



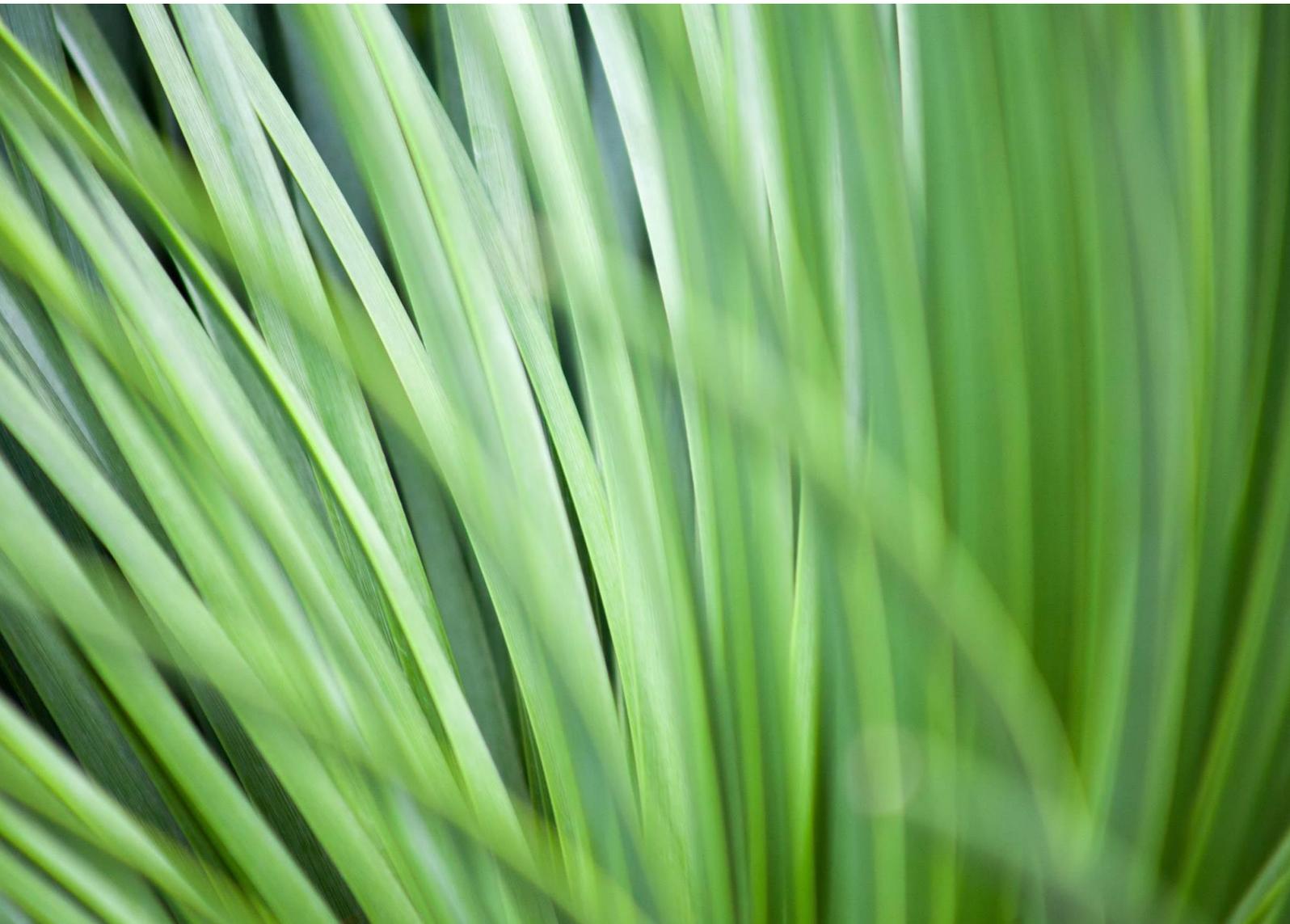
Gawara Baya Wind Farm Connection Project

Report on MSES/MLES

PREPARED FOR
Powerlink Queensland

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Gawara Baya Wind Farm Connection Project

Report on MSES/MLES

0749662



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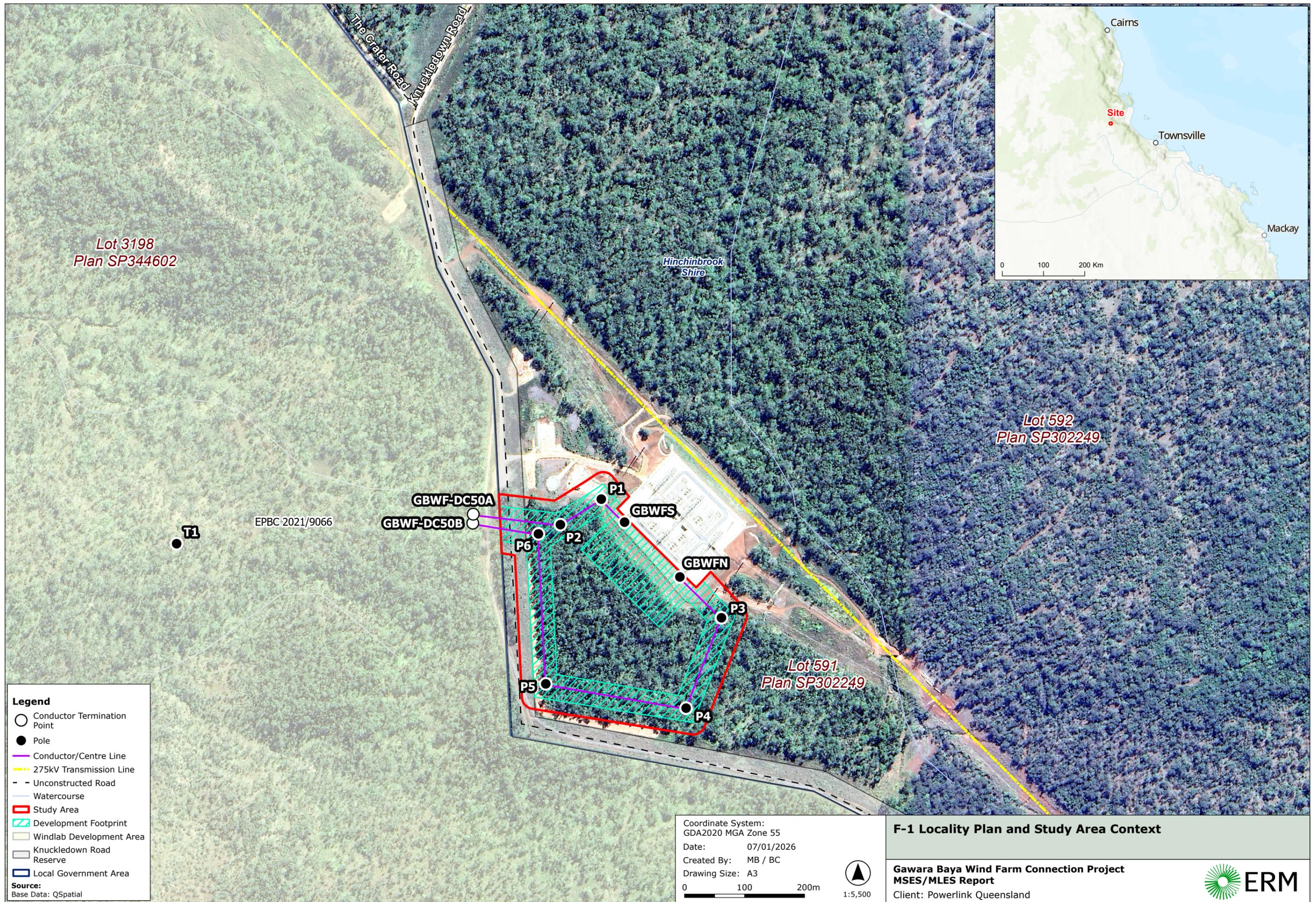
1. BACKGROUND AND OBJECTIVE

Environmental Resources Management Australia Pty Ltd (ERM) was engaged by Powerlink Queensland (the Proponent) to prepare reporting addressing Matters of State Environmental Significance (MSES) and Matters of Local Environmental Significance (MLES) for the Gawara Baya Wind Farm Connection Project (the Project).

The Project will connect the Gawara Baya Wind Farm to the National Electricity Market, via the Guybal Munjan Substation located on Lot 591 on SP302249. The Project involves an extension of the existing substation, to the west, and construction of six transmission poles from the substation extension to the wind farm's transmission tower immediately to the west of the property's boundary.

This report can be used to support potential amendments to the existing environmental and planning approvals, as well as new applications or approval processes for the Project under State and local jurisdictions.

Figure 1- represents the Project Area and development footprint that forms the basis of this report. Of note, part of the Project Area and immediately surrounding areas included large sections of land that are already cleared to support the existing substation infrastructure and associated access infrastructure to the parent development site. This is important contextually, as it is evident there are interruptions to connectivity between patches and a potential degradation of ecological values.



2. METHODOLOGY

This section outlines the methodology implemented to identify ecological values in the Project Area. This assessment began with a desktop review to identify potential ecological values in the Project Area. The findings then guided the design of a field survey and sampling program to assess on-ground conditions and determine the presence of significant ecological values—whether known, likely, or potentially occurring.

2.1 DESKTOP REVIEW

The databases and other desktop sources reviewed included State, Commonwealth and other publicly available information sources (**Table 2-1**). A search encompassing the Project Area and a 10 km buffer (the Locality) was utilised for database searches.

WildNet searches were produced using a central point with a buffer used to ensure searches captured WildNet database records with 10 km of the Project Area at a minimum.

Protected Matters Search Tool (PMST) and WildNet search results are cross-referenced with Atlas of Living Australia (ALA) to further interrogate records of Matters of Significance for recency and distribution within the Locality. Search results for PMST and WildNet are presented in **Appendix B** and **Appendix C**.

TABLE 2-1 DATABASES REVIEWED FOR DESKTOP ANALYSIS

Information Source	Name	Data Description
Department of Climate Change, Energy, the Environment and Water	PMST <i>The most recent PMST report for assessment was generated 18th December 2025.</i>	The PMST provides predictive results of matters of national environmental significance based on mapping of known and potential species distribution, habitat, ecological communities and wetlands. The outputs are based on modelling results and do not necessarily reflect known records of species or communities. The features highlighted by the search are considered further through a Likelihood of Occurrence (LoO) assessment (Appendix A). The PMST is available in Appendix B . Search Area: Project Area Boundary .shp file (with a 10 km buffer, referred to as the Locality, around this area drawn in the PMST interactive search map). This is to assist with species distributions and records that are listed under both the Commonwealth and State level.
Department of Resources (DoR)	Regional Ecosystem Version 13.1 mapping	This product maps remnant and regrowth vegetation communities across Queensland and identifies communities listed as Endangered, Of Concern or Least Concern status as defined by the <i>Vegetation Management Act 1999</i> (VM Act).

Information Source	Name	Data Description
Queensland Government	MSES version 4.1 mapping	This product maps areas of MSES as defined under the QLD State Planning Policy.
DoR	Queensland Globe	A Queensland Government based product that allows viewing of spatial data and imagery covering Queensland.
Department of Tourism, Environment, Science and Innovation	WildNet records – Through Environmental Reports <i>The most recent record for assessment was generated 18th December 2025.</i>	A database that contains records of wildlife sightings including threatened flora and fauna species (protected under the <i>Nature Conservation Act 1992</i>) (NC Act) that have been provided to the agency by Government departments and external organisations (Appendix C).
Atlas of Living Australia website at http://www.ala.org.au .	ALA	Australia’s national biodiversity database (supported by the National Collaborative Research Infrastructure Strategy). Database contains records accessed through an interactive spatial portal. Threatened species are searched to identify known records in proximity to the Project Area.
Department of Climate Change, Energy, the Environment and Water	Species Profile and Threats Database (SPRAT)	The SPRAT profiles and associated conservation advice documents were consulted as they provide detailed information for the LoO assessment on: <ul style="list-style-type: none"> • Species distribution, and • Species habitat preferred and general.

2.1.1 LIKELIHOOD OF OCCURENCE

A preliminary LoO assessment was undertaken informed by desktop sources and database searches conducted in December 2025. This assessment was then refined using site-specific and specific-species habitat information obtained from field surveys to produce a final LoO. The assessment ranks the likelihood of the species occurring within the Project Area through analysis of species distribution information and the presence of specific habitat attributes as identified through the desktop analysis and field survey.

For defining recent records of threatened species within the Locality, only those that have been recorded in databases searches within the previous 20 years have been included.

Criteria for LoO are outlined in **Table 2-2**. The outcomes of LoO Assessment are presented in **Appendix A**.

TABLE 2-2 LIKELIHOOD OF OCCURRENCE CRITERIA

	Preferred habitat exists	General habitat exists ¹	Habitat does not exist ²
Records within Project Area (based on site surveys and recent (last 20 years) records)	Known	Known	Known
Records in the locality ³	Likely	Potential	Unlikely
No records in the locality, but Project Area is within known distribution	Potential	Potential	Unlikely
No records in the locality, and Project Area is outside of distribution	Unlikely	Unlikely	Unlikely

¹Habitat may be considered general (or potential habitat), but not preferred because: some desired habitat features may be present, but not all; habitat may have poor connectivity; or habitat may be known to be disturbed.

²Based on sources reviewed and/or field survey results.

³ 'Locality' refers to a 10 km buffer of the Project Area.

2.2 FIELD SURVEY

Table 2-3 provides an overview of relevant state and federally adopted survey guideline documents that were consulted to inform the field survey program.

TABLE 2-3 SURVEY GUIDELINES

Guideline Level and Source	Guideline and Reference
Commonwealth Guidelines and Documents	
Department of Sustainability, Environment, Water, Population and Communities (DSEWPC), 2011	Survey Guidelines for Australia's Threatened Mammals (as listed under the EPBC Act)
Department of Environment, Water, Heritage and the Arts (DEHWA), 2017	Survey guidelines for Australia's threatened birds: Guidelines for detecting birds listed as threatened under the EPBC Act
Department of the Environment (DoE), 2015	Draft referral guidelines for 14 birds listed as migratory species under the EPBC Act
Department of Sustainability, Environment, Water, Population and Communities (DSEWPC), 2011	Survey guidelines for Australia's threatened reptiles. EPBC Act survey guidelines 6.6
DSEWPC, 2011	Draft referral guidelines for nationally listed Brigalow Belt reptiles

Guideline Level and Source	Guideline and Reference
Department of the Environment, Water, Heritage and the Arts (DEWHA), 2010	Survey Guidelines for Australia's Threatened Bats. EPBC Act survey guidelines 6.1
DEWHA, 2010	Survey Guidelines for Australia's Threatened Birds (as listed under the EPBC Act)
Department of Environment and Energy (DEE), 2017	Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species
Youngentob et.al., 2021	A review of koala habitat assessment criteria and methods (Commonwealth Information Sheet)
Venz & Rowland, 2013	Targeted species survey guidelines- Sharman's rock-wallaby <i>Petrogale sharmani</i> (Venz & Rowland, 2013).
State Guidelines and Documents	
DES, 2022	Terrestrial Vertebrate Fauna Survey Guidelines for Queensland
DES, 2020	Flora Survey Guidelines – Protected Plants under the NC Act
Eyre, et al., 2022	Terrestrial vertebrate fauna survey guidelines V4.0
Eyre, et al., 2015	BioCondition- A Condition Assessment Framework for Terrestrial Biodiversity in Queensland V2.2
Eyre, et al., 2022	Guide to greater glider habitat in Queensland

2.2.1 SURVEY TECHNIQUES AND SURVEY EFFORT

Field investigation was undertaken within the Project Area between 18 and 21 September 2024. Surveys undertaken include vegetation assessments, Regional Ecosystem (RE) ground truthing and validation, habitat assessments and opportunistic threatened species surveys.

A summary of the survey effort is provided in **Table 2-4**.

TABLE 2-4 FIELD SURVEY UNDERTAKEN IN THE PROJECT AREA

Dates	Target	Techniques	Survey Effort
18-21 September 2024	Vegetation and habitat assessment (including targeted threatened species surveys)	<ul style="list-style-type: none"> Assessment of habitat features present relating to relative cover and abundance of nesting/shelter/basking sites, presence of aquatic habitats, presence of foraging resources, dominant canopy species, connectivity and disturbances. 	<ul style="list-style-type: none"> 3 Quaternary assessments, 3 Bio-Condition assessments, 4 habitat quality assessments, Roaming bird surveys

Dates	Target	Techniques	Survey Effort
		<ul style="list-style-type: none"> • Representative sampling for regional ecosystem verification using quaternary vegetation sampling (Neldner et al., 2023) • Bio-condition Assessment. • Opportunistic threatened species surveys for MSES identified with potential to occur, as described in the LoO assessment (Appendix A) 	<p>throughout survey period, and</p> <ul style="list-style-type: none"> • Meanders for threatened species habitat inclusive of identifying fauna breeding places.

3. MATTERS OF STATE ENVIRONMENTAL SIGNIFICANCE

MSES are defined within the Significant Residual Impact Guidelines (DEHP, 2014) and prescribed activities assessable under the *Sustainable Planning Act 2009*. The *Sustainable Planning Act 2009* has been superseded by the *Planning Act 2016*, but the Policy only references the *Sustainable Planning Act 2009* at this time. Relevant MSES are outlined in **Table 3-1**.

TABLE 3-1 MATTERS OF STATE ENVIRONMENTAL SIGNIFICANCE IN THE PROJECT AREA

Matter	Relevance to the Proposed Development
Regulated vegetation	Category B remnant vegetation that is Endangered/Of concern Regional Ecosystem (RE) is present in the Project Area as 2.8 hectares (ha) ¹ .
Connectivity Area	The Project Area is mainly secluded from national and state parks, conservation parks and reserves.
Wetlands and watercourses	In accordance with the Development Assessment Mapping System (DAMS) mapping, there are no wetlands or watercourses mapped as high ecological significance, or high ecological value, within the Project Area.
Designated Precincts in Strategic Environmental Areas	In accordance with the DAMS mapping, no Regional Interest Areas are recorded over the Project Area. This mapping is in accordance with the <i>Regional Planning Interests Act 2014</i> which governs the framework for Strategic Environmental Areas.
Protected Wildlife Habitat	In accordance with the DAMS mapping, no Protected Wildlife Habitat is present within the Project Area.
Protected Areas	There are no national parks, conservation parks or protected Areas under the NC Act within the Project Area. The closest protected Area is Girringun Forest Reserve to the direct Northwest of the Project Area and lifeway Nature Refuge to the direct North of the Project Area.
Declared Fish Habitat Areas and Highly Protected Zones of State Marine Parks	In accordance with DAMS mapping, there are no declared fish habitat Areas within the Project Area.
Waterways Providing for Fish Passage	In accordance with DAMS mapping, there are no waterways providing for fish passage within the Project Area.
Marine Plants	There are no marine plants on the Project Area.
Legally Secured Offset Areas	There are no legally secured offset Areas within the Project Area.

¹ For the purposes of this assessment, total hectare calculations are rounded to one decimal place.

3.1 REGULATED VEGETATION

3.1.1 REGIONAL ECOSYSTEMS AND REGULATED VEGETATION

The VM Act differentiates between vegetation that is Least Concern, Of Concern, and Endangered REs. REs are Queensland vegetation communities found within a particular bioregion that have a consistent combination of geology, landform and soil type, as determined by the Queensland Herbarium.

Figure 3- displays the RE mapping undertaken by the Queensland Government within the Project Area. A large portion of the Project Area is mapped as Category B remnant vegetation, with RE types classed (under the VM Act) as Least Concern (6 ha) and Of concern (2.8 ha).

The majority of remnant vegetation present within the Project Area is RE 7.12.29a, *Corymbia intermedia*, *Eucalyptus tereticornis*, *E. drepanophylla* open forest to low open forest and woodland with *Allocasuarina torulosa*, *A. littoralis*, *Lophostemon suaveolens*, *Acacia cincinnata*, *A. flavescens*, *Banksia aquilonia* and *Xanthorrhoea johnsonii*. Uplands, on granite and rhyolite.

A summary of REs present within the Project Area is provided in **Table 3-2**.

