PREPARED FOR

Theodore Energy Development Pty Ltd

Theodore Wind Farm

Draft Offset Management Plan

DATE
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REFERENCE
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SIGNATURE PAGE

Theodore Wind Farm

Draft Offset Management Plan

0661076

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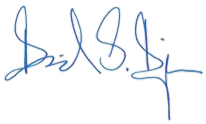

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CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

Acronym	Description
AU	Assessment unit
CEMP	Construction Environmental Management Plan
cm	centimetre
DAWE	Department of Agriculture, Water and the Environment
dbh	diameter at breast height
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DoE	Department of the Environment
DSEWPC	Department of Sustainability, Environment, Water, Population and Communities
DRY	Dry matter yield
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ERM	Environmental Resources Management Australia Pty Ltd
ha	Hectares
HQS	Habitat quality scores
km	kilometre
m	metre
mm	millimetre
MNES	Matter of National Environmental Significance
MHQA	Modified Habitat Quality Assessment
OAG	Offset Assessment Guide
OMP	Offset Management Plan
PER	Public Environment Report
PMST	Protected Matters Search Tool
Offsets Policy	EPBC Act Environmental Offsets Policy
RE	Regional Ecosystem
REDD	Regional Ecosystem Description Database
km^2	square kilometres
TEC	Threatened Ecological Community
VDec	Voluntary Declaration
VM Act	*Vegetation Management Act 1999*
WoNS	Weeds of National Significance
%	Percent

GLOSSARY

Term	Definition
Action	A project, development, an undertaking, or other activity, or series of activities. Under the EPBC Act, an 'action' can also include a change to any of these things.
Approval Holder	The person to whom the EPBC Act project approval is granted and is responsible for compliance with conditions (if any) applied to a project.
Bi-annual	Occurring once every two years.
BioCondition Benchmark	A description of a regional ecosystem vegetation community that represents the median or average characteristics of a mature and relatively undisturbed ecosystem of the same type. Benchmarks are specific to each regional ecosystem or vegetation community in Queensland.
Commencement of the Action	Means the first instance of any specified activity associated with the Action including clearing and construction. Excludes minor physical disturbances defined within the EPBC Act approval.
Controlled Action	One of the possible decisions the Environment Minister can make about a referred action. A controlled action is one that the minister decides has, will have, or is likely to have, a residual significant impact on a protected matter.
Disturbance Footprint	The area whereby the final layout and impacts have been considered and occupies an area of 1,590.1 ha.
EPBC Act	The *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) is Australia's national environmental law. It provides a legal framework to protect the environment, especially those aspects that are matters of national environmental significance.
Large Tree	Large trees are defined as living trees with a diameter at breast height (dbh) greater than the dbh threshold provided in the BioCondition benchmark document.
Offsets	Actions you take to compensate for residual or remaining significant impacts on a protected matter.
Offset Provider	The Offset Provider is responsible for offset delivery (including overseeing Management Actions and on-ground works such as site monitoring, management, and reporting), and management of vegetation/habitat quality assessments such as Modified Habitat Quality Assessments (MHQA).
Project Area	The corridor of land on which the Disturbance Footprint will be located, including a 100 metre buffer for micro-siting.
Proponent	Theodore Energy Development Pty Ltd.
RoL	Risk of loss.
Suitably Qualified Ecologist	Suitably Qualified Ecologist means a person who has relevant professional qualifications and at least three years' work experience designing and implementing flora and fauna surveys and management plans for the impacted MNES using relevant protocols, standards, methods and/or literature.
Study Area	The nine land parcels and road reserve areas, 46,830 ha, in which the Proposed Action will be located.
Weed/s	Means any weed species identified within the Weeds of National Significance (WoNS) and weed species listed under the *Biosecurity Act 2014* known to restrict the movement of koala and/or degrade the quality of the impacted MNES habitat, or its ability to regenerate.
WTG	Wind Turbine Generator.

DECLARATION OF ACCURACY

In making this declaration, I am aware that Section 491 of *the Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) (EPBC Act) makes it an offence in certain circumstances to knowingly provide false or misleading information or documents to specified persons who are known to be performing a duty or carrying out a function under the EPBC Act or the *Environment Protection and Biodiversity Conservation Regulations 2000* (Commonwealth). The offence is punishable on conviction by imprisonment or a fine, or both. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed _____

Full name (please print) _____

Organisation (please print) _____

Date _____/_____/_____

1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) has been engaged by Theodore Energy Development Pty Ltd (the Proponent) to prepare a Draft Offset Management Plan (OMP) for the proposed Theodore Wind Farm located approximately 22 kilometres (km) east of the township of Theodore, Queensland (herein referred to as the Proposed Action).

1.1 BACKGROUND

The Proposed Action consists of up to 170 Wind Turbine Generators (WTG) and ancillary infrastructure including, foundations and hardstands, temporary infrastructure such as concrete batching plants, laydown areas, construction offices, parking and on-site accommodation, access tracks and electrical reticulation, switching stations and substations, Battery Energy Storage Systems (BESS), meteorological masts (met masts), and operation and maintenance facilities. The Proposed Action is being developed across nine freehold lots across three properties (the Study Area). The Study Area is dominated by alluvial plains with non-remnant grasslands predominantly used for agricultural grazing (Figure 1-1[1]).

The Proposed Action was referred to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) and a valid referral was published on 11 June 2024 (2024/09842), with a controlled action decision and assessment approach decision made on 09 July 2024. The assessment approach was confirmed to be via Public Environment Report (PER), and the PER Guidelines were published on 09 August 2024.

It was determined that the Proposed Action is likely to have a residual significant impact on the following listed threatened species and community:

- Poplar Box Grassy Woodland on Alluvial Plains Threatened Ecological Community (TEC) (Poplar Box TEC);
- Southern squatter pigeon (*Geophaps scripta scripta*);
- Greater glider (southern and central) (*Petauroides volans*) (herein referred to as greater glider);
- Koala (*Phascolarctos cinereus*); and
- Diamond firetail (*Stagonopleura guttata*).

As such, the Approval Holder is required to provide offsets to compensate for the residual significant impacts to the above species and Poplar Box TEC. The Offset Area is shown in Figure 1-2.

1.2 PURPOSE OF THE OMP

This OMP presents the Theodore Wind Farm proposed offsets for the likely impacts to Matters of National Environmental Significance (MNES), developed in accordance with the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) *Environmental Offsets Policy* (the Offsets Policy) and the Proposed Action-specific requirements outlined in the PER Guidelines.

[1] Although the number referencing for WTGs in some figures goes to 172, there are only 170 WTG proposed as part of the Proposed Action.

This OMP identifies the area availability that could be used for offsetting within an identified Offset Investigation Area. From here on, the Offset Investigation Area will be referred to as the Offset Area. However, it is to be noted that the official Offset Area will be a refined proportion of this Offset Investigation Area.

The purpose of this OMP is to:

- Summarise the Proposed Action impacts to the Poplar Box TEC, southern squatter pigeon, greater glider, koala and diamond firetail;
- Identify and describe the Offset Area;
- Outline the regulatory framework guiding the development of the OMP, and demonstrate compliance with requirements;
- Provide objectives of the offset and site-specific management actions to be implemented within the Offset Area, including specific timing and outcomes to be achieved;
- Establish the requirements for monitoring, reporting and corrective actions;
- Demonstrates complete acquittal of the calculated offset requirement; and
- Assess the risks associated with achieving the offset.

It is important to note that contractual agreements with both onsite and other prospective land owners for the targeted Offset Area is yet to be confirmed. These agreements are necessary to ensure the feasibility of the management actions, monitoring plan, interim performance targets, and environmental objectives outlined in this OMP. At this stage, the boundaries of the Offset Area remain flexible and may be refined following the finalisation of these agreements.

This OMP presents current opportunities for suitable offset land and identifies management measures considered practicable to meet the Offset Area objectives onsite (within the Study Area of the Proposed Action). While onsite offsetting remains the preferred option, alternative locations are under consideration if required.

The management actions outlined in this OMP represent the preferred approach; however, they may be subject to revision following negotiations with land owners.

This OMP has been prepared in accordance with the *Environmental Management Plan Guidelines* (DCCEEW, 2024d), and has been reviewed and approved by Dr David Dique, a Commonwealth Approved Ecologist with 30 years' experience (a suitably qualified ecologist).

FIGURE 1-1 PROPOSED ACTION DISTURBANCE FOOTPRINT

FIGURE 1-2 OFFSET AREA

1.3 COMPLIANCE

The EPBC Act provides the legal framework to protect and manage nationally and internationally important flora and fauna species and ecological communities. A controlled action decision and assessment approach decision was determined for the Proposed Action. The assessment approach was confirmed to be via PER. A requirement of the PER Guidelines is to develop a OMP to offset residual significant impacts for MNES, in accordance with the Offsets Policy.

The Offsets Policy provides guidance on the development of suitable environmental offsets where a residual significant impact to MNES remains. The principles of the Offsets Policy and how the Offset Area meets these principles, are outlined in Table 1-1. Additionally, compliance with requirements of the PER Guidelines is shown in Table 1-2.

TABLE 1-1 COMPLIANCE WITH OFFSETS POLICY PRINCIPLES

EPBC Act Offset Principles (DSEWPC, 2012)	Proposed Offset Anticipated Compliance
Must deliver an overall conservation outcome that improves or maintains the viability of the aspect of the environment that is protected by national environment law and affected by the Proposed Action	The offset includes a direct, land-based offset that will result in the protection and improvement of Poplar Box TEC, southern squatter pigeon, greater glider, koala and diamond firetail habitat. The offset is like-for-like, comprising habitat values commensurate with the habitat impacted. Management actions will be undertaken across six broad categories (habitat management, weed management, pest animal management, fire management, grazing management and general Offset Area management), to ensure the Offset Area's habitat quality is improved throughout the lifetime of the offset. The Offset Area will be managed exclusively for conservation purposes and will be protected and managed under this OMP for the life of the approval.
Must be built around direct offsets but may include other compensatory measures	The Offset Area for the Poplar Box TEC, southern squatter pigeon, greater glider, koala and diamond firetail is a direct land-based offset. The offset secures a land-based offset that meets the offset obligation and will be managed in accordance with this OMP.
Must be in proportion to the level of statutory protection that applies to the protected matter	The Offset Area calculation has been informed by the EPBC Act threat status for all TECs and impacted species, through the use of the EPBC Act Offsets Assessment Guide (OAG). Refer to Section 4.5.2 and Appendix C for OAG outcomes.
Must be of a size and scale proportionate to the residual impacts on the protected matter	The size and scale of the offset has been assessed using the EPBC Act OAG, with the following percent of impact offset for each MNES: • 136.42% for Poplar Box TEC; • 314.56% for southern squatter pigeon habitat; • 131.78% for greater glider habitat; • 151.92% for koala habitat; and • 174.22% for diamond firetail habitat.

EPBC Act Offset Principles (DSEWPC, 2012)	Proposed Offset Anticipated Compliance
	Refer to Section 4.5.2 and Appendix C for full OAG assessments. It should be noted that this OMP has been developed based on a maximum residual significant impact for each MNES. Therefore, the offset for MNES values will provide protection for above the required offset amount.
Must effectively account for and manage the risks of the offset not succeeding	A detailed risk assessment has been provided in this OMP, which details the relevant mitigation measures and residual risk rating in accordance with the *Environmental Management Plan Guidelines* (DCCEEW, 2024d). Key threats to the Offset Area will be actively managed in accordance with this OMP. The risk of the offsets not succeeding has been factored into the EPBC Act OAG calculator, with 'confidence in result' set at of: • 60% for Poplar Box TEC offset; • 85% for southern squatter pigeon offset; • 85% for greater glider offset; • 85% for koala offset; and • 85% for diamond firetail. Adaptive management will be implemented as part of the OMP and will ensure that changes and updates can be made to management actions, if circumstances in the Offset Area change.
Must be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programs (this does not preclude the recognition of state or territory offsets that may be suitable as offsets under the EPBC Act for the same action, see Section 7.6)	The Offset Area is not protected through a State or Commonwealth mechanism. By designating the Offset Area as a Category A (offset area) under the *Vegetation Management Act 1999* (VM Act), additional protection is placed over the vegetation so that existing pressures on the condition can be removed. The Offset Area has not previously been used as part of a Recovery Plan or conservation outcome. Thus, the Offset Area offers additional protection to what is already in place under planning regulations/schemes.
Must be efficient, effective, timely, transparent, scientifically robust and reasonable	The Offset Area will be governed by this OMP, which includes a management, monitoring, and reporting program. The OMP provides transparency around offset delivery and clear requirements around timing and required outcomes. The management actions have been informed by species-specific requirements and technical knowledge regarding key threats and effective control measures. Therefore, the offset is considered to be efficient, effective, timely, transparent, scientifically robust and reasonable.
Must have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced	The OMP includes clear and detailed objectives, as well as the specific timelines that will be in place to ensure management of the Offset Area are followed and implemented. The responsibilities of the Approval Holder and land owner, as well as monitoring and auditing measures, are detailed in Section 2.3 and Section 6 within this OMP.

TABLE 1-2 EPBC ACT PER GUIDELINES RELEVANT TO THE OMP

Item	EPBC PER Guideline	OMP Reference
D1.1	Details of the residual impacts to MNES from the Proposed Action, including the inputs to the Offset Assessment Guide in relation to the Impact Area for each MNES (i.e. the quantum of impact), including: • Total area of habitat (in hectares (ha)); and • Habitat quality (see D1.7).	Section 3.2
D1.2	Specific, committal and measurable environmental outcomes which detail the nature of the conservation gain to be achieved for relevant MNES, including the creation, restoration and revegetation of habitat in the proposed Offset Area/s.	Section 7
D1.3	A description of the offset area/s, including location, size, condition, environmental values present and surrounding land uses.	Section 2 Section 4
D1.4	Baseline data and other supporting evidence that documents the presence of the relevant MNES, and the quality of their habitat within the Offset Area/s.	Section 4.4
D1.5	Details on how the Offset Area/s will provide connectivity with other habitats and biodiversity corridors and/or will contribute to a larger strategic offset for the relevant MNES.	Section 4
D1.6	Details, with supporting evidence, to demonstrate how the environmental offset/s compensate for residual significant impacts of the proposed action on relevant MNES, and/or their habitat, in accordance with the principles of the Offsets Policy and all requirements of the Offset Assessment Guide including: • Time over which loss is averted (max 20 years); • Time until ecological benefit; • Risk of loss (RoL) (%) without offset; • RoL with offset; and • Confidence in result (%). When calculating offsets, please refer to the DCCEEW's published guidance: how to use the OAG. Please note, RoL should not include consideration of stochastic events (e.g. bushfire), activities that contribute to changes in habitat quality scores (HQS) or impacts that would otherwise require an offset under any relevant legislation.	Section 4.5 Appendix C
D1.7	An assessment of the site habitat quality of the Offset Area/s. Please note, DCCEEW currently uses an adaptation of the Queensland Guide to determining terrestrial habitat quality v1.2 (2017) – the Modified Habitat Quality Assessment (MHQA). MHQA was developed to better reflect the	Section 4.5 Appendix B

Item	EPBC PER Guideline	OMP Reference
	requirements of the Offsets Policy for determining habitat quality. The Queensland Guide (v1.2) should also be subject to the following modifications: • The species richness scores in Table 2 of the DEHP Guide are printed as having three scoring ranges: 2.5 points, 3 points, and 5 points. Instead, those scores should be 0 points, 2.5 points, and 5 points. • Though the Queensland Guide makes reference to the possibility of alternative scoring methods and weighting, the DCCEEW is not able to accept alternative weightings or scorings, s that would necessarily introduce unacceptable subjectivity and variation between scoring on different projects and by different site surveyors.	
D1.8	Specific offset completion criteria derived from the site habitat quality to demonstrate the improvement in the quality of habitat in the Offset Area/s over a 20-year period.	Section 7.2
D1.9	Details of the management actions, and timeframes for implementation, to be carried out to meet the offset completion criteria.	Section 5
D1.10	Interim milestones that set targets at a maximum of 5-yearly intervals for progress towards achieving the offset completion criteria.	Section 7
D1.11	Details of the nature, timing, frequency of monitoring to inform progress against achieving the maximum 5-yearly interim milestones (the frequency of monitoring must be sufficient to determine whether the Offset Area/s are likely to achieve those milestones in adequate time to implement all necessary corrective actions).	Section 6
D1.12	Proposed timing for the submission of monitoring reports which provide evidence demonstrating whether the interim milestones have been achieved.	Section 6
D1.13	Timing for the implementation of tangible, on-ground corrective actions to be implemented if monitoring activities indicate the interim milestones have not been achieved.	Section 6
D1.14	Evidence of how the management actions and corrective actions take into account relevant approved Conservation Advices and are consistent with relevant Recovery Plans and Threat Abatement Plans.	Section 5
D1.15	Details and execution timing of the mechanism to legally secure the proposed offset area/s, such that legal security remains in force over the offset area/s for at least 20 years to provide enduring protection for the Offset Area/s against development incompatible with conservation.	Section 2.2

Item	EPBC PER Guideline	OMP Reference
	Please note, should the Proposed Action be approved, conditions of an approval are likely to require that environmental offset/s be legally secured prior to the commencement of the Proposed Action.	
D1.16	All measures must be written using committed language (e.g. will and must) and in accordance with the 'S.M.A.R.T' principle: • S – Specific (what and how); • M – Measurable (supported by baseline information, number/value, quantifiable, auditable); • A – Achievable (with consideration of e.g. timeframe, money, personnel); • R – Relevant (consistent with Conservation Advices, Recovery Plans, Threat Abatement Plans, scientific literature); and • T – Time-bound (specific timeframe to complete, include timeframe and frequency).	Section 5
D1.17	Risk analysis and risk management and mitigation strategy for all risks to the successful implementation of the OMP and timely achievement of the offset completion criteria, including a risk of all initial and post-mitigation residual risks in accordance with a risk assessment matrix.	Section 8

2. OFFSET OVERVIEW

The Offset Area is located wholly within the Study Area associated with the Proposed Action. The Study Area lies within the Brigalow Belt bioregion as defined by the Interim Biogeographic Regionalisation for Australia framework, within the Banana – Auburn Ranges subregion. The Brigalow Belt bioregion covers 365,281 square kilometres (km^2), approximately 21 percent (%) of Queensland, from Townsville to the border of New South Wales. The general landform of the bioregion is dominated by ranges that fringe or divide three major catchments – Burdekin and Fitzroy in the north and Condamine – Warrego in the south (DES, 2018).

The topography of the Study Area is characterized by flat alluvial plans and undulating slopes of eucalypt dominant open woodland. Landscape features vary in geology, from volcanic and rocky outcrops to open, flat ridges and sedimentary stratigraphy on the western extent of the Study Area. The Study Area is intersected by several major waterways; Castle Creek in the north and Boam Creek in the south.

Habitat within the Study Area is generally in a moderate to low condition, with signs of degradation and fragmentation due to cattle grazing, dieback, erosion, and the presence of introduced flora species. The surrounding landscapes within the locality (10 km) have similarly been influenced by historical land clearing and cattle grazing.

2.1 OFFSET AREA

The Offset Area for the Poplar Box TEC, southern squatter pigeon, greater glider, koala and diamond firetail is a direct, land-based offset that contains habitat that will be protected and actively managed to improve its condition for these species.

[redacted] Relevant details of the Offset Area is described in Table 2-1.

It is important to note that confirmation of a contractual agreement with the potential land owner of the Offset Area is essential to ensure that the management actions, monitoring plan, interim performance targets, and environmental objectives outlined in this OMP are achievable.

In this context, the boundaries of the Offset Area remain flexible and may be subject to adjustments. This Offset Area was prioritised for delivery of the Project's offset liability. Offset delivery will be undertaken by the Approval Holder in collaboration with land owners/land managers.

TABLE 2-1 OFFSET AREA DETAILS

Offset Area	Lot on Plan	Lot Size	Proposed Area Available for Offset
Offset Area	[redacted]	19,594 ha	5,268.9 ha

[redacted]

[redacted]

Table 2-2 below confirms the ability of the Offset Area to meet offset requirements for the Proposed Action.

TABLE 2-2 AVAILABILITY OF OFFSETS WITHIN THE OFFSET AREA

MNES		Permanent Impact (ha)	Habitat Available in Offset Area (ha)	Percentage of Offset Availability (%)*
Poplar Box TEC		6.6	114.3	136.42
Greater glider (southern and central)	Likely / Current Denning Habitat	19.0	250.4	131.78
	Potential/ Future Denning Habitat	0.8		
	Foraging and Dispersal Habitat	623.9	4817.8	
Koala	Preferred Foraging and Breeding Habitat	6.2	263.4	151.92
	General Foraging and Breeding Habitat	657.3	5,006	
Southern squatter pigeon	Breeding Habitat	128.3	3,437.7	314.56
	Foraging and Dispersal Habitat	24.2	673.9	
Diamond firetail	Potential Breeding and	95.8	1,226.2	174.22

MNES		Permanent Impact (ha)	Habitat Available in Offset Area (ha)	Percentage of Offset Availability (%)*
	Foraging Habitat			

**Percent of offset available is derived from an output of the OAG, accounting for baseline habitat quality of both the impact area and offset area and target future habitat quality of the offset area improved via management measures. Further details on the OAG inputs and results are provided within Section 4.5.*

2.2 LEGAL SECURITY

Within 24 months of approval of the Proposed Action, legal security will be obtained via a Voluntary Declaration (VDec) per Section 19F of the VM Act. The VDec will be registered on the property title and the Offset Area will be mapped as a Category A area on a Property Map of Assessable Vegetation (PMAV) and described as an "*Area subject to compliance notices, offsets and voluntary declarations*." Once legal security is obtained, the Offset Area will be subject to all relevant regulations and protections applicable to mapped Category A regulated vegetation, and impacts to the Offset Area by land owners and proponents operating in the surrounding properties will need to be avoided.

Within 20 business days of legally securing the Offset Area, the Approval Holder will advise DCCEEW in writing and provide legal security documentation.

The intent of the Offset Area is to be actively managed and secured for conservation purposes, being protected for the life of the approval. Should there be any consideration toward terminating the voluntary offset as outlined in this OMP, the Commonwealth Minister representing DCCEEW or future relevant department with overarching regulatory responsibility for Commonwealth offsets must be consulted prior to any changes relating to offsets described in this OMP.

It should be noted that DCCEEW has advised that a VDec may not be appropriate as a sole legal mechanism for securing an offset area in perpetuity under the EPBC Act. In response, the Proponent plans to progress with a VDec as an initial step, to enable early protection and management of the Offset Area, while also exploring complementary legal mechanisms that may be required to satisfy long-term offset obligations.

The Offset Area will be legally secured in accordance with the Offsets Policy. The Queensland Offset Policy lists four legal mechanisms for securement:

- An environmental offset protection area under Section 30 of the *Environmental Offsets Act 2014*;
- An area declared as an 'area of high native conservation value' under Section 19F of the VM Act, where it is secured for the purpose of an environmental offset;
- An area declared as a 'nature refuge' under Section 46 of the *Nature Conservation Act 1992*, where it is secured for the purpose of an environmental offset;
- An area declared as a 'protected area' under Section 29(1) of the *Nature Conservation Act 1992*, where it is secured for the purpose of an environmental offset; and/or

- An area secured as a 'statutory covenant for environmental purposes' under the *Land Act 1994* or the *Land Title Act 1994*.

Legal securement of the Offset Area will be obtained by one of the mechanisms stipulated. The Proponent is investigating suitable options, primarily 'nature refuge' or 'statutory covenant for environmental purposes'. The Proponent will continue to engage with DCCEEW as the assessment progresses, informing DCCEEW if timeframes for securing alternative mechanisms diverge from those associated with the VDec.

2.3 ROLES AND RESPONSIBILITIES

The key OMP stakeholders are identified by their roles in the list below. These roles and responsibilities are subject to change following the development of the final OMP and the contractual obligations with the land owner.

Theodore Energy Development Pty Ltd – Proponent

- Accountable for legally securing the Offset Area, OMP compliance, and compliance oversight of Offset Provider;
- Oversees and approves OMP reviews, updates and finalisation;
- Submits the Annual Compliance Report to DCCEEW; and
- Subcontracts suitably qualified professionals to undertake on-ground management activities such as weed control, pest animal management, and fire management.

Offset Managers – Offset Providers

- Responsible for offset delivery in line with the approved OMP;
- Oversees on-ground implementation of management activities, monitoring, and reporting;
- Coordinates ecological surveys and data collection for compliance and adaptive management (including vegetation and Modified Habitat Quality Assessments (MHQAs)); and
- Prepares and submits monitoring reports and progress updates to the Approval Holder (Annual Offset Report).

Land owner

Responsibilities will be subject to negotiations and offset agreements, however may include the following:

- Maintains boundary fencing and access control to prevent unauthorised grazing or disturbance;
- Notifies the Offset Provider of any observed issues or risks to offset values (e.g. weed outbreaks, grazing incursions); and
- Collaborates with the Offset Provider to support long-term stewardship of the Offset Area.

3. MNES REQUIRING OFFSETTING

3.1 SURVEY EFFORT FOR MNES

3.1.1 DESKTOP ASSESSMENT AND LIKELIHOOD OF OCCURRENCE ASSESSMENT

Several Commonwealth, State, and public information sources were reviewed through the desktop assessment process to identify ecological values that may occur within the Study Area of the Proposed Action. This desktop assessment framed the field survey program, with field surveys targeting MNES that had been considered known, likely, or potentially occurring within the Study Area based on a likelihood of occurrence assessment (LoO). For full detail on the desktop assessment and LoO, refer to Section 4 of the Theodore Wind Farm PER.

3.1.2 FIELD SURVEYS

Field surveys have been undertaken in the Study Area over 10 separate survey events between October 2022 and February 2026. The purpose of the field surveys was to identify, assess and describe the ecological values in the Study Area, to inform the assessment of ecological impacts of the Proposed Action and to capture any seasonal variation in results. The methodology adopted for the field surveys was based on Commonwealth and State survey guidelines, and focused on describing vegetation communities, flora and fauna habitats and their conditions, and targeted surveys for listed threatened species identified through desktop review. Additionally, a 24-month bird utilisation survey (BUS) program has incorporated into the field survey program, fulfilling the requirements of the *Onshore Wind Farm Guidance* (DCCEEW, 2024e). For a detailed description of the survey methodology for vegetation community ground truthing, habitat condition assessments, and listed threatened species targeted surveys and habitat mapping, refer to Section 4 of the Theodore Wind Farm PER.

Field surveys also included the assessment of habitat quality by conducting MHQAs across both the Impact Area (habitat within the Disturbance Footprint of the Proposed Action) and the Offset Area. These surveys were conducted to validate the HQS of impacted MNES, baseline offset HQS and projected improvement HQS through the OAG calculator as per the Offsets Policy Principles (DCCEEW, 2024a). Further detail on habitat quality scoring is provided within Section 4.5.1 and 4.5.

TABLE 3-1 SURVEY EFFORT WITHIN THE STUDY AREA (INCLUDING OFFSET AREA) FOR MNES

Survey Events	Survey Scope	Survey Effort
17 – 22 October 2022	• Vegetation and habitat assessment (including targeted threatened species) • Targeted fauna surveys • Bird surveys • Bat surveys	• 36 individual survey locations • 4 camera traps deployed for 4 consecutive nights • 2 nights spotlighting transects • 23 BUS • 2 Anabats locations recording for 4 consecutive nights

Survey Events	Survey Scope	Survey Effort
13 – 17 February 2023	• Bird surveys • Bat surveys	• 32 BUS • 4 Anabats locations recording for 4 consecutive nights
27 – 31 March 2023	• Vegetation and habitat assessment (including targeted threatened species) • Bird surveys • Bat surveys	• 60 individual survey locations • 27 BUS • 4 Anabats locations recording for 4 consecutive nights
5 – 9 June 2023	• Vegetation and habitat assessment (including targeted threatened species) • Targeted fauna surveys • Bird surveys	• 48 individual survey locations • 4 spotlighting nights • 7 koala Spot Assessment Techniques (SAT) • 24 BUS
25 September – 13 October 2023	• MHQA Assessments • Bird surveys	• 17 MHQA transects • 26 BUS
4 – 8 December 2023	• Bird surveys	• 40 BUS
19 – 23 February 2024	• Bird surveys	• 27 BUS
10 – 14 June 2024	• Vegetation assessments • MHQA Assessment • Bird surveys	• 31 individual survey locations • 8 MHQA transects • 18 BUS
23 – 28 September 2024	• MHQA Assessment • Targeted flora transects • Habitat assessments • Targeted fauna surveys	• 13 MHQA Assessment • 17 transects in impact areas for flora species • 4 assessments in impact areas for reptiles • 6 assessments atop of ridgelines for white-throated needletail • 2 spotlighting nights • 9 call playback for yellow-bellied glider • 3 call playback for diamond firetail
17 – 21 February 2026	• MHQA Assessment • Vegetation and habitat assessment (including targeted threatened species)	• 19 MHQA Transects • 22 Queensland quaternary surveys

3.2 PROPOSED ACTION IMPACTS

The following Sections detail the proposed impacts on listed threatened species habitat likely to have a residual significant impact located within the Study Area. Ground-truthed Regional Ecosystems (REs) have been used to inform habitat mapping for species habitat or ground-truthed to identify TECs. For a detailed description of survey methodology, vegetation community ground truthing, habitat condition assessments, and listed threatened species habitat mapping, refer to Section 4 and 5 of the Theodore Wind Farm PER.

The Theodore Wind Farm PER identified the Study Area as approximately 46,830 ha with a Disturbance Footprint of 1,590.1 ha to accommodate the construction of the Proposed Action. The Disturbance Footprint represents 3.4% of the total Study Area. It should be noted that the existing land management practices will be largely unaffected by the Proposed Action as host properties will be able to continue to utilise the land for agricultural activities throughout the life of the Proposed Action.

The area of habitat to be impacted for MNES considered likely to have a residual significant impact as a result of the Proposed Action is provided within the following Sections.

3.2.1 POPLAR BOX TEC

Poplar Box TEC is listed as Endangered under the EPBC Act and is considered known to occur within the Study Area.

Poplar Box TEC is typically a grassy woodland with a canopy dominated by *Eucalyptus populnea* and understorey mostly of grasses and other herbs. It occurs in Queensland RE Land Zone 3 (quaternary alluvium deposited from stream flow) and Land Zone 4 (quaternary clay plains originating in ancient alluvium deposits) (DoEE, 2019). The Polar Box TEC is best represented by five REs in Queensland, though can occur outside of these mapped REs, including as regrowth vegetation (DoEE, 2019).

3.2.1.1 HABITAT WITHIN THE STUDY AREA

The extent of the Poplar Box TEC within the Study Area and the Disturbance Footprint is provided in Table 3-2.

TABLE 3-2 POPLAR BOX TEC OCCURRENCE WITHIN THE STUDY AREA AND IMPACTED EXTENT

TEC Habitat	Area of habitat within the Study Area (ha)	Area within the Disturbance Footprint (ha)	Areas disturbed to an extent that they no longer meet the criteria for TEC (ha)	Area Avoided (ha)	Residual Impact (ha)
Poplar Box TEC	478.4	1.2	5.4	471.8	6.6
Total	**478.4**	**1.2**	**5.4**	**471.8**	**6.6**

3.2.1.2 HABITAT QUALITY

The presence of Poplar Box TEC has been assessed as known due to positive identifications over 9 survey periods. Three MHQA transects and quaternary assessments confirmed the presence of the TEC due to meeting 'Class B Good Quality' key diagnostic condition criteria. Additionally, 10 quaternary assessments ground-truthed areas with suitable dominance in the canopy of *Eucalyptus populnea* (poplar box). Poplar Box TEC has been mapped to occur within the southeast of the Study Area in 18 relatively well-connected patches associated with RE 11.3.2 along Oxtrack Creek.

Poplar Box TEC mapping was conducted through the onsite verification of State-mapped vegetation patches of poplar box alluvial woodland. Focus was on patches of potential TEC located within or near the Disturbance Footprint, to accurately map the TEC that would potentially be impacted by the Proposed Action. As a result, all the mapped potential Poplar Box TEC within the Disturbance Footprint has been delineated as ground-truthed Poplar Box TEC, or discounted as not meeting the requirements to constitute Poplar Box TEC. It should be noted that any TEC that occurs within the Disturbance Footprint and is considered in the impact assessment is ground-truthed Poplar Box TEC.

The HQS for Poplar Box TEC within the Disturbance Footprint has been assessed as 6. Refer to Section 4.5.2 and Appendix B for further detail on MHQA scoring.

3.2.1.3 SIGNIFICANT IMPACT ASSESSMENT

The Proposed Action is likely to have a significant impact on Poplar Box TEC, with 6.6 ha impacted within the Disturbance Footprint. Permanent impact to this 6.6 ha will result in a reduction of approximately 1.4% of the Poplar Box TEC within the Study Area. Although this is a relatively low percent, an impact to 6.6 ha is considered likely to constitute a reduction in the extent of an ecological community. The Proposed Action will additionally result in the clearing of some Condition Class B TEC, this impact has the potential to adversely affect areas critical to the survival of the Poplar Box TEC within the Study Area.

3.2.2 GREATER GLIDER (SOUTHERN AND CENTRAL)

The greater glider was upgraded from a listing of Vulnerable to Endangered under the EPBC Act, on the 5th of July 2022. It is noted in the Conservation Advice that two separate taxa of subspecies likely co-exist in this area. However, until such ambiguity is resolved, the listed entity will be referred to as *Petauroides volans* (DCCEEW, 2022). This species was concluded as known to occur within the Study Area.

The greater glider occurs in eastern Australia, where it has a broad distribution from around Proserpine in Queensland, south through New South Wales and the Australian Capital Territory, to Wombat State Forest in central Victoria, preferring an elevational range of 0−1200 metres (m) above sea level (DCCEEW, 2022). The Study Area is within the 'species or species habitat likely to occur' modelled distribution of the species (DCCEEW, 2024c). There is one Atlas of Living Australia (ALA) record (2020) (ALA, 2024), and three WildNet records (no date provided) within the Locality (10 km buffer of the Study Area).

3.2.2.1 HABITAT WITHIN THE STUDY AREA

The extent of the greater glider within the Study Area and the Disturbance Footprint is provided in Table 3-3.

TABLE 3-3 GREATER GLIDER OCCURRENCE WITHIN THE STUDY AREA AND IMPACTED EXTENT

Habitat Type	Area of Habitat within the Study Area (ha)	Area of Habitat within the Disturbance Footprint (ha)	Area of Habitat Avoided (ha)	Area of Habitat Rehabilitated (ha)	Residual Impact to Habitat (ha)
Likely/ Current Denning Habitat	1,662.1	19.0	1,643.1	0.0	19.0
Potential Denning Habitat	381.4	0.8	380.6	0.0	0.8
Foraging and Dispersal Habitat	20,070.2	623.9	19,446.3	0.0	623.9
Total	**22,113.6**	**643.8**	**21,470.0**	**0.0**	**643.8**

3.2.2.2 HABITAT QUALITY

The presence of greater glider has been assessed as known due to positive identifications during targeted spotlighting surveys in the June and September 2023 survey periods. A total of 24 individuals were observed in the south-east and central north of the Study Area, alongside positive vegetation structure of the riparian woodland, and the presence of hollow-bearing trees.

Greater glider habitat within the Study Area can be considered to include large contiguous areas of eucalypt forest containing mature hollow-bearing trees and a diverse range of preferred food species, as well as smaller or fragmented habitat patches connected to larger patches of habitat. Suitable greater glider Foraging and Denning Habitat has been identified within the Study Area based on ground-truthing of habitat attributes and confirmed records of the species during survey effort.

Ground-truthed surveys have identified 1,662.1 ha of greater glider Likely/Current Denning Habitat, 381.4 ha of Potential Denning Habitat, and 20,070.2 ha of Foraging and Dispersal Habitat within the Study Area, which meets the definition of habitat critical to the survival of the species.

The HQS for greater glider habitat within the Disturbance Footprint has been assessed as 8. Refer to Section 4.5.2 and Appendix B for further detail on MHQA scoring.

3.2.2.3 SIGNIFICANT IMPACT ASSESSMENT

Greater glider was observed utilising the Study Area at length, with 24 individuals observed in the south-east and central north of the Study Area over two survey periods. It is likely all greater glider habitat mapped within the Study Area constitutes habitat critical to the survival

of the species. A total of 643.8 ha of habitat critical to the survival of greater glider is expected to be permanently impacted as a result of the Proposed Action.

The Proposed Action is therefore likely to have a significant impact on greater glider, through adversely affecting habitat critical to the survival of the species and interfering with recovery of the species.

3.2.3 KOALA

The koala is listed as Endangered under the EPBC Act, as of the 12th of February 2022, and is considered known to occur within the Study Area.

The koala typically occurs in eastern Australian forests and woodlands of predominantly eucalypt species. The distribution of the koala is not continuous across this range, occurring in several subpopulations that are separated by cleared land or unsuitable habitat. Within Queensland, koalas occur as far north as the Einasleigh Uplands and Wet Tropics bioregions with records to the south and west in the Desert Uplands, Central Mackay Coast, Mitchell Grass Downs, Mulga Lands, Brigalow Belt North, Brigalow Belt South, and South Eastern Queensland (DAWE, 2022a). The Study Area is within the 'species or species habitat likely to occur' modelled distribution of the species (DCCEEW, 2024c). There is one undated ALA record (ALA, 2024) and WildNet record within the Locality.

3.2.3.1 HABITAT WITHIN THE STUDY AREA

The extent of the koala within the Study Area and the Disturbance Footprint is provided in Table 3-4.

TABLE 3-4 KOALA OCCURRENCE WITHIN THE STUDY AREA AND IMPACTED EXTENT

Habitat Type	Area of Habitat within the Study Area (ha)	Area of Habitat within the Disturbance Footprint (ha)	Area of Habitat Avoided (ha)	Area of Habitat Rehabilitated (ha)	Residual Impact to Habitat (ha)
Preferred Foraging and Breeding Habitat	1,613.4	6.2	1,607.2	0.0	6.2
General Foraging and Breeding Habitat	21,216.6	657.3	20,559.3	0.0	657.3
Total	**22,830.0**	**663.5**	**22,166.5**	**0.0**	**663.5**

3.2.3.2 HABITAT QUALITY

The presence of koala has been assessed as known due to positive identifications of faecal pellets (scats) for the species, recorded in the south-east corner and adjacent the western

boundary of the Study Area during the September 2023, June and September 2024 field surveys. A koala was also heard bellowing within the Study Area at dusk during the September 2024 survey period prior to any call playback. Given the number of field surveys undertaken across multiple years and seasons and the general paucity of evidence of the species, it is considered that the species occurs in a patchy distribution and at very low densities across the Study Area.

The majority of the Study Area contains General Foraging and Breeding habitat and Dispersal Habitat for koala associated with eucalypt dominated communities. It should be noted that in the centre and north of the Study Area, dieback of eucalypt species was widely observed, to the extent it was determined most vegetation patches in that region of the Study Area do not constitute koala habitat.

Preferred Foraging and Breeding Habitat has therefore been mapped within riparian zones and adjoining alluvial areas where preferred foraging trees occur, and higher moisture content of leaves provides increased nutritional value. General Foraging and Breeding Habitat has been mapped within forest and woodland (including remnant and regrowth vegetation) connected to Preferred Foraging and Breeding Habitat, containing species that are known koala food trees, or shrubland with emergent food trees.

Open grassy areas and cleared agricultural land with occasional standalone koala food trees are also present within the Study Area, mostly in the centre and north. Due to the lack of connectivity and observed effects of dieback and drought within these areas, this habitat type in those areas is also deemed generally unsuitable for koala.

The HQS for koala habitat within the Disturbance Footprint has been assessed as 7. Refer to Section 4.5.2 and Appendix B for further detail on MHQA scoring.

3.2.3.3 SIGNIFICANT IMPACT ASSESSMENT

The Proposed Action is likely to have an adverse effect on habitat critical to the survival of the koala. Direct impacts of the proposed action are considered to be limited to habitat loss from vegetation clearing.

Considering the species' dispersal ability in agricultural environments with scattered paddock trees, koalas will maintain movement and dispersal post-construction within the 237.9 ha of Dispersal Habitat that will be initially disturbed. The short-term nature of the disturbance of this habitat type within the Study Area is therefore not considered permanent and will not contribute to a residual significant impact to the species. However, the loss of Preferred and General Breeding and Foraging Habitat associated with construction-phase clearing is considered permanent.

A total of 663.5 ha of koala habitat will be permanently impacted by the Proposed Action, which equates to 2.9% of the total available habitat identified within the Study Area. It has been concluded that the Proposed Action is likely to cause a significant impact to the koala.

3.2.4 SOUTHERN SQUATTER PIGEON

The southern squatter pigeon is listed as Vulnerable, under the EPBC Act, as of 16th July 2000. This species is considered known to occur within the Study Area.

Southern squatter pigeon is a ground-dwelling pigeon and can be differentiated from the northern subspecies by its larger body, and the skin around the eyes being predominantly

blue-grey compared with yellowy-orange to orange-red in the northern subspecies (DCCEEW, 2024b).

The southern squatter pigeon inhabits open forests to sparse, open woodlands and scrub mostly dominated in the overstorey by *Eucalyptus, Corymbia, Acacia* or *Callitris* species, on sandy or gravelly soils, within approximately 3 km of a suitable, permanent or seasonal waterbody. Retention of these woodland canopy species, which provide shelter from predatory birds, is an important habitat factor for the southern squatter pigeon and is a notable distinction between the habitat value of open woodland compared to cleared land (which does not constitute important or critical habitat for the species).

3.2.4.1 HABITAT WITHIN THE STUDY AREA

The extent of the southern squatter pigeon within the Study Area and the Disturbance Footprint is provided in Table 3-5. Southern squatter pigeons are commonly observed foraging on roadsides and dirt tracks (DCCEEW, 2024b). It is expected that 33.4 ha of Foraging and Dispersal Habitat will be revegetated after the construction phase. Revegetation is expected to return the functionality required for the southern squatter pigeon in Foraging and Dispersal Habitat and therefore this impact is considered temporary.

TABLE 3-5 SOUTHERN SQUATTER PIGEON OCCURRENCE WITHIN THE STUDY AREA AND IMPACTED EXTENT

Habitat Type	Area of Habitat within the Study Area (ha)	Area within the Disturbance Footprint (ha)	Area of Habitat Avoided (ha)	Area of Habitat Rehabilitated (ha)	Residual Impact to Habitat (ha)
Breeding Habitat	9,575.4	128.3	9,447.2	0.0	128.3
Foraging and Dispersal Habitat	2,333.5	57.6	2,275.9	33.4	24.2
Total	**11,908.9**	**185.8**	**11,723.1**	**33.4**	**152.5**

3.2.4.2 HABITAT QUALITY

The presence of southern squatter pigeon has been assessed as known due to positive identifications on three occasions during field surveys in October 2022, September/October 2023 and December 2023. All observations were made in the north to north-west section of the Study Area outside the Disturbance Footprint. Suitable southern squatter pigeon habitat has been narrowed down to areas within 1 km of permanent dams, watercourses and waterbodies as Breeding Habitat and areas within 3 km of permanent dams, watercourses and waterbodies as Foraging and Dispersal Habitat.

Based on the presence of woodland canopy species and the proximity to water, mapped southern squatter pigeon habitat within the Study Area (which is assumed to provide breeding and foraging function for the known species), is considered habitat critical to the survival of the species. It should be noted that suitable low grass cover for foraging will vary across the year in the Study Area, with cover reducing during the dry season.

The HQS for southern squatter pigeon habitat within the Disturbance Footprint has been assessed as 7. Refer to Section 4.5.2 and Appendix B for further detail on MHQA scoring.

3.2.4.3 SIGNIFICANT IMPACT ASSESSMENT

The Proposed Action is likely to have a significant impact on the southern squatter pigeon. Based on a conservative approach, the Study Area falls within the conservation-significant southern extent of the species occurrence south of the Carnarvon Ranges, making the impacted population an 'important sub-population.'

Additionally, this habitat provides foraging and breeding function to the species. Due to the identified Foraging and Breeding Habitat, and that the population of southern squatter pigeon within the Study Area potentially constitutes an 'important sub-population,' it has been considered likely the Study Area supports habitat critical to the survival of the species.

A total of 128.3 ha of Breeding Habitat and 24.2 ha of Foraging and Dispersal Habitat is expected to be permanently impacted as a result of the Proposed Action. This impact is considered likely to adversely affect habitat critical to the survival of the species and therefore, is likely to cause a significant impact to the species.

3.2.5 DIAMOND FIRETAIL

The diamond firetail is listed as Vulnerable under the EPBC Act, as of the 31st March 2023, and is considered as having the potential to occur within the Study Area.

