

Biodiversity Assessment Report

Moree Hospital



Quality solutions. Sustainable future.



GeoLINK
environment | engineering | planning | design

GeoLINK Consulting Pty Ltd

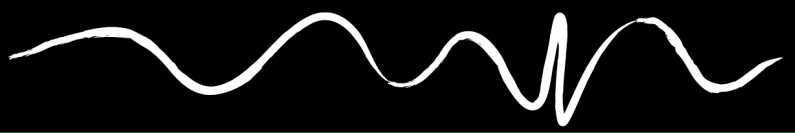
PO Box 119
Lennox Head NSW 2478
T 02 6687 7666

PO Box 1446
Coffs Harbour NSW 2450
T 02 6651 7666



PO Box 1267
Armidale NSW 2350
T 02 6772 0454

info@geolink.net.au

Prepared for: NSW Health Infrastructure
© GeoLINK, 2023



Certification

	Name	Signature	Date
Prepared by	Jack Hastings		27/11/2023
Reviewed by	Grant McLean		27/11/2023

UPR	Description	Issued By	Date Issued
4185-1013	Version 1	Jack Hastings	06/02/2023
4185-1020	Version 2	Jack Hastings	01/12/2023



Table of Contents

1.	Introduction and Background	1
1.1	Introduction	1
1.2	The Site	1
1.3	The Activity	1
1.3.1	Activity Overview	1
1.4	Definitions Used in this Report	2
2.	Methodology	4
2.1	Desktop Review	4
2.1.1	Database Searches	4
2.2	Field Assessment	4
3.	Vegetation	5
3.1	Desktop Analysis	5
3.1.1	Database Search Results	5
3.2	Background Information	5
3.3	Site Features	5
3.3.1	Vegetation	5
3.3.2	Threatened Flora	6
3.3.3	Threatened Ecological Communities	6
3.3.4	Priority Weeds	6
4.	Fauna Habitat	8
4.1	Desktop Analysis	8
4.1.1	Database Search Results	8
4.1.2	Connectivity	8
4.1.3	Waterways and Aquatic Habitat	8
4.2	Site Features	8
4.2.1	Habitat Values	8
4.2.2	Threatened Fauna	8
4.2.3	Potential Threatened Fauna Occurrence	9
5.	Matters of National Environmental Significance	10
5.1	Wetlands of International Importance	10
5.2	Listed EPBC Act Threatened Ecological Communities	10
5.3	Listed EPBC Act Threatened Flora Species	10
5.4	Listed EPBC Act Threatened Fauna Species	10
5.5	Listed Migratory Species	10
6.	Impacts and Mitigation	11

6.1	Impacts of the Activity	11
6.1.1	Direct Impacts	11
6.1.2	Indirect Impacts	11
6.1.3	Impacts to Threatened Species and TECs	11
6.2	Mitigation	13

Illustrations

Illustration 1.1	The Site	3
Illustration 3.1	Vegetation and Habitat Features on Site	7
Illustration 6.1	Biodiversity Impacts	12

Tables

Table 2.1	Threatened Species Database Searches	4
Table 6.1	Mitigation Measures	13

Appendices

Appendix A	The Site and Demolition Plan
Appendix B	Database Search Results
Appendix C	Tree Data
Appendix D	Threatened Species Potential Occurrence Assessment
Appendix E	BC Act Assessment



Executive Summary

This Biodiversity Assessment Report (BAR) has been prepared for NSW Health Infrastructure to accompany a Review of Environmental Factors (REF) for redevelopment main works at Moree Hospital at 58 Victoria Terrace, Moree, NSW (the site). The site is described in real property terms as Lot 11 DP 1113157.

Key findings of the assessment include:

- Vegetation on site is highly disturbed with a number of open space areas and a total of 80 trees (20 native, 60 exotic) of various ages and conditions.
- Vegetation on site is not representative of any plant community types (PCTs) outlined in the BioNet Vegetation Classification system.
- One hollow-bearing tree occurs on site.
- Feeding and refuge habitat for Koala (*Phascolarctos cinereus*) occurs at the site. River Red Gum (*Eucalyptus camaldulensis*) is a regionally recognised Koala food tree species for the Western Slopes and Plains Koala Management Area (DECC, 2008).
- The Mehi River which flows adjacent to the site (within 40 m to the north) and is identified as containing Key Fish Habitat on the DPI Fisheries spatial data tool. NSW DPI Fisheries modelling indicates that indicative distribution habitat for a number of threatened freshwater species listed under the NSW *Fisheries Management Act 1994* including Eel Tailed Catfish (*Tandanus tandanus*), Olive Perchlet, (*Ambassis agassizii*) and Silver Perch (*Bidyanus bidyanus*) occurs in the Mehi River flowing adjacent to the site.
- The Activity would require removal of 17 trees (comprising four native trees endemic to the North Western Slopes botanical region, two native non-endemic trees and 11 exotic species).
- No NSW *Biodiversity Conservation Act 2016* (BC Act) or *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed threatened flora were recorded on site.
- No BC Act or EPBC Act listed threatened ecological communities (TECs) occur on site.
- Five threatened fauna species (Koala - *Phascolarctos cinereus*, Grey-headed Flying-fox - *Pteropus poliocephalus*, Corben's Long-eared Bat - *Nyctophilus corbeni*, Yellow-bellied Sheath-tail-bat - *Saccolaimus flaviventris* and Large-eared Pied Bat - *Chalinolobus dwyeri*) are considered to potentially occur within the site and study area.

The Activity would incur the following main biodiversity impacts:

- Removal of 17 planted native and non-endemic/ exotic trees, including one Koala feed tree (River Red Gum).

The magnitude of these impacts is not sufficient enough to result in a significant impact to threatened species.

Review of statutory instruments relevant to the Activity was completed as follows:

- BC Act: the Activity is unlikely to significantly impact or affect any threatened species or communities.
- EPBC Act: the Activity is unlikely to significantly affect threatened species or communities, or listed migratory species.



1. Introduction and Background

1.1 Introduction

NSW Health Infrastructure (HI) propose to carry out redevelopment works generally relating to construction of a new Acute Services Building (ASB) at Moree Hospital located at 58 Victoria Terrace, Moree, NSW, as part of their delivery of infrastructure solutions and services to support the healthcare needs of the NSW communities. A Review of Environmental Factors (REF) is being prepared to assess the impacts of the Activity.

This Biodiversity Assessment Report (BAR) has been prepared to:

- Identify any biodiversity constraints to the Activity; including identification of habitat for threatened species or communities listed under the *Biodiversity Conservation Act 2016* (BC Act) or *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).
- Identify any significant trees or fauna habitat features of biodiversity importance.
- Identify High Environmental Values (HEV).
- Assess the Activity against relevant statutory requirements and inform the REF.

1.2 The Site

Moree Hospital (herein referred to as 'the site'), is located on Lot 11 DP 1113157, 58 Victoria Terrace, Moree, NSW (refer to **Illustration 1.1**).

The site occurs within the Brigalow Belt South (Interim Biogeographic Regionalisation for Australia [IBRA]) region of the Northern Outwash IBRA sub bioregion Version 7 (refer Thackway & Cresswell, 1995). At a local level, the site forms part of the 'Gwydir Channels and Floodplains' and Valleys' Mitchell Landscape.

The site is zoned R1 General Residential under the *Moree Plains Local Environmental Plan* (LEP) 2011.

The site is located 40 m south of the Mehi River and is approximately 3.12 hectares in area. The site is in an urban location bound by Alice Street to the south and Victoria Terrace to the north.

The site is occupied by 33 hospital buildings of various sizes and ages which generally occupy the central and western portion of the site. The eastern part of the site consists of an on-grade carpark to the north and an undeveloped landscaped area with a disused helipad to the south.


The hospital has two frontages, Alice Street and Victoria Terrace. Vehicle entry to the hospital is via the two driveways accessible from Victoria Terrace (from the east and north), with on-site carparking available in the northeast portion of the site. Alternative parking is available along Alice Street (formalised perpendicular parking) to the south of the hospital.

1.3 The Activity

1.3.1 Activity Overview

HI propose to carry out redevelopment works generally relating to construction of a new ASB at the site. The ASB will consist of a new two-storey building located on the southeastern portion of the site.

The works that are the subject of this REF include some demolition of existing buildings and structures, construction of the ASB with associated covered walkways to connect with existing



buildings (B1 and B4), ancillary works including a new (additional) substation and back-up generator and upgraded parking facilities. Several trees will also be removed to enable construction of the new ASB and vehicular access, with the surrounding areas to be landscaped as part of the development.

The Site and Demolition Plan is provided at **Appendix A**.

1.4 Definitions Used in this Report

The following definitions have been used throughout this BAR:

- Activity – as described in **Section 1.3**.
- Site – the land within which the Activity occurs (Lot 11 DP 1113157).
- Study area – the site plus a 100 m buffer around the site. This includes areas of vegetation and associated habitat that may be subject to direct or indirect impacts as a result of the Activity.
- Impact area – this includes all areas to be directly impacted by the Activity.
- Locality – a 10 km buffer around the site.



- LEGEND**
- The site
 - Cadastre
 - ~ Watercourse

0 40 Metres

The Site - Illustration 1.1

Information shown is for illustrative purposes only
Drawn by: AEA Checked by: AB Reviewed by: JRH
Source of base data: ESRI World Imagery
Date: 27/11/2023
Version: 2

2. Methodology

2.1 Desktop Review

The desktop assessment included analysis of the following information sources:

- Aerial photographic imagery.
- NSW Mitchell Landscapes - Version 3.1 (as per NSW Sharing and Enabling Environmental Data (SEED mapping)) (DPE, 2017).
- Interim Biogeographic Regionalisation of Australia (IBRA version 7.0) (Thackway, R & Cresswell, ID, 1995).
- Biodiversity Values mapping (as per the Biodiversity Values Map and Threshold Tool) (DPE, 2023).
- Directory of Important Wetlands of Australia (DCCEEW, 2023).
- Priority weed listings for the north-west region (DPI, undated).
- Trees Near Me NSW (DPE, 2023).

2.1.1 Database Searches

Table 2.1 outlines the desktop database searches completed for this assessment.

Table 2.1 Threatened Species Database Searches

Database	Search Date	Area Search	Reference
BioNet Atlas species sighting search	22/11/2023	10 km x 10 km centred on the study area	DPE (2023)
EPBC Protected Matters Search Tool	22/11/2023	10 km buffer on the study area	DCCEEW (2023)
NSW Department of Primary Industries (Fishing and Aquaculture) spatial data tool (DPI Fisheries spatial tool)	22/11/2023	Centred on site and immediate surroundings	DPI (2023)

2.2 Field Assessment

An Arboricultural Assessment (Wade Ryan Contracting, 2023) was undertaken to identify trees at the site. Ecologist field assessment was completed by GeoLINK ecologist Ben Millan on 25 February 2023. The field assessment sought primarily to identify key biodiversity constraints and potential impacts by assessing the type, extent and condition of vegetation and fauna habitat, especially as it pertained to threatened species and ecological communities using the following methodology:

- Vegetation assessment and mapping including identifying vegetation communities to plant community type (PCT), where present.
- Targeted surveys for threatened flora (as identified in BioNET searches) in areas of suitable habitat.
- Identification of threatened ecological communities (TECs).
- Identification and survey (by GPS) of any hollow-bearing trees or habitat features including nests or dreys.
- Targeted searches for Koala faecal pellets under preferred Koala use trees.



3. Vegetation

3.1 Desktop Analysis

3.1.1 Database Search Results

BioNet search results identified records of two threatened flora species and habitat for 14 threatened ecological communities (four of which are listed under the EPBC Act) within the search area (refer to **Appendix B**). PMST results identified habitat for five threatened flora species and five threatened ecological communities within the search area.

3.2 Background Information

Wade Ryan Contracting authored an Arboricultural Assessment (2023) and concluded the following:

- All trees and shrubs on site are considered amenity plantings and include a number of exotic, ornamental species.
- There were no remnant trees identified, although there are Australian native species.
- 80 trees were identified across the site.
- The following trees have been identified as significant trees:
 - High Significance - 6 Trees are identified. Tree numbers 37, 40, 41, 49, 52 and 68.
 - Moderate significance - 31 Trees are identified.
 - The line of 18 *Jacaranda mimosifolia* on Alice Street Council Verge (Tree numbers 19 to 36 inclusive) are also considered significant as a line or group of trees that provide quality amenity values.

3.3 Site Features

3.3.1 Vegetation

Vegetation on site is highly disturbed with a number of open space areas and scattered trees of various ages and conditions. 13 native trees (endemic to the North Western Slopes Botanical Region of NSW) (Harden 2002) on site comprise:


- Four River Red Gum (*Eucalyptus camaldulensis*).
- Three Carbeen (*Corymbia tessellaris*).
- Four Bottlebrush (*Callistemon spp.*).
- One of each; Kurrajong (*Brachychiton populneus*) and *Melaleuca spp.*

Seven native species (non-endemic to the North Western Slopes Botanical Region) include:

- Six Lemon Scented Gum (*Corymbia citriodora*).
- One Cabbage-Tree Palm (*Livistonia australis*).