TABLE 3-2 REGIONAL ECOSYSTEMS WITHIN THE PROJECT AREA

Regional Ecosystem	Description	Structure Category	VMA Status	Biodiversity Status	VMA structure category	Project Area (ha)	Development Footprint (ha)
7.12.29a	<i>Corymbia intermedia</i> , <i>Eucalyptus tereticornis</i> , <i>E. drepanophylla</i> open forest to low open forest and woodland with <i>Allocasuarina torulosa</i> , <i>A. littoralis</i> , <i>Lophostemon suaveolens</i> , <i>Acacia cincinnata</i> , <i>A. flavescens</i> , <i>Banksia aquilonia</i> and <i>Xanthorrhoea johnsonii</i> . Uplands, on granite and rhyolite. Not a Wetland.	Open Forest	LC	NC	Mid-dense	6	2.5
7.5.4a	<i>Corymbia intermedia</i> +/- <i>Eucalyptus tereticornis</i> woodland and open forest with <i>Allocasuarina torulosa</i> , <i>A. littoralis</i> , <i>Lophostemon suaveolens</i> , <i>Acacia flavescens</i> , <i>Banksia aquilonia</i> and <i>Xanthorrhoea johnsonii</i> . Weathered soils and laterite of a remnant surface. Not a Wetland.	Open Forest	OC	OC	Mid-dense	2.6	1.1
7.5.4f	<i>Corymbia intermedia</i> , <i>Allocasuarina torulosa</i> , <i>Lophostemon suaveolens</i> open forest and woodland. Deep weathered soils of basalt origin. Not a Wetland.	Open Forest	OC	OC	Mid-dense	0.2	0.1

Regional Ecosystem	Description	Structure Category	VMA Status	Biodiversity Status	VMA structure category	Project Area (ha)	Development Footprint (ha)
7.8.18a	<i>Corymbia intermedia</i> , <i>Eucalyptus tereticornis</i> , <i>E. granitica</i> open forest to woodland with <i>Allocasuarina torulosa</i> , <i>A. littoralis</i> , <i>Lophostemon suaveolens</i> , <i>Acacia cincinnata</i> , <i>A. flavescens</i> , <i>Banksia aquilonia</i> and <i>Xanthorrhoea johnsonii</i> . Basalt. Contains Palustrine.	Open Forest	OC	OC	Mid-dense	0.04*	0.01*
Non-remnant						0	0

*Two decimal places used to identify minimal impact to this RE for the purposes of completeness, recognising however, that total area figures are rounded to one decimal place.



Legend

- Development Footprint
- Study Area

Regional Ecosystem

- 7.12.29a/7.5.4a
- 7.5.4f
- 7.8.18a
- non-rem

- Unconstructed Road

Source:
Base Data: QSpatial

Coordinate System:
GDA2020 MGA Zone 55

Date: 07/01/2026

Created By: MB / BC

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0 40 80m

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F3-1 Regional Ecosystems within the Study Area

Gawara Baya Wind Farm Connection Project
MSES/MLES Report
 Client: Powerlink Queensland



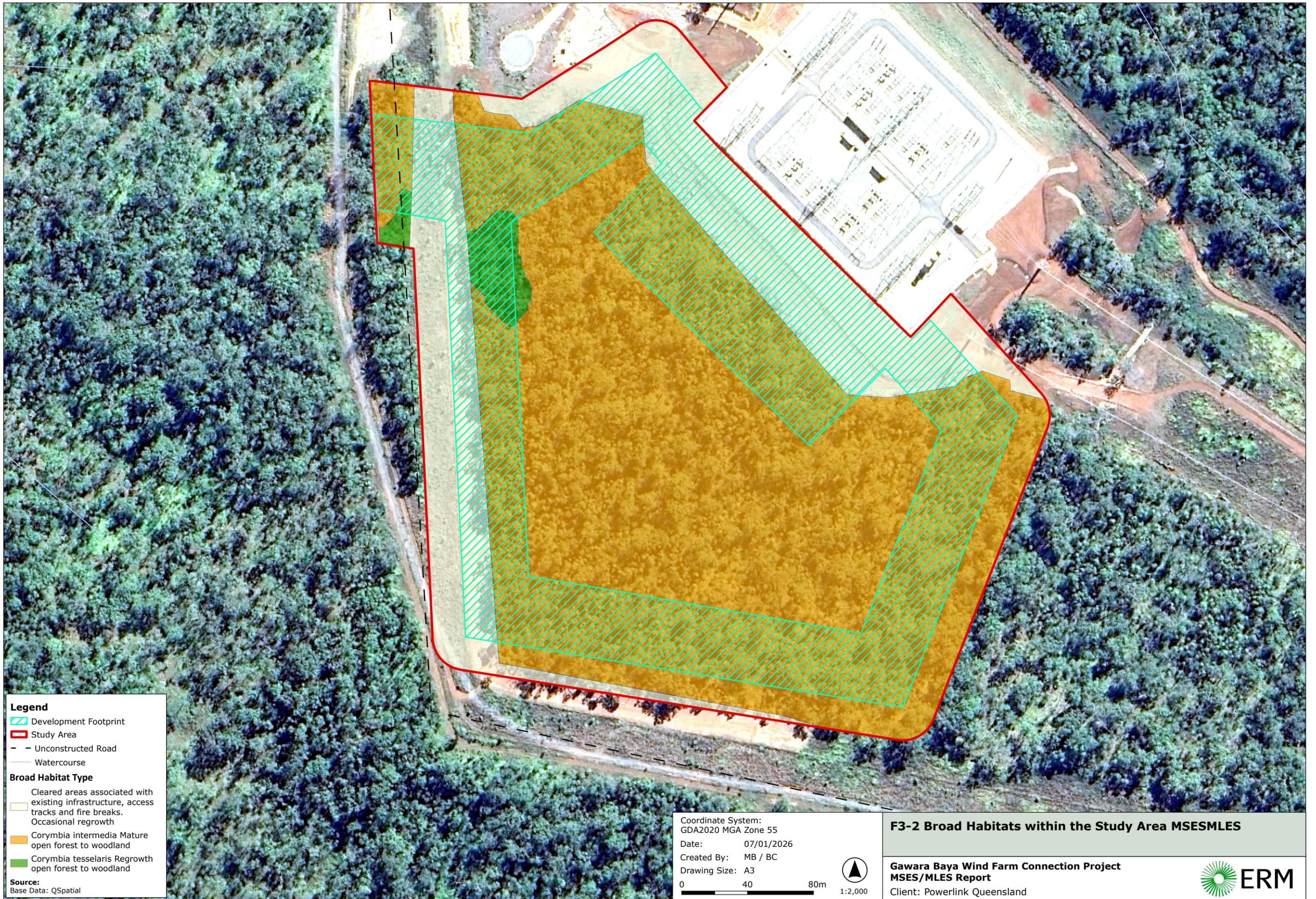
3.1.2 WILDLIFE HABITAT FOR NC ACT LISTED SPECIES

The Project Area has been separated into three broad habitat types. These habitats can be aligned with REs (based on ground truthed data) and represent potential habitat for a variety of taxa. The habitats within the Project Area are mostly in moderate condition, with signs of modification due to cattle grazing, and the presence of introduced flora species.

Broad habitat types are defined and mapped based on desktop mapping and ground-truthed observations. Associated REs are delineated from ground-truthed assessments and then grouped based on their characteristics and functionality. Broad habitat types observed within the Project Area include:

- *Corymbia intermedia* Mature open forest to woodland - Largely consistent with the vegetation characteristics of RE 7.12.29a, 7.5.4f, and 7.5.4a;
- *Corymbia tessellaris* Regrowth open forest to woodland - Largely consistent with the vegetation characteristics of RE 7.8.18a. Signs of modification (cattle grazing, and introduced flora); and
- Cleared areas associated with existing infrastructure, access tracks and fire breaks.

The BHTs are mapped within Figure 3-2.



Legend

- Development Footprint
- Study Area
- Unconstructed Road
- Watercourse

Broad Habitat Type

- Cleared areas associated with existing infrastructure, access tracks and fire breaks. Occasional regrowth
- Corymbia intermedia* Mature open forest to woodland
- Corymbia tessellaris* Regrowth open forest to woodland

Source:
Base Data: QSpatial

Coordinate System:
GDA2020 MGA Zone 55

Date: 07/01/2026

Created By: MB / BC

Drawing Size: A3

0 40 80m

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F3-2 Broad Habitats within the Study Area MSES/MLSES

Gawara Baya Wind Farm Connection Project
MSES/MLSES Report

Client: Powerlink Queensland



3.2 FLORA SPECIES

The likelihood of occurrence assesses the likelihood of all plants identified in desktop research occurring in the Project Area. **Table 2-1** discusses the processes used to assess each species. Desktop analysis has assessed *Acacia tingoorensis* as having the potential to occur within the Project Area.

3.2.1 NC ACT LISTED THREATENED FLORA WITH POTENTIAL TO OCCUR

No NC Act listed flora species were assessed as known, likely or potential to occur within the Project Area based on the likelihood of occurrence assessment.

Habitat of the listed species is limited within the Project Area and potential impacts are unlikely to be significant to the species. Additionally, any pre-clearance surveys will be utilised as part of layout design will further assess for presence of the species. The Project Area is not located within a protected plant trigger map.

No NC Act threatened flora were detected during field survey.

3.2.2 INTRODUCED FLORA SPECIES

One introduced flora species, *Lantana camara*, listed as a Weed of National Significance (WoNS) and Category 3 restricted biosecurity matter under the Queensland Biosecurity Act 2014 is known to occur within the Project Area (**Table 3-3**).

Category 3 restricted invasive species under the *Biosecurity Act 2014* must not be given away, sold or released into the environment. The proponent must take reasonable and practical measures to minimise the biosecurity risks associated with dealing with lantana, known as a general biosecurity obligation. Local government biosecurity plans may also need to be consulted to determine any local measures that should be adopted for management and included in a Project Biosecurity Management Plan.

The Australian Weeds Strategy (2017-2027) provides information on the best practices for management of WoNS, including prevention and early detection of weeds and the minimisation of the impact of established weeds (Invasive Plants and Animals Committee, 2016). Such principles from the Australian Weed Strategy should be considered as part the Project Biosecurity Management Plan.

TABLE 3-3 INTRODUCED WONS KNOWN TO OCCUR IN THE PROJECT AREA

Species Name	Common Name	WoNS	Biosecurity Act Status
<i>Lantana camara</i>	lantana	Yes	Category 3 - Restricted invasive

Other introduced species recorded in the Project Area during the survey effort, but no listed as WoNS or under the *Biosecurity Act 2014* include:

- Billy goat weed (*Ageratum conyzoides*);
- Praxelis (*Praxelis clematidea*);
- Corky passion vine (*Passiflora suberosa*); and
- Cobbler's pegs (*Bidens Pilosa*).

3.3 FAUNA SPECIES

The likelihood of occurrence assesses the likelihood of NC Act listed fauna identified in desktop assessment with potential occurrence within the Project Area. A LoO assessment identified three NC Act listed fauna species as likely to occur and 13 species with the potential to occur within the Project Area.

3.3.1 NC ACT LISTED THREATENED FAUNA LIKELY TO OCCUR

Three NC Act listed fauna species were considered as likely to occur these include:

- White-throated Needletail (Vulnerable, NC Act); and
- Koala (Endangered, NC Act).

No NC Act listed fauna species were observed within the Project Area. Nevertheless, they were assessed as likely to occur within the Project Area as their distribution overlaps, there are recent records of the species within the locality and the Project Area contains suitable habitat.

NC Act listed fauna species likely to occur are further discussed in **Table 3-4**.

TABLE 3-4 NC ACT LISTED FAUNA LIKELY TO OCCUR WITHIN THE PROJECT AREA

Species Name	Common Name	NC Act Status	Habitat	Potential Habitat in the Project Area
<i>Hirundapus caudacutus</i>	White-throated Needletail	VU	In Australia, the White-throated Needletail is almost exclusively aerial, The species has been recorded roosting in trees in forests and woodlands, both among dense foliage in the canopy or in hollows (Corben, Roberts, & Smyth, 1982) & (Day, 1993) & (Quested, 1982) & (Tarburton, 1993).	Preferred roosting habitat associated with: <i>Corymbia intermedia</i> mature open forest to woodland BHT. 8.6 ha of potential roosting habitat in the Project Area.
<i>Phascolarctos Cinereus</i>	Koala	EN	Koalas in Queensland inhabit the moist coastal forests, southern and central western subhumid woodlands, and several eucalypt woodlands adjacent to waterbodies in the semi-arid western parts of the state. Koalas were patchily distributed, associated with creek-lines, Areas of higher tree species richness, with higher abundance correlating with leaf-moisture content (DAWE, 2022).	Preferred breeding and foraging habitat associated with: <i>Corymbia intermedia</i> Mature open forest to woodland BHT. 8.6 ha of potential breeding and foraging habitat in the Project Area. Preferred dispersal habitat associated with: <i>Corymbia tessellaris</i> regrowth open forest to woodland. 0.2 ha of potential dispersal habitat in the Project Area.

Status listing per NC Act: CR = Critically Endangered; EN = Endangered; NT = Near Threatened; VU= Vulnerable.

3.3.2 NC ACT LISTED THREATENED FAUNA WITH POTENTIAL TO OCCUR

A total of 12 NC Act Listed threatened fauna species have been assessed as having the potential to occur within the Project Area according to the likelihood of occurrence criteria. Mainly due to the 12 species distribution overlapping with the Project Area, as such, their presence cannot be ruled out. This is despite no signs or observations of these species within the Project Area based on the targeted field investigation using survey techniques aligned with survey guidelines. Species with potential to occur, and their habitat within the Project Area are discussed in **Table 3-5**.

It is noted that the pre-clearance surveys proposed will survey specific infrastructure locations for listed threatened fauna that have been identified as known, likely or having the potential to occur within the Project Area, to identify and avoid microhabitat features (e.g. hollow bearing trees) prior to clearing by a suitably qualified fauna spotter catcher.

TABLE 3-5 NC ACT LISTED FAUNA WITH POTENTIAL TO OCCUR WITHIN THE PROJECT AREA

Species Name	Common Name	NC Act Status	Habitat	Potential Habitat in the Project Area
<i>Calyptorhynchus lathamii erebus</i>	Glossy Black Cockatoo (northern)	VU	Whilst habitat data is limited for this subspecies, this bird likely feeds on seeds from she-oak trees, often occurring in woodlands and open forests dominated by she-oaks.	Preferred breeding and foraging habitat associated with: <i>Corymbia intermedia</i> Mature open forest to woodland BHT. 8.6 ha of potential breeding and foraging habitat in the Project Area. Foraging habitat associated with: <i>Corymbia tessellaris</i> regrowth open forest to woodland BHT. 0.2 ha of foraging dispersal habitat in the Project Area.
<i>Petauroides minor</i>	Greater Glider (northern)	VU	Largely restricted to eucalypt forests and woodlands of north-eastern Australia. It is typically found in highest abundance on high elevation, wetter sites in open woodland to open forests, containing relatively old trees and abundant hollows.	Preferred breeding and denning habitat associated with: <i>Corymbia intermedia</i> Mature open forest to woodland BHT. There is 8.6 ha of potential breeding/denning habitat. Preferred foraging and dispersal habitat associated with: <i>Corymbia tessellaris</i> regrowth open forest to woodland BHT. 0.2 ha of potential foraging and dispersal habitat in the Project Area.

Species Name	Common Name	NC Act Status	Habitat	Potential Habitat in the Project Area
<i>Erythrotriorchis radiatus</i>	Red Goshawk	E	<p>Breeding habitat is restricted to trees that are taller than 20 m and within 1 km of a permanent watercourse or wetland.</p> <p>Foraging habitat includes ecotones between habitats of differing densities. Rainforest, eucalypt forest, gallery forest, woodland, and edges of woodland or forest (e.g. where they meet grassland, cleared land, roads or watercourses).</p>	<p>No breeding habitat was recorded within the Project Area, due to an absence of any observed stick nests and no permanent watercourses or wetland areas within 1 km. Potential foraging habitat occurs within the Project Area, and it may be utilised occasionally by vagrant red goshawks during foraging as they move through the broader landscape.</p> <p>Broad habitat types that have the potential to be used by vagrant red goshawk individuals include:</p> <ul style="list-style-type: none"> • <i>Corymbia intermedia</i> mature open forest to woodland. • <i>Corymbia tessellaris</i> regrowth open forest to woodland. • 8.8 ha of potential foraging and dispersal habitat in the Project Area.

Status listing per NC Act: CR = Critically Endangered; EN = Endangered; NT = Near Threatened; VU= Vulnerable.

3.3.3 INTRODUCED FAUNA SPECIES

One invasive fauna species, Rabbit (*Oryctolagus cuniculus*) Category 3 restricted biosecurity matter, was recorded in the Project Area.

While not recorded, it is likely that the Project Area also provides suitable habitat for the following invasive fauna species:

- Cane toad (*Rhinella marina*);
- Cat (*Felis catus*);
- Dog (*Canis familiaris*); and
- Indian myna (*Acridotheres tristis*).

3.4 WATERCOURSES AND WETLANDS

DAMS mapping, published by the Queensland government, indicates the Project Area does not contain any major rivers or creeks. Tributaries from Four Mile Creek and Michaels Creek are

within 250 m of the Project Area (Four Mile Creek; ~100 m & Micheals Creek; ~200 m) (Queensland Globe mapping).

These tributaries are ephemeral and will cease to flow on general basis. The main Creek system in the vicinity of the Project Area is Michaels Creek and the main body of water is ~1.7 km away. Thus, is not a drainage features associated with MSES watercourses. Furthermore, wetlands observed within the locality are not associated with DAMS mapping, suggesting that there are MSES wetlands within the Project Area. There are no high ecological value or high ecological significance wetlands that occur within the Project Area. No major watercourses or wetlands were observed within the Project Area during field surveys.

3.5 LOCAL PLANNING SCHEMES

The Project Area occurs within the Hinchinbrook Shire Council local government area. Alignment with local rules and regulations is required for the Project. Local government documents relevant to environmental matters within the Project Area include:

- Hinchinbrook Local Government Area Biosecurity Plan (2024-25) (Hinchinbrook Shire Council, 2024) - The Hinchinbrook Local Government Area Biosecurity Plan provides strategic direction for the management of priority weeds and pest animals (invasive biosecurity matter) on all land tenure within the Hinchinbrook local government area and has been developed for the entire community;
- Statement of Management Intent for Flying-Fox Roost Management in Hinchinbrook (2016) (Hinchinbrook Shire Council, 2016) - The Hinchinbrook Shire Council is committed to finding a balance between reducing conflict associated with flying-foxes roosting in urban areas, and the conservation and welfare of these important native species; and
- Hinchinbrook Shire Planning Scheme (2017) (Hinchinbrook Shire Council, 2017) - The Hinchinbrook Shire Planning Scheme 2017 (planning scheme) has been prepared in accordance with the Planning Act 2016 as a framework for managing development in a way that advances the purpose of the that Act.

The Project Area also occurs within the Charters Towers Regional Council local government area. Alignment with local rules and regulations is required for the Project. Local government documents relevant to environmental matters within the Project Area include:

- Charters Towers Regional Town Plan Version 2.0 (Charters Towers Regional Council, 2020)- The Planning Scheme has been prepared in accordance with the Planning Act 2016 as a framework for managing development in a way that advances the purpose of the Act.

4. MSES IMPACT ASSESSMENT

4.1 PROTECTED WILDLIFE HABITAT

The MSES Significant Residual Impact Assessment (SRIA) determines the significance of impacts to MSES by referring to the Significant Residual Impact Guideline for MSES and prescribed activities assessable under the *Sustainable Planning Act 2009* (SRIG) (Department of State Development, Infrastructure and Planning (DSDIP, 2014)). Criteria from the SRIA states an action will likely have to have an SRI for protected wildlife habitat for those listed endangered, vulnerable or special least concern if the action will;

- a) *lead to a long-term decrease in the size of a local population;*
- b) *reduce the extent of occurrence of the species;*
- c) *fragment an existing population;*
- d) *avoid genetically distinct populations forming as a result of habitat isolation;*
- e) *result in invasive species that are harmful to an endangered or vulnerable species becoming established in the endangered or vulnerable species' habitat;*
- f) *introduce disease that may cause the population to decline,*
- g) *interfere with the recovery of the species; OR*
- h) *cause disruption to ecologically significant locations (breeding, feeding, nesting, migration or resting sites) of a species.*

The proposed clearing footprint is relatively small- approximately 3.7 hectares of potential habitat within a broader landscape that retains extensive areas of similar vegetation. Field surveys confirmed that the habitat within the Development Footprint is in moderate condition and has been subject to historical disturbance, including grazing and weed invasion. No critical breeding sites or population strongholds were identified, and the habitat does not function as an essential corridor for species movement at a regional scale.