The diamond firetail occurs on the south-east mainland of Australia from south-east Queensland to Eyre Peninsula, South Australia, and about 300 km inland from the sea (Higgins, Peter, & Cowling, 2007). The Study Area occurs within the 'species or species habitat may occur' modelled distribution of the species (DCCEEW, 2024c) (Figure 5-21). No historical record of the species exists within the Study Area or the Locality. The closest (undated) record is located approximately 30 km to the west of the Study Area (ALA, 2024).

3.2.5.1 HABITAT WITHIN THE STUDY AREA

The extent of the diamond firetail habitat within the Study Area and the Disturbance Footprint is provided in Table 3-6. Diamond firetail occurs in lightly timbered habitats, including farmland and grassland with scattered trees. They show preference for areas with relatively low tree density, few large logs, and little litter cover but high grass cover (DCCEEW, 2023b). It is expected that the revegetation of 167.8 ha of Potential Breeding and Foraging Habitat, that will be revegetated after the construction phase, will return the functionality required for this habitat and therefore this impact is considered temporary.

TABLE 3-6 DIAMOND FIRETAIL HABITAT OCCURRENCE WITHIN THE STUDY AREA AND IMPACTED EXTENT

Habitat Type	Area of Habitat within the Study Area (ha)	Area within the Disturbance Footprint (ha)	Area of Habitat Avoided (ha)	Area of Habitat Rehabilitated (ha)	Residual Impact to Habitat (ha)
Potential Breeding and Foraging Habitat	7,899.3	263.6	7,635.7	167.8	95.8
Total	**7,899.3**	**263.6**	**7,635.7**	**167.8**	**95.8**

3.2.5.2 HABITAT QUALITY

The presence of diamond firetail has been assessed as potential, due to no observations of the species occurring across the survey effort and no recent historic records occurring within 10 km of the Study Area.

Suitable diamond firetail habitat has been narrowed down to areas of 'Eucalypt woodland and open forest dominated by *Eucalyptus crebra* with a grassy understorey' BHT with the most preferred habitat features of low tree density and high grass cover. Areas containing these habitat features within the Study Area seem to be concentrated to north facing hillsides in eucalypt woodland. In line with species Conservation Advice, the mapped potential habitat has been conservatively considered potential habitat critical to the survival of the species.

The HQS for diamond firetail habitat within the Disturbance Footprint has been assessed as 6. Refer to Section 4.5.2 and Appendix B for further detail on MHQA scoring.

3.2.5.3 SIGNIFICANT IMPACT ASSESSMENT

The Proposed Action has the potential to have a significant impact on the diamond firetail. As any known or likely habitat (identified within the modelled distribution of the species and presented within the species Conservation Advice (DCCEEW, 2023b)), should be considered as habitat critical to the survival of the species, all Potential Breeding and Foraging Habitat within the Study Area has been considered habitat critical to the survival of the species.

A total of 95.8 ha of Potential Breeding and Foraging Habitat is expected to be permanently impacted as a result of the Proposed Action. This impact is considered to have the potential to adversely affect habitat critical to the survival of the species and therefore, has the potential to cause a significant impact to the species.

4. OFFSET SUITABILITY

4.1 SURVEY EFFORT WITHIN THE OFFSET AREA

Field surveys have been conducted within the Offset Area to identify suitable habitat for Poplar Box TEC, greater glider, koala, southern squatter pigeon and diamond firetail. A summary of survey types and methodology is provided within Table 4-1, with a full detailed description of survey methodology provided within Section 4 of the Theodore Wind Farm PER. Survey locations within the Offset Area is provided within Figure 4-1.

TABLE 4-1 FIELD SURVEYS WITHIN THE OFFSET AREA

Survey Type	Survey Methodology	Targeted MNES
Vegetation Assessment	Representative sampling for regional ecosystem verification through quaternary assessments (Neldner, 2022).	• All MNES habitat.
	19 x MHQAs to assess the condition of MNES habitat and assessing against TEC condition thresholds.	• All MNES habitat.
Habitat Assessment	Assessment of habitat features present relating to relative cover and abundance of nesting/shelter sites, presence of aquatic habitats, presence of foraging resources, dominant canopy species, connectivity and disturbances.	• All MNES habitat.
	19 x MHQAs assessing habitat attributes within the Offset Area that are factored into the habitat scoring for each MNES. Methodology is tailored to account for the specific needs of the target MNES such as the: • Presence of koala food trees; • Presence of mature eucalypt trees meeting required diameter at breast height (dbh) for greater glider denning and foraging habitat; • Number of hollows >10 centimetres (cm) and >20 cm; • Leaf litter load; and • Presence of specific threats for each MNES.	• All MNES habitat.
Targeted Fauna Surveys	BUS - 20-minute fixed point surveys to provide data based on the species present and their height, speed and direction of flight.	• Southern squatter pigeon. • Diamond firetail.
	Koala SATs which involve searching at the base of koala food trees for presence of koala scats and the trunks of smooth bark gums for koala scratches.	• Koala.
	Nocturnal spotlighting transects.	• Greater glider. • Koala.

4.2 OFFSET AREA CONDITION

The Offset Area is located within the Rural Zone of the Banana Shire Council, with the predominant land use being cattle grazing (and associated homesteads). The Offset Area is located within working cattle properties, and as such, the ecological condition of the Offset Area is influenced by historical land clearing and cattle grazing, although to a lesser extent than the large patches of cleared land featuring no remnant vegetation occurring in the centre and north of the Study Area (Plate 1). The surrounding landscape within the Locality have also been influenced by historical land clearing and cattle grazing, outside of the protected areas.

The Offset Area occurs within the Locality of several State Forests:

- The Belmont State Forest is located on the northern boundary of the Study Area and has an area of approximately 8,550 ha;
- The Montour State Forest is located to the eastern boundary of the Study Area and has an area of approximately 4,222 ha;
- The Camboon State Forest is located on the southern boundary of the Study Area and has an area of approximately 11,874 ha; and
- The Trevethan State Forest is located approximately 3 km south of the Study Area and has an approximate area of 3,618 ha.

Similar to the Study Area, the Offset Area is considered to have moderate-high ecological connectivity, with a regional significant riparian corridor running east to west through the Offset Area, connecting to a regionally significant terrestrial biodiversity corridor in the east, associated with the Banana Range running north to south from Mt Benn to Trevethan State Forest, and a state significant riparian corridor in the west (DES, 2018).

Terrestrial corridors are mapped by the Queensland Government where there are large areas of remnant vegetation and maintain ecological and evolutionary processes at a landscape scale. The combined area of Belmont State Forest and Camboon State Forest provides an important terrestrial corridor within the regional landscape. The Biodiversity Planning Assessment undertaken for the Brigalow Belt Bioregion (Version 2.1 released on 6 March 2018) identifies terrestrial and riparian corridors in more detail. It identifies the function of a regional terrestrial corridor is to maintain long term evolutionary/genetic processes that allow change in distributions and connectivity, maintain landscape/ecosystem processes to allow for responses to climate change, maintain migration and movement of fauna, and maximise connectivity between large tracts/patches of remnant vegetation.

Riparian corridors are vegetated areas along major watercourses and maintain and encourage connectivity of riparian and associated ecosystems. Regional riparian corridors in the Brigalow Belt Bioregion were identified by the Biodiversity Planning Assessment as areas associated with Stream Order 3 and 4 watercourses. One regional riparian corridor intersects Offset Area, associated with Oxtrack Creek. Riparian corridors functions are to provide migratory and dispersal pathways and contain important habitat resources as well as refugia during periods of drought (DES, 2018).

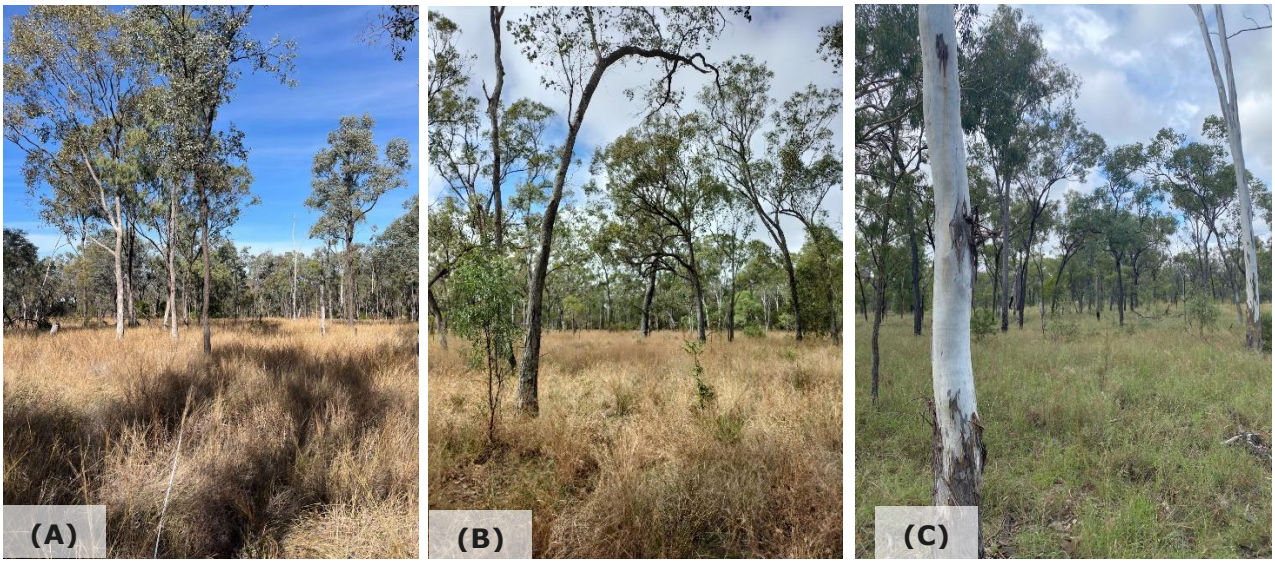

PLATE 1 OFFSET AREA: MHQA LOCATIONS (A) 'OFFSET 04', (B) 'OFFSET 11', AND (C) 'OFFSET 10'

4.3 BROAD HABITAT TYPES

As the Offset Area is entirely within the Study Area of the Proposed Action, the broad habitat types (BHTs) identified within the Offset Area align with the BHTs described within the Study Area. Such BHTs are outlined within Section 4 of the Theodore Wind Farm PER. These BHTs include:

- Grasslands and cultivated agricultural land;
- Waterbodies and drainage features;
- Riparian woodland and open forest dominated by *Eucalyptus populnea*, *E. tereticornis* often associated with stream channels;
- Vine forest/thickets and dry rainforest;
- Eucalypt woodland and open forest dominated by *E. crebra* with a grassy understorey; and
- Brigalow woodlands.

FIGURE 4-1 SURVEY EFFORT IN THE OFFSET AREA

4.4 MNES HABITAT AND PRESENCE

The Offset Area was selected as it contain habitats for all relevant MNES that can be improved through removal of existing pressures and active, targeted management actions to enhance habitat values. Habitat identified for each MNES, as well as a discussion on MNES presence is provided within the following Sections. The Protected Matters Search Tool (PMST) output and historical records (WildNet and ALA) reports for the Study Area and Locality are provided in Appendix A. Areas of habitat uplift for greater glider and koala, encompassing an area of approximately 1225 ha, have been delineated as part of this OMP and form part of foraging and dispersal and general breeding and foraging habitat respectively. It is noted that these areas are not currently representative of these habitat types. However, habitat uplift areas are intended to be monitored and improved into habitat for these MNES as a part of the Active Regeneration Zone delineation outlined in Table 5-1. Habitat uplift areas are presented on Figure 4-3 and Figure 4-4.

4.4.1 POPLAR BOX TEC

The Offset Area contain 114.3 ha of mapped Poplar Box TEC which has been shown in Figure 4-2. Poplar Box TEC mapping was conducted through the onsite verification of State-mapped vegetation patches of poplar box alluvial woodland. Four MHQA transects confirmed the presence of the TEC within Offset Area, due to meeting 'Class B Good Quality' key diagnostic condition criteria. In patches of Poplar Box TEC where in-situ assessment has not been completed, satellite imagery analyses and assessment of representative sampling points has been undertaken to assist mapping of the Poplar Box TEC.

4.4.2 GREATER GLIDER (SOUTHERN AND CENTRAL)

The Offset Area contain 5,068.2 ha of mapped greater glider habitat which has been shown in Figure 4-3. The species was recorded within the Offset Area on seven occasions during targeted spotlighting surveys.

As the Offset Area is entirely within the Study Area of the Proposed Action, the greater glider habitat within the Offset Area aligns with habitat described within the Study Area that is discussed in Section 5 of the Theodore Wind Farm PER. The species habitat can be considered to include large contiguous areas of eucalypt forest containing mature hollow-bearing trees and a diverse range of preferred food species, as well as smaller or fragmented habitat patches connected to larger patches of habitat. Suitable greater glider Foraging and Denning Habitat has been identified within the Study Area based on ground-truthing of habitat attributes and confirmed records of the species during survey effort. BHT mapping has been used to identify habitat suitable for denning and foraging for greater glider within the Offset Area, as well as generally unsuitable habitat for the species. This habitat mapping is discussed within Section 5.3.1 of the Theodore Wind Farm PER and includes the following habitat types for greater glider and total areas within the Offset Area:

- Likely/Current/Potential Denning Habitat – 250.4 ha; and
- Foraging and Dispersal Habitat – 4,817.8 ha.

4.4.3 KOALA

The Offset Area contains 5,268.9 ha of mapped koala habitat which has been shown in Figure 4-4. The species has not been recorded within the Offset Area directly, however the presence of the species has been assessed as known due to the positive identifications of faecal pellets (scats) for the species recorded in the south-east corner of the Proposed Actions Study Area within habitat connecting with the Offset Area. Additionally, the koala was also heard bellowing within the Proposed Actions Study Area at dusk during the September 2024 survey period.

As the Offset Area is entirely within the Study Area of the Proposed Action, the koala habitat within the Offset Area aligns with habitat described within the Study Area that is discussed in Section 5 of the Theodore Wind Farm PER. BHT mapping has been used to identify habitat suitable for foraging and breeding habitat and dispersal habitat for koala within the Offset Area, as well as generally unsuitable habitat for the species. This habitat mapping is discussed within Section 5.3.3 of the Theodore Wind Farm PER and includes the following habitat types for koala and total area within the Offset Area:

- Preferred Foraging and Breeding Habitat – 263.4 ha; and
- General Foraging and Breeding Habitat – 5,006 ha.

4.4.4 SOUTHERN SQUATTER PIGEON

The Offset Area contains 4,111.6 ha of mapped southern squatter pigeon habitat which has been shown in Figure 4-5. This species is considered known within the Offset Area due to the species being identified on three occasions within the Study Area, approximately 5 km from the Offset Area.

As the Offset Area is entirely within the Study Area of the Proposed Action, the southern squatter pigeon habitat within the Offset Area aligns with habitat described within the Study Area that is discussed in Section 5 of the Theodore Wind Farm PER. BHT mapping has been used to identify habitat suitable for breeding, foraging and dispersal for the southern squatter pigeon within the Offset Area, as well as generally unsuitable habitat for the species. This habitat mapping is discussed within Section 5.3.4 of the Theodore Wind Farm PER and includes the following habitat types for the southern squatter pigeon and total areas within the Offset Area:

- Breeding Habitat (suitable BHTS within 1 km of permanent dams, watercourses and waterbodies) – 3,437.7 ha; and
- Foraging and Dispersal Habitat (suitable BHTS within 3 km of permanent dams, watercourses and waterbodies – 673.9 ha.

4.4.5 DIAMOND FIRETAIL

The Offset Area contains 1,226.2 ha of mapped diamond firetail habitat which has been shown in Figure 4-6. This species is only considered potential to occur within the Offset Area as no individuals have been recorded within, or within 10 km of the Offset Area. It should be noted however that the diamond firetail habitat to be impacted is also only considered potential habitat, with no evidence of the species utilising these areas during the targeted field surveys.

As the Offset Area is entirely within the Study Area of the Proposed Action, the diamond firetail habitat within the Offset Area aligns with habitat described within the Study Area that is discussed in Section 5 of the Theodore Wind Farm PER. BHT mapping has been used to identify habitat suitable for breeding and foraging for the diamond firetail within the Offset Area, as well as generally unsuitable habitat for the species. This habitat mapping is discussed within Section 5.3.11 of the Theodore Wind Farm PER and includes the following habitat types for the diamond firetail and total areas within the Offset Area:

- Potential Breeding and Foraging Habitat – 1,226.2 ha.

FIGURE 4-2 POPLAR BOX TEC HABITAT AND ASSESSMENT UNITS WITHIN THE OFFSET AREA

FIGURE 4-3 GREATER GLIDER HABITAT WITHIN THE OFFSET AREA

FIGURE 4-4 KOALA HABITAT WITHIN THE OFFSET AREA

FIGURE 4-5 SOUTHERN SQUATTER PIGEON HABITAT WITHIN THE OFFSET AREA

FIGURE 4-6 DIAMOND FIRETAIL HABITAT WITHIN THE OFFSET AREA

4.5 OFFSET AREA ASSESSMENTS

4.5.1 HABITAT QUALITY METHODOLOGY

The overall quality of the habitat in the Impact Area (Disturbance Footprint of the Study Area) and Offset Area was determined using the MHQA methodology v1.2-DRAFT (DES, 2020). The MHQA methodology was chosen as the preferred and most thorough method of assessing and comparing habitat quality between Impact and Offset Areas. The MHQA is underpinned by tested methodology developed in Queensland for assessing habitat quality, *The Guide for Determining Terrestrial Habitat Quality* (DES, 2020). However, MHQA builds on this assessment method by including an additional assessment item, species stocking rate, in order to satisfy the requirements of Offsets Policy Principles.

This methodology is appropriate for koala, greater glider, southern squatter pigeon and diamond firetail as the scoring and assessment methodology quantifies available habitat features, for example number of large trees within an assessment unit (AU), quality and availability of food and foraging habitat and sheltering habitat. For each MNES, AUs have been defined by the specific habitat types identified within the Offset Area (as outlined within Section 4.4). The habitat quality of each habitat types (or AUs) was then assessed separately and then weighted by the percent of area the habitat type occupies within the total area of habitat within the Offset Area to provide a final HQS.

FIGURE 4-7 MHQA LOCATIONS WITHIN THE STUDY AREA

4.5.2 HABITAT QUALITY RESULTS

When using the OAG, it is demonstrated that the Offset Area meets 100% of the required offsets for all MNES. The details of the HQS, the parameters entered into the OAG tool, and the results of the OAG tool for each MNES are summarised in the following Sections. Full habitat quality scoring is provided in Appendix B, with the full OAG tool for each MNES provided in Appendix C.

4.5.2.1 POPLAR BOX TEC

Habitat Quality Summary

Habitat quality assessments were undertaken in the impact and Offset Area using the MHQA tool. A summary of Poplar Box TEC HQS is provided in Table 4-2 below.

TABLE 4-2 POPLAR BOX TEC HABITAT QUALITY SCORES

HQ Component	Impact Area	Offset Area
	AU1	AU1
Site condition (out of 7)	5.23	5.79
Site context (out of 3)	1.20	1.7
HQ score (out of 10)	6.43	7.49
Total HQS	**6/10**	**7/10**

Offset Assessment Guide Results

The preliminary OAG calculator results for Poplar Box TEC are provided in Table 4-3. The OAG calculator indicates that the Offset Area sufficiently covers the offset requirements of Poplar Box TEC (136.42%). A copy of the full OAG is provided in Appendix C.

TABLE 4-3 OFFSET ASSESSMENT GUIDE INPUTS AND RESULTS FOR POPLAR BOX TEC

OAG Factor	OAG Input	Justification for Input
Impact Area (ha)	6.6	Derived from habitat requirements, as specified by the SPRAT database or other publicly available datasets (species Recovery Plans, referral guidelines, approved Conservation Advice, etc.). Also includes on ground habitat assessment results.
Impact quality (out of 10)	6	Using the Habitat Quality approach outlined in Section 4.5.1, the Impact Area is calculated to have a score of six out of 10.

OAG Factor	OAG Input	Justification for Input
Total quantum of impact	3.96	Calculated by OAG.
Start quality of Offset Area (out of 10)	7	Using the Habitat Quality approach outlined in Section 4.5.1, the Offset Area is calculated to have a score of seven out of 10.
Future quality without offset (out of 10)	7	Without management, it is conservatively assumed that the start quality will remain unchanged.
Future quality with offset (out of 10)	8	Future habitat quality is conservatively predicted to increase by one point across the Offset Area. This needs to reflect more significant improvements in smaller areas of degraded habitat and more minor improvements likely to be seen in moderate to high quality habitat.
Time over which loss is averted (years)	20	The maximum of 20-years has been used in the OAG. It is noted that the longer the time frame, the more value this provides in terms of achieving conservation outcomes.
Time until ecological benefit (years)	20	The proposed active management will likely result in an ecological benefit being realised in a 20-year period. While some benefits will likely be realised in a shorter timeframe, 20 years has been used to reflect the longer time horizon to achieve all objectives of this OMP.
RoL (%) without offset	0%	Average background clearing rate of the Banana Shire local governments areas is 0.08% *(Maseyk et al. 2017).* However, as clearance of habitat for MNES may require assessment and approval under the EPBC Act, regardless of its categorisation under the state, RoL without offset has been conservatively assessed as 0%.
RoL (%) with offset	0%	The proposed offset will be legally secured and subsequently registered on the title of the relevant properties via a VDec under the VM Act and the offset managed in accordance with this OMP. The VDec is legally binding and will provide for a lower RoL. The RoL with the offset is considered to be 0%.
Confidence in Habitat Quality result (%)	60%	For the delivery of the offsets in the areas of remnant and regrowth vegetation, the confidence level in the one-unit gain in the offset quality is 60%, for Poplar Box TEC at the Offset Area.
Confidence in RoL result (%)	60%	A conservative percentage has been used despite the very low RoL utilised in the calculator.
Offset Area (ha)	114.3	Derived from habitat requirements, as specified by the SPRAT database or other publicly available datasets (species Recovery Plans, referral guidelines, approved

OAG Factor	OAG Input	Justification for Input
		Conservation Advice, etc.). Also includes on ground habitat assessment results.
Percentage of impact offset		**Poplar Box TEC Offset Area** **TOTAL: 136.42%**

4.5.2.2 GREATER GLIDER

Habitat Quality Summary

Habitat quality assessments were undertaken in the impact and Offset Area using the MHQA tool. A summary of greater glider HQS is provided in Table 4-4 below.

TABLE 4-4 SUMMARY OF GREATER GLIDER HABITAT QUALITY SCORES

HQ Component	Impact Area		Offset Area	
	AU1	AU2	AU1	AU2
Site condition (out of 3)	1.59	2.38	1.56	2.33
Site context (out of 3)	2.70	2.58	2.34	2.64
Species stocking rate (out of 4)	3.71	3.71	2.29	2.29
HQ score (out of 10)	8.00	8.67	6.18	7.26
AU area (ha)	810.3	27.7	4817.8	250.4
Area of impact/offset	841.1		5,068.2	
AU size weighting	0.96	0.03	0.95	0.05
Final AU score	7.68	0.03	5.88	0.36
Total HQS	**8/10**		**6/10**	

Offset Area Guide Results

The preliminary OAG calculator results for greater glider are provided in Table 4-5. The OAG tool indicates that the Offset Area sufficiently covers the offset requirements of greater glider (131.78%). A copy of the full OAG is provided in Appendix C.

TABLE 4-5 OFFSET ASSESSMENT GUIDE INPUTS AND RESULTS FOR GREATER GLIDER

OAG Factor	OAG Input	Justification for Input
Impact Area (ha)	643.8	Derived from habitat requirements, as specified by the SPRAT database or other publicly available datasets (species Recovery Plans, referral guidelines, approved Conservation Advice, etc.). Also includes on-ground habitat assessment results.
Impact quality (out of 10)	8	Using the Habitat Quality approach outlined in Section 4.5.1, the Impact Area is calculated to have a score of eight out of 10.
Total quantum of impact	515.04	Calculated by OAG.
Start quality of Offset Area (out of 10)	6	Using the Habitat Quality approach outlined in Section 4.5.1, the Offset Area is calculated to have a score of six out of 10.
Future quality without offset (out of 10)	6	Without management, it is conservatively assumed that the start quality will remain unchanged.
Future quality with offset (out of 10)	8	Future habitat quality is conservatively predicted to increase by an integer across the Offset Area. This needs to reflect more significant improvements in smaller areas of degraded habitat and more minor improvements likely to be seen in moderate to high quality habitat.
Time over which loss is averted (years)	20	The maximum of 20-years has been used in the OAG. It is noted that the longer the time frame, the more value this provides in terms of achieving conservation outcomes.
Time until ecological benefit (years)	20	The proposed active management will likely result in an ecological benefit being realised in a 20-year period. While some benefits will likely be realised in a shorter timeframe, 20 years has been used to reflect the longer time horizon to achieve all objectives of this OMP.
RoL (%) without offset	0%	Average background clearing rate of the Banana Shire local governments areas is 0.08% *(Maseyk et al. 2017).* However, as clearance of habitat for MNES may require assessment and approval under the EPBC Act, regardless of its categorisation under the state, RoL without offset has been conservatively assessed as 0%.
RoL (%) with offset	0%	The proposed offset will be legally secured and subsequently registered on the title of the relevant properties via a VDec under the VM Act and the offset managed in accordance with this OMP. The VDec is legally binding and will provide for a lower RoL. The RoL with the offset is considered to be 0%.

OAG Factor	OAG Input	Justification for Input
Confidence in Habitat Quality result (%)	85%	For the delivery of the offsets in the areas of remnant and regrowth vegetation, the confidence level in the one-unit gain in the offset quality is 85%, for greater glider at the Offset Area.
Confidence in RoL result (%)	85%	A conservative percentage has been used despite the very low RoL utilised in the calculator.
Offset Area (ha)	5,068.2	Derived from habitat requirements, as specified by the SPRAT database or other publicly available datasets (species Recovery Plans, referral guidelines, approved Conservation Advice, etc.). Also includes on ground habitat assessment results.
Percentage of impact offset		**Greater glider Offset Area** **TOTAL: 131.78%**

4.5.2.3 KOALA

Habitat Quality Summary

Habitat quality assessments were undertaken in the impact and Offset Area using the MHQA tool. A summary of koala HQS is provided in Table 4-6 below.

TABLE 4-6 SUMMARY OF KOALA HABITAT QUALITY SCORES

HQ Component	Impact Area		Offset Area	
	AU1	AU2	AU1	AU2
Site condition (out of 3)	1.96	2.21	1.84	2.27
Site context (out of 3)	2.70	2.28	2.00	2.46
Species stocking rate (out of 4)	2.29	2.29	1.43	1.43
HQ score (out of 10)	6.95	6.77	5.26	6.16
AU area (ha)	851.7	16.5	5,006	263.3
Area of impact/offset (ha)	868.1		5,268.9	
AU size weighting	0.98	0.02	0.95	0.05

HQ Component	Impact Area		Offset Area	
	AU1	AU2	AU1	AU2
Final AU score (out of 10)	6.81	0.14	5	0.31
Total HQS	**7/10**		**5/10**	

Offset Area Guide Results

The preliminary OAG calculator results for koala are provided in Table 4-7. The OAG tool indicates that the Offset Area sufficiently covers the offset requirements of koala (151.92%). A copy of the full OAG is provided in Appendix C.

TABLE 4-7 OFFSET ASSESSMENT GUIDE INPUTS AND RESULTS FOR KOALA

OAG Factor	OAG Input	Justification for Input
Impact Area (ha)	663.5	Derived from habitat requirements, as specified by the SPRAT database or other publicly available datasets (species Recovery Plans, referral guidelines, approved Conservation Advice, etc.). Also includes on ground habitat assessment results.
Impact quality (out of 10)	7	Using the Habitat Quality approach outlined in Section 4.5.1 the Impact Area is calculated to have a score of seven out of 10.
Total quantum of impact	454.45	Calculated by OAG.
Start quality of Offset Area (out of 10)	5	Using the Habitat Quality approach outlined in Section 4.5.1, the Offset Area is calculated to have a score of five out of 10.
Future quality without offset (out of 10)	5	Without management, it is conservatively assumed that the start quality will remain unchanged.
Future quality with offset (out of 10)	7	Future habitat quality is conservatively predicted to increase by 2 HQS the Offset Area. This needs to reflect more significant improvements in smaller areas of degraded habitat and more minor improvements likely to be seen in moderate to high quality habitat.
Time over which loss is averted (years)	20	The maximum of 20-years has been used in the OAG. It is noted that the longer the time frame, the more value this provides in terms of achieving conservation outcomes.

OAG Factor	OAG Input	Justification for Input
Time until ecological benefit (years)	20	The proposed active management will likely result in an ecological benefit being realised in a 20-year period. While some benefits will likely be realised in a shorter timeframe, 20 years has been used to reflect the longer time horizon to achieve all objectives of this OMP.
RoL (%) without offset	0%	Average background clearing rate of the Banana Shire local governments areas is 0.08% *(Maseyk et al. 2017).* However, as clearance of habitat for MNES may require assessment and approval under the EPBC Act, regardless of its categorisation under the state, RoL without offset has been conservatively assessed as 0%.
RoL (%) with offset	0%	The proposed offset will be legally secured and subsequently registered on the title of the relevant properties via a VDec under the VM Act and the offset managed in accordance with this OMP. The VDec is legally binding and will provide for a lower RoL. The RoL with the offset is considered to be 0%.
Confidence in Habitat Quality result (%)	85%	For the delivery of the offsets in the areas of remnant and regrowth vegetation, the confidence level in the one-unit gain in the offset quality is 85%, for koala at the Offset Area.
Confidence in RoL result (%)	85%	Confidence in RoL is high due to combining background clearing rates with field observations of land management.
Offset Area (ha)	5,268.9	Derived from habitat requirements, as specified by the SPRAT database or other publicly available datasets (species Recovery Plans, referral guidelines, approved Conservation Advice, etc.). Also includes on ground habitat assessment results.
Percentage of impact offset		**Koala Offset Area** **TOTAL: 151.92%**

4.5.2.4 SOUTHERN SQUATTER PIGEON

Habitat Quality Summary

Habitat quality assessments were undertaken in the impact and Offset Area using the MHQA tool. A summary of southern squatter pigeon HQS is provided in Table 4-8 below.

TABLE 4-8 SUMMARY OF SOUTHERN SQUATTER PIGEON HABITAT QUALITY SCORES

HQ Component	Impact Area		Offset Area	
	AU1	AU2	AU1	AU2
Site condition (out of 3)	1.67	2.01	1.97	2.22
Site context (out of 3)	2.70	2.70	2.64	2.70
Species stocking rate (out of 4)	2.29	2.29	2.29	2.29
HQ score (out of 10)	6.65	7.00	6.89	7.21
AU area	23.3	168.8	3,437.70	673.9
Area of impact/offset	192.1		4,111.6	
AU size weighting	0.12	0.88	0.80	0.20
Final AU score	0.80	6.16	5.51	1.44
Total HQS	**7/10**		**7/10**	

Offset Area Guide Results

The preliminary OAG calculator results for southern squatter pigeon are provided in Table 4-9. The OAG tool indicates that the Offset Area sufficiently covers the offset requirements of southern squatter pigeon (314.56%). A copy of the full OAG is provided in Appendix C.

TABLE 4-9 OFFSET ASSESSMENT GUIDE INPUTS AND RESULTS FOR SOUTHERN SQUATTER PIGEON

OAG Factor	OAG Input	Justification for Input
Impact Area (ha)	152.5	Derived from habitat requirements, as specified by the SPRAT database or other publicly available datasets (species Recovery Plans, referral guidelines, approved Conservation Advice, etc.). Also includes on-ground habitat assessment results.
Impact quality (out of 10)	7	Using the Habitat Quality approach outlined in Section 4.5.1, the Impact Area is calculated to have a score of seven out of 10.

OAG Factor	OAG Input	Justification for Input
Total quantum of impact	106.75	Calculated by OAG.
Start quality of Offset Area (out of 10)	7	Using the Habitat Quality approach outlined in Section 4.5.1, the Offset Area is calculated to have a score of seven out of 10.
Future quality without offset (out of 10)	7	Without management, it is conservatively assumed that the start quality will remain unchanged.
Future quality with offset (out of 10)	8	Future habitat quality is conservatively predicted to increase by an integer across the Offset Area. This needs to reflect more significant improvements in smaller areas of degraded habitat and more minor improvements likely to be seen in moderate to high quality habitat.
Time over which loss is averted (years)	20	The maximum of 20-years has been used in the OAG. It is noted that the longer the time frame, the more value this provides in terms of achieving conservation outcomes.
Time until ecological benefit (years)	20	The proposed active management will likely result in an ecological benefit being realised in a 20-year period. While some benefits will likely be realised in a shorter timeframe, 20 years has been used to reflect the longer time horizon to achieve all objectives of this OMP.
RoL (%) without offset	0%	Average background clearing rate of the Banana Shire local governments areas is 0.08% *(Maseyk et al. 2017).* However, as clearance of habitat for MNES may require assessment and approval under the EPBC Act, regardless of its categorisation under the state, RoL without offset has been conservatively assessed as 0%.
RoL (%) with offset	0%	The proposed offset will be legally secured and subsequently registered on the title of the relevant properties via a VDec under the VM Act and the offset managed in accordance with this OMP. The VDec is legally binding and will provide for a lower RoL. The RoL with the offset is considered to be 0%.
Confidence in Habitat Quality result (%)	85%	For the delivery of the offsets in the areas of remnant and regrowth vegetation, the confidence level in the one-unit gain in the offset quality is 85%, for southern squatter pigeon at the Offset Area.
Confidence in RoL result (%)	85%	Confidence in RoL is high due to combining background clearing rates with field observations of land management.
Offset Area (ha)	4,112	Derived from habitat requirements, as specified by the SPRAT database or other publicly available datasets (species Recovery

OAG Factor	OAG Input	Justification for Input
		Plans, referral guidelines, approved Conservation Advice, etc.). Also includes on-ground habitat assessment results.
Percentage of impact offset		**Southern squatter pigeon Offset Area** **TOTAL: 314.56%**

4.5.2.5 DIAMOND FIRETAIL

Habitat Quality Summary

Habitat quality assessments were undertaken in the impact and Offset Area using the MHQA tool. A summary of diamond firetail HQS is provided in Table 4-10 below.

TABLE 4-10 SUMMARY OF DIAMOND FIRETAIL HABITAT QUALITY SCORES

HQ Component	Impact Area	Offset Area
	AU1	AU1
Site condition (out of 3)	1.87	1.97
Site context (out of 3)	2.70	2.64
Species stocking rate (out of 4)	1.14	1.14
Final AU score	5.71	5.7
Total HQS	**6/10**	**6/10**

Offset Area Guide Results

The preliminary OAG calculator results for diamond firetail are provided in Table 4-11. The OAG tool indicates that the Offset Area sufficiently covers the offset requirements of diamond firetail (174.22%). A copy of the full OAG is provided in Appendix C.

TABLE 4-11 OFFSET ASSESSMENT GUIDE INPUTS AND RESULTS FOR DIAMOND FIRETAIL

OAG Factor	OAG Input	Justification for Input
Impact Area (ha)	95.8	Derived from habitat requirements, as specified by the SPRAT database or other publicly available datasets (species Recovery Plans, referral guidelines, approved Conservation Advice, etc.). Also includes on-ground habitat assessment results.

OAG Factor	OAG Input	Justification for Input
Impact quality (out of 10)	6	Using the Habitat Quality approach outlined in Section 4.5.1, the Impact Area is calculated to have a score of six out of 10.
Total quantum of impact	57.48	Calculated by OAG.
Start quality of Offset Area (out of 10)	6	Using the Habitat Quality approach outlined in Section 4.5.1, the Offset Area is calculated to have a score of six out of 10.
Future quality without offset (out of 10)	6	Without management, it is conservatively assumed that the start quality will remain unchanged.
Future quality with offset (out of 10)	7	Future habitat quality is conservatively predicted to increase by an integer across the Offset Area. This needs to reflect more significant improvements in smaller areas of degraded habitat and more minor improvements likely to be seen in moderate to high quality habitat.
Time over which loss is averted (years)	20	The maximum of 20-years has been used in the OAG. It is noted that the longer the time frame, the more value this provides in terms of achieving conservation outcomes.
Time until ecological benefit (years)	20	The proposed active management will likely result in an ecological benefit being realised in a 20-year period. While some benefits will likely be realised in a shorter timeframe, 20 years has been used to reflect the longer time horizon to achieve all objectives of this OMP.
RoL (%) without offset	0%	Average background clearing rate of the Banana Shire local governments areas is 0.08% *(Maseyk et al. 2017).* However, as clearance of habitat for MNES may require assessment and approval under the EPBC Act, regardless of its categorisation under the state, RoL without offset has been conservatively assessed as 0%.
RoL (%) with offset	0%	The proposed offset legally secured and subsequently registered on the title of the relevant properties via a VDec under the VM Act and the offset managed in accordance with this OMP. The VDec is legally binding and will provide for a lower RoL. The RoLwith the offset is considered to be 0%.
Confidence in Habitat Quality result (%)	85%	For the delivery of the offsets in the areas of remnant and regrowth vegetation, the confidence level in the one-unit gain in the offset quality is 85%, for diamond firetail at the Offset Area.
Confidence in RoL result (%)	85%	Confidence in RoL is high due to combining background clearing rates with field observations of land management.

OAG Factor	OAG Input	Justification for Input
Offset Area (ha)	1,226	Derived from habitat requirements, as specified by the SPRAT database or other publicly available datasets (species Recovery Plans, referral guidelines, approved Conservation Advice, etc.). Also includes on-ground habitat assessment results.
Percentage of impact offset		**Diamond firetail Offset Area** **TOTAL: 174.22%**

4.6 POTENTIAL IMPACTS OF THE PROPOSED ACTION ON THE OFFSET AREA

As the Offset Area are located in the Study Area for the Proposed Action (see Figure 1-2), there is potential for the Proposed Action to indirectly impact MNES habitat within the Offset Area and MNES that utilise this habitat. Table 4-12 outlines these potential impacts as well as the management measures that will be employed to avoid, mitigate and manage these potential impacts.

Additional to this, Table 5-4 outlines the MNES specific threats listed in relevant Conservation Advice and Guidelines. This Section defines how threats will be addressed by Offset Management in the Offset Area. Abatement and management of these threats also applies to any potential risk of colocation of the Offset Area and the Proposed Action.

Furthermore, as outlined in Section 2.2, once legal security is established, the Offset Area will be subject to all relevant regulations and protections applicable to mapped Category A regulated vegetation. Accordingly, any potential impacts to the Offset Area by land owners or proponents operating on surrounding properties will need to be avoided.

TABLE 4-12 POTENTIAL IMPACTS OF THE PROPOSED ACTION ON THE OFFSET AREA

Potential Impact to MNES without Mitigation	Relevant MNES	Management of Potential Impact	Likelihood of Impact with Mitigation
Direct and Immediate Impacts			
Increased Vehicle Impacts on Fauna and Habitat	• Koala • Greater glider • Southern squatter pigeon • Diamond Firetail	• No driving will occur in unauthorised areas. Routes and access tracks will be clearly communicated to all site staff and contractors. All access routes and tracks will have clear signage to communicate permissible and prohibited areas. All driving will be carried out at safe speeds designated for the site. Night-time safe driving controls will also be applied, including additional speed restrictions, providing additional protection to nocturnal animals and MNES (koala and greater glider). • Site entry and exit points will be clearly marked to ensure vehicle movements are contained within the approved areas. • Staff and contractors will be made aware through general site induction and training of the potential to impact native fauna, reporting requirements and mitigation and management measures that are to be implemented during on-site works. • Injured, sick or dead fauna will be recorded and reported, during and after the construction and operation phases. This can be carried out by a fauna spotter-catcher during periods where disturbance is expected to occur (primarily construction activities). Where injured or sick fauna is detected, individuals will be taken to the nearest wildlife carer or veterinarian if practical. • *Koala sensitive design guidelines* will be referenced for the construction of fencing in and around the proposed Offset Area, ensuring the risk of vehicle collision is reduced.	**Unlikely** Implementation of management measures will ensure the potential impacts of operating vehicles on-site will be mitigated within the Study Area. It is therefore considered unlikely there will be increased vehicle impacts on fauna and habitat within the Offset Area as a result of the Proposed Action.
Environmental Pollution and Hazardous Materials	• Poplar Box TEC • Koala	• All hazardous materials bought on-site will be accompanied by a Material Safety Data Sheet (MSDS), and all relevant personnel will be trained in their proper use. • Only registered herbicides will be used for weed management by a suitably qualified bush regeneration contractor.	**Unlikely** The management measures proposed will result in the reduction of the

Potential Impact to MNES without Mitigation	Relevant MNES	Management of Potential Impact	Likelihood of Impact with Mitigation
	• Greater glider • Southern squatter pigeon • Diamond Firetail	• Imported materials capable of carrying or transporting hazardous substances will be assessed to ensure they are free of contamination, disease and invasive species. • Ensuring appropriate waste management (lidded bins), to reduce potential for spread of hazardous materials on-site. • Vehicles, plant and machinery will comply with site-specific speed limits to minimise noise and dust generation. • Staff and contractors will be made aware through general site induction and training of the potential to generate dust, light and noise pollution and management measures that should be implemented. • Auditing of the Construction Environmental Management Plan (CEMP) will occur during construction. • Dust will be minimised through engineering controls on machinery and other available dust suppression controls, such as sprinklers. • Light pollution will be minimised through engineering controls on infrastructure and machinery, such as colour selection and timing controls. • Noise will be minimised through engineering controls on infrastructure and machinery, including distance, engineering controls, and timing controls. • Disturbance from blasting will be minimised through engineering controls. Electricity infrastructure designed to allow for safe operations, using buffers between conductors and the ground, and conductors and adjacent vegetation.	indirect impacts of environmental pollution and hazardous materials within the Study Area. Hazardous materials brought onto the site will be tightly regulated. Dust, light and noise generation will be minimised such that is it unlikely to adversely affect species or damage species habitat. It is therefore considered unlikely there will be increased risk from environmental pollution and hazardous materials within the Offset Area as a result of the Proposed Action.
Site Alienation	• Poplar Box TEC • Koala	• Project Infrastructure where it encroaches upon the Offset Area has been designed to occur away from key habitats, bordering agricultural grazing paddocks rather than remnant vegetation, waterways or drainage lines, therefore reducing disturbance during all phases of the Proposed Action.	**Unlikely** The potential risk of site alienation will be managed to ensure

Potential Impact to MNES without Mitigation	Relevant MNES	Management of Potential Impact	Likelihood of Impact with Mitigation
	• Greater glider • Southern squatter pigeon • Diamond Firetail	• Mitigating habitat fragmentation and maintaining connectivity through the measures outlined above. • Development and implementation of management plans (Vegetation and Fauna Management Plan, CEMP) outlined above to reduce the potential impact of construction and operation phase activities including introducing invasive species, fire and altered hydrology. • Implementing engineering controls and MNES-specific design principles on infrastructure and machinery outlined above, such that fragmentation, vehicle collision, dust, light and noise pollution and blasting does not adversely affect MNES or MNES habitat.	that species are able to move, disperse and utilise habitat throughout the Study Area for the life of the Proposed Action. It is therefore considered unlikely there will be increased risk of site alienation within the Offset Area as a result of the Proposed Action.
Indirect and Delayed Impacts			
Increased Prevalence of Invasive Plants and Animals	• Poplar Box TEC • Koala • Greater glider • Southern squatter pigeon • Diamond Firetail	• An CEMP will be developed and implemented for the Proposed Action, which will outline management measures to mitigate impacts to vegetation and fauna, including MNES. This will include measures such as vehicle wash downs, weed certification and obligations to stick to access tracks throughout the Study Area. • Staff and contractors will be given information on the location and consequences of biosecurity threats in the Study Area. • WoNS and Restrictive Invasive species will be identified and monitored in the Study Area, ensuring any new species are identified, recorded and controlled. • Weed management and control methods will depend upon the weed species identified, the location and degree of the infestation, relevant land owner agreement or conduct, and	**Unlikely** Management measures will limit the possibility of the introduction or spread of invasive plant and animal species within the Study Area through relevant biosecurity measures incorporated into the CEMP.