The 60 exotic / ornamental species include:

- 18 Jacaranda (*Jacaranda mimosifolia*).
- Eight Crape Myrtle (*Lagerstroemia spp.*).
- Seven Chinese Elm (*Ulmus parvifolia*).
- Five Flowering Ash (*Fraxinus ornus*).
- Three Geisha Girl (*Duranta repens*).

- 
- Two of each; *Hibiscus spp*, Oleander (*Nerium oleander*), *Photinia serratifolia*, Cocos Palm (*Syagrus romanzoffiana*) and *Murraya spp*.
 - One of each; *Albizia spp*, *Magnolia spp*, Mulberry (*Morus spp*), Judas Tree (*Cercis siliquastrum*) Orange Jasmine (*Murraya paniculata*), Canary Island Date Palm (*Phoenix canariensis*), Capital (*Pyrus calleryana*), *Viburnum tinus* and *Viburnum spp*.

Vegetation on site is not representative of any plant community types (PCTs) outlined in the BioNet Vegetation Classification system (DPE, 2023).

Trees within the site are detailed in **Appendix C**. Vegetation mapping is provided in **Illustration 3.1**.

3.3.2 Threatened Flora

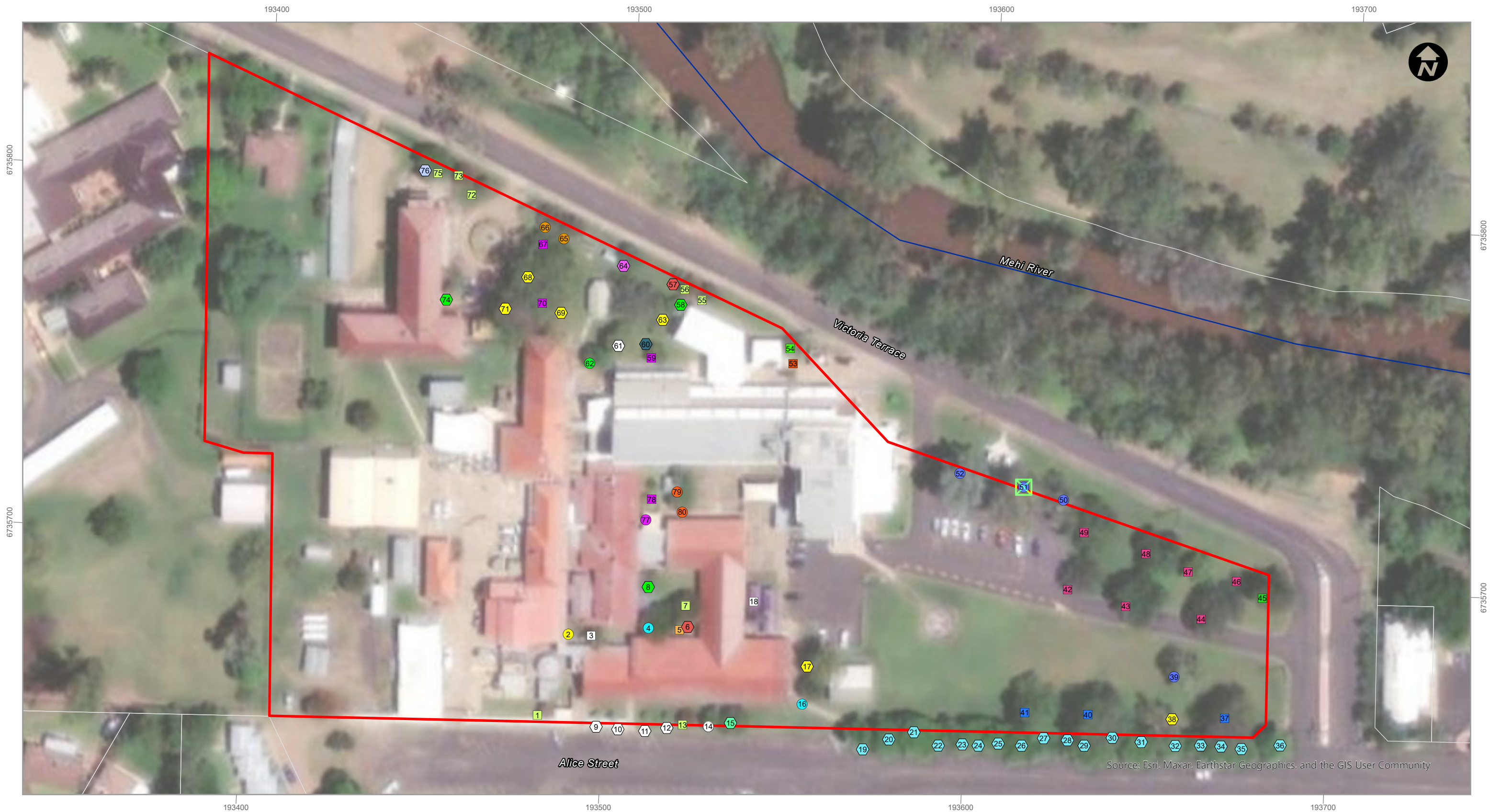
No BC Act or EPBC Act listed threatened flora were recorded at the site.

3.3.3 Threatened Ecological Communities

No BC Act or EPBC Act listed threatened ecological communities (TECs) occur at the site.

3.3.4 Priority Weeds

No *Biosecurity Act 2015* listed priority weeds for the North West Local Land Services region were observed at the site.



LEGEND

- | | | |
|------------------------------|------------------------------|------------------------|
| The site | Cadastre | Hollow-bearing tree |
| Cocos Palm | <i>Albizia spp</i> | Bottlebrush |
| Cabbage Palm | Capital | Carbeen |
| Chinese Elm | Grape Myrtle | Date Palm |
| Flowering Ash | Geisha Girl | <i>Hibiscus spp.</i> |
| <i>Jacaranda mimosifolia</i> | Judas Tree | Kurrajong |
| Lemon Scented Gum | <i>Magnolia spp</i> | <i>Melaleuca spp</i> |
| Mulberry | <i>Murraya spp</i> | <i>Neriumyoleander</i> |
| Orange Jasmine | <i>Photinia serratifolia</i> | River Red Gum |
| <i>Viburn spp</i> | <i>Viburnum tinus</i> | Watercourse |

0 20 Metres

Vegetation and Habitat Features on Site - Illustration 3.1

Information shown is for illustrative purposes only
Drawn by: AEA Checked by: AB Reviewed by: JRH
Source of base data: ESRI World Imagery
Date: 30/11/2023
Version: 2



4. Fauna Habitat

4.1 Desktop Analysis

4.1.1 Database Search Results

BioNet search results identified records of 16 threatened fauna species (including four species listed under the EPBC Act) within the search area (refer to **Appendix B**). PMST results identified habitat for 25 threatened fauna species and nine migratory fauna species within the search area.

4.1.2 Connectivity

The site offers 'stepping-stone' connectivity values for a range of fauna species moving through the highly modified and fragmented landscape. Most fauna movement locally would be expected to follow the Mehi River and associated riparian vegetation.

4.1.3 Waterways and Aquatic Habitat

The Mehi River flows adjacent to the site (within 40 m to the north) and is identified as containing Key Fish Habitat via the DPI Fisheries spatial data tool.

NSW DPI Fisheries modelling indicates that indicative distribution habitat for a number of threatened freshwater species listed under the NSW *Fisheries Management Act 1994* including Eel Tailed Catfish (*Tandanus tandanus*), Olive Perchlet, (*Ambassis agassizii*) and Silver Perch (*Bidyanus bidyanus*) occurs in the Mehi River adjacent to the site.

There are no waterways and aquatic habitat features within the site. Based on local topography and surrounding land features, the Mehi River is the only potential receptor of any surface water flow via the existing stormwater system. No impacts to the Mehi River or associated threatened species listed under the FM Act are likely to occur as a result of the Activity.

4.2 Site Features

4.2.1 Habitat Values

The site provides minimal habitat for fauna species due to the high level of disturbance, human activity, lighting and noise. Established trees on site provide marginal habitat/ foraging resources for locally occurring avifauna, arboreal mammals, microbats and flying-foxes. Due to limited connectivity, these trees are likely only utilised by highly mobile species (i.e. birds) or species which are well adapted to disturbed environments.

4.2.1.1 Hollow-bearing Trees

One hollow-bearing tree was identified on site: One River Red Gum (Tree #51).

4.2.2 Threatened Fauna

No threatened fauna species were opportunistically detected at the site.

The primary Koala feed tree (River Red Gum) occurs on site. No Koala faecal pellets were identified under preferred Koala use trees.



4.2.3 Potential Threatened Fauna Occurrence

Five threatened fauna species are considered to potentially occur within the site and locality (refer to **Appendix E**) as follows:

- Koala (*Phascolarctos cinereus*) - The main Koala food tree for the Western Slopes and Plains Koala Management Area (DECC, 2008) River Red Gum (*E. camaldulensis*) is present on site.
- Grey-headed Flying-fox (*Pteropus poliocephalus*) – *E. camaldulensis*, *C. tessellaris*, *Corymbia citriodora* are present on site and contribute nectar and pollen to the diet of the Grey-headed Flying- foxes.
- Microbats: Corben's Long-eared Bat (*Nyctophilus corbeni*) and Yellow-bellied Sheathtail-bat (*Saccolaimus flaviventris*) and Large-eared Pied Bat (*Chalinolobus dwyeri*) – marginal roosting habitat associated with the hollow-bearing tree and marginal foraging habitat in the locality.

Due to the limited extent of habitat on site and the site's existing modified state, the site provides only a small portion of the resources associated with any potentially occurring threatened species populations. It is unlikely that any threatened fauna species populations would be dependent on the site to fulfill lifecycle needs.



5. Matters of National Environmental Significance

Matters of National Environmental Significance (MNES), listed under the EPBC Act, are addressed in this section. The following biodiversity MNES protected under the EPBC Act were considered for their relevance to the Action:

- Wetlands of international importance (Ramsar) (EPBC Act sections 16 and 17B).
- Listed threatened species and communities (EPBC Act sections 18 and 18A).
- Listed migratory species (EPBC Act sections 20 and 20A).

5.1 Wetlands of International Importance

No wetlands of international importance occur within the study area or broader locality. As such, the Action will not impact any wetlands of international importance.

5.2 Listed EPBC Act Threatened Ecological Communities

No TECs listed under the EPBC Act occur within the site or study area or would be impacted by the Action.

5.3 Listed EPBC Act Threatened Flora Species

No threatened flora species listed under the EPBC Act occur on site or would be impacted by the Action.

5.4 Listed EPBC Act Threatened Fauna Species

A total of 25 threatened fauna species listed under the EPBC Act were identified within the search area by the PMST.

A review of the DoE (2013) *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance* indicates that a significant impact on EPBC Act threatened fauna with potential to occur in the study area is not likely for the following reasons:

- The site does not contain important habitat for any 'important population' of fauna listed as 'Vulnerable' under the EPBC Act.
- The site does not contain important habitat for a 'population of a species' of fauna listed as 'Endangered or Critically Endangered' under the EPBC Act.

The Action is therefore unlikely to have a significant impact on any EPBC Act listed fauna species.

5.5 Listed Migratory Species

A total of nine migratory species listed under the EPBC Act were identified within the search area by the PMST. The site does not comprise important habitat for any of these species as defined in the DoE (2013) *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance*. The Action is therefore unlikely to have a significant impact on any EPBC Act listed migratory species.



6. Impacts and Mitigation

6.1 Impacts of the Activity

The Activity footprint and associated Biodiversity Impacts are displayed in **Illustration 6.1**.

6.1.1 Direct Impacts

6.1.1.1 Vegetation Removal

The Activity will require removal of 17 native and non-endemic/ exotic trees.

Four native trees endemic to the North Western Slopes Botanical Region (Harden, 2002) requiring removal include:

- Two Carbeen (*Corymbia tessellaris*).
- One of each River Red Gum (*Eucalyptus camaldulensis*) and Bottlebrush (*Callistemon spp*).

Native non-endemic trees requiring removal include two Lemon Scented Gum (*Corymbia citriodora*).

11 exotic/ ornamental trees requiring removal include:

- Four Chinese Elm (*Ulmus parvifolia*)
- Three Jacaranda (*Jacaranda mimosifolia*)
- Two Cocos Palm (*Syagrus romanzoffiana*)
- One of each *Photinia serratifolia* and *Viburnum spp*.

No PCTs would be directly impacted. Given the existing modified state of the study area, biodiversity impacts associated with this vegetation removal are not significant. No hollow-bearing trees require removal.