Design refinements have further reduced potential impacts by minimising clearing and maintaining connectivity where possible. The transmission line corridor has been narrowed from 60 metres to 40 metres, and pole locations have been micro-sited to avoid high-value habitat features. These measures, combined with pre-clearance surveys and fauna spotter-catcher protocols, will ensure that any residual impacts are managed effectively. Additional controls, such as weed management and biosecurity measures, will prevent the introduction of invasive species and reduce disease risk as outlined within **Section 5**.

When considered against the guideline criteria, the Proposed Action does not meet the thresholds for a Significant Residual Impact. The clearing will not result in a long-term decrease in local population size, nor will it fragment populations or disrupt ecologically significant locations. The disturbed nature of the habitat, combined with the scale of clearing and the mitigation measures proposed, means that impacts are minor and well within acceptable limits. Accordingly, offsets for protected wildlife habitat are not required under the *Environmental Offsets Act 2014*. This conclusion is consistent with the Commonwealth

determination under the EPBC Act that the action is not a controlled action, reinforcing that impacts are neither significant nor unacceptable

4.2 REGULATED VEGETATION

As per the SRIG an action is likely to have an SRI on endangered or of concern REs if the action results in:

- a) *clearing of more than 5ha of 'endangered' or 'of concern' RE vegetation;*
- b) *clearing that results in an overall area (not confined to property boundaries) of 'endangered' or 'of concern' RE vegetation of less than 5 ha; OR*
- c) *clearing that results in the physical separation of 'endangered' and 'of concern' RE communities within and on adjoining sites.*

In accordance with the VM Act, all the REs present are classified as mid-dense structure category. It is important to note that clearing, for non-linear infrastructure, which exceeds 0.50 ha in a mid-dense structural category RE or clearing for linear infrastructure greater than 10 m in width is a trigger for Significant Residual Impact assessment. It is expected that no significant residual impact will occur from this activity, and therefore no offsetting is required under the *Environmental Offsets Act 2014*.

5. MANAGEMENT AND MITIGATION MEASURES

Potential impacts of the Proposed Action will be managed to avoid, minimise, mitigate and if required offset impacts to MSES and MLES, incorporating Powerlink's standard environmental mitigation measures stipulated within Powerlink's standard Environmental Management Plan (EMP), as well as any additional specific mitigation measures required by specific MSES and MLES likely to be impacted by the Project.

The key objective of the impact management measures is to ensure that impacts to fauna are managed and are within permit requirements, and all impacts are avoided and minimised to the greatest extent possible. The impact management measures are listed in the following sections and the management hierarchy has been used to inform the process. This process is:

1. Avoid;
2. Minimise;
3. Mitigate; and
4. Offset.

These outcomes are listed in order of preference. The concept behind their use is that proponents must demonstrate that for any impact they make due to their action, they have first put in a justifiable effort to avoid the impact. If they are not able to avoid, (or if they are able to for some of the impact but not all) they then must demonstrate that they have put in a justifiable effort to minimise what impact they can't reasonably avoid. If they are not able to do that, justify likewise for mitigation. Only then must any remaining impact be offset following guidance from the *EPBC Act Environmental offsets policy*.

5.1 AVOIDANCE AND MINIMISATION THROUGH DESIGN

The design of the Project has undergone multiple iterations to avoid and minimise impacts to potential MSES and MLES habitat. The original design had a Development Footprint of approximately 7.6 ha, impacting approximately 7.0 ha of the *Corymbia intermedia* mature open woodland and *Corymbia tessellaris* regrowth open forest BHTs. Through design refinement, the Development Footprint has been reduced to 5.5 ha, with 3.7 ha impacting potential MSES and MLES habitat.

5.1.1 TRANSMISSION LINE DESIGN

To minimise the impacts of the transmission line component of the Project, the Proponent implemented design refinements to reduce required clearance width and pole locations that would avoid clearing MSES and MLES habitat as much as possible and manage potential impacts to cultural heritage.

5.1.2 CLEARANCE WIDTH

The Proponents asset management standards dictate a clearance width of 60 m for a single circuit 275 kV transmission line. The proponent undertook a design refinement activity to determine if the standard clearance width could be reduced whilst maintaining safe electrical operation of the asset. Internal design specialists reviewed elements such as, structure type, structure height and insulator arrangement, and the proponent's land and easement operational specialist reviewed the location and site context to assess the bush fire risk posed to the asset.

This review determined that a 40 m clear-to-sky clearance width, with future allowance to assess and treat individual marginal trees that grow to pose a risk to the safe operation of the asset, was deemed acceptable. This design change reduced the overall impact of the transmission line by a third.

5.1.3 POLE LOCATIONS

Pole locations were strategically chosen over multiple iterations to avoid clearing MSES and MLES habitat as much as possible and manage potential impacts to culturally sensitive areas, whilst meeting the electrical engineering requirements of the transmission line. Several design refinements have occurred during the planning phase, with the primary aim of maximising use of cleared areas associated with existing infrastructure and firebreaks, especially along the western boundary. This reduced the total amount of potential MSES and MLES habitat to be cleared to 4.41 ha. The final iteration utilised Lidar data to further microsite the poles to the edges of the *Corymbia intermedia* mature open woodland. This further reduced the total amount of potential MSES and MLES habitat to be cleared to 3.7 ha.

5.1.4 SUBSTATION EXTENSION DESIGN

The Guybal Munjan Substation's locality and existing infrastructure was leveraged when selecting a site to facilitate the connection of Windlab's 400 MW wind generation facility to Powerlink's transmission network. The transmission line connection to Guybal Munjan Substation requires an extension of its existing footprint to accommodate the two new 275 kV feeder bays. The Development Footprint is a conservative estimate that allows for these feeder bays, cutter batter and an adequate distance from vegetation for the management of bush fire risk to the asset. Topography is the greatest driver for the size of the extension area to the substation. With more data, such as geotechnical, civil design will seek every opportunity to reduce this footprint where possible.

5.2 FURTHER MANAGEMENT AND MITIGATION MEASURES

The management and mitigation measure specific to ecological values identified in this report are provided in **Table 5-1**.

TABLE 5-1 KEY MANAGEMENT AND MITIGATION MEASURES

Impact	Hierarchy	Relevance to Identified Impact
Clearing native vegetation and loss of habitat for native fauna	Avoidance	<ul style="list-style-type: none"> Key microhabitat features such as tree hollows, fallen logs, providing key ecological functions to birds, arboreal and terrestrial mammals, reptiles, birds, and microbats will be avoided where possible during construction. Areas where microhabitat features are abundant, particularly within remnant eucalypt open forest in the centre of the Project Area (being >50 m from the substation and road corridors), will be completely avoided by the Project. <p>The Project design has resulted in a reduced clearing extent, now being 40 m, and utilising previously disturbed areas where possible. These design measures will assist in retaining</p>

Impact	Hierarchy	Relevance to Identified Impact
	Minimise	<p>key microhabitat features within the Project Area. See Figure 1- which shows the Development Footprint within the entire Project Area, reflecting how only the necessary amount of the Project Area is being cleared.</p> <ul style="list-style-type: none"> • Any vegetation clearing, regardless of its suitability for listed threatened species will undergo a pre-clearance assessment to minimise risk of unforeseen impact to MSES and MLES species; • Where risks are identified from pre-clearance assessments, a qualified fauna spotter-catcher will undergo searches immediately prior to clearing of any vegetation for presence of any fauna species. If fauna species or nesting sites are detected, the fauna spotter catcher will assess the most appropriate course of action to method to avoid or minimise impacts from clearing to MSES and MLES. Activities that interfere with fauna breeding places will be managed under a Species Management Plan, approved by DETSI; • To minimise indirect disturbance to adjacent vegetation, vehicles and associated equipment/ machinery will be confined to approved work areas along with demarcation of no-go zones; • Construction workers will be made aware of management requirements through site inductions and regular check-ins during the construction phase. Site inductions and toolbox talks will inform all workers and contractors of potential environmental risks and impacts, vegetation clearing requirements and limitations, no go zones as well as methods to minimise, avoid and mitigate potential impacts to MSES and MLES specific to their functional roll; • The Project’s Environmental Management Plan A will be implemented to ensure that clearing is undertaken in accordance with legislative standards and requirements; and • Where pre-clearance assessments find key microhabitat features within unavoidable clearance zones, these will be inspected for fauna. Where fauna is found they will be relocated to adjacent or nearest suitable habitat.

Impact	Hierarchy	Relevance to Identified Impact
Indirect impacts to species behaviour through creating barriers to movement and dispersal	Mitigate	<ul style="list-style-type: none"> Two patches of remnant or regrowth vegetation will be fragmented by the Project, which are 0.2 ha and 8.6 ha in size. This area is very small compared to vegetation in the broader region. The Project will also not result in impermeable barrier, such as large clearings or new fences. The fragmentation is a result of the clearing underneath the new transmission lines, which will still allow for movement of some fauna species that are able to utilise areas of open ground for dispersal.
	Manage	<ul style="list-style-type: none"> Construction activities and associated machinery will occur only within clearly zoned work areas, and not enter/affect any adjacent vegetated areas; Where fauna species are identified on site during the construction phase and cannot self-relocate, a qualified fauna spotter catcher will be required to facilitate relocation; and Fauna management measures will be implemented during construction to reduce any impacts associated with fauna entrapment or interactions with construction activities. This will include measures in the Projects Environmental Management Plan and Species Management Plan to provide for the capture and release of any fauna that are encountered during construction activities.
Indirect impacts to adjacent habitat areas due to noise, dust, runoff, and erosion, including impacts to downstream environments	Minimise	<ul style="list-style-type: none"> Dust will be controlled via engineering controls on machinery and dust suppression tools will be utilised through the entire construction phase of the Project; A qualified fauna spotter-catcher will undergo searches immediately prior to clearing of any vegetation for presence of any fauna species. If fauna species or nesting sites are detected, the qualified fauna spotter catcher will assess and conduct the most appropriate method at the time to avoid or minimise impacts; Site inductions will delineate to workers and contractors the potential impacts of dust emissions and provide mitigation / management measures that will be implemented; All vehicles and plant machinery will comply with site-specific speed limits (40 km per hour or less) to minimise dust generation;

Impact	Hierarchy	Relevance to Identified Impact
		<ul style="list-style-type: none"> • Sediment and erosion controls will be implemented across the construction site in accordance with <i>Best Practice Erosion & Sediment Control IECA</i>, and the Contractor's erosion and sediment control procedures; and • During construction measures will be implemented to minimise impacts to natural drainage (e.g., disturbance of natural drainage features).
Indirect impacts to adjacent habitat areas due to an introduction or spread or weed and pest species	Avoidance	<ul style="list-style-type: none"> • Biosecurity protocols and management procedures will be implemented to manage any biosecurity risks during construction and operation. These biosecurity protocols and management procedures will be implemented in accordance with the Project's Environmental Management Plan; • Access to the landholder's property will not occur unless authorised under a land access agreement; and • Construction workers and contractors will be advised of biosecurity threats for the Project.
	Minimise	<ul style="list-style-type: none"> • Material that is transported to site will be assessed and cleared of biosecurity matters and be supported by a weed and seed biosecurity declaration prior to entry and usage; • Mitigation measures, such as appropriate waste management, will be implemented to minimise the risk of attracting pest species; • Weeds of National Significance and Category 3 invasive biosecurity matters, where identified, will be monitored, and managed within the Project Area to prevent incursion into new areas; and • Site inductions will detail construction workers and contractor's biosecurity obligations, potential risks from invasive flora and fauna species, and management and mitigation measures for their prevention and control.
Direct mortality or injury to native fauna during construction and operations	Minimise	<ul style="list-style-type: none"> • A qualified fauna spotter-catcher will undergo searches immediately prior to clearing of any vegetation for presence of any fauna species. If fauna species or associated habitat features (e.g., hollows, nests, wood piles, logs) are detected, the fauna spotter catcher will assess and engage the most appropriate method to avoid or minimise impacts; • Site inductions will delineate to construction workers and contractors' potential impacts to native fauna from construction activities, reporting requirements, and mitigation and

Impact	Hierarchy	Relevance to Identified Impact
		<p>management measures that need to be implemented;</p> <ul style="list-style-type: none"> • No driving will occur in unauthorised areas and reduced speed limits will be implemented; • Use of barbed-wire fencing will be minimised as much as practical, and where the use of barbed wire is essential for security and infrastructure, implementation of high visibility tags to minimise potential impacts to <i>Pteropus spp.</i> And gliders during construction and operation phases; • Injured, sick or dead fauna will be recorded and reported, for the duration of construction and operation phases. A qualified fauna spotter catcher will carry out a return of operations fauna report during the construction phase. Where injured or sick fauna are detected, individuals will be taken to the nearest wildlife carer or veterinarian if practical; and • Fauna management measures, as part of an Environmental Management Plan, will be prepared and implemented that details further measures to avoid minimise and mitigate impacts to fauna.
Fragmentation of connectivity areas	Mitigate	<ul style="list-style-type: none"> • Non-work zones will be clearly marked to ensure clearing only occurs in designed footprint and does not create unnecessary fragmentation; • Only one patch of remnant or regrowth vegetation will be potentially fragmented from other remnant vegetation by the Project through the clearing required for the transmission line easement. This retained fragment is 4.1 ha in size, and as the corridor is reduced to clearing 40 m to support connectivity, connectivity for mobile fauna will be maintained across the cleared 40 m easement underneath the transmission lines; • Temporary fencing will be implemented around substation works and excavations will be covered to minimise harm to fauna; • Any fencing or flagging material must be maintained in good condition and replaced as soon as practical if damaged/removed to reduce the potential for accidental clearing; and • All fencing must be fauna friendly (i.e., does not inhibit the movement of wildlife) unless specifically erected to exclude fauna from trenches and pits etc.

Impact	Hierarchy	Relevance to Identified Impact
	Minimise	<ul style="list-style-type: none"> • Areas that have been cleared and are no longer required will be allowed to naturally revegetate. Revegetation works will in general will be limited to natural regrowth.
Disturbance to MSES and MLES	Avoid	<ul style="list-style-type: none"> • Areas of identified threatened flora and fauna habitat will be avoided and minimised at design phase; • The Development Footprint, comprising the infrastructure, has been refined throughout the design phase based on high level preliminary constraints and the EPBC Act precautionary principle with relation to potential habitat for MSES and MLES; and • Species habitat will be outlined and displayed in work programs and management plans (e.g. the Project's Environmental Management Plan) throughout the construction phase and operational phase for each program of works.
	Minimise	<ul style="list-style-type: none"> • Wherever practical, signage should be erected to increase awareness of potential habitat for MSES and MLES within the Project Area; • Speed limits will be enforced on all access roads, limited to 40 km/hour across the Project Area; • All vehicles plant, equipment and machinery will remain within the designated access tracks; • Vegetation will only be removed that has been approved to be cleared; • A qualified fauna spotter-catcher will undergo searches immediately prior to clearing of any vegetation for presence of any fauna species. If fauna species or associated habitat features (e.g., hollows, nests, wood piles, logs) are detected, the fauna spotter catcher will assess and engage the most appropriate method to avoid or minimise impacts; and • Where disturbance to MSES and MLES habitat is unavoidable individuals and surrounding micro-habitat features (like logs etc.) will be translocated to suitable areas (where possible). • Where impacts occur in northern greater glider habitat, hollows will be supplemented with nest boxes where practicable.

6. CONCLUSIONS AND RECOMMENDATIONS

To assess the potential impact to ecological values associated with the proposed development, an ecological assessment was undertaken to determine the ecological values within the Project Area. The ecological assessment included a singular field investigation undertaken in September 2024. A summary of key results highlighted in this report are presented below.

The Project Area consists of three broad habitat types:

- *Corymbia intermedia* Mature open forest to woodland - Largely consistent with the vegetation characteristics of RE 7.12.29a, 7.5.4f and 7.5.4a;
- *Corymbia tessellaris* Regrowth open forest to woodland - Largely consistent with the vegetation characteristics of RE 7.8.18a. Signs of modification via cattle grazing and introduced flora; and
- Cleared Areas associated with existing infrastructure, access tracks and fire breaks.

Regulated vegetation mapped within the Project Area contains 2.8 ha of endangered and of concern REs regulated under the VM Act. Most of the remnant vegetation, 6 ha, within the Project Area is mapped as least concern.

DoR mapping is generally consistent with on-ground observations from the field investigation. The habitats in the Project Area are mostly in moderate condition, with signs of degradation due to cattle grazing, and the presence of introduced flora species.

No NC Act listed threatened species were assessed as known to occur within the Project Area. In total, three NC Act listed threatened species were identified as likely to occur in the Project Area, with a further thirteen NC Act listed threatened species identified as having the potential to occur in the Project Area.

The activity is not expected to result in any significant residual impacts to MSES, and as such, no offset is required under the *Environmental Offsets Act 2014*.

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APPENDIX A LIKELIHOOD OF OCCURENCE

A. METHODOLOGY

A.1 LIKELIHOOD OF OCCURRENCE

A preliminary likelihood of occurrence assessment was undertaken informed by desktop sources and a final likelihood of occurrence was refined from results of the field surveys. Desktop sources identified several flora and fauna species listed under the EPBC Act (i.e. PMST search) and NC Act (i.e. WildNet database) that have previously been recorded or predicted to occur within a 10 km² buffer of the Study Area. The buffered area is from herein referred to as the 'Locality'. The 10 km buffer was chosen as this is the standard buffer distance utilised and adopted for the EPBC Act referral process.

The likelihood of occurrence approach refines the desktop generated list using site-specific information and specific-species habitat information obtained from field surveys. Desktop sources are indicative only and likelihood rankings, particularly regarding the presence of preferred habitat, are conservative. The assessment ranks the likelihood of the species occurring within the Study Area through analysis of species distribution information and the presence of specific habitat attributes as identified through the desktop analysis and field survey. The criteria applied are outlined in Table A-1.

According to the MNES terminology, suitable habitat are areas or a location which has the potential to provide necessary resources needed for the maintenance of a population. This can include things like breeding, nesting and foraging habitat features or food resources. Suitable habitat are areas that also could have been used transiently by a species.

Habitat and distribution information for MNES is sourced from SPRAT profiles and/or Conservation Advice where available, supplemented by other primary sources (e.g. published literature). Species records were sourced from WildNet and/or ALA. Where a species' presence cannot be discounted, they are categorised as having the potential to occur.

Recent records within the Locality are defined as less than 20 years.

TABLE A-1 LIKELIHOOD OF OCCURRENCE CRITERIA

	Preferred Habitat Present	General Habitat Present¹	Habitat Not Present²
Records within Study Area (based on the Study Area surveys and recent (last 20 years) records)	Known	Known	Known
Records in the Locality³	Likely	Potential	Unlikely
No records in the Locality, but Study Area is within known distribution	Potential	Potential	Unlikely
No records in the Locality, and Study Area is outside of distribution	Unlikely	Unlikely	Unlikely

¹Habitat may be considered potential, but not known suitable because: some desired habitat features may be present, but not all; habitat may have poor connectivity; or habitat may be known to be disturbed; or suitable habitat requires confirmation.

²Based on sources reviewed and/or field survey results.

³'Locality' refers to a 10 km buffer of the Study Area.

A.2 FLORA AND FAUNA

A.2.1 THREATENED SPECIES

Based on the outputs from a Protected Matters Search Tool (PMST) database extract including the Study Area and a 10km buffer, a total of **64** MNES were considered in the LoO Assessment, including **48** listed threatened species, **15** listed migratory species and **1** threatened ecological communities.

Of these species and communities, **no** EPBC Act listed threatened/migratory species are considered known to occur in the Study Area, **3** are considered as likely to occur, and **2** are considered as having the potential to occur. **One** NC Act listed threatened species has the potential to occur. The remaining species are considered unlikely to occur in the Study Area. Species that are MNES or MSES considered as known, likely or as having the potential to occur in the Study Area are presented in Table A-2, with their full assessments provided in Table A-4.

One threatened ecological community was identified in the PMST, Broad leaf tea-tree (*Melaleuca viridiflora*) woodlands in high rainfall coastal north Queensland, was considered under the likelihood of occurrence Assessment, and confirmed to not be present in the Project Area through field verification.