Potential Impact to MNES without Mitigation	Relevant MNES	Management of Potential Impact	Likelihood of Impact with Mitigation
		compensation agreements, provisions, and regulatory requirements (local, state and national). • Imported materials will be assessed to ensure they are free of contamination, disease and invasive weeds.	It is therefore considered unlikely there will be increased prevalence of invasive plants and animals within the Offset Area as a result of the Proposed Action.
Altered Fire Regimes and Bushfire Risk	• Poplar Box TEC • Koala • Greater glider • Southern squatter pigeon • Diamond firetail	• A Bushfire Management Plan will be developed and implemented during construction and operation to mitigate the potential impact of fires to MNES habitat. • Maintenance of an asset protection zone within the Operations Footprint is required to reduce the risk of reduction of habitat due to fire. • Use of industry best practice hazard reduction measures will be employed to minimise bushfire risk and environmental impacts, such as on-site controlled burning of cleared vegetation. • The Bushfire Management Plan will define sufficient bushfire setbacks from vegetation around electrical infrastructure to maintain safe distances between vegetation and potential fire-starting hazards. This will increase safety and reduce fire risks. • Weed management and control methods (in line with the Construction Environmental Management Plan (CEMP)) will reduce the potential of invasive plants changing species composition on-site and increasing fire risk. • Reduce on-site fuel loads and maintain firebreaks and trails.	**Unlikely** Management measures implemented in line with the site-specific Bushfire Management Plan will greatly reduce the potential risk to MNES caused by planned or unplanned fires. It is therefore considered unlikely there will be changes to fire regimes and increased bushfire risk within the Offset Area as a result of the Proposed Action.

Potential Impact to MNES without Mitigation	Relevant MNES	Management of Potential Impact	Likelihood of Impact with Mitigation
Altered Hydrology	• Poplar Box TEC • Koala • Greater glider • Southern squatter pigeon • Diamond firetail	• Sediment and erosion control will be managed in accordance with a CEMP, which will implement all relevant State Codes and Guidelines. • In accordance with the CEMP, watercourse crossing points will be adequately stabilised to prevent erosion and runoff. • Staff and contractors will be made aware through general site induction and training of the potential to generate runoff and of the mitigation and management measures that must be implemented. • Construction activities must not interfere or block natural drainage e.g. disturbing channel contours. • Water barrier works will be designed to minimise impact on fish habitats, stock or movements through compliance with relevant design codes. During the detailed design phase, fish passage elements will be considered in all mapped waterways for fish passage, including compliance with the accepted development requirements for waterway barrier works or an operational works permit under the Planning Act.	**Unlikely** Impacts to on-site hydrology will be managed in accordance with the CEMP. Impacts to watercourses will be addressed by stabilising to prevent erosion, and only occur in discrete work areas, such that no increase in sedimentation is overserved affecting habitat. It is therefore considered unlikely there will be changes to hydrology within the Offset Area as a result of the Proposed Action.

5. OFFSET AREA MANAGEMENT

Offset Area management actions have been designed to ensure that completion criteria and regulatory requirements are achieved in accordance with the Offsets Policy. The focus of the management actions will be to increase from a baseline level the MHQA attributes associated most strongly with habitat quality for impacted MNES.

Management actions have been divided into six broad categories:

1. Habitat;
2. Weeds;
3. Pest animals;
4. Fire;
5. Grazing management; and
6. General management.

Management actions will be implemented through a zoned approach that integrates enhancement of existing remnant vegetation with active regeneration and revegetation of regrowth and previously cleared/disturbed areas.

- The zoned management framework applies two management zones that represent different levels of intervention linked to ecological condition and limiting factors:Baseline zone: MNES habitat where vegetation structure and function are present and recoverable using protection and maintenance measures. Management focuses on weed suppression, pest control, appropriate fire, managed grazing, and protection of existing structure to maintain or improve BioCondition attributes and reduce threats.
- Active Regeneration zone: MNES habitat where natural recruitment and structural development are constrained by one or more limiting factors and require intensified intervention to deliver timely recovery. Management adds assisted regeneration and targeted revegetation to the baseline measures and applies stronger threat abatement and stock exclusion to restore vegetation structure, floristic diversity and microhabitat.

The zoning differentiates where protection and maintenance alone are sufficient compared to where intensified management is required to restore vegetation structure and improve MHQA attributes. Baseline zone actions include habitat, weed, pest, fire, grazing and general management as described in the following Section. Active regeneration zone actions include all baseline actions plus assisted regeneration measures such as propagation or planting to accelerate canopy and mid-story development, intensified weed suppression in priority locations, temporary total stock exclusion where needed to protect recruitment, and increased monitoring to confirm response.

TABLE 5-1 ZONED MANAGEMENT STRATEGY FOR IMPACTED MNES

Management zones	Management Areas	Proposed Management Actions
Baseline zone	• Areas where MNES habitat occurs in locations defined	As discussed in Sections 5.2 to 5.7, and in Table 5-2; • Habitat management;

Management zones	Management Areas	Proposed Management Actions
	as 'remnant' by VM Act RE mapping 13.1 (DES, 2024)	• Targeted weed management; • Pest animal management; • Fire management; • Grazing management; and • General management.
Active Regeneration zone	• Areas where MNES habitat occurs in locations defined as 'non-remnant' VM Act RE mapping 13.1 (DES, 2024)	Additional to the baseline management ties: • Habitat management – propagation of source material in selected areas to increase speed of canopy regeneration; • Weed management – more frequent and intensified removal of woods and management of burgeoning infestations; • Grazing management – total cattle exclusion in selected locations to enable enhanced and more successful canopy recruitment; and • General management – increased monitoring to ensure sufficient barrier maintenance and species utilization.

This zoned approach will support the HQS improvement required for each MNES. Offset management is designed to achieve a two point HQS gain for koala and greater glider habitat. This will require areas of habitat for these species to be managed inline with Baseline Zone management action and for habitat to created and uplifted, as stated in Section 4.4. A one point gain for Poplar Box TEC, southern squatter pigeon and diamond firetail habitat is proposed. These gains apply at the Offset Area scale and are achieved through the combined effect of baseline and active regeneration zone actions over the 20 year time horizon of the offset.

Objectives described in Section 7.1 will be achieved by implementing management actions across all six management categories.

It is important to note that confirmation of a contractual agreement with the potential land owner of the Offset Area is required so that the management actions outlined in this OMP are achievable. While the management actions presented in this OMP represent the preferred approach, they may be subject to change following negotiations with land owners.

5.2 HABITAT MANAGEMENT

Habitat management for the offset has been designed to demonstrate measurable improvement in HQS in line with the MHQA method. The foundation of the HQS in Queensland is the BioCondition (Eyre, et al., 2015) which assesses the condition of native vegetation against quantitative benchmarks for fundamental habitat attributes such as large tree density, canopy cover, recruitment, and ground layer composition The MHQA builds on this framework by incorporating additional species-specific attributes, including food and shelter resources,

threats, and site context, so that HQS values reflect both general habitat condition and the capacity of the Offset Area to support the relevant threatened species.

Habitat management actions align with the baseline and active regeneration zones of the management strategy and focus on protecting existing vegetation while promoting structural and floristic recovery where condition has been historically degraded. Management measures specifically target improvement of BioCondition attributes. Enhancing recruitment of canopy species, increasing species diversity, and reducing exotic cover will result in an increase to MHQA attributes. Many of the BioCondition attributes contribute directly to species specific MHQA attributes. A full breakdown of this relationship is provided on the cover page of the MHQA scoring justification is provided in Appendix D

Consistent with approved Conservation Advice for koala (DAWE, 2022a) , greater glider (DCCEEW, 2022) southern squatter pigeon (TSSC, 2015), Poplar Box TEC (DCCEEW, 2021) and diamond firetail (DCCEEW, 2023b) habitat management prioritises actions that address habitat loss, disturbance, and modification through:

- Regeneration of existing remnant and regrowth vegetation; and
- Retention and restoration of microhabitat features that support MNES habitat suitability.

5.3 WEED MANAGEMENT

Maintaining and eradicating legacy infestations and preventing new weed incursions will improve the condition of MNES habitat within the Offset Area. Weed management will involve integrated management measures including mechanical removal, herbicide use, fire, cattle grazing and weed hygiene.

The Australian Weeds Strategy (2017-2027) provides information on the best practices for management of Weeds of National Significance (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 will be considered as part of the Offset Area weed management. Local government biosecurity plans will also be consulted to determine any local measures that should be adopted within the Offset Area.

Weed management supports the zoned management strategy by maintaining the structural integrity of native remnant vegetation and expediting the opportunity for regeneration and revegetation in regrowth or disturbed areas through the reduction of ongoing pressure on vegetation structure that weeds establish.

5.3.1 CURRENT AND FUTURE THREAT FROM WEEDS

A total of four WoNS or as Category 3 Restricted Invasive species under the *Biosecurity Act 2014* observed occurring within either the Offset Area or other locations within the Study Area, including:

- Lantana (*Lantana camara*);
- Velvet tree pear (*Opuntia tomentosa*);
- Parthenium (*Parthenium hysterophorus*); and
- Cats claw creeper (*Dolichandra unguis-cati*).

Other introduced species recorded in the Study Area during field surveys, but not listed as WoNS or species under the *Biosecurity Act 2014* include:

- Blue billygoat weed (*Ageratum houstonianum*);
- Balloon cotton bush (*Gomphocarpus physocarpus*);
- Noogoora burr (*Xanthium occidentale*)
- Cobblers' pegs (*Bidens pilosa*);
- Rhodes grass (*Chloris gayana*);
- Red natal grass (*Melinis repens*); and
- Brazilian nightshade (*Solanum seaforthianum*).

The large quantity of weeds already established within the Study Area (and therefore the Offset Area) provides evidence of the susceptibility of the area to invasion and establishment of weed species. Without offset, particularly in the absence of strict cattle grazing management, it is likely that new weed species will be introduced into the Offset Area and/or that any existing weeds are likely to increase.

5.4 PEST ANIMAL MANAGEMENT

Pest animals degrade the quality and suitability of habitat for native fauna and flora. In high densities, pest animals can lead to declines in tree health, disrupted recruitment, the spread of weeds, and reductions in soil and water quality (Queensland Government, 2022). Pest animals also have the potential to cause direct impacts to MNES species, particularly the koala, greater glider and southern squatter pigeon, and are known to cause injury and mortality (TSSC, 2015; DAWE, 2022a; DCCEEW, 2022).

Pest management supports the zoned management strategy by protecting remnant vegetation and facilitating regeneration and revegetation outcomes through the reduction of ongoing disturbance and pressure on vegetation structure and ground layer condition. Within Queensland, all pest animals defined as Restricted Invasive species carry management requirements prescribed by the *Biosecurity Act 2014* (DPI, 2024).

The purpose of the pest animal management actions is to identify existing and potential biosecurity risks associated with pest vertebrate animals, and to determine and recommend measures to restrict the entry, establishment or spread of, and manage, reduce, any pest animal species. A monitoring program will be established that will record and understand pest animal presence and movements within the Offset Area, then undertake management actions, which have been sourced from relevant Threat Abatement Plans for each species (see Section 5.8).

This monitoring will be ongoing, with any observed evidence of pest species reported, serving as a trigger for adaptive management and corrective actions. Where trigger levels are exceeded, corrective management actions will be implemented for the relevant species, including baiting and trapping programs undertaken by a suitably qualified expert, to support achievement of habitat quality and recovery objectives.

Six introduced pest animal species were recorded in the Study Area during field surveys, as follows:

- Feral pig (*Sus scrofa*);

- Dingo and wild dog (*Canis familiaris*);
- Feral cat (*Felis catus*);
- House mouse (*Mus musculus*);
- European rabbit (*Oryctolagus cuniculus*); and
- Cane toad (*Rhinella marina*).

The Banana Shire Council Biosecurity Plan (Banana Shire Council, 2019) also identifies all of these species (excluding cane toad), along with the European red fox (*Vulpes vulpes*), as widespread at low densities across the region. Therefore, without active management, the identified pest animals above are likely to establish or increase in density within the Offset Area.

Specifically, wild dogs pose a significant threat to the MNES species targeted for offsetting and have already been observed in the Study Area. Without control measures, their population is expected to grow locally. Furthermore, given the Banana Shire Council's identification of wild dogs as being widespread at low densities across the region, it is likely that new individuals may pass through or establish within the Offset Area.

5.5 FIRE MANAGEMENT

Fire management actions will be undertaken to protect and maintain ecological values within the Offset Area. Appropriate fire management is needed to ensure that vegetation within the Offset Area is capable of providing continued support and habitat for impacted MNES. Fire management contributes to the overall zoned strategy by protecting remnant vegetation from unplanned fire and by enabling regeneration and revegetation actions where ecological burns are appropriate. This includes prevention and protection from unplanned fires and the careful use of planned, low intensity burns to maintain vegetation structure and condition. Fire management supports both the baseline and active regeneration zones, with careful protection of regenerating areas where recruitment is sensitive to fire intensity.

Fire management will be undertaken in accordance with the *Queensland Government Planned Burn Guidelines* (Melzer & Hines, 2022), which incorporates RE specific guidance provided in the Regional Ecosystems Description Database (REDD).

5.6 GRAZING MANAGEMENT

The ecological condition of the Offset Area is influenced by cattle grazing. A high cattle grazing pressure can result in detrimental effects to ecological values and therefore relevant MNES habitat, particularly southern squatter pigeon habitat with overgrazing identified as a key threat to the species due to a reduction in habitat features and trampling of nests (TSSC, 2015). However, correctly managed cattle grazing can be beneficial to ecological values within the Offset Area by reducing fuel load and helping to manage the risk of uncontrolled fires (Schachtschneider, Strand, Launchbaugh, & Jensen, 2024).

Management actions will therefore be completed, in cooperation with the land owner, to manage grazing pressure, aiming to result in no habitat quality loss and minimal damage to eucalypt regrowth vegetation. These management actions will include consideration of both domestic and non-domestic stock, and will include regulation of cattle stocking rates, regulation of cattle rotational periods/grazing access to the Offset Area across seasons, climatic conditions and plant growth, regionally coordinated management activities as well as

property-based management actions to control non-domestic stock grazing pressure (e.g. kangaroos).

Grazing management supports the zoned management strategy by enabling the structural integrity and recruitment processes of native remnant vegetation and by creating conditions for the establishment of juvenile canopy species in regrowth or disturbed areas through reduced grazing pressure on natural regeneration.

5.7 GENERAL OFFSET AREA MANAGEMENT

The quality of habitat within the Offset Area can be at risk of degradation without proper signage, maintenance of the infrastructure (e.g. signage, gates and fencing). Therefore, management actions have been proposed to erect and maintain signage, gates and fencing to enforce, deter and prevent further degradation. These actions are intended to protect the quality of the Offset Area from potential decline that may be caused directly by human interference, or indirectly through degradation of infrastructure, with the main risk being removal of mature trees from selective logging.

General offset management supports the zoned management strategy by ensuring that remnant enhancement, active regeneration, weed and pest control, fire management and grazing management actions can be implemented safely, consistently, and without interruption. These actions maintain the operational integrity of the Offset Area and facilitate the long term delivery of habitat improvement works across defined management units.

The fencing and gate installation surrounding the Offset Area is intended to exclude livestock while allowing movement of threatened species through the Offset Area and broader Study Area. Diamond firetail and southern squatter pigeon will have the ability to freely disperse over the fencing, however koala and greater glider have a greater risk of the fencing disrupting dispersal ability, if not adequately designed. Therefore, the proposed fencing will be designed to be fauna friendly and will incorporate the following components (following the *Koala-sensitive design guideline* (DES, 2022)):

- Fencing will be raised off the ground with a minimum spacing of 300 millimetres (mm) from the ground to the fencing material;
- Fencing will be designed to incorporate the location of existing trees so that arboreal MNES are able to disperse between habitat trees above any fencing;
- No barbed wire or electric fencing will be used along the bottom cable to allow koalas to disperse freely underneath the fencing, or along the top cable to reduce the risk of greater glider entanglement; and
- The fence will be maintained through the life of the offset and repaired as required.

5.8 MANAGEMENT ACTIONS

These measures outlined in Table 5-2 have been developed in order to meet the ‘S.M.A.R.T’ goal principle as follows:

- **Specific (S)** – this details the specific mitigation measure for the Proposed Action in terms of how it will mitigate the relevant potential impact;
- **Measurable (M)** – this details how the mitigation measure for the Proposed Action will be achieved, through the collection of data during field surveys, or a specific number unit goal for the measure;

- **Achievable (A)** – this details the way in which the mitigation measure for the Proposed Action will be achieved in relation to the timeframe, people involved in achieving the measure and the money or resources required;
- **Relevant (R)** – this details any information for listed species that are relevant to, or addressed by, the specific mitigation measure for the Proposed Action, for example, how measures detailed within a CEMP as well as a Biosecurity Management Plan would help to address and adhere to the Threat Abatement Plans for pest reduction for listed threatened species, and adhere to the requirements of the *Biosecurity Act 2014*; and
- **Time bound (T)** – this details the specific time frame in which the mitigation measure for the Proposed Action should be implemented for or achieved by.

TABLE 5-2 REQUIRED MANAGEMENT ACTIONS

Risk	Management Action	Frequency	Timing	Zone	Activity Provider
Habitat Management					
Failure of regrowth vegetation improvement	Aerial or manual propagation of source material (appropriate canopy species seed stock for the pre-clear RE) in targeted regrowth areas to expedite canopy regeneration.	Once	Within 12 months of offset establishment	Active Regeneration	Suitably qualified and experienced bush regeneration contractor
Canopy recruitment and/or completion criteria are unlikely to be met	Implementation of the management actions and adaptive management framework as outlined in this OMP. Maintaining and promoting eucalypt growth to support natural recruitment and regeneration via pest and weed management, cool-burn programs, and removal of thinning practices as per the routine outlined in the OMP.	Ongoing	Implemented within 12 months of OAMP approval and at all times following implementation for the duration of the OAMP (20 years)	Baseline and Active Regeneration	All personnel
Clearing of vegetation not protected under the VM Act within the Offset Area (Category X areas)	No unapproved and/or intentional clearing of vegetation within the offset area will be completed, except for clearing that is required for fencing, access tracks, firebreaks and public safety.	Ongoing	At all times	Baseline and Active Regeneration	All personnel

Risk	Management Action	Frequency	Timing	Zone	Activity Provider
Weed Management					
Introduction, establishment and spread of non-native weeds	Baseline weed mapping to be undertaken for WoNS and locally significant weeds (under the *Biosecurity Act 2014*) relevant to the threatened species within the Offset Area.	Once	Within 12 months of offset establishment	Baseline and Active Regeneration	Suitably qualified and experienced bush regeneration contractor
	The following management actions will be implemented to manage the establishment and spread of non-native weeds: • Low intensity grazing by cattle (stock management); • Herbicide, mechanical and Biological control; and • Fire will be used to assist with weed management and non-eucalypt woody undergrowth.	Annually for weed treatment where required. Fire will be used every 6-10 years	Specific to weed species technical requirements	Baseline	Suitably qualified and experienced bush regeneration contractor
		Twice annually for weed treatment where required. Fire excluded for first 10 years, then every 6-10 years	Specific to weed species technical requirements	Active Regeneration	Suitably qualified and experienced bush regeneration contractor

Risk	Management Action	Frequency	Timing	Zone	Activity Provider
	All machinery and vehicles required to access the Offset Area for construction or maintenance will be certified to be weed free when leaving the nearest public road.	Ongoing	At all times	Baseline and Active Regeneration	Environmental managers and/or supervisors
Pest Animal Management					
Impacts from pest animals	Undertake baseline surveys to establish pest animal occurrence and detailed mapping of targeted pest animals within the Offset Area, prior to active management. Surveys will determine baseline presence and densities of identified targeted pest animals.	Once	Within 12 months of offset establishment	Baseline and Active Regeneration	Suitably qualified expert
	Noting that pest animal management currently occur by land owner and this OMP commitment formalises that ongoing control will remain.	As required	Any time of year As per specific guidance for relevant pest animals	Baseline and Active Regeneration	Suitably qualified expert
An increase in pest animal activity after unplanned/ uncontrolled fire.	Where an unplanned or uncontrolled fire affects the Offset Area, an assessment will be undertaken to determine the extent and severity of impact to habitat quality. This assessment will determine if the impact of the unplanned fire is likely to result in	After any unplanned fire event determined likely to result in changes in pest animal	Review to be conducted within one month of fire event, subject to safety and accessibility	Baseline and Active Regeneration	Suitably qualified expert

Risk	Management Action	Frequency	Timing	Zone	Activity Provider
	changes in the number of pest animals present. A review of the management actions will be carried out to ensure targeted pest animal species are adequately monitored. Where targeted pest animal densities are found to increase after a fire event, immediate application of corrective actions will be carried out. For example, where an increase in the number of feral cats or European red foxes are observed post-fire event, additional control programs (baiting, trapping) will be immediately implemented to reduce risk to MNES.	species presence within the Offset Area			
Fire Management					
Unplanned/uncontrolled fires impacting MNES habitat within the Offset Area	If there are one or more bushfires that are current in the region and they are considered threatening to the Offset Area, then coordinate with all relevant fire authorities to determine an appropriate method to protect the Offset Area.	Ongoing	At all times	Baseline and Active Regeneration	Approval Holder
	The approval holder will maintain firebreaks along boundaries of the Lot within which the Offset Area is defined. These breaks must be inspected periodically and have	Once every three years	Where firebreak maintenance is identified, repairs will be undertaken within	Baseline and Active Regeneration	Approval Holder

Risk	Management Action	Frequency	Timing	Zone	Activity Provider
	maintenance occur once every three years.	Annual visual inspections	6 months of being identified		
	Important note: if there is fire damage to the Offset Area then it must be reported by the land owner. The Approval Holder is required to report any damage to the Offset Area to the Commonwealth.	Ongoing	At all times	Baseline and Active Regeneration	Land owner and Approval Holder
High fuel load within the offset area increasing the intensity of potential fires	Surveys will be undertaken by suitably qualified professionals to re-establish a baseline of fuel loads within the Offset Area prior to active management, which can be monitored against for implementation of corrective actions.	Once	Within 12 months of OMP approval	Baseline and Active Regeneration	Suitably qualified fire ecologist
	Management activities to reduce fuel loads will be undertaken within the Offset Area and include: • Low intensity grazing by livestock; and • Cool controlled burns. Controlled burns must follow the fire management guidelines specific for the REs within the Offset Area (Queensland Government, 2024).	Grazing - ongoing Controlled burns will follow the fire management guidelines specific for the REs within the Offset Area (Queensland Government, 2024).	Grazing - ongoing Controlled burns will follow the fire management guidelines specific for the REs within the Offset Area (Queensland Government, 2024).	Baseline and Active Regeneration	Grazing - Land owner Controlled burns - Suitably qualified fire ecologist

Risk	Management Action	Frequency	Timing	Zone	Activity Provider
Grazing Management					
Grazing pressures impacting habitat quality within the Offset Area	Management actions associated with minimising the pressure and habitat impacts of grazing include: • Monitor stocking rates within the Offset Area; • Reduce current stocking rates (to be negotiated with land owner property to property); • Stock will be grazed only when required to reduce dry matter yield (DMY), and only during the dry season. • A specific DMY lower limit will be determined after negotiation with land owners to avoid overgrazing the Offset Area; and • Property-based management actions to control non-domestic stock grazing pressure.	Ongoing	At all times	Baseline and Active Regeneration	Land owner and Approval Holder
Grazing pressure preventing canopy recruitment in Active Regeneration areas	Excluding stock from Active Regeneration areas to reduce RoL of recruitment of canopy species due to over-browsing.	Ongoing (<5 years)	First 5 years from offset establishment	Active Regeneration	Land owner and Approval holder

Risk	Management Action	Frequency	Timing	Zone	Activity Provider
General Offset Area Management					
Removal of mature trees by selective logging	Selective logging practices will be excluded from the Offset Area to maintain the extent of mature trees within the Offset Area.	Ongoing	At all times	Baseline and Active Regeneration	All personnel
Unauthorised entry	Gates at the entrance of Offset Area will be maintained to: • Prevent the entry of unauthorised large domestic animals; and • Minimise vehicle access and limit any potential harvesting of timber.	As necessary	At all times. Maintenance to occur within three months of being identified	Baseline and Active Regeneration	Delegated suitably qualified professional
	Vehicle access is limited to authorised contractors undertaking offset area management in accordance with this OMP. A speed limit within the Offset Area will also be imposed.	Ongoing	At all times	Baseline and Active Regeneration	All visitors

5.8.1 OFFSET AREA MANAGEMENT AND PROTECTION ADDITIONAL TO THOSE THAT CURRENTLY EXIST

While the existing management actions associated with weed and pest management are standard farm practices they maintain a specific focus on benefit to the grazing practice. Management actions specified in this OMP focus on delivering ecological benefit to the protected matters.

Where grazing, fire, weed and pest management actions are combined, the outcomes gained for the protected matters are as follows:

- Assisting in the regeneration of eucalypt species in regrowth areas. This focus aims to increase eucalypt canopy species density and management, to maturity. This will lead to habitat condition enhancement and increased connectivity between MNES habitat patches internal to the Offset Area that were previously fragmented or only sparsely connected. This will aid in moving towards successful completion criteria.
- Reducing the current stocking rates in the Offset Area and additional monitoring of potential grazing pressures in the Offset Area. This will deliver an ecological benefit by assisting regrowth areas and regeneration to achieve increased species maturity and density otherwise removed for grazing practices. This will also aid in habitat enhancement through the achievement of regrowth moving towards successful completion criteria.
- Excluding selective logging practices (conducted under permit for the collection of mature trees) within the Offset Area will retain existing hollows and promote mature tree development, thus increasing the quantity of hollow bearing trees within the Offset Area. Selective logging in the Offset Area would continue without this intervention, reducing the amount of mature trees suitable for the MNES and the reduction of available hollows throughout the Offset Area. This is a key management action for the greater glider as trees with a dbh of 30-60 cm are selectively logged and denning/foraging trees for the greater glider within this habitat type are typically >46 cm in dbh (Eyre, et al., 2022).
- Implementing the OMP will maintain the frequency of biosecurity management for matters such as feral dog and weed management, as a result of increased site inspection and monitoring, and additional pest animal and weed control, where required.

5.9 COMPLIANCE WITH CONSERVATION ADVICE, RECOVERY PLANS AND THREAT ABATEMENT PLANS

Table 5-3 provides evidence of how the management actions described within Section 5.8 take into account relevant approved Conservation Advices and are consistent with relevant Recovery Plans and Threat Abatement Plans.

Further to this, Table 5-4 identifies how each management action will be directly relevant to each MNES based on the identified threats outlined within the relevant documentation reference within Table 5-3.

TABLE 5-3 COMPLIANCE WITH CONSERVATION ADVICE, RECOVERY PLANS AND THREAT ABATEMENT PLANS

MNES	Relevant Conservation Advice, Recovery Plans and Threat Abatement Plans	Key Threats to MNES	Offset Area Compliance
Poplar Box TEC	**Conservation Advice** *Conservation Advice (including listing advice) for the Poplar Box Grassy Woodland on Alluvial Plains* (DoEE, 2019) Objectives: • Prevent further clearance, fragmentation or detrimental modification of remnants of the ecological community and of surrounding native vegetation. • Recognise the landscape position of remnants of the ecological community and ensure that planning supports increased resilience within the landscape. • Prevent impacts to native vegetation, native fauna, hydrology or soil structure from any development and activities adjacent to or near patches of the ecological community by planning for and appropriately avoiding or mitigating off-site effects. • Protect mature trees, particularly with hollows, even if they are dead. Large and old trees may have numerous fissures that provide shelter. • Avoid significant changes to water table levels and/or run-off, salinity, pollution and water flow patterns arising from developments. • Manage access to remnants to prevent, for example, disturbance and spread of weeds and plant pathogens.	Key threats include (DoEE, 2019): • Clearance and fragmentation; • Weed invasion; • Inappropriate fire and grazing regimes; • Dieback; • Chemical impact and spray drift; • Hydrological changes; • Salinization; • Nutrient enrichment; • Invasive fauna; and • Climate change.	• Poplar Box TEC has been identified and mapped within the Offset Area. • No logging is to be completed within the Offset Area and therefore the patches of Poplar Box TEC will be protected from direct habitat removal and fragmentation. • Pest animal and weed management will be undertaken, to reduce potential impacts on MNES. This includes management of WoNS listed under the EPBC Act as well as Restrictive and Prohibited Invasive flora and fauna (restricted matters), listed under the *Biosecurity Act 2014*. • Fire management will be completed to prevent/ protect MNES from unplanned fires and to manage planned burns for ecological restoration (where appropriate). • Best-practice measures will be implemented to manage and mitigate the potential impacts from altered hydrology, such as habitat degradation, caused by increased erosion and sedimentation as a result of the Proposed Action in areas surrounding the Offset Area. • Environmental pollutants affecting MNES will be managed through the site-specific CEMP. Staff and contractors will be made aware through general site induction and training of the potential to generate pollution (including through improper handling of hazardous materials and generation of dust, light and noise) and

MNES	Relevant Conservation Advice, Recovery Plans and Threat Abatement Plans	Key Threats to MNES	Offset Area Compliance
	• Protect the native soil seed bank by minimising soil disturbance and removal. • Retain habitat features for fauna, noting species requirements (e.g. fallen timber) or particular vegetation structure. • Prior to removal of any trees, or use of heavy machinery that may also damage the understorey, ensure comprehensive flora and fauna surveys have identified threatened species on site and their potential shelter and nesting sites. • Following disturbances, implement a weed control program that responds to weed establishment, particularly in the 1–2 years following disturbance. • Implement effective control and management techniques for invasive grasses, such as *Cenchus ciliaris* (buffel grass). • Monitor for signs of new disease such as myrtle rust or incursions by new weeds (for example, African boxthorn (*Lycium ferocissimum*) or blackberry (*Rubus* species)), or pest animals, (for example goats (*Capra hircus*), rabbits (*Oryctolagus cuniculus*) and deer (*Cervus* species)) and manage early for local eradication. • Use appropriate hygiene to minimise the introduction or spread of weeds and diseases at susceptible sites. For example, keep vehicles and machinery to dedicated roads and out of remnants wherever possible. If vehicles must be taken into remnants ensure vehicles are washed first to remove soil, potential fungal pathogens and weed seeds.		management measures that must be implemented.

MNES	Relevant Conservation Advice, Recovery Plans and Threat Abatement Plans	Key Threats to MNES	Offset Area Compliance
	• Implement appropriate fire management regimes for the ecological community that take into account results from research. • Enhance the resilience of the ecological community to the impacts of climate change by relieving other pressures, in particular, by implementing actions in this advice regarding vegetation clearance, invasive species and fire.		
Greater glider	**<u>Conservation Advice</u>** *Conservation Advice for Petauroides volans (Greater Glider (southern and central)* (DCCEEW, 2022) Relevant conservation and management priorities include: • Implement and enforce measures to reduce direct mortality and loss of hollow-bearing trees during site preparation and execution of prescribed burns. • Protect and maintain sufficient areas of suitable habitat, including denning and foraging resources and habitat connectivity, to sustain viable subpopulations throughout the species' range. • Protect hollow-bearing trees on private property, roadside reserves, and along the edges of roads/tracks. Prior to removing trees identified to be a 'hazard', undertake a risk assessment by a suitably qualified person to determine whether their removal is necessary, including consideration of the potential impacts of removal on the greater glider. Incorporate measures to ensure ongoing recruitment of hollow-bearing trees into planning processes.	Threats include (DCCEEW, 2022): • Frequent and intense bushfires; • Inappropriate prescribed burning; • Climate change – increased temperature and changes in rainfall patterns; and • Habitat loss by land clearing (including timber harvesting). Other threats with minor consequences are: • Mortality from barbed wire fencing; • Hyper predation by owls;	• Species habitat has been identified and mapped within the Offset Area. • Fire management will be completed to prevent/ protect MNES from unplanned fires and to manage planned burns for ecological restoration (where appropriate). • No logging is to be completed within the Offset Area and therefore MNES habitat will be protected from direct habitat removal and habitat fragmentation. • Pest animal and weed management will be undertaken to reduce potential impacts on MNES. This includes management of WoNS listed under the EPBC Act as well as Restrictive and Prohibited Invasive flora and fauna (restricted matters), listed under the *Biosecurity Act 2014*.

MNES	Relevant Conservation Advice, Recovery Plans and Threat Abatement Plans	Key Threats to MNES	Offset Area Compliance
	• Avoid fragmentation and loss of habitat due to development of new transport corridors. Include consideration of the species in planning processes and re-locate recreational activities and roads away from habitat. • Revise mitigation and offset guidelines for development and linear infrastructure (e.g. pipelines, transport corridors) to reflect the limited effectiveness of artificial structures (nest boxes, glider poles) as mitigation actions for loss, degradation or fragmentation of greater glider habitat. • Protect all habitat likely to be climate change refuges, including sites buffered against desiccating conditions (e.g. sheltered and/or on south-facing aspects), under future climate change scenarios. Maintain or establish connectivity with other habitat in order to facilitate movement. **Recovery Plan** There is no adopted or made Recovery Plan for this species **Threat Abatement Plan** No Threat Abatement Plan has been identified as being relevant for this species	• Competition by sulphur-crested cockatoos (*Cacatua galerita*); • Predation by feral cats; and • Predation by European red foxes.	
Koala	**Conservation Advice** *Conservation Advice for Phascolarctos cinereus (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory* (DAWE, 2022a).	Threats include (DAWE, 2022a): • Habitat loss and fragmentation;	• Koala habitat has been identified and mapped within the Offset Area. • Fire management will be completed to prevent/ protect MNES from unplanned fires and to manage planned burns for ecological restoration (where appropriate).

MNES	Relevant Conservation Advice, Recovery Plans and Threat Abatement Plans	Key Threats to MNES	Offset Area Compliance
	Relevant conservation and management priorities include: • Building and sharing knowledge. • Strong community engagement. • Increase habitat protection. • Conservation integrated into policy, statutory and land-use plans. • Strategic habitat restoration. • Active metapopulation management. **Recovery Plan** *National Recovery Plan for the Koala Phascolarctos cinereus (combined populations of Queensland, New South Wales and the Australian Capital Territory)* (DAWE, 2022b) Objectives: • Stabilise and increase areas of occupancy that are declining or predicted to decline. • Maintain or increase areas of occupancy that are or are predicted to be stable. • Maintain or improve metapopulation processes. • Give partners, communities, individuals a greater role in listed koala monitoring, conservation, and management. **Threat Abatement Plan** No Threat Abatement Plan has been identified as being relevant for this species.	• Increased intensity and frequency of drought; • Decreased nutritional value of foliage; • Heat stress, climate change, bushfire; • Wild dog predation; • Direct vehicle mortality; and • Disease.	• No logging is to be completed within the Offset Area and therefore MNES habitat will be protected from removal of direct habitat and habitat fragmentation. • Pest animal and weed management will be undertaken to reduce potential impacts on MNES. This includes management of WoNS listed under the EPBC Act as well as Restrictive and Prohibited Invasive flora and fauna (restricted matters), listed under the *Biosecurity Act 2014*.

MNES	Relevant Conservation Advice, Recovery Plans and Threat Abatement Plans	Key Threats to MNES	Offset Area Compliance
Southern squatter pigeon	**Conservation Advice** *Conservation Advice for Geophaps scripta scripta (Squatter Pigeon (Southern))* (TSSC, 2015) Conservation and management priorities (that are relevant to the Proposed Action) include: • Identify high-conservation priority populations, especially in the species' southern range. • Protect and rehabilitate areas of vegetation that support important populations. • Develop conservation agreements and stock management plans. • Eradicate feral herbivores in regions of known populations. • Monitor selected sub-populations to observe rates of population change. **Recovery Plan** There is no adopted or made Recovery Plan for this species. **Threat Abatement Plan** Threat Abatement Plans relevant to this species include: • Threat abatement plan for predation by feral cats (DoE, 2015); • Threat abatement plan for competition and land degradation by rabbits (DoE, 2016); and • Threat abatement plan for predation by the European red fox (DEHWA, 2008).	Threats include (TSSC, 2015): • Overgrazing, specifically by sheep, though other livestock can be harmful too, specifically trampling of nests from cattle; • Drought; • Vegetation clearing and habitat fragmentation; • Feral herbivores such as rabbits; • Predation by cats and foxes; • Introduction of weeds and understorey vegetation thickening; • Inappropriate fire regimes; and • Illegal shooting.	• Species habitat has been identified and mapped within the Offset Area. • Grazing management will be completed within the Offset Area to reduce impacts of grazing pressure (low stocking rates) and to allow for rest periods for vegetation to recover. • No logging is to be completed within the Offset Area and therefore MNES habitat will be protected from direct habitat removal and habitat fragmentation. • Pest animal and weed management will be undertaken to reduce potential impacts on MNES. This includes management of WoNS listed under the EPBC Act as well as Restrictive and Prohibited Invasive flora and fauna (restricted matters), listed under the *Biosecurity Act 2014*. • Fire management will be completed to prevent/ protect MNES from unplanned fires and to manage planned burns for ecological restoration (where appropriate).

MNES	Relevant Conservation Advice, Recovery Plans and Threat Abatement Plans	Key Threats to MNES	Offset Area Compliance
Diamond firetail	**<u>Conservation Advice</u>** Conservation Advice for *Stagonopleura guttata* (diamond firetail) (DCCEEW, 2023b). Relevant conservation and management priorities include: • Retain and protect woodland, open forest, grassland and mallee habitat form clearing, fragmentation and disturbance. • Protect and maintain areas of high-quality habitat. • Undertake revegetation using a diverse mix of locally appropriate native species, which will produce high quality habitat. • Restore native perennial grasses and casuarinas to habitat fragments. • Retain mistletoe and scattered patches of dense shrubs for nesting habitat, particularly close to water. • Expand and reconnect smaller fragments of habitat by fencing and encouraging natural regeneration or applying revegetation techniques where regeneration fails. • Reduce grazing intensity and regularity so that a diverse grass sward and scattered shrub layer is maintained and seeding grasses and forbs that the species requires are present throughout the year. • Actively manage pest and pastoral grazing in occupied patches. • Exclude domestic livestock and native herbivore grazing from high quality habitat.	Threats include (DCCEEW, 2023b): • Habitat lass caused by land clearing; • Weeds, particularly exotic annual grasses, altering habitat; • Habitat degradation caused by domestic livestock grazing and overabundant native animal grazing; • Habitat degradation caused by rabbits; • Increase infrequency, scale or intensity of fires; • Increased likelihood of extreme events (e.g. wildfire, heatwave, and drought); • Noisy miner (*Manorina melanocephala*) territorial competition; and • Predation by pied currawongs (*Strepera graculina*).	• Species habitat has been identified and mapped within the Offset Area. • No logging is to be completed within the Offset Area and therefore MNES habitat will be protected from direct habitat removal and habitat fragmentation. • Pest animal and weed management will be undertaken to reduce potential impacts on MNES. This includes management of WoNS listed under the EPBC Act as well as Restrictive and Prohibited Invasive flora and fauna (restricted matters), listed under the *Biosecurity Act 2014*. • Grazing management will be completed within the Offset Area to reduce impacts of grazing pressure (low stocking rates) and to allow for rest periods for vegetation to recover. • Fire management will be completed to prevent/ protect MNES from unplanned fires and to manage planned burns for ecological restoration (where appropriate).

MNES	Relevant Conservation Advice, Recovery Plans and Threat Abatement Plans	Key Threats to MNES	Offset Area Compliance
	• Modify grazing management practices that will maintain or improve habitat value and still allow some grazing to occur at strategic times of the year. • Increase the prevalence and diversity of food plants by restoring native perennial grasses, whilst implementing targeted control of herbaceous weeds. • Targeted removal of weeds significantly compromising habitat value (e.g. invasive perennial grasses) and restore native vegetation, ensuring that large areas of exotic food plants (such as *Ehrharta longiflora*) are not removed at once. **Recovery Plan** There is no adopted or made Recovery Plan for this species. **Threat Abatement Plan** Threat Abatement Plans relevant to this species include: • Threat Abatement Plan for predation by feral cats (DoE, 2015).		

TABLE 5-4 TARGETED MANAGEMENT FOR MNES BASED ON IDENTIFIED THREATS

	Habitat Management	Weed Management	Pest Animal Management*	Fire Management	Grazing Management	General Offset Area Management
Poplar Box TEC	Habitat removal or fragmentation will not be permitted.	All weeds are a threat to the Polar Box TEC. Weeds impacting ground layer diversity will be specifically monitored and targeted during management, particularly: • Buffel grass; and • Coolatai grass (*Hyparrhenia hirta*).	Management and monitoring will target the following species: • Feral cats - predate on small to medium sized native animal species within the Poplar Box TEC; • Rabbits - selectively remove the most palatable species and repress regrowth; and • Feral pigs – damage ground layer vegetation.	Likelihood of intense, frequent fires will be reduced.	Cattle grazing pressure will be reduced and regulated.	Eliminating vegetation clearing and limiting access to the Offset Area will reduce risks from chemicals, hydrological changes, salinization and nutrient enrichment.
Greater glider	Habitat removal or fragmentation will not be permitted. Current fragmentation will be reduced by management of Active Regeneration zone.	Not a listed threat.**	Management and monitoring will target the following species: • Feral cats – predate on greater gliders.	Likelihood of extensive severe bushfires will be reduced.	Not a listed threat.**	Access will be restricted, and timber harvesting will be prohibited. Fencing design will not have barbed wire on the top strand of the fence.

	Habitat Management	Weed Management	Pest Animal Management*	Fire Management	Grazing Management	General Offset Area Management
Koala	Habitat removal or fragmentation will not be permitted. Current fragmentation will be reduced by management of Active Regeneration zone.	Not a listed threat.**	Management and monitoring will target the following species: • Wild dogs - predate on koalas.	Likelihood of intense, frequent fires will be reduced.	Not a listed threat.**	Access will be restricted and therefore chance of mortality from vehicle collision will be reduced.
Southern squatter pigeon	Habitat removal or fragmentation will not be permitted. Current fragmentation will be reduced by management of Active Regeneration zone.	Management of weeds that increase the thickening of understorey vegetation.	Management and monitoring will target the following species: • Rabbits – overgraze natural food sources; and • Feral cats - predate on southern squatter pigeon.	Likelihood of intense, frequent fires will be reduced.	Cattle grazing pressure will be reduced and regulated, reducing removal of food sourcing and risk of tramping of nests.	Access will be restricted and therefore the risk of illegal shooting will be reduced.

	Habitat Management	Weed Management	Pest Animal Management*	Fire Management	Grazing Management	General Offset Area Management
Diamond firetail	Habitat removal or fragmentation will not be permitted. Current fragmentation will be reduced by management of Active Regeneration zone.	Monitoring and management of exotic annual grasses that result in food shortage in the absence of native grasses, particularly African lovegrass (*Eragrostis curvula*).	Management and monitoring will target the following species: • Rabbits – overgraze natural food sources.	Likelihood of intense, frequent fires will be reduced.	Cattle grazing pressure will be reduced and regulated, reducing habitat degradation caused by domestic livestock.	Access will be restricted, and timber harvesting will be prohibited.

**Any other pest animals not listed in the table that are found in future monitoring will be managed accordingly.*

***Not a listed threat = Not identified as a main risk to MNES in relevant documentation (Conservation Advice, Recovery Plans and Threat Abatement Plans).*

6. MONITORING AND REPORTING

6.1 MONITORING PLAN

The following monitoring program in Table 6-1, describes the monitoring actions that will occur within the Offset Area. The OMP will continue monitoring actions for the life of the approval to ensure corrective actions are undertaken and the Offset Area continues to meet criteria set by the approval. Monitoring has been developed to assess success of the management actions, to improve the overall habitat condition for relevant MNES in the Offset Area. Monitoring data will be submitted electronically to DCCEEW in accordance with the *Guidelines for biological survey and mapped data* (DoEE, 2018).

Further to this, management of the Offset Area will continue until completion criteria have been met. If completion criteria are met prior to the end of the 20-year period, then monitoring frequency can be decreased, but not ceased. Monitoring must continue in order to detect if completion criteria are no longer being met, in which case, management actions and increased monitoring must resume.

The monitoring actions described in Table 6-1 will be managed by the Offset Provider and will be completed by a suitably qualified expert, as required by the conditions of approval. The placement of permanent MHQA transects and photo monitoring locations will correspond to the same locations used for the calculation of the start HQS used in the assessment of the Offset Area suitability (Figure 6-1).

