150.8472	56	301090	6239693
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9644	150.848	56	301170	6239700
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	3	-33.9645	150.8481	56	301178	6239697
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	4	-33.9644	150.8489	56	301251	6239708
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9644	150.8493	56	301289	6239702
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9677	150.8494	56	301306	6239339
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	4	-33.9706	150.8501	56	301376	6239025
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	2	-33.9704	150.8503	56	301390	6239049
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	2	-33.9705	150.8503	56	301396	6239038
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9644	150.8469	56	301070	6239698
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	2	-33.9646	150.847	56	301073	6239685
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9645	150.8471	56	301089	6239687
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9646	150.8471	56	301089	6239686
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9647	150.847	56	301079	6239669
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9648	150.8472	56	301095	6239654
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9649	150.8471	56	301083	6239652
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9646	150.8478	56	301150	6239680
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9645	150.8479	56	301162	6239697
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9644	150.848	56	301170	6239700
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9644	150.8489	56	301251	6239708
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9645	150.849	56	301259	6239700
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	2	-33.9646	150.8488	56	301239	6239687
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9643	150.8488	56	301245	6239712
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9645	150.8522	56	301553	6239703
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	2	-33.9671	150.8489	56	301256	6239412
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9671	150.849	56	301270	6239406

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatu	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9675	150.8494	56	301307	6239362
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9681	150.8494	56	301309	6239301
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9683	150.8499	56	301350	6239280
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9683	150.8497	56	301338	6239276
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	2	-33.9685	150.85	56	301358	6239249
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9701	150.849	56	301274	6239070
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9705	150.8491	56	301287	6239031
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9706	150.8492	56	301289	6239022
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9703	150.8499	56	301361	6239051
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9706	150.85	56	301368	6239022
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9706	150.8501	56	301376	6239025
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9705	150.8503	56	301396	6239038
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9705	150.8505	56	301417	6239038
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9695	150.8521	56	301554	6239152
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9693	150.8514	56	301494	6239167
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9693	150.8511	56	301464	6239163
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.9711	150.8535	56	301690	6238977
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/06/2001	2/07/2001	1	-33.968	150.8568	56	301991	6239321
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/11/2005	7/11/2005	3	-33.9993	150.7914	56	296016	6235718
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/11/2005	7/11/2005	7	-33.9993	150.7914	56	296016	6235718
Gastropod	Camaenid	Meridolum	Cumberlar	E1		22/02/2006	22/02/2006	6	-33.9108	150.7512	56	292092	6245461
Gastropod	Camaenid	Meridolum	Cumberlar	E1		9/02/2009	9/02/2009		-33.9061	150.8422	56	300495	6246158
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9047	150.8401	56	300299	6246311
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9048	150.8417	56	300445	6246300
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9045	150.8422	56	300487	6246335
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9051	150.8428	56	300544	6246271
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9046	150.843	56	300563	6246332
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9042	150.8432	56	300579	6246367
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9033	150.8437	56	300631	6246470
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9026	150.8364	56	299953	6246538
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.8995	150.8327	56	299604	6246875
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9016	150.8426	56	300524	6246659
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9021	150.8419	56	300457	6246606
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9036	150.8414	56	300413	6246433
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9035	150.8411	56	300391	6246443
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9033	150.8403	56	300314	6246466
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9037	150.8405	56	300331	6246424
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/02/2009	10/02/2009		-33.9054	150.8392	56	300214	6246228
Gastropod	Camaenid	Meridolum	Cumberlar	E1		15/07/2016	15/07/2016		-33.9074	150.8337	56	299714	6245998
Gastropod	Camaenid	Meridolum	Cumberlar	E1		25/11/2014	25/11/2014	1	-33.9511	150.8693	56	303103	6241220
Gastropod	Camaenid	Meridolum	Cumberlar	E1		29/03/2015	29/03/2015	1	-33.955	150.845	56	300868	6240741
Gastropod	Camaenid	Meridolum	Cumberlar	E1		9/07/2015	9/07/2015	1	-33.9854	150.755	56	292620	6237195
Gastropod	Camaenid	Meridolum	Cumberlar	E1		9/03/2010	9/03/2010		-33.9711	150.7681	56	293800	6238800
Gastropod	Camaenid	Meridolum	Cumberlar	E1		19/09/2017	19/09/2017	1	-33.9149	150.7628	56	293177	6245027
Gastropod	Camaenid	Meridolum	Cumberlar	E1		19/09/2017	19/09/2017	1	-33.9188	150.7619	56	293102	6244597
Gastropod	Camaenid	Meridolum	Cumberlar	E1		19/09/2017	19/09/2017	1	-33.9287	150.7588	56	292841	6243487
Gastropod	Camaenid	Meridolum	Cumberlar	E1		5/03/2019 15:28	5/03/2019 15:28		-33.943	150.8278	56	299251	6242044

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Gastropod	Camaenid	Meridolum	Cumberlar	E1		5/03/2019 8:54	5/03/2019 8:54		-33.9432	150.8299	56	299444	6242016
Gastropod	Camaenid	Meridolum	Cumberlar	E1		5/03/2019 14:38	5/03/2019 14:38		-33.9417	150.8285	56	299314	6242180
Gastropod	Camaenid	Meridolum	Cumberlar	E1		5/03/2019 14:17	5/03/2019 14:17		-33.9419	150.8279	56	299254	6242158
Gastropod	Camaenid	Meridolum	Cumberlar	E1		5/03/2019 15:02	5/03/2019 15:02		-33.9416	150.8288	56	299343	6242192
Gastropod	Camaenid	Meridolum	Cumberlar	E1		5/03/2019 14:45	5/03/2019 14:45		-33.9418	150.8284	56	299301	6242178
Gastropod	Camaenid	Meridolum	Cumberlar	E1		5/03/2019 11:34	5/03/2019 11:34		-33.9445	150.83	56	299461	6241880
Gastropod	Camaenid	Meridolum	Cumberlar	E1		5/03/2019 9:11	5/03/2019 9:11		-33.9434	150.8296	56	299418	6241997
Gastropod	Camaenid	Meridolum	Cumberlar	E1		11/03/2019 15:27	11/03/2019 15:27		-33.9445	150.8312	56	299572	6241874
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/06/2018 10:30	7/06/2018 10:30		-33.9811	150.8403	56	300491	6237838
Gastropod	Camaenid	Meridolum	Cumberlar	E1		15/03/2001	15/03/2001		-33.9468	150.8667	56	302855	6241690
Gastropod	Camaenid	Meridolum	Cumberlar	E1		15/03/2000	15/03/2000		-33.9422	150.8587	56	302105	6242190
Gastropod	Camaenid	Meridolum	Cumberlar	E1		27/06/2003	27/06/2003	1	-33.9424	150.8703	56	303180	6242190
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/07/2003	10/07/2003		-33.9063	150.8431	56	300580	6246140
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/07/2003	10/07/2003		-33.911	150.8416	56	300455	6245615
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/09/2002	23/04/2003		-33.8965	150.8634	56	302435	6247270
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/09/2002	23/04/2003		-33.8965	150.8634	56	302435	6247270
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/09/2002	23/04/2003		-33.8965	150.8634	56	302435	6247270
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/09/2002	23/04/2003		-33.8965	150.8634	56	302435	6247270
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2003	26/08/2003		-33.9328	150.8373	56	300105	6243190
Gastropod	Camaenid	Meridolum	Cumberlar	E1		5/04/2002	5/04/2002	3	-33.9126	150.8443	56	300705	6245440
Gastropod	Camaenid	Meridolum	Cumberlar	E1		4/04/2002	5/04/2002	3	-33.9326	150.8265	56	299105	6243190
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8911	150.7978	56	296354	6247734
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	2	-33.8913	150.7978	56	296356	6247714
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8915	150.798	56	296371	6247695
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8912	150.7985	56	296415	6247726
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	4	-33.8914	150.798	56	296377	6247705
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8914	150.7987	56	296439	6247701
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8911	150.799	56	296461	6247735
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8911	150.799	56	296461	6247735
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8912	150.799	56	296465	6247732
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8916	150.7988	56	296448	6247682
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.891	150.7996	56	296522	6247750
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	2	-33.8912	150.8	56	296560	6247725
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8915	150.8005	56	296606	6247700
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8911	150.8005	56	296604	6247746
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8918	150.8009	56	296638	6247660
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8911	150.8012	56	296664	6247746
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	2	-33.8926	150.7996	56	296523	6247577
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8922	150.7996	56	296525	6247617
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	3	-33.8921	150.7995	56	296512	6247627
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/2002	6/09/2002	1	-33.8919	150.7983	56	296403	6247652
Gastropod	Camaenid	Meridolum	Cumberlar	E1		27/06/2003	27/06/2003	1	-33.9424	150.8703	56	303180	6242190
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/09/2002	23/04/2003		-33.8965	150.8634	56	302435	6247270
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/09/2002	23/04/2003		-33.8965	150.8634	56	302435	6247270
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/09/2002	23/04/2003		-33.8965	150.8634	56	302435	6247270
Gastropod	Camaenid	Meridolum	Cumberlar	E1		14/09/2002	23/04/2003		-33.8965	150.8634	56	302435	6247270
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/07/2002	10/07/2002		-33.9104	150.8481	56	301055	6245690