TABLE A-2: THREATENED SPECIES KNOWN OR LIKELY TO OCCUR WITH THE SITE

Scientific Name	Common name	EPBC Act Status ¹	NC Act Status ²
Likely			
<i>Apus pacificus</i>	Fork-tailed swift ³	Mi	-
<i>Hirundapus caudacutus</i>	White-throated needletail ³	VU, Mi	VU
<i>Phascolarctos cinereus</i>	Koala	EN	EN
Potential			
<i>Calyptorhynchus lathami erebus</i>	Glossy black cockatoo (northern)	-	VU
<i>Erythrotriorchis radiatus</i>	Red goshawk	EN	EN
<i>Petauroides minor</i>	Northern greater glider (northern)	V	VU

¹ EPBC Act status: VU = vulnerable; EN = endangered; Mi = migratory

² NC Act status: VU = vulnerable; EN = endangered

³ Aerial flyover species only with no terrestrial habitat

A.2.1.1 INVASIVE/PEST SPECIES

The desktop searches and during field surveys revealed 65 invasive species, 62 of which are floral species and **3** are fauna species within a 20 km radius of the site, refer to Table A-3.

TABLE A-3: INVASIVE SPECIES RECENTLY* RECORDED

Scientific Name	Common name
Amphibians	
<i>Rhinella marina</i>	Cane toad
Birds	
<i>Acridotheres tristis</i>	Common Myna
Mammals	
<i>Oryctolagus cuniculus</i>	Rabbit
Plants	
<i>Asclepias curassavica</i>	Red-head cottonbush
<i>Acanthospermum hispidum</i>	Star burr
<i>Ageratum conyzoides</i>	Billygoat weed
<i>Bidens bipinnata</i>	Bipinnate beggar's ticks
<i>Bidens pilosa</i>	-
<i>Eleutheranthera ruderalis</i>	-
<i>Emilia sonchifolia var. javanica</i>	-
<i>Emilia sonchifolia var. sonchifolia</i>	-
<i>Erigeron pusillus</i>	-
<i>Erigeron sumatrensis</i>	-
<i>Parthenium hysterophorus</i>	Parthenium weed
<i>Praxelis clematidea</i>	-
<i>Synedrella nodiflora</i>	-
<i>Drymaria cordata subsp. cordata</i>	-
<i>Tradescantia zebrina</i>	-
<i>Argyreia nervosa</i>	-
<i>Cyperus brevifolius</i>	Mullumbimby couch
<i>Cyperus sphaclatus</i>	-
<i>Eleocharis minuta</i>	-
<i>Hyptis capitata</i>	-
<i>Alysicarpus bupleurifolius</i>	Sweet alys
<i>Alysicarpus vaginalis</i>	-
<i>Chamaecrista rotundifolia var. rotundifolia</i>	-

Scientific Name	Common name
<i>Crotalaria grahamiana</i>	-
<i>Crotalaria laburnifolia</i>	-
<i>Crotalaria lanceolata subsp. lanceolata</i>	-
<i>Desmodium triflorum</i>	-
<i>Neonotonia wightii var. wightii</i>	-
<i>Senna obtusifolia</i>	-
<i>Stylosanthes guianensis var. guianensis</i>	-
<i>Stylosanthes hamata</i>	-
<i>Stylosanthes humilis</i>	-
<i>Malvastrum coromandelianum subsp. coromandelianum</i>	-
<i>Sida acuta</i>	Spinyhead sida
<i>Urena lobata</i>	Urena weed
<i>Passiflora suberosa subsp. litoralis</i>	-
<i>Rivina humilis</i>	-
<i>Scoparia dulcis</i>	Scoparia
<i>Axonopus fissifolius</i>	-
<i>Cenchrus echinatus</i>	Mossman River grass
<i>Dichanthium aristatum</i>	Angleton grass
<i>Digitaria ciliaris</i>	Summer grass
<i>Digitaria violascens</i>	Bastard summergrass
<i>Echinochloa colona</i>	Awnless barnyard grass
<i>Melinis minutiflora</i>	Molasses grass
<i>Melinis repens</i>	Red natal grass
<i>Paspalum paniculatum</i>	Russel River grass
<i>Sporobolus fertilis</i>	Giant Paramatta grass
<i>Sporobolus natalensis</i>	-
<i>Themeda quadrivalvis</i>	Grader grass
<i>Urochloa mosambicensis</i>	Sabi grass
<i>Urochloa subquadripara</i>	-
<i>Mitracarpus hirtus</i>	-
<i>Oldenlandia corymbosa var. corymbosa</i>	-

Scientific Name	Common name
<i>Richardia brasiliensis</i>	White eye
<i>Citrus x limon</i>	-
<i>Capsicum frutescens</i>	-
<i>Solanum nigrum</i>	-
<i>Triumfetta rhomboidea</i>	Chinese burr
<i>Duranta erecta</i>	Duranta
<i>Lantana camara</i>	Lantana
<i>Stachytarpheta cayennensis</i>	-
<i>Stachytarpheta jamaicensis</i>	Jamaica snakeweed
<i>Verbena incompta</i>	-

A.2.1.2 WEEDS OF NATIONAL SIGNIFICANCE

A total of **64** introduced flora species were identified during the desktop assessment and field survey. Of these, **2** species, are identified as a Category 3 restricted biosecurity matter in Queensland under the *Biosecurity Act 2014* and Weeds of National Significance (WoNS). These species are Lantana and Parthenium.

TABLE A-4 LIKELIHOOD OF OCCURRENCE ASSESSMENT

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Threatened Ecological Communities					
Broad leaf tea-tree (<i>Melaleuca viridiflora</i>) woodlands in high rainfall coastal north Queensland	E	-		This ecological community represents occurrences of woodland with two clear structural layers, where <i>M. viridiflora</i> is dominant in the canopy and a diversity of grasses, sedges and forbs occupy the ground layer (Queensland Herbarium, 2011). Epiphytes are often conspicuous in the canopy trees. Shrubs may be present but are genera. <i>Themeda triandra</i> (kangaroo grass) or <i>Eremochloa bimaclata</i> (poverty grass) are usually dominant on slightly elevated or drier sites. <i>Xanthorrhoea johnsonii</i> (grass tree) can be a prominent species on sandier soils which are not inundated for long periods. Wetter sites are often dominated by <i>Ischaemum spp.</i> including <i>Ischaemum australe</i> (large bluegrass) and <i>I. fragile</i> , or they may be dominated by sedges and rushes. The ecological community is seasonally inundated for short periods during the wet season, which increased abundance of ephemeral ground layer species.	<p>Confirmed to not occur</p> <ul style="list-style-type: none"> Project Area is within the species distribution. No <i>Melaleuca viridiflora</i> trees or community identified during field survey.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Threatened Species					
Flora					
	<i>Acacia tingoorensis</i>	-	V	<p>Distributed near Kingaroy, in the Burnett district of south-eastern Queensland and from Ingham area in north-eastern Queensland. Tree with stout, angular branchlets covered in short, dense, spreading hairs. Phyllodes are narrowly elliptic, straight or sickle-shaped and 9-19cm long by 13-44mm wide. Species grows in eucalypt woodland or forest, on deep red loam, shallow loamy or sandy soils.</p> <p>Occurs and grows on low hills, near Kingaroy it grows on shallow loam and sand as an understory in eucalypt woodland and forms dense stands in disturbed situations along road verges; near Mt Garnet it grows on red lateritic soil (Tindale <i>et al.</i> 2018).</p>	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Survey effort considered sufficient to detect the species within the Project Area. Project Area is within the species distribution. Multiple records for the species occur within the locality. The closest recent record is dated in 2004 and is located approximately 7.1 km northwest to the Project Area. Soil type in the Project Area is primarily alluvia soil, the likelihood of <i>Acacia tingoorensis</i> to be present within the area is low, preferring red lateritic soil in the region of the Project Area.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
-	<i>Androcalva reticulata</i>	-	VU	<i>Androcalva reticulata</i> grows in woodland or open forest, from near Mount Garnet to Townsville in north-eastern Queensland.	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Survey effort considered sufficient to detect the species within the Project Area. Project Area is not within the species distribution.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Miniature Moss-orchid	<i>Bulbophyllum globuliforme</i>	V	NT	The species grows only on Hoop Pines (<i>Araucaria cunninghamii</i>), colonising the upper branches of mature trees in upland rainforest (Harrison, 2002; DECC, 2005a). It is a tiny rhizomatous orchid that grows on the bark of trees, forming a dense mat. It produces green, globular, bulb-like stems 1–2 mm in diameter	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjointing locality area. The closest record is dated in 2023 and is located approximately 22.5km southeast to the Study Area. The Study Area does not contain hoop pines required for this species, therefore is considered unlikely to occur within the Study Area.
	<i>Commersonia reticulata</i>	-	V	Species grows in woodland or open forest, from near Mount Garnet to Townsville in north-eastern Queensland. Collections have been taken from mesophyll vine forest along rivers and creeks with altitudes of 5 to 200 m.	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No recent records of this species are present within the Study Area or locality of the Study Area. The closest recent record is dated from 2020 and is located approximately 18 km northwest from the Study Area. Woodland and open forest is present within the Study Area, acting a suitable habitat for this species yet

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
					<p>there is a high weed load and disturbance from cattle.</p> <ul style="list-style-type: none"> However, mesophyll vine forest along rivers and creeks is not present, which reduces the likelihood of this species occurring.
Yellowjacket	<i>Blakella leptoloma</i>	V	VU	<p>Distributed only from a small area north-west of Townsville, Queensland. The species grows in wet sclerophyll forest in association with Turpentine (<i>Syncarpia glomulifera</i>), Red Mahogany (<i>Eucalyptus resinifera</i>) and Pink Bloodwood (<i>Corymbia intermedia</i>) in gullies or on hill slopes (Brooker & Bean, 1991). It occurs in coarse sandy soils derived from granite (Queensland Herbarium, 2008). All populations occur in areas of remnant vegetation (EPA, 2008) as defined under the Vegetation Management Act 1999 (Queensland). The distribution of this species is not known to overlap with any EPBC Act-listed threatened ecological communities.</p>	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. There is three recent ALA records located within the locality of the Study Area from 2021 to 2023. The closest record is approximately 0.7km north from the Study Area dated in 2023. During field surveys the approx. 7 ha Study Area was walked determining <i>Corymbia intermedia</i> is present within the Project, covering approximately 92% of the site, yet showed signs of disturbance in the form of cattle tracks and scat as well as a high weed load. No <i>Corymbia leptoloma</i> was identified.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
A cycad	<i>Cycas platyphylla</i>	V	VU	<i>Cycas platyphylla</i> occurs in open grassy woodland dominated by ironbark, in shallow loamy soils on stony slopes, over acid to intermediate volcanic soils (Holland, 2009).	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No recent ALA records are located within the Study Area or locality. The closest record is located approximately 38 km southeast from the Study Area and is dated in 2004. Open grassy woodland is not present within the Study Area; therefore, this species is considered unlikely to occur.
Bluegrass	<i>Dichanthium setosum</i>	V	LC	<p>Species is associated with heavy basaltic black soils and red-brown loams with clay subsoil.</p> <p>Often found in moderately disturbed areas such as cleared woodland, grassy roadside remnants and highly disturbed pasture. It is often collected from disturbed open grassy woodlands on the northern tablelands, where the habitat has been variously grazed, nutrient-enriched and water-enriched. The species may tolerate or benefit from disturbance, otherwise, disturbance is indicative of threatening processes in its habitat.</p>	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjointing locality area. The closest record is dated in 2006 and is located approximately 150 km southeast to the Study Area. No suitable habitat for this species exists within the Study Area.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
-	<i>Glossocardia orthochaeta</i>	-	E	Rare species from north-eastern Queensland, known from only three localities. It had not been collected for 40 years when rediscovered on Kallanda Station in 2001. It is suggested that this species is highly localised or restricted to microhabitats that are not often analysed by plant collectors (Pollock, 2001). Occurs on steep, rocky granite with boulder stacks and open granite pavements, also found on granitic lithosols on edge of open woodlands of <i>Araucaria cunninghamii</i> with dense shrub layer of <i>Labichea nitida</i> and <i>Acacia leptostachya</i> .	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. One record for the species occurs just outside of the locality of the Study Area. The closest record is dated in 2001, therefore is considered historic and is located approximately 10.6 km southeast to the Study Area. Species is seemingly data deficient; no suitable habitat has been identified within the Study Area however rocky boulders likely present.
-	<i>Hibbertia advena</i>	-	E	<i>Hibbertia advena</i> is known from several locations in the Mount Zero-Taravale Sanctuary, and from one location in the Ben Lomond Mining lease, west of Townsville, Queensland. These locations are in the Kennedy North botanical district and Broken River subregion of the Einasleigh Uplands IBRA (Interim Biogeographic Regionalisation for Australia) region (DAWE. 2022). It has been recorded growing on sand over granitic rocks in woodlands along creeklines with <i>Melaleuca fluviatilis</i> , <i>Eucalyptus camaldulensis</i> and <i>Lophostemon grandiflorus</i> .	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No recent records exist within the Study Area or the locality of the Study Area. Two WildNet records for the species occurs within a 20 km buffer of the Study Area. No suitable habitat exists within the Study Area for this species.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
	<i>Homoranthus cummingii</i>	-	CR	Known only from the vicinity of Mount Zero ~85km west of Townsville, Queensland. Plants grow in shallow, sandy soils among granite rocks.	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No recent records exist within the Study Area or the locality of the Study Area. Two WildNet records for the species occurs within a 20 km buffer of the Study Area. Occurs 25 km south of the Study Area
-	<i>Leichhardtia araujacea</i>	CE	CR	Records from a <i>Blepharocarya involucrigera</i> F. Muell. gallery forest; these are invariably associated with permanent water, albeit often by tapping underground springs or aquifers. <i>Blepharocarya</i> dominated communities are widespread; however, they are often linear in distribution following water courses or otherwise just around a water source (Foster, 2019).	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjoining locality area. No suitable habitat exists within the Study Area for this species.
-	<i>Leichhardtia brevifolia</i>	V	V	Species grows on serpentine or crumbly black soils, often with <i>Eucalyptus fibrosa</i> and <i>Corymbia xanthope</i> . Species tends to be found in rocky outcrops.	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjoining locality area. The closest, most recent record is dated in 2023 and is

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
					located approximately 20.8 km southeast to the Study Area. Two WildNet records are present for this species <ul style="list-style-type: none"> Required soil type with associated vegetation is seemingly not present within the Study Area.
-	<i>Lindsaea pulchella</i> var. <i>blanda</i>	V	-	<i>Lindsaea pulchella</i> var. <i>blanda</i> occurs on trunks of trees and tree-ferns in tropical rainforest (Kramer and McCarthy, 1998) often found among mosses, very rarely terrestrial, occurring from altitudes of 1500–2570 m (Kramer, 1971).	Unlikely to occur. <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjoining locality area. No suitable habitat exists within the Study Area for this species.
Lesser Swamp-orchid	<i>Phaius australis</i>	E	EN	<i>Phaius australis</i> grows in areas where soils are almost always damp, but not flooded for longer periods. Sands are generally the underlying soil type. The orchid is often found in coastal habitats between swamps and forests or in suitable areas further inland. This includes swampy sclerophyll forest dominated by melaleucas, swampy forest that often have sclerophyll emergents, or fringing open forest and melaleuca swamp forest associated with rainforest species. <i>P. australis</i> has also been recorded in wallum, sedgeland, rainforest and closed forest. They often grow in deep shade but	Unlikely to occur. <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjoining locality area. The closest, recent record is dated in 2012 and is located approximately 74 km north to the Study Area.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				also occurs in full sun. This species occurs at higher altitudes in northern Queensland (Barker 1995).	<ul style="list-style-type: none"> No suitable habitat present within Study Area, with an absence of swampy sclerophyll forest.
-	<i>Phaius pictus</i>	V	VU	<i>Phaius pictus</i> occurs in north-east Queensland, sporadically from the McIlwraith Range, Bloomfield River to Kirrama Range. It is highly localised, restricted to rainforests from 0– 600 m altitude, and predominantly occurs in sheltered humid sites close to streams and seepage among forest litter on boulders (Jones, 2006).	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjoining locality area. No preferred habitat exists for this species within the Study Area

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Native Moth Orchid	<i>Phalaenopsis rosenstromii</i>	E	-	The Native Moth Orchid is found in humid rainforest areas, close to waterfalls or streams, in deep gorges, sheltered slopes or gullies in notophyll vine thickets, deciduous vine thickets and in open forest. The orchid grows in shaded or partially shaded positions (Jones 1988; Lavarack 1977b, 1980, 1984b), on trees and less commonly on rocks. The species is found at altitudes from 200–500 m above sea level, however less commonly below 500 m (Dockrill 1992; Jones 2006).	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. One record for the species occurs within the locality of the Study Area, though is historic, dated in 1934. Open forest is present as potential habitat for this species within the Study Area, however other features such the requirement to be near streams and waterfalls are not present within the Study Area
Rock Tassel-fern	<i>Phlegmariurus squarrosus</i>	CE	CR	In Australia, this species is restricted to north-eastern Queensland, from Daintree south to Townsville. <i>Phlegmariurus squarrosus</i> occurs on rocks, particularly around waterfalls, or on tree trunks in lowland swamps and low to mid-altitude rainforest (DAWE, 2015).	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjoining locality area. No preferred habitat exists for this species within the Study Area

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Square Tassel-fern	<i>Phlegmariurus tetrastichoides</i>	V	VU	This species mostly grows high in the canopy of trees in complex vine forest and rainforest, over granite, basalt and other metamorphics to an altitude of 1100m above sea level. It occurs in habitat along creeks and on slopes and has not been recorded from the coastal flats. This species grows lower and probably shadier than other species such as <i>H. phlegmaria sensu latu</i> , also growing on granite rocks and on boulders near waterfalls. (TSSC 2008; Field & Bostock 2008; A. Field pers. comm. 2010).	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjointing locality area. The closest record is historic, dated in 1989 and is located approximately 40.5 km southeast of the Study Area.
Iron Malletwood	<i>Rhodamnia sessiliflora</i>	-	EN	This species is endemic to Northeast Queensland has an altitudinal range from near sea level to 1000 m. Grows in lowland and upland rain forest on a variety of sites, also found in drier rain forest often associated with Kauri Pine (<i>Agathis robusta</i>).	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. Two WildNet species records from 2023 are present within the locality of the Study Area Suitable habitat is not present within the Study Area