TABLE 6-1 MONITORING PROGRAMS, PERFORMANCE CRITERIA AND CORRECTIVE ACTIONS

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
Habitat Monitoring			

Monitoring of habitat within the Offset Area will be undertaken in accordance with the OMP at a frequency and extent that allows reliable success measurement of the OMP management objectives, including;
• **Biennial** Offset Area habitat monitoring including field surveys, mapping, data spreadsheets and images by a suitably qualified ecologist and suitably qualified vegetation management specialist engaged by the Approval Holder to be conducted.
• **Biennial** photo-point monitoring**,** undertaken at the same time of the year. Photo monitoring will be conducted within the centre point of the 100 x 50 m MHQA plot. The photos provide the baseline imagery to compare future photo-point monitoring.
• **At 5-year intervals**, a MHQA will assess predetermined BioCondition plots of relevant MNES specific habitat attributes, with a report generated showcases the monitoring data and given to the Approval Holder
	• Interim performance targets for habitat quality within the Offset Area for each MNES has been detailed within Section 7.	• MHQA assessments and monitoring indicate that HQS for interim performance targets will not be achieved for one or more offset values by:
		  ◦ Year 5;
		  ◦ Year 10;
		  ◦ Year 15; and
		  ◦ Year 20.
		• HQS from MHQA assessments and monitoring do not indicate improvements on HQS after annual monitoring events.
			Step 1 - Investigate cause of trigger:
			Within one month after detection of the trigger, complete an investigation into the reasons why the interim performance targets were not achieved within the specified timeframes.
			Within two months after detection of the trigger, complete re-evaluation of the suitability of the relevant management actions in the OMP. The re-evaluation must identify appropriate corrective actions (i.e. removal of excess invasive species, availability of habitat, and/or decrease presence of pest animal species) and/or increased preventative measures to be undertaken.
			Step 2 - Implement corrective action/s within three months of detection of trigger, including, as appropriate:
			Approval Holder to review the OMP with assistance from the Offset Provider, relevant senior land manager and/or a senior ecologist, if required, to provide input on the effectiveness of the management actions.
			Approval Holder and Offset Provider to review the OMP and revise as required.

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
• **At 5-year intervals**, targeted surveys for relevant MNES will be undertaken in accordance with relevant survey guidelines for each species. These surveys will seek to inform presence of relevant MNES within the Offset Area and provide specific locations of sightings. Relevant survey guidelines include: • *Survey guidelines for Australia's threatened birds* (DEWHA, 2010a). • *Survey guidelines for Australia's threatened bats* (DEWHA, 2010b). • *Survey Guidelines for Australia's Threatened Mammals* (DSEWPC, 2011). • *Terrestrial Vertebrate Fauna Survey Guidelines for Queensland* (DES, 2018). **At 5-year intervals** the Annual Compliance Report produced by the Approval Holder and submitted to DCCEEW will include results of the MHQA and targeted surveys.			Where interim performance targets, relating to habitat quality are not likely to be met in the required timeframe, the Approval Holder will notify DCCEEW within one month from the time of reporting this situation and implement additional management actions. Where final HQS are not likely to be met by year 20, the Approval Holder will notify DCCEEW within one week from the time of reporting this situation. The Approval Holder will obtain advice from the Offset Provider, a senior ecologist and senior land manager with the aim of identifying appropriate additional management interventions. **Step 3 - Trigger for corrective action is resolved and reported within annual compliance monitoring.**
Weed Monitoring			
Biennial monitoring (until completion criteria is met) of WoNS and locally significant weeds will include:	• Revised baseline weed mapping within the Offset Area completed within 12 months of OMP approval;	• When becoming aware of new weed species (other than new WoNS) being present in greater than 5% of the Offset Area;	**Step 1- Investigate the cause of the trigger:** Determine whether any factors (e.g. weather event, fire or biosecurity

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
• Determining the presence and location of weed presence or infestation within the Offset Area; • A recorded datasheet to identify the year, date, time observed weed species, photo location, direction, and any other notes about the weed coverage; • A copy of the previous year's data and baseline mapping will be consulted before and after the assessments to determine any notable changes and establish the starting condition of the environment; and • Use weed survey maps for ongoing monitoring purposes and annual compliance reporting. The Annual Compliance Report compiled by the Approval Holder and submitted to DCCEEW will summarise any monitoring and management actions undertaken regarding weeds where relevant to demonstrate compliance with the OMP. *Note:* Monitoring frequency will be reduced from biannually to every 5 years once the OMP completion criteria have been successfully achieved (see Section 7.2).	• Initial treatment of all WoNS identified in the baseline mapping commenced within 12 months of offset establishment; and • Weed extent reduces to <5% (current maximum baseline weed extent is 50%) cover at all monitoring locations within 10 years of offset commencement.	• HQS from MHQA assessments and monitoring do not indicate improvements on HQS after yearly monitoring events; • One new WoNS species is identified in the Offset Area (regardless of extent), that was not previously present. • Weed extent increases from the current maximum baseline level (50%); and • Weed extent increases over two monitoring periods, when compared to the previous monitoring period (this identifies continual increases over subsequent monitoring as it is noted weed extent may fluctuate year to year).	incident) have contributed to the incursion of a weed species. **Step 2 - Implement corrective actions**: Implement additional weed control actions (i.e. actively manage invasive weeds via physical, chemical, or biological methods) within two months of detection. Implement new hygiene controls (i.e. ensuring all personnel / vehicles and equipment visiting the Offset Area have no weed contaminants present, limit dispersal mechanisms from anthropogenic causes, and ensure the Offset Area has physical barriers to limit weed dispersal). **Step 3 - Trigger for corrective action is resolved and reported within annual compliance monitoring.**

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
Pest Animal Monitoring			
• Initial detailed pest assessment **within 12 months** of OMP approval to re-establish a baseline dataset and detailed mapping of targeted pest animals within the Offset Area; • Ongoing targeted pest animal monitoring will take place **biennially** within the Offset Area; and • Incidental observations of pest animal activity will also be reported by employees and contractors working in the Offset Area. The Annual Compliance Report compiled by the Approval Holder and submitted to DCCEEW will provide an update on activities and monitoring of pest animals within the Offset Area.	• No targeted pest animal population will exceed baseline survey results throughout the Offset Area **and** overall population trends of all targeted pest animal species will show decreasing trends over the life of the Offset delivery program; • Threat scores within MNES habitat quality do not increase over the life of the Offset Area delivery program; • Pest animal activity records of all targeted pest animal species show decreasing trends over the life of the Offset Area delivery program; • Any injury or mortality of relevant MNES attributed to targeted pest animals will not have a significant impact on species population health or viability (to be determined using results from the 5-yearly targeted surveys outlined in the OMP);	• One or more incidental observations at any time including instances of injury or mortality to MNES attributed to pest animals; • Confirmed presence of any pest animal by a suitably qualified professional; and • Density becomes equal to or higher than baseline density. In the case where baseline data is not available, a maximum acceptable absolute density of three animals observed within the Offset Area will serve as a trigger for additional corrective actions.	**Step 1 - Investigate the cause of the trigger:** Additional assessment (e.g. targeted survey) within one month of trigger to confirm presence of pest animal, if confirmed immediate corrective actions will be put in place (e.g. targeted control and/ or increased monitoring). These findings will be incorporated into next pest assessment. **Step 2 - Implement corrective actions:** On confirming presence of any pest animal during triggered additional assessment or quarterly monitoring, implement appropriate corrective action (i.e. baiting, trapping) in Offset Area within one month of assessment completion. If density becomes equal to or higher than baseline density, undertake and complete all additional corrective actions necessary to reduce pest animal density to baseline numbers or fewer. Review management actions to ensure control measures are sufficient. **Step 3 - Trigger for corrective action is resolved and reported within annual compliance monitoring.**

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
	• No reduction in quality of habitat for relevant MNES, and subsequent detraction from MHQA score objectives described in the OMP, directly linked to the targeted pest animals will occur; and • Recruitment of critical habitat trees for relevant MNES will not be directly impacted by the targeted pest animals.		
Fire Monitoring			
Monitoring will be undertaken at a frequency and extent that allows reliable success measurement of the OMP management objectives, including; • An initial fuel load assessment to occur **within 12 months** of OMP approval, and thereafter be conducted **biennially**; • **Annual** visual inspections of all firebreaks; • **Biennial** monitoring for signs of fire and fire damage (starting **within 12 months** of OMP approval); and • Any opportunistic records of evidence of unplanned fires within	• No unplanned fires occurring within the Offset Area throughout the duration of the offset; • No reduction in quality of habitat for relevant MNES, and subsequent detraction from MHQA score objectives described in the OMP, directly linked to fire; • No mortality of MNES; and • Recruitment of critical habitat trees for relevant MNES will not be directly impacted by fire.	• After an annual reporting event, fuel loads are reported to be at high levels, therefore need corrective actions (i.e. removal of excess fuel load within Offset Area, via controlled burn for example); • If unplanned fires occur within the Offset Area; • The destruction of or significant damage to habitat within part or all of the Offset Area and fire breaks;	**Step 1 - Investigate the cause of the trigger:** Within a month of detection of the trigger, an investigation shall be completed to determine the source of the fire. **Step 2 - Implementation of corrective actions:** Once notified or made aware of the trigger, the Offset Provider must notify the Approval Holder immediately. After an unplanned fire has occurred in the Offset Area, within two months the Offset Provider will: • Inspect, repair and re-establish all firebreaks as necessary without

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
the Offset Area will be reported to the Offset Provider. The Annual Compliance Report compiled by the Approval Holder and submitted to DCCEWW will summarise any monitoring and management actions undertaken regarding fire where relevant to demonstrate compliance with the OMP, and will summarise condition of access tracks, fire breaks and fuel loads.		• If a fire were to significantly impact >30% of the Offset Area (i.e. burn a majority of the habitat / regrowth) a new baseline MHQA survey must be completed within a 12-month period post fire; and • Mortality of MNES caused by a controlled burn.	reducing the vegetation of the Offset Area; and • Reassess and correct, as required, fuel load reduction practices. Where there is a large amount of damage to the Offset Area, within twelve months of the fire event, the Approval Holder must arrange for a MHQA assessment that determines habitat quality loss and, immediately upon completion of the MHQA assessment, report the loss and how it will be addressed to meet the completion criteria, to DCCEEW. **Step 3 - Trigger for corrective action is resolved and reported within annual compliance monitoring.**
Grazing Pressure Monitoring			
Grazing pressure will be reduced, and in some designated locations, eliminated, as a threat abatement measures within the Offset Area. Monitoring of grazing pressure within the Offset Area will include: • **Monthly** recording of stocking rates within the Offset Area; • **Biennial** monitoring of the impact of grazing on relevant MNES habitat within the Offset Area	• Species stocking rate is reduced or removed (to be negotiated with land owners); • No reduction in the quality of habitat for relevant MNES, and subsequent detraction from MHQA score objectives described in the OMP, directly linked to grazing pressure; and • Fencing remains in functional condition to	• Species stocking rate has not been reduced or is recorded at levels higher than those outlined within the performance outcome; • Any reduction in quality of habitat for relevant MNES, and likely subsequent detraction from MHQA score objectives described in the OMP, is identified and linked to grazing pressure impacts; and	**Step 1 - Investigate the cause of the trigger:** As soon as eucalypt establishment and regeneration decline is detected within the Offset Area, review grazing practices and stocking rates. **Step 2 - Implement corrective actions:** • MHQA assessments to record extent of damage and progress of management measures, to assess progress toward recovery and

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
(particularly southern squatter pigeon); and • Inspections of the property boundary fence will be conducted **quarterly** by the land owner.	exclude/ regulate grazing pressure within the Offset Area.	• Detection of damage to property boundary fence that may result in an unplanned increase in grazing pressure.	towards meeting next interim or final completion criteria; • Revise grazing practices and stocking rates, which may include lowering stock rates within the Offset Area or exclusion of grazing for a period of time to allow for recovery, as well as higher rotation of stock in most affected areas, with longer spelling periods (may require additional fencing to allow land owners to manage stocking rates); and • Any damage to the fence that may allow vehicles or stock to enter outside of the parameters outlined in this OMP will be repaired as soon as practical. **Step 3 - Trigger for corrective action is resolved and reported within annual compliance monitoring.**

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
Habitat Monitoring			
Monitoring of habitat within the Offset Area will be undertaken in accordance with the OMP at a frequency and extent that allows reliable success measurement of the OMP management objectives, including; • **Biennial** Offset Area habitat monitoring including field surveys, mapping, data spreadsheets and images by a suitably qualified ecologist and suitably qualified vegetation management specialist engaged by the Approval Holder to be conducted. • **Biennial** photo-point monitoring**,** undertaken at the same time of the year. Photo monitoring will be conducted within the centre point of the 100 x 50 m MHQA plot. The photos provide the baseline imagery to compare future photo-point monitoring. • **At 5-year intervals**, a MHQA will assess predetermined BioCondition plots of relevant MNES specific habitat attributes, with a report generated showcases the monitoring data and given to the Approval Holder • **At 5-year intervals**, targeted surveys for relevant MNES will be undertaken in accordance with	• Interim performance targets for habitat quality within the Offset Area for each MNES has been detailed within Section 7.	• MHQA assessments and monitoring indicate that HQS for interim performance targets will not be achieved for one or more offset values by: ◦ Year 5; ◦ Year 10; ◦ Year 15; and ◦ Year 20. • HQS from MHQA assessments and monitoring do not indicate improvements on HQS after annual monitoring events.	**Step 1 - Investigate cause of trigger:** Within one month after detection of the trigger, complete an investigation into the reasons why the interim performance targets were not achieved within the specified timeframes. Within two months after detection of the trigger, complete re-evaluation of the suitability of the relevant management actions in the OMP. The re-evaluation must identify appropriate corrective actions (i.e. removal of excess invasive species, availability of habitat, and/or decrease presence of pest animal species) and/or increased preventative measures to be undertaken. **Step 2 - Implement corrective action/s within three months of detection of trigger, including, as appropriate:** Approval Holder to review the OMP with assistance from the Offset Provider, relevant senior land manager and/or a senior ecologist, if required, to provide input on the effectiveness of the management actions. Approval Holder and Offset Provider to review the OMP and revise as required. Where interim performance targets, relating to habitat quality are not likely to be met in the required timeframe, the

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
relevant survey guidelines for each species. These surveys will seek to inform presence of relevant MNES within the Offset Area and provide specific locations of sightings. Relevant survey guidelines include: • *Survey guidelines for Australia's threatened birds* (DEWHA, 2010a). • *Survey guidelines for Australia's threatened bats* (DEWHA, 2010b). • *Survey Guidelines for Australia's Threatened Mammals* (DSEWPC, 2011). • *Terrestrial Vertebrate Fauna Survey Guidelines for Queensland* (DES, 2018). **At 5-year intervals** the Annual Compliance Report produced by the Approval Holder and submitted to DCCEEW will include results of the MHQA and targeted surveys.			Approval Holder will notify DCCEEW within one month from the time of reporting this situation and implement additional management actions. Where final HQS are not likely to be met by year 20, the Approval Holder will notify DCCEEW within one week from the time of reporting this situation. The Approval Holder will obtain advice from the Offset Provider, a senior ecologist and senior land manager with the aim of identifying appropriate additional management interventions. **Step 3 - Trigger for corrective action is resolved and reported within annual compliance monitoring.**
Weed Monitoring			
Biennial monitoring (until completion criteria is met) of WoNS and locally significant weeds will include: • Determining the presence and location of weed presence or infestation within the Offset Area; • A recorded datasheet to identify the year, date, time observed weed	• Revised baseline weed mapping within the Offset Area completed within 12 months of OMP approval; • Initial treatment of all WoNS identified in the baseline mapping commenced within 12	• When becoming aware of new weed species (other than new WoNS) being present in greater than 5% of the Offset Area; • HQS from MHQA assessments and monitoring do not indicate	**Step 1- Investigate the cause of the trigger:** Determine whether any factors (e.g. weather event, fire or biosecurity incident) have contributed to the incursion of a weed species.

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
species, photo location, direction, and any other notes about the weed coverage; • A copy of the previous year's data and baseline mapping will be consulted before and after the assessments to determine any notable changes and establish the starting condition of the environment; and • Use weed survey maps for ongoing monitoring purposes and annual compliance reporting. The Annual Compliance Report compiled by the Approval Holder and submitted to DCCEEW will summarise any monitoring and management actions undertaken regarding weeds where relevant to demonstrate compliance with the OMP. *Note:* Monitoring frequency will be reduced from biannually to every 5 years once the OMP completion criteria have been successfully achieved (see Section 7.2).	months of offset establishment; and • Weed extent reduces to <5% (current maximum baseline weed extent is 50%) cover at all monitoring locations within 10 years of offset commencement.	improvements on HQS after yearly monitoring events; • One new WoNS species is identified in the Offset Area (regardless of extent), that was not previously present. • Weed extent increases from the current maximum baseline level (50%); and • Weed extent increases over two monitoring periods, when compared to the previous monitoring period (this identifies continual increases over subsequent monitoring as it is noted weed extent may fluctuate year to year).	**Step 2 - Implement corrective actions**: Implement additional weed control actions (i.e. actively manage invasive weeds via physical, chemical, or biological methods) within two months of detection. Implement new hygiene controls (i.e. ensuring all personnel / vehicles and equipment visiting the Offset Area have no weed contaminants present, limit dispersal mechanisms from anthropogenic causes, and ensure the Offset Area has physical barriers to limit weed dispersal). **Step 3 - Trigger for corrective action is resolved and reported within annual compliance monitoring.**

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
Pest Animal Monitoring			
• Initial detailed pest assessment **within 12 months** of OMP approval to re-establish a baseline dataset and detailed mapping of targeted pest animals within the Offset Area; • Ongoing targeted pest animal monitoring will take place **biennially** within the Offset Area; and • Incidental observations of pest animal activity will also be reported by employees and contractors working in the Offset Area. The Annual Compliance Report compiled by the Approval Holder and submitted to DCCEEW will provide an update on activities and monitoring of pest animals within the Offset Area.	• No targeted pest animal population will exceed baseline survey results throughout the Offset Area **and** overall population trends of all targeted pest animal species will show decreasing trends over the life of the Offset delivery program; • Threat scores within MNES habitat quality do not increase over the life of the Offset Area delivery program; • Pest animal activity records of all targeted pest animal species show decreasing trends over the life of the Offset Area delivery program; • Any injury or mortality of relevant MNES attributed to targeted pest animals will not have a significant impact on species population health or viability (to be determined using results from the 5-yearly targeted surveys outlined in the OMP);	• One or more incidental observations at any time including instances of injury or mortality to MNES attributed to pest animals; • Confirmed presence of any pest animal by a suitably qualified professional; and • Density becomes equal to or higher than baseline density. In the case where baseline data is not available, a maximum acceptable absolute density of three animals observed within the Offset Area will serve as a trigger for additional corrective actions.	**Step 1 - Investigate the cause of the trigger:** Additional assessment (e.g. targeted survey) within one month of trigger to confirm presence of pest animal, if confirmed immediate corrective actions will be put in place (e.g. targeted control and/ or increased monitoring). These findings will be incorporated into next pest assessment. **Step 2 - Implement corrective actions:** On confirming presence of any pest animal during triggered additional assessment or quarterly monitoring, implement appropriate corrective action (i.e. baiting, trapping) in Offset Area within one month of assessment completion. If density becomes equal to or higher than baseline density, undertake and complete all additional corrective actions necessary to reduce pest animal density to baseline numbers or fewer. Review management actions to ensure control measures are sufficient. **Step 3 - Trigger for corrective action is resolved and reported within annual compliance monitoring.**

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
	• No reduction in quality of habitat for relevant MNES, and subsequent detraction from MHQA score objectives described in the OMP, directly linked to the targeted pest animals will occur; and • Recruitment of critical habitat trees for relevant MNES will not be directly impacted by the targeted pest animals.		
Fire Monitoring			
Monitoring will be undertaken at a frequency and extent that allows reliable success measurement of the OMP management objectives, including; • An initial fuel load assessment to occur **within 12 months** of OMP approval, and thereafter be conducted **biennially**; • **Annual** visual inspections of all firebreaks; • **Biennial** monitoring for signs of fire and fire damage (starting **within 12 months** of OMP approval); and • Any opportunistic records of evidence of unplanned fires within	• No unplanned fires occurring within the Offset Area throughout the duration of the offset; • No reduction in quality of habitat for relevant MNES, and subsequent detraction from MHQA score objectives described in the OMP, directly linked to fire; • No mortality of MNES; and • Recruitment of critical habitat trees for relevant MNES will not be directly impacted by fire.	• After an annual reporting event, fuel loads are reported to be at high levels, therefore need corrective actions (i.e. removal of excess fuel load within Offset Area, via controlled burn for example); • If unplanned fires occur within the Offset Area; • The destruction of or significant damage to habitat within part or all of the Offset Area and fire breaks;	**Step 1 - Investigate the cause of the trigger:** Within a month of detection of the trigger, an investigation shall be completed to determine the source of the fire. **Step 2 - Implementation of corrective actions:** Once notified or made aware of the trigger, the Offset Provider must notify the Approval Holder immediately. After an unplanned fire has occurred in the Offset Area, within two months the Offset Provider will: • Inspect, repair and re-establish all firebreaks as necessary without

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
the Offset Area will be reported to the Offset Provider. The Annual Compliance Report compiled by the Approval Holder and submitted to DCCEWW will summarise any monitoring and management actions undertaken regarding fire where relevant to demonstrate compliance with the OMP, and will summarise condition of access tracks, fire breaks and fuel loads.		• If a fire were to significantly impact >30% of the Offset Area (i.e. burn a majority of the habitat / regrowth) a new baseline MHQA survey must be completed within a 12-month period post fire; and • Mortality of MNES caused by a controlled burn.	reducing the vegetation of the Offset Area; and • Reassess and correct, as required, fuel load reduction practices. Where there is a large amount of damage to the Offset Area, within twelve months of the fire event, the Approval Holder must arrange for a MHQA assessment that determines habitat quality loss and, immediately upon completion of the MHQA assessment, report the loss and how it will be addressed to meet the completion criteria, to DCCEEW. **Step 3 - Trigger for corrective action is resolved and reported within annual compliance monitoring.**
Grazing Pressure Monitoring			
Grazing pressure will be reduced, and in some designated locations, eliminated, as a threat abatement measures within the Offset Area. Monitoring of grazing pressure within the Offset Area will include: • **Monthly** recording of stocking rates within the Offset Area; • **Biennial** monitoring of the impact of grazing on relevant MNES habitat within the Offset Area	• Species stocking rate is reduced or removed (to be negotiated with land owners); • No reduction in the quality of habitat for relevant MNES, and subsequent detraction from MHQA score objectives described in the OMP, directly linked to grazing pressure; and • Fencing remains in functional condition to	• Species stocking rate has not been reduced or is recorded at levels higher than those outlined within the performance outcome; • Any reduction in quality of habitat for relevant MNES, and likely subsequent detraction from MHQA score objectives described in the OMP, is identified and linked to grazing pressure impacts; and	**Step 1 - Investigate the cause of the trigger:** As soon as eucalypt establishment and regeneration decline is detected within the Offset Area, review grazing practices and stocking rates. **Step 2 - Implement corrective actions:** • MHQA assessments to record extent of damage and progress of management measures, to assess progress toward recovery and

Monitoring (Timing, Frequency, etc.)	Performance Criteria	Trigger for Adapting Management	Corrective Action/s
(particularly southern squatter pigeon); and • Inspections of the property boundary fence will be conducted **quarterly** by the land owner.	exclude/ regulate grazing pressure within the Offset Area.	• Detection of damage to property boundary fence that may result in an unplanned increase in grazing pressure.	towards meeting next interim or final completion criteria; • Revise grazing practices and stocking rates, which may include lowering stock rates within the Offset Area or exclusion of grazing for a period of time to allow for recovery, as well as higher rotation of stock in most affected areas, with longer spelling periods (may require additional fencing to allow land owners to manage stocking rates); and • Any damage to the fence that may allow vehicles or stock to enter outside of the parameters outlined in this OMP will be repaired as soon as practical. **Step 3 - Trigger for corrective action is resolved and reported within annual compliance monitoring.**

FIGURE 6-1 MONITORING LOCATIONS WITHIN THE OFFSET AREA

6.2 REPORTING

6.2.1 ANNUAL COMPLIANCE REPORT

In accordance with the Proposed Action's EPBC Act Approval, the Approval Holder will prepare an Annual Compliance Report against each EPBC Act Approval condition, including this OMP, and submit to DCCEEW for each 12-month period following the date of Commencement of the Action, or otherwise in accordance with an annual date that has been agreed to in writing by the Minister. The Annual Compliance Report will be consistent with the DCCEEW *Annual Compliance Report Guidelines* (2014).

The Annual Compliance Report will document any reported incidents of undesirable impacts on Poplar Box TEC, koala, greater glider, southern squatter pigeon and diamond firetail within the Offset Area, any occurrences of unauthorised fire, monitoring and management actions including tracking of progress towards the required interim performance targets and completion criteria during the previous 12 months. The Annual Compliance Report will also summarise any monitoring and management actions undertaken regarding fire, vegetation, pest animals and weeds where relevant to demonstrate compliance with the OMP.

The Annual Compliance Report will also document any non-compliance with the OMP and will allow for discussion on how management actions have resulted in, or are leading to, completion criteria.

6.2.2 ANNUAL OFFSET REPORT

An Annual Offset Report will be developed by the Offset Provider and submitted to the Approval Holder to facilitate completion of the Annual Compliance Report.

The Annual Offset Report will be coordinated and reviewed by a suitably qualified ecologist and suitably qualified vegetation management specialist, with technical review and quality assurance processes followed so that robust reporting on the offset progress is documented. The Annual Offset Report will be prepared to follow appropriate documentation standards for the communication of monitoring data, with the following applied:

- EPBC Act approval number and project name;
- Revision history and signature page of all reviewers;
- Scale in figures and maps– an appropriate standard metric scale should be chosen to best represent the information required for the location of monitoring plots and any spatial information;
- Datum – plans and cross sections should refer to Australian Height Datum; and
- All relevant figures and maps will include a title Block – plans should have a title block in the lower right-hand corner of the sheet with the following information:
    - EPBC Act approval number and project name;
    - Title and number of the plan;
    - Author;
    - Scale;
    - Date; and
    - Source and date of data.

6.2.3 OMP MHQA AND ECOLOGY REPORT

Suitably qualified field ecologists will be engaged to conduct ecological monitoring (including targeted surveys, MHQA and BioCondition assessments). Reports will be submitted to the Approval Holder every 5 years, and the Approval Holder will include a summary of findings as part of the relevant Annual Compliance Report. Reporting will follow frequency as detailed in Table 6-2.

TABLE 6-2 REPORTING FREQUENCY

Report Type	Timing for delivery
Annual Compliance Report	Annually for each 12-month period following the date of Commencement of the Action, or otherwise in accordance with an annual date that has been agreed to in writing by the Minister.
Annual Offset Report	Supporting the Annual Compliance Report.
OMP MHQA and Ecology Report	Every five years via every fifth Annual Offset Report. Report will be submitted by the Approval Holder every five years, and the Approval Holder will include a summary of findings as part of the relevant Annual Compliance Report.

6.2.4 INCIDENT OR NON-COMPLIANCE MANAGEMENT

Incidents (as defined in the EPBC Act approval) or non-conformances identified on site will be reported to the Approval Holder by the Offset Provider. The level of severity will dictate the necessary actions and responses through the Approval Holder's formal incident management system.

The Approval Holder will notify DCCEEW in writing of any of the following in the reports:

- Incidents;
- Non-compliance with the conditions; or
- Non-compliance with the commitments.

The notification will be given as soon as practicable, and no later than 10 business days after becoming aware of the incident or non-compliance. The notification will specify:

1. Any condition which is or may be in breach;
2. A short description of the incident and/or non-compliance; and
3. The location (including co-ordinates), date, and time of the incident and/or non-compliance. In the event the exact information cannot be provided, provide the best information available.

The Approval Holder will provide to DCCEEW the details of any incident or non-compliance with the conditions or commitments made in plans as soon as practicable and no later than 10 business days after becoming aware of the incident or non-compliance, specifying:

1. Any corrective action or investigation which the Approval Holder has already taken or intends to take in the immediate future;
2. The potential impacts of the incident or non-compliance; and

3. The method and timing of any remedial action that will be undertaken by the Approval Holder.

Responses to incidents or non-compliance adversely impacting habitat quality within the Offset Area, of Poplar Box TEC, koala, greater glider, southern squatter pigeon and diamond firetail directly, will be coordinated by the Approval Holder, to ensure remediation or enhanced management actions are implemented to address the incident or non-compliance as soon as reasonably possible.

7. PERFORMANCE OBJECTIVES & COMPLETION CRITERIA

7.1 PERFORMANCE OBJECTIVES

The overall objective of managing the offset is to improve the quality of habitat so that it reaches a higher MHQA HQS than has been measured for the existing baseline condition within a 20-year period and continues for the operational life of the Proposed Action.

A demonstrated increase in measurable habitat criteria (see Table 7-1) as defined in the MHQA, will be provided against the baseline condition assessments.

Monitoring results will be analysed against the interim performance targets to determine whether performance objectives are met prior to the completion criteria being achieved. Monitoring against the targets and the criteria will provide an indication of the success of the management and monitoring actions being implemented to improve the quality of Poplar Box TEC, koala, greater glider, southern squatter pigeon, and diamond firetail habitat. They will also serve to trigger implementation of corrective actions where targets and criteria are not being met.

Performance criteria for each management action are provided in Table 7-1.

7.2 COMPLETION CRITERIA

The overall objective of managing the Offset Area is to improve the quality of habitat so that it reaches a higher MHQA HQS than has been measured for the existing baseline condition within a 20-year period and continues for the life of the approval.

A demonstrated increase in measurable habitat criteria (see Table 7-1 and Table 7-2), as defined in the MHQA, will be provided against the baseline condition assessments, to be finalised on selection of a final offset area.

Monitoring results will be analysed against performance targets to determine whether performance objectives are met prior to the completion criteria being achieved. Monitoring against the targets and the criteria will provide an indication of the success of the management and monitoring actions being implemented to improve the quality of MNES species habitat and Poplar Box TEC. They will also serve to trigger implementation of corrective actions where targets and criteria are not being met.

For all five MNES, the completion criteria outlined Table 7-1 and Table 7-2). It should be noted that the 0.25 or 0.5 point increase is not a measure of success for each 5-year interval, but rather a measure to track progress towards the completion criteria (i.e. increase in 1 or 2 points over 20 years).

TABLE 7-1 MNES SPECIFIC COMPLETION CRITERIA

MNES	Completion Criteria Metric	Measurement	Completion Criteria in relation to 1-2 Point Habitat Quality Gain
Koala	• Increase available foraging tree species diversity and available juvenile tree species. • Increase baseline scores to number of large canopy tree species known to be koala trees (as compared to RE benchmark; 75% or greater than RE benchmark). • Increase of baseline scores to canopy height (as compared to RE benchmark; 75% or greater than RE benchmark). • Decrease of shrub cover (with a focus on any invasive shrubs that may restrict movement such as lantana) to <200% of the RE benchmark.	• Native plant species richness – trees; • Juvenile tree count per ha (as per koala habitat methodology within MHA guidelines); • Number of large eucalypt trees; • Tree canopy height (average of emergent, canopy and sub-canopy); • Shrub canopy cover; • Species confirmed utilisation of regenerated areas; and • Species stocking rate in the Offset Area following habitat improvement.	• Increases in measurable habitat criteria will aim to increase the HQS by 0.50 points every five years.
Greater glider	• >75% of RE benchmark for species diversity • Increase of baseline scores to canopy height (as compared to RE benchmark; 75% or greater than RE benchmark). • Increase of baseline scores to canopy cover (as compared to RE benchmark; 75% or greater than RE benchmark). • Increase abundance of large trees suitable for current denning (as per the *Greater Glider Guides* large hollow-bearing tree dbh proxy the Brigalow Belt Bioregion >46 cm).	• Tree canopy height (average of emergent, canopy and sub-canopy); • Tree canopy cover (average of emergent, canopy and sub-canopy); • Large trees per ha; • Suitable habitat trees >30 cm dbh per ha;	• Increases in measurable habitat criteria will aim to increase the HQS by 0.50 points every five years.

MNES	Completion Criteria Metric	Measurement	Completion Criteria in relation to 1-2 Point Habitat Quality Gain
	• Increase abundance of large trees suitable for future denning (as per the *Greater Glider Guides* foraging tree dbh proxy the Brigalow Belt Bioregion (>30 cm). • >75% of large trees as a % of RE benchmark.	• Species confirmed utilisation of regenerated areas; and • Species stocking rate in the Offset Area following habitat improvement.	
Southern squatter pigeon	• Native grass richness 6 or above (relevant to RE baseline scored for current Impact Area). • Native grass cover maintained between 34-50% to ensure correct bare ground and structural preferences for the species. • Shrub cover <50%.	• Native plant species richness – grasses; • Native perennial grass cover (%); • Bare ground (%); • Litter (%); • Shrub cover (%); • Canopy cover (%); and • Species stocking rate in the Offset Area following habitat improvement.	• Increases in measurable habitat criteria will aim to increase the HQS by 0.25 points every five years.
Diamond firetail	• Increase native grass ground cover and richness (>60% native grass species cover and species richness consistent with reference RE). • Tree and shrub density consistent with reference RE. • Management of non-native grass species (non-native ground cover <5%). • Decrease rabbit density (threat from rabbit degrading habitat decreased to negligible).	• Native plant species richness – grasses; • Native plant species richness – forbs; • Native perennial grass cover (%); • Shrub cover (%); • Large trees; • Non-native plant cover (%); • Rabbit abundance; and	• Increases in measurable habitat criteria will aim to increase the HQS by 0.25 points every five years.

MNES	Completion Criteria Metric	Measurement	Completion Criteria in relation to 1-2 Point Habitat Quality Gain
		• Species stocking rate in the Offset Area following habitat improvement.	
Poplar Box TEC	• Improvement of RE condition. • Increased abundance of diagnostic species already present Poplar Box TEC (as per Appendix A1 of the Conservation Advice). • Increased diversity of diagnostic species not yet present within the Poplar Box TEC (as per Appendix A1 of the Conservation Advice). • Increased number of large canopy trees (*Eucalyptus populnea*) relative to baseline conditions. • Increased number of native ground layer species per ha. • Increased connectivity between fragmented patches.	• Native plant species richness – grasses; • Native plant species richness – forbs; • Native plant species richness – low shrubs; • Weed cover; and • Recruitment.	• Increases in measurable habitat criteria will aim to increase the HQS by 0.25 points every five years.

TABLE 7-2 INTERIM PERFORMANCE TARGETS

Protected Matter	Koala	Greater Glider	Southern Squatter Pigeon	Diamond Firetail	Poplar Box TEC
Offset Area Details					
Impact Area (ha)	663.5	643.8	152.5	95.8	6.6
Transect Site Reference	• Offset 09 • Offset 12 • Offset 15 • Offset 04 • Offset 20 • Offset 10 • Offset 14 • Offset 27 • Offset 17 • Offset 25 • Offset 26 • Offset 18 • Offset 16 • Offset 11 • Offset 30 • Offset 24 • Offset 31 • Offset 32	• Offset 09 • Offset 12 • Offset 15 • Offset 27 • Offset 17 • Offset 04 • Offset 26 • Offset 18 • Offset 20 • Offset 16 • Offset 10 • Offset 11 • Offset 14 • Offset 30 • Offset 25 • Offset 31 • Offset 32 • Offset 33	• Offset 04 • Offset 20 • Offset 16 • Offset 10 • Offset 11 • Offset 14 • Offset 27 • Offset 17 • Offset 25 • Offset 09 • Offset 12 • Offset 15 • Offset 30 • Offset 24 • Offset 26 • Offset 18 • Offset 31 • Offset 32	• Offset 09 • Offset 15 • Offset 04 • Offset 20 • Offset 10 • Offset 14	• Offset 11 • Offset 14 • Offset 25

Protected Matter	Koala	Greater Glider	Southern Squatter Pigeon	Diamond Firetail	Poplar Box TEC
	• Offset 33 • Offset 34 • Offset 35	• Offset 34 • Offset 35	• Offset 33 • Offset 34 • Offset 35		
Offset Area (ha)	5,628.9	5,068.2	4,111.60	1,226.2	114.3
MHQA Overall Scoring Interim Performance Targets					
MHQA Start Quality	5.31	6.24	6.96	5.7	7.49
MHQA score Year 5	5.80	6.76	7.14	5.96	7.72
MHQA score Year 10	6.29	7.30	7.34	6.21	7.96
MHQA score Year 15	6.77	7.82	7.53	6.47	8.19
MHQA score Year 20	7.25	8.33	7.73	6.72	8.42

Protected Matter	Koala	Greater Glider	Southern Squatter Pigeon	Diamond Firetail	Poplar Box TEC
Metric targets delivering a HQS gain over 20-year period	**2-point HQS gain over 20-year period**		**1-point HQS gain over 20-year period**		
Average recruitment of woody perennial species in the EDL	5	5	5	5	5
Average native plant species richness – grasses score	5	5	5	5	5
Average native plant species richness – forbs score	5	5	5	5	13
Average native plant species richness – shrubs			5		
Average tree canopy cover score	5	5	5		
Average shrub canopy cover score			3	5	4

Protected Matter	Koala	Greater Glider	Southern Squatter Pigeon	Diamond Firetail	Poplar Box TEC
Average native-grass cover					
Average large trees score	10	10		10	
Average non-native plant cover score	10	10	10	10	
Average ground layer native plant species density score					10
Average ground layer perennial vegetation cover score					10
Average quality and availability of food and foraging habitat score	34	18	32	9	
Average quality and availability of shelter score	34	58	32	09	

Protected Matter	Koala	Greater Glider	Southern Squatter Pigeon	Diamond Firetail	Poplar Box TEC
Absence of threats to species score	10	10	10	10	8
Species stocking rate score	Density increased to > 4 p/ 10,000 ha (score of 50/70). Through regular surveys.	Density increased to > 4 p/ 10,000 ha (score of 55/70). Through regular surveys.			n/a

8. RISK ANALYSIS AND MANAGEMENT

A risk analysis (qualitative) has been carried out for the Offset Area and is presented in Table 8-4. This risk analysis assesses the risk of failure for the offset to reach its performance criteria specific to each category (as outlined in Table 7-2) and overall completion criteria (as outlined in Table 7-1). The risk analysis has been undertaken in accordance with EPBC Act *Environmental Management Plan Guidelines* (DCCEEW, 2024d) and has characterised the risks as low, medium, high or severe. This is a result of assessing the likelihood of and consequence of each of the outcomes that present a risk to the Offset Area. The risks assessed have additionally been provided with preventative measures, which relate to corrective offset management actions as described in Table 8-4, to ensure the risk described can be mitigated effectively.

The framework utilised for the risk analysis, including descriptions for the likelihood and consequence criteria and risk rating matrix, is provided in Table 8-1 to Table 8-3.

TABLE 8-1 RISK LIKELIHOOD

Likelihood	Description
Highly Likely	It is expected to occur in most circumstances.
Likely	Will probably occur during the life of the Proposed Action.
Possible	Might occur during the life of the Proposed Action.
Unlikely	Could occur but considered unlikely or doubtful.
Rare	May occur in exceptional circumstances.

TABLE 8-2 RISK CONSEQUENCE

Minor	Moderate	High	Major	Critical
Results in short term delays to achieving OMP objectives, implementing low cost, well characterised corrective actions.	Results in short term delays to achieving OMP objectives, implementing well characterised, high cost/effort corrective actions.	Results in medium-long term delays to achieving OMP objectives, implementing uncertain, high cost/effort corrective actions.	The OMP objectives are unlikely to be achieved, with significant legislative, technical, ecological and/or administrative barriers to attainment that have no evidenced mitigation strategies.	The OMP objectives are unable to be achieved, with no evidenced mitigation strategies.

TABLE 8-3 RISK MATRIX

Likelihood	Consequence				
	Minor	**Moderate**	**High**	**Major**	**Critical**
Highly Likely	Medium	High	High	Severe	Severe
Likely	Low	Medium	High	High	Severe
Possible	Low	Medium	Medium	High	Severe
Unlikely	Low	Low	Medium	High	High
Rare	Low	Low	Low	Medium	High

TABLE 8-4 RISK ANALYSIS

Risk Event	Likelihood	Consequence	Risk Level	Event Trigger	Contingency Measures	Residual Risk Level	Related Monitoring Activity
Habitat quality for Poplar Box TEC, koala, greater glider, southern squatter pigeon and diamond firetail does not improve or is reduced compared to baseline conditions.	Possible	Moderate	Medium	MHQA assessments and monitoring indicate that HQS for interim performance targets will not be achieved for one or more offset values by: • Year 5; • Year 10; • Year 15; and	**Immediate Action** Within 1 month after detection of the trigger, complete an investigation into the reasons why the interim performance targets were not achieved within the specified timeframes. **Short-term Action** Within 3 months after detection of the trigger,	Low	Biennial habitat monitoring and BioCondition Assessment. 5-yearly MHQA assessment.

Risk Event	Likelihood	Consequence	Risk Level	Event Trigger	Contingency Measures	Residual Risk Level	Related Monitoring Activity
				• Year 20. HQS from MHQA assessments and monitoring do not indicate improvements on HQS after annual monitoring events.	complete a re-evaluation of the suitability of the relevant management actions in the OMP. The re-evaluation must identify appropriate corrective actions (i.e. removal of excess invasive species, availability of habitat, and/or decrease presence of pest animal species) and/or increased preventative measures to be undertaken. **Mid-term Action** Within 5 months after detection of trigger, where interim performance targets relating to habitat quality are not likely to be met in the required timeframe, the Approval Holder will notify DCCEEW and implement additional management actions. **Long-term Action** Within 12 months after detection of trigger, the Approval Holder and Offset Provider are to review the OMP and appended plans and revise as required.		

Risk Event	Likelihood	Consequence	Risk Level	Event Trigger	Contingency Measures	Residual Risk Level	Related Monitoring Activity
Weeds degrade habitat quality within the Offset Area and inhibit the regrowth and recruitment of canopy trees.	Likely	Moderate	Medium	Increases in the presence of invasive flora species (weed infestations) are observed. Vegetation condition and habitat quality within the Offset Area decline from the presence of weed species. HQS does not increase after 5 years as a result.	**Mid-term Action** If it is found that the performance criteria are not met within the timeframe, the following corrective actions will be adopted within 5 months after detection of the trigger: • Where the MHQA condition score reduces from the previous assessment, management actions to restore and improve habitat will be increased in frequency and at a higher rate of control until the completion criteria is achieved. • If increases in the presence of WoNS or locally significant weeds are identified, the scope and frequency of the management actions will be increased until the completion criteria have been achieved. • Where vegetation restoration has a success rate of below 60% (measured against MHQA and monitoring events HQS), Active Regeneration (habitat infill and direct plantings of relevant	Low	Annual/biennial weed monitoring. 5-yearly MHQA assessment.

Risk Event	Likelihood	Consequence	Risk Level	Event Trigger	Contingency Measures	Residual Risk Level	Related Monitoring Activity
					community species) measures will be repeated until the completion criteria for the OMP and benchmark vegetation levels for the respective RE are achieved. In the instance of unplanned fires or flooding during the monitoring interval, any negative impacts to the HQS will be regarded. Areas effected will be compared to monitoring site that remain unaffected and were previously at the same, or nearest to, the quality of the affected site. Any resulting disturbance as a consequence of these instances, for instance weed infestation, will be managed to ensure the completion criteria for that value is attained.		
Unplanned fire degrades habitat quality within the Offset Area or results in direct mortality of MNES species.	Possible	High	Medium	Unplanned fire results in the destruction of or significant damage to habitat within part or all of the Offset Area and fire breaks.	Fuel reduction, fire break maintenance and controlled burning activities will reduce the potential impact of an unplanned fire within the Offset Area. If a fire was still to occur during the life of the offset,	Medium	Biennial fire monitoring. Annual fire break inspections.

Risk Event	Likelihood	Consequence	Risk Level	Event Trigger	Contingency Measures	Residual Risk Level	Related Monitoring Activity
					actions to restore habitat following an unplanned fire event include: **Immediate Action** Inspection of the affected area within 1 month of an unplanned fire event, including MHQA at monitoring locations and or affected areas. **Short-term Action** Corrective management measures developed for all affected areas (areas where MHQA scoring has decreased in value from previous monitoring event) within 3 months of unplanned fire event (only for unplanned fire events that occur at the fault/negligence of the proposed fire management). **Mid-term Action** Corrective management actions, specific to condition of habitat and vegetation within affected areas (e.g. habitat restoration, revegetation, weed suppression and removal) commenced within 5 months (only for unplanned fire events that occur at the		

Risk Event	Likelihood	Consequence	Risk Level	Event Trigger	Contingency Measures	Residual Risk Level	Related Monitoring Activity
					fault/negligence of the proposed fire management).		
Pest animals degrade habitat quality within the Offset area or result in direct mortality of MNES species.	Possible	Moderate	Medium	Quarterly monitoring identifies increases in the presence of pest animal species compared to baseline assessment.	**Mid-term Action** If density becomes equal to or higher than baseline density, undertake and complete all additional corrective actions necessary to reduce pest animal density to baseline numbers or fewer within 5 months of detecting trigger. **Long-term Action** Within 12 months of detecting trigger, review PAMP and management actions to ensure control measures are sufficient.	Low	Biennial pest animal monitoring. 5-yearly MHQA assessment.
Administrative risk (OMP not succeeding).	Unlikely	High	Medium	HQS from MHQA assessments and monitoring indicate final HQS are not likely to be met by year 20.	Adaptive management has been implemented into all management actions presented in this OMP and appended plans. This will enable changes and updates to be made to management actions, if circumstances in the Offset Area changes, to ensure the performance criteria and overall completion criteria continue to be met for the duration of the offset.	Low	Biennial monitoring and reporting. 5-yearly MHQA assessment.