6.1.1.2 Threatened Fauna

One preferred Koala feed tree (River Red Gum) would be directly impacted (removed) by the Activity. The aforementioned clearing of native vegetation would remove habitat features and foraging resources for a range of species listed under **Section 4.2.3**. While negative, this incremental and cumulative habitat loss is not significant given the existing modified state of the site and distribution of local resources in the study area.

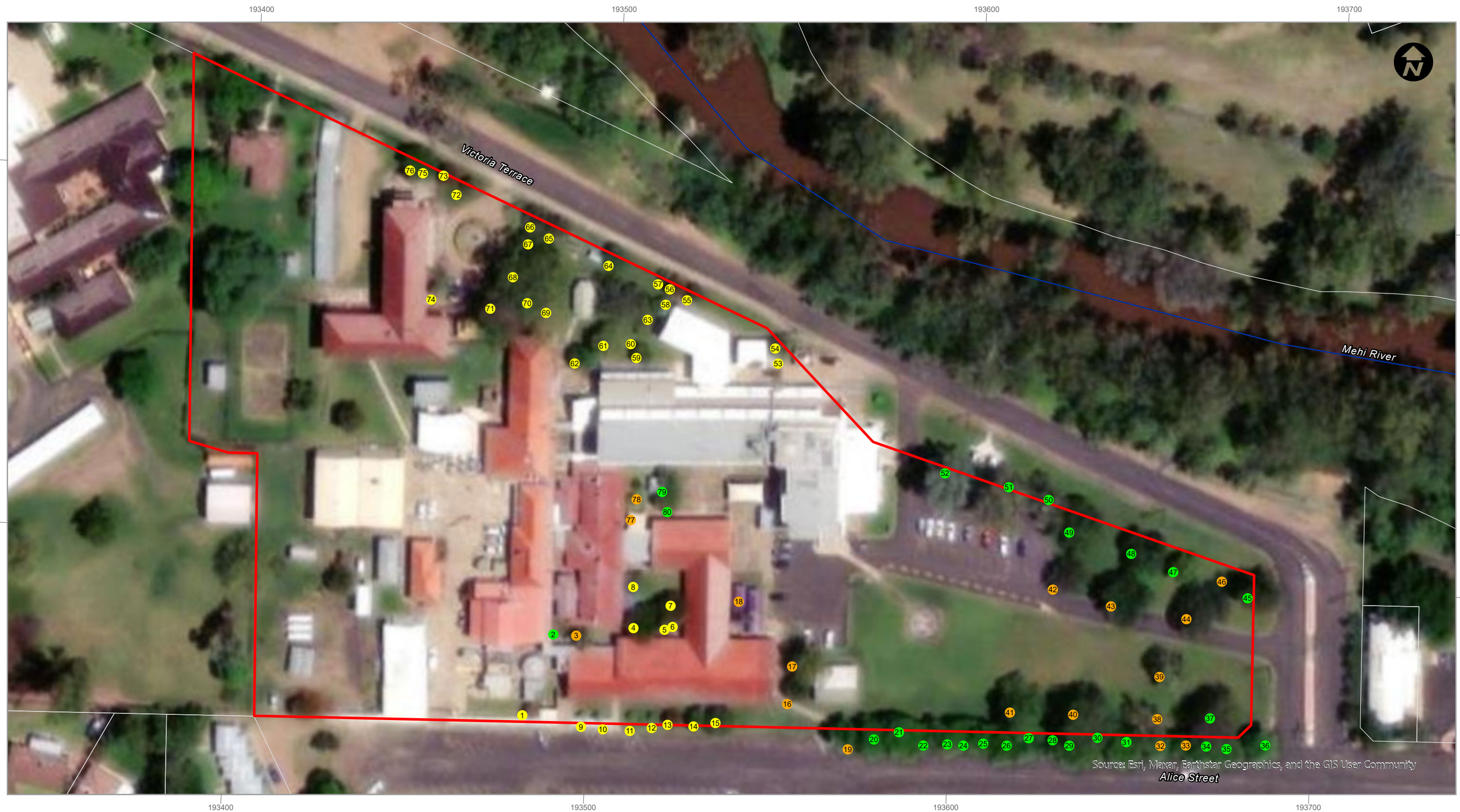
6.1.2 Indirect Impacts

Based on the construction requirements and nature of the Activity, anticipated indirect development impacts may include temporary disturbance from noise, human activity and machine operations to locally occurring fauna species during construction. Operational noise and lighting is not expected to be significantly different to that which is currently occurring.

6.1.3 Impacts to Threatened Species and TECs

No threatened flora or TECs occur on site or would be impacted by the Activity.

Statutory assessments under the BC Act have been completed for threatened fauna species with the potential to utilise resources on the site (refer to **Appendix E**). This assessment has concluded that impacts of the Activity are unlikely to significantly impact the subject threatened fauna species.



LEGEND

- The site
- Cadastre
- ~ Watercourse
- Remove
- Retain - Impacts to manage
- Retain - Impacts unlikely

6.2 Mitigation

The mitigation measures outlined in **Table 6.1** are recommended to minimise biodiversity impacts associated with the Activity. General environmental mitigation measures are outlined in the corresponding REF and not duplicated here.

Table 6.1 Mitigation Measures

Mitigation	Reason
Measures must be implemented during construction works so that machinery and plant do not introduce weed propagules or plant pathogens to the site (e.g. by adoption and implementation of the 'Arrive Clean, Leave Clean' guidelines (DoE 2015).	Minimise introduction or spread of weeds and pathogens.
Any tree pruning or protection works must be completed by a certificate 5 arborist and in accordance with <i>Australian Standard 4970-2009 Protection of trees on development sites</i> .	To ensure tree health is maintained by professional accepted practices.
Pre-clearing surveys must be undertaken each morning prior to vegetation clearing by an ecologist/ spotter-catcher to ensure nesting or roosting fauna are not present within vegetation to be removed; or undertake fauna capture, relocation or rescue as appropriate. Additional Koala measures are provided below.	To minimise risks to fauna.
Retained trees would be protected in accordance with <i>Australian Standard 4970-2009 Protection of trees on development sites</i> . This includes installing no-go fencing and signage around tree protection zones.	To minimise risks to retained trees.
<i>Koala Specific Measures</i>	
On the day of clearing and prior to any clearing taking place, all trees within 50 m of those trees to be cleared are to be inspected for the presence of Koalas by an experienced Koala ecologist/ spotter-catcher.	To minimise risks to Koala.
Should Koalas be present, clearing works must: <ul style="list-style-type: none"> ■ Be temporarily suspended within a range of 50 m from any tree which is occupied by a Koala. ■ Be avoided in any area between the koala and the nearest areas of habitat to allow the animal to move to adjacent refuge. ■ Must not resume until the koala has moved from the tree of its own volition. Should clearing continue in areas away from the Koala, the ecologist/ spotter-catcher would remain as a designated Koala spotter to monitor the animal until the clearing is finished that day in case the animal moves into proximity of the clearing (which would trigger the works to stop).	To minimise risks to Koala.



References

- Department of Climate Change, Energy, the Environment and Water (DCCEEW) (Commonwealth) (2023) *Directory of Important Wetlands in Australia*. [Online]. Available: <https://www.dcceew.gov.au/water/wetlands/australian-wetlands-database/directory-important-wetlands#inland-wetlands> [Accessed 22/11/2023].
- Department of Climate Change, Energy, the Environment and Water (DCCEEW) (Commonwealth) (2023) *Protected Matters Search Tool*. [Online]. Available: <https://www.dcceew.gov.au/environment/epbc/protected-matters-search-tool> [Accessed 22/11/2023].
- Department of Environment (2013). *Matters of National Environmental Significance Significant impact Guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999*. Department of Environment. Canberra.
- Department of Climate Change, Energy, the Environment and Water (2023). Australian Wetlands Database, [Online]. Available: <http://www.environment.gov.au/cgi-bin/wetlands/alphablist.pl> [Accessed 22/11/2023].
- Department of Planning and Environment (DPE) (2023). *Biodiversity Values Map and Threshold Tool*, [Online]. Available: <https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BOSETMap> [Accessed 22/11/2023].
- Department of Planning and Environment (DPE) (2023). About BioNet Vegetation Classification. [Online]. Available: <https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/nsw-bionet/about-bionet-vegetation-classification> [Accessed 22/11/2023].
- Department of Planning and Environment (DPE) (2017). *NSW (Mitchell) Landscapes Version 3.1. Based on the original dataset contained in P.B.Mitchell (2002) NSW Ecosystems Study: Background and Methodology (Unpublished)*. [Online]. Available: <https://datasets.seed.nsw.gov.au/dataset/nsw-mitchell-landscapes-version-3-1>. [Accessed 22/11/2023].
- Department of Planning and Environment (DPE) (2021). *Trees Near Me NSW*, [Online]. Available: <https://treesnearme.app/explore> [Accessed 22/11/2023].
- Department of Planning and Environment (DPE) (2023). *NSW BioNet Wildlife Atlas Database Search Tool*. [Online]. Available: <https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/nsw-bionet> [Accessed 22/11/2023].
- Department of Primary Industries (DPI) (undated). *Priority weeds for the North West*. [Online]. Available: <https://weeds.dpi.nsw.gov.au/> [Accessed 22/11/2023].
- Department of Primary Industries (DPI) (2023). *Fisheries Spatial Data Portal*. [Online]. Available: <https://www.dpi.nsw.gov.au/about-us/research-development/spatial-data-portal>. [Accessed 22/11/2023].
- Harden, G.J. (ed.) (2002). *Flora of New South Wales Volume 2, 2nd edition*. NSW University Press, Sydney.
- R Thackway and I D Cresswell, (1995) (Eds). *An Interim Biogeographic Regionalisation for Australia: a framework for establishing the national system of reserves, Version 4.0*. Australian Nature Conservation Agency, Canberra.
- Wade Ryan Contracting (2023). *Aboricultural Impact Assessment for 2023 Development at Moree Hospital NSW 2400. (Dated 9 November 2023)*.



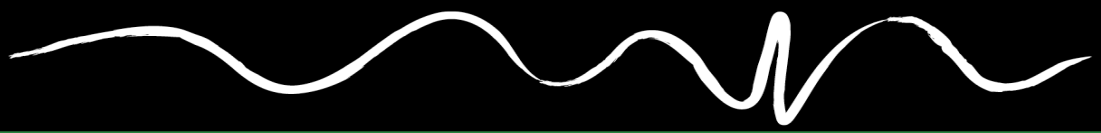
Copyright and Usage

©GeoLINK, 2023

This document, including associated illustrations and drawings, was prepared for the exclusive use of NSW Health Infrastructure to accompany a Review of Environmental Factors. It is not to be used for any other purpose or by any other person, corporation or organisation without the prior consent of GeoLINK. GeoLINK accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this document for a purpose other than that described above.

This document, including associated illustrations and drawings, may not be reproduced, stored, or transmitted in any form without the prior consent of GeoLINK. This includes extracts of texts or parts of illustrations and drawings.

The information provided on illustrations is for illustrative and communication purposes only. Illustrations are typically a compilation of data supplied by others and created by GeoLINK. Illustrations have been prepared in good faith, but their accuracy and completeness are not guaranteed. There may be errors or omissions in the information presented. In particular, illustrations cannot be relied upon to determine the locations of infrastructure, property boundaries, zone boundaries, etc. To locate these items accurately, advice needs to be obtained from a surveyor or other suitably-qualified professional.



Appendix A

The Site and Demolition Plan


[illegible]

GENERAL NOTES

PROJECT TEAM

TaylorBrammer
218 OXFORD ST. SYDNEY NSW, 2021 AUSTRALIA
PH: 021 9287 8855 | 3.djones@taylorbrammer.com.au

SERVICES ENGINEER

 **JHA**

LEVEL 20, 2 MARKET ST. SYDNEY, NSW, 2000, AUSTRALIA

STRUCTURAL & CIVIL ENGINEER

 **NORTHROP**

LEVEL 1, 215 PACIFIC HIGHWAY, CHARLESTOWN NSW, 2200, AUSTRALIA
PH: (02) 4943 1777 | nsw@northrop.com.au | AEN: 01 064 433 106

ARCHITECT

STH

CONTRACTOR 

PROJECT MANAGER

PRINCIPAL

LEVEL 25, 1 FARRER PLACE, SYDNEY, NSW, 2000, PH: (02) 8215-0000

savills



ISSUED FOR INFORMATION

DRAWING TITLE: _____

REF - EXISTING SITE PLAN

SCALE _____ DRAWN BY _____ CHECKED _____
1: 500 @ A1 **Author** **Checker**
DOCUMENT NUMBER _____ REVISION _____
MHR-STH-AR-DR-SW-REF002 **A**



COPYRIGHT			
ALL RIGHTS RESERVED. THIS WORKS COPYRIGHT AND CANNOT BE REPRODUCED OR COPIED IN ANY FORM OR BY ANY MEANS (GRAPHIC, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM) WITHOUT THE WRITTEN PERMISSION OF THE PROJECT TEAM. UNDER THE TERMS OF THE CONTRACT, ANY SERVICE PROVIDER, OR BUREAU, TO USE THE DOCUMENT FOR ANY PURPOSE UNRELATED TO THE PROJECT IS PROHIBITED. THE PROJECT TEAM ACCEPTS NO LIABILITY FOR THE CONTENT OF THE DOCUMENT OR THE ACCURACY OF THE INFORMATION CONTAINED THEREIN. THE PROJECT TEAM SHALL NOT BE RESPONSIBLE FOR ANY LOSS OR DAMAGE, INCLUDING LOSS OF PROFITS, ARISING FROM THE USE OF THE DOCUMENT.			
KEY PLAN			
REV	DESCRIPTION	DRN	DATE
1	ISSUE FOR REF	1	17/02/2023

GENERAL NOTES

DIMENSIONS

USE METRIC DIMENSIONS. DIMENSIONS SHALL BE GIVEN IN METERS. DIMENSIONS ON THE SITE BEFORE COMMENCING ANY WORKS OR MAKING ANY OTHER COMMITMENT MUST BE VERIFIED AND RECORDED BEFORE MANUFACTURE.