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Granite Nightshade	<i>Solanum graniticum</i>	E	EN	This species is endemic to Queensland. <i>Solanum graniticum</i> grows in open eucalypt woodland on hillsides with shallow soil derived from granite or granodiorite. Associated species include <i>Eucalyptus drepanophylla</i> and <i>Corymbia erythrophloia</i> (Queensland Herbarium, 2012).	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjointing locality area. The closest record is dated in 2021 and is located approximately 16.1 km south of the Study Area. Additionally, one WildNet record is present for this species. Potential habitat for this species within the Study Area exists as open eucalypt woodland but lacks associated species <i>Eucalyptus drepanophylla</i> and <i>Corymbia erythrophloia</i>.
-	<i>Tephrosia leveillei</i>	V	-	It has been recorded growing on alluvial plains in <i>Eucalyptus cullenii</i> woodland with <i>Corymbia erythrophloia</i> , <i>Erythrophleum chlorostachys</i> and <i>Grevillea glauca</i> , and in tall open forest of Eucalyptus and Corymbia species over dense <i>Heteropogon contortus</i> on red sand (Queensland Herbarium, 2008).	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjointing locality area. No preferred habitat exists within the Study Area for this species. Potential habitat exists as open Eucalypt and Corymbia woodland.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Velvet Jewel Orchid	<i>Rhomboda polygonoides</i>	V	VU	This species occurs in three locations in north-east Queensland between the Paluma Range and the Daintree River, at altitudes of 450 to 600 m, growing on the floor of rainforests. Plants have been collected in notophyll vine forest, growing on tops of granite boulders, on flat rocks and among the rotting wood of a fallen tree. It also grows in moist shady sites in rainforests, adjacent to streams. Found mostly from moist, cloudy or very wet rainfall zones on metamorphic substrates, granite or rhyolite (Metcalfe et al. 2008). The species can be found in humus on flat topped rocks in association with <i>Anoectochilus yatesiae</i> , <i>Goodyera viridiflora</i> and <i>Liparis simmondsii</i> (Harris 2001 pers. comm.). The distribution of this species overlaps with the Mabi Forest (Complex Notophyll Vine Forest 5b) threatened ecological community (DCCEEW, 2008).	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Study Area is within the species distribution. No records for the species occur within the Study Area/adjoining locality area. The closest record is located approximately 70.2 km north of the Study Area, though is historic, dated in 2002. Preferred habitat for this species, as outlined in the habitat description, is not present within the Study Area.
Birds					
Glossy Black Cockatoo (northern)	<i>Calyptorhynchus lathamii erebus</i>	-	V	<p>Whilst habitat data is limited for this subspecies, this bird likely feeds on seeds from she-oak trees, often occurring in woodlands and open forests dominated by she-oaks.</p> <p>Breeding Habitat: Within hollows of large eucalypt trees, usually sitting above 8 m</p> <p>Foraging Habitat: She-oak dominated woodlands and open forests. While she-oak cones are their main</p>	<p>Potential to occur.</p> <ul style="list-style-type: none"> Project Area is within the species distribution. One WildNet record for the species occurs 22.8 km southeast of the Project Area, however, is considered historic, dated in 1999.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				food source, this species occasionally eats seeds from other trees, like eucalypts and acacias. During times of limited she-oak availability, they are known to eat insect larvae.	<ul style="list-style-type: none"> Eucalypt trees present within the Project Area, however presence of she-oaks providing preferred foraging resources is limited throughout the area. The Project Area includes remnant woodland with large, suitable hollows to be utilised as breeding habitat. The hollow-bearing tree survey identified five large trees with hollow openings greater than 30 cm located higher than 8 m above ground. These have the potential to be used as breeding or roosting hollows
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>	V	VU	<p>Prefers habitat on muddy edges of freshwater wetlands or brackish wetlands. Can be found at dams inland. Will often occupy coastal mudflats when ephemeral terrestrial wetlands have dried out.</p> <p>Breeding habitat: Does not breed in Australia.</p> <p>Foraging habitat: foraging habitat is at the edge of the water of wetlands or intertidal mudflats, either on bare wet mud or sand, or in shallow water. Also among inundated vegetation of saltmarsh, grass or sedges. They forage in sewage ponds, and often in hypersaline environments. After rain, they may forage in paddocks of short grass, well away from water. They may forage on coastal mudflats at low tide and</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or Locality. The closest record was recorded in 2012 and is situated approximately 27.8 km northeast from the Study Area. No suitable habitat exists to foster this species within the Study Area; however a palustrine wetland occurs intersecting the northwest of the

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>move to freshwater wetlands near the coast to feed at high tide.</p> <p>Roosting habitat: Roosting occurs at the edges of wetlands, on wet open mud or sand, in shallow water, or in short sparse vegetation, such as grass or saltmarsh. Occasionally, they roost on sandy beaches, stony shores or on rocks in water.</p>	<p>Study Area. Unless inundated grass or sedges are present for foraging, this wetland may not be typical for utilisation of this species.</p>
Curlew Sandpiper	<i>Calidris ferruginea</i>	CE	CR	<p>This species is occasionally recorded inland, though less often than in coastal regions of Australia, within ephemeral and permanent lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. They occur in both fresh and brackish waters. Occasionally they are recorded around floodwaters.</p> <p>Breeding habitat: This species does not breed in Australia.</p> <p>Foraging habitat: mudflats and nearby shallow water</p> <p>Roosting habitat: this species roost in open situations with damp substrate, especially on bare shingle, shell or sand beaches, sandspits and islets in or around coastal or near-coastal lagoons and other wetlands, occasionally roosting in dunes during very high tides and sometimes in saltmarsh.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or Locality. The closest and most recent record is approximately 47.2 km northeast from the Study Area dated from 2020. No suitable habitat exists for this species within the Study Area.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Southern Cassowary	<i>Casuarius casuarius johnsonii</i>	E	EN	<p>This species lives in and depends on tropical rainforest, however, will also utilise other associated habitats when these are available. Associated habitats utilised include mangroves, melaleuca, eucalypt woodlands, swamps and swamp forests. The bird relies upon a year-round supply of fleshy fruit and these associated habitats can provide critical food resources at certain times of year such as following tropical cyclones. A range of non-rainforest habitats may also be used as corridors. Species depends on fresh water for drinking and bathing multiple times per day. They require quiet and dark habitat during the night, noise and light may disrupt them.</p> <p>Foraging habitat: Primarily feed on fleshy fruits found mostly on the ground of rainforest trees and shrubs. The species will also feed on exotic fruit plantations and some weed species such as pond apple (<i>Annona glabra</i>). Alternative sources of food may be sought in areas outside of traditional rainforest areas, depending on availability.</p> <p>Breeding habitat: Cassowaries can nest in a variety of habitats such as primary and regrowth rainforest and woodland. All recorded nests have been in rainforest or woodland mosaics with rainforest elements, usually near the base of large trees or stumps and often with a closed</p>	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Project Area is within the distribution for this species. Three recent WildNet records exist for this species within the locality of the Project Area. The closest record is approximately 4.8 km northwest from the Project Area dated from 2011. Limited suitable habitat in the form of rainforest is present within the Locality, with patches of rainforest located to the east of the Project Area only. Habitat to the west of the Project Area is predominantly eucalypt open woodland, so there are limited opportunities through the Project Area for dispersal into areas of preferred rainforest habitat. The Project Area is surrounded by highly connected vegetation with small patches of fragmentation in the form of roads, however this habitat unlikely to be utilised by the

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>understorey of vines, regrowth or dense grass thickets. Cassowaries typically breed in winter and spring, but sometimes in summer.</p> <p>Corridors for movement: A cassowary habitat corridor provides a continuous, or near continuous link of suitable habitat across a modified landscape that may otherwise impede movement. It may comprise remnant habitat, regenerated habitat or artificially created habitat. Corridors for movement may include open areas as well as vegetated areas. The fact that a corridor contains open areas or barriers, such as roads, does not mean that it is not important for cassowary movement; particularly in fragmented habitat. Cassowaries, including dispersing young, often use riparian corridors to move between habitat patches, moving up to two to three kilometres along them (DEWHA, 2010).</p>	<p>species as movement corridors. The Project Area and the locality does not contain the required mosaic of rainforest and open forest habitats to be utilised by Southern Cassowary as either foraging, breeding or dispersal habitat. There are also no riparian corridors within the Project Area.</p>
Greater Sand Plover	<i>Charadrius leschenaultii</i>	V	VU	<p>The species is almost entirely coastal, inhabiting littoral and estuarine habitats. They mainly occur on sheltered sandy, shelly or muddy beaches with large intertidal mudflats or sandbanks, as well as sandy estuarine lagoons, and inshore reefs, rock platforms, small rocky islands or sand cays on coral reefs. They are occasionally recorded on near-coastal saltworks and saltlakes, including marginal saltmarsh, and on brackish swamps.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or Locality. The closest recent record is approximately 43.2 km east from the Study Area dated in 2013.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>They seldom occur at shallow freshwater wetlands.</p> <p>Breeding habitat: This species does not breed in Australia.</p> <p>Foraging habitat: Feeds from the surface of wet sand or mud on open intertidal flats of sheltered embayment's, lagoons or estuaries, more often on firm sandy flats than on soft, muddy ones.</p> <p>Roosting habitat: They usually roost on sand-spits and banks on beaches or in tidal lagoons, and occasionally on rocky points, or in adjacent areas of saltmarsh or claypans. They tend to roost further up the beach than other waders, sometimes well above high-tide mark.</p>	<ul style="list-style-type: none"> No suitable habitat exists within the Study Area for this species.
Red Goshawk	<i>Erythrotriorchis radiatus</i>	E	EN	<p>This species prefers wooded and forested lands of tropical and warm-temperate Australia. Forests of intermediate density, with tall stands or individual trees so that nests are supported, are favoured, or ecotones between habitats of differing densities, e.g. between rainforest and eucalypt forest, between gallery forest and woodland, or on edges of woodland and forest where they meet grassland, cleared land, roads or watercourses. This species avoids very dense and very open habitats. This species has a large home range.</p> <p>Breeding and roosting habitat: This species rarely breeds in areas with fragmented vegetation. Breeding habitat is restricted to trees that are taller</p>	<p>Likely to Occur.</p> <ul style="list-style-type: none"> Potential vagrant utilising the Project Area for occasional foraging only. Project Area is within the distribution for this species. No present records exist for this species within the Project Area or Locality. The closest record is approximately 29.9 km east from the Project Area, though is historic, dated in 1999.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>than 20 m and within 1km of a watercourse or wetland.</p> <p>Foraging habitat: Habitat has to be open enough for fast hunting and manoeuvring in flight, but with enough cover for ambushing of prey.</p>	<ul style="list-style-type: none"> • Lack of suitable breeding habitat within the Project Area, with no permanent watercourses located within 1km • Potential habitat in the Project Area exists as foraging habitat only, with some opportunities for foraging in areas of open woodland, with a sparse shrub layer and open structure. there are some areas of fragmentation (such as roads), providing an open area or edge that can encourage foraging opportunities. • No breeding habitat observed within the Project Area, due to an absence of a permanent watercourse within 1km. One watercourse is located approximately 50 m northwest from the Project Area, however this is a seasonal, ephemeral watercourse that is dry for the majority of the year. However, there are some areas of fragmentation (such as roads), but the surrounding

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
					habitat is generally highly connected. Open woodland and forest may provide foraging habitat, with a presumed moderate canopy cover.
Grey Falcon	<i>Falco hypoleucos</i>	V	VU	<p>This species prefers arid and semi-arid Australia and frequents timbered lowland plains, particularly acacia shrublands that are crossed by tree-lined watercourses. This species has also been observed in treeless areas, frequenting tussock grassland and open woodland for foraging.</p> <p>Breeding habitat: Nests chosen are usually in the tallest trees along watercourses, particularly River Red Gum (<i>Eucalyptus camaldulensis</i>) and Coolibah (<i>E. coolabah</i>)</p> <p>Foraging habitat: timbered lowland plains, acacia shrubland crossed by tree-line watercourses, as well as treeless areas, tussock grasslands and open woodlands.</p> <p>Roosting habitat: this species is likely to roost in both its breeding and foraging habitat. This species has also been observed roosting on the ground.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or Locality. The closest record is approximately 40.9 km northeast from the Study Area (n.d). No preferred habitat for this species, including preferred nest trees, exists within the Study Area.
Latham's Snipe	<i>Gallinago Hardwickii</i>	V	VU	<p>This species usually occurs in open, freshwater wetlands that have some form of shelter (usually low and dense vegetation) nearby. They generally occupy flooded meadows, seasonal or semi-</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>permanent swamps, or open waters, but various other freshwater habitats can be used including bogs, waterholes, billabongs, lagoons, lakes, creek or river margins, river pools and floodplains. This species has been said to occur very rarely in small patches of habitat such as roadside ditches and alpine bogs (Higgins & Davies, 1996). They can also be found around irrigation channels and modified habitats at farms.</p> <p>Breeding habitat: Does not breed in Australia.</p> <p>Foraging habitat: characterized by areas of mud (either exposed or beneath a very shallow covering of water) and some form of cover (e.g. low, dense vegetation)</p> <p>Roosting habitat: on the ground near (or sometimes in) their foraging areas, usually in sites that provide some degree of shelter, e.g. beside or under clumps of vegetation, among dense tea-tree, in forests, in drainage ditches or plough marks, among boulders, or in shallow water if cover is unavailable.</p>	<ul style="list-style-type: none"> No present records exist for this species within the Study Area or Locality. The closest and most recent record is approximately 31 km east from the Study Area, dated in 2022. No preferred habitat exists for Latham's snipe within the Study Area, however, this species could potentially utilise <i>Melaleuca viridiflora</i> woodland to open forest habitat for roosting. Palustrine wetland intersects the Study Area in the northwest which may provide some habitat utilisation for this species, however not preferred.
Squatter Pigeon (southern)	<i>Geophaps scripta scripta</i>	V	VU	<p>Squatter pigeon (southern) habitat is generally defined as open-forests to sparse, open-woodlands and scrub that are mostly dominated by <i>Eucalyptus</i>, <i>Corymbia</i> or <i>Callitris</i> species. Additionally, they also favour remnant regrowth or partly modified vegetation communities that are within 3 km of water bodies.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Project Area is within the distribution for this species. No present records exist for this species within the Project Area or Locality. The closest

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>Breeding habitat: Breeding habitat occurs on stony rises on sandy, gravelly soils, within 1 km of a suitable, permanent waterbody (including farm dams and watercourses).</p> <p>Foraging habitat: Natural foraging habitat for the species is any remnant or regrowth open-forest to sparse, open-woodland or scrub dominated by <i>Eucalyptus</i>, <i>Corymbia</i>, <i>Acacia</i> or <i>Callitris</i> species, on sandy or gravelly soils, within 3 km of a suitable, permanent or seasonal waterbody.</p> <p>Dispersal habitat: Dispersal habitat is any forest or woodland occurring between patches of foraging or breeding habitat, and suitable waterbodies.</p>	<p>record is approximately 34 km northwest from the Project Area, though is historic, dated in 1998.</p> <ul style="list-style-type: none"> • Breeding habitat for squatter pigeon does not occur within the Project Area. There is no permanent waterbody within 1km of the Project Area, that is surrounded by suitable foraging habitat on sandy, gravelly soils. • Preferred foraging habitat is not present within the Project Area, with a lack of an open ground layer, exceeding 33% cover. The majority of the Project Area located on land zone 12, containing eucalypt open forest. Preferred foraging habitat for Squatter Pigeon is in forests and woodlands with a more open canopy structure and a ground layer characterised by a mosaic of open, bare ground and suitable foraging grasses. • Due to the absence of suitable foraging and breeding habitat,

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
					there is no opportunities for dispersal through the Project Area.
White-throated Needletail	<i>Hirundapus caudacutus</i>	V, Mi	VU	<p>According to Higgins (1999), this species occurs over most types of habitats, but are recorded most often above wooded areas, including open forest and rainforest, and may also fly between trees or in clearings, below the canopy, but they are less commonly recorded flying above woodland (as cited in DSEWPC, 2019b). Whilst rare, they have been recorded on wooded ends of ridges, roosting after dark high in the eucalypt tree canopies (Tarburton, 1993).</p> <p>Breeding habitat: this species does not breed in Australia.</p> <p>Roosting habitat: the species is noted to roost in tall mature forests and woodlands amongst dense foliage and in hollows often associated with ridgelines.</p> <p>Foraging habitat: the species almost always will fly aerially at 'cloud level' and forage over farmland, heathland and mudflats.</p>	<p>Likely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. Two recent records exist for this species within the locality of the Study Area, both dated in 2023. The closest record is approximately 6.2 km northwest from the Study Area. Preferred habitat in the Study Area includes remnant open forest and woodland potentially suitable for roosting habitat, provided dense foliage and hollows are present. This species also occurs flying above this type of habitat.
Eastern Curlew	<i>Numenius madagascariensis</i>	CE, Mi	CR	<p>Generally, occupies coastal lakes, inlets, bays and estuarine habitats, and in intertidal mudflats and sometimes saltmarsh of sheltered coasts. Occasionally, the species occurs on ocean beaches</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>(often near estuaries), and coral reefs, rock platforms, or rocky islets.</p> <p>Breeding habitat: this species does not breed in Australia.</p> <p>Foraging habitat: in or at the edge of shallow water, occasionally on exposed algal mats or waterweed, or on banks of beach-cast seagrass or seaweed.</p> <p>Roosting habitat: on sandy spits and islets, especially on dry beach sand near the high-water mark, and among coastal vegetation including low saltmarsh or mangroves. May also roost on wooden oyster leases or other similar structures.</p>	<ul style="list-style-type: none"> No present records exist for this species within the Study Area or locality. The closest recent record is approximately 39.7 km northeast from the Study Area, dated in 2016. No Suitable habitat in the Study Area exists for this species. This species primarily requires coastal vegetation types, which is not present within the Study Area.
Southern Black-throated Finch	<i>Poephila cincta cincta</i>	E	EN	<p>Occurs mainly in grassy, open woodlands and forests, typically dominated by <i>Eucalyptus</i>, <i>Corymbia</i> and <i>Melaleuca</i>, and occasionally in tussock grasslands or other habitats (for example freshwater wetlands), often along or near watercourses, or in the vicinity of water.</p> <p>Some of the more common species of eucalypts in woodlands and forests frequented by the subspecies include narrow-leaved ironbark (<i>E. crebra</i>), river red gum (<i>E. camaldulensis</i>), silver-leaved ironbark (<i>E. melanophloia</i>), Reid river box (<i>E. brownii</i>), Yellowjacket (<i>E. similis</i>) and forest red gum (<i>E. tereticornis</i>). The subspecies occasionally occurs</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Project Area is within the distribution for this species. No present records exist for this species within the Project Area or locality of the Project Area. The closest recent record is approximately 69.8 km southeast from the Project Area, dated in 2016. Field surveys identified a dense shrub layer in the form of <i>Lantana camara</i> and other weeds, making the open

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				in <i>Melaleuca</i> woodlands, or in grasslands comprised of genera such as <i>Astrebla</i> , <i>Dichanthium</i> or <i>Panicum</i> .	grassy woodland potentially unsuitable.
Australian Painted snipe	<i>Rostratula australis</i>	E	EN	<p>Prefers fringes of swamps, dams and nearby marshy areas where there is a cover of grasses, lignum, low scrub or open timber. Marchant & Higgins (1993) stated that the Australian painted snipe can use modified habitats, such as low-lying woodlands converted to grazing pasture, sewage farms, dams, bores and irrigation schemes, however they do not necessarily breed in such habitats (as cited in DoE, 2019d).</p> <p>Breeding habitat: Nests on the ground amongst tall vegetation, such as grasses, tussocks or reeds. The nest consists of a scrape in the ground, lined with grasses and leaves.</p> <p>Foraging and roosting habitat: Forages nocturnally on mudflats and in shallow water including temporary and permanent lakes, swamps and claypans. Feeds on worms, molluscs, insects and some plant-matter.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record is approximately 40 km east from the Study Area, dated in 2015. Palustrine wetland insects the Study Area with potential to act as suitable habitat however, not preferred for breeding or foraging. The area lacks swamps, and dams or other modified habitats such as sewage farms with a cover of grasses therefore is considered unlikely to occur within the Study Area.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Common Greenshank	<i>Tringa nebularia</i>	E	EN	<p>Found in a wide variety of inland wetlands and sheltered coastal habitats of varying salinity. It occurs in sheltered coastal habitats, typically with large mudflats and saltmarsh, mangroves or seagrass.</p> <p>Foraging habitat: at edges of wetlands, in soft mud on mudflats, in channels, or in shallows around the edges of water often among pneumatophores of mangroves or other sparse, emergent or fringing vegetation, such as sedges or saltmarsh.</p> <p>Roosting habitat: roosts and loafs round wetlands, in shallow pools and puddles, or slightly elevated on rocks, sandbanks or small muddy islets.</p> <p>Breeding habitat: does not breed in Australia.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record is approximately 27.8 km northeast from the Study Area, however, is historic, dated in 1979. The closest recent record is located approximately 39.6 km northeast from the Study Area. Limited habitat in the form of water sources is present within the Study Area.
Masked Owl (northern)	<i>Tyto novaehollandiae kimberli</i>	V	VU	<p>The Masked Owl (northern mainland) occurs mainly in tall open eucalypt forest. Recorded in riparian forest, rainforest, open forest, Melaleuca swamps as well as edges of mangroves as along margins of sugar cane field (Higgins 1999).</p> <p>Foraging Habitat: Typically forages in more open vegetation types, including grasslands.</p> <p>Roosting Habitat: commonly roosts in monsoon rainforests, typically roosting in tree hollows.</p>	<p>Unlikely to occur.</p> <ul style="list-style-type: none"> Project Area is within the distribution for this species. No present records exist for this species within the Project Area or locality of the Project Area. The closest recent record is approximately 29 km southeast from the Project Area. However, is historic,