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Gastropod	Camaenid	Meridolum	Cumberlar	E1		9/01/2004	14/01/2004		-33.9104	150.8433	56	300605	6245690
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/07/2003	10/07/2003		-33.9104	150.8433	56	300605	6245690
Gastropod	Camaenid	Meridolum	Cumberlar	E1		13/08/2021	13/08/2021	1	-33.9663	150.7698	56	293945	6239344
Gastropod	Camaenid	Meridolum	Cumberlar	E1		3/02/1999	3/02/1999		-33.9483	150.8542	56	301699	6241498
Gastropod	Camaenid	Meridolum	Cumberlar	E1		30/04/1999	30/04/1999		-33.9525	150.8628	56	302505	6241053
Gastropod	Camaenid	Meridolum	Cumberlar	E1		30/04/1999	30/04/1999		-33.9492	150.8686	56	303036	6241434
Gastropod	Camaenid	Meridolum	Cumberlar	E1		7/05/1999	7/05/1999		-33.9828	150.8014	56	296903	6237575
Gastropod	Camaenid	Meridolum	Cumberlar	E1		25/12/1998	25/12/1998		-33.9731	150.8481	56	301192	6238745
Gastropod	Camaenid	Meridolum	Cumberlar	E1		25/12/1998	25/12/1998		-33.9489	150.8536	56	301649	6241436
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/08/1998	26/08/1998		-33.9394	150.8772	56	303810	6242529
Gastropod	Camaenid	Meridolum	Cumberlar	E1		13/11/2001	13/11/2001		-33.8903	150.8111	56	297583	6247853
Gastropod	Camaenid	Meridolum	Cumberlar	E1		18/09/1998	18/09/1998		-33.8906	150.8133	56	297789	6247827
Gastropod	Camaenid	Meridolum	Cumberlar	E1		1/11/1971	1/11/1971		-33.9125	150.7781	56	294579	6245323
Gastropod	Camaenid	Meridolum	Cumberlar	E1		23/11/2000	23/11/2000		-33.8906	150.8031	56	296838	6247806
Gastropod	Camaenid	Meridolum	Cumberlar	E1		23/11/2000	23/11/2000		-33.8911	150.8078	56	297276	6247754
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/08/2018	8/08/2018		-33.9697	150.8628	56	302545	6239143
Gastropod	Camaenid	Meridolum	Cumberlar	E1		12/02/2003	12/02/2003		-33.8969	150.8647	56	302556	6247218
Gastropod	Camaenid	Meridolum	Cumberlar	E1		15/09/2022	15/09/2022	2	-33.96	150.8299	56	299485	6240156
Gastropod	Camaenid	Meridolum	Cumberlar	E1		12/01/2004	12/01/2004	22	-33.938	150.8777	56	303855	6242690
Gastropod	Camaenid	Meridolum	Cumberlar	E1		12/01/2004	12/01/2004	9	-33.938	150.8777	56	303855	6242690
Gastropod	Camaenid	Meridolum	Cumberlar	E1		30/01/2004	30/01/2004	2	-33.938	150.8777	56	303855	6242690
Gastropod	Camaenid	Meridolum	Cumberlar	E1		30/01/2004	30/01/2004	1	-33.938	150.8777	56	303855	6242690
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/08/1941	8/08/1941		-33.9784	150.8545	56	301800	6238162
Gastropod	Camaenid	Meridolum	Cumberlar	E1		1/08/1941	31/08/1941		-33.9968	150.8645	56	302766	6236148
Gastropod	Camaenid	Meridolum	Cumberlar	E1		1/03/1972	31/03/1972	1	-33.9068	150.7895	56	295623	6245982
Gastropod	Camaenid	Meridolum	Cumberlar	E1		27/03/1999	30/03/1999		-33.8972	150.8652	56	302605	6247190
Gastropod	Camaenid	Meridolum	Cumberlar	E1		17/01/2000	2/02/2000		-33.9361	150.8751	56	303605	6242890
Gastropod	Camaenid	Meridolum	Cumberlar	E1		31/08/2007 9:20	31/08/2007 9:20	4	-33.9636	150.8731	56	303481	6239841
Gastropod	Camaenid	Meridolum	Cumberlar	E1		31/08/2007 16:50	31/08/2007 16:50	2	-33.9058	150.8429	56	300555	6246193
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/04/2007 7:45	26/04/2007 7:45	1	-33.9942	150.8045	56	297215	6236316
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/04/2007 9:40	26/04/2007 9:40	4	-34.0034	150.8074	56	297504	6235298
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/04/2007 10:00	26/04/2007 10:00	3	-33.9992	150.8098	56	297719	6235768
Gastropod	Camaenid	Meridolum	Cumberlar	E1		26/04/2007 10:30	26/04/2007 10:30	5	-33.9979	150.8044	56	297221	6235900
Gastropod	Camaenid	Meridolum	Cumberlar	E1		17/01/2004 11:10	17/01/2004 11:30	4	-33.9055	150.7991	56	296509	6246137
Gastropod	Camaenid	Meridolum	Cumberlar	E1		15/01/2004 7:00	15/01/2004 7:00	1	-33.8948	150.802	56	296747	6247330
Gastropod	Camaenid	Meridolum	Cumberlar	E1		15/01/2004 6:15	15/01/2004 6:15	1	-33.8912	150.8089	56	297384	6247751
Gastropod	Camaenid	Meridolum	Cumberlar	E1		11/03/2014 10:00	11/03/2014 10:00	2	-33.9744	150.84	56	300448	6238575
Gastropod	Camaenid	Meridolum	Cumberlar	E1		12/03/2014 10:00	12/03/2014 10:00	1	-33.9744	150.8454	56	300947	6238591
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/03/2014 10:00	10/03/2014 10:00	1	-33.9768	150.8388	56	300344	6238316
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/03/2014 10:00	10/03/2014 10:00	1	-33.9724	150.8476	56	301146	6238814
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/03/2014 10:00	10/03/2014 10:00	1	-33.9733	150.8478	56	301172	6238713
Gastropod	Camaenid	Meridolum	Cumberlar	E1		18/12/2014 20:50	18/12/2014 20:50	1	-33.9687	150.8637	56	302624	6239253
Gastropod	Camaenid	Meridolum	Cumberlar	E1		10/10/2014 9:00	10/10/2014 9:00	1	-33.9732	150.8459	56	300990	6238730
Gastropod	Camaenid	Meridolum	Cumberlar	E1		8/12/2014 10:00	8/12/2014 10:00	1	-33.9718	150.8454	56	300941	6238881
Gastropod	Camaenid	Meridolum	Cumberlar	E1		27/06/2006 15:30	27/06/2006 15:30	2	-34.0162	150.7438	56	291667	6233753
Gastropod	Camaenid	Meridolum	Cumberlar	E1		11/07/2006 8:30	11/07/2006 8:30	3	-33.9397	150.8762	56	303719	6242501
Gastropod	Camaenid	Meridolum	Cumberlar	E1		11/07/2006 9:15	11/07/2006 9:15	2	-33.9366	150.8727	56	303388	6242838

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Gastropod	Camaenid	Meridolum	Cumberlar	E1		11/07/2006 9:40	11/07/2006 9:40	1	-33.9385	150.8722	56	303343	6242620
Gastropod	Camaenid	Meridolum	Cumberlar	E1		11/07/2006 9:00	11/07/2006 9:00	3	-33.9382	150.8757	56	303671	6242660
Gastropod	Camaenid	Meridolum	Cumberlar	E1		18/05/2015 12:10	18/05/2015 12:10	1	-33.9351	150.8204	56	298550	6242900
Flora	Apocynace	Marsdenia	Marsdenia	E2		14/03/2003	14/03/2003		-33.9499	150.839	56	300300	6241300
Flora	Apocynace	Marsdenia	Marsdenia	E2		15/11/2006	15/11/2006		-33.9541	150.8603	56	302276	6240872
Flora	Apocynace	Marsdenia	Marsdenia	E2		20/02/2009	20/02/2009	1	-33.9651	150.8488	56	301247	6239624
Flora	Apocynace	Marsdenia	Marsdenia	E2		29/04/2014	29/04/2014	15	-33.9558	150.8297	56	299457	6240619
Flora	Apocynace	Marsdenia	Marsdenia	E2		24/01/2018	24/01/2018	10	-33.9108	150.8679	56	302887	6245684
Flora	Apocynace	Marsdenia	Marsdenia	E2		11/03/2019 15:27	11/03/2019 15:27		-33.9445	150.8312	56	299572	6241874
Flora	Apocynace	Marsdenia	Marsdenia	E2		29/11/2018 8:23	29/11/2018 8:23		-33.9437	150.8311	56	299552	6241963
Flora	Apocynace	Marsdenia	Marsdenia	E2		29/11/2018 11:54	29/11/2018 11:54		-33.9427	150.8277	56	299245	6242073
Flora	Apocynace	Marsdenia	Marsdenia	E2		28/02/2019 13:01	28/02/2019 13:01		-33.9436	150.8312	56	299563	6241978
Flora	Apocynace	Marsdenia	Marsdenia	E2		28/02/2019 14:31	28/02/2019 14:31		-33.9427	150.8277	56	299243	6242069
Flora	Apocynace	Marsdenia	Marsdenia	E2		28/02/2019 11:51	28/02/2019 11:51		-33.9439	150.8311	56	299559	6241948
Flora	Apocynace	Marsdenia	Marsdenia	E2		28/02/2019 12:02	28/02/2019 12:02		-33.9423	150.8278	56	299245	6242117
Flora	Ericaceae	Leucopogc	Woronora I	V	V	7/09/1962	7/09/1962		-34.0151	150.8512	56	301577	6234088
Flora	Fabaceae (	Dillwynia	tenuifolia	V		26/04/2001	26/04/2001	50	-33.8959	150.7917	56	295805	6247190
Flora	Fabaceae (	Dillwynia	tenuifolia	V		3/07/2019	3/07/2019	3	-33.893	150.7788	56	294603	6247486
Flora	Fabaceae (	Dillwynia	tenuifolia	V		3/07/2019	3/07/2019	2	-33.8929	150.7788	56	294603	6247493
Flora	Fabaceae (	Dillwynia	tenuifolia	V		3/07/2019	3/07/2019	3	-33.8929	150.7789	56	294606	6247496
Flora	Fabaceae (	Dillwynia	tenuifolia	V		3/07/2019	3/07/2019	5	-33.8929	150.7789	56	294607	6247501
Flora	Fabaceae (	Dillwynia	tenuifolia	V		3/07/2019	3/07/2019	7	-33.8928	150.7789	56	294607	6247508
Flora	Fabaceae (	Dillwynia	tenuifolia	V		1/01/2003	30/06/2003		-33.895	150.7923	56	295855	6247290
Flora	Fabaceae (	Dillwynia	tenuifolia	V		1/01/2003	30/06/2003		-33.9057	150.8337	56	299705	6246190
Flora	Fabaceae (	Dillwynia	tenuifolia	V		6/10/1999	6/10/1999	100	-33.9021	150.7829	56	295005	6246490
Flora	Fabaceae (	Dillwynia	tenuifolia	V		12/01/2004	23/01/2004	1	-33.9003	150.8056	56	297094	6246730
Flora	Fabaceae (	Pultenaea	parviflora	E1	V	26/04/2001	26/04/2001	1	-33.8955	150.7919	56	295816	6247232
Flora	Fabaceae (	Pultenaea	parviflora	E1	V	6/10/1999	6/10/1999	20	-33.9021	150.7829	56	295005	6246490
Flora	Fabaceae (	Pultenaea	Matted Bus	E1		8/05/2001	8/05/2001	2	-33.9432	150.8776	56	303855	6242115
Flora	Fabaceae (	Pultenaea	Matted Bus	E1		24/01/2005	24/01/2005		-33.9416	150.8771	56	303805	6242290
Flora	Fabaceae (	Pultenaea	Matted Bus	E1		1/03/1998	31/03/1999	6	-33.9434	150.8781	56	303905	6242090
Flora	Fabaceae (	Pultenaea	Matted Bus	E1		7/12/1998	7/12/1998		-33.9436	150.8779	56	303885	6242070
Flora	Fabaceae (	Pultenaea	Matted Bus	E1		14/10/1999	14/10/1999		-33.9437	150.8773	56	303825	6242056
Flora	Fabaceae (	Pultenaea	Matted Bus	E1		7/12/1998	7/12/1998		-33.9484	150.8512	56	301422	6241482
Flora	Fabaceae (	Pultenaea	Matted Bus	E1		7/12/1998	7/12/1998		-33.9484	150.8678	56	302962	6241514
Flora	Fabaceae (	Pultenaea	Matted Bus	E1		8/05/2001	8/05/2001		-33.9434	150.8776	56	303850	6242088
Flora	Fabaceae (	Pultenaea	Matted Bus	E1		2/12/2004	2/12/2004		-33.9404	150.8789	56	303971	6242429
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	13/04/2006	13/04/2006		-33.9292	150.8211	56	298597	6243561
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	13/04/2006	13/04/2006		-33.9294	150.8212	56	298608	6243530
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	13/04/2006	13/04/2006		-33.9295	150.8214	56	298631	6243526
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	13/04/2006	13/04/2006		-33.9313	150.8219	56	298678	6243329
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	10/07/2013 13:00	10/07/2013 13:00	50	-33.8992	150.8689	56	302947	6246979
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	1/01/2003	30/06/2003		-33.9325	150.8216	56	298655	6243190
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	16/08/1953	16/08/1953		-33.9039	150.8651	56	302605	6246445
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	28/07/1963	28/07/1963		-33.9412	150.8057	56	297207	6242190
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	1/11/1960	1/11/1960		-34.0151	150.8512	56	301577	6234088
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	8/06/1988	8/06/1988		-33.9053	150.8661	56	302701	6246292

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	6/10/1999	6/10/1999	25	-33.9021	150.7829	56	295005	6246490
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	5/11/1997	5/11/1997	144	-33.9018	150.8684	56	302905	6246690
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	12/04/1999	12/04/1999	3	-33.8984	150.8737	56	303395	6247070
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	28/07/1963	28/07/1963		-33.9151	150.8012	56	296721	6245081
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	7/10/1999	7/10/1999		-33.9306	150.822	56	298684	6243397
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	16/08/1953	16/08/1953		-33.8984	150.8512	56	301306	6247028
Flora	Fabaceae (	Acacia put	Downy Wa	V	V	1/11/1910	30/11/1910		-34.0151	150.8512	56	301577	6234088
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		9/12/1966	9/12/1966		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		9/12/1966	9/12/1966		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		9/12/1966	9/12/1966		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		2/12/1966	2/12/1966		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		9/12/1966	9/12/1966		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		30/12/1966	30/12/1966		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		18/03/1967	18/03/1967		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		30/12/1966	30/12/1966		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		29/04/1967	29/04/1967		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		17/06/1967	17/06/1967		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		14/07/1967	14/07/1967		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		14/07/1967	14/07/1967		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		8/12/1967	8/12/1967		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		22/09/1967	22/09/1967		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		9/12/1966	9/12/1966		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		30/12/1966	30/12/1966		-33.9651	150.8678	56	303001	6239666
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		29/04/1967	29/04/1967		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		2/12/1966	2/12/1966		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		17/06/1967	17/06/1967		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		14/07/1967	14/07/1967		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		22/09/1967	22/09/1967		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		30/12/1966	30/12/1966		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		9/12/1966	9/12/1966		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		9/12/1966	9/12/1966		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		30/12/1966	30/12/1966		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		30/12/1966	30/12/1966		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		18/03/1967	18/03/1967		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		18/03/1967	18/03/1967		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		8/12/1967	8/12/1967		-33.9984	150.8678	56	303078	6235969
Flora	Gyrostemo	Gyrostemon thesioide		E1,3		8/12/1967	8/12/1967		-33.9984	150.8678	56	303078	6235969
Flora	Myrtaceae	Callistemo	Netted Bot	V,3		14/04/2021	14/04/2021	5	-33.89	150.7909	56	295709	6247840
Flora	Myrtaceae	Eucalyptus	Wallangarr	E1	V	1/01/2005	14/11/2005		-33.9152	150.8354	56	299892	6245142
Flora	Myrtaceae	Syzygium p	Magenta Li	E1	V	3/07/1977	3/07/1977		-33.9651	150.7678	56	293760	6239469
Flora	Thymelaea	Pimelea sp	Spiked Ric	E1	E	18/05/2004	18/05/2004		-33.9042	150.8431	56	300576	6246372
Flora	Thymelaea	Pimelea sp	Spiked Ric	E1	E	18/05/2004	18/05/2004		-33.9042	150.8431	56	300576	6246372
Flora	Thymelaea	Pimelea sp	Spiked Ric	E1	E	3/04/2008	3/04/2008	4	-33.9706	150.8168	56	298295	6238955
Flora	Thymelaea	Pimelea sp	Spiked Ric	E1	E	1/01/2003	30/06/2003		-33.9665	150.8337	56	299855	6239440
Flora	Thymelaea	Pimelea sp	Spiked Ric	E1	E	1/01/2003	30/06/2003		-33.9703	150.8169	56	298305	6238990
Flora	Thymelaea	Pimelea sp	Spiked Ric	E1	E	22/07/2003	22/07/2003	8	-33.9703	150.8169	56	298305	6238990
Flora	Thymelaea	Pimelea sp	Spiked Ric	E1	E	5/01/2004	5/01/2004	52	-33.9988	150.7874	56	295651	6235771