FIXTURES, FITTINGS & EQUIPMENT SPECIFICATIONS

SUBSTITUTE FIRE EQUIPMENT SPECIFICATIONS

THE DESIGN AND DOCUMENTATION HAS BEEN COMPLETED ON THE BASIS OF FIRE AND EQUIPMENT ADHERED TO THIS OFFICE AT THE TIME OF ISSUING THE DESIGN. THE DESIGN PROVIDING FIRE AND EQUIPMENT INCORPORATES SPATIAL, ALL LOCATIONS, SERVICE, LAYOUT AND ACCESS, CLEARANCES AND AVOIDANCE APPROPRIATE SERVICES REQUIREMENTS. IN ANY CASE REGARDING SUBSTITUTION OF FIXTURES AND FITTINGS, IT SHOULD BE NOTED THAT SUBSTITUTION OF EQUIPMENT WITH ALTERNATIVE SPECIFICATIONS SHALL NOT BE PROVIDED PRIOR TO CONSULTING THE PROJECT TEAM. THE PROJECT TEAM SHALL NOT BE RESPONSIBLE FOR ANY LOSS OR DAMAGE, INCLUDING LOSS OF PROFITS, ARISING FROM THE USE OF THE DOCUMENT.

SERVICE POINTS DISCLAIMER

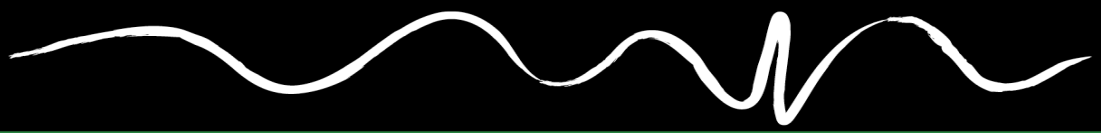
THE SERVICE POINTS SHOWN ON THESE DRAWINGS HAVE BEEN OBTAINED FROM THE BUILDING SERVICES ENGINEERING MODEL, AND ARE PROVIDED FOR INFORMATION AND GUIDANCE ONLY. THE SERVICE POINTS SHOWN ON THESE DRAWINGS ARE NOT GUARANTEED TO BE CORRECT AT THE TIME OF PUBLICATION. THE OFFICE DOES NOT WARRANT THE ACCURACY OF THE DATA, NOR THE BUILDING SERVICES ENGINEERING DOCUMENTATION FOR THE INSTALLATION OF THE SERVICE POINTS, AND THE INTERFACE BETWEEN THE SERVICE POINTS AND THE RESPECTIVE ENGINEERING SYSTEMS.

PROJECT TEAM	
QUANTITY SURVEYOR	mbm LEVEL 1, 100 RYLAND STREET, SYDNEY NSW 2000, AUSTRALIA PH: (02) 8371 1000
LANDSCAPE ARCHITECTS	TaylorBrammer 214 OXFORD ST, SYDNEY NSW 2021, AUSTRALIA PH: (02) 8371 1000 Email: taylor@taylorbrammer.com.au
SERVICES ENGINEER	JHA LEVEL 20, 200 RYLAND ST, SYDNEY NSW 2000, AUSTRALIA PH: (02) 8371 1000 Email: jha@jha-engineering.com.au
STRUCTURAL & CIVIL ENGINEER	NORTHROP LEVEL 1, 125 PACE STREET, CHARLESTOWN NSW 2000, AUSTRALIA PH: (02) 8442 1777 Email: northrop@northrop.com.au NSW: 91 034 432 100
ARCHITECT	STH LEVEL 4, 18 YORK STREET, SYDNEY NSW 2000, AUSTRALIA PH: (02) 8371 1000 Email: sth@sth.com.au NSW: 91 034 432 100
CONTRACTOR	BESIX Watpac LEVEL 24, 44 MARINET STREET, SYDNEY NSW 2000, PH: (02) 8741 1000
PROJECT MANAGER	savills LEVEL 24, 1 FARRER PLACE, SYDNEY NSW 2000, PH: (02) 8741 1000
PRINCIPAL	NSW GOVERNMENT Health Infrastructure

ISSUED FOR INFORMATION

PROJECT	
MOREE HOSPITAL REDEVELOPMENT	
35 Alice St, Moree NSW 2400	
DRAWING TITLE	
REF - PROPOSED SITE PLAN	
SCALE	DRAWN BY
1 : 500 @ A1	Author
DOCUMENT NUMBER	CHECKED
MHR-STH-AR-DR-SW-REF004	Checker
REVISION	
A	


















INTERNAL REFERENCE ONLY: STH PROJECT NO: 10648 | STH SHI NO: REF004




Appendix B

Database Search Results

Data from the BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory, and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1°C; ^^ rounded to 0.01°C. Copyright the State of NSW through the Department of Planning, Industry and Environment. Search criteria : Licensed Report of all Valid Records of Threatened (listed on BC Act 2016) or Commonwealth listed Entities in selected area [North: -29.42 West: 149.79 East: 149.89 South: -29.52] returned a total of 69 records of 18 species.
Report generated on 22/11/2023 11:05 AM





Kingdom	Class	Family	Species Code	Scientific Name	Exotic	Common Name	NSW status	Comm. status	Records	Info
Animalia	Reptilia	Elapidae	2673	<i>Hemiaspis damelii</i>		Grey Snake	E1,P	E	3	
Animalia	Reptilia	Elapidae	2675	<i>Hoplocephalus bitorquatus</i>		Pale-headed Snake	V,P		1	
Animalia	Aves	Anseranatidae	0199	<i>Anseranas semipalmata</i>		Magpie Goose	V,P		2	
Animalia	Aves	Ciconiidae	0183	<i>Ephippiorhynchus asiaticus</i>		Black-necked Stork	E1,P		1	
Animalia	Aves	Accipitridae	0225	<i>Hieraaetus morphnoides</i>		Little Eagle	V,P		4	
Animalia	Aves	Accipitridae	0230	<i>Lophoictinia isura</i>		Square-tailed Kite	V,P,3		2	
Animalia	Aves	Strigidae	0246	<i>Ninox connivens</i>		Barking Owl	V,P,3		1	
Animalia	Aves	Meliphagidae	0602	<i>Certhionyx variegatus</i>		Pied Honeyeater	V,P		1	
Animalia	Aves	Neosittidae	0549	<i>Daphoenositta chrysoptera</i>		Varied Sittella	V,P		1	
Animalia	Aves	Artamidae	8519	<i>Artamus cyanopterus cyanopterus</i>		Dusky Woodswallow	V,P		1	
Animalia	Aves	Estrildidae	0652	<i>Stagonopleura guttata</i>		Diamond Firetail	V,P		1	
Animalia	Mammalia	Phascolarctidae	1162	<i>Phascolarctos cinereus</i>		Koala	E1,P	E	14	
Animalia	Mammalia	Macropodidae	1260	<i>Macropus dorsalis</i>		Black-striped Wallaby	E1,P		1	
Animalia	Mammalia	Pteropodidae	1280	<i>Pteropus poliocephalus</i>		Grey-headed Flying-fox	V,P	V	1	
Animalia	Mammalia	Emballonuridae	1321	<i>Saccolaimus flaviventris</i>		Yellow-bellied Sheath-tail-bat	V,P		1	
Animalia	Mammalia	Muridae	1461	<i>Pseudomys gouldii</i>		Gould's Mouse	E4,P	X	1	
Plantae	Flora	Fabaceae (Faboideae)	2835	<i>Desmodium campylocaulon</i>		Creeping Tick-trefoil	E1		32	

Plantae	Flora	Poaceae	6850	<i>Digitaria porrecta</i>	Finger Panic Grass	E1	1	
---------	-------	---------	------	---------------------------	--------------------	----	---	---

Data from the BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory, and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1°C; ^^ rounded to 0.01°C. Copyright the State of NSW through the Department of Planning, Industry and Environment. Search criteria : Licensed Report of all Valid Records of Threatened (listed on BC Act 2016) or Commonwealth listed Communities in selected area [North: -29.42 West: 149.79 East: 149.89 South: -29.52] returned 0 records for 14 entities.

Report generated on 22/11/2023 11:06 AM

Kingdom	Class	Family	Species Code	Scientific Name	Exotic	Common Name	NSW status	Comm. status	Records	Info
Community				<i>Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions</i>		Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions	E3		K	
Community				<i>Brigalow-Gidgee woodland/shrubland in the Mulga Lands and Darling Riverine Plains Bioregions</i>		Brigalow-Gidgee woodland/shrubland in the Mulga Lands and Darling Riverine Plains Bioregions	E3		P	
Community				<i>Carbeen Open Forest Community in the Darling Riverine Plains and Brigalow Belt South Bioregions</i>		Carbeen Open Forest Community in the Darling Riverine Plains and Brigalow Belt South Bioregions	E3		K	
Community				<i>Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions</i>		Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions		E	K	
Community				<i>Coolibah-Black Box Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Penepplain and Mulga Lands Bioregions</i>		Coolibah-Black Box Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Penepplain and Mulga Lands Bioregions	E3		K	

Community	<i>Fuzzy Box Woodland on alluvial Soils of the South Western Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions</i>	Fuzzy Box Woodland on alluvial Soils of the South Western Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions	E3	K	
Community	<i>Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions</i>	Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions	E3	P	
Community	<i>Marsh Club-rush sedgeland in the Darling Riverine Plains Bioregion</i>	Marsh Club-rush sedgeland in the Darling Riverine Plains Bioregion	E4B	K	
Community	<i>Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions</i>	Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions	E3	K	
Community	<i>Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland</i>	Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland	CE	K	
Community	<i>Poplar Box Grassy Woodland on Alluvial Plains</i>	Poplar Box Grassy Woodland on Alluvial Plains	E	K	

Community	<i>Semi-evergreen Vine Thicket in the Brigalow Belt South and Nandewar Bioregions</i>	Semi-evergreen Vine Thicket in the Brigalow Belt South and Nandewar Bioregions	E3	P	
Community	<i>Weeping Myall Woodlands</i>	Weeping Myall Woodlands	E	K	
Community	<i>White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and</i>	White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and	E4B	K	



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: 22-Nov-2023

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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:	1
Wetlands of International Importance (Ramsar)	4
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	5
Listed Threatened Species:	30
Listed Migratory Species:	9

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:	4
Commonwealth Heritage Places:	None
Listed Marine Species:	16
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	7
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places			[Resource Information]
Name	State	Legal Status	Buffer Status
Indigenous			
Moree Baths and Swimming Pool	NSW	Listed place	In feature area

Wetlands of International Importance (Ramsar Wetlands)			[Resource Information]
Ramsar Site Name	Proximity	Buffer Status	
Banrock station wetland complex	1000 - 1100km upstream from Ramsar site	In feature area	
Gwydir wetlands: gingham and lower gwydir (big leather) watercourses	30 - 40km upstream from Ramsar site	In feature area	
Riverland	900 - 1000km upstream from Ramsar site	In feature area	
The coorong, and lakes alexandrina and albert wetland	1100 - 1200km upstream from Ramsar site	In feature area	

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
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	Endangered	Community likely to occur within area	In feature area
Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland	Critically Endangered	Community likely to occur within area	In feature area
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community likely to occur within area	In feature area
Weeping Myall Woodlands	Endangered	Community likely to occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occurIn buffer area only within area	

Community Name	Threatened Category	Presence Text	Buffer Status
----------------	---------------------	---------------	---------------