Risk Event	Likelihood	Consequence	Risk Level	Event Trigger	Contingency Measures	Residual Risk Level	Related Monitoring Activity
Administrative risk (unable to complete legal security within 24 months).	Unlikely	Minor	Low	Delays in progressing legal security identified within the first 6 months of OMP approval.	**Short term Action** Engage with relevant stakeholders and legal teams early to resolve barriers. Within 1 month of detecting trigger, notify regulatory authority of any delays and propose alternative timelines or interim protection measures if needed.	Low	Legal documentation progress review (internal).

Immediate Actions *(1 month) = Inspections, initial assessments and urgent notifications.*
Short term Actions *(3 months) = Planning corrective actions.*
Mid-term Actions *(5 months) = Implementing corrective actions.*
Long-term Actions (12 months) *= Evaluation of outcomes and review of OMP or relevant documentation.*

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APPENDIX A PMST AND HISTORICAL RECORD REPORTS

AREA REPORT

ATLAS OF LIVING AUSTRALIA
sharing biodiversity knowledge

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Area: 2,037.45 sq km	Species: 564	Occurrences: 1661
Endemic species: 0	All threatened species: 103	Migratory species: 0
All invasive species: 7	Iconic species: 24	JournalMap Articles: 0
Animals: 266	Plants: 296	Birds: 164

Table of Contents

TheodoreWF26082024

Area: 2,037.45 sq km

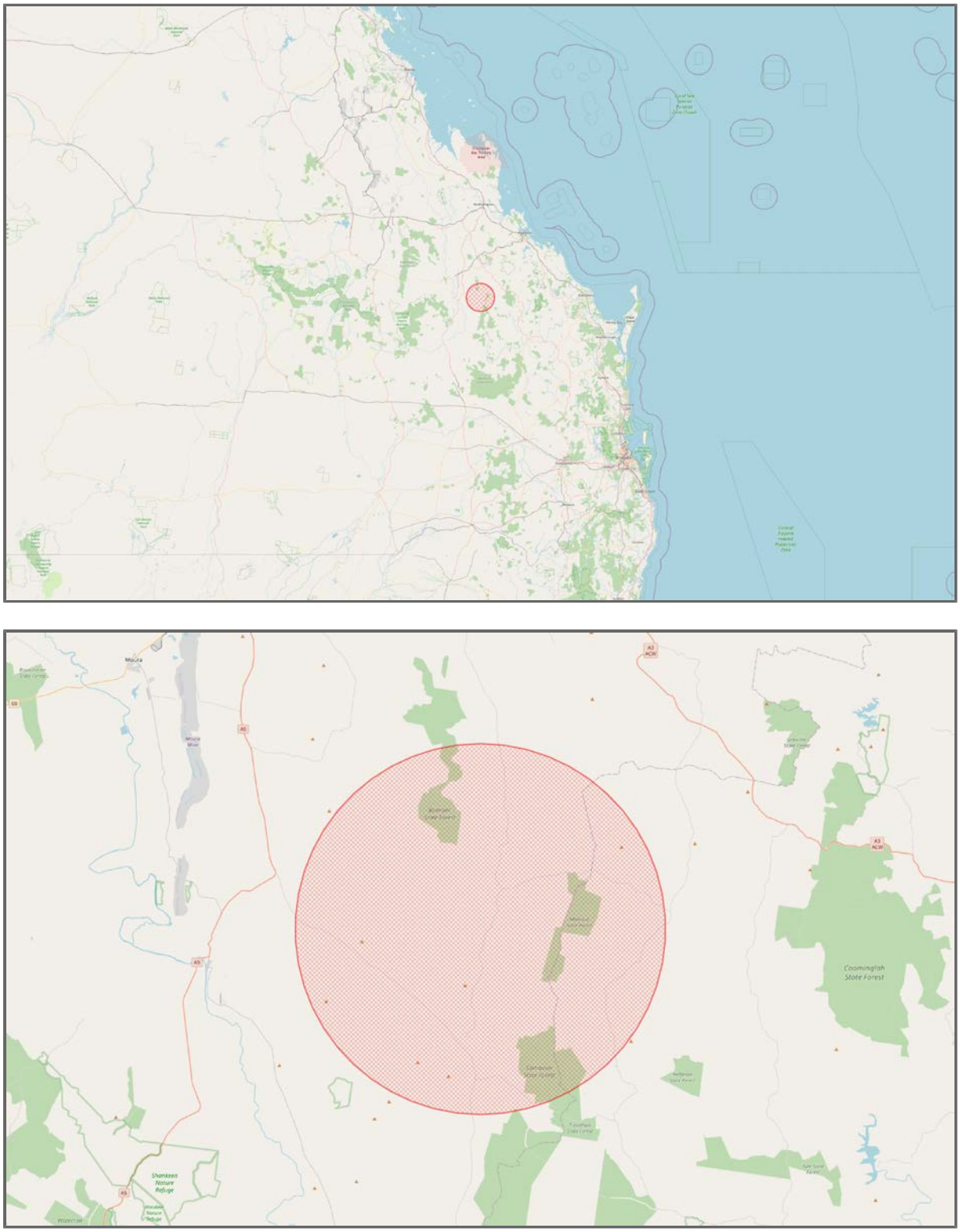

Figure 1 : Map of TheodoreWF26082024

Occurrences

Occurrences: **1661**

Spatially valid records are considered those that do not have any type of flag questioning their location, for example a terrestrial species being recorded in the ocean. [Ref6]

Number of occurrences (spatially valid only): **1661**

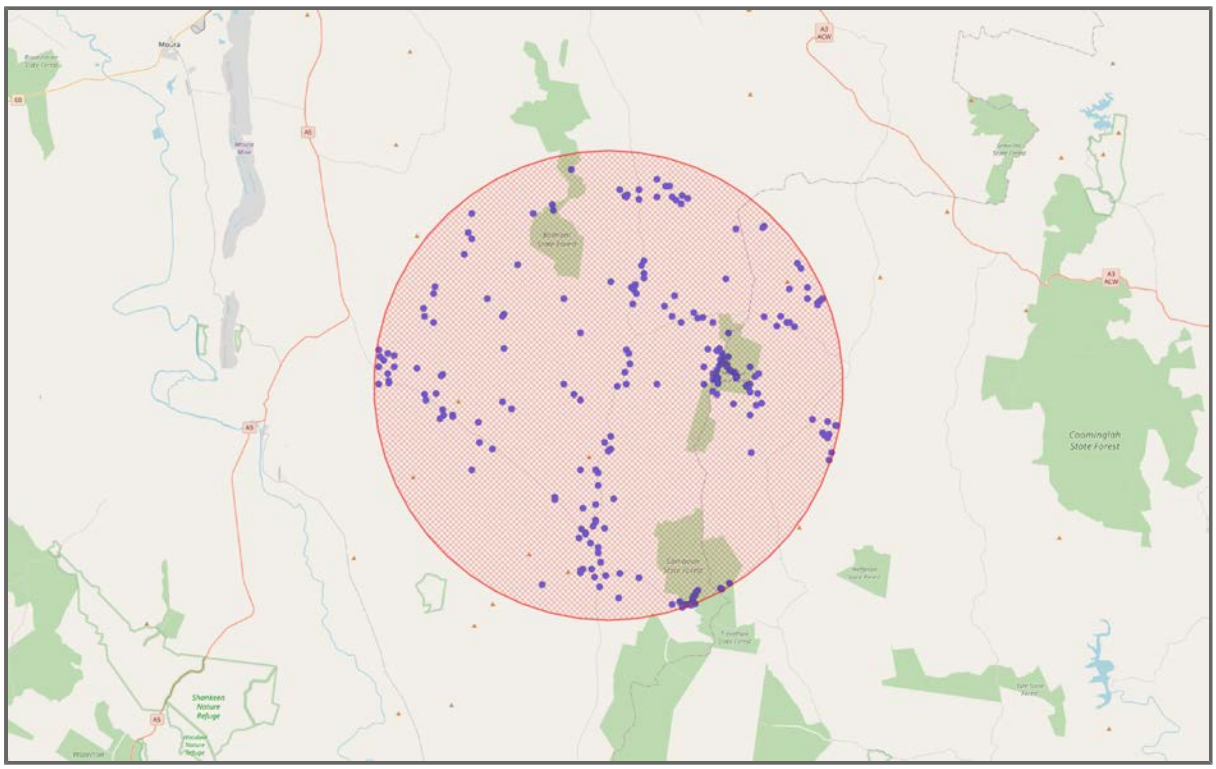

Figure 2 : Map of Occurrences

Species

Species: **564**

Spatially valid records are considered those that do not have any type of flag questioning their location, for example a terrestrial species being recorded in the ocean. [Ref6]

Number of species (spatially valid only): **564**

Table 1: Species

Family	*Scientific Name*	Common Name	No. Occurrences
Meliphagidae	Manorina (Myzantha) melanocephala	Noisy Miner	35
Artamidae	Gymnorhina tibicen	Australian Magpie	32
Pardalotidae	Pardalotus (Pardalotinus) striatus	Striated Pardalote	25
Corvidae	Corvus orru	Torresian Crow	23
Gekkonidae	Heteronotia binoei	Bynoe's Gecko	21
Psittacidae	Platycercus (Violania) adscitus	Pale-headed Rosella	20
Artamidae	Cracticus torquatus	Grey Butcherbird	19
Cacatuidae	Cacatua (Cacatua) galerita	Sulphur-crested Cockatoo	17
Artamidae	Cracticus nigrogularis	Pied Butcherbird	17
Artamidae	Strepera (Strepera) graculina	Pied Currawong	17
Campephagidae	Coracina (Coracina) novaehollandiae	Black-faced Cuckoo-shrike	16
Cacatuidae	Eolophus roseicapilla	Galah	16
Monarchidae	Grallina cyanoleuca	Magpie-lark	16
Acanthizidae	Smicrornis brevirostris	Weebill	15
Alcedinidae	Dacelo (Dacelo) novaeguineae	Laughing Kookaburra	14
Cuculidae	Heteroscenes pallidus	Pallid Cuckoo	13
Columbidae	Ocyphaps lophotes	Crested Pigeon	13
Rhipiduridae	Rhipidura (Sauloprocta) leucophrys	Willie Wagtail	13
Corcoracidae	Struthidea cinerea	Apostlebird	13
Psittacidae	Trichoglossus haematodus	Rainbow Lorikeet	13
Agamidae	Diporiphora australis	Tommy Roundhead	12
Meliphagidae	Myzomela (Myzomela) sanguinolenta	Scarlet Honeyeater	12
Accipitridae	Aquila (Uroaetus) audax	Wedge-tailed Eagle	11
Casuariidae	Dromaius novaehollandiae	Emu	11
Meliphagidae	Entomyzon cyanotis	Blue-faced Honeyeater	11
Gekkonidae	Gehyra dubia	Dubious Dtella	11
Cuculidae	Scythrops novaehollandiae	Channel-billed Cuckoo	11
Diplodactylidae	Strophurus taenicauda albiocularis		11
Falconidae	Falco (Tinnunculus) cenchroides	Nankeen Kestrel	10
Maluridae	Malurus (Musciparus) melanocephalus	Red-backed Fairy-wren	10
Meliphagidae	Melithreptus (Melithreptus) albogularis	White-throated Honeyeater	10
Meropidae	Merops (Merops) ornatus	Rainbow Bee-eater	10
Monarchidae	Myiagra (Myiagra) rubecula	Leaden Flycatcher	10
Oriolidae	Oriolus (Mimeta) sagittatus	Olive-backed Oriole	10
Pachycephalidae	Pachycephala (Alisterornis) rufiventris	Rufous Whistler	10
Meliphagidae	Philemon (Tropidorhynchus) corniculatus	Noisy Friarbird	10
Psittacidae	Aprosmictus erythropterus	Red-winged Parrot	9
Scincidae	Carlia pectoralis	Open-litter Rainbow-skink	9
Pachycephalidae	Colluricincla (Colluricincla) harmonica	Grey Shrike-thrush	9
Climacteridae	Cormobates leucophaea metastasis	Central Eastern White-throated Treecreeper	9
Scincidae	Cryptoblepharus pulcher pulcher	Elegant Snake-eyed Skink	9
Myrtaceae	Eucalyptus crebra	Yellow-branched Ironbark	9
Scincidae	Lerista fragilis	Eastern Mulch-slider	9
Scincidae	Lygisaurus foliorum	Tree-base Litter-skink	9

Meliphagidae	Meliphaga (Meliphaga) lewinii	Lewin's Honeyeater	9
Acanthizidae	Acanthiza (Acanthiza) pusilla	Brown Thornbill	8
Aegothelidae	Aegotheles (Aegotheles) cristatus	Australian Owlet-nightjar	8
Anatidae	Chenonetta jubata	Australian Wood Duck	8
Petroicidae	Eopsaltria (Eopsaltria) australis	Eastern Yellow Robin	8
Columbidae	Geopelia humeralis	Bar-shouldered Dove	8
Diplodactylidae	Oedura tryoni	Southern Spotted Velvet Gecko	8
Meliphagidae	Philemon (Microphilemon) citreogularis	Little Friarbird	8
Vespertilionidae	Scotorepens		8
Meliphagidae	Caligavis chrysops	Yellow-faced Honeyeater	7
Cuculidae	Centropus phasianinus	Pheasant Coucal	7
Diplodactylidae	Diplodactylus vittatus	Eastern Stone Gecko	7
Ardeidae	Egretta novaehollandiae	White-faced Heron	7
Petroicidae	Microeca (Microeca) fascinans	Jacky Winter	7
Cacatuidae	Nymphicus hollandicus	Cockatiel	7
Pittosporaceae	Pittosporum angustifolium	Native Willow	7
Poaceae	Poaceae	Grasses	7
Psittacidae	Trichoglossus chlorolepidotus	Scaly-breasted Lorikeet	7
Accipitridae	Accipiter (Leucospiza) fasciatus	Brown Goshawk	6
Otididae	Ardeotis australis	Australian Bustard	6
Euphorbiaceae	Bertya pedicellata		6
Myrtaceae	Corymbia citriodora	Lemon-scented Gum	6
Caprimulgidae	Eurostopodus (Eurostopodus) mystacalis	White-throated Nightjar	6
Acanthizidae	Gerygone olivacea olivacea	Eastern White-throated Gerygone	6
Molossidae	MOLOSSIDAE		6
Muridae	Mus musculus	House Mouse	6
Vespertilionidae	Nyctophilus gouldi	Gould's Long-eared Bat	6
Pomatostomidae	Pomatostomus (Pomatostomus) temporalis	Grey-crowned Babbler	6
Solanaceae	Solanum furfuraceum	Corky Nightshade	6
Psittacidae	Trichoglossus		6
Acanthizidae	Acanthiza (Geobasileus) reguloides	Buff-rumped Thornbill	5
Acanthizidae	Acanthiza (Subacanthiza) nana	Yellow Thornbill	5
Elapidae	Brachyurophis australis	Coral Snake	5
Camaenidae	CAMAENIDAE		5
Vespertilionidae	Chalinolobus picatus	Little Pied Bat	5
Neosittidae	Daphoenositta (Neositta) chrysoptera leucocephala	White-headed Sittella	5
Accipitridae	Elanus axillaris	Black-shouldered Kite	5
Coraciidae	Eurystomus orientalis	Dollarbird	5
Falconidae	Falco (Ieracidea) berigora	Brown Falcon	5
Campephagidae	Lalage (Lalage) tricolor	White-winged Triller	5
Pelodryadidae	Litoria caerulea	Green Tree Frog	5
Pygopodidae	Paradelma orientalis	Brigalow Scaly-foot	5
Petauridae	Petaurus norfolcensis	Squirrel Glider	5
Hirundinidae	Petrochelidon (Hylochelidon) nigricans	Tree Martin	5
Meliphagidae	Ptilotula fusca	Fuscous Honeyeater	5
Estrildidae	Stizoptera bichenovii	Double-barred Finch	5
Fabaceae	Vachellia bidwillii		5
Fabaceae	Acacia conferta	Crowded-leaved Wattle	4
Fabaceae	Acacia sparsiflora	Currawang	4
Anatidae	Anas (Anas) superciliosa	Pacific Black Duck	4
Anatidae	Anas gracilis	Grey Teal	4
Artamidae	Artamus (Angroyan) minor minor	Western Little Woodswallow	4
Accipitridae	Aviceda (Aviceda) subcristata	Pacific Baza	4
Cuculidae	Chalcites osculans	Black-eared Cuckoo	4
Elapidae	Cryptophis nigrescens	Eastern Small-eyed Snake	4
Ebenaceae	Diospyros humilis	Ebony	4

Columbidae	Geopelia		4
Acanthizidae	Gerygone olivacea	White-throated Gerygone	4
Vespertilionidae	Nyctophilus geoffroyi	Lesser Long-eared Bat	4
Cactaceae	Opuntia tomentosa	Velvet Pear	4
Molossidae	Ozimops ridei	Ride's Free-tailed Bat	4
Columbidae	Phaps (Phaps) chalcoptera	Common Bronzewing	4
Acanthizidae	Sericornis (Sericornis) frontalis	White-browed Scrubwren	4
Tachyglossidae	Tachyglossus aculeatus	Short-beaked Echidna	4
Campanulaceae	Wahlenbergia queenslandica	Bluebell	4
Fabaceae	Acacia bancroftiorum		3
Accipitridae	Accipiter (Paraspizias) cirrocephalus	Collared Sparrowhawk	3
Megapodiidae	Alectura lathami	Australian Brush-turkey	3
Psittacidae	Alisterus scapularis	Australian King-parrot	3
Casuarinaceae	Allocasuarina littoralis	Black Sheoak	3
Rhamnaceae	Alphitonia excelsa	Red Ash	3
Diplodactylidae	Amalosia rhombifer	Zigzag Velvet Gecko	3
Motacillidae	Anthus (Anthus) novaeseelandiae novaeseelandiae		3
Artamidae	Artamus (Campbellornis) personatus	Masked Woodswallow	3
Cuculidae	Chalcites basalis	Horsfield's Bronze-cuckoo	3
Cuculidae	Chalcites lucidus	Shining Bronze-cuckoo	3
Vespertilionidae	Chalinolobus gouldii	Gould's Wattled Bat	3
Locustellidae	Cincloramphus (Maclennania) mathewsi	Rufous Songlark	3
Accipitridae	Circus assimilis	Spotted Harrier	3
Corvidae	Corvus coronoides	Australian Raven	3
Neosittidae	Daphoenositta (Neositta) chrysoptera	Varied Sittella	3
Elapidae	Denisonia maculata	Ornamental Snake	3
Dicruridae	Dicrurus bracteatus	Spangled Drongo	3
Scincidae	Egernia striolata	Tree Skink	3
Poaceae	Enneapogon gracilis	Slender Nineawn	3
Poaceae	Enneapogon lindleyanus	Purple-head Nine-awn	3
Falconidae	Falco (Falco) longipennis	Australian Hobby	3
Goodeniaceae	Goodenia grandiflora	Mountain Primrose	3
Fabaceae	Hovea longipes	Brush Hovea	3
Pygopodidae	Lialis burtonis	Burton's Snake-lizard	3
Pelodryadidae	Litoria latopalmata	Broad-palmed Frog	3
Meliphagidae	Melithreptus (Eidopsarus) brevirostris	Brown-headed Honeyeater	3
Psittacidae	Melopsittacus undulatus	Budgerigar	3
Alaudidae	Mirafra (Mirafra) javanica	Horsfield's Bushlark	3
Carphodactylidae	Nephrurus asper	Prickly Knob-tailed Gecko	3
Strigidae	Ninox (Ninox) boobook	Southern Boobook	3
Macropodidae	Notamacropus parryi	Whiptail Wallaby	3
Leporidae	Oryctolagus cuniculus	Rabbit	3
Poaceae	Panicum effusum	Hairy Panic	3
Pardalotidae	Pardalotus (Pardalotus) punctatus	Spotted Pardalote	3
Psittacidae	Parvipsitta pusilla	Little Lorikeet	3
Pseudocheiridae	Petauroides minor	Northern Greater Glider	3
Petauridae	Petaurus notatus	Krefft's Glider	3
Meliphagidae	Plectorhyncha lanceolata	Striped Honeyeater	3
Agamidae	Pogona barbata	Common Bearded Dragon	3
Bufonidae	Rhinella marina	Cane Toad	3
Rhipiduridae	Rhipidura (Rhipidura) albiscapa	Grey Fantail	3
Cyperaceae	Schoenus kennyi		3
Solanaceae	Solanum mitchellianum		3
Diplodactylidae	Strophurus taenicauda	Golden-tailed Gecko	3
Elapidae	Suta dwyeri	Dwyer's Snake	3
Charadriidae	Vanellus (Lobipluvia) miles	Masked Lapwing	3

Varanidae	Varanus varius	Lace Monitor	3
Camaenidae	Xanthomelon pachystylum		3
Zosteropidae	Zosterops lateralis	Silvereye	3
Malvaceae	Abutilon auritum	Chinese Lantern	2
Fabaceae	Acacia leiocalyx	Black Wattle	2
Rutaceae	Acronychia pauciflora	Soft Acronychia	2
Culicidae	Aedes (Rampamyia) notoscriptus		2
Sapindaceae	Alectryon diversifolius	Scrub Boonaree	2
Ardeidae	Ardea alba	Great Egret	2
Poaceae	Aristida calycina var. calycina	Dark Wire-grass	2
Aristolochiaceae	Aristolochia elegans	Calico-flower	2
Artamidae	Artamus (Campbellornis) superciliosus	White-browed Woodswallow	2
Poaceae	Arundinella nepalensis	Reedgrass	2
Cyperaceae	Bolboschoenus caldwellii	Salt Club-sedge	2
Acanthaceae	Brunoniella australis	Blue Trumpet	2
Cacatuidae	Cacatua (Licmetis) sanguinea	Little Corella	2
Cuculidae	Cacomantis (Vidgenia) flabelliformis	Fan-tailed Cuckoo	2
Asteraceae	Calotis dentex	White Burr Daisy	2
Asteraceae	Camptacra barbata		2
Canidae	Canis familiaris	Common Dog	2
Fabaceae	Cassia brewsteri	Bean Tree	2
Fabaceae	Cassia tomentella	Velvet Cassia	2
Pteridaceae	Cheilanthes distans	Bristly Cloak-fern	2
Agamidae	Chlamydosaurus kingii	Frilled Lizard	2
Locustellidae	Cincloramphus (Cincloramphus) cruralis	Brown Songlark	2
Poaceae	Cleistochloa subjuncea		2
Rutaceae	Coatesia paniculata	Axe-breaker	2
Scincidae	Concinnia tenuis	Barred-sided Skink	2
Campephagidae	Coracina (Coracina) papuensis	White-bellied Cuckoo-shrike	2
Campephagidae	Coracina	Bebik	2
Corcoracidae	Corcorax melanorhamphos	White-winged Chough	2
Asteraceae	Cotula australis	Common Cotula	2
Phasianidae	Coturnix ypsilophora		2
Rubiaceae	Cyclophyllum coprosmoides var. coprosmoides		2
Cyperaceae	Cyperus gracilis	Slender Flat-sedge	2
Elapidae	Demansia psammophis	Yellow-faced Whip Snake	2
Celastraceae	Denhamia pittosporoides	Orange Boxwood	2
Fabaceae	Desmodium rhytidophyllum	Desmodium	2
Hemerocallidaceae	Dianella brevipedunculata		2
Hemerocallidaceae	Dianella longifolia	Blueberry Lily	2
Dicaeidae	Dicaeum (Dicaeum) hirundinaceum	Mistletoebird	2
Sapindaceae	Elattostachys xylocarpa	White Tamarind	2
Poaceae	Eragrostis megalosperma	A Love Grass	2
Scrophulariaceae	Eremophila deserti	Turkey-bush	2
Scrophulariaceae	Eremophila mitchellii	Budda	2
Poaceae	Eriochloa pseudoacrotricha	Early Spring Grass	2
Myrtaceae	Eucalyptus bakeri	Baker's Mallee	2
Myrtaceae	Eucalyptus crebra x Eucalyptus melanophloia		2
Myrtaceae	Eucalyptus decorticans	Gum Top Ironbark	2
Cuculidae	Eudynamys orientalis	Eastern Koel	2
Euphorbiaceae	Euphorbia tannensis subsp. eremophila	Bottle Tree Caustic	2
Asparagaceae	Eustrephus latifolius	Wombat Berry	2
Rubiaceae	Everistia vacciniifolia	Small-leaved Canthium	2
Euphorbiaceae	Excoecaria dallachyana	Scrub Poison Tree	2
Gekkonidae	Gehyra versicolor	Eastern Tree Dtella	2
Rutaceae	Geijera parviflora	Wilga	2

Columbidae	Geopelia cuneata	Diamond Dove	2
Columbidae	Geopelia placida	Peaceful Dove	2
Columbidae	Geophaps (Geophaps) scripta	Squatter Pigeon	2
Myrtaceae	Gossia bidwillii	Python Tree	2
Proteaceae	Grevillea longistyla	Long-style Grevillea	2
Accipitridae	Hieraaetus (Hieraaetus) morphnoides	Little Eagle	2
Apodidae	Hirundapus caudacutus	White-throated Needletail	2
Elapidae	Hoplocephalus bitorquatus	Pale-headed Snake	2
Fabaceae	Indigofera colutea	Sticky Indigo	2
Fabaceae	Jacksonia scoparia	Dogwood	2
Apocynaceae	Leichhardtia viridiflora	Green Berry Creeper	2
Asteraceae	Leiocarpa websteri	Narrow Plover-daisy	2
Brassicaceae	Lepidium didymum	Lesser Swine's-cress	2
Scincidae	Lerista punctatovittata	Eastern Robust Slider	2
Columbidae	Leucosarcia melanoleuca	Wonga Pigeon	2
Linderniaceae	Lindernia hyssopoides		2
Asparagaceae	Lomandra confertifolia subsp. pallida	Matrush	2
Macropodidae	Macropus giganteus	Eastern Grey Kangaroo	2
Maluridae	Malurus (Leggeornis) lamberti	Variegated Fairy-wren	2
Meliphagidae	Manorina (Myzantha) flavigula	Yellow-throated Miner	2
Petroicidae	Melanodryas (Melanodryas) cucullata	Hooded Robin	2
Ericaceae	Melichrus sp. Isla Gorge (P.Sharpe+ 601)		2
Scincidae	Morethia boulengeri	Boulenger's Snake-eyed Skink	2
Scincidae	Morethia taeniopleura	Fire-tailed Skink	2
Meliphagidae	Nesoptilotis leucotis	White-eared Honeyeater	2
Macropodidae	Notamacropus rufogriseus	Red-necked Wallaby	2
Oleaceae	Notelaea microcarpa	Native Olive	2
Asteraceae	Olearia canescens subsp. discolor		2
Cactaceae	Opuntia streptacantha	Cardona Pear	2
Meliaceae	Owenia venosa	Crow's Apple	2
	PASSERIFORMES	Yellowhammer	2
Poaceae	Panicum mitchellii	Mitchell's Panick Grass	2
Poaceae	Paspalidium gracile	Paspalidium	2
Passifloraceae	Passiflora aurantia	Norfolk Island Passionfruit	2
Petauridae	Petaurus australis	Yellow-bellied Glider	2
Petroicidae	Petroica (Petroica) goodenovii	Red-capped Robin	2
Phalacrocoracidae	Phalacrocorax (Phalacrocorax) sulcirostris	Little Black Cormorant	2
Phascolarctidae	Phascolarctos cinereus	Koala	2
Araceae	Pistia stratiotes	Water Lettuce	2
Dasyuridae	Planigale maculata	Common Planigale	2
Podargidae	Podargus strigoides	Tawny Frogmouth	2
Acanthaceae	Pseuderanthemum variabile	Pastel Flower	2
Muridae	Pseudomys patrius	Eastern Pebble-mound Mouse	2
Fabaceae	Pultenaea bracteamajor		2
Acanthizidae	Pyrrholaemus sagittatus	Speckled Warbler	2
Acanthaceae	Rostellularia adscendens	Purple Pipe-cleaner	2
Asteraceae	Rutidosis murchisonii		2
Santalaceae	Santalum lanceolatum	Northern Sandalwood	2
Cyperaceae	Scleria sphacelata	Scleria	2
Vespertilionidae	Scotorepens greyii	Little Broad-nosed Bat	2
Fabaceae	Senna artemisioides subsp. zygophylla	Narrow-leaf Desert Cassia	2
Fabaceae	Senna coronilloides		2
Malvaceae	Seringia corollata	Keraudrenia	2
Malvaceae	Sida hackettiana	Spiked Sida	2
Brassicaceae	Sisymbrium erysimoides	Smooth Mustard	2
Solanaceae	Solanum aviculare	Kangaroo Apple	2

Solanaceae	Solanum jucundum		2
Solanaceae	Solanum nemophilum		2
Solanaceae	Solanum seaforthianum	Brazilian Nightshade	2
Poaceae	Sporobolus creber	Western Rat-tail Grass	2
Celastraceae	Stackhousia muricata	Stackhousia	2
Fabaceae	Swainsona queenslandica	Smooth Darling Pea	2
Podicipedidae	Tachybaptus novaehollandiae	Australasian Grebe	2
Estrildidae	Taeniopygia guttata	Zebra Finch	2
Asteraceae	Tagetes minuta	Stinking Roger	2
Alcedinidae	Todiramphus (Lazulena) macleayii	Forest Kingfisher	2
Alcedinidae	Todiramphus (Todiramphus) sanctus	Sacred Kingfisher	2
Meliaceae	Turraea pubescens	Native Honeysuckle	2
Tytonidae	Tyto javanica	Eastern Barn Owl	2
Myobatrachidae	Uperoleia laevigata	Smooth Toadlet	2
Myobatrachidae	Uperoleia rugosa	Wrinkled Toadlet	2
Varanidae	Varanus gouldii	Gould's Goanna	2
Vespertilionidae	Vespadelus troughtoni	Eastern Cave Bat	2
Vespertilionidae	Vespadelus		2
Asteraceae	Vittadinia bicolor		2
Asteraceae	Vittadinia hispidula var. setosa		2
Cacatuidae	Zanda funerea	Yellow-tailed Black-cockatoo	2
Fabaceae	Zornia pallida		2
	AVES	Birds	1
Malvaceae	Abutilon calliphyllum	Velvet Lanternflower	1
Malvaceae	Abutilon oxycarpum var. incanum		1
Malvaceae	Abutilon oxycarpum var. oxycarpum		1
Malvaceae	Abutilon tubulosum		1
Fabaceae	Acacia amblygona	Fan Wattle	1
Fabaceae	Acacia angusta		1
Fabaceae	Acacia crassa	Curracabah	1
Fabaceae	Acacia fasciculifera	Scaly Bark	1
Fabaceae	Acacia glaucocarpa	Hickory Wattle	1
Fabaceae	Acacia leiocalyx subsp. leiocalyx	Curracabah	1
Fabaceae	Acacia penninervis	Mountain Hickory	1
Fabaceae	Acacia podalyriifolia	Mount Morgan Wattle	1
Fabaceae	Acacia rhodoxylon	Ringy Rosewood	1
Acanthizidae	Acanthiza (Geobasileus) chrysorrhoa	Yellow-rumped Thornbill	1
Potoroidae	Aepyprymnus rufescens	Rufous Bettong	1
Fabaceae	Aeschynomene brevifolia		1
Violaceae	Afrohybanthus stellarioides		1
Estrildidae	Aidemosyne modesta	Plum-headed Finch	1
Lamiaceae	Ajuga australis	Austral Bugle	1
Apocynaceae	Alstonia constricta	Quinine Bush	1
Amaranthaceae	Amaranthus viridis	Green Amaranth	1
Vitaceae	Ampelocissus gardineri		1
Loranthaceae	Amyema congener subsp. rotundifolia		1
Poaceae	Ancistrachne uncinulata	Hooked-hairy Panic Grass	1
Anhingidae	Anhinga novaehollandiae	Australasian Darter	1
Culicidae	Anopheles (Cellia) annulipes	Spear Mosquito	1
Motacillidae	Anthus (Anthus) novaeseelandiae	Australian Pipit	1
Apodidae	Apus (Apus) pacificus	Fork-tailed Swift	1
Papaveraceae	Argemone ochroleuca subsp. ochroleuca	Prickly Poppy	1
Poaceae	Aristida gracilipes	Three-awn Speargrass	1
Artamidae	Artamus (Angroyan) minor	Little Woodswallow	1
Pythonidae	Aspidites melanocephalus	Black-headed Python	1
Sapindaceae	Atalaya hemiglauca	Whitewood	1

Sapindaceae	Atalaya salicifolia	Atalaya	1
Argiolestidae	Austroargiolestes icteromelas	Pale-mouth Common Flatwing	1
Anatidae	Aythya (Nyroca) australis	Hardhead	1
Myrtaceae	Backhousia angustifolia	Narrow Leaf Myrtle	1
Colubridae	Boiga irregularis	Night Tiger	1
Poaceae	Bothriochloa decipiens	Bothriochloa	1
Burhinidae	Burhinus (Burhinus) grallarius	Bush Stone-curlew	1
Asteraceae	Calotis cuneata	Mountain Burr-daisy	1
Cacatuidae	Calyptorhynchus (Calyptorhynchus) banksii	Red-tailed Black Cockatoo	1
Capparaceae	Capparis anomala	Warrior Bush	1
Capparaceae	Capparis arborea	Native Pomegranate	1
Capparaceae	Capparis canescens	Wild Orange	1
Capparaceae	Capparis lasiantha	Nepine	1
Capparaceae	Capparis mitchellii	Native Orange	1
Capparaceae	Capparis sarmentosa	Scrambling Caper	1
Cyperaceae	Carex inversa	Dwarf Sedge	1
Apocynaceae	Carissa ovata	Conkerberry	1
Asteraceae	Cassinia laevis	Cough Bush	1
Lauraceae	Cassytha paniculata	Ribbed Dodder Laurel	1
Casuarinaceae	Casuarina cristata	Belah	1
Cyperaceae	Caustis flexuosa	Slender Twist-rush	1
Asteraceae	Centipeda minima subsp. minima	Spreading Sneezeweed	1
Cuculidae	Chalcites minutillus barnardi	Eastern Little Bronze-cuckoo	1
Vespertilionidae	Chalinolobus morio	Chocolate Wattled Bat	1
Pteridaceae	Cheilanthes sieberi subsp. sieberi	Rock Fern	1
Chelidae	Chelodina (Chelodina) longicollis	Snake-necked Turtle	1
Poaceae	Chloris truncata	Windmill Grass	1
Poaceae	Chloris ventricosa	Tall Windmill Grass	1
Asteraceae	Cirsium vulgare	Spear Thistle	1
Cisticolidae	Cisticola (Cisticola) exilis	Golden-headed Cisticola	1
Vitaceae	Clematicissus opaca	Pepper Vine	1
Climacteridae	Climacteris (Climacteris) picumnus	Brown Treecreeper	1
Gyrostemonaceae	Codonocarpus attenuatus	Bell-fruit Tree	1
Commelinaceae	Commelina cyanea	Scurvy Weed	1
Climacteridae	Cormobates leucophaea	White-throated Treecreeper	1
Corvidae	Corvus		1
Myrtaceae	Corymbia trachyphloia	White Bloodwood	1
Sapindaceae	Cossinia australiana	Cossinia	1
Fabaceae	Crotalaria medicaginea var. neglecta	Trefoil Rattlepod	1
Euphorbiaceae	Croton insularis	Silver Queensland Cascarilla	1
Scincidae	Ctenotus spaldingi	Spalding's Ctenotus	1
Cucurbitaceae	Cucumis anguria var. anguria	West Indian Gherkin	1
Asteraceae	Cyanthillium cinereum	Ironweed	1
Scincidae	Cyclodomorphus gerrardii	Pink-tongued Skink	1
Orchidaceae	Cymbidium canaliculatum	Tiger Orchid	1
Cyperaceae	Cyperus concinnus	Trim Flat-sedge	1
Cyperaceae	Cyperus exaltatus	Tall Flat-sedge	1
Cyperaceae	Cyperus fulvus	Sticky Sedge	1
Dasyuridae	Dasyurus hallucatus	Digul	1
Fabaceae	Daviesia filipes subsp. filipes		1
Amaranthaceae	Deeringia amaranthoides	Redberry	1
Anatidae	Dendrocygna eytoni	Plumed Whistling-duck	1
Celastraceae	Denhamia cunninghamii	Narrow-leaf Maytenus	1
Celastraceae	Denhamia pittosporoides subsp. pittosporoides	Veiny Denhamia	1
Fabaceae	Desmodium varians	Slender Tick-trefoil	1
Poaceae	Dichanthium sericeum subsp. humilius	Dwarf Bluegrass	1

Poaceae	Dichanthium sericeum subsp. sericeum	Silky Blue-grass	1
Dioscoreaceae	Dioscorea transversa	Native Yam	1
Libellulidae	Diplacodes bipunctata	Wandering Percher	1
Cucurbitaceae	Diplocyclos palmatus subsp. affinis	Native Cucumber	1
Cucurbitaceae	Diplocyclos palmatus subsp. palmatus		1
Sapindaceae	Dodonaea triangularis	Hopbush	1
Bignoniaceae	Dolichandra unguis-cati	Cat's Claw Creeper	1
Droseraceae	Drosera lunata		1
Chenopodiaceae	Dysphania pumilio	Small Crumbweed	1
Boraginaceae	Ehretia saligna var. membranifolia	Peach Bush	1
Celastraceae	Elaeodendron australe var. integrifolium		1
Celastraceae	Elaeodendron australe	White Cedar	1
Charadriidae	Elseyornis melanops	Black-fronted Dotterel	1
Poaceae	Enneapogon nigricans	Black-head Grass	1
Poaceae	Enneapogon truncatus	Bottlewashers	1
Poaceae	Enteropogon unispiceus		1
Poaceae	Eragrostis alveiformis	Granite Love-grass	1
Poaceae	Eragrostis sororia	Lovegrass	1
Poaceae	Eragrostis spartinoides	Lovegrass	1
Fabaceae	Erythrina vespertilio subsp. vespertilio		1
Fabaceae	Erythrostemon gilliesii	Bird-of-paradise Flower	1
Myrtaceae	Eucalyptus coolabah	Coolabah	1
Myrtaceae	Eucalyptus exserta	Queensland Peppermint	1
Myrtaceae	Eucalyptus moluccana	Gum-topped Box	1
Myrtaceae	Eucalyptus tereticornis	Forest Red Gum	1
Myrtaceae	Eucalyptus	Studley Park Gum	1
Scincidae	Eulamprus quoyii	Eastern Water-skink	1
Euphorbiaceae	Euphorbia hirta	Asthma Plant	1
Euphorbiaceae	Euphorbia papillifolia var. papillifolia		1
Rubiaceae	Everistia vacciniifolia var. vacciniifolia		1
Falconidae	Falco (Ieracidea) berigora berigora	Eastern Brown Falcon	1
Cyperaceae	Fimbristylis dichotoma	Fringe-rush	1
Rutaceae	Flindersia collina	Broad-leaved Leopard Tree	1
Nectriaceae	Fusarium oxysporum f.sp. vasinfectum		1
Cyperaceae	Gahnia aspera	Rough Saw-sedge	1
Fabaceae	Galactia tenuiflora var. lucida		1
Araneidae	Gasteracantha		1
Gekkonidae	Gehyra		1
Geraniaceae	Geranium solanderi var. solanderi	Austral Crane's-bill	1
Geraniaceae	Geranium solanderi	Austral Geranium	1
Verbenaceae	Glandularia aristigera	Mayne's Pest	1
Psittacidae	Glossopsitta concinna	Musk Lorikeet	1
Fabaceae	Glycine	Twining Glycine	1
Planorbidae	Glyptophysa		1
Goodeniaceae	Goodenia glabra	Smooth Goodenia	1
	Goodenia paradoxa	Spur Velleia	1
Goodeniaceae	Goodenia rotundifolia		1
Malvaceae	Grewia latifolia	Dysentery Plant	1
Accipitridae	Haliastur sphenurus	Whistling Kite	1
Haloragaceae	Haloragis glauca	Grey Raspwort	1
Haloragaceae	Haloragis stricta		1
Fabaceae	Hardenbergia violacea	Native Lilac	1
Poaceae	Heteropogon contortus	Black Speargrass	1
Dilleniaceae	Hibbertia stricta	Upright Guinea-flower	1
Dilleniaceae	Hibbertia	Guinea Flowers	1
Araliaceae	Hydrocotyle acutiloba	Broad-leaf Pennywort	1

Hypoxidaceae	Hypoxis pratensis	Golden Weather-grass	1
Fabaceae	Indigofera linifolia	Flax-leaf Indigo	1
Fabaceae	Indigofera linnaei	Birdsville Indigo	1
Formicidae	Iridomyrmex pallidus		1
Oleaceae	Jasminum didymum subsp. racemosum	Native Jasmine	1
Campephagidae	Lalage (Karua) leucomela	Varied Triller	1
Verbenaceae	Lantana montevidensis	Creeping Lantana	1
Asparagaceae	Laxmannia gracilis	Slender Wire Lily	1
Apocynaceae	Leichhardtia viridiflora subsp. viridiflora	Native Pear	1
Brassicaceae	Lepidium bonariense	Peppercress	1
Poaceae	Leptochloa digitata	Umbrella Cane-grass	1
Scincidae	Lerista		1
Asteraceae	Leuzea australis	Austral Cornflower	1
Limnodynastidae	Limnodynastes peronii	Striped Marsh Frog	1
Pelodryadidae	Litoria peronii	Peron's Tree Frog	1
Pelodryadidae	Litoria rubella	Little Red Tree Frog	1
Arecaceae	Livistona nitida	Carnavon Gorge Cabbage Palm	1
Asparagaceae	Lomandra multiflora subsp. multiflora	Lomandra	1
Estrildidae	Lonchura (Munia) castaneothorax	Chestnut-breasted Munia	1
Myrtaceae	Lophostemon suaveolens	Swamp Box	1
Onagraceae	Ludwigia octovalvis	Willow Primrose	1
Moraceae	Maclura pomifera	Osage-orange	1
Fabaceae	Medicago polymorpha	Spineless Burr Medic	1
Petroicidae	Melanodryas (Melanodryas) cucullata cucullata	South-eastern Hooded Robin	1
Poaceae	Melinis repens	Red Natal-grass	1
Curculionidae	Myllocerus		1
Primulaceae	Myrsine variabilis	Rapanea	1
Myrtaceae	Myrtaceae	Myrtle Family	1
Camaenidae	Neveritis misella	Mid-eastern Velvet Snail	1
Solanaceae	Nicotiana forsteri		1
Solanaceae	Nicotiana megalosiphon	Wild Tobacco	1
Strigidae	Ninox (Ninox) novaeseelandiae	Southern Boobook	1
Macropodidae	Notamacropus dorsalis	Black-striped Wallaby	1
Scolopacidae	Numenius (Phaeopus) phaeopus	Whimbrel	1
Ardeidae	Nycticorax caledonicus	Nankeen Night-heron	1
Vespertilionidae	Nyctophilus bifax	Eastern Long-eared Bat	1
Amaranthaceae	Nyssanthes diffusa	Barbed-wire Weed	1
Asteraceae	Olearia canescens	Daisy Bush	1
Oreoicidae	Oreoica gutturalis	Crested Bellbird	1
Libellulidae	Orthetrum villosovittatum	Fiery Skimmer	1
Hydrocharitaceae	Ottelia ovalifolia subsp. ovalifolia	Swamp Lily	1
Meliaceae	Owenia x reliqua	Bellata Owenia	1
Oxalidaceae	Oxalis perennans	Native Sorrel	1
Asteraceae	Ozothamnus cassinioides	Everlasting	1
	POLYDESMIDA		1
Pachycephalidae	Pachycephala (Pachycephala) pectoralis	Golden Whistler	1
Bignoniaceae	Pandorea pandorana	Wonga Vine	1
Poaceae	Panicum larcomianum		1
Apocynaceae	Parsonsia eucalyptophylla	Gargaloo	1
Poaceae	Paspalidium caespitosum	Brigalow Grass	1
Poaceae	Paspalidium jubiflorum	Warrego Grass	1
Passifloraceae	Passiflora aurantia var. aurantia	Blunt-leaved Passionfruit	1
Pelecanidae	Pelecanus conspicillatus	Australian Pelican	1
Pseudocheiridae	Petauroides volans	Southern Greater Glider	1
Macropodidae	Petrogale herberti	Herbert's Rock-wallaby	1
Carabidae	Philoscaphus mastersii		1