ClassNam	FamilyNan	ScientificN	CommonN	NSWStatus	CommStat	DateFirst	DateLast	NumberInc	Latitude_G	Longitude_	Zone	Easting	Northing
Flora	Thymelaea	Pimelea sp	Spiked Ric	E1	E	16/03/1992	16/03/1992	800	-33.9703	150.8169	56	298305	6238990
Flora	Thymelaea	Pimelea sp	Spiked Ric	E1	E	9/11/1999	9/11/1999		-33.9693	150.8164	56	298262	6239104
Flora	Thymelaea	Pimelea sp	Spiked Ric	E1	E	15/05/1996	15/05/1996	300	-33.9576	150.8388	56	300305	6240440

APPENDIX C LIKELIHOOD OF OCCURRENCE

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
Listed Birds (including listed migratory species)					
Australasian Bittern *(Botaurus poiciloptilus)*	E, E1	The Australasian Bittern occurs mainly in freshwater wetlands and, rarely, in estuaries or tidal wetlands. It favours permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and reeds. The species also frequently utilises artificial habitats such as rice fields. In New South Wales, it occurs along the coast and is also frequently recorded in the Murray Darling Basin, notably in floodplain wetlands of the Murray, Murrumbidgee, Lachlan, Macquarie and Gwydir Rivers. **Breeding habitat:** The species nests adjacent to relatively deep, densely vegetated freshwater swamps and pools, building its nests under dense cover over shallow water. If population densities are high, it may resort to open wetlands for nesting, such as in stunted Acacia swamps. **Foraging habitat:** It favours wetlands with tall dense vegetation, where it forages in still, shallow water up to 0.3 m deep. There is a lack of wetland habitat for foraging and breeding habitat present within the Study Area.	Yes	Yes	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • There is a lack of wetland habitat for foraging and breeding within the Study Area. • One record exists in the locality of the study area (approximately 8km from the Study Area).
Australian Painted Snipe *(Rostratula australis)*	E, E1	The Australian painted snipe generally inhabits shallow terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps and claypans. Marchant & Higgins (1993) stated that the Australian painted snipe	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • There is a lack of wetland habitat for foraging and breeding present within the Study Area.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		can use modified habitats, such as low-lying woodlands converted to grazing pasture, sewage farms, dams, bores and irrigation schemes, however they do not necessarily breed in such habitats (as cited in DoE, 2019d). **Breeding habitat:** requirements specific for this species include shallow wetlands with bare mud and both upper and canopy cover nearby. Nest records are all, or nearly all, from or near small islands in freshwater wetlands. **Foraging habitat**: Terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps and claypans. They have also been observed in inundated grasslands as well as dams and bore drains. There is a lack of wetland habitat for foraging and breeding habitat present within the Study Area.			• No records for the species exist within the immediate Study Area/locality (closest record approximately 20km to the east of the Study Area).
Bush Stone-curlew *(Burhinus grallarius)*	-, E1	The Bush Stone-curlew inhabits open forests and woodlands with a sparse grassy groundlayer and fallen timber. **Breeding habitat:** The nest site is typically in or near the edge of open grassy woodland or within a cleared paddock where there is good visibility across the surrounding lands. Nest sites can be near or beside a fallen log or exposed tree root, and this may provide some camouflage for nesting birds.	Yes	Yes	Potential to occur • Study Area is within the distribution of the species (known to occur). • Potential habitat in and around study area in the form of open woodlands and cleared paddocks. • One record of the species exists within the immediate study area/locality (approximately 10km east of the Study Area within the Holsworthy Military reserve).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Foraging Habitat: Foraging can occur over a wide area, including irrigated paddocks, grasslands, woodlands, domestic gardens, saltmarsh, mangroves, and playing fields. Potential habitat in and around study area in the form of open woodland and cleared paddocks.			
Curlew Sandpiper (*Calidris ferruginea)*	CE and M, E1	This species can occur inland, including around ephemeral and permanent lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. They occur in both fresh and brackish waters. Occasionally they are recorded around floodwaters. **Breeding habitat:** This species does not breed in Australia. **Foraging habitat:** Curlew sandpipers forage on mudflats and nearby shallow water. **Roosting habitat:** this species roost in open situations with damp substrate, especially on bare shingle, shell or sand beaches, sandspits and islets in or around coastal or near-coastal lagoons and other wetlands, occasionally roosting in dunes during very high tides and sometimes in saltmarsh. There is a lack of wetland habitat for foraging, breeding and roosting habitat present within the Study Area.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • No records for the species exist within the immediate Study Area/locality. • Very recent records (2021) are within 7km of the Study Area. • There is a lack of wetland habitat for foraging, breeding and roosting habitat present within the Study Area.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
Eastern Curlew *(Numenius madagascariensis)*	CE and M, -	During the non-breeding season in Australia, the eastern curlew is most commonly associated with sheltered coasts, especially estuaries, bays, harbours, inlets and coastal lagoons, with large intertidal mudflats or sandflats, often with beds of seagrass (Zosteraceae). **Breeding Habitat:** The eastern curlew does not breed in Australia. **Foraging Habitat:** The eastern curlew mainly forages during the non-breeding season on soft sheltered intertidal sandflats or mudflats, open and without vegetation or covered with seagrass, often near mangroves, on saltflats and in saltmarsh, rockpools and among rubble on coral reefs, and on ocean beaches near the tideline. The birds are rarely seen on near-coastal lakes or in grassy areas (Marchant & Higgins, 1993). There is a lack of coastal habitat for foraging within and around the study area.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • There is a lack of coastal habitat for foraging within and around the study area. • No records for the species exist within the immediate Study Area/locality (closest record is approximately 22km to the East in wetland coastal areas)
Flame Robin (Petroica (Littlera) phoenicea)	-, V	This species inhabits a variety of habitats throughout south-eastern Australia, including moist eucalypt forests, open woodlands, and open, rural areas. This species often occurs in recently burnt areas, however the habitat becomes unsuitable as vegetation regenerates. **Breeding Habitat:** Flame Robins nest in a variety of environments, generally in upland tall moist eucalypt forests and woodlands, often on slopes or ridges. Nests	Yes	Yes	Unlikely to occur • Study Area is within the distribution of the species (may occur). • There is a lack of ground cover or shrub layer for foraging within and around the study area. • No recent records for the species exist within the immediate Study Area/locality.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		are often close to the ground and built in sheltered sites such as shallow cavities in stumps or trees. **Foraging Habitat:** This species forages on low perches, often pouncing onto the ground to take invertebrates of off woody debris such as tree trunks or logs.			
Gang-gang Cockatoo *(Callocephalon fimbriatum)*	E, V	During summer months, Gang-gang Cockatoos primarily inhabit mature, wet sclerophyll forests, typically dominated by eucalypts (Frith 1969; NSW Scientific Committee 2008). Eucalypt dominated assemblages with dense, shrubby acacia, wattle and banksia understory support the highest density of birds (Higgins 1999). The species has also been reported in more open eucalypt assemblages, subalpine snow gum woodland, temperate rainforests, and occasionally regenerating forests (Forshaw 1989; Higgins 1999). Smith & Smith (1993) assessed the species as being frequent within blackbutt (Eucalyptus pilularis), Sydney red gum (Angophora costata), and turpentine (Syncarpia glomulifera) tall open forest and occasional in Sydney peppermint (Eucalyptus piperita) open-forest. During winter months, Gang-gang Cockatoos inhabit woodland assemblages at lower, drier altitudes. Most birds occur in open eucalypt assemblages during this period (Shields & Crome 1992; Higgins 1999).	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • Potential habitat in and around study area in red gum forest (PCT 835). • No records for the species exist within the immediate Study Area/locality. • Closest record in approximately 7.5km away from the Study Area (2021). • Various records are present in Holsworthy Military reserve to the East of the Study Area.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Breeding Habitat: Gang-gang Cockatoos favour old growth forest and woodland assemblages for nesting, loafing, and roosting. The species nests in the hollows of tree trunks and limbs, or within the dead sprout of large, living eucalypts (Higgins 1999; Gibbons 1999; Gibbons & Lindenmayer 2000). Nesting and roosting sites are often near water (Beruldsen 1980), where larger hollow-bearing trees can be more common. **Foraging Habitat:** Foraging is mainly arboreal, occurring in the canopy of woodland assemblages (particularly within eucalypts) Potential habitat in and around study area in red gum forest (PCT 835).			
Grey Falcon *(Falco hypoleucos)*	V,-	The species occurs in arid and semi-arid Australia, including the Murray-Darling Basin, Eyre Basin, central Australia and Western Australia (Marchant and Higgins 1993). The species is mainly found where annual rainfall is less than 500 mm, except when wet years are followed by drought, when the species might become marginally more widespread, although it is essentially confined to the arid and semi-arid zones at all times (Schoenjahn 2018). The species frequents timbered lowland plains, particularly acacia shrublands that are crossed by tree-lined water courses (Garnett et al. 2011; Watson 2011; Schoenjahn 2013, 2018; Janse et al. 2015; Ley and Tynan 2016). The species has	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • They grey falcon requires acacia shrubland habitat as well as lowland plains associated with water, and the species is largely arid and thus there is a lack of habitat within the Study Area. • No records for the species exist within the immediate Study Area/locality (closest record 10.5km to the north).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		been observed hunting in treeless areas and frequents tussock grassland and open woodland, especially in winter (Olsen and Olsen 1986; Schoenjahn 2018). **Breeding habitat**: Nests chosen are usually in the tallest trees along watercourses, particularly River Red Gum (*Eucalyptus camaldulensis*) and Coolibah (*E. coolabah*) **Foraging habitat:** timbered lowland plains, acacia shrubland crossed by tree-line watercourses, as well as treeless areas, tussock grasslands and open woodlands. **Roosting habitat**: this species is likely to roost in both its breeding and foraging habitat. This species has also been observed roosting on the ground. They grey falcon requires acacia shrubland habitat as well as lowland plains associated with water, and the species is largely arid and thus there is a lack of habitat within the Study Area.			
Painted Honeyeater *(Grantiella picta)*	V, V	The painted honeyeater lives in dry, open forests and woodlands. The species usually occurs in areas with flowering and fruiting mistletoe and flowering Eucalypts. This species prefers Acacia dominated woodlands, as well paperbarks, casuarinas, Callitris and box-ironbark-yellow gum woodlands with a large number of mature trees as these host more mistletoe. **Breeding habitat**: breeding habitat is typically mature trees in remnant	Yes	No	Potential to occur • Study Area is within the distribution of the species (likely to occur). • Records of preferred food source, needle-leaved mistletoe, occur within 5 km of the Study Area. Potential foraging habitat within open woodland in and around the study area (PCT 850). • No records for the species exist within the immediate Study Area/locality (closest record 12km to the north).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		vegetation with high quantities of mistletoe. **Foraging and roosting habitat:** Associated with woodlands and forests with mistletoe. Records of preferred food source, needle-leaved mistletoe occur within 5 km of the Study Area. Potential foraging habitat within open woodland in and around the study area (PCT 850)			
Pilotbird *(Pycnoptilus floccosus)*	V, -	Pilotbirds are strictly terrestrial, living on the ground in dense forests with heavy undergrowth (Higgins & Peter 2002). Habitat critical to the survival of the Pilotbird includes wet sclerophyll forests in temperate zones in moist gullies with dense undergrowth (Higgins & Peter 2002), and dry sclerophyll forests and woodlands occupying dry slopes and ridges (Higgins & Peter 2002). **Breeding Habitat:** Breeding takes places between August and January and adults build a domed nest on or near the ground. **Foraging Habitat:** They are typically seen hopping briskly over the forest floor and foraging on damp ground or among leaf-litter. Remnant woodland within the study area is in a modified condition with exotic lawn understory and no shrub layer. There is a lack of dense remnant forest within the study area for the foraging of this species.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • Remnant woodland within the study area is in a modified condition with exotic lawn understory and no shrub layer. There is a lack of dense remnant forest within the study area for the foraging of this species. • No records for the species exist within the immediate Study Area/locality (closest record 25km to the south-east within Dharawal National Park).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
Red Goshawk *(Erythrotriorchis radiatus)*	V, E4A	This species prefers wooded and forested lands of tropical and warm-temperate Australia. Forests of intermediate density are favoured, or ecotones between habitats of differing densities, e.g. between rainforest and eucalypt forest, between gallery forest and woodland, or on edges of woodland and forest where they meet grassland, cleared land, roads or watercourses. This species has a large home range. **Breeding and roosting habitat:** This species rarely breeds in areas with fragmented vegetation. Breeding habitat is restricted to trees that are taller than 20 m and within 1 km of a watercourse or wetland. **Foraging habitat**: Habitat has to be open enough for fast hunting and manoeuvring in flight, but with enough cover for ambushing of prey. No preferred ecotones are present within the Study Area but potential foraging habitat is present in the form of wooded eucalypt forests.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • No preferred ecotones are present within the Study Area but potential foraging habitat is present in the form of wooded eucalypt forests. • No records for the species exist within the immediate Study Area/locality (closest record >50km to the north).
Regent Honeyeater *(Anthochaera phrygia)*	CE, E4A	It primarily occurs in box-ironbark woodland, but also occurs in other forest types. The species primarily feeds on nectar and, to a lesser extent, insects and their exudates (lerps and honeydew). It mainly feeds on nectar from eucalypts and mistletoes and it prefers taller and larger diameter trees for foraging.	Yes	No	Potential to occur • Study Area is within the distribution of the species (known to occur). • No records for the species exist within the immediate Study Area/locality • Closest record 8km south east of the Study Area • Potential habitat within box ironbark woodland that is present in and around the study area within PCT 849