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

Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to 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 ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may 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 may 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
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area	In feature area
Lophochroa leadbeateri leadbeateri Major Mitchell's Cockatoo (eastern), Eastern Major Mitchell's Cockatoo [82926]	Endangered	Species or species habitat may occur within area	In buffer area only
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
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat known to 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 known to occur within area	In feature area
FISH			
Bidyanus bidyanus Silver Perch, Bidyan [76155]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Maccullochella peelii Murray Cod [66633]	Vulnerable	Species or species habitat known to occur within area	In feature area
MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Nyctophilus corbeni			
Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)			
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area	In feature area
PLANT			
Cadellia pentastylis			
Ooline [9828]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Dichanthium setosum			
bluegrass [14159]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lepidium aschersonii			
Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area	In feature area
Lepidium monophlocoides			
Winged Pepper-cress [9190]	Endangered	Species or species habitat likely to occur within area	In feature area
Swainsona murrayana			
Slender Darling-pea, Slender Swainson, Murray Swainson-pea [6765]	Vulnerable	Species or species habitat known to occur within area	In feature area
REPTILE			
Anomalopus mackayi			
Five-clawed Worm-skink, Long-legged Worm-skink [25934]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hemiaspis damelii			
Grey Snake [1179]	Endangered	Species or species habitat likely to 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			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]		Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may 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
Communications, Information Technology and the Arts - Australian Postal Corporation		
Commonwealth Land - Australian Postal Commission [14002]	NSW	In buffer area only
Communications, Information Technology and the Arts - Telstra Corporation Limited		
Commonwealth Land - Australian Telecommunications Commission [14003]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status	
Commonwealth Land - Telstra Corporation Limited [14001]	NSW	In buffer area only	
Unknown			
Commonwealth Land - [15952]	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
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]		Species or species habitat known 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]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may 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 may 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
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

Extra Information

EPBC Act Referrals				[Resource Information]	
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status	
Controlled action					

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
ARG Border Rail Project Moree to Toowoomba QLD	2013/7061	Controlled Action	Further Information Request	In buffer area only
Inland Rail - Narrabri to North Star Phase 2 Moree to Camurra North	2020/8689	Controlled Action	Assessment Approach	In feature area
Narrabri to North Star Section of Inland Rail, NSW	2016/7729	Controlled Action	Post-Approval	In feature area
Queensland Hunter Gas Pipeline, approximately 825 km in length	2008/4483	Controlled Action	Completed	In buffer area only
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Newell Highway Moree Bypass	2001/314	Not Controlled Action	Completed	In feature area
Queensland Hunter Gas Pipeline, approximately 833 km in length	2008/4620	Not Controlled Action	Completed	In buffer area only

Bioregional Assessments

SubRegion	BioRegion	Website	Buffer Status
Gwydir	Northern Inland Catchments	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 are 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

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

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

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
- 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.

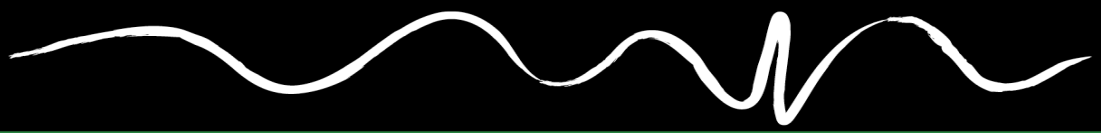
[© Commonwealth of Australia](#)

Department of Climate Change, Energy, the Environment and Water

GPO Box 3090

Canberra ACT 2601 Australia

+61 2 6274 1111



Appendix C

Tree Data

Source: Wade Ryan Contracting (2023)

Developed Wade Ryan Contracting 0408 300 989 waggatreeconsultancy.com.au waderyan1@bigpond.com					Annexure 1 - Tree Date File - Impact Assessment for Development at Moree Hospital 2023 (V date 14/09/23)																				
Tree No	Species	Lat	Lon	General Location	Species Origin	General Size	Age Class	Stem base Ø (m)	DBH (m)	Height (m)	Canopy Ø	Tree Vigour	Tree Structure	Canopy Area (M²)	SRZ Radius in m from centre of stem	TPZ Radius in m from stem	Factors, Observed Conditions or Issues Commentary on tree	Enviro Rating or Value	Estimated remaining useful life	Replacement Time Frame	Significant Tree Value	Retention Value	Recommended Action for planning	Development Impact	Final Evaluation or Comment
1	Lagerstroemia spp . (crape myrtle)	-29.4711097	149.839392	Off Alice St	Exotic	Small	Mature	0.3	0.2	4	3	Good	Fair	7.07143	2.00	2.4	Lopped multiple times - some decay in stem systems and into lopping points	Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
2	Viburnum tinus	-29.4709065	149.839474	building 5	Exotic	Very Small	Semi Mature	0.2	0.1	3	4	Good	Good	12.5714	1.68	1.5	small shrub	Very Low	15 plus	0-5	Low or nil	Poor	Remove	Retain - Impacts to Manage	
3	Syagrus romanzoffiana (queen palm or Cocos palm)	-29.470908	149.83954	building 5	Exotic	Medium	Mature	0.46	0.28	9	5	Excellent	Excellent	19.6429	2.39	3.36	sound tree/palm	Very Low	15 plus	5-10	Low or nil	Fair	Remove	Remove	Direct Conflict with DA
4	Photinia serratifolia	-29.4708859	149.839702	Internal court yard	Exotic	Small	Mature	0.55	0.3	6	9	Good	Good	63.6429	2.57	3.6	Large shrub of some age - may date construction of primary facility	Very Low	15 plus	5-10	Moderate	Fair	Remove	Retain - Impacts unlikely	
5	Pyrus calleryana 'Capital'	-29.4708882	149.83979	Internal court yard	Exotic	Small	Semi Mature	0.18	0.16	7	2	Fair	Fair	3.14286	1.61	1.92	More recent ornamental planting	Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
6	Hibiscus spp.	-29.4708806	149.839813	Internal court yard	Exotic	Very Small	Mature	0.4	0.17	3	4	Good	Good	12.5714	2.25	2.04	small shrub	Very Low	0 to 5	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
7	Lagerstroemia spp . (crape myrtle)	-29.470828	149.839806	Internal court yard	Exotic	Small	Over Mature	1.4	0.25	5	8	Fair	Poor	50.2857	3.81	3	Aged coppice with 30 stems	Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
8	Duranta repens (Geisha Girl)	-29.4707835	149.839698	Internal court yard	Exotic	Medium	Mature	1.5	0.4	4	7	Good	Good	38.5	3.92	4.8	shrub	Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
9	Fraxinus ornus (Flowering Ash)	-29.4711347	149.839559	Alice St	Exotic	Small	Semi Mature	0.05	0.04	2	2	Good	Good	3.14286	1.50	1.5	recent amenity planting	Very Low	0 to 5	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
10	Fraxinus ornus (Flowering Ash)	-29.4711397	149.839622	Alice St	Exotic	Small	Semi Mature	0.05	0.04	2	2	Good	Good	3.14286	1.50	1.5	recent amenity planting	Very Low	0 to 5	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
11	Fraxinus ornus (Flowering Ash)	-29.4711422	149.839699	Alice St	Exotic	Small	Semi Mature	0.05	0.04	2	2	Good	Good	3.14286	1.50	1.5	recent amenity planting	Very Low	0 to 5	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
12	Fraxinus ornus (Flowering Ash)	-29.4711335	149.839761	Alice St	Exotic	Small	Semi Mature	0.05	0.04	2	2	Good	Good	3.14286	1.50	1.5	recent amenity planting	Very Low	0 to 5	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
13	Lagerstroemia spp . (crape myrtle)	-29.4711247	149.839806	Alice St	Exotic	Small	Semi Mature	0.27	0.15	3.5	4	Fair	Fair	12.5714	1.91	1.8	small mature tree	Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
14	Morus species (Mulberry)	-29.4711272	149.83988	Alice St	Exotic	Small	Mature	0.5	0.24	5	5	Good	Poor	19.6429	2.47	2.88	basal crack in stem system with decay - lopped heavily	Very Low	0 to 5	0-5	Low or nil	Very Poor	Remove	Retain - Impacts unlikely	
15	Melaleuca species	-29.4711172	149.839942	Alice St	Aus Native	Small	Mature	0.6	0.54	6	6	Excellent	Fair	28.2857	2.67	6.48	lopped - light decay only	Low	15 plus	5-10	Low or nil	Fair	Remove	Retain - Impacts unlikely	
16	Photinia serratifolia	-29.4710658	149.840145	Between Alice and car park	Exotic	Small	Mature	0.48	0.32	4.5	6	Good	Good	28.2857	2.43	3.84	sound shrub	Very Low	5 to 15	0-5	Low or nil	Fair	Remove	Remove	Direct Conflict with DA
17	Corymbia citriodora (Lemon Scented Gum)	-29.4709718	149.840156	Between Alice and car park	Aus Native	Medium	Over Mature	0.63	0.53	10	9	Fair	Fair	63.6429	2.73	6.36	lopped at 5 m mark - epicormic attachment fair - minor decay - tree vigour only fair - tree considered	Medium	5 to 15	10-20	Low or nil	Fair	Remove	Remove	Direct Conflict with DA
18	Syagrus romanzoffiana (queen palm or Cocos palm)	-29.4708138	149.84	Between Car park and central building	Exotic	Medium	Mature	0.45	0.38	6	4	Excellent	Excellent	12.5714	2.37	4.56		Very Low	15 plus	5-10	Low or nil	Fair	Remove	Remove	Direct Conflict with DA
19	Jacaranda mimosifolia	-29.4711748	149.84032	Council Verge - Alice St	Exotic	Medium	Mature	0.5	0.39	10	8	Excellent	Good	50.2857	2.47	4.68	west tree in line of 18 Council trees Line of trees considered significant	Very Low	40 plus	20+	Moderate	Excellent	Retain	Remove	Direct Conflict with DA
20	Jacaranda mimosifolia	-29.4711485	149.840394	Council Verge - Alice St	Exotic	Medium	Mature	0.42	0.48	10	8	Excellent	Good	50.2857	2.30	5.76	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
21	Jacaranda mimosifolia	-29.4711291	149.840464	Council Verge - Alice St	Exotic	Medium	Mature	0.45	0.45	10	8	Excellent	Good	50.2857	2.37	5.4	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
22	Jacaranda mimosifolia	-29.4711608	149.840535	Council Verge - Alice St	Exotic	Medium	Mature	0.5	0.37	10	8	Excellent	Good	50.2857	2.47	4.44	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
23	Jacaranda mimosifolia	-29.4711564	149.840603	Council Verge - Alice St	Exotic	Medium	Mature	0.31	0.5	10	8	Excellent	Good	50.2857	2.02	6	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
24	Jacaranda mimosifolia	-29.4711585	149.840649	Council Verge - Alice St	Exotic	Medium	Mature	0.38	0.38	10	8	Excellent	Good	50.2857	2.20	4.56	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
25	Jacaranda mimosifolia	-29.4711523	149.840705	Council Verge - Alice St	Exotic	Medium	Mature	0.5	0.35	10	8	Excellent	Good	50.2857	2.47	4.2	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
26	Jacaranda mimosifolia	-29.471156	149.840772	Council Verge - Alice St	Exotic	Medium	Mature	0.5	0.44	10	8	Excellent	Good	50.2857	2.47	5.28	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
27	Jacaranda mimosifolia	-29.471136	149.840834	Council Verge - Alice St	Exotic	Medium	Mature	0.42	0.33	10	8	Excellent	Good	50.2857	2.30	3.96	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
28	Jacaranda mimosifolia	-29.4711397	149.840902	Council Verge - Alice St	Exotic	Medium	Mature	0.35	0.28	10	8	Excellent	Good	50.2857	2.13	3.36	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
29	Jacaranda mimosifolia	-29.4711523	149.84095	Council Verge - Alice St	Exotic	Medium	Mature	0.62	0.48	10	8	Excellent	Good	50.2857	2.71	5.76	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
30	Jacaranda mimosifolia	-29.471131	149.841029	Council Verge - Alice St	Exotic	Medium	Mature	0.37	0.32	10	8	Excellent	Good	50.2857	2.18	3.84	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
31	Jacaranda mimosifolia	-29.4711397	149.841112	Council Verge - Alice St	Exotic	Medium	Mature	0.67	0.62	10	8	Excellent	Good	50.2857	2.80	7.44	Forms part of line of trees considered significant as a line - light decay in stem system at 1m	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
32	Jacaranda mimosifolia	-29.4711473	149.841209	Council Verge - Alice St	Exotic	Medium	Mature	0.32	0.32	10	8	Excellent	Good	50.2857	2.05	3.84	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Remove	Direct Conflict with DA
33	Jacaranda mimosifolia	-29.4711448	149.841281	Council Verge - Alice St	Exotic	Medium	Mature	0.29	0.27	10	8	Excellent	Good	50.2857	1.97	3.24	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Remove	Direct Conflict with DA