Phyllanthaceae	Phyllanthus maderaspatensis	Spurge	1
Phyllanthaceae	Phyllanthus virgatus	Phyllanthus	1
Phytolaccaceae	Phytolacca octandra	Red-ink Weed	1
Thymelaeaceae	Pimelea glauca	Smooth Riceflower	1
Sapotaceae	Planchonella cotinifolia	Yellow Lemon	1
Dasyuridae	Planigale maculata maculata		1
Plantaginaceae	Plantago debilis	Shade Plantain	1
Limnodynastidae	Platyplectrum ornatum	Ornate Burrowing Frog	1
Caryophyllaceae	Polycarpaea corymbosa var. minor		1
Phyllanthaceae	Poranthera microphylla	Small Poranthera	1
Scincidae	Praeteropus brevicollis	Short-necked Worm-skink	1
Elapidae	Pseudechis australis	Mulga Snake	1
Muridae	Pseudomys		1
Rubiaceae	Psydrax longipes		1
Rubiaceae	Psydrax odorata f. buxifolia		1
Rubiaceae	Psydrax odorata	Psydrax	1
Carabidae	Pterostichini		1
Meliphagidae	Ptilotula penicillata	White-plumed Honeyeater	1
Fabaceae	Pultenaea millarii var. angustifolia		1
Scincidae	Pygmaeascincus timlowi	Dwarf Litter-skink	1
Rhipiduridae	Rhipidura (Howeavis) rufifrons	Rufous Fantail	1
Asteraceae	Rhodanthe polyphylla		1
Fabaceae	Rhynchosia minima	Rhynchosia	1
Lamiaceae	Salvia reflexa	Mintweed	1
Chenopodiaceae	Sclerolaena birchii	Galvinised Burr	1
Chenopodiaceae	Sclerolaena muricata var. muricata	Sclerolaena	1
Apocynaceae	Secamone elliptica	Secamone	1
Asteraceae	Senecio bathurstianus	Dissected Fireweed	1
Asteraceae	Senecio brigalowensis		1
Fabaceae	Senna occidentalis	Western Senna	1
Malvaceae	Sida corrugata	Variable Sida (peltate-hairy)	1
Asteraceae	Sigesbeckia orientalis	Indian Weed	1
Brassicaceae	Sisymbrium thellungii	African Turnip-weed	1
Solanaceae	Solanaceae	Tomato	1
Solanaceae	Solanum ellipticum	Potato Bush	1
Solanaceae	Solanum parvifolium	Nightshade	1
Fabaceae	Spartium junceum	Spanish Broom	1
Rubiaceae	Spermacoce brachystema	Spermacoce	1
Rubiaceae	Spermacoce multicaulis		1
Oriolidae	Sphecotheres vieilloti	Australasian Figbird	1
Stylidiaceae	Stylidium eglandulosum	Woolly-stemmed Triggerplant	1
Elapidae	Suta suta	Curl Snake	1
Phasianidae	Synoicus ypsilophora	Brown Quail	1
Helicarionidae	Tarocystis megaspira	Amber Dome Glass-snail	1
Fabaceae	Tephrosia filipes subsp. filipes		1
Lamiaceae	Teucrium junceum		1
Poaceae	Themeda triandra	Kangaroo Grass	1
Poaceae	Thyridolepis xerophila	Thyridolepis	1
Poaceae	Tragus australianus	Tickgrass	1
Hemerocallidaceae	Tricoryne elatior	Yellow Rush Lily	1
Turnicidae	Turnix		1
Poaceae	Urochloa foliosa	Leafy Panic	1
Poaceae	Urochloa gilesii	Hairy-edged Armgrass	1
Poaceae	Urochloa panicoides var. panicoides		1
Poaceae	Urochloa subquadripara	Armgrass Millet	1
Urticaceae	Urtica incisa	Scrub Nettle	1

Charadriidae	Vanellus (Lobipluvia) miles novaehollandiae	Southern Masked Lapwing	1
Charadriidae	Vanellus (Lobivanellus) tricolor	Banded Lapwing	1
Varanidae	Varanus tristis	Black-headed Monitor	1
Verbenaceae	Verbena africana	Inland Verbena	1
Asteraceae	Verbesina encelioides subsp. encelioides	Crownbeard	1
Asteraceae	Vittadinia dissecta var. hirta	Dissected New Holland Daisy	1
Asteraceae	Vittadinia hispidula var. hispidula		1
Asteraceae	Vittadinia hispidula		1
Asteraceae	Vittadinia sulcata	Furrowed New Holland Daisy	1
Asteraceae	Xanthium spinosum	Bathurst Burr	1
Xanthorrhoeaceae	Xanthorrhoea	Grasstree	1
Rutaceae	Zanthoxylum brachyacanthum	Thorny Yellowwood	1
Rutaceae	Zieria cytisoides	Downy Zieria	1
Rutaceae	Zieria smithii	Sandfly Zieria	1
Fabaceae	Zornia muriculata subsp. muriculata		1
Fabaceae	Zornia muriculata	Upright Zornia	1

All threatened species

Number of threatened species: **103**

Figure 3 : Map of All threatened species

Table 2: All threatened species (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Corcoracidae	Struthidea cinerea	Apostlebird	13
Casuariidae	Dromaius novaehollandiae	Emu	11
Otididae	Ardeotis australis	Australian Bustard	6
Acanthizidae	Gerygone olivacea olivacea	Eastern White-throated Gerygone	6
Vespertilionidae	Nyctophilus gouldi	Gould's Long-eared Bat	6
Pomatostomidae	Pomatostomus (Pomatostomus) temporalis	Grey-crowned Babbler	6
Vespertilionidae	Chalinolobus picatus	Little Pied Bat	5
Campephagidae	Lalage (Lalage) tricolor	White-winged Triller	5
Petauridae	Petaurus norfolcensis	Squirrel Glider	5
Rhamnaceae	Alphitonia excelsa	Red Ash	3
Diplodactylidae	Amalosia rhombifer	Zigzag Velvet Gecko	3
Accipitridae	Circus assimilis	Spotted Harrier	3
Neosittidae	Daphoenositta (Neositta) chrysoptera	Varied Sittella	3
Elapidae	Denisonia maculata	Ornamental Snake	3
Poaceae	Enneapogon gracilis	Slender Nineawn	3
Goodeniaceae	Goodenia grandiflora	Mountain Primrose	3
Alaudidae	Mirafra (Mirafra) javanica	Horsfield's Bushlark	3
Psittacidae	Parvipsitta pusilla	Little Lorikeet	3
Pseudocheiridae	Petauroides minor	Northern Greater Glider	3
Meliphagidae	Plectorhyncha lanceolata	Striped Honeyeater	3
Agamidae	Pogona barbata	Common Bearded Dragon	3
Varanidae	Varanus varius	Lace Monitor	3
Poaceae	Aristida calycina var. calycina	Dark Wire-grass	2
Cyperaceae	Bolboschoenus caldwellii	Salt Club-sedge	2
Canidae	Canis familiaris	Common Dog	2

Pteridaceae	Cheilanthes distans	Bristly Cloak-fern	2
Rutaceae	Coatesia paniculata	Axe-breaker	2
Corcoracidae	Corcorax melanorhamphos	White-winged Chough	2
Cyperaceae	Cyperus gracilis	Slender Flat-sedge	2
Fabaceae	Desmodium rhytidophyllum	Desmodium	2
Euphorbiaceae	Euphorbia tannensis subsp. eremophila	Bottle Tree Caustic	2
Rutaceae	Geijera parviflora	Wilga	2
Columbidae	Geopelia cuneata	Diamond Dove	2
Accipitridae	Hieraaetus (Hieraaetus) morphnoides	Little Eagle	2
Apodidae	Hirundapus caudacutus	White-throated Needletail	2
Elapidae	Hoplocephalus bitorquatus	Pale-headed Snake	2
Petroicidae	Melanodryas (Melanodryas) cucullata	Hooded Robin	2
Poaceae	Paspalidium gracile	Paspalidium	2
Petauridae	Petaurus australis	Yellow-bellied Glider	2
Phascolarctidae	Phascolarctos cinereus	Koala	2
Dasyuridae	Planigale maculata	Common Planigale	2
Acanthizidae	Pyrrholaemus sagittatus	Speckled Warbler	2
Santalaceae	Santalum lanceolatum	Northern Sandalwood	2
Celastraceae	Stackhousia muricata	Stackhousia	2
Meliaceae	Turraea pubescens	Native Honeysuckle	2
Myobatrachidae	Uperoleia rugosa	Wrinkled Toadlet	2
Vespertilionidae	Vespadelus troughtoni	Eastern Cave Bat	2
Cacatuidae	Zanda funerea	Yellow-tailed Black-cockatoo	2
Potoroidae	Aepyprymnus rufescens	Rufous Bettong	1
Apodidae	Apus (Apus) pacificus	Fork-tailed Swift	1
Sapindaceae	Atalaya salicifolia	Atalaya	1
Anatidae	Aythya (Nyroca) australis	Hardhead	1
Poaceae	Bothriochloa decipiens	Bothriochloa	1
Burhinidae	Burhinus (Burhinus) grallarius	Bush Stone-curlew	1
Cacatuidae	Calyptorhynchus (Calyptorhynchus) banksii	Red-tailed Black Cockatoo	1
Capparaceae	Capparis canescens	Wild Orange	1
Cyperaceae	Carex inversa	Dwarf Sedge	1
Apocynaceae	Carissa ovata	Conkerberry	1
Asteraceae	Cassinia laevis	Cough Bush	1
Poaceae	Chloris ventricosa	Tall Windmill Grass	1
Climacteridae	Climacteris (Climacteris) picumnus	Brown Treecreeper	1
Commelinaceae	Commelina cyanea	Scurvy Weed	1
Sapindaceae	Cossinia australiana	Cossinia	1
Orchidaceae	Cymbidium canaliculatum	Tiger Orchid	1
Cyperaceae	Cyperus concinnus	Trim Flat-sedge	1
Cyperaceae	Cyperus fulvus	Sticky Sedge	1
Dasyuridae	Dasyurus hallucatus	Digul	1
Fabaceae	Desmodium varians	Slender Tick-trefoil	1
Droseraceae	Drosera lunata		1
Chenopodiaceae	Dysphania pumilio	Small Crumbweed	1
Poaceae	Eragrostis sororia	Lovegrass	1
Poaceae	Eragrostis spartinoides	Lovegrass	1
Myrtaceae	Eucalyptus	Studley Park Gum	1
Cyperaceae	Fimbristylis dichotoma	Fringe-rush	1
Geraniaceae	Geranium solanderi var. solanderi	Austral Crane's-bill	1
Fabaceae	Glycine	Twining Glycine	1
Haloragaceae	Haloragis stricta		1
Fabaceae	Hardenbergia violacea	Native Lilac	1
Dilleniaceae	Hibbertia	Guinea Flowers	1
Asteraceae	Leuzea australis	Austral Cornflower	1
Limnodynastidae	Limnodynastes peronii	Striped Marsh Frog	1

Arecaceae	Livistona nitida	Carnavon Gorge Cabbage Palm	1
Asparagaceae	Lomandra multiflora subsp. multiflora	Lomandra	1
Petroicidae	Melanodryas (Melanodryas) cucullata cucullata	South-eastern Hooded Robin	1
Myrtaceae	Myrtaceae	Myrtle Family	1
Macropodidae	Notamacropus dorsalis	Black-striped Wallaby	1
Scolopacidae	Numenius (Phaeopus) phaeopus	Whimbrel	1
Vespertilionidae	Nyctophilus bifax	Eastern Long-eared Bat	1
Oreoicidae	Oreoica gutturalis	Crested Bellbird	1
Hydrocharitaceae	Ottelia ovalifolia subsp. ovalifolia	Swamp Lily	1
Bignoniaceae	Pandorea pandorana	Wonga Vine	1
Apocynaceae	Parsonsia eucalyptophylla	Gargaloo	1
Pseudocheiridae	Petauroides volans	Southern Greater Glider	1
Phyllanthaceae	Phyllanthus maderaspatensis	Spurge	1
Plantaginaceae	Plantago debilis	Shade Plantain	1
Elapidae	Pseudechis australis	Mulga Snake	1
Chenopodiaceae	Sclerolaena birchii	Galvinised Burr	1
Chenopodiaceae	Sclerolaena muricata var. muricata	Sclerolaena	1
Rubiaceae	Spermacoce brachystema	Spermacoce	1
Poaceae	Tragus australianus	Tickgrass	1
Hemerocallidaceae	Tricoryne elatior	Yellow Rush Lily	1
Rutaceae	Zieria cytisoides	Downy Zieria	1
Rutaceae	Zieria smithii	Sandfly Zieria	1

All invasive species

Number of invasive species: **7**

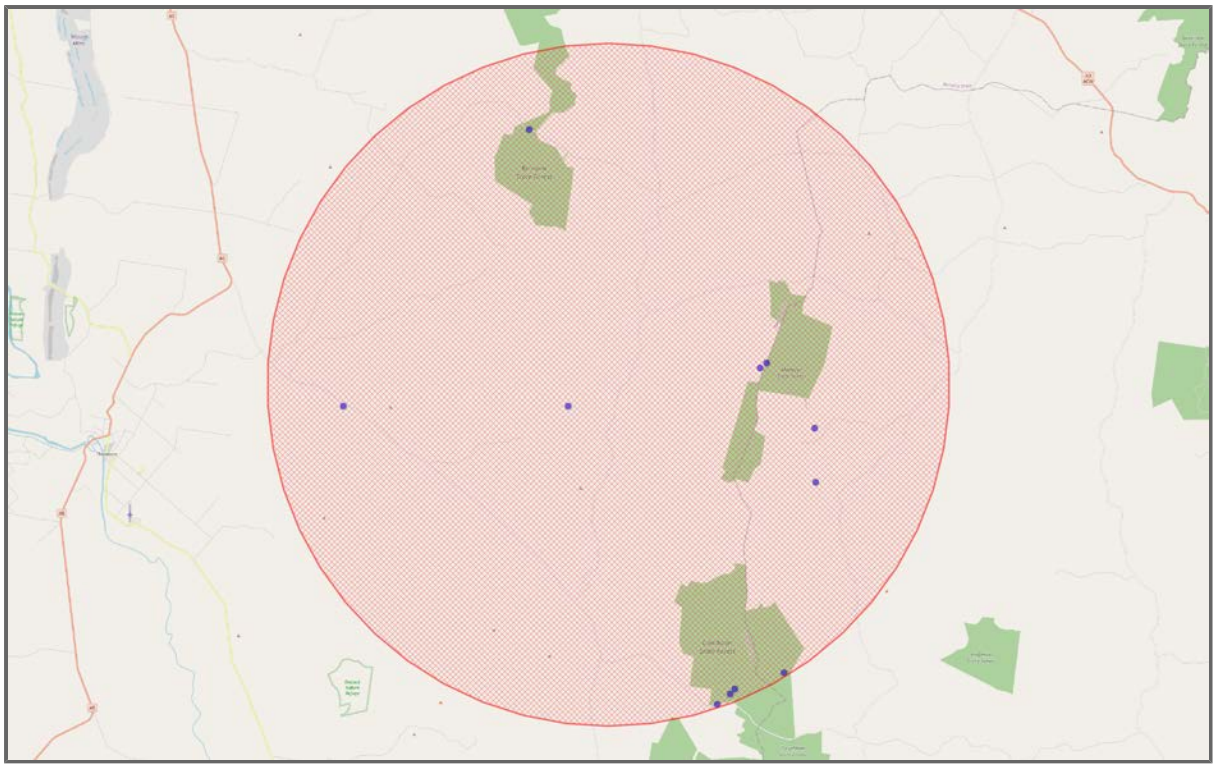

Figure 4 : Map of All invasive species

Table 3: All invasive species (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Leporidae	Oryctolagus cuniculus	Rabbit	3
Bufonidae	Rhinella marina	Cane Toad	3
Araceae	Pistia stratiotes	Water Lettuce	2
Bignoniaceae	Dolichandra unguis-cati	Cat's Claw Creeper	1
Nectriaceae	Fusarium oxysporum f.sp. vasinfectum		1
Lamiaceae	Salvia reflexa	Mintweed	1
Asteraceae	Xanthium spinosum	Bathurst Burr	1

Migratory species

Number of migratory species: **0**

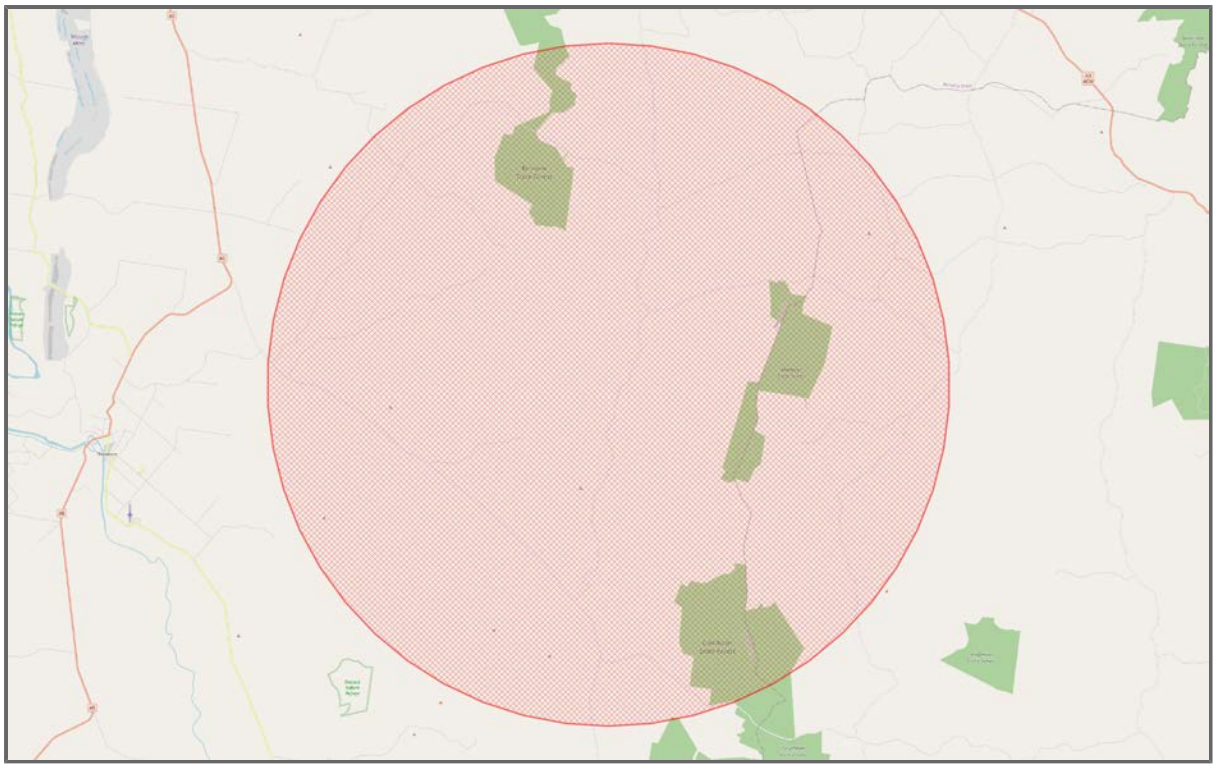

Figure 5 : Map of Migratory species

Table 4: Migratory species (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Algae

Number of Algae **0**

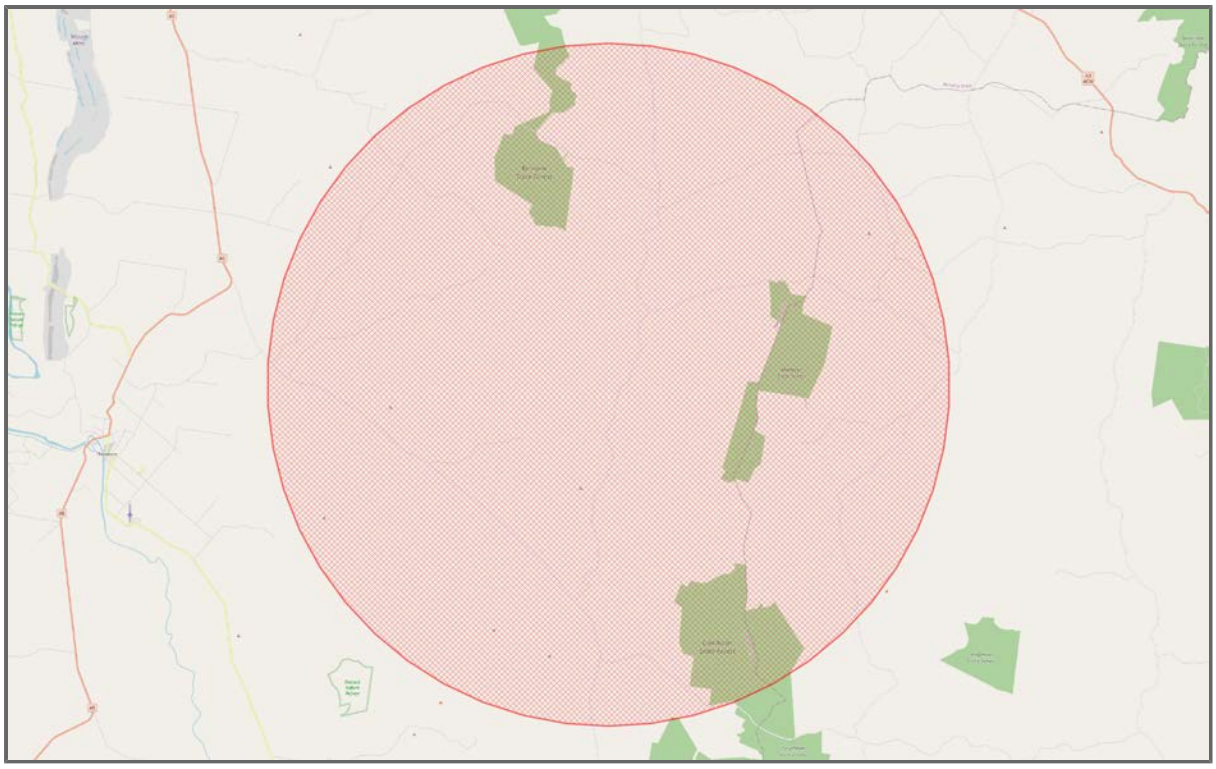

Figure 6 : Map of Lifeform - Algae

Table 5: Lifeform - Algae (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Amphibians

Number of Amphibians **9**

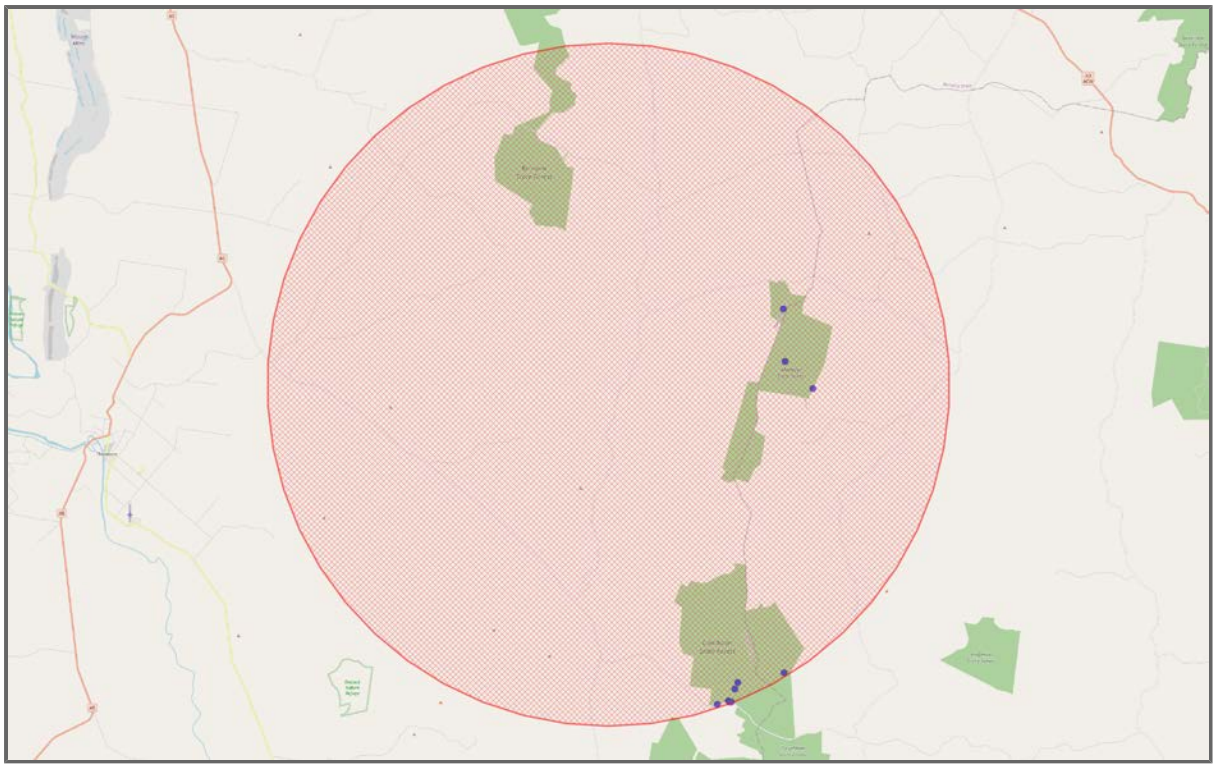

Figure 7 : Map of Lifeform - Amphibians

Table 6: Lifeform - Amphibians (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Pelodryadidae	Litoria caerulea	Green Tree Frog	5
Pelodryadidae	Litoria latopalmata	Broad-palmed Frog	3
Bufonidae	Rhinella marina	Cane Toad	3
Myobatrachidae	Uperoleia laevigata	Smooth Toadlet	2
Myobatrachidae	Uperoleia rugosa	Wrinkled Toadlet	2
Limnodynastidae	Limnodynastes peronii	Striped Marsh Frog	1
Pelodryadidae	Litoria peronii	Peron's Tree Frog	1
Pelodryadidae	Litoria rubella	Little Red Tree Frog	1
Limnodynastidae	Platyplectrum ornatum	Ornate Burrowing Frog	1

Lifeform - Angiosperms

Number of Angiosperms **0**

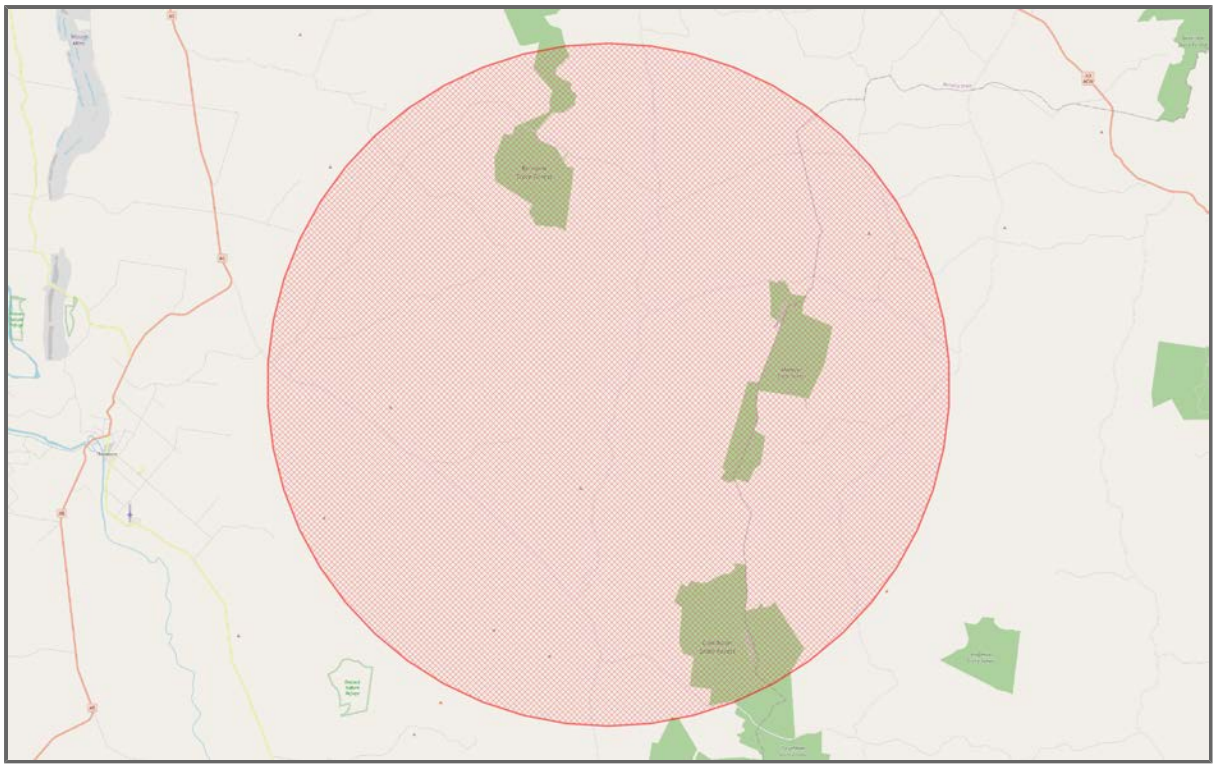

Figure 8 : Map of Lifeform - Angiosperms

Table 7: Lifeform - Angiosperms (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Animals

Number of Animals **266**

Figure 9 : Map of Lifeform - Animals

Table 8: Lifeform - Animals (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Meliphagidae	Manorina (Myzantha) melanocephala	Noisy Miner	35
Artamidae	Gymnorhina tibicen	Australian Magpie	32
Pardalotidae	Pardalotus (Pardalotinus) striatus	Striated Pardalote	25
Corvidae	Corvus orru	Torresian Crow	23
Gekkonidae	Heteronotia binoei	Bynoe's Gecko	21
Psittacidae	Platycercus (Violania) adscitus	Pale-headed Rosella	20
Artamidae	Cracticus torquatus	Grey Butcherbird	19
Cacatuidae	Cacatua (Cacatua) galerita	Sulphur-crested Cockatoo	17
Artamidae	Cracticus nigrogularis	Pied Butcherbird	17
Artamidae	Strepera (Strepera) graculina	Pied Currawong	17
Campephagidae	Coracina (Coracina) novaehollandiae	Black-faced Cuckoo-shrike	16
Cacatuidae	Eolophus roseicapilla	Galah	16
Monarchidae	Grallina cyanoleuca	Magpie-lark	16
Acanthizidae	Smicrornis brevirostris	Weebill	15
Alcedinidae	Dacelo (Dacelo) novaeguineae	Laughing Kookaburra	14
Cuculidae	Heteroscenes pallidus	Pallid Cuckoo	13
Columbidae	Ocyphaps lophotes	Crested Pigeon	13
Rhipiduridae	Rhipidura (Sauloprocta) leucophrys	Willie Wagtail	13
Corcoracidae	Struthidea cinerea	Apostlebird	13
Psittacidae	Trichoglossus haematodus	Rainbow Lorikeet	13
Agamidae	Diporiphora australis	Tommy Roundhead	12
Meliphagidae	Myzomela (Myzomela) sanguinolenta	Scarlet Honeyeater	12
Accipitridae	Aquila (Uroaetus) audax	Wedge-tailed Eagle	11
Casuariidae	Dromaius novaehollandiae	Emu	11
Meliphagidae	Entomyzon cyanotis	Blue-faced Honeyeater	11

Gekkonidae	Gehyra dubia	Dubious Dtella	11
Cuculidae	Scythrops novaehollandiae	Channel-billed Cuckoo	11
Diplodactylidae	Strophurus taenicauda albiocularis		11
Falconidae	Falco (Tinnunculus) cenchroides	Nankeen Kestrel	10
Maluridae	Malurus (Musciparus) melanocephalus	Red-backed Fairy-wren	10
Meliphagidae	Melithreptus (Melithreptus) albogularis	White-throated Honeyeater	10
Meropidae	Merops (Merops) ornatus	Rainbow Bee-eater	10
Monarchidae	Myiagra (Myiagra) rubecula	Leaden Flycatcher	10
Oriolidae	Oriolus (Mimeta) sagittatus	Olive-backed Oriole	10
Pachycephalidae	Pachycephala (Alisterornis) rufiventris	Rufous Whistler	10
Meliphagidae	Philemon (Tropidorhynchus) corniculatus	Noisy Friarbird	10
Psittacidae	Aprosmictus erythropterus	Red-winged Parrot	9
Scincidae	Carlia pectoralis	Open-litter Rainbow-skink	9
Pachycephalidae	Colluricincla (Colluricincla) harmonica	Grey Shrike-thrush	9
Climacteridae	Cormobates leucophaea metastasis	Central Eastern White-throated Treecreeper	9
Scincidae	Cryptoblepharus pulcher pulcher	Elegant Snake-eyed Skink	9
Scincidae	Lerista fragilis	Eastern Mulch-slider	9
Scincidae	Lygisaurus foliorum	Tree-base Litter-skink	9
Meliphagidae	Meliphaga (Meliphaga) lewinii	Lewin's Honeyeater	9
Acanthizidae	Acanthiza (Acanthiza) pusilla	Brown Thornbill	8
Aegothelidae	Aegotheles (Aegotheles) cristatus	Australian Owlet-nightjar	8
Anatidae	Chenonetta jubata	Australian Wood Duck	8
Petroicidae	Eopsaltria (Eopsaltria) australis	Eastern Yellow Robin	8
Columbidae	Geopelia humeralis	Bar-shouldered Dove	8
Diplodactylidae	Oedura tryoni	Southern Spotted Velvet Gecko	8
Meliphagidae	Philemon (Microphilemon) citreogularis	Little Friarbird	8
Vespertilionidae	Scotorepens		8
Meliphagidae	Caligavis chrysops	Yellow-faced Honeyeater	7
Cuculidae	Centropus phasianinus	Pheasant Coucal	7
Diplodactylidae	Diplodactylus vittatus	Eastern Stone Gecko	7
Ardeidae	Egretta novaehollandiae	White-faced Heron	7
Petroicidae	Microeca (Microeca) fascinans	Jacky Winter	7
Cacatuidae	Nymphicus hollandicus	Cockatiel	7
Psittacidae	Trichoglossus chlorolepidotus	Scaly-breasted Lorikeet	7
Accipitridae	Accipiter (Leucospiza) fasciatus	Brown Goshawk	6
Otididae	Ardeotis australis	Australian Bustard	6
Caprimulgidae	Eurostopodus (Eurostopodus) mystacalis	White-throated Nightjar	6
Acanthizidae	Gerygone olivacea olivacea	Eastern White-throated Gerygone	6
Molossidae	MOLOSSIDAE		6
Muridae	Mus musculus	House Mouse	6
Vespertilionidae	Nyctophilus gouldi	Gould's Long-eared Bat	6
Pomatostomidae	Pomatostomus (Pomatostomus) temporalis	Grey-crowned Babbler	6
Psittacidae	Trichoglossus		6
Acanthizidae	Acanthiza (Geobasileus) reguloides	Buff-rumped Thornbill	5
Acanthizidae	Acanthiza (Subacanthiza) nana	Yellow Thornbill	5
Elapidae	Brachyurophis australis	Coral Snake	5
Camaenidae	CAMAENIDAE		5
Vespertilionidae	Chalinolobus picatus	Little Pied Bat	5
Neosittidae	Daphoenositta (Neositta) chrysoptera leucocephala	White-headed Sittella	5
Accipitridae	Elanus axillaris	Black-shouldered Kite	5
Coraciidae	Eurystomus orientalis	Dollarbird	5
Falconidae	Falco (Ieracidea) berigora	Brown Falcon	5
Campephagidae	Lalage (Lalage) tricolor	White-winged Triller	5
Pelodryadidae	Litoria caerulea	Green Tree Frog	5
Pygopodidae	Paradelma orientalis	Brigalow Scaly-foot	5
Petauridae	Petaurus norfolcensis	Squirrel Glider	5

Hirundinidae	Petrochelidon (Hylochelidon) nigricans	Tree Martin	5
Meliphagidae	Ptilotula fusca	Fuscous Honeyeater	5
Estrildidae	Stizoptera bichenovii	Double-barred Finch	5
Anatidae	Anas (Anas) superciliosa	Pacific Black Duck	4
Anatidae	Anas gracilis	Grey Teal	4
Artamidae	Artamus (Angroyan) minor minor	Western Little Woodswallow	4
Accipitridae	Aviceda (Aviceda) subcristata	Pacific Baza	4
Cuculidae	Chalcites osculans	Black-eared Cuckoo	4
Elapidae	Cryptophis nigrescens	Eastern Small-eyed Snake	4
Columbidae	Geopelia		4
Acanthizidae	Gerygone olivacea	White-throated Gerygone	4
Vespertilionidae	Nyctophilus geoffroyi	Lesser Long-eared Bat	4
Molossidae	Ozimops ridei	Ride's Free-tailed Bat	4
Columbidae	Phaps (Phaps) chalcoptera	Common Bronzewing	4
Acanthizidae	Sericornis (Sericornis) frontalis	White-browed Scrubwren	4
Tachyglossidae	Tachyglossus aculeatus	Short-beaked Echidna	4
Accipitridae	Accipiter (Paraspizias) cirrocephalus	Collared Sparrowhawk	3
Megapodiidae	Alectura lathami	Australian Brush-turkey	3
Psittacidae	Alisterus scapularis	Australian King-parrot	3
Diplodactylidae	Amalosia rhombifer	Zigzag Velvet Gecko	3
Motacillidae	Anthus (Anthus) novaeseelandiae novaeseelandiae		3
Artamidae	Artamus (Campbellornis) personatus	Masked Woodswallow	3
Cuculidae	Chalcites basalis	Horsfield's Bronze-cuckoo	3
Cuculidae	Chalcites lucidus	Shining Bronze-cuckoo	3
Vespertilionidae	Chalinolobus gouldii	Gould's Wattled Bat	3
Locustellidae	Cincloramphus (Maclennania) mathewsi	Rufous Songlark	3
Accipitridae	Circus assimilis	Spotted Harrier	3
Corvidae	Corvus coronoides	Australian Raven	3
Neosittidae	Daphoenositta (Neositta) chrysoptera	Varied Sittella	3
Elapidae	Denisonia maculata	Ornamental Snake	3
Dicruridae	Dicrurus bracteatus	Spangled Drongo	3
Scincidae	Egernia striolata	Tree Skink	3
Falconidae	Falco (Falco) longipennis	Australian Hobby	3
Pygopodidae	Lialis burtonis	Burton's Snake-lizard	3
Pelodryadidae	Litoria latopalmata	Broad-palmed Frog	3
Meliphagidae	Melithreptus (Eidopsarus) brevirostris	Brown-headed Honeyeater	3
Psittacidae	Melopsittacus undulatus	Budgerigar	3
Alaudidae	Mirafra (Mirafra) javanica	Horsfield's Bushlark	3
Carphodactylidae	Nephrurus asper	Prickly Knob-tailed Gecko	3
Strigidae	Ninox (Ninox) boobook	Southern Boobook	3
Macropodidae	Notamacropus parryi	Whiptail Wallaby	3
Leporidae	Oryctolagus cuniculus	Rabbit	3
Pardalotidae	Pardalotus (Pardalotus) punctatus	Spotted Pardalote	3
Psittacidae	Parvipsitta pusilla	Little Lorikeet	3
Pseudocheiridae	Petauroides minor	Northern Greater Glider	3
Petauridae	Petaurus notatus	Krefft's Glider	3
Meliphagidae	Plectorhyncha lanceolata	Striped Honeyeater	3
Agamidae	Pogona barbata	Common Bearded Dragon	3
Bufonidae	Rhinella marina	Cane Toad	3
Rhipiduridae	Rhipidura (Rhipidura) albiscapa	Grey Fantail	3
Diplodactylidae	Strophurus taenicauda	Golden-tailed Gecko	3
Elapidae	Suta dwyeri	Dwyer's Snake	3
Charadriidae	Vanellus (Lobipluvia) miles	Masked Lapwing	3
Varanidae	Varanus varius	Lace Monitor	3
Camaenidae	Xanthomelon pachystylum		3
Zosteropidae	Zosterops lateralis	Silvereye	3

Culicidae	Aedes (Rampamyia) notoscriptus		2
Ardeidae	Ardea alba	Great Egret	2
Artamidae	Artamus (Campbellornis) superciliosus	White-browed Woodswallow	2
Cacatuidae	Cacatua (Licmetis) sanguinea	Little Corella	2
Cuculidae	Cacomantis (Vidgenia) flabelliformis	Fan-tailed Cuckoo	2
Canidae	Canis familiaris	Common Dog	2
Agamidae	Chlamydosaurus kingii	Frilled Lizard	2
Locustellidae	Cincloramphus (Cincloramphus) cruralis	Brown Songlark	2
Scincidae	Concinnia tenuis	Barred-sided Skink	2
Campephagidae	Coracina (Coracina) papuensis	White-bellied Cuckoo-shrike	2
Campephagidae	Coracina	Bebik	2
Corcoracidae	Corcorax melanorhamphos	White-winged Chough	2
Phasianidae	Coturnix ypsilophora		2
Elapidae	Demansia psammophis	Yellow-faced Whip Snake	2
Dicaeidae	Dicaeum (Dicaeum) hirundinaceum	Mistletoebird	2
Cuculidae	Eudynamys orientalis	Eastern Koel	2
Gekkonidae	Gehyra versicolor	Eastern Tree Dtella	2
Columbidae	Geopelia cuneata	Diamond Dove	2
Columbidae	Geopelia placida	Peaceful Dove	2
Columbidae	Geophaps (Geophaps) scripta	Squatter Pigeon	2
Accipitridae	Hieraaetus (Hieraaetus) morphnoides	Little Eagle	2
Apodidae	Hirundapus caudacutus	White-throated Needletail	2
Elapidae	Hoplocephalus bitorquatus	Pale-headed Snake	2
Scincidae	Lerista punctatovittata	Eastern Robust Slider	2
Columbidae	Leucosarcia melanoleuca	Wonga Pigeon	2
Macropodidae	Macropus giganteus	Eastern Grey Kangaroo	2
Maluridae	Malurus (Leggeornis) lamberti	Variegated Fairy-wren	2
Meliphagidae	Manorina (Myzantha) flavigula	Yellow-throated Miner	2
Petroicidae	Melanodryas (Melanodryas) cucullata	Hooded Robin	2
Scincidae	Morethia boulengeri	Boulenger's Snake-eyed Skink	2
Scincidae	Morethia taeniopleura	Fire-tailed Skink	2
Meliphagidae	Nesoptilotis leucotis	White-eared Honeyeater	2
Macropodidae	Notamacropus rufogriseus	Red-necked Wallaby	2
	PASSERIFORMES	Yellowhammer	2
Petauridae	Petaurus australis	Yellow-bellied Glider	2
Petroicidae	Petroica (Petroica) goodenovii	Red-capped Robin	2
Phalacrocoracidae	Phalacrocorax (Phalacrocorax) sulcirostris	Little Black Cormorant	2
Phascolarctidae	Phascolarctos cinereus	Koala	2
Dasyuridae	Planigale maculata	Common Planigale	2
Podargidae	Podargus strigoides	Tawny Frogmouth	2
Muridae	Pseudomys patrius	Eastern Pebble-mound Mouse	2
Acanthizidae	Pyrrholaemus sagittatus	Speckled Warbler	2
Vespertilionidae	Scotorepens greyii	Little Broad-nosed Bat	2
Podicipedidae	Tachybaptus novaehollandiae	Australasian Grebe	2
Estrildidae	Taeniopygia guttata	Zebra Finch	2
Alcedinidae	Todiramphus (Lazulena) macleayii	Forest Kingfisher	2
Alcedinidae	Todiramphus (Todiramphus) sanctus	Sacred Kingfisher	2
Tytonidae	Tyto javanica	Eastern Barn Owl	2
Myobatrachidae	Uperoleia laevigata	Smooth Toadlet	2
Myobatrachidae	Uperoleia rugosa	Wrinkled Toadlet	2
Varanidae	Varanus gouldii	Gould's Goanna	2
Vespertilionidae	Vespadelus troughtoni	Eastern Cave Bat	2
Vespertilionidae	Vespadelus		2
Cacatuidae	Zanda funerea	Yellow-tailed Black-cockatoo	2
	AVES	Birds	1
Acanthizidae	Acanthiza (Geobasileus) chrysorrhoa	Yellow-rumped Thornbill	1