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Breeding habitat: breeding territories normally correspond with feeding areas. **Foraging and roosting habitat**: the species prefers taller and larger diameter trees for foraging, and foraging trees are usually roosting sites. Potential habitat of box ironbark woodland is present in and around the study area within PCT 849 and 850. Records of preferred food source, needle-leaved mistletoe, occur within 5 km of the Study Area.			and 850. Records of preferred food source, needle-leaved mistletoe, occur within 5 km of the Study Area.
Swift Parrot *(Lathamus discolor)*	CE, E1	The swift parrot breeds in Tasmania during the summer and the entire population migrates north to mainland Australia for the winter **Breeding Habitat:** The breeding range of the swift parrot is largely restricted to the east and south-east coast of Tasmania. Swift parrots breed in tree-hollows in old-growth or other forest with suitable hollows, in relatively close proximity to the main food source, flowering Tasmanian blue gum (Eucalyptus globulus). **Foraging Habitat:** Non-breeding birds preferentially feed in inland box-ironbark and grassy woodlands, and coastal swamp mahogany (E. robusta) and spotted gum (Corymbia maculata) woodland when in flower otherwise often in coastal forests from eastern Victorian to the central coast of New South Wales.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • Potential foraging habitat present in the form of grassy woodlands in and around the study area (PCT 849, and potentially 850). • 19 records for the species exist within the immediate Study Area/locality.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Potential foraging habitat present in the form of grassy woodlands in and around the study area (PCT 849, and potentially 850)			
Black-faced Monarch *(Monarcha melanopsis)*	M, -	The Black-faced Monarch mainly occurs in rainforest ecosystems, including semi-deciduous vine-thickets, complex notophyll vine-forest, tropical (mesophyll) rainforest, subtropical (notophyll) rainforest, mesophyll (broadleaf) thicket/shrubland, warm temperate rainforest, dry (monsoon) rainforest and (occasionally) cool temperate rainforest. It is also sometimes found in nearby open eucalypt forests (mainly wet sclerophyll forests), especially in gullies with a dense, shrubby understorey as well as in dry sclerophyll forests and woodlands, often with a patchy understorey. **Breeding Habitat:** The Black-faced Monarch breeds in rainforest habitat, and generally nests near the top of trees with large leaves, in the tops of small saplings, or in lower shrubs **Foraging Habitat:** The Black-faced Monarch feeds mostly in rainforest but also in open eucalypt forest. They forage at all vertical levels of the forest, though most often at low or middle levels, within 6 m of the ground. No preferred rainforest habitat in or around the study area. Potential foraging habitat in open eucalypt forest.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • No preferred rainforest habitat in or around the study area. Potential foraging habitat in open eucalypt forest. • Several records for the species exist within the immediate Study Area/locality (closest is <2km away from the Study Area and various records within the Holsworthy Military Reserve to the east of the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
Common Greenshank *(Tringa nebularia)*	M, -	The Common Greenshank is found in a wide variety of inland wetlands and sheltered coastal habitats of varying salinity. It occurs in sheltered coastal habitats, typically with large mudflats and saltmarsh, mangroves or seagrass. Habitats include embayments, harbours, river estuaries, deltas and lagoons and are recorded less often in round tidal pools, rock-flats and rock platforms. The species uses both permanent and ephemeral terrestrial wetlands, including swamps, lakes, dams, rivers, creeks, billabongs, waterholes and inundated floodplains, claypans and saltflats. It will also use artificial wetlands, including sewage farms and saltworks dams, inundated rice crops and bores. **Breeding Habitat:** The Common Greenshank does not breed in Australia. **Foraging Habitat:** The species is known to forage at edges of wetlands, in soft mud on mudflats, in channels, or in shallows around the edges of water often among pneumatophores of mangroves or other sparse, emergent or fringing vegetation, such as sedges or saltmarsh. It will occasionally feed on exposed seagrass beds (Higgins & Davies 1996). **Roosting Habitat:** The Common Greenshank roosts and loafs round wetlands, in shallow pools and puddles, or slightly elevated on rocks, sandbanks or small muddy islets. Occasionally the	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • There is a lack of coastal wetland habitat for foraging and roosting within and around the study area. Potential foraging habitat present in farm dams around the study area. • Recent records for the species exist within the immediate Study Area/locality (closest record is 6km south west of the Study Area at Boomerang Dam).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		species will perch and roost on stakes (Higgins & Davies 1996). There is a lack of coastal wetland habitat for foraging and roosting within and around the study area. Potential foraging habitat present in farm dams around the study area.			
Common Sandpiper *(Actitis hypoleucos)*	M, -	The species utilises a wide range of coastal wetlands and some inland wetlands, with varying levels of salinity, and is mostly found around muddy margins or rocky shores and rarely on mudflats. The common sandpiper has been recorded in estuaries and deltas of streams, as well as on banks farther upstream; around lakes, pools, billabongs, reservoirs, dams and claypans, and occasionally piers and jetties. **Breeding habitat**: Does not breed in Australia. **Foraging habitat**: this species forages in shallow water and on bare soft mud at the edges of wetlands; often where obstacles project from substrate, e.g. rocks or mangrove roots. Birds sometimes venture into grassy areas adjoining wetlands. It has been observed foraging in billabongs, lakes and dams. **Roosting habitat:** Roost sites are typically on rocks or in roots or branches of vegetation, especially mangroves. The species is known to perch on posts, jetties, moored boats and other artificial	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • There is a lack of coastal wetland habitat for foraging and roosting within and around the study area. Potential foraging habitat present in farm dams around the study area. • No records for the species exist within the immediate Study Area/locality (closest record is 16km north east of the Study Area at Chipping Norton Lake).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		structures, and to sometimes rest on mud or 'loaf' on rocks There is a lack of coastal wetland habitat for foraging and roosting within and around the study area. Potential foraging habitat present in farm dams around the study area.			
Fork-tailed Swift *(Apus pacificus)*	M, -	In Australia, they occur over cliffs and beaches and also over islands and sometimes well out to sea. They also occur over settled areas, including towns, urban areas and cities. They mostly occur over dry or open habitats, including riparian woodland and tea-tree swamps, low scrub, heathland or saltmarsh. **Breeding habitat**: Does not breed in Australia. **Foraging habitat**: exclusively aerial and found across a range of habitats. Potential foraging habitat over dry open habitats present, where it would fly aerially over.	Yes	No	Potential to occur • Study Area is within the distribution of the species (likely to occur). • Potential foraging habitat over dry open habitats present, where it would fly aerially over. • Recent records for the species exist within the immediate Study Area/locality (closest record is 5km east of the Study Area around Edmondson Park).
Latham's Snipe *(Gallinago hardwickii)*	M, -	They usually occur in open, freshwater wetlands that have some form of shelter (usually low and dense vegetation) nearby. They generally occupy flooded meadows, seasonal or semi-permanent swamps, or open waters, but various other freshwater habitats can be used including bogs, waterholes, billabongs, lagoons, lakes, creek or river margins, river pools and floodplains. This species has been said to occur very rarely in small patches of	Yes	Yes	Potential to occur • Study Area is within the distribution of the species (known to occur). • There is potential foraging habitat around farm dams present around the Study Area, but a lack of breeding and roosting wetland features throughout the Study Area, with the necessary forms of shelter. • Two recent records for the species exist within the immediate Study

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		habitat such as roadside ditches and alpine bogs (Higgins & Davies, 1996). They can also be found around irrigation channels and modified habitats at farms. **Breeding habitat**: Does not breed in Australia. **Foraging habitat**: characterized by areas of mud (either exposed or beneath a very shallow covering of water) and some form of cover (e.g. low, dense vegetation) **Roosting habitat:** on the ground near (or sometimes in) their foraging areas, usually in sites that provide some degree of shelter, e.g. beside or under clumps of vegetation, among dense tea-tree, in forests, in drainage ditches or plough marks, among boulders, or in shallow water if cover is unavailable. There is potential foraging habitat around farm dams present around the Study Area, but a lack of breeding and roosting wetland features throughout the Study Area, with the necessary forms of shelter.			Area/locality (closest record is 2.5km north west of the Study Area).
Oriental Cuckoo *(Cuculus optatus)*	V and M, -	The species is found in forest canopy, open wooded areas and orchards, often in hill country, also in coniferous forest and in birch (Betula) above the treeline. The species winters in many different countries, including the coastal parts of northern and eastern Australia (BirdLife International, 2015). **Breeding habitat**: Does not breed in Australia.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • Potential foraging habitat is present within the Study Area, associated with open grassy eucalyptus woodlands (PCT 835, 849). • No recent records for the species exist within the immediate Study Area/locality (closest record is 35km

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Foraging and roosting habitat: Monsoonal rainforest, vine thickets, wet sclerophyll forest or open *Casuarina, Acacia,* or *Eucalyptus* woodlands. Frequently at the edges or ecotones between habitat types. Potential foraging habitat is present within the Study Area, associated with open grassy eucalyptus woodlands (PCT 835, 849).			east of the Study Area at Botony Bay).
Osprey *(Pandion haliaetus)*	M,-	This species occurs in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands. They are found in lakes, large waterholes, beaches, coastal cliffs as well as inshore waters, bays and reefs. **Breeding habitat**: Nests are constructed in a variety of natural and artificial sites, including in dead or partly dead trees or bushes on cliffs, rocks, rock stacks or islets; on the ground on rocky headlands, coral cays, deserted beaches, sandhills or saltmarshes; and on artificial nest platforms, pylons, jetties, lighthouses, navigation towers, cranes, exposed shipwrecks and offshore drilling rigs **Foraging habitat**: They require extensive areas of open fresh, brackish or saline water for foraging **Roosting habitat:** Various, typically similar to breeding habitat.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • No habitat associated with coastal or wetland areas is present within the Study Area. • Recent records for the species exist within the immediate Study Area/locality (closest record is 7km from the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		No habitat associated with coastal or wetland areas is present within the Study Area where this species is commonly found.			
Pectoral Sandpiper *(Calidris melanotos)*	M, -	In Australasia, the pectoral sandpiper prefers shallow fresh to saline wetlands. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands. **Breeding habitat**: Does not breed in Australia. **Foraging habitat**: forages in shallow water or soft mud at the edge of wetlands **Roosting habitat:** prefers shallow fresh to saline wetlands. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands There is a lack of wetland habitat for foraging, breeding and roosting habitat present within the Study Area.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • There is a lack of wetland habitat for foraging, breeding and roosting habitat present within the Study Area. • Recent records for the species exist within the immediate Study Area/locality (closest record is 5km from Study Area).
Rufous Fantail *(Rhipidura rufifrons)*	M, -	In east and south-east Australia, the rufous fantail mainly inhabits wet sclerophyll forests, often in gullies dominated by eucalypts such as tallow-wood (*Eucalyptus microcorys*) and mountain grey gum (*E. cypellocarpa*). When on passage, they are sometimes recorded in drier sclerophyll forests and woodlands, including spotted gum (*E. maculata*), yellow box (*E. melliodora*),	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • There is an absence of wet sclerophyll forests for roosting and foraging habitat. Potential foraging habitat in and around Study Area with preferred tree canopy species present within dryer sclerophyll forests and