Tree No	Species	Lat	Lon	General Location	Species Origin	General Size	Age Class	Stem base Ø (m)	DBH (m)	Height (m)	Canopy Ø	Tree Vigour	Tree Structure	Canopy Area (M²)	SRZ Radius in m from centre of stem	TPZ Radius in m from stem	Factors, Observed Conditions or Issues Commentary on tree	Enviro Rating or Value	Estimated remaining useful life	Replacement Time Frame	Significant Tree Value	Retention Value	Recommended Action for planning	Development Impact	Final Evaluation or Comment
34	<i>Jacaranda mimosifolia</i>	-29.471146	149.841339	Council Verge - Alice St	Exotic	Medium	Mature	0.6	0.44	10	8	Excellent	Good	50.2857	2.67	5.28	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
35	<i>Jacaranda mimosifolia</i>	-29.471151	149.841397	Council Verge - Alice St	Exotic	Medium	Mature	0.56	0.48	10	8	Excellent	Good	50.2857	2.59	5.76	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
36	<i>Jacaranda mimosifolia</i>	-29.4711397	149.841507	Council Verge - Alice St	Exotic	Medium	Mature	0.57	0.55	10	8	Excellent	Good	50.2857	2.61	6.6	Forms part of line of trees considered significant as a line	Very Low	40 plus	20+	Moderate	Excellent	Retain	Retain - Impacts to Manage	
37	<i>Corymbia tessellaris</i> (Carbeen)	-29.4710758	149.841348	Lawn area Alice and Victoria	Aus Native	Medium	Mature	0.9	0.9	15	16	Excellent	Excellent	201.143	3.17	10.8	sound mature tree with long life expectancy	Medium	40 plus	50+	High	Excellent	Retain Priority	Retain - Impacts to Manage	Significant Impacts to manage
38	<i>Corymbia citriodora</i> (Lemon Scented Gum)	-29.471081	149.841198	Lawn area Alice and Victoria	Aus Native	Medium	Over Mature	0.35	0.47	12	8	Fair	Good	50.2857	2.13	5.64	canopy dieback 50%	Low	0 to 5	5-10	Low or nil	Poor	Remove	Remove	Direct Conflict with DA
39	<i>Eucalyptus camaldulensis</i> (River Red Gum)	-29.4709755	149.841202	Lawn area Alice and Victoria	Aus Native	Medium	Over Mature	0.8	0.67	10	9	Poor	Poor	63.6429	3.01	8.04	lopped at 6-7 m response poor - epicormic shoots only 60 mm diameter - light decay mistletoe	Low	5 to 15	10-20	Low or nil	Poor	Remove	Remove	Direct Conflict with DA
40	<i>Corymbia tessellaris</i> (Carbeen)	-29.4710749	149.840959	Lawn area Alice and Victoria	Aus Native	Large	Mature	1	0.9	17	18	Excellent	Excellent	254.571	3.31	10.8	sound mature tree with long life expectancy	Medium	40 plus	50+	High	Excellent	Retain Priority	Remove	Direct Conflict - loss of Significant Tree
41	<i>Corymbia tessellaris</i> (Carbeen)	-29.4710733	149.840779	Lawn area Alice and Victoria	Aus Native	Medium	Mature	0.82	0.72	14	14	Excellent	Excellent	154	3.04	8.64	sound mature tree with long life expectancy	Medium	40 plus	50+	High	Excellent	Retain Priority	Remove	Direct Conflict - loss of Significant Tree
42	<i>Ulmus parvifolia</i> (Chinese elm)	-29.4707646	149.840892	Lawn area - off Victoria - East	Exotic	Medium	Mature	0.9	0.4	7	13	Good	Excellent	132.786	3.17	4.8	sound mature tree with long life expectancy	Low	40 plus	20+	Moderate	Excellent	Retain	Remove	Direct Conflict with DA
43	<i>Ulmus parvifolia</i> (Chinese elm)	-29.4708029	149.841059	Lawn area - off Victoria - East	Exotic	Medium	Semi Mature	1	0.9	12	14	Good	Poor	154	3.31	10.8	3 enclosed bark unions in stem - open crack no decay evident - minor separation of stems	Low	15 plus	20+	Moderate	Fair	Retain	Remove	Direct Conflict - loss of Significant Tree
44	<i>Ulmus parvifolia</i> (Chinese elm)	-29.47083	149.841274	Lawn area - off Victoria - East	Exotic	Large	Mature	0.7	0.72	11	16	Good	Excellent	201.143	2.85	8.64	significant tree	Low	40 plus	20+	Moderate	Excellent	Retain	Remove	Direct Conflict - loss of Significant Tree
45	Albizia species??	-29.4707743	149.841447	Lawn area - off Victoria - East	Exotic	Medium	Mature	0.67	0.56	14	9	Good	Good	63.6429	2.80	6.72	partial lopping for power line clearance enclosed bark union at 3m only moderate failure	Low	15 plus	20+	Moderate	Good	Retain	Retain - Impacts to Manage	Significant Impacts to manage
46	<i>Ulmus parvifolia</i> (Chinese elm)	-29.4707345	149.841372	Lawn area - off Victoria - East	Exotic	Very Small	Over Mature	0.2	0.12	3	3	Poor	Fair	7.07143	1.68	1.5	small tree failed planting	Very Low	0	0-5	Low or nil	Very Poor	Remove Priority	Remove	
47	<i>Ulmus parvifolia</i> (Chinese elm)	-29.4707138	149.841233	Lawn area - off Victoria - East	Exotic	Small	Mature	0.46	0.36	8	8	Good	Fair	50.2857	2.39	4.32	moderate bird chewing in branch unions through canopy - no significant decay	Low	5 to 15	10-20	Low or nil	Fair	Retain if possible	Retain - Impacts to Manage	
48	<i>Ulmus parvifolia</i> (Chinese elm)	-29.4706708	149.841113	Lawn area - off Victoria - East	Exotic	Large	Mature	0.67	0.47	8	11	Good	Good	95.0714	2.80	5.64		Low	40 plus	10-20	Moderate	Good	Retain if possible	Retain - Impacts to Manage	
49	<i>Ulmus parvifolia</i> (Chinese elm)	-29.4706214	149.840935	Lawn area - off Victoria - East	Exotic	Medium	Mature	0.75	0.83	10	15	Excellent	Excellent	176.786	2.93	9.96		Low	40 plus	20+	High	Excellent	Retain Priority	Retain - Impacts to Manage	Significant Impacts to manage
50	<i>Eucalyptus camaldulensis</i> (River Red Gum)	-29.4705416	149.840874	B/T car park and Victoria	Aus Native	Medium	Over Mature	0.7	0.65	11	9	Poor	Fair	63.6429	2.85	7.8	Lopped 5-6 meters -epicormic attachment fair - decay noted in unions. Mistletoe heavy in canopy about 40% effected	Medium	5 to 15	20+	Low or nil	Poor	Remove	Retain - Impacts to Manage	Significant Impacts to manage
51	<i>Eucalyptus camaldulensis</i> (River Red Gum)	-29.4705122	149.84076	B/T car park and Victoria	Aus Native	Medium	Over Mature	1.7	1.4	14	12	Poor	Poor	113.143	4.14	15	Tree lopped at 7m epicormic attachment poor - decay present tree response poor - hollow in north stem at 2m notable decay with strong reaction	Medium	5 to 15	50+	Moderate	Fair	Retain if possible	Retain - Impacts to Manage	Significant Impacts to manage
52	<i>Eucalyptus camaldulensis</i> (River Red Gum)	-29.4704818	149.840578	B/T car park and Victoria	Aus Native	Medium	Over Mature	1.14	0.93	15	12	Fair	Fair	113.143	3.50	11.16	lopped at 6-7 m - epicormic attachment fair - 150-200mm Ø. Failure potential at least moderate	High	15 plus	50+	High	Fair	Retain	Retain - Impacts to Manage	Significant Impacts to manage
53	<i>Livistonia australis</i> (cabbage or fan palm)	-29.4702185	149.840095	Service Driveway off Victoria	Aus Native	Large	Mature	0.82	0.56	24	6	Excellent	Excellent	28.2857	3.04	6.72		Medium	15 plus	50+	Moderate	Good	Retain	Retain - Impacts unlikely	
54	<i>Phoenix canariensis</i> (Canary Island date palm)	-29.470181	149.840086	Service Driveway off Victoria	Exotic	Large	Semi Mature	0.11	0.95	8	6	Excellent	Excellent	28.2857	1.50	11.4		Low	40 plus	10-20	Moderate	Fair	Retain if possible	Retain - Impacts unlikely	
55	<i>Lagerstroemia spp.</i> (crape myrtle)	-29.4700664	149.839832	Garden area off Victoria	Exotic	Small	Over Mature	1	0.25	4	4	Poor	Poor	12.5714	3.31	3	14 stems off old coppice - aged small tree heavily lopped	Very Low	0 to 5	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
56	<i>Lagerstroemia spp.</i> (crape myrtle)	-29.4700403	149.839782	Garden area off Victoria	Exotic	Small	Over Mature	0.6	0.25	4	3	Good	Fair	7.07143	2.67	3	8 stems	Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
57	<i>Hibiscus spp.</i>	-29.4700283	149.839748	Garden area off Victoria	Exotic	Small	Mature	0.5	0.2	3	4	Good	Fair	12.5714	2.47	2.4	small shrub	Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
58	<i>Duranta repens</i> (Geisha Girl)	-29.4700789	149.839771	Garden area off Victoria	Exotic	Small	Mature	0.7	0.2	4	5	Excellent	Fair	19.6429	2.85	2.4	small shrub	Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
59	<i>Callistemon Species</i> (Bottle Brush)	-29.4702131	149.839692	Garden area off Victoria	Aus Native	Small	Mature	0.3	0.26	4	5	Good	Fair	19.6429	2.00	3.12	small shrub	Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
60	<i>Magnolia spp</i>	-29.4701788	149.839675	Garden area off Victoria	Exotic	Very Small	Semi Mature	0.8	0.5	2	1.5	Poor	Fair	1.76786	3.01	6	notable injury to lower stem base - tree not performing well at site - unless cultural values then do not retain	Low	0 to 5	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
61	<i>Fraxinus ornus</i> (Flowering Ash)	-29.4701848	149.839597	Garden area off Victoria	Exotic	Small	Mature	0.4	0.35	7	10	Good	Excellent	78.5714	2.25	4.2		Very Low	15 plus	5-10	Low or nil	Fair	Retain if possible	Retain - Impacts unlikely	
62	<i>Murraya paniculata</i> (orange jasmine)	-29.4702305	149.839516	Garden area off Victoria	Exotic	Small	Semi Mature	1	0.3	4	6	Excellent	Good	28.2857	3.31	3.6	15 stems off coppice	Very Low	5 to 15	0-5	Moderate	Poor	Remove	Retain - Impacts unlikely	
63	<i>Corymbia citriodora</i> (Lemon Scented Gum)	-29.4701173	149.839721	Garden area off Victoria	Aus Native	Medium	Over Mature	0.7	0.7	13	13	Fair	Fair	132.786	2.85	8.4	canopy coverage only 60% of expected - partial cut for power line clearance - heavy bird chewing to branch inions in upper canopy moderate dead wood to 25mm Ø	Medium	5 to 15	10-20	Low or nil	Fair	Retain if possible	Retain - Impacts unlikely	
64	<i>Cercis siliquastrum</i> (Judas tree)	-29.4699854	149.839606	Garden area off Victoria	Exotic	Small	Over Mature	0.38	0.35	5	6	Excellent	Fair	28.2857	2.20	4.2	lopped at 2m	Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
65	<i>Nerium oleander</i> (oleander - variegated)	-29.469921	149.839434	Garden area off Victoria	Exotic	Small	Mature	1.7	0.3	4	5	Fair	Fair	19.6429	4.14	3.6		Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	