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>This species may also roost among dense foliage (EPWS, 2021).</p> <p>Breeding habitat: Often nest in trees hollows within patches of closed forest (Garnett & Crowley, 2000).</p>	<p>dated 1998. There is some general, suitable foraging suitable habitat in the Project Area includes open Corymbia and eucalypt open forest.</p> <ul style="list-style-type: none"> The Project Area lacks open grasslands for foraging and preferred roosting habitat in the form of closed forest.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Fish					
Opal Cling Goby	<i>Stiphodon semoni</i>	CE	-	In Australia, the Opal Cling Goby is known from a limited number of rainforest streams in the Wet Tropics region of north-east Queensland, and the estimated total population is 10–30 mature individuals. This species occurs within the Wet Tropics Interim Biogeographic Regionalisation of Australia (IBRA) Bioregion and the Wet Tropics Natural Resource Management Region.	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record is approximately 271.3 km north from the Study Area, dated in 2022 No suitable habitat in the Study Area exists for this species

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Amphibian					
Australian Lace-lid	<i>Litoria dayi</i>	V	VU	<p>This frog is a rainforest species, endemic to the Wet Tropics Bioregion (Williams & Hero 1998, 2001). It is associated with rainforests and rainforest margins. In montane areas the species prefers fast-flowing rocky streams although they also occur in slower watercourses where ample vegetation exists along the margins. At low elevations, the species favours rock soaks, narrow ephemeral streams and rock outcrops in larger watercourses. It may also be found on rocks, boulders and vegetation in or adjacent to streams (Czechura et al. 1987).</p> <p>Species moves towards rainforest streams where it is known to breed only during the warmer wet season/early dry season. Changes in the stream temperature seem to influence nocturnal activity and trigger the movement of the species in relation to the stream.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest record is approximately 27.5 km north from the Study Area, however, is historic, dated in 1990. No suitable habitat is present within the Study Area, as the area does not contain flowing streams or watercourses.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Magnificent Brood Frog	<i>Pseudophryne covacevichae</i>	V	VU	The species has been found around seepage areas in open eucalypt forests with an understorey comprised of <i>Themeda triandra</i> , <i>Xanthorrhoea</i> sp., <i>Gahnia</i> sp., <i>Lophostemon suaveolens</i> , <i>Allocasuarina littoralis</i> and <i>A. torulosa</i> . In areas where cattle grazing has reduced ground cover the species has also been located in leaf-litter build up in first order streams (McDonald et al. 2000).	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record is approximately 31.4 km southeast from the Study Area dated in 2024. No suitable habitat exists in the Study Area, primarily lacking streams or seepage areas.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Mammal					
Northern Bettong	<i>Bettongia tropica</i>	E	EN	<p>Endemic to north-eastern Queensland. It has a small, fragmented distribution and only occurs within a thin strip of sclerophyll forest along the western margin of rainforest in the ecotone between savanna woodland and rainforest. The species distribution appears to be limited by the availability of food resources and vegetation associations</p> <p>Habitat includes a range of eucalypt forest types, from tall and wet forest dominated by <i>Eucalyptus grandis</i> (flooded gum) and tall forest dominated by <i>Eucalyptus resinifera</i> (red mahogany), abutting the rainforest, to medium height and drier woodlands dominated by <i>Corymbia citriodora</i> (lemon scented gum) and <i>Corymbia platyphylla</i> (poplar gum) (Johnson& McIlwee 1997; Dennis 2001; Winter et al., 2008).</p> <p>Foraging Habitat: dependent on truffles (specialised fungi) as a food source during the wetter parts of the year. Dependent on truffles (specialised fungi) as a food source during the wetter parts of the year. The species also feeds on the subterranean stem bases from <i>Alloteropsis semialata</i> (cockatoo grass) and <i>Hypoxis</i> species (lilies)</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest record is approximately 31 km southeast from the Study Area dated in 2001, therefore considered historic. Limited suitable habitat exists within the Locality

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Northern Quoll	<i>Dasyurus hallucatus</i>	E	LC	<p>The northern quoll occurs in a range of habitats, including open dry sclerophyll forest and woodland, riparian woodland, low dry vine thicket, the margins of notophyll vineforest, and sugarcane farms and in urban areas. They are most abundant in hilly or rocky areas close to permanent water.</p> <p>Breeding habitat: generally requires habitat encompassing some form of rocky area for denning purposes with surrounding vegetated habitats used for foraging and dispersal, as well as connection to permanent water. Dens are made in rock crevices, tree holes or occasionally termite mounds.</p> <p>Foraging and dispersal habitat: this species is more likely to be present in Queensland where there are high relief areas that have shallower soils, greater cover of boulders, less fire impact and closer to permanent water.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest record is approximately 41.2 km southeast from the Study Area dated in 1997, therefore considered historic. The Study Area is 10.8 ha of this total ha, 9.89 ha (or 92%) is <i>Corymbia intermedia</i> eucalypt woodland or <i>Melaleuca viridiflora</i> woodland to open forest on weathered soils. This habitat is potentially suitable, however not preferred. A smaller portion of the Study Area is made up of <i>Corymbia intermedia</i> and <i>Allocasuarina</i> open forest to woodland on basalt. This could act as potential habitat, however ground truthing is required to determine presence of suitable caves or tree hollows. The preferred habitat of rocky areas close to permanent water is seemingly scarce across the Study Area, however, woodland forests

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
					associated with remnant Eucalypt woodlands are present. There are no permanent waterbodies within the Study Area however, a watercourse (Stream order 1), is located approximately 50 m northwest of the Study Area, which could enable the potential habitat available for the species.
Semon's Leaf-nosed Bat	<i>Hipposideros semoni</i>	V	EN	<p>Mainly occurs in rainforests but has also been recorded from streams and rivers adjacent to rainforest (Reardon et al., 2010). Typically found in rock escarpment country where they shelter under rock overhangs and in shallow caves, often in twilight or shaded sites rather than in totally dark recesses. Churchill (pers. com.) considers the two species <i>H. semoni</i> and <i>H. stenotis</i> to be quite ecologically distinct with <i>H. semoni</i> being primarily an inhabitant of rainforest and possibly more tree-dwelling in this environment rather than an obligate cave dweller, however researchers consider both species to occupy similar niches.</p> <p>Roosting Habitat: Variety of roost sites including houses, abandoned buildings, caves and trees. In old mines, <i>H. stenotis</i> has been recorded often within 5-15 metres of the entrance (Schulz and Menkhorst 1984) and it is thought that <i>H. semoni</i> exhibits similar preferences for twilight roost sites.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest record is approximately 113 km southeast from the Study Area, however, is not dated. The Study Area does not seem to show caves or other forms of roosting habitat suitable for the species, limiting the likelihood or presence. The Study Area is not a rainforest.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				Foraging Habitat: Insectivorous, flying within two meters of the ground within rainforests	
Ghost Bat	<i>Macroderma gigas</i>	V	EN	<p>In Queensland, the species occurs in 4-5 disjunct populations, north from Rockhampton (TSSC, 2016c). Populations are centred around maternity roosts in deep caves. Pairs and small groups disperse widely during the winter non-breeding season, using temporary daytime roosts in caves and rocky overhangs (TSSC, 2016c)</p> <p>Foraging habitat: This species is recorded from a wide range of habitats from rainforest, monsoon and vine scrub in the tropics to open woodlands and arid areas.</p> <p>Roosting habitat: Roost sites are deep natural caves or disused mines with a specific microclimate, which is a relatively stable temperature (23°C to 28°C) with moderate to high (50-90-%) relative humidity, and the ceiling at least 2 m above the floor. Individuals aggregate in these maternity roosts during spring and summer.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record is approximately 84.4 km southeast from the Study Area, dated in 2016. No suitable habitat in the Study Area as it lacks preferred caves for roosting utilisation. Potential foraging habitat includes woodlands; however, is not associated with nearby caves.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Black-footed Tree-rat	<i>Mesembriomys gouldii rattoides</i>	V	LC	<p>Mostly recorded from eucalypt forests and woodlands (but not rainforests), especially where hollows are abundant.</p> <p>Denning Habitat: Tree hollows, but occasionally in dense foliage or buildings</p> <p>Foraging Habitat: Forages on the ground and in trees, and individuals may make movements of at least 500 m from roost sites to foraging areas (Friend et al., 1992).The diet comprises mostly fruits (including of the tough <i>Pandanus spiralis</i>) and seeds, but also includes some invertebrates, flowers and grass (Morton, 1992; Rankmore, 2006; Rankmore & Friend, 2008).</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record is approximately 72 km north of the Study Area, dated in 2000, therefore is considered historic. Suitable habitat in the Study Area includes eucalypt forest and woodlands dominated by <i>Corymbia clarksoniana</i> or <i>C. novoguineensis</i>.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Greater Glider (northern)	<i>Petauroides minor</i>	V	VU	<p>Occurs in the wet-dry tropical region of north-eastern Australia, largely restricted to wetter open eucalypt forests and open woodlands containing relatively older trees and abundant hollows.</p> <p>Denning habitat: During the day the species shelters in tree hollows, with a particular preference for large hollows (diameter >10 cm) in large, old trees.</p> <p>Foraging Habitat: Feeds from a restricted range of eucalypt species, and favours forests with a diversity of eucalypt species due to seasonal variation in its preferred tree species (Comport et al. 1996).</p>	<p>Potential to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. There is one WildNet and one ALA record within the locality of the Study Area, dated in 2001, therefore considered historic. It is situated approximately 4.5 km northwest from the Study Area. In addition, two WildNet records exist for this species within the locality of the Study Area. The Study Area is isolated from adjacent habitat areas by approximately 50m in all directions and displays a low level of connectivity. Potentially suitable habitat in the Study Area includes open eucalypt forests and woodlands and hollow-bearing trees suitable for denning, however, is not likely utilised due to the lack of connectivity to adjacent areas.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Mahogany Glider	<i>Petaurus gracilis</i>	E	EN	<p>The Mahogany Glider occurs in a narrow band of open, wet sclerophyll woodlands between Ollera Creek (40 km south of Ingham) and the Hull River near Tully (a north-south distance of 120 km), in North Queensland, Australia. Occurs primarily at elevations below 100 m elevation where its presence is not uniform due to the presence of different vegetation types that are used differentially.</p> <p>The habitat requirements of the Mahogany Glider are most correlated with a variety of trees from the families Myrtaceae and Mimosaceae, as well as a reduced middle and upper canopy cover (DAWE, 2021).</p> <p>Foraging Habitat: Feeds on nectar, pollen, plant exudate, insects and honeydew, and Acacia seed arils. Plant exudates include acacia gum and wattle, albizia and grass tree sap. They will travel on average 1.5 kms a night in search of food.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. Suitable habitat in the Study Area includes Melaleuca woodland, however elevation of the Study Area exceeds elevations of 120 m, therefore it is above this species known altitudinal limit.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Sharman's Rock Wallaby	<i>Petrogale sharmani</i>	V	VU	<p>The range of Sharman's rock-wallaby is limited. It is known from only about 20 colonies scattered within a 2000 km² area of the Seaview and Coane Ranges, west of Ingham in north-eastern Queensland (Eldridge et al., 2008; Winter et al., 2008; Eldridge 2012; Mulder et al., 2012).</p> <p>It occurs in various rocky habitats (including rocky outcrops, boulder piles, gorges, cliff lines and rocky slopes) within open forests or grassy woodlands. It shelters during the day in rocky refuges or dense vegetation, emerging at dusk to feed (Eldridge 2012).</p> <p>Breeding Habitat: Breeds in complex rock piles often greater than 8 meters high, commonly associated with nearby waterbodies. Rock piles contain rocky</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. There are multiple recent records within the locality of the Study Area. There are 55 WildNet records and 6 ALA records. One ALA record is situated within the Lannercost State Forest which intersects the locality. The closest recent record from 2022, is approximately 8.2 km from the Study Area The field survey identified suitable habitat in the Study Area including open forest woodlands, however presence of breeding habitat in the form of suitable rocky habitat is limited and the Study Area is not within a 450m proximity to breeding habitat nor shelter habitat in the form of rockpiles. Therefore, no functional habitat is present within the Study Area.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>overhangs, crevices or caves with canopy cover present.</p> <p>Foraging and dispersal habitat: Habitats inclusive of woodland dominated by narrow-leaved ironbark <i>Eucalyptus crebra</i>, white mahogany <i>E. portuensis</i> and bloodwoods <i>Corymbia spp.</i>, with a sparse to mid-dense shrub layer of canopy species including quinine <i>Petalostigma spp.</i>, grass trees <i>Xanthorrhoea spp.</i>, <i>Acacia spp.</i> and <i>Grevillea spp.</i> Kangaroo grass <i>Themeda triandra</i> and black speargrass <i>Heteropogon contortus</i> are frequently found in the ground layer.</p>	
Koala	<i>Phascolarctos Cinereus</i>	E	EN	Koalas naturally inhabit a range of temperate, sub-tropical and tropical forest, woodland and semi-arid communities dominated by <i>Eucalyptus</i> species as	<p>Likely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. There are multiple recent records within the locality of the Study Area. There are 6

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>explained by Martin & Handasyde 1999 (as cited in, DoE, 2019h).</p> <p>Breeding and foraging habitat: Koala habitat can be broadly defined as any forest or woodland containing species that are known Koala food trees, or shrubland with emergent food trees.</p> <p>Dispersal: the species is known to traverse a matrix of landscape features from remnant and regrowth vegetation to paddock trees and grasslands.</p>	<p>WildNet records and 3 ALA records, 2 of which are historic. One ALA record is situated within the Lannercost State Forest which intersects the locality, dated in 1988, therefore considered historic. The closest recent ALA record is dated in 2022 and is located approximately 9.7 km northwest from the Study Area.</p> <ul style="list-style-type: none"> Suitable habitat in the Study Area includes Eucalypt woodland and open forest woodland.
Spectacled Flying-fox	<i>Pteropus Conspicillatus</i>	E	EN	<p>Occurs in north-eastern Queensland, with the largest population known from the Wet Tropics of Queensland World Heritage Area between Townsville and Cooktown (DEWHA 2009a).</p> <p>Foraging Habitat: The spectacled flying fox feeds on fruits and blossom,</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Project Area is within the distribution for this species. No present records exist for this species within the Project Area or locality of the Project Area. The closest recent record is approximately 29.9 km east from the Project Area, dated in 2024.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>primarily in the canopy vegetation of a wide range of vegetation communities, including closed forest, gallery forest, eucalypt open forest and woodland, Melaleuca thickets, coastal swamps, mangroves, vegetation in urban settings, and commercial fruit crops.</p> <p>Roosting Habitat: large aggregations, called camps or colonies, in the exposed branches of canopy trees.</p>	<ul style="list-style-type: none"> • The closest known camp site utilised by spectacled flying-fox that is currently monitored by the National Flying-fox Monitoring Program is located at Ingham 36km to the north-east, with the majority of other occupied camps extending from Mourilyan to Port Douglas further north. • Suitable foraging habitat in the Project Area includes eucalypt open forest and woodland, however limited to flowering eucalypts with an absence of fleshy fruits. The recovery plan for the species states that Spectacled Flying-fox generally forage close to camps, with a mean foraging distance of 11.8km and a maximum distance of 87km. This larger foraging distance is considered rare, with other studies identifying a foraging distance of 27.3 km. Given the low diversity of foraging resources consisting of flowering eucalypts, and the large

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
					distance to the nearest known camp, occurrence in the Project Area is considered unlikely.
Grey-headed Flying Fox	<i>Pteropus poliocephalus</i>	V	VU	<p>This species is a canopy-feeding frugivore and nectarivore, which utilises vegetation communities including rainforests, open forests, closed and open woodlands, Melaleuca swamps and Banksia woodlands. It also feeds on commercial fruit crops and on introduced tree species in urban areas. Ebv (1998) explained that the primary food source is blossom from Eucalyptus and related genera but in some areas, it also utilises a wide range of rainforest fruits (as cited in, DoE, 2019i).</p> <p>Breeding habitat: no specific information is available for breeding habitat requirements however it is stated that</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Project Area is within the distribution for this species. No present records exist for this species within the Project Area or locality of the Project Area. The closest recent record is approximately 29.8 km east from the Project Area, dated in 2022. The closest known camp site utilised by Grey-headed Flying-fox that is currently monitored by the National Flying-fox Monitoring Program is located at Ingham 36km to the north-east, with the majority of other occupied camps extending from Mourilyan to Port Douglas further north. Grey-headed flying-fox travels an average of 11 km when foraging at night, and commonly can fly as far as 40km.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>roosting camps contain breeding habitat.</p> <p>Foraging and roosting habitat: The listing advice for this species states that individuals can travel up to 50 km from their known roosting camps, in order to forage. They generally roost within 20 km of food sources which include the nectar and pollen of Eucalyptus, Melaleuca and Banksia native trees.</p>	<ul style="list-style-type: none"> • Potential suitable foraging habitat in the Project Area include eucalypt open forest. However, the Project Area does not contain the spring and winter flowering species considered habitat critical to the survival of the species as identified in the Recovery Plan. Given the distance to the nearest camp greater than the average nightly foraging distance and a lack of preferred forage species the presence of grey-headed flying-fox is considered unlikely

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Large-eared Horseshoe Bat	<i>Rhinolophus robertsi</i>	V	VU	<p>Occurring in lowland rainforest, along gallery forest-lined creeks within open eucalypt forest, <i>Melaleuca</i> forest with rainforest understorey, open savannah woodland and tall riparian woodland of <i>Melaleuca</i>, Forest Red Gum (<i>E. tereticornis</i>) and Moreton Bay Ash (<i>E. tessellaris</i>) (Churchill 2009; Pavey & Kutt 2008). Daytime refuge habitats for the bat are caves and mines.</p> <p>Roosting Habitat: Daytime roosting habitat for the Greater Large-eared Horseshoe Bat includes caves and underground mines located in rainforest, and open eucalypt forest and woodland (Pavey 2002). Roosts have also been observed in road culverts, and it is suspected that the species uses basal hollows of large trees, dense vegetation, rockpiles and areas beneath creekbanks</p> <p>Foraging Habitat: Primarily in open forest and wattle-dominated ridges in rainforest (Duncan et al. 1999). In open forest and woodland, they prefer to forage amongst the thicker vegetation in gullies and along creeks, though they have been observed at the edge of grassy clearings in rainforest and road edges (Churchill 2009; Pavey 1999, 2002; Pavey & Kutt 2008). They usually fly within the lower half of the canopy between one and eight metres, using gaps such as tracks within rainforest (Churchill 2009; Pavey 2002). The species has also been observed regularly at canopy height. Pavey (2002) comments that feeding sites might be a considerable distance from daytime roost sites if there are few roost sites available in an area.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Project Area is within the distribution for this species. No present records exist for this species within the Project Area or locality of the Project Area. The closest recent record is dated in 2019 and located approximately 155.7 km north from the Project Area. There is no breeding habitat present within the Project Area. Foraging habitat within the Project Area is marginal quality, with an absence of dense vegetated gullies, rainforest communities