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		ironbarks or stringybarks, often with a shrubby or heath understorey. **Breeding habitat:** breeding occurs in south-east Australia but no other information is provided on the specifics of such locations. **Foraging and roosting habitat:** There is no information concerning feeding or roosting sites during species migration. There is an absence of wet sclerophyll forests for roosting and foraging habitat. Potential foraging habitat in and around Study Area with preferred tree canopy species present within dryer sclerophyll forests and woodlands, including spotted gum (*E. maculata*) and ironbarks.			woodlands, including spotted gum (*E. maculata*) and ironbarks. • No recent records for the species exist within the immediate Study Area/locality.
Satin Flycatcher *(Myiagra cyanoleuca)*	M, -	Satin flycatchers inhabit heavily vegetated gullies in eucalypt-dominated forests and taller woodlands, and on migration, occur in drier woodlands and open forests. **Roosting habitat:** there is no information on the roosting behaviour for the species. **Foraging habitat:** the species is known to forage in the canopy and subcanopy of trees **Breeding habitat:** breeding occurs in south-east Australia but no other information is provided on the specifics of such locations.	Yes	Yes	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • There is lack of suitable foraging habitat of densely vegetated wet eucalypt gullies within the Study Area. • Two recent records for the species exist within the immediate Study Area/locality (closest record is 5km away from the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		There is lack of suitable foraging habitat of densely vegetated wet eucalypt gullies within the Study Area.			
Sharp-tailed Sandpiper *(Calidris acuminata)*	M, -	Prefers habitat on muddy edges of freshwater wetlands or brackish wetlands. Can be found at dam inland. Will often occupy coastal mudflats when ephemeral terrestrial wetlands have dried out. **Breeding habitat**: Does not breed in Australia. **Foraging habitat**: foraging habitat is at the edge of the water of wetlands or intertidal mudflats, either on bare wet mud or sand, or in shallow water. Also among inundated vegetation of saltmarsh, grass or sedges. They forage in sewage ponds, and often in hypersaline environments. After rain, they may forage in paddocks of short grass, well away from water. They may forage on coastal mudflats at low tide, and move to freshwater wetlands near the coast to feed at high tide. **Roosting habitat:** Roosting occurs at the edges of wetlands, on wet open mud or sand, in shallow water, or in short sparse vegetation, such as grass or saltmarsh. Occasionally, they roost on sandy beaches, stony shores or on rocks in water Potential foraging habitat present within around the Study Area associated with farm dams.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • Potential foraging habitat present around the Study Area associated with farm dams, however, no foraging habitat present within the Study Area. • Recent records for the species exist within the immediate Study Area/locality (closest record is 6km away from the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
Spectacled Monarch *(Monarcha trivirgatus)*	M, -	Important habitat for this species includes dense vegetation, mainly in rainforest but also in moist forest or wet sclerophyll and occasionally in other dense vegetation such as mangroves, drier forest and woodlands. **Breeding habitat:** Spectacled Monarch breed largely in eastern Australian forests. There is lack of suitable dense vegetation habitat for this species within the Study Area.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • There is lack of suitable dense vegetation habitat for this species within the Study Area. • No recent records for the species exist within the immediate Study Area/locality (closest record is 25km to the east of the Study Area within Royal National Park).
White-throated Needletail *(Hirundapus caudacutus)*	V and M, -	According to Higgins (1999), this species occurs over most types of habitat, but are recorded most often above wooded areas, including open forest and rainforest, and may also fly between trees or in clearings, below the canopy, but they are less commonly recorded flying above woodland (as cited in DSEWPC, 2019b). Whilst rare, they have been recorded on wooded ends of ridges, roosting after dark high in the eucalypt tree canopies (Tarburton, 1993). **Breeding habitat;** this species does not breed in Australia. **Roosting habitat:** the species is noted to roost in tall mature forests and woodlands amongst dense foliage and in hollows often associated with ridgelines. **Foraging habitat:** the species almost always will fly aerially at 'cloud level' and forage over farmland, heathland and mudflats.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • Species likely to fly aerially over the Study Area, which contains no rainforest vegetation. The Study Area does contain habitat in the form of eucalypt forests where it may roost and forage. • Three recent records for the species exist within the immediate Study Area/locality (closest record is 4km south of the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Species likely to fly aerially over the Study Area, which contains no rainforest vegetation. The Study Area does contain habitat in the form of eucalypt forests where it may roost and forage.			
Yellow Wagtail *(Motacilla flava)*	M, -	Habitat requirements for the yellow wagtail are highly variable, but typically include open grassy flats near water. Habitats include open areas with low vegetation such as grasslands, airstrips, pastures, sports fields; damp open areas such as muddy or grassy edges of wetlands, rivers, irrigated farmland, dams, waterholes; sewage farms, sometimes utilise tidal mudflats and edges of mangroves (Garnett et al., 2010). This species may occur in association with non-remnant vegetation. **Breeding habitat**: Does not breed in Australia. **Foraging and roosting habitat**: Has a strong association with water, particularly rock substrates along watercourses, but also lakes and marshes. Potential foraging habitat present within the Study Area associated sporting fields, and around the study area in pastures and farm dams.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • Potential foraging habitat present within the Study Area associated sporting fields, and around the study area in pastures and farm dams. • No recent records for the species exist within the immediate Study Area/locality.
Barking Owl (*Ninox connivens*)	-, V	The Barking Owl is found throughout continental Australia except for the central arid regions. This species inhabits woodland and open forest, including fragmented remnants and	Yes	Yes	Potential to occur • Study Area is within the distribution of the species (known to occur). • The Study Area has open woodland present as potential habitat for this species. This habitat may be suitable

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		partly cleared farmland. It is flexible in its habitat use, and hunting can extend in to closed forest and more open areas. The owls sometimes extend their home range into urban areas, hunting birds in garden trees and insects attracted to streetlights. **Roosting Habitat:** Roost in shaded portions of tree canopies, including tall midstorey trees with dense foliage such as Acacia and Casuarina species. The Study Area has open woodland present as potential habitat for this species. This habitat may be suitable due to the species tolerance of fragmented vegetation and cleared farmland which is present in and around the Study Area.			due to the species tolerance of fragmented vegetation and cleared farmland which is present in and around the Study Area. • One recent records for the species exists within the immediate Study Area/locality (approximately 6km north-east of the Study Area).
Black Falcon (*Falco subniger*)	-, V	The Black Falcon is widely, but sparsely, distributed in New South Wales, mostly occurring in inland regions. The black falcon's habitat is usually in the arid and semi-arid zones. It is usually found near watercourses or utilizing patches of isolated trees. It hunts over open wooded grasslands, saltbush plains, bluebush plains and other low vegetation. Potential hunting habitat over open habitats present, where it would fly aerially over.	Yes	Yes	Potential to occur • Study Area is within the distribution of the species (known to occur). • Potential hunting habitat over open habitats present, where it would fly aerially over. • One recent records for the species exists within the immediate Study Area/locality (approximately 8km from the Study Area).
Dusky Woodswallow	-, V	Dusky woodswallows are widespread in eastern, southern and south western Australia.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
(Artamus cyanopterus cyanopterus)		Primarily inhabits dry, open eucalypt forests and woodlands, including mallee associations, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and ground-cover of grasses or sedges and fallen woody debris. It has also been recorded in shrublands, heathlands and very occasionally in moist forest or rainforest. Also found in farmland, usually at the edges of forest or woodland. The Study Area has open eucalypt woodland present as potential habitat for this species.			• The Study Area has open eucalypt woodland present as potential habitat for this species. • Five recent records for the species exist within the immediate Study Area/locality (closest record approximately 3km from the Study Area).
Little Eagle (*Hieraaetus morphnoides*)	-, V	The Little Eagle is found throughout the Australian mainland excepting the most densely forested parts of the Dividing Range escarpment. It occupies open eucalypt forest, woodland or open woodland. Sheoak or Acacia woodlands and riparian woodlands of interior NSW are also used. **Breeding habitat:** Nests in tall living trees within a remnant patch, where pairs build a large stick nest in winter. The Study Area has open eucalypt woodland present as potential habitat for this species.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • The Study Area has open eucalypt woodland present as potential habitat for this species. • Thirteen recent records for the species exist within the immediate Study Area/locality (closest record approximately 4km from the Study Area).
Little Lorikeet *(Glossopsitta pusilla)*	-, V	**Foraging habitat:** The little Lorikeet 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	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • The Study Area has open eucalypt woodland present as potential habitat for this species.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		and hence greater productivity. Isolated flowering trees in open country, e.g. paddocks, roadside remnants and urban trees also help sustain viable populations of the species. The Study Area has open eucalypt woodland present as potential habitat for this species.			• Three recent records for the species exist within the immediate Study Area/locality (closest record approximately 3km from the Study Area).
Masked Owl (*Tyto novaehollandiae*)	-, V	The distribution of the Masked Owl extends from the coast to the western plains and inhabits dry eucalypt forests and woodlands. **Hunting habitat**: This species typically hunts along the edges of forests, including roadsides. **Breeding and roosting habitat:** This species roosts and breeds in eucalypt forested gullies, using large tree hollows or caves for nesting.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • The Study Area has open eucalypt woodland present as potential habitat for this species. • Recent records for the species exist within the immediate Study Area/locality (closest record approximately 5km from the Study Area).
Powerful Owl (*Ninox strenua*)	-, V	The Powerful Owl inhabits a range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest.The Powerful Owl requires large tracts of forest or woodland habitat but can occur in fragmented landscapes as well. **Breeding and Hunting Habitat**: The species breeds and hunts in open or closed sclerophyll forest or woodlands and occasionally hunts in open habitats	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • The Study Area has open eucalypt woodland present as potential habitat for this species. • One recent records for the species exists within the immediate Study Area/locality (approximately 4km from the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Roosting Habitat: It roosts by day in dense vegetation comprising species such as Turpentine Syncarpia glomulifera, Black She-oak Allocasuarina littoralis, Blackwood Acacia melanoxylon, Rough-barked Apple Angophora floribunda, Cherry Ballart Exocarpus cupressiformis and a number of eucalypt species. The Study Area has open eucalypt woodland present as potential habitat for this species.			
Speckled Warbler (*Chthonicola sagittata*)	-, V	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. Remnant woodland within the study area is in a modified condition with exotic lawn understory and no shrub layer and is not suitable habitat for this species.	Yes	Yes	Potential to occur • Study Area is within the distribution of the species (known to occur). • Remnant woodland within the study area is in a modified condition with exotic lawn understory and no shrub layer and is not suitable habitat for this species. • One recent records for the species exists within the immediate Study Area/locality (approximately 10 km from the Study Area).
Spotted Harrier (*Circus assimilis*)	-, V	The Spotted Harrier occurs throughout the Australian mainland, except in densly forested or wooded habitats of the coast, escarpment and ranges, and rarely in Tasmania. It occurs in grassy open woodland including Acacia and mallee remnants, inland riparian woodland, grassland and	Yes	Yes	Potential to occur • Study Area is within the distribution of the species (known to occur). • The Study Area has open eucalypt woodland present as potential habitat for this species. • One recent record for the species exists within the immediate Study