Tree No	Species	Lat	Lon	General Location	Species Origin	General Size	Age Class	Stem base Ø (m)	DBH (m)	Height (m)	Canopy Ø	Tree Vigour	Tree Structure	Canopy Area (M²)	SRZ Radius in m from centre of stem	TPZ Radius in m from stem	Factors, Observed Conditions or Issues Commentary on tree	Enviro Rating or Value	Estimated remaining useful life	Replacement Time Frame	Significant Tree Value	Retention Value	Recommended Action for planning	Development Impact	Final Evaluation or Comment
66	<i>Nerium oleander</i> (oleander)	-29.4698942	149.83938	Garden area off Victoria	Exotic	Small	Mature	1.7	0.3	4	5	Fair	Fair	19.6429	4.14	3.6		Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
67	Callistemon Species (Bottle Brush)	-29.4699368	149.839376	Garden area off Victoria	Aus Native	Small	Mature	0.33	0.22	4	5	Fair	Fair	19.6429	2.08	2.64		Low	5 to 15	0-5	Low or nil	Fair	Retain if possible	Retain - Impacts unlikely	
68	<i>Corymbia citriodora</i> (Lemon Scented Gum)	-29.4700194	149.839335	Garden area off Victoria	Aus Native	Large	Mature	0.9	0.81	17	17	Good	Excellent	227.071	3.17	9.72	sound large tree	Medium	40 plus	50+	High	Good	Retain Priority	Retain - Impacts unlikely	
69	<i>Corymbia citriodora</i> (Lemon Scented Gum)	-29.4701062	149.839431	Garden area off Victoria	Aus Native	Medium	Over Mature	0.75	0.65	16	16	Poor	Good	201.143	2.93	7.8	canopy only 50-60% of expected - canopy dieback and dead wood to 20mm Ø	Medium	5 to 15	20+	Moderate	Fair	Retain if possible	Retain - Impacts unlikely	
70	Callistemon Species (Bottle Brush)	-29.4700833	149.839377	Garden area off Victoria	Aus Native	Small	Over Mature	0.33	0.22	3	7	Fair	Poor	38.5	2.08	2.64	failed leader	Low	0 to 5	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
71	<i>Corymbia citriodora</i> (Lemon Scented Gum)	-29.4700992	149.839272	Garden area off Victoria	Aus Native	Large	Mature	0.93	0.77	20	16	Fair	Good	201.143	3.21	9.24	canopy 80% of expected - dead wood to 90mm Ø	Medium	15 plus	50+	Moderate	Good	Retain	Retain - Impacts unlikely	
72	<i>Lagerstroemia spp.</i> (crape myrtle)	-29.4698178	149.839169	Aged care - Victoria	Exotic	Small	Over Mature	0.6	0.2	3.5	2	Fair	Poor	3.14286	2.67	2.4	crack in stem base	Very Low	0 to 5	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
73	<i>Lagerstroemia spp.</i> (crape myrtle)	-29.4697709	149.839131	Aged care - Victoria	Exotic	Small	Over Mature	0.6	0.3	4	4	Fair	Poor	12.5714	2.67	3.6	7 stems - moderate decay in stem	Very Low	0 to 5	0-5	Low or nil	Poor	Remove	Retain - Impacts unlikely	
74	<i>Duranta repens</i> (Geisha Girl)	-29.4700803	149.839104	East Side aged care	Exotic	Small	Mature	0.7	0.2	4	1	Excellent	Excellent	0.78571	2.85	2.4	small shrub	Very Low	15 plus	0-5	Low or nil	Fair	Retain if possible	Retain - Impacts unlikely	
75	<i>Lagerstroemia spp.</i> (crape myrtle)	-29.4697659	149.839072	Aged care - Victoria	Exotic	Small	Mature	0.2	0.125	3	2	Fair	Poor	3.14286	1.68	1.5	highly supressed	Very Low	0 to 5	0-5	Low or nil	Very Poor	Remove	Retain - Impacts unlikely	
76	<i>Brachychiton populous</i> (Kurrajong)	-29.4697599	149.839035	Aged care - Victoria	Aus Native	Medium	Semi Mature	0.44	0.4	8	12	Excellent	Excellent	113.143	2.34	4.8		Medium	40 plus	50+	Moderate	Good	Retain	Retain - Impacts unlikely	
77	<i>Viburn species</i>	-29.470617	149.839687	shrub under shade	Exotic	Very Small	Mature	0.15	0.15	3	3	Good	Fair	7.07143	1.50	1.8	shrub species insignificant	Very Low	5 to 15	0-5	Low or nil	Poor	Remove	Remove	Direct Conflict with DA
78	<i>Callistemon species</i> (Bottle Brush)	-29.470565	149.839702	north court yard	Aus Native	Very Small	Mature	0.15	0.15	3	1.5	Good	Poor	1.76786	1.50	1.8	Partial failure in gournd - stem with notable lean	Very Low	0 to 5	0-5	Low or nil	Poor	Remove	Remove	Direct Conflict with DA
79	Murraya species	-29.470545	149.839774	north court yard	Exotic	Small	Mature	0.2	0.2	3.5	3	Fair	Fair	7.07143	1.68	2.4		Very Low	15 plus	0-5	Low or nil	Poor	Remove	Retain - Impacts to Manage	
80	Murraya species	-29.470595	149.83979	north court yard	Exotic	Small	Mature	0.25	0.25	4	4	Good	Good	12.5714	1.85	3		Very Low	15 plus	0-5	Low or nil	Poor	Remove	Retain - Impacts to Manage	
												Theoretical canopy coverage current		4470.32											
												Property area square meters		34141											
												13%	canopy coverage current												

0.090799918



Appendix D

Threatened Species Potential Occurrence Assessment

Threatened Fauna Potential Occurrence Assessment

For this Proposal, the likelihood of occurrence of threatened and migratory fauna species and populations was determined based on the criteria shown in **Table D.1**.


Table D.1 Potential of occurrence criteria for threatened species and populations of fauna

Potential of occurrence	Criteria
Known	The species was observed in the subject site either during the current survey or during another survey less than one year prior.
High	A species has a high likelihood of occurrence if: <ul style="list-style-type: none">the subject site contains or forms part of a large area of high-quality suitable habitatimportant habitat elements (i.e. for breeding or important life cycle periods such as winter foraging periods) are abundant within the subject sitethe species has been recorded recently in similar habitat in the localitythe subject site is likely to support resident populations or to contain habitat that is visited by the species during regular seasonal movements or migration.
Moderate	A species has a moderate likelihood of occurrence if: <ul style="list-style-type: none">the subject site contains or forms part of a small area of high-quality suitable habitatthe subject site contains or forms part of a large area of marginal habitatimportant habitat elements (i.e. for breeding or important life cycle periods such as winter foraging periods) are sparse or absent within the subject sitethe subject site is unlikely to support resident populations or to contain habitat that is visited by the species during regular seasonal movements or migration but is likely to be used occasionally during seasonal movements and/or dispersal.
Low	A species has a low likelihood of occurrence if: <ul style="list-style-type: none">potentially suitable habitat exists but the species has not been recorded recently (previous 10 years) in the locality despite intensive survey (i.e. the species is considered to be locally extinct)the species is considered to be a rare vagrant, likely only to visit the subject site very rarely; e.g. during juvenile dispersal or exceptional climatic conditions (e.g. extreme drought conditions in typical habitat of inland birds).
None	Suitable habitat is absent from the subject site.


Threatened Fauna Potential Occurrence Assessment, based on BioNet and PMST searches completed on 22/11/23*

*Migratory and Pelagic marine species identified in the search results are not assessed as no habitat occurs at the site


Scientific Name	Common Name	Status		Habitat Requirement (EPBC Act SPRAT and/ or DPIE/EES Threatened Species Profiles websites)	Potential of occurrence	Outcome - Assessment of Significance (AoS)?
		BC Act	EPBC Act			
Fish						
<i>Bidyanus bidyanus</i>	Silver Perch	V (FM Act)	CE	Silver perch were once widespread and abundant throughout most of the Murray-Darling river system. They have now declined to low numbers or disappeared from most of their former range. Only one remaining secure and self sustaining population occurs in NSW in the central Murray River downstream of Yarrawonga weir, as well as several anabranches and tributaries.	Low	Species may occupy the Mehi River located 40 m to the north of the site. No impacts to the Mehi River or associated threatened species listed under the FM Act are likely to occur as a result of the Activity.
<i>Maccullochella peelii</i>	Murray Cod	-	V	Warm water habitats that range from clear, rocky streams to slow flowing turbid rivers and billabongs.	Low	Species may occupy the Mehi River located 40 m to the north of the site. No impacts to the Mehi River or associated threatened species listed under the FM Act are likely to occur as a result of the Activity.
Avifauna						
<i>Anseranas semipalmata</i>	Magpie Goose	V	-	Shallow wetlands (<1 m deep), large swamps and dams with dense growth of rushes or sedge.	Low	Suitable habitat is absent from the subject site. No further assessment required.
<i>Aphelocephala leucopsis</i>	Southern Whiteface	-	V	Open woodlands and shrublands where there is an understorey of grasses or shrubs, or both. These areas are usually in habitats dominated by acacias or eucalypts on ranges, foothills and lowlands, and plains. Individuals may move into wetter areas outside of their normal range during drought years	Low	Suitable habitat is absent from the subject site. No BioNet records within the locality. No further assessment required.
<i>Artamus cyanopterus cyanopterus</i>	Dusky Woodswallow	V	-	Woodlands and dry open sclerophyll forests, usually dominated by eucalypts; also recorded in shrublands, heathlands and various modified habitats.	Low	Considered a rare vagrant. Suitable habitat is absent from the subject site. No further assessment required.



Scientific Name	Common Name	Status		Habitat Requirement (EPBC Act SPRAT and/ or DPIE/EES Threatened Species Profiles websites)	Potential of occurrence	Outcome - Assessment of Significance (AoS)?
		BC Act	EPBC Act			
<i>Botaurus poiciloptilus</i>	Australasian Bittern	E	E	Permanent freshwater wetlands with tall dense vegetation, particularly bullrushes and spikerushes.	Low	Suitable habitat is absent from the subject site. No BioNet records within the locality. No further assessment required.
<i>Calyptrorhynchus lathamii</i>	South Eastern Glossy Black-Cockatoo	V	V	Sheoaks in coastal forests and woodlands, timbered watercourses, and moist and dry eucalypt forests of the coast and the Great Divide up to 1,000 m. Hollow nesters. In central NSW, a very high preference for <i>E. crebra</i> among other <i>Eucalyptus</i> , living or dead trees, >8m above ground, in branches >30cm diam, steeply angled.	Low	Suitable habitat is absent from the subject site. No BioNet records within the locality. No further assessment required.
<i>Daphoenositta chrysoptera</i>	Varied Sittella	V	-	Inhabits eucalypt forests and woodlands, especially rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland.	Low	Considered a rare vagrant. Suitable habitat is absent from the subject site. No further assessment required.
<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	E	-	Swamps, mangroves, mudflats, dry floodplains.	Low	Suitable habitat is absent from the subject site. No BioNet records within the locality. No further assessment required.
<i>Erythrotriorchis radiatus</i>	Red Goshawk	CE	E	Open woodland and forest, preferring a mosaic of vegetation types, a large population of birds as a source of food, and permanent water. Typically found in riparian habitats along or near watercourses or wetlands. In NSW, preferred habitats include mixed subtropical rainforest, Melaleuca swamp forest and riparian Eucalyptus forest of coastal rivers. Population in NSW is naturally small (probably only one pair), and lies at extreme of the natural range of the species in Australia.	Low	Suitable habitat is absent from the subject site. No BioNet records within the locality. No further assessment required.




Scientific Name	Common Name	Status		Habitat Requirement (EPBC Act SPRAT and/ or DPIE/EES Threatened Species Profiles websites)	Potential of occurrence	Outcome - Assessment of Significance (AoS)?
		BC Act	EPBC Act			
<i>Falco hypoleucos</i>	Grey Falcon	V	V	The Grey Falcon is sparsely distributed in NSW, chiefly throughout the Murray-Darling Basin, with the occasional vagrant east of the Great Dividing Range. Frequents timbered lowland plains, particularly Acacia shrublands with watercourses, but also hunts in tussock grassland and open woodland, feeding almost entirely on small birds and rarely small mammals. Nests in tall trees such as <i>E.camaldulensis</i> and <i>E.coolabah</i> , reusing other raptors nests.	Low	Suitable habitat is absent from the subject site. No BioNet records within the locality. No further assessment required.
<i>Geophaps scripta scripta</i>	Squatter Pigeon	E	V	Resident in open woodland near water in interior of eastern mainland.	Low	Considered a rare vagrant. Suitable habitat is absent from the subject site. No further assessment required.
<i>Grantiella picta</i>	Painted Honeyeater	V	V	Boree, Brigalow and Box-Gum Woodlands and Box-Ironbark Forests. Specialist feeder on the fruits of mistletoes growing on woodland eucalypts and acacias. Prefers mistletoes of the genus <i>Amyema</i> .	Low	Considered a rare vagrant. Suitable habitat is absent from the subject site. No further assessment required.
<i>Hieraaetus morphnoides</i>	Little Eagle	V	-	Open eucalypt forest, woodland or open woodland. Sheoak or acacia woodlands and riparian woodlands of interior NSW are also used.	Low	Considered a rare vagrant. Suitable habitat is absent from the subject site. No further assessment required.
<i>Lathamus discolor</i>	Swift Parrot	E	CE	On mainland Australia foraging occurs where eucalypts are flowering profusely or where abundant lerp infestations occur. Favoured feed trees include winter flowering species such as Swamp Mahogany <i>Eucalyptus robusta</i> , Spotted Gum <i>Corymbia maculata</i> , Red Bloodwood <i>C. gummifera</i> , Forest Red Gum <i>E. tereticornis</i> , Mugga Ironbark <i>E. sideroxylon</i> , and White Box <i>E. albens</i> . Commonly used lerp infested trees include Inland Grey Box <i>E. microcarpa</i> , Grey Box <i>E. moluccana</i> , Blackbutt <i>E. pilularis</i> and Yellow Box <i>E. melliodora</i> .	Low	Considered a rare vagrant. Suitable habitat is absent from the subject site. No further assessment required.