Potoroidae	Aepyprymnus rufescens	Rufous Bettong	1
Estrildidae	Aidemosyne modesta	Plum-headed Finch	1
Anhingidae	Anhinga novaehollandiae	Australasian Darter	1
Culicidae	Anopheles (Cellia) annulipes	Spear Mosquito	1
Motacillidae	Anthus (Anthus) novaeseelandiae	Australian Pipit	1
Apodidae	Apus (Apus) pacificus	Fork-tailed Swift	1
Artamidae	Artamus (Angroyan) minor	Little Woodswallow	1
Pythonidae	Aspidites melanocephalus	Black-headed Python	1
Argiolestidae	Austroargiolestes icteromelas	Pale-mouth Common Flatwing	1
Anatidae	Aythya (Nyroca) australis	Hardhead	1
Colubridae	Boiga irregularis	Night Tiger	1
Burhinidae	Burhinus (Burhinus) grallarius	Bush Stone-curlew	1
Cacatuidae	Calyptorhynchus (Calyptorhynchus) banksii	Red-tailed Black Cockatoo	1
Cuculidae	Chalcites minutillus barnardi	Eastern Little Bronze-cuckoo	1
Vespertilionidae	Chalinolobus morio	Chocolate Wattled Bat	1
Chelidae	Chelodina (Chelodina) longicollis	Snake-necked Turtle	1
Cisticolidae	Cisticola (Cisticola) exilis	Golden-headed Cisticola	1
Climacteridae	Climacteris (Climacteris) picumnus	Brown Treecreeper	1
Climacteridae	Cormobates leucophaea	White-throated Treecreeper	1
Corvidae	Corvus		1
Scincidae	Ctenotus spaldingi	Spalding's Ctenotus	1
Scincidae	Cyclodomorphus gerrardii	Pink-tongued Skink	1
Dasyuridae	Dasyurus hallucatus	Digul	1
Anatidae	Dendrocygna eytoni	Plumed Whistling-duck	1
Libellulidae	Diplacodes bipunctata	Wandering Percher	1
Charadriidae	Elseyornis melanops	Black-fronted Dotterel	1
Scincidae	Eulamprus quoyii	Eastern Water-skink	1
Falconidae	Falco (Ieracidea) berigora berigora	Eastern Brown Falcon	1
Araneidae	Gasteracantha		1
Gekkonidae	Gehyra		1
Psittacidae	Glossopsitta concinna	Musk Lorikeet	1
Planorbidae	Glyptophysa		1
Accipitridae	Haliastur sphenurus	Whistling Kite	1
Formicidae	Iridomyrmex pallidus		1
Campephagidae	Lalage (Karua) leucomela	Varied Triller	1
Scincidae	Lerista		1
Limnodynastidae	Limnodynastes peronii	Striped Marsh Frog	1
Pelodryadidae	Litoria peronii	Peron's Tree Frog	1
Pelodryadidae	Litoria rubella	Little Red Tree Frog	1
Estrildidae	Lonchura (Munia) castaneothorax	Chestnut-breasted Munia	1
Petroicidae	Melanodryas (Melanodryas) cucullata cucullata	South-eastern Hooded Robin	1
Curculionidae	Myllocerus		1
Camaenidae	Neveritis misella	Mid-eastern Velvet Snail	1
Strigidae	Ninox (Ninox) novaeseelandiae	Southern Boobook	1
Macropodidae	Notamacropus dorsalis	Black-striped Wallaby	1
Scolopacidae	Numenius (Phaeopus) phaeopus	Whimbrel	1
Ardeidae	Nycticorax caledonicus	Nankeen Night-heron	1
Vespertilionidae	Nyctophilus bifax	Eastern Long-eared Bat	1
Oreoicidae	Oreoica gutturalis	Crested Bellbird	1
Libellulidae	Orthetrum villosovittatum	Fiery Skimmer	1
	POLYDESMIDA		1
Pachycephalidae	Pachycephala (Pachycephala) pectoralis	Golden Whistler	1
Pelecanidae	Pelecanus conspicillatus	Australian Pelican	1
Pseudocheiridae	Petauroides volans	Southern Greater Glider	1
Macropodidae	Petrogale herberti	Herbert's Rock-wallaby	1
Carabidae	Philoscaphus mastersii		1

Dasyuridae	Planigale maculata maculata		1
Limnodynastidae	Platyplectrum ornatum	Ornate Burrowing Frog	1
Scincidae	Praeteropus brevicollis	Short-necked Worm-skink	1
Elapidae	Pseudechis australis	Mulga Snake	1
Muridae	Pseudomys		1
Carabidae	Pterostichini		1
Meliphagidae	Ptilotula penicillata	White-plumed Honeyeater	1
Scincidae	Pygmaeascincus timlowi	Dwarf Litter-skink	1
Rhipiduridae	Rhipidura (Howeavis) rufifrons	Rufous Fantail	1
Oriolidae	Sphecotheres vieilloti	Australasian Figbird	1
Elapidae	Suta suta	Curl Snake	1
Phasianidae	Synoicus ypsilophora	Brown Quail	1
Helicarionidae	Tarocystis megaspira	Amber Dome Glass-snail	1
Turnicidae	Turnix		1
Charadriidae	Vanellus (Lobipluvia) miles novaehollandiae	Southern Masked Lapwing	1
Charadriidae	Vanellus (Lobivanellus) tricolor	Banded Lapwing	1
Varanidae	Varanus tristis	Black-headed Monitor	1

Lifeform - Arthropods

Number of Arthropods **11**

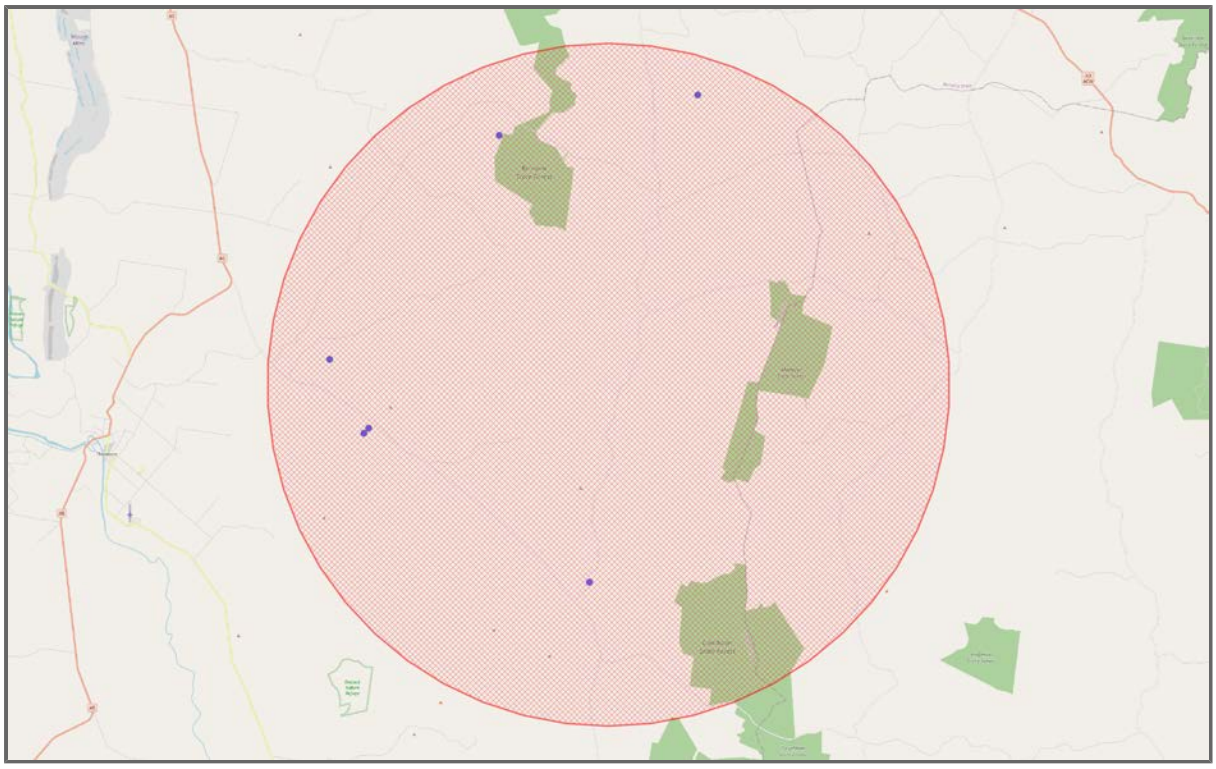

Figure 10 : Map of Lifeform - Arthropods

Table 9: Lifeform - Arthropods (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Culicidae	Aedes (Rampamyia) notoscriptus		2
Culicidae	Anopheles (Cellia) annulipes	Spear Mosquito	1
Argiolestidae	Austroargiolestes icteromelas	Pale-mouth Common Flatwing	1
Libellulidae	Diplacodes bipunctata	Wandering Percher	1
Araneidae	Gasteracantha		1
Formicidae	Iridomyrmex pallidus		1
Curculionidae	Myllocerus		1
Libellulidae	Orthetrum villosovittatum	Fiery Skimmer	1
	POLYDESMIDA		1
Carabidae	Philoscaphus mastersii		1
Carabidae	Pterostichini		1

Lifeform - Bacteria

Number of Bacteria **0**

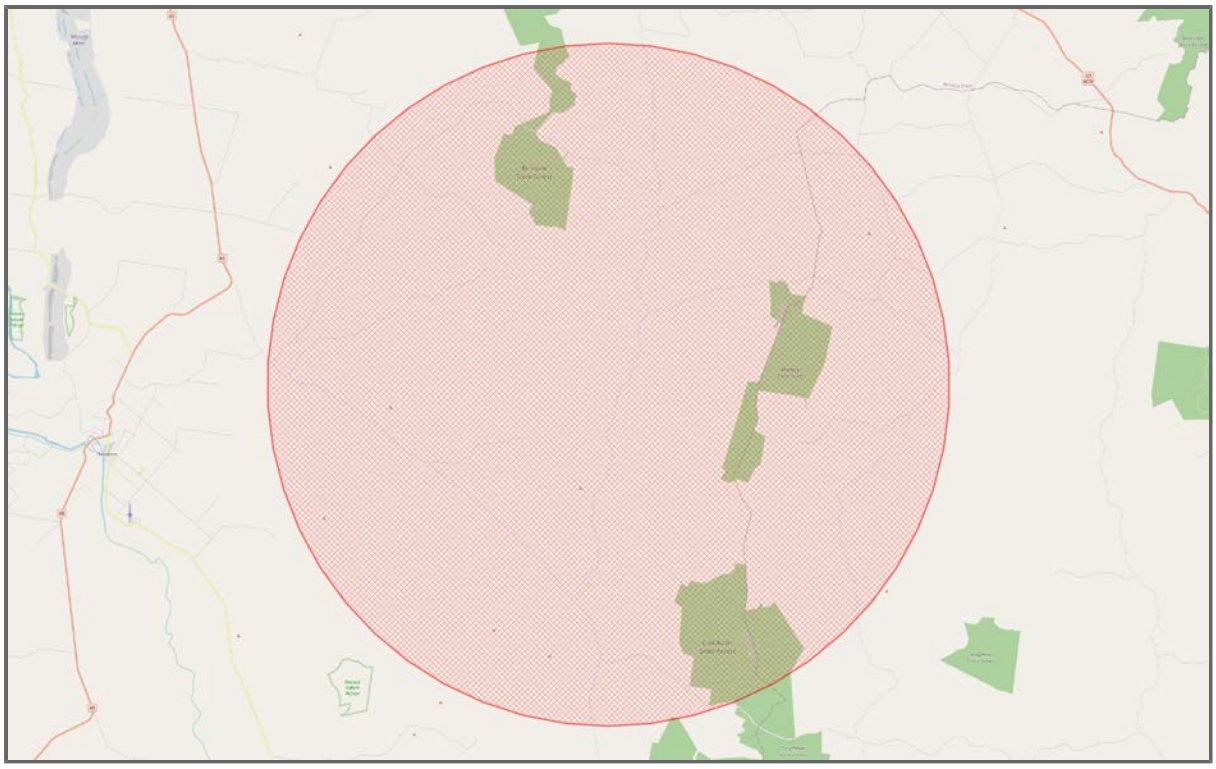

Figure 11 : Map of Lifeform - Bacteria

Table 10: Lifeform - Bacteria (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Birds

Number of Birds **164**

Figure 12 : Map of Lifeform - Birds

Table 11: Lifeform - Birds (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Meliphagidae	Manorina (Myzantha) melanocephala	Noisy Miner	35
Artamidae	Gymnorhina tibicen	Australian Magpie	32
Pardalotidae	Pardalotus (Pardalotinus) striatus	Striated Pardalote	25
Corvidae	Corvus orru	Torresian Crow	23
Psittacidae	Platycercus (Violania) adscitus	Pale-headed Rosella	20
Artamidae	Cracticus torquatus	Grey Butcherbird	19
Cacatuidae	Cacatua (Cacatua) galerita	Sulphur-crested Cockatoo	17
Artamidae	Cracticus nigrogularis	Pied Butcherbird	17
Artamidae	Strepera (Strepera) graculina	Pied Currawong	17
Campephagidae	Coracina (Coracina) novaehollandiae	Black-faced Cuckoo-shrike	16
Cacatuidae	Eolophus roseicapilla	Galah	16
Monarchidae	Grallina cyanoleuca	Magpie-lark	16
Acanthizidae	Smicrornis brevirostris	Weebill	15
Alcedinidae	Dacelo (Dacelo) novaeguineae	Laughing Kookaburra	14
Cuculidae	Heteroscenes pallidus	Pallid Cuckoo	13
Columbidae	Ocyphaps lophotes	Crested Pigeon	13
Rhipiduridae	Rhipidura (Sauloprocta) leucophrys	Willie Wagtail	13
Corcoracidae	Struthidea cinerea	Apostlebird	13
Psittacidae	Trichoglossus haematodus	Rainbow Lorikeet	13
Meliphagidae	Myzomela (Myzomela) sanguinolenta	Scarlet Honeyeater	12
Accipitridae	Aquila (Uroaetus) audax	Wedge-tailed Eagle	11
Casuariidae	Dromaius novaehollandiae	Emu	11
Meliphagidae	Entomyzon cyanotis	Blue-faced Honeyeater	11
Cuculidae	Scythrops novaehollandiae	Channel-billed Cuckoo	11
Falconidae	Falco (Tinnunculus) cenchroides	Nankeen Kestrel	10

Maluridae	Malurus (Musciparus) melanocephalus	Red-backed Fairy-wren	10
Meliphagidae	Melithreptus (Melithreptus) albogularis	White-throated Honeyeater	10
Meropidae	Merops (Merops) ornatus	Rainbow Bee-eater	10
Monarchidae	Myiagra (Myiagra) rubecula	Leaden Flycatcher	10
Oriolidae	Oriolus (Mimeta) sagittatus	Olive-backed Oriole	10
Pachycephalidae	Pachycephala (Alisterornis) rufiventris	Rufous Whistler	10
Meliphagidae	Philemon (Tropidorhynchus) corniculatus	Noisy Friarbird	10
Psittacidae	Aprosmictus erythropterus	Red-winged Parrot	9
Pachycephalidae	Colluricincla (Colluricincla) harmonica	Grey Shrike-thrush	9
Climacteridae	Cormobates leucophaea metastasis	Central Eastern White-throated Treecreeper	9
Meliphagidae	Meliphaga (Meliphaga) lewinii	Lewin's Honeyeater	9
Acanthizidae	Acanthiza (Acanthiza) pusilla	Brown Thornbill	8
Aegothelidae	Aegotheles (Aegotheles) cristatus	Australian Owlet-nightjar	8
Anatidae	Chenonetta jubata	Australian Wood Duck	8
Petroicidae	Eopsaltria (Eopsaltria) australis	Eastern Yellow Robin	8
Columbidae	Geopelia humeralis	Bar-shouldered Dove	8
Meliphagidae	Philemon (Microphilemon) citreogularis	Little Friarbird	8
Meliphagidae	Caligavis chrysops	Yellow-faced Honeyeater	7
Cuculidae	Centropus phasianinus	Pheasant Coucal	7
Ardeidae	Egretta novaehollandiae	White-faced Heron	7
Petroicidae	Microeca (Microeca) fascinans	Jacky Winter	7
Cacatuidae	Nymphicus hollandicus	Cockatiel	7
Psittacidae	Trichoglossus chlorolepidotus	Scaly-breasted Lorikeet	7
Accipitridae	Accipiter (Leucospiza) fasciatus	Brown Goshawk	6
Otididae	Ardeotis australis	Australian Bustard	6
Caprimulgidae	Eurostopodus (Eurostopodus) mystacalis	White-throated Nightjar	6
Acanthizidae	Gerygone olivacea olivacea	Eastern White-throated Gerygone	6
Pomatostomidae	Pomatostomus (Pomatostomus) temporalis	Grey-crowned Babbler	6
Psittacidae	Trichoglossus		6
Acanthizidae	Acanthiza (Geobasileus) reguloides	Buff-rumped Thornbill	5
Acanthizidae	Acanthiza (Subacanthiza) nana	Yellow Thornbill	5
Neosittidae	Daphoenositta (Neositta) chrysoptera leucocephala	White-headed Sittella	5
Accipitridae	Elanus axillaris	Black-shouldered Kite	5
Coraciidae	Eurystomus orientalis	Dollarbird	5
Falconidae	Falco (Ieracidea) berigora	Brown Falcon	5
Campephagidae	Lalage (Lalage) tricolor	White-winged Triller	5
Hirundinidae	Petrochelidon (Hylochelidon) nigricans	Tree Martin	5
Meliphagidae	Ptilotula fusca	Fuscous Honeyeater	5
Estrildidae	Stizoptera bichenovii	Double-barred Finch	5
Anatidae	Anas (Anas) superciliosa	Pacific Black Duck	4
Anatidae	Anas gracilis	Grey Teal	4
Artamidae	Artamus (Angroyan) minor minor	Western Little Woodswallow	4
Accipitridae	Aviceda (Aviceda) subcristata	Pacific Baza	4
Cuculidae	Chalcites osculans	Black-eared Cuckoo	4
Columbidae	Geopelia		4
Acanthizidae	Gerygone olivacea	White-throated Gerygone	4
Columbidae	Phaps (Phaps) chalcoptera	Common Bronzewing	4
Acanthizidae	Sericornis (Sericornis) frontalis	White-browed Scrubwren	4
Accipitridae	Accipiter (Paraspizias) cirrocephalus	Collared Sparrowhawk	3
Megapodiidae	Alectura lathami	Australian Brush-turkey	3
Psittacidae	Alisterus scapularis	Australian King-parrot	3
Motacillidae	Anthus (Anthus) novaeseelandiae novaeseelandiae		3
Artamidae	Artamus (Campbellornis) personatus	Masked Woodswallow	3
Cuculidae	Chalcites basalis	Horsfield's Bronze-cuckoo	3
Cuculidae	Chalcites lucidus	Shining Bronze-cuckoo	3
Locustellidae	Cincloramphus (Maclennania) mathewsi	Rufous Songlark	3

Accipitridae	Circus assimilis	Spotted Harrier	3
Corvidae	Corvus coronoides	Australian Raven	3
Neosittidae	Daphoenositta (Neositta) chrysoptera	Varied Sittella	3
Dicruridae	Dicrurus bracteatus	Spangled Drongo	3
Falconidae	Falco (Falco) longipennis	Australian Hobby	3
Meliphagidae	Melithreptus (Eidopsarus) brevirostris	Brown-headed Honeyeater	3
Psittacidae	Melopsittacus undulatus	Budgerigar	3
Alaudidae	Mirafra (Mirafra) javanica	Horsfield's Bushlark	3
Strigidae	Ninox (Ninox) boobook	Southern Boobook	3
Pardalotidae	Pardalotus (Pardalotus) punctatus	Spotted Pardalote	3
Psittacidae	Parvipsitta pusilla	Little Lorikeet	3
Meliphagidae	Plectorhyncha lanceolata	Striped Honeyeater	3
Rhipiduridae	Rhipidura (Rhipidura) albiscapa	Grey Fantail	3
Charadriidae	Vanellus (Lobipluvia) miles	Masked Lapwing	3
Zosteropidae	Zosterops lateralis	Silvereye	3
Ardeidae	Ardea alba	Great Egret	2
Artamidae	Artamus (Campbellornis) superciliosus	White-browed Woodswallow	2
Cacatuidae	Cacatua (Licmetis) sanguinea	Little Corella	2
Cuculidae	Cacomantis (Vidgenia) flabelliformis	Fan-tailed Cuckoo	2
Locustellidae	Cincloramphus (Cincloramphus) cruralis	Brown Songlark	2
Campephagidae	Coracina (Coracina) papuensis	White-bellied Cuckoo-shrike	2
Campephagidae	Coracina	Bebik	2
Corcoracidae	Corcorax melanorhamphos	White-winged Chough	2
Phasianidae	Coturnix ypsilophora		2
Dicaeidae	Dicaeum (Dicaeum) hirundinaceum	Mistletoebird	2
Cuculidae	Eudynamys orientalis	Eastern Koel	2
Columbidae	Geopelia cuneata	Diamond Dove	2
Columbidae	Geopelia placida	Peaceful Dove	2
Columbidae	Geophaps (Geophaps) scripta	Squatter Pigeon	2
Accipitridae	Hieraaetus (Hieraaetus) morphnoides	Little Eagle	2
Apodidae	Hirundapus caudacutus	White-throated Needletail	2
Columbidae	Leucosarcia melanoleuca	Wonga Pigeon	2
Maluridae	Malurus (Leggeornis) lamberti	Variegated Fairy-wren	2
Meliphagidae	Manorina (Myzantha) flavigula	Yellow-throated Miner	2
Petroicidae	Melanodryas (Melanodryas) cucullata	Hooded Robin	2
Meliphagidae	Nesoptilotis leucotis	White-eared Honeyeater	2
	PASSERIFORMES	Yellowhammer	2
Petroicidae	Petroica (Petroica) goodenovii	Red-capped Robin	2
Phalacrocoracidae	Phalacrocorax (Phalacrocorax) sulcirostris	Little Black Cormorant	2
Podargidae	Podargus strigoides	Tawny Frogmouth	2
Acanthizidae	Pyrrholaemus sagittatus	Speckled Warbler	2
Podicipedidae	Tachybaptus novaehollandiae	Australasian Grebe	2
Estrildidae	Taeniopygia guttata	Zebra Finch	2
Alcedinidae	Todiramphus (Lazulena) macleayii	Forest Kingfisher	2
Alcedinidae	Todiramphus (Todiramphus) sanctus	Sacred Kingfisher	2
Tytonidae	Tyto javanica	Eastern Barn Owl	2
Cacatuidae	Zanda funerea	Yellow-tailed Black-cockatoo	2
	AVES	Birds	1
Acanthizidae	Acanthiza (Geobasileus) chrysorrhoa	Yellow-rumped Thornbill	1
Estrildidae	Aidemosyne modesta	Plum-headed Finch	1
Anhingidae	Anhinga novaehollandiae	Australasian Darter	1
Motacillidae	Anthus (Anthus) novaeseelandiae	Australian Pipit	1
Apodidae	Apus (Apus) pacificus	Fork-tailed Swift	1
Artamidae	Artamus (Angroyan) minor	Little Woodswallow	1
Anatidae	Aythya (Nyroca) australis	Hardhead	1
Burhinidae	Burhinus (Burhinus) grallarius	Bush Stone-curlew	1

Cacatuidae	Calyptorhynchus (Calyptorhynchus) banksii	Red-tailed Black Cockatoo	1
Cuculidae	Chalcites minutillus barnardi	Eastern Little Bronze-cuckoo	1
Cisticolidae	Cisticola (Cisticola) exilis	Golden-headed Cisticola	1
Climacteridae	Climacteris (Climacteris) picumnus	Brown Treecreeper	1
Climacteridae	Cormobates leucophaea	White-throated Treecreeper	1
Corvidae	Corvus		1
Anatidae	Dendrocygna eytoni	Plumed Whistling-duck	1
Charadriidae	Elseyornis melanops	Black-fronted Dotterel	1
Falconidae	Falco (Ieracidea) berigora berigora	Eastern Brown Falcon	1
Psittacidae	Glossopsitta concinna	Musk Lorikeet	1
Accipitridae	Haliastur sphenurus	Whistling Kite	1
Campephagidae	Lalage (Karua) leucomela	Varied Triller	1
Estrildidae	Lonchura (Munia) castaneothorax	Chestnut-breasted Munia	1
Petroicidae	Melanodryas (Melanodryas) cucullata cucullata	South-eastern Hooded Robin	1
Strigidae	Ninox (Ninox) novaeseelandiae	Southern Boobook	1
Scolopacidae	Numenius (Phaeopus) phaeopus	Whimbrel	1
Ardeidae	Nycticorax caledonicus	Nankeen Night-heron	1
Oreoicidae	Oreoica gutturalis	Crested Bellbird	1
Pachycephalidae	Pachycephala (Pachycephala) pectoralis	Golden Whistler	1
Pelecanidae	Pelecanus conspicillatus	Australian Pelican	1
Meliphagidae	Ptilotula penicillata	White-plumed Honeyeater	1
Rhipiduridae	Rhipidura (Howeavis) rufifrons	Rufous Fantail	1
Oriolidae	Sphecotheres vieilloti	Australasian Figbird	1
Phasianidae	Synoicus ypsilophora	Brown Quail	1
Turnicidae	Turnix		1
Charadriidae	Vanellus (Lobipluvia) miles novaehollandiae	Southern Masked Lapwing	1
Charadriidae	Vanellus (Lobivanellus) tricolor	Banded Lapwing	1

Lifeform - Bryophytes

Number of Bryophytes **0**

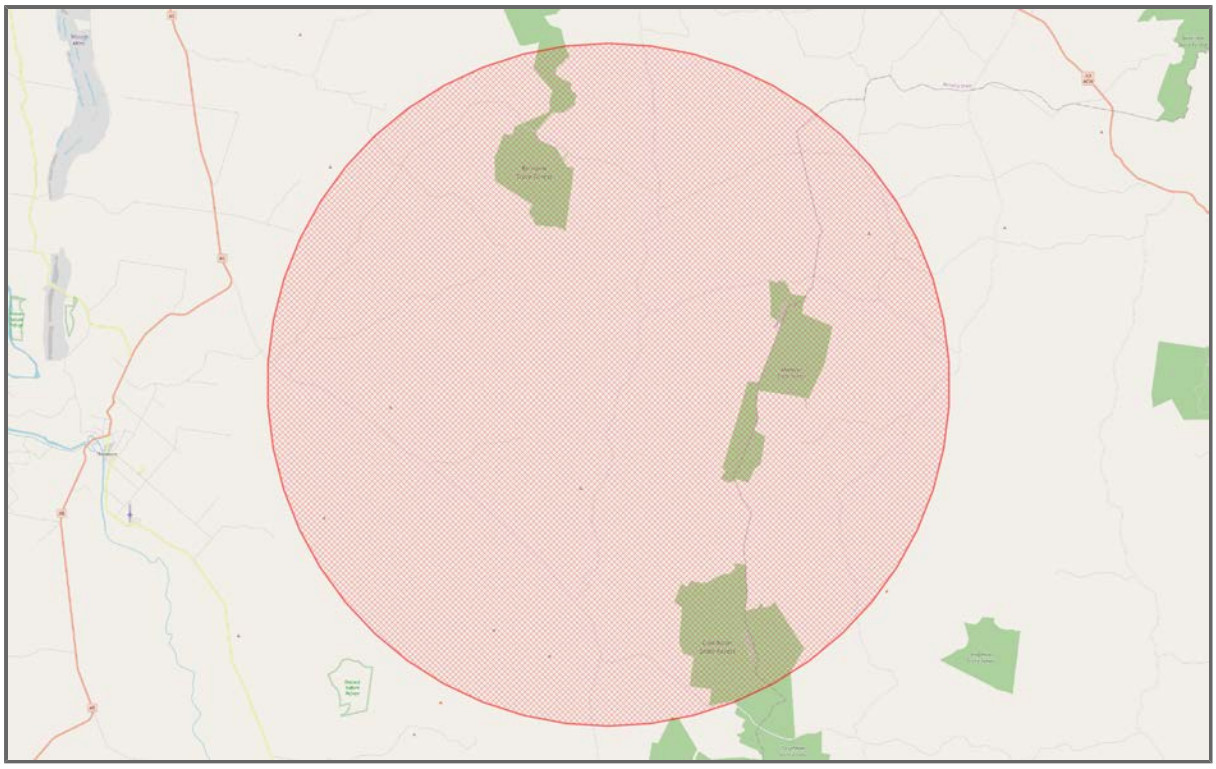

Figure 13 : Map of Lifeform - Bryophytes

Table 12: Lifeform - Bryophytes (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Chromista

Number of Chromista **0**

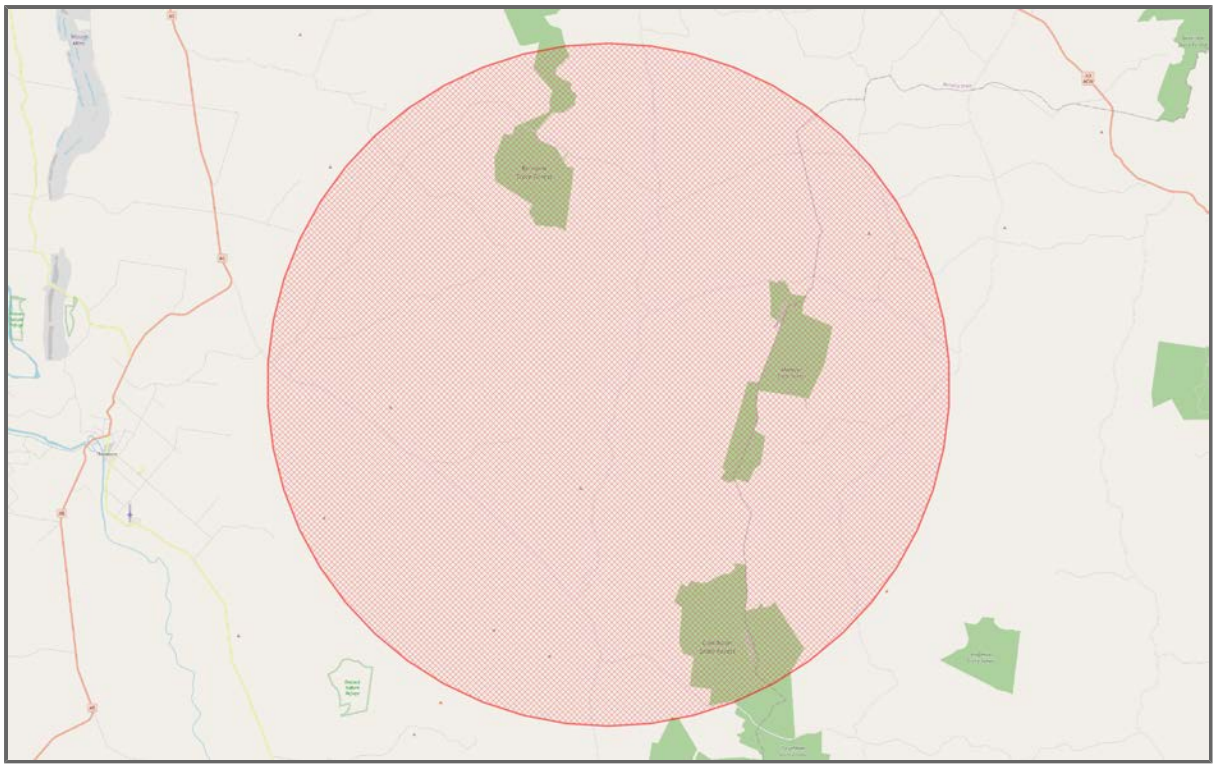

Figure 14 : Map of Lifeform - Chromista

Table 13: Lifeform - Chromista (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Crustaceans

Number of Crustaceans **0**

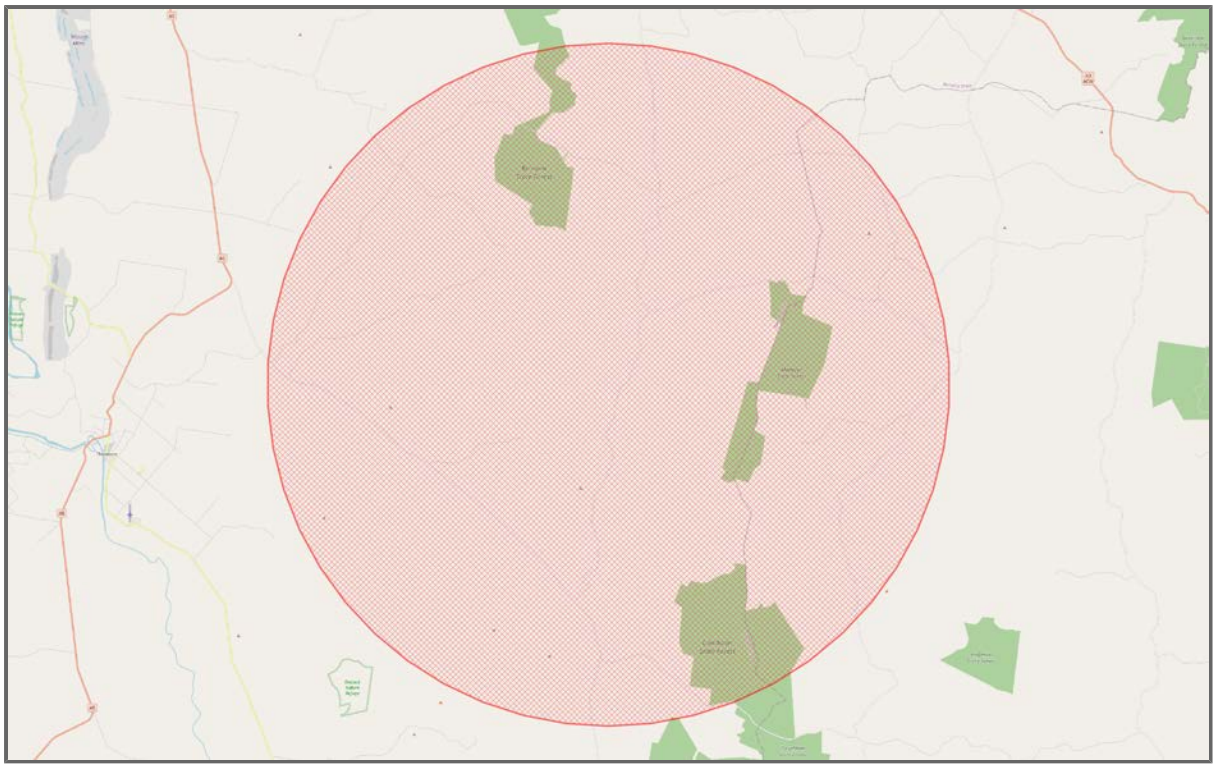

Figure 15 : Map of Lifeform - Crustaceans

Table 14: Lifeform - Crustaceans (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Dicots

Number of Dicots **230**

Figure 16 : Map of Lifeform - Dicots

Table 15: Lifeform - Dicots (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Myrtaceae	Eucalyptus crebra	Yellow-branched Ironbark	9
Pittosporaceae	Pittosporum angustifolium	Native Willow	7
Euphorbiaceae	Bertya pedicellata		6
Myrtaceae	Corymbia citriodora	Lemon-scented Gum	6
Solanaceae	Solanum furfuraceum	Corky Nightshade	6
Fabaceae	Vachellia bidwillii		5
Fabaceae	Acacia conferta	Crowded-leaved Wattle	4
Fabaceae	Acacia sparsiflora	Currawang	4
Ebenaceae	Diospyros humilis	Ebony	4
Cactaceae	Opuntia tomentosa	Velvet Pear	4
Campanulaceae	Wahlenbergia queenslandica	Bluebell	4
Fabaceae	Acacia bancroftiorum		3
Casuarinaceae	Allocasuarina littoralis	Black Sheoak	3
Rhamnaceae	Alphitonia excelsa	Red Ash	3
Goodeniaceae	Goodenia grandiflora	Mountain Primrose	3
Fabaceae	Hovea longipes	Brush Hovea	3
Solanaceae	Solanum mitchellianum		3
Malvaceae	Abutilon auritum	Chinese Lantern	2
Fabaceae	Acacia leiocalyx	Black Wattle	2
Rutaceae	Acronychia pauciflora	Soft Acronychia	2
Sapindaceae	Alectryon diversifolius	Scrub Boonaree	2
Aristolochiaceae	Aristolochia elegans	Calico-flower	2
Acanthaceae	Brunoniella australis	Blue Trumpet	2
Asteraceae	Calotis dentex	White Burr Daisy	2
Asteraceae	Camptacra barbata		2

Fabaceae	Cassia brewsteri	Bean Tree	2
Fabaceae	Cassia tomentella	Velvet Cassia	2
Rutaceae	Coatesia paniculata	Axe-breaker	2
Asteraceae	Cotula australis	Common Cotula	2
Rubiaceae	Cyclophyllum coprosmoides var. coprosmoides		2
Celastraceae	Denhamia pittosporoides	Orange Boxwood	2
Fabaceae	Desmodium rhytidophyllum	Desmodium	2
Sapindaceae	Elattostachys xylocarpa	White Tamarind	2
Scrophulariaceae	Eremophila deserti	Turkey-bush	2
Scrophulariaceae	Eremophila mitchellii	Budda	2
Myrtaceae	Eucalyptus bakeri	Baker's Mallee	2
Myrtaceae	Eucalyptus crebra x Eucalyptus melanophloia		2
Myrtaceae	Eucalyptus decorticans	Gum Top Ironbark	2
Euphorbiaceae	Euphorbia tannensis subsp. eremophila	Bottle Tree Caustic	2
Rubiaceae	Everistia vacciniifolia	Small-leaved Canthium	2
Euphorbiaceae	Excoecaria dallachyana	Scrub Poison Tree	2
Rutaceae	Geijera parviflora	Wilga	2
Myrtaceae	Gossia bidwillii	Python Tree	2
Proteaceae	Grevillea longistyla	Long-style Grevillea	2
Fabaceae	Indigofera colutea	Sticky Indigo	2
Fabaceae	Jacksonia scoparia	Dogwood	2
Apocynaceae	Leichhardtia viridiflora	Green Berry Creeper	2
Asteraceae	Leiocarpa websteri	Narrow Plover-daisy	2
Brassicaceae	Lepidium didymum	Lesser Swine's-cress	2
Linderniaceae	Lindernia hyssopoides		2
Ericaceae	Melichrus sp. Isla Gorge (P.Sharpe+ 601)		2
Oleaceae	Notelaea microcarpa	Native Olive	2
Asteraceae	Olearia canescens subsp. discolor		2
Cactaceae	Opuntia streptacantha	Cardona Pear	2
Meliaceae	Owenia venosa	Crow's Apple	2
Passifloraceae	Passiflora aurantia	Norfolk Island Passionfruit	2
Acanthaceae	Pseuderanthemum variabile	Pastel Flower	2
Fabaceae	Pultenaea bracteamajor		2
Acanthaceae	Rostellularia adscendens	Purple Pipe-cleaner	2
Asteraceae	Rutidosis murchisonii		2
Santalaceae	Santalum lanceolatum	Northern Sandalwood	2
Fabaceae	Senna artemisioides subsp. zygophylla	Narrow-leaf Desert Cassia	2
Fabaceae	Senna coronilloides		2
Malvaceae	Seringia corollata	Keraudrenia	2
Malvaceae	Sida hackettiana	Spiked Sida	2
Brassicaceae	Sisymbrium erysimoides	Smooth Mustard	2
Solanaceae	Solanum aviculare	Kangaroo Apple	2
Solanaceae	Solanum jucundum		2
Solanaceae	Solanum nemophilum		2
Solanaceae	Solanum seaforthianum	Brazilian Nightshade	2
Celastraceae	Stackhousia muricata	Stackhousia	2
Fabaceae	Swainsona queenslandica	Smooth Darling Pea	2
Asteraceae	Tagetes minuta	Stinking Roger	2
Meliaceae	Turraea pubescens	Native Honeysuckle	2
Asteraceae	Vittadinia bicolor		2
Asteraceae	Vittadinia hispidula var. setosa		2
Fabaceae	Zornia pallida		2
Malvaceae	Abutilon calliphyllum	Velvet Lanternflower	1
Malvaceae	Abutilon oxycarpum var. incanum		1
Malvaceae	Abutilon oxycarpum var. oxycarpum		1
Malvaceae	Abutilon tubulosum		1

Fabaceae	Acacia amblygona	Fan Wattle	1
Fabaceae	Acacia angusta		1
Fabaceae	Acacia crassa	Curracabah	1
Fabaceae	Acacia fasciculifera	Scaly Bark	1
Fabaceae	Acacia glaucocarpa	Hickory Wattle	1
Fabaceae	Acacia leiocalyx subsp. leiocalyx	Curracabah	1
Fabaceae	Acacia penninervis	Mountain Hickory	1
Fabaceae	Acacia podalyriifolia	Mount Morgan Wattle	1
Fabaceae	Acacia rhodoxylon	Ringy Rosewood	1
Fabaceae	Aeschynomene brevifolia		1
Violaceae	Afrohybanthus stellarioides		1
Lamiaceae	Ajuga australis	Austral Bugle	1
Apocynaceae	Alstonia constricta	Quinine Bush	1
Amaranthaceae	Amaranthus viridis	Green Amaranth	1
Vitaceae	Ampelocissus gardineri		1
Loranthaceae	Amyema congener subsp. rotundifolia		1
Papaveraceae	Argemone ochroleuca subsp. ochroleuca	Prickly Poppy	1
Sapindaceae	Atalaya hemiglauca	Whitewood	1
Sapindaceae	Atalaya salicifolia	Atalaya	1
Myrtaceae	Backhousia angustifolia	Narrow Leaf Myrtle	1
Asteraceae	Calotis cuneata	Mountain Burr-daisy	1
Capparaceae	Capparis anomala	Warrior Bush	1
Capparaceae	Capparis arborea	Native Pomegranate	1
Capparaceae	Capparis canescens	Wild Orange	1
Capparaceae	Capparis lasiantha	Nepine	1
Capparaceae	Capparis mitchellii	Native Orange	1
Capparaceae	Capparis sarmentosa	Scrambling Caper	1
Apocynaceae	Carissa ovata	Conkerberry	1
Asteraceae	Cassinia laevis	Cough Bush	1
Lauraceae	Cassytha paniculata	Ribbed Dodder Laurel	1
Casuarinaceae	Casuarina cristata	Belah	1
Asteraceae	Centipeda minima subsp. minima	Spreading Sneezeweed	1
Asteraceae	Cirsium vulgare	Spear Thistle	1
Vitaceae	Clematicissus opaca	Pepper Vine	1
Gyrostemonaceae	Codonocarpus attenuatus	Bell-fruit Tree	1
Myrtaceae	Corymbia trachyphloia	White Bloodwood	1
Sapindaceae	Cossinia australiana	Cossinia	1
Fabaceae	Crotalaria medicaginea var. neglecta	Trefoil Rattlepod	1
Euphorbiaceae	Croton insularis	Silver Queensland Cascarilla	1
Cucurbitaceae	Cucumis anguria var. anguria	West Indian Gherkin	1
Asteraceae	Cyanthillium cinereum	Ironweed	1
Fabaceae	Daviesia filipes subsp. filipes		1
Amaranthaceae	Deeringia amaranthoides	Redberry	1
Celastraceae	Denhamia cunninghamii	Narrow-leaf Maytenus	1
Celastraceae	Denhamia pittosporoides subsp. pittosporoides	Veiny Denhamia	1
Fabaceae	Desmodium varians	Slender Tick-trefoil	1
Cucurbitaceae	Diplocyclos palmatus subsp. affinis	Native Cucumber	1
Cucurbitaceae	Diplocyclos palmatus subsp. palmatus		1
Sapindaceae	Dodonaea triangularis	Hopbush	1
Bignoniaceae	Dolichandra unguis-cati	Cat's Claw Creeper	1
Droseraceae	Drosera lunata		1
Chenopodiaceae	Dysphania pumilio	Small Crumbweed	1
Boraginaceae	Ehretia saligna var. membranifolia	Peach Bush	1
Celastraceae	Elaeodendron australe var. integrifolium		1
Celastraceae	Elaeodendron australe	White Cedar	1
Fabaceae	Erythrina vespertilio subsp. vespertilio		1