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		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. The Study Area has open eucalypt woodland present as potential habitat for this species.			Area/locality (approximately 3km from the Study Area).
Turquoise Parrot *(Neophema pulchella)*	-, V	The Turquoise Parrot's range extends from southern Queensland through to northern Victoria, from the coastal plains to the western slopes of the Great Dividing Range. It lives on the edges of eucalypt woodland adjoining clearings, timbered ridges and creeks in farmland. **Breeding Habitat:** Nests in tree hollows, logs or posts, from August to December. The Study Area includes eucalyptus woodlands that adjoin cleared areas which could be used as potential habitat for this species.	Yes	Yes	Potential to occur • Study Area is within the distribution of the species (known to occur). • The Study Area includes eucalyptus woodlands that adjoin cleared areas which could be used as potential habitat for this species. • One recent record for the species exists within the immediate Study Area/locality (approximately 10km from the Study Area).
Varied Sittella *(Daphoenositta chrysoptera)*	-, V	The Varied Sittella is sedentary and inhabits most of mainland Australia except the treeless deserts and open grasslands. Distribution in NSW is nearly continuous from the coast to the far west. It Inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • The Study Area has open eucalypt woodland present as potential habitat for this species. • Nine recent records for the species exist within the immediate Study Area/locality (closest record approximately 3.5km from the Study Area in Edmondson Regional Park).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Breeding Habitat: Builds a cup-shaped nest of plant fibres and cobwebs in an upright tree fork high in the living tree canopy, and often re-uses the same fork or tree in successive years. The Study Area has open eucalypt woodland present as potential habitat for this species.			
White-bellied Sea-Eagle (*Haliaeetus leucogaster*)	-, V	In New South Wales, White-bellied Sea-Eagle is widespread along the east coast, and along all major inland rivers and waterways. Habitats are characterised by the presence of large areas of open water including larger rivers, swamps, lakes, and the sea. Occurs at sites near the sea or sea-shore, such as around bays and inlets, beaches, reefs, lagoons, estuaries and mangroves; and at, or in the vicinity of freshwater swamps, lakes, reservoirs, billabongs and saltmarsh. Terrestrial habitats include coastal dunes, tidal flats, grassland, heathland, woodland, and forest (including rainforest). **Breeding Habitat**: Breeding habitat consists of mature tall open forest, open forest, tall woodland, and swamp sclerophyll forest close to foraging habitat. Nest trees are typically large emergent eucalypts and often have emergent dead branches or large dead trees nearby which are used as 'guard roosts'.	Yes	Yes	Potential to occur • Study Area is within the distribution of the species (known to occur). • The Study Area has open woodland present as potential habitat for this species, however the absence of large open water makes the area unsuitable for this species. • Four recent records for the species exist within the immediate Study Area/locality (closest record approximately 3km from the Study Area in Edmondson Regional Park).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		The Study Area has open woodland present as potential habitat for this species, however the absence of large open water makes the area unsuitable for this species.			
Listed Fish					
Australian Grayling *(Prototroctes maraena)*	V, V	The Australian Grayling was historically known to occur in coastal catchments greater than 200 m above sea level (ASL), generally in the freshwater, estuarine and marine reaches of waterways in south-eastern Australia along New South Wales (NSW), Victoria, Tasmania (including on King Island in the Bass Strait) and South Australia (SA). It is a diadromous species that spends its larval stages in marine water and its adult life mainly in freshwater (Backhouse et al. 2008b). **Breeding Habitat:** Australian Grayling generally migrates downstream to the lower freshwater reaches of rivers to spawn. The study area does not contain any waterway habitat for this species.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • The study area does not contain any waterway habitat for this species • No recent records for the species exist within the immediate Study Area/locality.
Macquarie Perch *(Macquaria australasica)*	E, -	Populations of Macquarie perch are currently found in the Sydney Basin, South Eastern Highlands, Australian Alps, New South Wales South Western Slopes, Riverina and Victorian Midlands IBRA Bioregions. The Natural Resource Management Regions in which populations of Macquarie perch are currently found are the Hawkesbury-Nepean, Southern	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • The study area does not contain any waterway habitat for this species. • No recent records for the species exist within the immediate Study Area/locality.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Rivers, Murrumbidgee, Murray, North East, Goulburn Broken and North Central. **Breeding Habitat:** Macquarie perch spawn from October to December at sites located at the downstream end of pools, with eggs then drifting downstream to lodge amongst gravel and cobble in riffles (Lintermans, 2007). The study area does not contain any waterway habitat for this species.			
Listed Mammals					
Brush-tailed Rock-wallaby *(Petrogale penicillata)*	V, E1	During the day, the Brush-tailed Rock-wallaby rests and basks in rugged rocky areas, including rock faces and outcrops, with a preference for north-facing fissures, caves and ledges (Short 1982; Waldegrave-Knight 2002; Murray et al. 2008). **Foraging habitat:** The Brush-tailed Rock-wallaby forages in grassy forest and woodland habitats, as well as in artificial clearings and pastures, close to their daytime refuge areas, usually at night (Menkhorst & Hynes 2010). The home range of the Brushtailed Rock-wallaby is approximately 15 ha and consists of refuge and foraging habitat, linked by habitually-used commuting routes (Short 1980; Menkhorst & Hynes 2010). Rocky area habitat is absent from the study area however potential foraging area is present in and around the study area in	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • Rocky area habitat is absent from the study area however potential foraging area is present in and around the study area in the form of grassy forest and woodland habitats, as well as in artificial clearings. • No recent records for the species exist within the immediate Study Area/locality (closest record approximately 15km east of the Study Area within Holsworthy Military Reserve).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		the form of grassy forest and woodland habitats, as well as in artificial clearings.			
Greater Glider *(Petauroides volans)*	V, -	The greater glider is an arboreal nocturnal marsupial, largely restricted to eucalypt forests and woodlands. It is primarily folivorous, with a diet mostly comprising eucalypt leaves, and occasionally flowers. It is more common in taller, montane older forests which have an abundance of hollows. There is no information available that differentiates foraging, breeding and roosting habitat for the species however, for roosting it prefers tall mature forests with hollow bearing trees. Potential foraging and roosting habitat eucalypt forests present within the Study Area, although the presents of large trees with large hollows within and around the study area is unknown.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • Potential foraging and roosting habitat eucalypt forests present within the Study Area, although the presents of large trees with large hollows within and around the study area is unknown. • No recent records for the species exist within the immediate Study Area/locality (closest record aapproximately 12km away from the Study Area in Dharawal National Park).
Grey-headed Flying-fox *(Pteropus poliocephalus)*	V, V	It is a canopy-feeding frugivore and nectarivore, which utilises vegetation communities including rainforests, open forests, closed and open woodlands, Melaleuca swamps and Banksia woodlands. It also feeds on commercial fruit crops and on introduced tree species in urban areas. Ebv (1998) explained that the primary food source is blossom from Eucalyptus and related genera but in some areas it also utilises a wide range of rainforest fruits (as cited in, DoE, 2019i).	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (roosting known to occur). • Potential foraging habitat present within the Study Area in the form of eucalypt woodlands. • Fifty-one recent records for the species exist within the immediate Study Area/locality (closest record <1km away from the Study Area and various sightings within Edmondson Regional Park (3km east of the Study Area)).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Breeding habitat: no specific information is available for breeding habitat requirements however it is said that roosting camps contain breeding habitat. **Foraging and roosting habitat**: The listing advice for this species says that individuals can travel up to 50 km from their known roosting camps, in order to forage. They generally roost within 20 km of food sources which include the nectar and pollen of Eucalyptus, Melaleuca and Banksia native trees. Potential foraging habitat present in eucalypt woodlands.			
Koala *(Phascolarctos cinereus)*	E, E1	Koalas naturally inhabit a range of temperate, sub-tropical and tropical forest, woodland and semi-arid communities dominated by Eucalyptus species as explained by Martin & Handasyde 1999 (as cited in, DoE, 2019h). Koala habitat can be broadly defined as any forest or woodland containing species that are known koala food trees, or shrubland with emergent food trees. **Breeding and foraging habitat**: Koala habitat can be broadly defined as any forest or woodland containing species that are known koala food trees, or shrubland with emergent food trees. **Dispersal behaviour:** the species is known to traverse a matrix of landscape features from remnant and regrowth	Yes	Yes	Potential to occur • Study Area is within the distribution of the species (known to occur). • Foraging habitat of eucalypt forest is present within the Study Area however connectivity to areas with known records is low. • Three recent records for the species exist within the immediate Study Area/locality (closest records are >5km east of the study area in and around Holsworthy Military Reserve).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		vegetation to paddock trees and grasslands. Foraging habitat of eucalypt forest is present within the Study Area however connectivity to areas with known records is low.			
Large-eared Pied Bat *(Chalinolobus dwyeri)*	V, V	Sandstone cliffs and fertile wooded valley habitat within close proximity of each other are considered as habitat critical to the survival of the large-eared pied bat (DECC, 2007). Rainforest and moist eucalypt forest habitats on other geological substrates (viz. rhyolite, trachyte and basalt) at high elevation are also considered to be important for this species (DERM, 2011c). Some populations of the large-eared pied bat would rely in part on the TEC of Brigalow (*Acacia harpophylla* dominant and co-dominant). **Foraging and roosting habitat:** The species requires a combination of sandstone cliffs to provide roosting sites, especially box gum woodlands and river corridors used for foraging. **Breeding habitat:** the species is known to breed in two known locations, which are not in the locality of the Study Area. The large-eared pied bat requires the presence of diurnal roosts in order to shelter. Roosts are utilised during the day and also at night.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • Potential habitat of box gum woodlands present but a lack of sandstone cliff areas for roosting. • No recent records for the species exist within the immediate Study Area/locality (two records exist 10km south east from the Study Area in Holsworthy Military Reserve).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Potential habitat of box gum woodlands present but a lack of sandstone cliff areas for roosting.			
New Holland Mouse, Pookila (Pseudomys novaehollandiae)	V, -	The New Holland Mouse has a fragmented distribution across Tasmania, Victoria, New South Wales and Queensland. The New Holland Mouse is known to inhabit open heathlands, open woodlands with a heathland understorey and vegetated sand dunes. There are no heathland areas or sand dunes present within the Study Area.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • There are no heathland areas or sand dunes present within the Study Area. • No recent records for the species exist within the immediate Study Area/locality (closest record exist 10km away from Study Area within Holsworthy Military Reserve).
Spot-tailed Quoll, *(Dasyurus maculatus maculatus*)	E, -	This species generally requires more mature wet forests. However, it has been found in a range of habitats which include open and closed eucalypt woodlands, sub-alpine woodlands and coastal heathlands. Like the northern quoll, it requires denning habitats, normally in the form of rocky escarpments. There is no specific information available pertaining to the foraging, breeding and denning habitats for the species. There are no wet sclerophyll forests present within the Study Area for this species to use as habitat.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • There are no wet sclerophyll forests present within the Study Area for this species to use as habitat. • No recent records for the species exist within the immediate Study Area/locality.
Yellow-bellied Glider (south-eastern) *(Petaurus australis australis)*	V, V	This species is found in eucalypt-dominated woodlands and forests, including both wet and dry sclerophyll forests (Kavanagh et al. 1995; Rees et al. 2007).	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • Potential foraging and roosting habitat eucalypt forests present within the Study Area, although the presents of