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Bare-rumped Sheath-tailed Bat	<i>Saccolaimus saccolaimus nudicluniatus</i>	V	EN	<p>Occurs mostly in lowland areas, typically in a range of woodland, forest and open environments The species has been recorded in Poplar Gum (<i>Eucalyptus platyphylla</i>) woodland, typical of the alluvial plains adjacent to the lower Burdekin and Houghton Rivers, near Townsville (Compton & Johnson 1983). Adjacent to this habitat, records of species were found within woodlands dominated by Carbeen (<i>E. tessellaris</i>) and Ghost Gum (<i>E. papuana</i>).</p> <p>It is not known if individuals foraged over some or all of the vegetation communities in the vicinity of the roost.</p> <p>Roosting habitat: In Australia, all confirmed roosting records are from deep tree hollows in the Poplar Gum, Darwin Woollybutt (<i>Eucalyptus miniata</i>) and Darwin Stringybark (Churchill 1998; Compton & Johnson 1983; McKean et al. 1981; Murphy 2002). Hollows in these tree species have also been used as maternity roosts.</p> <p>Foraging habitat: Suggested to forage over habitat edges such as the edges of rainforest and forest clearings (Churchill 1998).</p> <p>Associated and sympatric species: likely to be associated with other bat species that require woodland with hollow-bearing trees for roosting or foraging purposes. Sympatric bat species may include the Semon's Leaf-nosed Bat (<i>Hipposideros semoni</i>), Large-eared Horseshoe Bat (<i>Rhinolophus philippinensis</i>), Fawn Leaf-nosed Bat (<i>H. cervinus</i>), Tube-nosed Insect Bat (<i>Murina florium</i>) and Arnhem Leaf-nosed Bat (<i>H. inornata</i>), Papuan Sheathtail Bat (<i>Saccolaimus mixtus</i>) (Duncan et al. 1999), Northern Leaf-nosed Bat (<i>H. stenotis</i>) and Arnhem Sheathtail Bat (<i>Taphozous kapalgensis</i>).</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Project Area is within the distribution for this species, however, is not located within lowland areas where the majority of known records occur. No present records exist for this species within the Project Area or locality of the Project Area. The closest record is not dated and is located approximately 41.5 km north from the Project Area. Preferred and recorded tree species used for roosting and breeding are absent from the Project Area and the surrounding vegetation communities. Given the lack of roost trees, the species is considered unlikely to occur.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Reptiles					
Atherton Delma	<i>Delma mitella</i>	V	NT	The species occurs only from tall open forests and rainforest interfaces in the Herberton, Ravenshoe and Paluma districts (Wilson & Swan, 2003). This species occurs within the Wet Tropics (Queensland) Natural Resource Management Region.	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record is dated in 2014 and is located approximately 35.8 km southeast from the Study Area. There is no tall open wet sclerophyll or rainforest vegetation communities within the Project Area.
Yakka Skink	<i>Egernia rugosa</i>	V	VU	<p>The yakka skink is known to occur in open dry sclerophyll forest, woodland and scrub. The core habitat of this species is within the Mulga lands and Brigalow belt south bioregions. It is known from rocky outcrops and sand plain areas with dense ground vegetation.</p> <p>There is no delineation between breeding, dispersal and foraging habitat for this species. However, microhabitat features required for this species include cavities under and between partly buried rocks, logs and tree stumps as well as abandoned animal burrows.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. General habitat in the Study Area includes open sclerophyll forest, woodland and scrub on coastal sandplains and alluvia.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Irwin's Turtle	<i>Elseya irwini</i>	V	LC	Distribution limited to Queensland - Central Mackay Coast, Brigalow North, Einasleigh Uplands, Wet Tropics. From Mackay-Nebo north to Townsville and Cairns, as far west as Kennedy Development Road and White Mountains National Park.	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The Study Area does not contain any waterways
Mertens' Water Monitor	<i>Varanus mertensi</i>	E	EN	<p>This species occurs in perennial and semi-permanent pools in upper catchment areas, including springs, seeps, swamps, creeks and gorges. It is also found in margins of permanent streams, rivers and lakes in lower catchment areas as well as floodplain billabongs, lagoons, swamps and soaks. Occurs on perennial waterholes in woodlands, and man-made irrigation channels and the margins of dams.</p> <p>Species is semi-aquatic, retreats to water when disturbed and can remain submerged for a considerable period when foraging or retreating from disturbance (Mayes et al. 2005; Wilson & Swan 2021). Rarely goes more than 5–10 m from the edge of the water (Wilson & Knowles 1988; Mayes 2006; Smith & Griffiths 2009) except for moving along core aquatic activity areas (Mayes 2006). Recorded</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record, dated in 2009 is situated approximately 150.5 km northwest of the Study Area. There is no preferred habitat within the Study Area for this species. The closest water body is approximately 0.5 km northwest from the Study Area, however though movement patterns suggest this species moves

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>basking on a variety of structures in and around water bodies, including rocks, mud banks, overhanging branches and dead timber, tree roots, floating vegetation, irrigation infrastructure, and roads.</p> <p>Mertens' water monitor is recorded sheltering in hollows between rocks and in burrows that have been dug into the banks of waterways (Mayes 2006; Thompson et al. 2008). Mertens' water monitor had an average daily movement distance of 0.7 km along irrigation channels but they can move up to 1 km in a day while foraging.</p>	0.7 km on average per day, it rarely goes 5-10 meters from the water.
Migratory Species					
Migratory Marine Species					

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Fork-tailed Swift	<i>Apus pacificus</i>	Mi	-	<p>In Australia, they occur over cliffs and beaches and over islands, as well as far out to sea. They also occur over settled areas, including towns, urban areas and cities. They mostly occur over dry or open habitats, including riparian woodland and tea-tree swamps, low scrub, heathland or saltmarsh.</p> <p>Breeding habitat: Does not breed in Australia.</p> <p>Foraging habitat: exclusively aerial and found across a range of habitats.</p>	<p>Likely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. Multiple present records exist for this species within the locality of the Study Area, consisting of two WildNet records and two ALA records both dated from 2022. The closest recent record is situated approximately 6.2 km northwest of the Study Area. Suitable habitat in the Study Area includes dry open woodland.
Salt-water Crocodile	<i>Crocodylus porosus</i>	Mi	VU	<p>Studies from Arnhem Land (Northern Territory) indicated that the Salt-water Crocodile mostly occurs in tidal rivers, coastal floodplains and channels, billabongs and swamps (Webb et al. 1987) up to 150 km inland from the coast (Webb et al. 1983f). It has been noted that evaporation in isolated channels may lead to salinity levels that are twice that of seawater.</p> <p>The Salt-water Crocodile usually inhabits the lower (estuarine) reaches of rivers, while the upper reaches are inhabited by <i>Crocodylus johnstoni</i> (Fresh-water Crocodile); although, areas of overlap occur in some rivers (Webb et al. 1983a). In Queensland, the species is usually restricted to coastal waterways and floodplain wetlands. Populations may also be found hundreds of</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest and most recent record, dated in 2022 is situated approximately 39.6 km northeast of the Study Area. No suitable habitat in the Study Area exists for this species.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				kilometres upstream, such as in the Fitzroy River and the waterways of the southern Gulf of Carpentaria (Read et al. 2004).	

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Migratory Terrestrial Species					
<i>Cuculus optatus</i>	oriental cuckoo, Horsfield's cuckoo	Mi	SLC	<p>The oriental cuckoo is a regular migrant to Australia, where it spends the non-breeding season (Sept- May) in coastal regions across northern and eastern Australia as well as offshore islands.</p> <p>Foraging habitat: It uses a range of vegetated habitats such as monsoon rainforest, wet sclerophyll forest, open woodlands and often along edges of forests, or ecotones between forest types. It feeds mainly on insects and their larvae, foraging for them in trees and bushes as well as on the ground</p> <p>Breeding habitat: This species does not breed in Australia</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. No suitable habitat in the Study Area exists for this species as woodlands are more dry.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Barn swallow	<i>Hirundo rustica</i>	Mi	-	<p>This species occurs in open country in coastal lowlands, often near water, towns and cities. Birds are often sighted perched on overhead wires (Pizzey 1980; Blakers et al. 1984), and also in or over freshwater wetlands, paperbark <i>Melaleuca</i> woodland, mesophyll shrub thickets and tussock grassland (Schodde & Mason 1999).</p> <p>Breeding Habitat: species does not breed in Australia.</p> <p>Foraging Habitat: The species feeds by aerial pursuit (sallying) or gleaning or skimming insects from plants or water surface. They feed mainly low over the ground or water (Cramp 1988; Coates & Bishop 1997; Higgins et al. 2006; Turner & Rose 1989). Occasionally, birds are recorded feeding on clear ground, such as roads, paths and beaches, by walking around and picking at the surface (Cramp 1988; Turner & Rose 1989).</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record, dated in 2017 is situated approximately 40.1 km northeast of the Study Area. The field survey confirmed no suitable habitat in the Study Area, with a lack of <i>Melaleuca</i> woodland.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Grey Wagtail	<i>Motacilla cinerea</i>	Mi	-	<p>The grey wagtail has a strong association with water, particularly rocky substrates along water courses but also lakes and marshes.</p> <p>Foraging Habitat: Feed on a variety of aquatic invertebrates including adult flies, mayflies, beetles, crustacea and molluscs. They often forage along roadsides in winter.</p> <p>Breeding Habitat: does not breed in Australia</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest record, dated in 1992 is situated approximately 33.4 km southeast of the Study Area, however, is historic. Near the Study Area includes a watercourse (Stream order 1), which is located approximately 50 m northwest of the Study Area, however this does not intersect the Study Area, and it may be used for dispersal habitat only.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Yellow Wagtail	<i>Motacilla flava</i>	Mi	-	<p>Habitat requirements for the yellow wagtail are highly variable, but typically include open grassy flats near water. Habitats include open areas with low vegetation such as grasslands, airstrips, pastures, sports fields; damp open areas such as muddy or grassy edges of wetlands, rivers, irrigated farmland, dams, waterholes; sewage farms, sometimes utilise tidal mudflats and edges of mangroves. This species may occur in association with non-remnant vegetation.</p> <p>Breeding habitat: Does not breed in Australia.</p> <p>Foraging and roosting habitat: Has a strong association with water, particularly rock substrates along watercourses, but also lakes and marshes.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. No suitable or preferred habitat for this species exists within the Study Area.
Migratory Wetlands species					
Common Sandpiper	<i>Actitis hypoleucos</i>	Mi	-	<p>The species utilises a wide range of coastal wetlands and some inland wetlands, with varying levels of salinity, and is mostly found around muddy margins or rocky shores and rarely on mudflats. The common sandpiper has been recorded in estuaries and deltas of streams, as well as on banks farther upstream; around lakes, pools, billabongs, reservoirs, dams and claypans, and occasionally piers and jetties.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record, dated in 2020 is situated approximately 39.8 km northeast of the Study Area. No suitable habitat in the Study Area exists for this species

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
Pectoral Sandpiper	<i>Calidris melanotos</i>	Mi	-	<p>In Australasia, the pectoral sandpiper prefers shallow fresh to saline wetlands. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands.</p> <p>Breeding habitat: Does not breed in Australia.</p> <p>Foraging habitat: forages in shallow water or soft mud at the edge of wetlands.</p> <p>Roosting habitat: prefers shallow fresh to saline wetlands. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands.</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. The closest recent record, dated in 2018 is situated approximately 104.8 km southeast of the Study Area. Palustrine wetlands intersect the Study Area; however, this is not a preferred suitable wetland for the pectoral sandpiper. Therefore, no suitable habitat exists in the Study Area.
<i>Pandion haliaetus</i>	Osprey	Mi	SLC	<p>The Osprey occurs in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia, occasionally travelling inland along major rivers of northern Australia. They have been recorded in habitats ranging from mangroves, inshore seas, coastal islands, estuaries and rivers.</p> <p>Foraging habitat: This species requires extensive areas of open fresh, brackish, or saline water for foraging, and frequent a variety of wetland habitats (e.g. estuaries, mangrove</p>	<p>Unlikely to Occur.</p> <ul style="list-style-type: none"> Study Area is within the distribution for this species. No present records exist for this species within the Study Area or locality of the Study Area. No waterbodies, wetlands or rivers are present within the Study Area.

Common Name	Scientific Name	EPBC Act Status^	NC Act Status^	Habitat	Likelihood of Occurrence
				<p>swamps, inshore waters).</p> <p>Breeding habitat: Large nests are built from sticks and lined with seaweed and grass. The nests may be constructed on cliff faces, headlands, rocky foreshores and islands and in the forks of large trees up to 30 m above the ground. The nests are generally located within 3 km of a water body and frequently within sight of water. Ospreys are also known to nest on man-made structures, such as communication towers, power poles, channel markers and artificial nest platforms.</p>	



APPENDIX B PMST



Australian Government

Department of Climate Change, Energy,
the Environment and Water

EPBC Act Protected Matters Report

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

Report created: 18-Dec-2025

[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:	1
National Heritage Places:	2
Wetlands of International Importance (Ramsar)	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	48
Listed Migratory Species:	15

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	24
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	3
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	4
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties [\[Resource Information \]](#)

Name	State	Legal Status	Buffer Status
Wet Tropics of Queensland	QLD	Declared property	In buffer area only

National Heritage Places [\[Resource Information \]](#)

Name	State	Legal Status	Buffer Status
Indigenous			
Wet Tropics World Heritage Area (Indigenous Values)	QLD	Within listed place	In buffer area only

Natural	State	Legal Status	Buffer Status
Wet Tropics of Queensland	QLD	Listed place	In buffer area only

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
Broad leaf tea-tree (Melaleuca viridiflora) woodlands in high rainfall coastal north Queensland	Endangered	Community may occur within area	In feature area

Listed Threatened Species [\[Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Casuarius casuarius listed as Casuarius casuarius johnsonii Southern Cassowary [1096]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat 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 buffer area only
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Poephila cincta cincta Southern Black-throated Finch [64447]	Endangered	Species or species habitat likely 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
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat may occur within area	In buffer area only
Tyto novaehollandiae kimberli Masked Owl (northern) [26048]	Vulnerable	Species or species habitat likely to occur within area	In feature area
FISH			
Stiphodon semoni Opal Cling Goby [83909]	Critically Endangered	Species or species habitat may occur within area	In buffer area only

FROG

Scientific Name	Threatened Category	Presence Text	Buffer Status
Litoria dayi Australian Lace-lid, Lace-eyed Tree Frog, Day's Big-eyed Treefrog [86707]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pseudophryne covacevichae Magnificent Brood Frog [64385]	Vulnerable	Species or species habitat may occur within area	In buffer area only
MAMMAL			
Bettongia tropica Northern Bettong [214]	Endangered	Species or species habitat may occur within area	In buffer area only
Dasyurus hallucatus Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat likely to occur within area	In feature area
Hipposideros semoni Semon's Leaf-nosed Bat, Greater Wart-nosed Horseshoe-bat [180]	Vulnerable	Species or species habitat may occur within area	In feature area
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Mesembriomys gouldii rattoides Black-footed Tree-rat (north Queensland), Shaggy Rabbit-rat [87620]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petauroides minor Greater Glider (northern), Greater Glider (north-eastern Queensland) [92008]	Vulnerable	Species or species habitat known to occur within area	In feature area
Petaurus gracilis Mahogany Glider [26775]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Petrogale sharmani Mount Claro Rock Wallaby, Sharman's Rock Wallaby [59281]	Vulnerable	Species or species habitat known 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

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pteropus conspicillatus Spectacled Flying-fox [185]	Endangered	Species or species habitat likely to occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Rhinolophus robertsi Large-eared Horseshoe Bat, Greater Large-eared Horseshoe Bat [87639]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Saccolaimus saccolaimus nudicluniatus Bare-rumped Sheath-tailed Bat, Bare-rumped Sheath-tail Bat [66889]	Vulnerable	Species or species habitat likely to occur within area	In feature area
PLANT			
Bulbophyllum globuliforme Miniature Moss-orchid, Hoop Pine Orchid [6649]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Corymbia leptoloma Yellowjacket [64101]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Cycas platyphylla a cycad [55796]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Leichhardtia araujacea [91900]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Leichhardtia brevifolia listed as Marsdenia brevifolia [91893]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lindsaea pulchella var. blanda [20842]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area	In feature area
Phaius pictus [22564]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Phalaenopsis rosenstromii listed as Phalaenopsis amabilis subsp. rosenstromii Native Moth Orchid [15984]	Endangered	Species or species habitat may occur within area	In buffer area only
Phlegmariurus squarrosus Rock Tassel-fern, Water Tassel-fern [86556]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Phlegmariurus tetrastichoides Square Tassel Fern [86555]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Solanum graniticum Granite Nightshade [84819]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Tephrosia leveillei [16946]	Vulnerable	Species or species habitat known to occur within area	In feature area
Zeuxine polygonoides Velvet Jewel Orchid [46794]	Vulnerable	Species or species habitat may occur within area	In buffer area only
REPTILE			
Delma mitella Atherton Delma, Legless Lizard [25931]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Egernia rugosa Yakka Skink [1420]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Elseya irwini Irwin's Turtle, White-headed Snapping Turtle [78961]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Varanus mertensi Mertens' Water Monitor [1568]	Endangered	Species or species habitat may occur within area	In buffer area only
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 Marine Species			
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In buffer area only
Migratory Terrestrial Species			
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		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
Hirundo rustica Barn Swallow [662]		Species or species habitat may occur within area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	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]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat may occur within area	In buffer area only

Other Matters Protected by the EPBC Act

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
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine 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

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may 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 may occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
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
Hirundo rustica Barn Swallow [662]		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

Scientific Name	Threatened Category	Presence Text	Buffer Status
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat likely to occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat may occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Reptile			
Crocodylus porosus			
Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In buffer area only

Extra Information

State and Territory Reserves [\[Resource Information \]](#)

Protected Area Name	Reserve Type	State	Buffer Status
Girringun	National Park	QLD	In buffer area only
Liefway	Nature Refuge	QLD	In buffer area only
Range View	Nature Refuge	QLD	In buffer area only

EPBC Act Referrals [\[Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Gawara Baya (formerly known as Upper Burdekin Wind Farm), 65 km south-west of Ingham, Queensland	2021/9066		Post-Approval	In feature area
Powerlink Queensland Genex Kidston Connection Project	2021/9060		Post-Approval	In feature area
Controlled action				
Mt Fox Energy Park Wind Farm, QLD	2021/8910	Controlled Action	Assessment Approach	In feature area
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

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

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

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

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

4 LIMITATIONS

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

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

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

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

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

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

Acknowledgements

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

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

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

Please feel free to provide feedback via the [Contact us](#) page.

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APPENDIX C WILDNET

WN sighting Id	Provider sighting Id	Kingdom	Phylum	Class	Order	Family	Scientific name	Common name	Taxon Id	Taxon author	NCA	EPBC	Conservation significant	Establishment	Source	Project	Start date	End date	Sighting date	Locality	Latitude	Longitude	Datum	Precision	Count	Cou nt	Extra limit	Vetting	Restricted record
7178147		Animalia	Chordata	Mammalia	Diprotodontia	Macropodidae	Petrogale sharmani	Sharman's rock-wallaby	892	Eldridge & Close, 1992	V	V	TRUE	Q	Incidental Records	WildNet Incidental Records	24/03/2022	24/03/2022	24/03/2022	5km W of Mt Fox	-18.860911	145.738593	GDA2020	100	4	E	C	0	
7178148		Animalia	Chordata	Mammalia	Diprotodontia	Macropodidae	Petrogale sharmani	Sharman's rock-wallaby	892	Eldridge & Close, 1992	V	V	TRUE	Q	Incidental Records	WildNet Incidental Records	26/03/2022	26/03/2022	26/03/2022	5km W of Mt Fox	-18.838295	145.753164	GDA2020	50	1	A	C	0	
7178149		Animalia	Chordata	Mammalia	Diprotodontia	Macropodidae	Petrogale sharmani	Sharman's rock-wallaby	892	Eldridge & Close, 1992	V	V	TRUE	Q	Incidental Records	WildNet Incidental Records	26/03/2022	26/03/2022	26/03/2022	5km W of Mt Fox	-18.836375	145.760512	GDA2020	100	2	A	C	0	
7178150		Animalia	Chordata	Aves	Apodiformes	Apodidae	Apus pacificus	fork-tailed swift	1965	(Latham, 1802)	SL		TRUE	QAI	Incidental Records	WildNet Incidental Records	25/03/2022	25/03/2022	25/03/2022	5km W of Mt Fox	-18.848309	145.748271	GDA2020	50	2	A	C	0	
7178146		Animalia	Chordata	Mammalia	Diprotodontia	Macropodidae	Petrogale sharmani	Sharman's rock-wallaby	892	Eldridge & Close, 1992	V	V	TRUE	Q	Incidental Records	WildNet Incidental Records	25/03/2022	25/03/2022	25/03/2022	5km W of Mt Fox	-18.84824	145.747251	GDA2020	20	1	A	C	0	
7178145		Animalia	Chordata	Mammalia	Diprotodontia	Macropodidae	Petrogale sharmani	Sharman's rock-wallaby	892	Eldridge & Close, 1992	V	V	TRUE	Q	Incidental Records	WildNet Incidental Records	25/03/2022	25/03/2022	25/03/2022	5km W of Mt Fox	-18.848793	145.746506	GDA2020	50	5	E	C	0	
7178144		Animalia	Chordata	Mammalia	Diprotodontia	Macropodidae	Petrogale sharmani	Sharman's rock-wallaby	892	Eldridge & Close, 1992	V	V	TRUE	Q	Incidental Records	WildNet Incidental Records	25/03/2022	25/03/2022	25/03/2022	5km W of Mt Fox	-18.837616	145.750937	GDA2020	20	1	A	C	0	
7178143		Animalia	Chordata	Mammalia	Diprotodontia	Macropodidae	Petrogale sharmani	Sharman's rock-wallaby	892	Eldridge & Close, 1992	V	V	TRUE	Q	Incidental Records	WildNet Incidental Records	26/03/2022	26/03/2022	26/03/2022	5km W of Mt Fox	-18.850153	145.744154	GDA2020	20	1	A	C	0	
7178142		Animalia	Chordata	Mammalia	Diprotodontia	Phascolarctidae	Phascolarctos cinereus	koala	860	(Goldfuss, 1817)	E	E	TRUE	QA	Incidental Records	WildNet Incidental Records	25/03/2022	25/03/2022	25/03/2022	5km W of Mt Fox	-18.824716	145.744335	GDA2020	20	1	A	C	0	
5732498		Animalia	Chordata	Aves	Struthioniformes	Casuariidae	Casuarius casuarius (southern population)	southern cassowary (southern population)	1087	Linnaeus, 1758	E	E	TRUE	Q	Incidental Records	Incidental Wildlife Sightings - QPW Wet Tropics Region	18/10/2010		18/10/2010	just above Mango Tree Lookout, Mt Fox Rd	-18.796335	145.90566	GDA2020	10	1	A	C	0	
5732497		Animalia	Chordata	Aves	Struthioniformes	Casuariidae	Casuarius casuarius (southern population)	southern cassowary (southern population)	1087	Linnaeus, 1758	E	E	TRUE	Q	Incidental Records	Incidental Wildlife Sightings - QPW Wet Tropics Region	18/10/2010		18/10/2010	Mt Fox Rd, rainforest before Pensioners	-18.804921	145.907369	GDA2020	10	1	A	C	0	
3597853		Animalia	Chordata	Mammalia	Diprotodontia	Pseudocheiridae	Petauroides volans minor	northern greater glider	2456	(Collett, 1887)	V	V	TRUE	Q	Incidental Records	Sightings - QPW Wet Tropics Region	5/01/2001		5/01/2001	MT FOX	-18.83159	145.801431	GDA2020	100	1	A	C	0	
4538050	1180334	Animalia	Chordata	Mammalia	Diprotodontia	Macropodidae	Petrogale sharmani	Sharman's rock-wallaby	892	Eldridge & Close, 1992	V	V	TRUE	Q	Queensland Historical Fauna Database	Eldridge (Unpubl. data)	13/05/1983	13/05/1983	13/05/1983	Mt Claro [RW]	-18.864987	145.734452	GDA2020	900		S		0	
4304595		Animalia	Chordata	Mammalia	Diprotodontia	Phascolarctidae	Phascolarctos cinereus	koala	860	(Goldfuss, 1817)	E	E	TRUE	QA	Incidental Records	Incidental Wildlife Sightings - QPW Wet Tropics Region	24/09/2003		24/09/2003	below Windy Gap; on Mt Fox Road	-18.78679	145.917647	GDA2020	100	1	A	C	0	
7231625	27694	Animalia	Chordata	Mammalia	Diprotodontia	Phascolarctidae	Phascolarctos cinereus	koala	860	(Goldfuss, 1817)	E	E	TRUE	QA	Incidental Records	WildNet Incidental Records	14/10/2022	16/10/2022	14/10/2022	Spring Ck, 5.75 km direct line W of Mt Fox	-18.83696	145.75065	GDA2020	20	1	A	V	0	