Scientific Name	Common Name	Status		Habitat Requirement (EPBC Act SPRAT and/ or DPIE/EES Threatened Species Profiles websites)	Potential of occurrence	Outcome - Assessment of Significance (AoS)?
		BC Act	EPBC Act			
<i>Lophoictinia isura</i>	Square-tailed Kite	V	-	Dry woodland and open forest, particularly along major rivers and belts of trees in urban or semi-urban areas. Home ranges can extend over at least 100 km ² .	Low	Considered a rare vagrant. Suitable habitat is absent from the subject site. No further assessment required.
<i>Neophema chrysostoma</i>	Blue-winged Parrot	V	V	Blue-winged parrots breed in Tasmania, coastal south-eastern South Australia and southern Victoria. During the breeding season (spring and summer), birds occupy eucalypt forests and woodlands. Outside of the breeding range, habitat critical to the survival of this species includes foraging and staging habitats found from coastal, sub-coastal and inland areas, right through to semi-arid zones including: grasslands, grassy woodlands and semi-arid chenopod shrubland with native and introduced grasses, herbs and shrubs; and wetlands both near the coast and in semi-arid zones used for foraging and staging.	Low	Suitable habitat is absent from the subject site. No BioNet records within the locality. No further assessment required.
<i>Ninox connivens</i>	Barking Owl	V	-	Eucalypt woodland, open forest, swamp woodlands and timber along watercourses.	Low	Suitable habitat is absent from the subject site. No further assessment required.
<i>Polytelis swainsonii</i>	Superb Parrot	V	V	Inhabit Box-Gum, Box-Cypress-pine and Boree Woodlands and River Red Gum Forest.	Low	Considered a rare vagrant. Suitable habitat is absent from the subject site. No further assessment required.
<i>Rostratula australis</i>	Australian Painted Snipe	E	E	Well-vegetated shallows and margins of wetlands, dams, sewage ponds, wet pastures, marshy areas, irrigation systems, lignum, tea-tree scrub, and open timber.	Low	Suitable habitat is absent from the subject site. No BioNet records within the locality. No further assessment required.
<i>Stagonopleura guttata</i>	Diamond Firetail	V	V	Grassy eucalypt woodlands, open forest, mallee, temperate grassland, and secondary grassland derived from other communities, riparian areas, and sometimes in lightly wooded farmland.	Low	Suitable habitat is absent from the subject site. No further assessment required.

Mammals



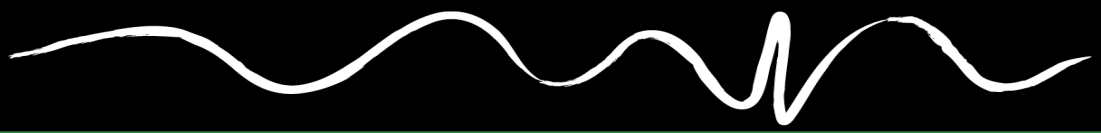
Scientific Name	Common Name	Status		Habitat Requirement (EPBC Act SPRAT and/ or DPIE/EES Threatened Species Profiles websites)	Potential of occurrence	Outcome - Assessment of Significance (AoS)?
		BC Act	EPBC Act			
<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	V	V	Near cave entrances and crevices in cliffs.	Moderate	Suitable foraging habitat which the species may use occasionally or opportunistically while foraging in the broader locality is present on site. Test of significance completed.
<i>Macropus dorsalis</i>	Black-striped Wallaby	E	-	Dry rainforests and moist eucalypt forest with rainforest understorey or dense shrub layer.	Low	Suitable habitat is absent from the subject site. No further assessment required.
<i>Nyctophilus corbeni</i>	Corben's Long-eared Bat	V	V	Mallee, bullock and box eucalypt dominated communities, more common in box/ironbark/cypress-pine vegetation, inhabiting tree hollows, crevices, and under loose bark.	Moderate	Suitable foraging habitat which the species may use occasionally or opportunistically while foraging in the broader locality is present on site. Test of significance completed.
<i>Phascolarctos cinereus</i>	Koala	E	E	Appropriate food trees in forests and woodlands, and treed urban areas. Ideally rainfall 700-1500mm, but can be found in more extreme environments. Home ranges for individuals vary widely from 3-500ha. Utilise more than 400 species of tree, with localised preferences.	Moderate	Koala food trees present on site. Test of significance completed.
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V	V	Subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops.	Moderate	Suitable foraging habitat which the species may use occasionally or opportunistically while foraging in the broader locality is present on site. Test of significance completed.
<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail-bat	V	-	Forages in a variety of habitats, roosts in tree hollows and buildings.	Moderate	Suitable foraging habitat which the species may use occasionally or opportunistically while foraging in the broader locality is present on site. Test of significance completed.

Reptiles



Scientific Name	Common Name	Status		Habitat Requirement (EPBC Act SPRAT and/ or DPIE/EES Threatened Species Profiles websites)	Potential of occurrence	Outcome - Assessment of Significance (AoS)?
		BC Act	EPBC Act			
<i>Anomalopus mackayi</i>	Five-clawed Worm-skink	E	V	Close to or on the lower slopes of slight rises in grassy White Box woodland on moist black soils, and River Red Gum-Coolibah-Bimble Box woodland on deep cracking loose clay soils. May also occur in grassland areas and open paddocks with scattered trees.	Low	Suitable habitat is absent from the subject site. No further assessment required.
<i>Hemiapsis damelii</i>	Grey Snake	E	E	from inland southern NSW to Central Queensland, with 5 subpopulations. Floodplains and ephemeral wetlands including Macquarie Marshes and Gwydir Wetlands where its main prey, frogs, have habitat, using cracks and crevices in clay for hunting strategy. Only ever detected in wet wetlands, not dry phase. Active for 2 hours after sunset.	Low	Suitable habitat is absent from the subject site. No further assessment required.
<i>Hoplocephalus bitorquatus</i>	Pale-headed Snake	V	-	Dry eucalypt forests and woodlands, cypress woodland and occasionally in rainforest or moist eucalypt forest. Favours streamside areas, particularly in drier habitats.	Low	Suitable habitat is absent from the subject site. No further assessment required.

V = Vulnerable; E = Endangered; CE = Critically Endangered



Appendix E

BC Act Assessment



Five-part Tests – Assessment of Significance

A *Test of Significance* has been prepared for the following threatened fauna species listed under the NSW *Biodiversity Conservation Act 2016*:

Threatened Fauna

Megachiropteran bats

- Grey-headed Flying-fox (*Pteropus poliocephalus*).

Microbats

- Corben's Long-eared Bat (*Nyctophilus corbeni*).
- Yellow-bellied Sheath-tail-bat (*Saccolaimus flaviventris*).
- Large-eared Pied Bat (*Chalinolobus dwyeri*).

Arboreal mammals

- Koala (*Phascolarctos cinereus*).

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

Grey-headed Flying-fox

The Activity is unlikely to have an adverse effect on the life cycle of the subject species such that a viable local population is likely to be placed at risk of extinction as:

- The subject vegetation comprises limited potential foraging habitat.
- The subject vegetation does not include any areas identified as being significant roosting habitat and comprises a comparatively minor amount of potential foraging habitat in the context of the site and adjacent areas of suitable foraging habitat.
- The local movement potential of the subject species would not be impacted by the Activity.

Microbats

Threatened microbat species have been grouped for assessment owing to family similarities and overlap in ecology and habitat preferences, and potential impacts as result of the activity. Threatened microbat species for the impact assessment are:

- Corben's Long-eared Bat.
- Yellow-bellied Sheath-tail-bat.
- Large-eared Pied Bat.

The Activity is unlikely to have an adverse effect on the life cycle of the subject microbats such that a viable local population is likely to be placed at risk of extinction as:

- No maternity colonies for the subject species occur at the site.
- The site does not support significant known foraging resources for any of the subject species.
- The local movement potential of the subject species would not be impacted by the Activity.

Koala

The Activity is unlikely to have an adverse effect on the life cycle of the Koala such that a viable local population is likely to be placed at risk of extinction as:

- The works will result in the removal of one River Red Gum (preferred Koala feed tree) and another 16 other trees within a planted garden setting at Moree Hospital. While Koala may forage on occasion in River Red Gum on site, these species are spread within the locality and provides sufficient alternative foraging resources.
- The local movement potential of the subject species would not be impacted by the Activity.

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

- i. *is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or***
- ii. *is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,***

No consideration under this part of the assessment is required.

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

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

- *Grey-headed Flying-fox*: minor contraction of foraging habitat. Retained areas of adjacent trees will continue to provide foraging, refuge and breeding resources.
- *Microbats*: minor contraction of foraging habitat. Retained areas of adjacent trees will continue to provide foraging, refuge, roosting and breeding resources.
- *Koala*: minor contraction of foraging (associated with feed tree removal) and refuge habitat. Retained areas of adjacent trees will continue to provide foraging, refuge and breeding resources.

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

No significant fragmentation of habitat would occur; the works (both in construction and operational phases) are unlikely to result in significant barriers to dispersal to any of the subject species listed.

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

The Activity would require removal of 17 trees (comprising four native trees endemic to the North Western Slopes Botanical Region, two native non-endemic trees and 11 exotic species), collectively constituting potential habitat for the subject species. Habitat of equivalent quality for the subject species is widespread (although similarly fragmented) in the broader locality.

Considering this and that the Activity is considered unlikely to have an adverse effect on the life cycle of any of the subject species such that a viable local population is likely to be placed at risk of extinction (refer to response to (a)); the habitat affected by the Activity is not considered significant to the long-term survival of the subject species in the locality.

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

No areas of outstanding biodiversity value have been declared in Moree Plains LGA.

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

A threatening process is a process that threatens, or that may threaten, the survival or evolutionary development of species or ecological communities. The current list of key threatening processes

under the BC Act, and whether the Activity is recognised as a threatening process is shown in **Table E1**.

Table E1 Key Threatening Processes (KTP)

Listed Key Threatening Process (as described in the final determination of the Scientific Committee to list the threatening process)	Is the development or activity proposed of a class of development or activity that is recognised as a threatening process?		
	Likely	Possible	Unlikely
Alteration of habitat following subsidence due to longwall mining			✓
Aggressive exclusion of birds by noisy miners			✓
Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands			✓
Anthropogenic climate change	✓		
Bush rock removal			✓
Clearing of native vegetation	✓		
Competition and grazing by the feral European Rabbit			✓
Competition and habitat degradation by feral goats			✓
Competition from feral honeybees			✓
Death or injury to marine species following capture in shark control programs on ocean beaches			✓
Entanglement in or ingestion of anthropogenic debris in marine and estuarine environments			✓
Forest Eucalypt dieback associated with over-abundant psyllids and bell miners			✓
Habitat degradation by Feral horses, <i>Equus caballus</i>			✓
High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition			✓
Herbivory and environmental degradation caused by feral deer			✓
Importation of red imported fire ants			✓
Infection by <i>Psittacine circoviral</i> (beak and feather) disease affecting endangered psittacine species and populations			✓
Infection of frogs by amphibian chytrid causing the disease chytridiomycosis			✓
Infection of native plants by <i>Phytophthora cinnamomi</i>			✓
Introduction and Establishment of Exotic Rust Fungi of the order Pucciniales pathogenic on plants of the family Myrtaceae			✓
Introduction of the large earth bumblebee			✓
Invasion and establishment of exotic vines and scramblers			✓
Invasion and establishment of Scotch broom			✓
Invasion and establishment of the Cane Toad			✓
Invasion, establishment and spread of <i>Lantana camara</i>			✓
Invasion of native plant communities by African Olive			✓
Invasion of native plant communities by <i>Chrysanthemoides monilifera</i> (bitou bush and boneseed)			✓
Invasion of native plant communities by exotic perennial grasses			✓
Invasion of the yellow crazy ant into NSW			✓
Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants			✓
Loss of hollow-bearing trees			✓
Loss or degradation (or both) of sites used for hill-topping by butterflies			✓
Predation and hybridisation of feral dogs			✓
Predation by the European red fox			✓
Predation by the feral cat			✓
Predation by <i>Gambusia holbrooki</i>			✓
Predation by the Ship Rat on Lord Howe Island			✓

Listed Key Threatening Process (as described in the final determination of the Scientific Committee to list the threatening process)

Is the development or activity proposed of a class of development or activity that is recognised as a threatening process?

	Likely	Possible	Unlikely
Predation, habitat degradation, competition and disease transmission by feral pigs			✓
Removal of dead wood and dead trees			✓

The Activity may be characteristic of two KTPs:

- Anthropogenic climate change.
- Clearing of native vegetation.

The Activity would incrementally contribute to *Anthropogenic climate change*, through the generation of carbon dioxide during operation of machinery and vehicles and associated fuel consumption however the impact is not considered significant.

Clearing of native vegetation proposed is unlikely to be considered significant considering the modified habitat of impacted vegetation and the extent of similar habitat surrounding the Activity.

On this basis the degree that the Activity would contribute to any threatening process is not considered likely to place the local population of any of the subject species at significant risk of extinction.

Conclusion:

The Activity is unlikely to result in a significant impact on any threatened fauna species.