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Breeding habitat: no specific information is available on breeding habitat for the species **Foraging and roosting habitat:** The species shows a preference for larger patches of mature growth forests that contain suitable trees that they require for foraging and roosting. Potential foraging and roosting habitat eucalypt forests present within the Study Area, although the presents of large trees with large hollows within and around the study area is unknown.			large trees with large hollows within and around the study area is unknown. • No recent records for the species exist within the immediate Study Area/locality.
Eastern Coastal Free-tailed Bat *(Micronomus norfolkensis)*	-, V	The Eastern Freetail-bat is found along the east coast from south Queensland to southern NSW Occur in dry sclerophyll forest, woodland, swamp forests and mangrove forests east of the Great Dividing Range. **Roosting Habitat:** Roost mainly in tree hollows but will also roost under bark or in man-made structures. The Study Area has open eucalypt woodland present as potential habitat for this species.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • Potential foraging and roosting habitat in eucalypt woodland present within the Study Area, however the presents of large trees with hollows within and around the study area is unknown. • 39 recent records for the species exist within the immediate Study Area/locality (closest record is 2km from the Study Area).
Eastern False Pipistrelle *(Falsistrellus tasmaniensis)*	-, V	The Eastern False Pipistrelle is found on the south-east coast and ranges of Australia, from southern Queensland to Victoria and Tasmania. It prefers moist habitats, with trees taller than 20 m.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • This species has the potential to use school buildings and eucalyptus trees for roosting habitat within the Study Area.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Rooting Habitat: Generally, roosts in eucalypt hollows, but has also been found under loose bark on trees or in buildings. This species has the potential to use school buildings and eucalyptus trees for roosting habitat within the Study Area.			• Seven recent records for the species exist within the immediate Study Area/locality (closest record is 5km from the Study Area).
Greater Broad-nosed Bat *(Scoteanax rueppellii)*	-, V	The Greater Broad-nosed Bat is found mainly in the gullies and river systems that drain the Great Dividing Range, from north-eastern Victoria to the Atherton Tableland. Utilises a variety of habitats from woodland through to moist and dry eucalypt forest and rainforest, though it is most commonly found in tall wet forest. **Roosting Habitat**: Although this species usually roosts in tree hollows, it has also been found in buildings. **Foraging Habitat:** Open woodland habitat and dry open forest suits the direct flight of this species as it searches for beetles and other large, slow-flying insects The Study Area has open eucalypt woodland present as potential habitat for this species. This species has the potential to use school buildings and eucalyptus trees for roosting habitat within the Study Area.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • The Study Area has open eucalypt woodland present as potential habitat for this species. This species has the potential to use school buildings for roosting habitat within the Study Area. • 18 recent records for the species exist within the immediate Study Area/locality (closest record is 3km from the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
Large Bent-winged Bat *(Miniopterus orianae oceanensis)*	- , V	Eastern Bentwing-bats occur along the east and north-west coasts of Australia. **Breeding Habitat:** Maternity caves have very specific temperature and humidity regimes. **Foraging Habitat:** Hunt in forested areas, catching moths and other flying insects above the tree tops. **Roosting Habitat**: Caves are the primary roosting habitat, but also use derelict mines, storm-water tunnels, buildings and other man-made structures. This species has the potential to use school buildings for roosting habitat within the Study Area, however it's preferred cave habitat is not present.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • This species has the potential to use school buildings for roosting habitat within the Study Area. • 30 recent records for the species exist within the immediate Study Area/locality (closest record is 3.5km from the Study Area).
Little Bent-winged Bat *(Miniopterus australis)*	-, V	Little Bent-winged Bat is distributed along East coast and ranges of Australia from Cape York in Queensland to Wollongong in NSW. It inhabits moist eucalypt forest, rainforest, vine thicket, wet and dry sclerophyll forest, Melaleuca swamps, dense coastal forests and banksia scrub. Generally found in well-timbered areas. **Roosting and Foraging Habitat:** Little Bentwing-bats roost in caves, tunnels, tree hollows, abandoned mines, stormwater drains, culverts, bridges and sometimes buildings during the day, and at night	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • This species has the potential to use school buildings for roosting habitat within the Study Area, however it's preferred roosting habitat is not present. • Three recent records for the species exist within the immediate Study Area/locality (closest record is 3.5km from the Study Area in Edmondson Regional Park).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		forage for small insects beneath the canopy of densely vegetated habitats. This species has the potential to use school buildings for roosting habitat within the Study Area, however it's preferred roosting habitat is not present.			
Southern Myotis *(Myotis macropus)*	-, V	The Southern Myotis is found in the coastal band from the north-west of Australia, across the top-end and south to western Victoria. It is rarely found more than 100 km inland, except along major rivers. **Roosting Habitat:** 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. **Foraging Habitat**: Forage over streams and pools catching insects and small fish by raking their feet across the water surface. This species has the potential to use school buildings and eucalyptus trees for roosting habitat within the Study Area, however this area would not be its preferred roosting habitat due to its proximity to water.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • This species has the potential to use school buildings and eucalyptus trees for roosting habitat within the Study Area, however this area would not be its preferred roosting habitat due to its proximity to water. • 35 recent records for the species exist within the immediate Study Area/locality (closest record is 3.5km from the Study Area in Edmondson Regional Park).
Yellow-bellied Sheathtail-bat *(Saccolaimus flaviventris)*	-, V	The Yellow-bellied Sheathtail-bat is a wide-ranging species found across northern and eastern Australia. **Roosting Habitat:** Roosts singly or in groups of up to six, in tree hollows and buildings; in treeless areas they are known to utilise mammal burrows.	Yes	Yes	Likely to occur • Study Area is within the distribution of the species (known to occur). • This species has the potential to use school buildings and eucalyptus trees for roosting habitat within the Study Area.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Foraging Habitat: Forages in most habitats across its very wide range, with and without trees; appears to defend an aerial territory. This species has the potential to use school buildings and eucalyptus trees for roosting habitat within the Study Area.			• Three recent records for the species exist within the immediate Study Area/locality (closest record is 3km from the Study Area).
Listed Invertebrates					
Cumberland Plain Land Snail *(Meridolum corneovirens)*	-, E1	The Cumberland Plain Land Snail lives in small areas on the Cumberland Plain west of Sydney, from Richmond and Windsor south to Picton and from Liverpool west to the Hawkesbury and Nepean Rivers at the base of the Blue Mountains. Primarily inhabits Cumberland Plain Woodland (a critically endangered ecological community). This community is a grassy, open woodland with occasional dense patches of shrubs. It is also known from Shale Gravel Transition Forests, Castlereagh Swamp Woodlands and the margins of River-flat Eucalypt Forest, which are also listed communities. Cumberland Plain Woodland habitat is present within Study Area, however there is none of the microhabitat requirements of litter of bark, leaves and logs, or shelters in loose soil around grass clumps.	Yes	Yes	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • Cumberland Plain Woodland is habitat present within Study Area, however absence of required microhabitat to support this species in the groundlayer • 99 recent records for the species exist within the immediate Study Area/locality (closest record <1km from the Study Area).
Sydney Hawk Dragonfly *(Austrocordulia leonardi)*	E, -	The Sydney Hawk Dragonfly has also been reported within the following drainages: Georges River, Port Hacking, Karuah and Chichester Rivers (Theischinger et al. 2013). This species appears to have specific habitat requirements, including	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • No waterway habitats are present within the Study Area.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		slow-flowing water in rocky rivers with steep sides that provide shady resting areas. No waterway habitats are present within the Study Area.			• No recent records for the species exist within the immediate Study Area/locality.
Listed Reptiles					
Broad-headed Snake *(Hoplocephalus bungaroides)*	V, E1	The broad-headed snake has four general areas of occurrence: Blue Mountains; southern Sydney; an area north-west of the Cumberland Plain; and the Nowra hinterland (NSW NPWS, 1999). The broad-headed snake typically occurs on exposed rocky sites on sandstone outcrops and benching (NSW NPWS, 1999). It is found on Triassic and Permian sandstones of the Hawkesbury, Narrabeen and Shoalhaven groups (OEH, 2012). Vegetation associations at known sites are variable, but mainly woodland, open woodland and/or heath (NSW NPWS, 1999) and woodland or forest adjacent to the site is essential (Webb & Shine, 1997). Exposed rocky habitat is not present within the Study Area.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • Exposed rocky habitat is not present within the Study Area. • No recent records for the species exist within the immediate Study Area/locality (closest record is >10km east of the Study Area within Dharawal National Park).
Striped Legless Lizard, Striped Snake-lizard *(Delma impar)*	V, V	The striped legless lizard is a grassland specialist, found only in areas of native grassland and nearby grassy woodland and exotic pasture. The lizard's primary habitat is encompassed by four nationally threatened ecological communities. These are: • Natural Temperate Grassland of the Victorian Volcanic Plain. •	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • Primary habitat is not present within Study Area. • No recent records for the species exist within the immediate Study Area/locality.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		• Grassy Eucalypt Woodland of the Victorian Volcanic Plain. • Natural Temperate Grassland of the South Eastern Highlands, and • White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland. Primary habitat is not present within Study Area.			
Listed Amphibians					
Giant Burrowing Frog *(Heleioporus australiacus)*	V, V	The giant burrowing frog occurs in areas of native vegetation (Penman et al., 2004) and can be found in heath, woodland and open dry sclerophyll forest on a variety of soils, except claybased soils (OEH, 2012). The species has not been recorded from cleared land. **Breeding Habitat:** Breeding habitat is generally soaks or pools within first or second order streams. It is also found in ephemeral or permanent artificial drainage ditches and culverts on roadsides (with a rock or sand/clay base) (Rescei, 1997). Potential habitat within the Study Area in the form of open woodland.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • Potential habitat within the Study Area in the form of open woodland. • No recent records for the species exist within the immediate Study Area/locality (closest record is within Dharawal National Park).
Green and Golden Bell Frog *(Litoria aurea)*	V, E1	The green and golden bell frog occurs on coastal lowlands between Yuraygir National Park in New South Wales and Lake Tyers in Victoria (ALA, 2013). The green and golden bell frog has been recorded in a range of permanent/ephemeral and natural/manmade aquatic habitats, but is	Yes	Yes	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • Potential habitat associated with farm dams present around the Study Area however, not within the Study Area. • One recent records for the species exist within the immediate Study