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7414892	648471	Plantae	Streptophyta	Equisetopsida	Polypodiales	Blechnaceae	Blechnum medium		41723	(R.Br.) Christenh.	SL		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES)	Queensland Herbarium Records Database System (HERBRES)	1/12/2004	9/06/2021	1/12/2004	Mt Fox Forest Reserve, un-named creek off Mt Fox Rd, 7.5km from Upper Stone River road, site 116.	-18.784756	145.919604	GDA2020	100	1	A	S	0	
7537895	495482	Plantae	Streptophyta	Equisetopsida	Asterales	Stylidiaceae	Stylidium uliginosum	swamp triggerplant	14182	Sw. ex Willd.	SL		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES)	Queensland Herbarium Records Database System (HERBRES)	5/04/2001	13/11/2024	5/04/2001	About 8km North-West of Hidden Valley TSP, on powerline road to Kallanda Station.	-18.953219	145.966294	GDA2020	100	1	A	S	0	
7541780	718498	Plantae	Streptophyta	Equisetopsida	Polypodiales	Pteridaceae	Adiantum philippense		18032	L.	SL		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES)	Queensland Herbarium Records Database System (HERBRES)	19/03/2001	13/12/2019	19/03/2001	Un-named creek running into Stone River, Mt Fox road, site 22.	-18.755942	145.917226	GDA2020	100	1	A	S	0	
7542423	495481	Plantae	Streptophyta	Equisetopsida	Lamiales	Lentibulariaceae	Utricularia caerulea	blue bladderwort	15939	L.	SL		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES)	Queensland Herbarium Records Database System (HERBRES)	5/04/2001	28/11/2003	5/04/2001	About 8km North-West of Hidden Valley TSP, on powerline road to Kallanda Station.	-18.953219	145.966294	GDA2020	100	1	A	S	0	
7588264	1026440	Plantae	Streptophyta	Equisetopsida	Myrtales	Myrtaceae	Blakella leptoloma		42289	(Brooker & A.R.Bean) Crisp & L.G.Cook	V	V	TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES)	Queensland Herbarium Records Database System (HERBRES)	26/08/2021	9/04/2024	26/08/2021	ca. 2.5km east of Ewan Road, near the township of Mount Fox.	-18.862377	145.931117	GDA2020	50	1	A	S	0	
7685915	1025618	Plantae	Streptophyta	Equisetopsida	Gentianales	Apocynaceae	Leichhardtia brevifolia		41641	(Benth.) P.I.Forst.	V	V	TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES)	Queensland Herbarium Records Database System (HERBRES)	30/07/2021	19/05/2023	30/07/2021	Zig Zag Station c 25km SSE of Mt Fox School.	-19.016587	145.916708	GDA2020	50	1	A	S	0	
7598703	1043116	Plantae	Streptophyta	Equisetopsida	Myrtales	Myrtaceae	Blakella leptoloma		42289	(Brooker & A.R.Bean) Crisp & L.G.Cook	V	V	TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES)	Queensland Herbarium Records Database System (HERBRES)	25/05/2023	9/04/2024	25/05/2023	2km West of Ewan Road, 10km north of Hidden Valley Township.	-18.89942	145.965012	GDA2020	50	1	A	S	0	

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7570598	550312	Plantae	Streptophyta	Equisetopsida	Polypodiales	Dryopteridaceae	<i>Lastreopsis tenera</i>		14435	(R.Br.) Tindale	SL		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES CS)	Queensland Herbarium Records Database System (HERBRES CS)	21/03/2001	24/01/2020	21/03/2001	SFR 458, Disaster LA, near Lookout, Mt Fox Road, site 25.	-18.795624	145.903689	GDA2020	100	1	A	S	0	
7587129	554519	Plantae	Streptophyta	Equisetopsida	Myrtales	Myrtaceae	<i>Blakella leptoloma</i>		42289	(Brooker & A.R.Bean) Crisp & L.G.Cook	V	V	TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES CS)	Queensland Herbarium Records Database System (HERBRES CS)	28/03/2002	9/04/2024	28/03/2002	Mt Fox (N end of Hidden Valley Pastoral Holding Seaview Range).	-18.873446	145.976122	GDA2020	2000	1	A	S	0	
7684186	1025617	Plantae	Streptophyta	Equisetopsida	Solanales	Solanaceae	<i>Solanum graniticum</i>	granite nightshade	29793	A.R.Bean	E	E	TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES CS)	Queensland Herbarium Records Database System (HERBRES CS)	30/07/2021	5/12/2022	30/07/2021	Kallanda Station c. 22km SE of Mt Fox School.	-18.997187	145.892208	GDA2020	50	1	A	S	0	
7701231	1043114	Plantae	Streptophyta	Equisetopsida	Myrtales	Myrtaceae	<i>Rhodamnia sessiliflora</i>		16287	Benth.	E		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES CS)	Queensland Herbarium Records Database System (HERBRES CS)	25/05/2023	13/09/2023	25/05/2023	300m south of state power line, 3.5km south of Mt. Fox township, 1.5km south of Mt. Fox Road.	-18.844075	145.870208	GDA2020	50	1	A	S	0	
7716154	455818	Plantae	Streptophyta	Equisetopsida	Fabales	Leguminosae	<i>Acacia tingoorensis</i>		21785	Pedley	V		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES CS)	Queensland Herbarium Records Database System (HERBRES CS)	1/01/1986	25/11/2022	1/01/1986	On Ingham-Greenvale road, 1.3km W of turnoff to Mt Fox.	-18.822778	145.779722	GDA2020	100	1	A	S	0	
7718253	766697	Plantae	Streptophyta	Equisetopsida	Fabales	Leguminosae	<i>Acacia tingoorensis</i>		21785	Pedley	V		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES CS)	Queensland Herbarium Records Database System (HERBRES CS)	27/09/2004	25/11/2022	27/09/2004	1.3km W from Mt Fox turnoff.	-18.823333	145.779722	GDA2020	100	1	A	S	0	
8180407	7344_6272	Plantae	Streptophyta	Equisetopsida	Asterales	Stylidiaceae	<i>Stylidium eriorhizum</i>		16111	R.Br.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	EIU	3/04/2001			12 kms due south of Krugers Hill on powerline track to Kalandrandra Stn	-18.95987	145.986213	GDA2020				V	0	

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7732612	765157	Plantae	Streptophyta	Equisetopsida	Fabales	Leguminosae	Acacia tingoorensis		21785	Pedley	V		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES CS) Queensland Herbarium	Queensland Herbarium Records Database System (HERBRES CS) Queensland Herbarium	31/10/2004	25/11/2022	31/10/2004	1.3km by road W of Mt Fox turnoff.	-18.822972	145.779833	GDA2020	100	1	A	S	0	
7740830	498808	Plantae	Streptophyta	Equisetopsida	Asterales	Asteraceae	Glossocardia orthochaeta		10046	(F.Muell.) Veldkamp	V		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES CS) Queensland Herbarium	Queensland Herbarium Records Database System (HERBRES CS) Queensland Herbarium	5/04/2001	25/11/2022	5/04/2001	Three Mile Creek Falls, Kallanda Station.	-18.936593	145.903721	GDA2020	100	1	A	S	0	
7880528	1042364	Plantae	Streptophyta	Equisetopsida	Dilleniales	Dilleniaceae	Hibbertia advena		42002	T.Hammer & Toelken	E		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES CS) Queensland Herbarium	Queensland Herbarium Records Database System (HERBRES CS) Queensland Herbarium	6/05/2023	17/08/2023	6/05/2023	Paluma.	-18.899641	145.96475	GDA2020	50	1	A	S	0	
8180405	7344_85	Plantae	Streptophyta	Equisetopsida	Asterales	Campanulaceae	Wahlenbergia gracilis	sprawling bluebell	15918	(G.Forst.) A.DC.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	EIU	3/04/2001			12 kms due south of Krugers Hill on powerline track to Kalandrandra Stn	-18.95987	145.986213	GDA2020				V	0	
7916556	1016176	Plantae	Streptophyta	Equisetopsida	Malvales	Byttneriaceae	Androcalva reticulata		35367	(Gymer) C.F.Wilkins & Whitlock	V		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRES CS) Queensland Herbarium	Queensland Herbarium Records Database System (HERBRES CS) Queensland Herbarium	10/07/2020	24/08/2025	10/07/2020	Kilclooney Station.	-18.733876	145.725841	GDA2020	50	1	A	S	0	
8180427	7344_14511	Plantae	Streptophyta	Equisetopsida	Caryophyllales	Droseraceae	Drosera lunata		34475	Buch.-Ham. ex DC.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	EIU	3/04/2001			12 kms due south of Krugers Hill on powerline track to Kalandrandra Stn	-18.95987	145.986213	GDA2020				V	0	
8126141	5284_2269	Plantae	Streptophyta	Equisetopsida	Poales	Poaceae	Dichanthium setosum		10401	S.T.Blake	C	V	TRUE	NTQ	Queensland Biodiversity & Ecology Information System	EIU	23/02/2000			1.2 km WNW of Mount Claro, on Camel Creek - Mount Fox Road.	-18.855936	145.730671	GDA2020				V	0	
8176717	7163_2269	Plantae	Streptophyta	Equisetopsida	Poales	Poaceae	Dichanthium setosum		10401	S.T.Blake	C	V	TRUE	NTQ	Queensland Biodiversity & Ecology Information System	EIU	23/02/2000			1.2 km WNW of Mount Claro, on Camel Creek - Mount Fox Road.	-18.855945	145.730671	GDA2020				V	0	

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7897438	1045050	Plantae	Streptophyta	Equisetopsida	Malvales	Byttneriaceae	Androcalva reticulata		35367	(Guymmer) C.F.Wilkins & Whitlock	V		TRUE	NTQ	Queensland Herbarium Records Database System (HERBRECS)	Queensland Herbarium Records Database System (HERBRECS)	28/08/2023	24/08/2025	28/08/2023	12km NNW of Mt. Fox State School, Mt. Fox.	-18.731866	145.722674	GDA2020	50	1	A	S	0	
8180511	7346_6272	Plantae	Streptophyta	Equisetopsida	Asterales	Stylidiaceae	Stylidium eriorhizum		16111	R.Br.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	EIU	4/04/2001			About 9.8 kms SE of Mount Ryan on Kallandra Stn Rd.	-18.955202	145.970532	GDA2020				V	0	
8180510	7346_85	Plantae	Streptophyta	Equisetopsida	Asterales	Campanulaceae	Wahlenbergia gracilis	sprawling bluebell	15918	(G.Forst.) A.DC.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	EIU	4/04/2001			About 9.8 kms SE of Mount Ryan on Kallandra Stn Rd.	-18.955202	145.970532	GDA2020				V	0	
8180549	7347_12372	Plantae	Streptophyta	Equisetopsida	Asterales	Asteraceae	Glossocardia orthochaeta		10046	(F.Muell.) Veldkamp	V		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	EIU	5/04/2001			Three Mile Falls on Kalnda Stn, 35kms SW of Ingham.	-18.938059	145.902652	GDA2020				V	0	
8314793	14546_4900	Plantae	Streptophyta	Equisetopsida	Polypodiales	Polypodiaceae	Drynaria rigidula		17354	(Sw.) Bedd.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAI NFOREST	21/03/2001			SFR 458, Disaster LA, Mt Fox rd, near Lookout, GR 8060-843212 (AGD66)	-18.795089	145.904108	GDA2020	20			V	0	
8314799	14546_1684	Plantae	Streptophyta	Equisetopsida	Asparagales	Laxmanniaceae	Cordyline cannifolia		17605	R.Br.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAI NFOREST	21/03/2001			SFR 458, Disaster LA, Mt Fox rd, near Lookout, GR 8060-843212 (AGD66)	-18.795089	145.904108	GDA2020	20			V	0	
8214710	9331_71	Plantae	Streptophyta	Equisetopsida	Asparagales	Xanthorrhoeaceae	Xanthorrhoea johnsonii		15934	A.T.Lee	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	EIU	5/04/2003			7kms SSE of Krugers Hill. Kallanda Stn Rd.	-18.944034	145.935472	GDA2020				V	0	
8262131	12114_71	Plantae	Streptophyta	Equisetopsida	Asparagales	Xanthorrhoeaceae	Xanthorrhoea johnsonii		15934	A.T.Lee	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_QLD Herbarium	10/04/2001			5.5km due SE of Boulder Mountain, immediately W of powerline easement.	-18.742082	145.771342	GDA2020	25			V	0	

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8262149	12114_4900	Plantae	Streptophyta	Equisetopsida	Polypodiales	Polypodiaceae	<i>Drynaria rigidula</i>		17354	(Sw.) Bedd.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_QLD Herbarium	10/04/2001			5.5km due SE of Boulder Mountain, immediately W of powerline easement .	-18.742082	145.771342	GDA2020	25		V	0	
8314750	14546_4274	Plantae	Streptophyta	Equisetopsida	Polypodiales	Dryopteridaceae	<i>Lastreopsis tenera</i>		14435	(R.Br.) Tindale	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAI NFOREST	21/03/2001			SFR 458, Disaster LA, Mt Fox rd, near Lookout, GR 8060- 843212 (AGD66)	-18.795089	145.904108	GDA2020	20		V	0	
8314819	14546_9763	Plantae	Streptophyta	Equisetopsida	Polypodiales	Blechnaceae	<i>Blechnum parrisiae</i>		41590	Christenh. .	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAI NFOREST	21/03/2001			SFR 458, Disaster LA, Mt Fox rd, near Lookout, GR 8060- 843212 (AGD66)	-18.795089	145.904108	GDA2020	20		V	0	
8314760	14546_1183	Plantae	Streptophyta	Equisetopsida	Myrtales	Myrtaceae	<i>Rhodamnia sessiliflora</i>		16287	Benth.	E		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAI NFOREST	21/03/2001			SFR 458, Disaster LA, Mt Fox rd, near Lookout, GR 8060- 843212 (AGD66)	-18.795089	145.904108	GDA2020	20		V	0	
8314764	14546_12866	Plantae	Streptophyta	Equisetopsida	Polypodiales	Polypodiaceae	<i>Platynerium hillii</i>		16423	T.Moore	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAI NFOREST	21/03/2001			SFR 458, Disaster LA, Mt Fox rd, near Lookout, GR 8060- 843212 (AGD66)	-18.795089	145.904108	GDA2020	20		V	0	
8314770	14546_4983	Plantae	Streptophyta	Equisetopsida	Polypodiales	Polypodiaceae	<i>Microsorium punctatum</i>		16626	(L.) Copel.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAI NFOREST	21/03/2001			SFR 458, Disaster LA, Mt Fox rd, near Lookout, GR 8060- 843212 (AGD66)	-18.795089	145.904108	GDA2020	20		V	0	
8314737	14546_1686	Plantae	Streptophyta	Equisetopsida	Asparagales	Laxmanniaceae	<i>Cordyline manners-suttoniae</i>		11707	F.Muell.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAI NFOREST	21/03/2001			SFR 458, Disaster LA, Mt Fox rd, near Lookout, GR 8060- 843212 (AGD66)	-18.795089	145.904108	GDA2020	20		V	0	

WN sighting Id	Provider sighting Id	Kingdom	Phylum	Class	Order	Family	Scientific name	Common name	Taxon Id	Taxon author	NCA	EPBC	Conservation significant	Establishment	Source	Project	Start date	End date	Sighting date	Locality	Latitude	Longitude	Datum	Precision	Count	Cou nt	Extra limit Vetting	Restricted record
8347693	15924_12866	Plantae	Streptophyta	Equisetopsida	Polypodiales	Polypodiaceae	<i>Platycterium hillii</i>		16423	T.Moore	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAIFOREST	19/03/2001			Mt Fox rd, tributary of (Western) Stone River, approx 27km south-west of Ingham. GR 8060-857256 (AGD66)	-18.75705	145.91659	GDA2020	20		V	0	
8347707	15924_4882	Plantae	Streptophyta	Equisetopsida	Polypodiales	Pteridaceae	<i>Doryopteris concolor</i>		17396	(Langsd. & Fisch.) Kuhn	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAIFOREST	19/03/2001			Mt Fox rd, tributary of (Western) Stone River, approx 27km south-west of Ingham. GR 8060-857256 (AGD66)	-18.75705	145.91659	GDA2020	20		V	0	
8347713	15924_13473	Plantae	Streptophyta	Equisetopsida	Polypodiales	Pteridaceae	<i>Adiantum philippense</i>		18032	L.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAIFOREST	19/03/2001			Mt Fox rd, tributary of (Western) Stone River, approx 27km south-west of Ingham. GR 8060-857256 (AGD66)	-18.75705	145.91659	GDA2020	20		V	0	
8347717	15924_6114	Plantae	Streptophyta	Equisetopsida	Polypodiales	Pteridaceae	<i>Adiantum atroviride</i>		21888	Bostock	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAIFOREST	19/03/2001			Mt Fox Forest Reserve, un-named creek off Mt Fox rd, 7.5km from Upper Stone River rd, GR 8060-860224	-18.75705	145.91659	GDA2020	20		V	0	
8423247	18049_4880	Plantae	Streptophyta	Equisetopsida	Polypodiales	Blechnaceae	<i>Blechnum medium</i>		41723	(R.Br.) Christenh.	SL		TRUE	NTQ	Queensland Biodiversity & Ecology Information System	WET_RAIFOREST	1/12/2004				-18.7862	145.9181	GDA2020	50		V	0	



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