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		primarily associated with lentic (still) rather than lotic (fast flowing) water (Gillespie, 1996; Pyke & White, 1996; NSW NPWS, 2003). It utilises both natural (coastal swamps, marshes, dune swales, lagoons, lakes and other estuary wetlands as well as riverine floodplain wetlands and billabongs) and man-made water bodies (storm water detention basins, farm dams, bunded areas, drains, ditches and other excavations capable of capturing water such as quarries and brick pits, minor structures such as tanks, safety bunds surrounding storage tanks, wells, cavitation pits, water troughs, old laundry tubs and baths) (Gillespie, 1996; Pyke & White, 1996). Potential habitat associated with farm dams present around the Study Area.			Area/locality (approximately 7km from the Study Area).
Listed Plants					
Downy Wattle (*Acacia pubescens*)	-, V	This species is restricted in scattered populations throughout the Sydney Basin in eastern NSW. It grows in open sclerophyll forest and woodlands, and is associated with species such as grey box (*Eucalyptus moluccana*), broad-leaved ironbark (*E. fibrosa*), white feather honeymyrtle (*Melaleuca decora*), and blackthorn (*Bursaria spinosa*). It is found on clay and shale-based soils.	Yes	Yes	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • Potential habitat within the Study Area in the form of open woodlands and associated communities. • No recent records for the species exists within the immediate Study Area/locality.
Magenta Lilly Pilly (*Syzgium paniculatum*)	V, E	*Syzgium paniculatum* is only found in NSW in a narrow, linear coastal strip. This species occurs on grey soil over sandstone and is restricted to remnant stands of littoral rainforest on the South Coast, in	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		comparison to the Central Coast where it occurs on sand, silts and gravel clays in riverside gallery rainforest and remnant littoral rainforest.			• Associated vegetation communities are not present within the Study Area. • No recent records for the species exists within the immediate Study Area/locality (closest record is approximately 20km north-east of the Study Area).
Matted Bush-pea *(Pultenaea pedunculata)*	-, E1	The Matted Bush-pea occurs in a range of habitats. NSW populations are generally among woodland vegetation but plants have also been found on road batters and coastal cliffs. It is largely confined to loamy soils in dry gullies in populations in the Windellama area. On the Cumberland Plain the species is recorded from Cumberland Plain Woodlands, the shale-soil form of Shale Sandstone Transition Forests and Cooks River/Castlereagh Ironbark Forest. Cumberland Plain Woodland habitat is present within Study Area.	Yes	Yes	Likely to Occur • Study Area is within the distribution of the species (known to occur). • Cumberland Plain Woodland habitat is present within Study Area. • One recent record for the species exists within the immediate Study Area/locality (approximately 7km from the Study Area).
Native Pear (*Marsdenia viridiflora R. Br. subsp. viridiflora population in the Bankstown, Blacktown, Camden, Campbelltown, Fairfield, Holroyd, Liverpool and Penrith local*	-, E2	This distribution of this population was previously known north from Razorback Range and has recent records throughout Sydney in areas such as Prospect, Bankstown, Smithfield, Cabramatta Creek and St Mary's. It grows in vine thickets and open shale woodland. There is potential habitat of open woodland on shale soils present within the Study Area.	Yes	Yes	Potential to occur • Study Area is within the distribution of the species (known to occur). • Potential habitat within the Study Area in the form of open woodland with shale soils present. • Recent records for the species exists within the immediate Study Area/locality (closest record is approximately 2km from the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
government areas)					
Nodding Geebung *(Persoonia nutans)*	E, E1	The Nodding Geebung has a disjunct distribution that is presumably influenced by soil type. The species is confined to aeolian and alluvial sediments, below 60 m above sea level. In the north, these deposits are extensive, whereas in the south they are limited and the species is less abundant. Drainage may also influence the distribution of the species as it is more common on the deeper sands at Agnes Banks than at the edge of the deposit next to the Londonderry clay. At other locations on the Cumberland Plain it occurs on gently undulating low rises as opposed to swales or other low lying areas. Vegetation communities in which the species has been found include Agnes Banks Woodland, Castlereagh Scribbly Gum Woodland, Cooks River/Castlereagh Ironbark Forest and Shale Sandstone Transition Forest. Associated vegetation communities are not present within the Study Area.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • Associated vegetation communities are not present within the Study Area. • Recent records for the species exists within the immediate Study Area/locality (closest record is approximately 9km from the Study Area).
Pimelea curviflora var. curviflora	V, V	Pimelea curviflora var. curviflora is restricted to the coastal zone around Sydney, NSW, and is found in the Baulkham Hills, Blacktown, Hornsby, Parramatta, and Warringah Local Government Areas. This species occurs on ridge tops and upper slopes in open forest and woodland on sandy soil derived from sandstone, on shaley/lateritic soils and shale/sandstone	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • There is potential habitat of open woodland on shale soils present within the Study Area. • No recent records for the species exists within the immediate Study Area/locality (closest record is approximately 20km north of the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		transition soils. It often grows among dense grasses and sedges. There is potential habitat of open woodland on shale soils present within the Study Area.			
Pultenaea parviflora	V, E1	*Pultenaea parviflora* inhabits scrubby or dry heath areas within the Castlereagh Ironbark Forest. It is known chiefly from Penrith, Windsor and Blacktown and there are outlier populations in Liverpool (James et al., 1999). Within these areas it may be locally abundant and it may also be common in transitional areas where the Castlereagh Ironbark Forest adjoins Castlereagh Scribbly Gum Woodland (NPWS, 2000). There is a lack of suitable scrubby or dry heath habitat areas within the Study Area.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • There is a lack of suitable scrubby or dry heath habitat areas within the Study Area. • No recent records for the species exists within the immediate Study Area/locality (closest record is approximately 12km north-west of the Study Area).
Rufous Pomaderris *(Pomaderris brunnea)*	V, E1	Information about habitat of Rufous Pomaderris is limited, but the species grows across a range of habitats and topography (DPIE 2021). In NSW, it occurs on ridgetops and plateaux in relatively dry habitats, and also in moist woodland or forest on clay and alluvial soils of flood plains and creek lines in relatively damp habitats (DPIE 2021).	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • There is a lack of habitat present for this species in the form of suitable woodland communities. • No recent records for the species exists within the immediate Study Area/locality (closest record is approximately 10km south-east of the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		In the north of the range the associated overstorey species are Eucalyptus laevopinea (Silver-top Stringybark), E. saligna (Sydney Blue Gum) and E. campanulata (New England Blackbutt). Southern populations can occur in open eucalypt woodland dominated by E. amplifolia (Cabbage Gum) with an understorey shrubland dominated by Allocasuarina spp. (Sheoak) and Bursaria spp. (Bursaria). There is a lack of habitat present for this species in the form of suitable woodland communities.			
Scrub Turpentine *(Rhodamnia rubescens)*	CE, C4A	Rhodamnia rubescens is known to occur from coastal districts of NSW north from Batemans Bay to Bundaberg in Queensland. The distribution of R. rubescens occasionally extends inland onto the escarpment up to 600 m a.s.l. in areas with rainfall of 1,000-1,600 mm (Benson & McDougall 1998). The habitat of R. rubescens is likely to include the following vegetation classes: Subtropical Rainforests, Northern Warm Temperate Rainforests, Littoral Rainforest, North Coast Wet Sclerophyll Forests, Northern Hinterland WSF, Northern Escarpment WSF, Southern Lowland WSF, and probably the northern patches of South Coast WSF and Southern Escarpment WSF, and perhaps easterly patches of Northern Tableland WSF. It may also occur as a pioneer in adjacent areas of	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • Potential habitat is present for this species in the Study Area in the form of grassy woodland but all other habitat types are not present within the Study Area. • No recent records for the species exists within the immediate Study Area/locality (closest record is approximately 20km from the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		dry sclerophyll and grassy woodland associations (Keith 2004; Floyd 2008). Potential habitat is present for this species in the Study Area in the form of grassy woodland but all other habitat types are not present within the Study Area.			
Small-flower Grevillea *(Grevillea parviflora subsp. Parviflora)*	V, V	Small-flower Grevillea is known only in NSW. It occurs in the Prospect–Camden and Appin areas, with other disjunct populations occurring in the Lower Hunter Valley, on the Central Coast and in the Port Stephens area. A far southern population may also occur at Moss Vale, NSW. Small-flower Grevillea grows on sandy to gravelly clay over shale on crests, upper slopes or flat plains in both low-lying areas (30–65 m above sea level) and on higher topography (200–300 m above sea level). The species occurs in a range of vegetation types from heath and shrubby woodland to open forest. Populations are also found in disturbed sites along roads and tracks and within open areas of habitat. Open forest areas within the Study Area may provide potential habitat for this species.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • Open forest areas within the Study Area may provide potential habitat for this species. • No recent records for the species exists within the immediate Study Area/locality (various records present in vegetated areas within Holsworthy Military Reserve approximately 10km east of the Study Area).
Spiked Rice-flower *(Pimelea spicata)*	E, E2	On the Cumberland Plain, the spiked rice-flower occurs on an undulating topography of well structured clay soils derived from Wianamatta shale. In this region, the species is restricted to areas supporting, or that previously supported, the Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest and the Western Sydney	Yes	Yes	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • The Study Area contains Cumberland Plain Shale Woodlands which is known habitat of the species, however structure and condition of the potential habitat is extremely poor.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		Dry Rainforest and Moist Woodland on Shale ecological communities, which are both protected as threatened ecological communities under both the EPBC Act and the TSC Act. The species has also been recorded from highly degraded areas that no longer support native vegetation: for example, a mown cemetery dominated by exotic grasses. The Study Area contains Cumberland Plain Shale Woodlands which is known habitat of the species, however the understory of this TEC is severely modified and managed as turf. Habitat suitability for spiked rice-flower is poor.			• Nine recent records for the species exists within the immediate Study Area/locality (closest record only 1km from the Study Area).
Sydney Bush Pea	V, E	This species is endemic to the Cumberland Plain, with its core distribution from Windsor to Penrith. It is common in transitional areas where scrubby/dry heath areas within Castlereagh Ironbark Forest and Shale Gravel Transition Forest on tertiary alluvium or laterised clays adjoin Castlereagh Scribbly Gum Woodland. The dominant canopy species is generally *Eucalyptus fibrosa,* with *Eucalyptus globoidea, E. longifolia, E. parramattensis, E. sclerophylla* and *E. sideroxylon* also being present or co-dominant and *Melaleuca decora* frequently forming a secondary canopy layer.	Yes	Yes	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • Associated vegetation communities may be present within the Study Area. • Recent records for the species does not exist within the immediate Study Area/locality (closest record is approximately 9km north-east of the Study Area).
Sydney Plains Greenhood (Pterostylis saxicola)	E, E1	Sydney Plains Greenhood is known currently from only five locations in western Sydney: Georges River National Park, near Yeramba Lagoon; Ingleburn; Holsworthy; Peter Meadows Creek; and St Marys Towers, near Douglas Park. This	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • The Study Area contains Cumberland Plain Shale Woodlands which is associated with the species, however

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		species occurs within the Hawkesbury–Nepean (NSW) Natural Resource Management Region. This species occurs in small pockets of shallow soil in flat areas on top of sandstone rock shelves above cliff lines or on mossy rocks in gullies. Sclerophyll forest or woodland on shale/sandstone transition soils or shale soils are often found above the shelves where Sydney Plains Greenhood occurs (NSW Scientific Committee, 1997; DECC, 2005). The Study Area contains Cumberland Plain Shale Woodlands which is associated with the species, however the Study Area lacks rocky areas suitable for the species.			the Study Area lacks rocky areas suitable for the species. • No recent records for the species exists within the immediate Study Area/locality.
Thick-lipped Spider-orchid, Daddy Long-legs *(Caladenia tessellata)*	V, E1	Within NSW, the orchid is known to occur within the Hawkesbury-Nepean, Hunter-Central Rivers, Southern Rivers and Sydney Metro Catchment Management Regions. The Thick-lipped Spider-orchid is known to favour low, dry sclerophyll woodland (for example open Kunzea woodland) with a heathy or sometimes grassy understorey on clay loams or sandy soils. More specifically, the population at Braidwood occurs in dry, low Brittle Gum (Eucalyptus mannifera), Inland Scribbly Gum (E. rossii) and Allocasuarina spp. woodland with a sparse understorey and stony soil. The Study Area contains sclerophyll woodland with grassy understorey which	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • The Study Area contains sclerophyll woodland with grassy understorey which may be suitable as potential habitat for the species however no records within the locality make it unlikely for the species to be present. • No recent records for the species exists within the immediate Study Area/locality.

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		may be suitable as potential habitat for the species.			
Wallangarra White Gum *(Eucalyptus scoparia)*	V, E1	The Wallangarra White Gum has a very restricted distribution in the east of the Wallangarra district, on the Queensland–NSW border. Most populations occur in clefts on large granite outcrops at altitudes to 1300 m, on skeletal soils and mostly as individuals or small groups. At lower altitudes, individuals mainly occur on podsolics in damp situations. Associated species include E. approximans and Ribbon Gum (E. nobilis) on upper slopes and New England Blackbutt (E. campanulata), Sydney Blue Gum (E. saligna) and Grey Gum (E. punctata) on lower sites. Associated species such as the Sydney Blue Gum, are present around the Study Area.	No	Yes	Unlikely to occur • The Study Area is located entirely outside of the SPRAT distribution map. • Associated species such as the Sydney Blue Gum, are present around the Study Area. • BioNet search shows one recent record of the species within the immediate Study Area/locality and various records around the Sydney area.
White-flowered Wax Plant *(Cynanchum elegans)*	E, E1	This species occurs within the Hawkesbury–Nepean, Hunter–Central Rivers, Northern Rivers, Southern Rivers and Sydney Metro (NSW) Natural Resource Management Regions. The White-flowered Wax Plant occurs primarily at the transition zone (ecotone) between dry subtropical rainforest and sclerophyll forest/woodland communities in eastern	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (known to occur). • No preferred ecotones are present within the Study Area. • No recent records for the species exists within the immediate Study Area/locality (closest record is approximately 125km south of the Study Area).

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		NSW, from Brunswick Heads on the north coast to the Illawarra region. It inhabits rainforest gullies, scrub and scree slopes. No preferred ecotones are present within the Study Area.			
Square Raspwort *(Haloragis exalata subsp. Exalata)*	V, -	In New South Wales populations are known from the areas of western Sydney, Kosciuszko National Park, the Bega Valley, Bungonia Gorge east of Goulburn on the Central Tablelands, the Shoalhaven River and Lake Illawarra on the Central Coast, the North Coast and the Northern Tablelands. Haloragis exalata subsp. exalata is presently known from a range of vegetation types, all of which appear to have a history of recurrent disturbance. It appears to be a post-disturbance coloniser. Habitat critical for survival has not been accurately defined for this species. As habitat is largely unknown, the Study Area may include suitable habitat for the species.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (may occur). • As habitat is largely unknown, the Study Area may include suitable habitat for the species. • No recent records for the species exists within the immediate Study Area/locality.
Woronora Beard-heath *(Leucopogon exolasius)*	V, V	*Leucopogon exolasius* is endemic to the Sydney region and central coast of NSW occurring within the Sydney Metro and Hawkesbury–Nepean Natural Resource Management Regions. This species inhabits woodland on sandstone and prefers rocky hillsides along creek banks up to 100 m altitude. Associated species include *Eucalyptus*	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • The Study Area lacks creek banks for the species to inhabit. • No recent records for the species exists within the immediate Study Area/locality (closest record was recorded in Holsworthy Military

Species Name	Status (EPBC and BC Act)	Habitat Requirements	Distribution in Study Area	Records in the Study Area/ locality	Comment on Likelihood of Occurrence in the Study Area
		piperita and *E. sieberi* and the shrubs *Pultenaea flexilis*, Leptospermum trinervium and Dillwynia retorta. The Study Area lacks creek banks for the species to inhabit.			Reserve, approximately 10km east of the Study Area).
Brittle Midge Orchid *(Genoplesium baueri)*	E, E1	The brittle midge orchid is endemic to New South Wales. The species generally occurs within coastal areas from Ulladulla on the south coast to Port Stephens on the mid-north coast, although it has been recorded from as far west as Woodford in the Blue Mountains and Penrose State Forest in the southern highlands. The species usually grows in heathland to shrubby woodland on sands or sandy loams or open forest, shrubby forest and heathy forest on well-drained sandy and gravelly soils. Potential habitat is present for this species in the Study Area in the form of open forests.	Yes	No	Unlikely to occur • Study Area is within the distribution of the species (likely to occur). • Potential habitat is present for this species in the Study Area in the form of open forests. • No recent records for the species exists within the immediate Study Area/locality.

Status listing per EPBC and TSC Acts: E4 = Presumed Extinct; CE = Critically Endangered; E4A = Critically Endangered; E = Endangered; E1 = Endangered; E2 = Endangered Population; V = Vulnerable; M = Migratory.

Sources of habitat information for all species, unless otherwise stated, were gathered from DoEE Conservation Advice and SPRAT database: (http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl) or OHE Threatened biodiversity profile (https://www.environment.nsw.gov.au/threatenedspeciesapp/) .

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