Fabaceae	Erythrostemon gilliesii	Bird-of-paradise Flower	1
Myrtaceae	Eucalyptus coolabah	Coolabah	1
Myrtaceae	Eucalyptus exserta	Queensland Peppermint	1
Myrtaceae	Eucalyptus moluccana	Gum-topped Box	1
Myrtaceae	Eucalyptus tereticornis	Forest Red Gum	1
Myrtaceae	Eucalyptus	Studley Park Gum	1
Euphorbiaceae	Euphorbia hirta	Asthma Plant	1
Euphorbiaceae	Euphorbia papillifolia var. papillifolia		1
Rubiaceae	Everistia vacciniifolia var. vacciniifolia		1
Rutaceae	Flindersia collina	Broad-leaved Leopard Tree	1
Fabaceae	Galactia tenuiflora var. lucida		1
Geraniaceae	Geranium solanderi var. solanderi	Austral Crane's-bill	1
Geraniaceae	Geranium solanderi	Austral Geranium	1
Verbenaceae	Glandularia aristigera	Mayne's Pest	1
Fabaceae	Glycine	Twining Glycine	1
Goodeniaceae	Goodenia glabra	Smooth Goodenia	1
Goodeniaceae	Goodenia rotundifolia		1
Malvaceae	Grewia latifolia	Dysentery Plant	1
Haloragaceae	Haloragis glauca	Grey Raspwort	1
Haloragaceae	Haloragis stricta		1
Fabaceae	Hardenbergia violacea	Native Lilac	1
Dilleniaceae	Hibbertia stricta	Upright Guinea-flower	1
Dilleniaceae	Hibbertia	Guinea Flowers	1
Araliaceae	Hydrocotyle acutiloba	Broad-leaf Pennywort	1
Fabaceae	Indigofera linifolia	Flax-leaf Indigo	1
Fabaceae	Indigofera linnaei	Birdsville Indigo	1
Oleaceae	Jasminum didymum subsp. racemosum	Native Jasmine	1
Verbenaceae	Lantana montevidensis	Creeping Lantana	1
Apocynaceae	Leichhardtia viridiflora subsp. viridiflora	Native Pear	1
Brassicaceae	Lepidium bonariense	Peppercress	1
Asteraceae	Leuzea australis	Austral Cornflower	1
Myrtaceae	Lophostemon suaveolens	Swamp Box	1
Onagraceae	Ludwigia octovalvis	Willow Primrose	1
Moraceae	Maclura pomifera	Osage-orange	1
Fabaceae	Medicago polymorpha	Spineless Burr Medic	1
Primulaceae	Myrsine variabilis	Rapanea	1
Myrtaceae	Myrtaceae	Myrtle Family	1
Solanaceae	Nicotiana forsteri		1
Solanaceae	Nicotiana megalosiphon	Wild Tobacco	1
Amaranthaceae	Nyssanthes diffusa	Barbed-wire Weed	1
Asteraceae	Olearia canescens	Daisy Bush	1
Meliaceae	Owenia x reliqua	Bellata Owenia	1
Oxalidaceae	Oxalis perennans	Native Sorrel	1
Asteraceae	Ozothamnus cassinioides	Everlasting	1
Bignoniaceae	Pandorea pandorana	Wonga Vine	1
Apocynaceae	Parsonsia eucalyptophylla	Gargaloo	1
Passifloraceae	Passiflora aurantia var. aurantia	Blunt-leaved Passionfruit	1
Phyllanthaceae	Phyllanthus maderaspatensis	Spurge	1
Phyllanthaceae	Phyllanthus virgatus	Phyllanthus	1
Phytolaccaceae	Phytolacca octandra	Red-ink Weed	1
Thymelaeaceae	Pimelea glauca	Smooth Riceflower	1
Sapotaceae	Planchonella cotinifolia	Yellow Lemon	1
Plantaginaceae	Plantago debilis	Shade Plantain	1
Caryophyllaceae	Polycarpaea corymbosa var. minor		1
Phyllanthaceae	Poranthera microphylla	Small Poranthera	1
Rubiaceae	Psydrax longipes		1

Rubiaceae	Psydrax odorata f. buxifolia		1
Rubiaceae	Psydrax odorata	Psydrax	1
Fabaceae	Pultenaea millarii var. angustifolia		1
Asteraceae	Rhodanthe polyphylla		1
Fabaceae	Rhynchosia minima	Rhynchosia	1
Lamiaceae	Salvia reflexa	Mintweed	1
Chenopodiaceae	Sclerolaena birchii	Galvinised Burr	1
Chenopodiaceae	Sclerolaena muricata var. muricata	Sclerolaena	1
Apocynaceae	Secamone elliptica	Secamone	1
Asteraceae	Senecio bathurstianus	Dissected Fireweed	1
Asteraceae	Senecio brigalowensis		1
Fabaceae	Senna occidentalis	Western Senna	1
Malvaceae	Sida corrugata	Variable Sida (peltate-hairy)	1
Asteraceae	Sigesbeckia orientalis	Indian Weed	1
Brassicaceae	Sisymbrium thellungii	African Turnip-weed	1
Solanaceae	Solanaceae	Tomato	1
Solanaceae	Solanum ellipticum	Potato Bush	1
Solanaceae	Solanum parvifolium	Nightshade	1
Fabaceae	Spartium junceum	Spanish Broom	1
Rubiaceae	Spermacoce brachystema	Spermacoce	1
Rubiaceae	Spermacoce multicaulis		1
Stylidiaceae	Stylidium eglandulosum	Woolly-stemmed Triggerplant	1
Fabaceae	Tephrosia filipes subsp. filipes		1
Lamiaceae	Teucrium junceum		1
Urticaceae	Urtica incisa	Scrub Nettle	1
Verbenaceae	Verbena africana	Inland Verbena	1
Asteraceae	Verbesina encelioides subsp. encelioides	Crownbeard	1
Asteraceae	Vittadinia dissecta var. hirta	Dissected New Holland Daisy	1
Asteraceae	Vittadinia hispidula var. hispidula		1
Asteraceae	Vittadinia hispidula		1
Asteraceae	Vittadinia sulcata	Furrowed New Holland Daisy	1
Asteraceae	Xanthium spinosum	Bathurst Burr	1
Rutaceae	Zanthoxylum brachyacanthum	Thorny Yellowwood	1
Rutaceae	Zieria cytisoides	Downy Zieria	1
Rutaceae	Zieria smithii	Sandfly Zieria	1
Fabaceae	Zornia muriculata subsp. muriculata		1
Fabaceae	Zornia muriculata	Upright Zornia	1

Lifeform - FernsAndAllies

Number of FernsAndAllies **0**

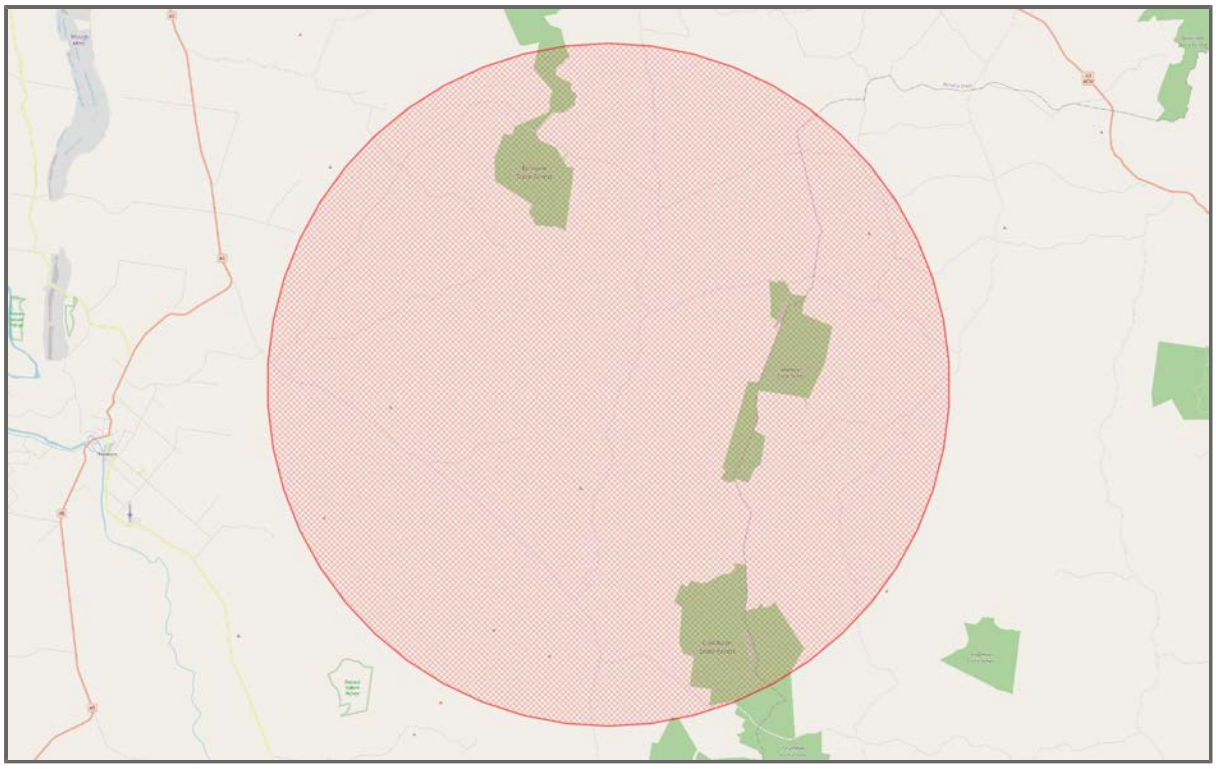

Figure 17 : Map of Lifeform - FernsAndAllies

Table 16: Lifeform - FernsAndAllies (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Fishes

Number of Fishes **0**

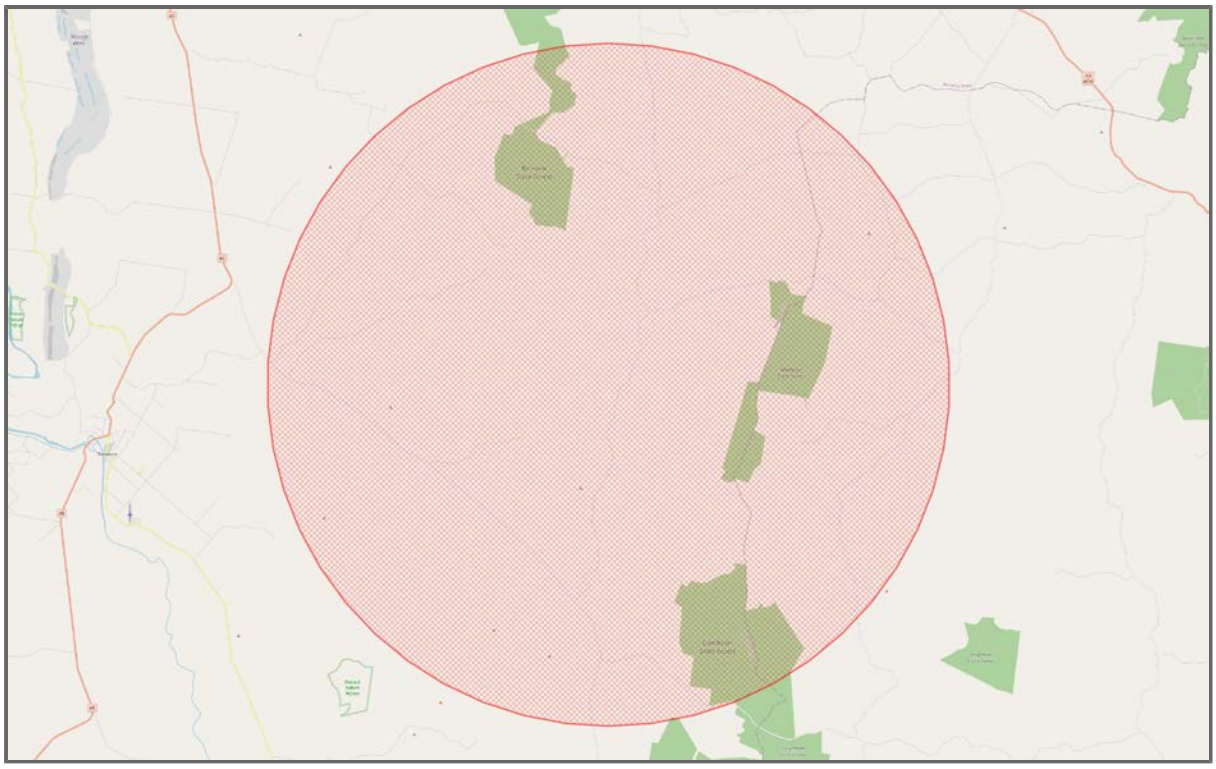

Figure 18 : Map of Lifeform - Fishes

Table 17: Lifeform - Fishes (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Fungi

Number of Fungi **1**

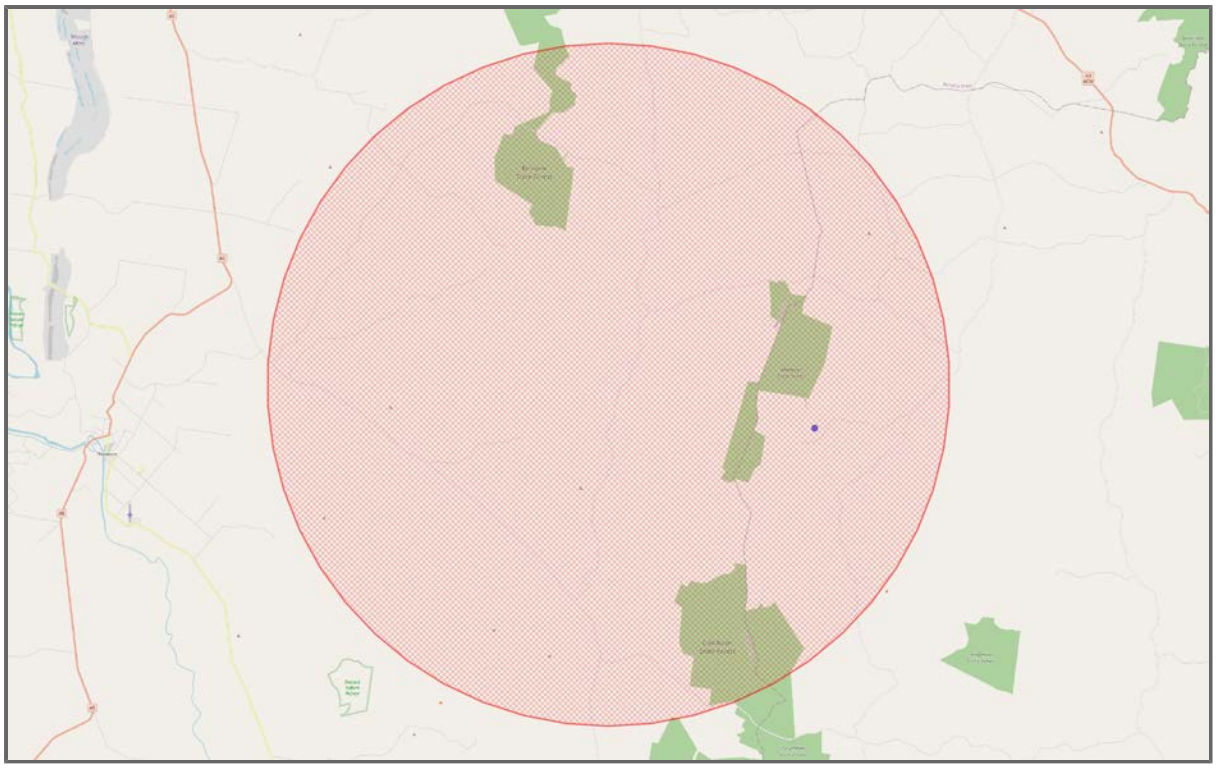

Figure 19 : Map of Lifeform - Fungi

Table 18: Lifeform - Fungi (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Nectriaceae	Fusarium oxysporum f.sp. vasinfectum		1

Lifeform - Gymnosperms

Number of Gymnosperms **0**

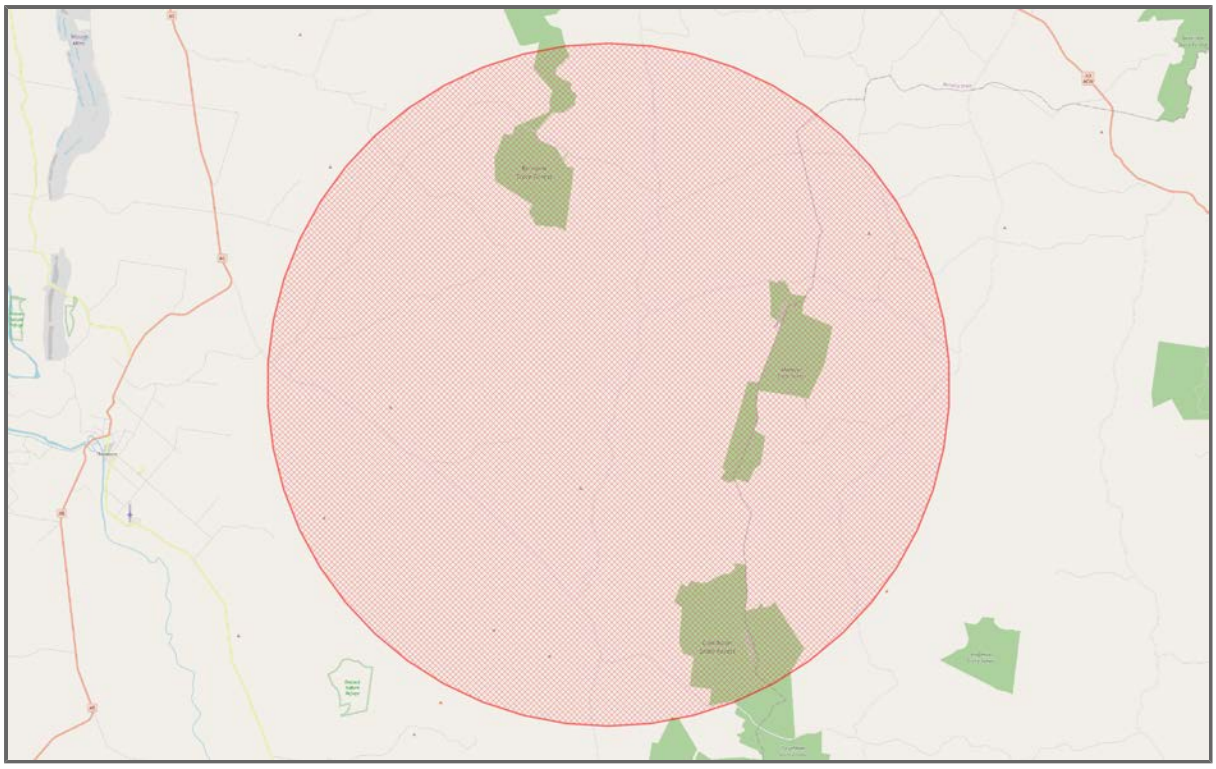

Figure 20 : Map of Lifeform - Gymnosperms

Table 19: Lifeform - Gymnosperms (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Insects

Number of Insects **9**

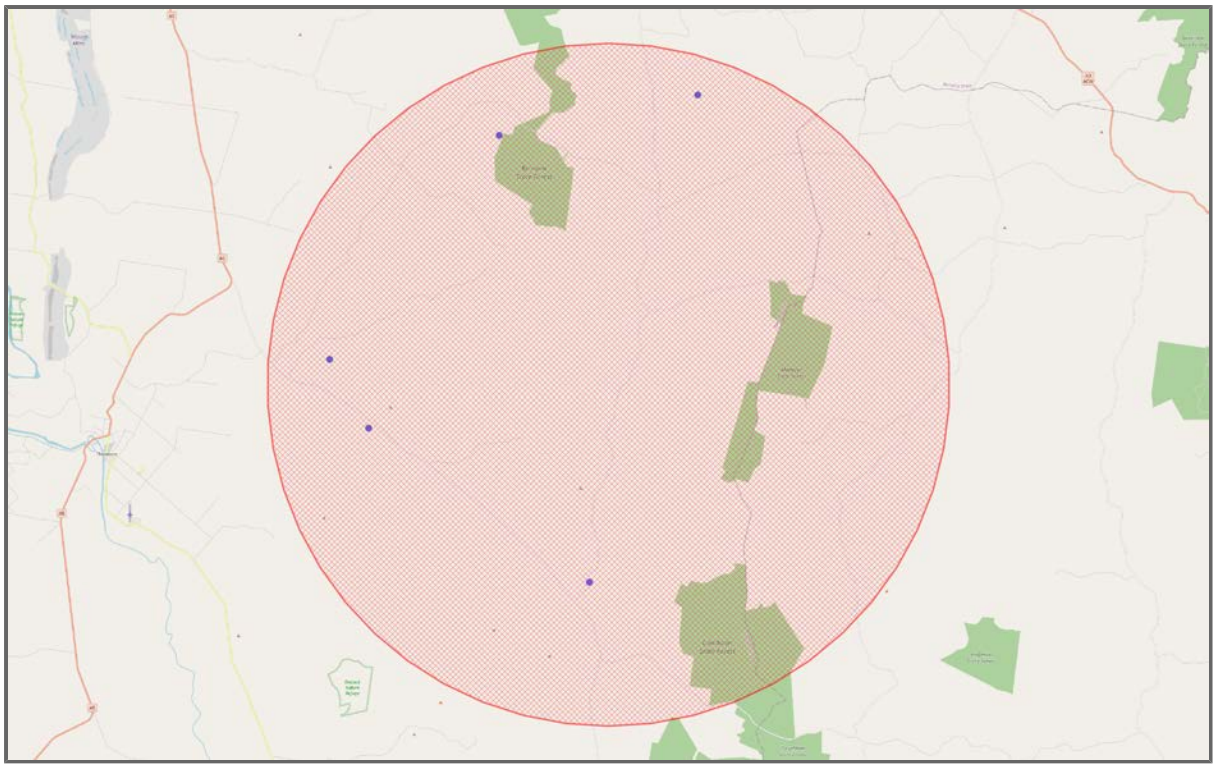

Figure 21 : Map of Lifeform - Insects

Table 20: Lifeform - Insects (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Culicidae	Aedes (Rampamyia) notoscriptus		2
Culicidae	Anopheles (Cellia) annulipes	Spear Mosquito	1
Argiolestidae	Austroargiolestes icteromelas	Pale-mouth Common Flatwing	1
Libellulidae	Diplacodes bipunctata	Wandering Percher	1
Formicidae	Iridomyrmex pallidus		1
Curculionidae	Myllocerus		1
Libellulidae	Orthetrum villosovittatum	Fiery Skimmer	1
Carabidae	Philoscaphus mastersii		1
Carabidae	Pterostichini		1

Lifeform - Mammals

Number of Mammals **33**

Figure 22 : Map of Lifeform - Mammals

Table 21: Lifeform - Mammals (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Vespertilionidae	Scotorepens		8
Molossidae	MOLOSSIDAE		6
Muridae	Mus musculus	House Mouse	6
Vespertilionidae	Nyctophilus gouldi	Gould's Long-eared Bat	6
Vespertilionidae	Chalinolobus picatus	Little Pied Bat	5
Petauridae	Petaurus norfolcensis	Squirrel Glider	5
Vespertilionidae	Nyctophilus geoffroyi	Lesser Long-eared Bat	4
Molossidae	Ozimops ridei	Ride's Free-tailed Bat	4
Tachyglossidae	Tachyglossus aculeatus	Short-beaked Echidna	4
Vespertilionidae	Chalinolobus gouldii	Gould's Wattled Bat	3
Macropodidae	Notamacropus parryi	Whiptail Wallaby	3
Leporidae	Oryctolagus cuniculus	Rabbit	3
Pseudocheiridae	Petauroides minor	Northern Greater Glider	3
Petauridae	Petaurus notatus	Krefft's Glider	3
Canidae	Canis familiaris	Common Dog	2
Macropodidae	Macropus giganteus	Eastern Grey Kangaroo	2
Macropodidae	Notamacropus rufogriseus	Red-necked Wallaby	2
Petauridae	Petaurus australis	Yellow-bellied Glider	2
Phascolarctidae	Phascolarctos cinereus	Koala	2
Dasyuridae	Planigale maculata	Common Planigale	2
Muridae	Pseudomys patrius	Eastern Pebble-mound Mouse	2
Vespertilionidae	Scotorepens greyii	Little Broad-nosed Bat	2
Vespertilionidae	Vespadelus troughtoni	Eastern Cave Bat	2
Vespertilionidae	Vespadelus		2
Potoroidae	Aepyprymnus rufescens	Rufous Bettong	1

Vespertilionidae	Chalinolobus morio	Chocolate Wattled Bat	1
Dasyuridae	Dasyurus hallucatus	Digul	1
Macropodidae	Notamacropus dorsalis	Black-striped Wallaby	1
Vespertilionidae	Nyctophilus bifax	Eastern Long-eared Bat	1
Pseudocheiridae	Petauroides volans	Southern Greater Glider	1
Macropodidae	Petrogale herberti	Herbert's Rock-wallaby	1
Dasyuridae	Planigale maculata maculata		1
Muridae	Pseudomys		1

Lifeform - Molluscs

Number of Molluscs **5**

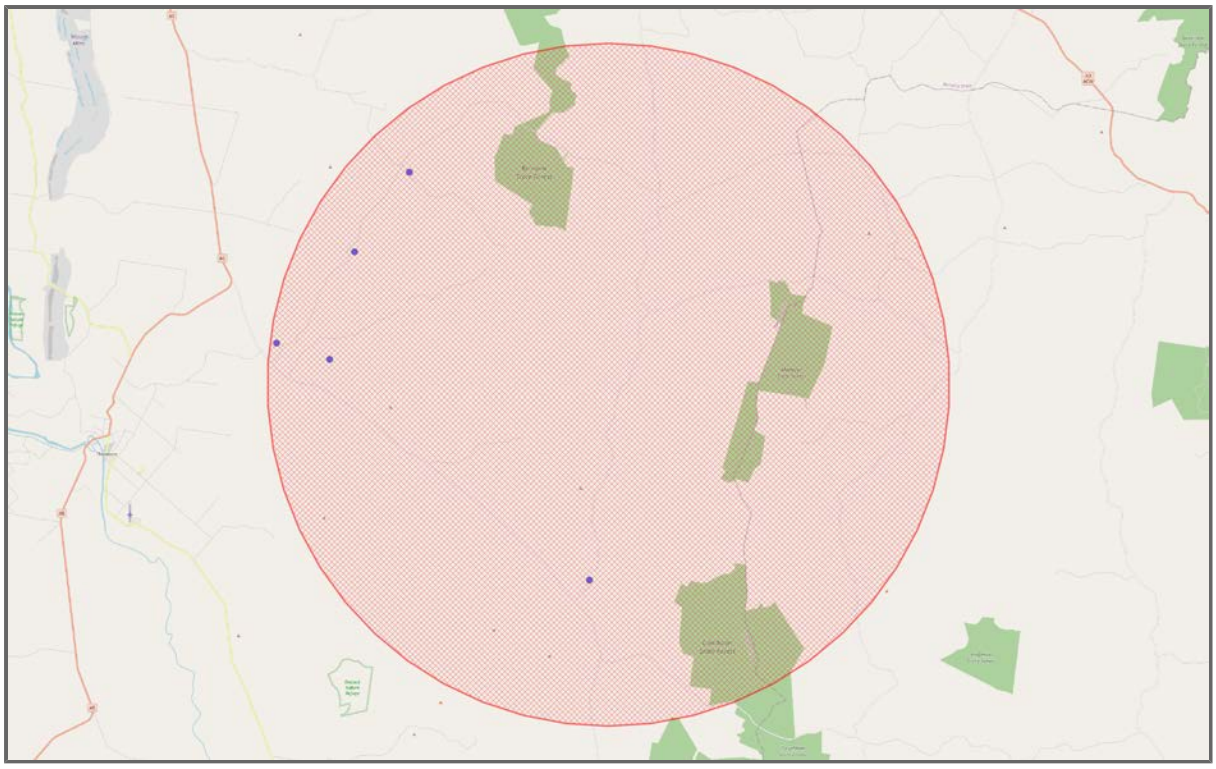

Figure 23 : Map of Lifeform - Molluscs

Table 22: Lifeform - Molluscs (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Camaenidae	CAMAENIDAE		5
Camaenidae	Xanthomelon pachystylum		3
Planorbidae	Glyptophysa		1
Camaenidae	Neveritis misella	Mid-eastern Velvet Snail	1
Helicarionidae	Tarocystis megaspira	Amber Dome Glass-snail	1

Lifeform - Monocots

Number of Monocots **64**

Figure 24 : Map of Lifeform - Monocots

Table 23: Lifeform - Monocots (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Poaceae	Poaceae	Grasses	7
Poaceae	Enneapogon gracilis	Slender Nineawn	3
Poaceae	Enneapogon lindleyanus	Purple-head Nine-awn	3
Poaceae	Panicum effusum	Hairy Panic	3
Cyperaceae	Schoenus kennyi		3
Poaceae	Aristida calycina var. calycina	Dark Wire-grass	2
Poaceae	Arundinella nepalensis	Reedgrass	2
Cyperaceae	Bolboschoenus caldwellii	Salt Club-sedge	2
Poaceae	Cleistochloa subjuncea		2
Cyperaceae	Cyperus gracilis	Slender Flat-sedge	2
Hemerocallidaceae	Dianella brevipedunculata		2
Hemerocallidaceae	Dianella longifolia	Blueberry Lily	2
Poaceae	Eragrostis megalosperma	A Love Grass	2
Poaceae	Eriochloa pseudoacrotricha	Early Spring Grass	2
Asparagaceae	Eustrephus latifolius	Wombat Berry	2
Asparagaceae	Lomandra confertifolia subsp. pallida	Matrush	2
Poaceae	Panicum mitchellii	Mitchell's Panick Grass	2
Poaceae	Paspalidium gracile	Paspalidium	2
Araceae	Pistia stratiotes	Water Lettuce	2
Cyperaceae	Scleria sphacelata	Scleria	2
Poaceae	Sporobolus creber	Western Rat-tail Grass	2
Poaceae	Ancistrachne uncinulata	Hooked-hairy Panic Grass	1
Poaceae	Aristida gracilipes	Three-awn Speargrass	1
Poaceae	Bothriochloa decipiens	Bothriochloa	1
Cyperaceae	Carex inversa	Dwarf Sedge	1

Cyperaceae	Caustis flexuosa	Slender Twist-rush	1
Poaceae	Chloris truncata	Windmill Grass	1
Poaceae	Chloris ventricosa	Tall Windmill Grass	1
Commelinaceae	Commelina cyanea	Scurvy Weed	1
Orchidaceae	Cymbidium canaliculatum	Tiger Orchid	1
Cyperaceae	Cyperus concinnus	Trim Flat-sedge	1
Cyperaceae	Cyperus exaltatus	Tall Flat-sedge	1
Cyperaceae	Cyperus fulvus	Sticky Sedge	1
Poaceae	Dichanthium sericeum subsp. humilius	Dwarf Bluegrass	1
Poaceae	Dichanthium sericeum subsp. sericeum	Silky Blue-grass	1
Dioscoreaceae	Dioscorea transversa	Native Yam	1
Poaceae	Enneapogon nigricans	Black-head Grass	1
Poaceae	Enneapogon truncatus	Bottlewashers	1
Poaceae	Enteropogon unispiceus		1
Poaceae	Eragrostis alveiformis	Granite Love-grass	1
Poaceae	Eragrostis sororia	Lovegrass	1
Poaceae	Eragrostis spartinoides	Lovegrass	1
Cyperaceae	Fimbristylis dichotoma	Fringe-rush	1
Cyperaceae	Gahnia aspera	Rough Saw-sedge	1
Poaceae	Heteropogon contortus	Black Speargrass	1
Hypoxidaceae	Hypoxis pratensis	Golden Weather-grass	1
Asparagaceae	Laxmannia gracilis	Slender Wire Lily	1
Poaceae	Leptochloa digitata	Umbrella Cane-grass	1
Arecaceae	Livistona nitida	Carnavon Gorge Cabbage Palm	1
Asparagaceae	Lomandra multiflora subsp. multiflora	Lomandra	1
Poaceae	Melinis repens	Red Natal-grass	1
Hydrocharitaceae	Ottelia ovalifolia subsp. ovalifolia	Swamp Lily	1
Poaceae	Panicum larcomianum		1
Poaceae	Paspalidium caespitosum	Brigalow Grass	1
Poaceae	Paspalidium jubiflorum	Warrego Grass	1
Poaceae	Themeda triandra	Kangaroo Grass	1
Poaceae	Thyridolepis xerophila	Thyridolepis	1
Poaceae	Tragus australianus	Tickgrass	1
Hemerocallidaceae	Tricoryne elatior	Yellow Rush Lily	1
Poaceae	Urochloa foliosa	Leafy Panic	1
Poaceae	Urochloa gilesii	Hairy-edged Armgrass	1
Poaceae	Urochloa panicoides var. panicoides		1
Poaceae	Urochloa subquadripara	Armgrass Millet	1
Xanthorrhoeaceae	Xanthorrhoea	Grasstree	1

Lifeform - Plants

Number of Plants **296**

Figure 25 : Map of Lifeform - Plants

Table 24: Lifeform - Plants (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Myrtaceae	Eucalyptus crebra	Yellow-branched Ironbark	9
Pittosporaceae	Pittosporum angustifolium	Native Willow	7
Poaceae	Poaceae	Grasses	7
Euphorbiaceae	Bertya pedicellata		6
Myrtaceae	Corymbia citriodora	Lemon-scented Gum	6
Solanaceae	Solanum furfuraceum	Corky Nightshade	6
Fabaceae	Vachellia bidwillii		5
Fabaceae	Acacia conferta	Crowded-leaved Wattle	4
Fabaceae	Acacia sparsiflora	Currawang	4
Ebenaceae	Diospyros humilis	Ebony	4
Cactaceae	Opuntia tomentosa	Velvet Pear	4
Campanulaceae	Wahlenbergia queenslandica	Bluebell	4
Fabaceae	Acacia bancroftiorum		3
Casuarinaceae	Allocasuarina littoralis	Black Sheoak	3
Rhamnaceae	Alphitonia excelsa	Red Ash	3
Poaceae	Enneapogon gracilis	Slender Nineawn	3
Poaceae	Enneapogon lindleyanus	Purple-head Nine-awn	3
Goodeniaceae	Goodenia grandiflora	Mountain Primrose	3
Fabaceae	Hovea longipes	Brush Hovea	3
Poaceae	Panicum effusum	Hairy Panic	3
Cyperaceae	Schoenus kennyi		3
Solanaceae	Solanum mitchellianum		3
Malvaceae	Abutilon auritum	Chinese Lantern	2
Fabaceae	Acacia leiocalyx	Black Wattle	2
Rutaceae	Acronychia pauciflora	Soft Acronychia	2

Sapindaceae	Alectryon diversifolius	Scrub Boonaree	2
Poaceae	Aristida calycina var. calycina	Dark Wire-grass	2
Aristolochiaceae	Aristolochia elegans	Calico-flower	2
Poaceae	Arundinella nepalensis	Reedgrass	2
Cyperaceae	Bolboschoenus caldwellii	Salt Club-sedge	2
Acanthaceae	Brunoniella australis	Blue Trumpet	2
Asteraceae	Calotis dentex	White Burr Daisy	2
Asteraceae	Camptacra barbata		2
Fabaceae	Cassia brewsteri	Bean Tree	2
Fabaceae	Cassia tomentella	Velvet Cassia	2
Pteridaceae	Cheilanthes distans	Bristly Cloak-fern	2
Poaceae	Cleistochloa subjuncea		2
Rutaceae	Coatesia paniculata	Axe-breaker	2
Asteraceae	Cotula australis	Common Cotula	2
Rubiaceae	Cyclophyllum coprosmoides var. coprosmoides		2
Cyperaceae	Cyperus gracilis	Slender Flat-sedge	2
Celastraceae	Denhamia pittosporoides	Orange Boxwood	2
Fabaceae	Desmodium rhytidophyllum	Desmodium	2
Hemerocallidaceae	Dianella brevipedunculata		2
Hemerocallidaceae	Dianella longifolia	Blueberry Lily	2
Sapindaceae	Elattostachys xylocarpa	White Tamarind	2
Poaceae	Eragrostis megalosperma	A Love Grass	2
Scrophulariaceae	Eremophila deserti	Turkey-bush	2
Scrophulariaceae	Eremophila mitchellii	Budda	2
Poaceae	Eriochloa pseudoacrotricha	Early Spring Grass	2
Myrtaceae	Eucalyptus bakeri	Baker's Mallee	2
Myrtaceae	Eucalyptus crebra x Eucalyptus melanophloia		2
Myrtaceae	Eucalyptus decorticans	Gum Top Ironbark	2
Euphorbiaceae	Euphorbia tannensis subsp. eremophila	Bottle Tree Caustic	2
Asparagaceae	Eustrephus latifolius	Wombat Berry	2
Rubiaceae	Everistia vacciniifolia	Small-leaved Canthium	2
Euphorbiaceae	Excoecaria dallachyana	Scrub Poison Tree	2
Rutaceae	Geijera parviflora	Wilga	2
Myrtaceae	Gossia bidwillii	Python Tree	2
Proteaceae	Grevillea longistyla	Long-style Grevillea	2
Fabaceae	Indigofera colutea	Sticky Indigo	2
Fabaceae	Jacksonia scoparia	Dogwood	2
Apocynaceae	Leichhardtia viridiflora	Green Berry Creeper	2
Asteraceae	Leiocarpa websteri	Narrow Plover-daisy	2
Brassicaceae	Lepidium didymum	Lesser Swine's-cress	2
Linderniaceae	Lindernia hyssopoides		2
Asparagaceae	Lomandra confertifolia subsp. pallida	Matrush	2
Ericaceae	Melichrus sp. Isla Gorge (P.Sharpe+ 601)		2
Oleaceae	Notelaea microcarpa	Native Olive	2
Asteraceae	Olearia canescens subsp. discolor		2
Cactaceae	Opuntia streptacantha	Cardona Pear	2
Meliaceae	Owenia venosa	Crow's Apple	2
Poaceae	Panicum mitchellii	Mitchell's Panick Grass	2
Poaceae	Paspalidium gracile	Paspalidium	2
Passifloraceae	Passiflora aurantia	Norfolk Island Passionfruit	2
Araceae	Pistia stratiotes	Water Lettuce	2
Acanthaceae	Pseuderanthemum variabile	Pastel Flower	2
Fabaceae	Pultenaea bracteamajor		2
Acanthaceae	Rostellularia adscendens	Purple Pipe-cleaner	2
Asteraceae	Rutidosis murchisonii		2
Santalaceae	Santalum lanceolatum	Northern Sandalwood	2

Cyperaceae	Scleria sphacelata	Scleria	2
Fabaceae	Senna artemisioides subsp. zygophylla	Narrow-leaf Desert Cassia	2
Fabaceae	Senna coronilloides		2
Malvaceae	Seringia corollata	Keraudrenia	2
Malvaceae	Sida hackettiana	Spiked Sida	2
Brassicaceae	Sisymbrium erysimoides	Smooth Mustard	2
Solanaceae	Solanum aviculare	Kangaroo Apple	2
Solanaceae	Solanum jucundum		2
Solanaceae	Solanum nemophilum		2
Solanaceae	Solanum seaforthianum	Brazilian Nightshade	2
Poaceae	Sporobolus creber	Western Rat-tail Grass	2
Celastraceae	Stackhousia muricata	Stackhousia	2
Fabaceae	Swainsona queenslandica	Smooth Darling Pea	2
Asteraceae	Tagetes minuta	Stinking Roger	2
Meliaceae	Turraea pubescens	Native Honeysuckle	2
Asteraceae	Vittadinia bicolor		2
Asteraceae	Vittadinia hispidula var. setosa		2
Fabaceae	Zornia pallida		2
Malvaceae	Abutilon calliphyllum	Velvet Lanternflower	1
Malvaceae	Abutilon oxycarpum var. incanum		1
Malvaceae	Abutilon oxycarpum var. oxycarpum		1
Malvaceae	Abutilon tubulosum		1
Fabaceae	Acacia amblygona	Fan Wattle	1
Fabaceae	Acacia angusta		1
Fabaceae	Acacia crassa	Curracabah	1
Fabaceae	Acacia fasciculifera	Scaly Bark	1
Fabaceae	Acacia glaucocarpa	Hickory Wattle	1
Fabaceae	Acacia leiocalyx subsp. leiocalyx	Curracabah	1
Fabaceae	Acacia penninervis	Mountain Hickory	1
Fabaceae	Acacia podalyriifolia	Mount Morgan Wattle	1
Fabaceae	Acacia rhodoxylon	Ringy Rosewood	1
Fabaceae	Aeschynomene brevifolia		1
Violaceae	Afrohybanthus stellarioides		1
Lamiaceae	Ajuga australis	Austral Bugle	1
Apocynaceae	Alstonia constricta	Quinine Bush	1
Amaranthaceae	Amaranthus viridis	Green Amaranth	1
Vitaceae	Ampelocissus gardineri		1
Loranthaceae	Amyema congener subsp. rotundifolia		1
Poaceae	Ancistrachne uncinulata	Hooked-hairy Panic Grass	1
Papaveraceae	Argemone ochroleuca subsp. ochroleuca	Prickly Poppy	1
Poaceae	Aristida gracilipes	Three-awn Speargrass	1
Sapindaceae	Atalaya hemiglauca	Whitewood	1
Sapindaceae	Atalaya salicifolia	Atalaya	1
Myrtaceae	Backhousia angustifolia	Narrow Leaf Myrtle	1
Poaceae	Bothriochloa decipiens	Bothriochloa	1
Asteraceae	Calotis cuneata	Mountain Burr-daisy	1
Capparaceae	Capparis anomala	Warrior Bush	1
Capparaceae	Capparis arborea	Native Pomegranate	1
Capparaceae	Capparis canescens	Wild Orange	1
Capparaceae	Capparis lasiantha	Nepine	1
Capparaceae	Capparis mitchellii	Native Orange	1
Capparaceae	Capparis sarmentosa	Scrambling Caper	1
Cyperaceae	Carex inversa	Dwarf Sedge	1
Apocynaceae	Carissa ovata	Conkerberry	1
Asteraceae	Cassinia laevis	Cough Bush	1
Lauraceae	Cassytha paniculata	Ribbed Dodder Laurel	1

Casuarinaceae	Casuarina cristata	Belah	1
Cyperaceae	Caustis flexuosa	Slender Twist-rush	1
Asteraceae	Centipeda minima subsp. minima	Spreading Sneezeweed	1
Pteridaceae	Cheilanthes sieberi subsp. sieberi	Rock Fern	1
Poaceae	Chloris truncata	Windmill Grass	1
Poaceae	Chloris ventricosa	Tall Windmill Grass	1
Asteraceae	Cirsium vulgare	Spear Thistle	1
Vitaceae	Clematicissus opaca	Pepper Vine	1
Gyrostemonaceae	Codonocarpus attenuatus	Bell-fruit Tree	1
Commelinaceae	Commelina cyanea	Scurvy Weed	1
Myrtaceae	Corymbia trachyphloia	White Bloodwood	1
Sapindaceae	Cossinia australiana	Cossinia	1
Fabaceae	Crotalaria medicaginea var. neglecta	Trefoil Rattlepod	1
Euphorbiaceae	Croton insularis	Silver Queensland Cascarilla	1
Cucurbitaceae	Cucumis anguria var. anguria	West Indian Gherkin	1
Asteraceae	Cyanthillium cinereum	Ironweed	1
Orchidaceae	Cymbidium canaliculatum	Tiger Orchid	1
Cyperaceae	Cyperus concinnus	Trim Flat-sedge	1
Cyperaceae	Cyperus exaltatus	Tall Flat-sedge	1
Cyperaceae	Cyperus fulvus	Sticky Sedge	1
Fabaceae	Daviesia filipes subsp. filipes		1
Amaranthaceae	Deeringia amaranthoides	Redberry	1
Celastraceae	Denhamia cunninghamii	Narrow-leaf Maytenus	1
Celastraceae	Denhamia pittosporoides subsp. pittosporoides	Veiny Denhamia	1
Fabaceae	Desmodium varians	Slender Tick-trefoil	1
Poaceae	Dichanthium sericeum subsp. humilius	Dwarf Bluegrass	1
Poaceae	Dichanthium sericeum subsp. sericeum	Silky Blue-grass	1
Dioscoreaceae	Dioscorea transversa	Native Yam	1
Cucurbitaceae	Diplocyclos palmatus subsp. affinis	Native Cucumber	1
Cucurbitaceae	Diplocyclos palmatus subsp. palmatus		1
Sapindaceae	Dodonaea triangularis	Hopbush	1
Bignoniaceae	Dolichandra unguis-cati	Cat's Claw Creeper	1
Droseraceae	Drosera lunata		1
Chenopodiaceae	Dysphania pumilio	Small Crumbweed	1
Boraginaceae	Ehretia saligna var. membranifolia	Peach Bush	1
Celastraceae	Elaeodendron australe var. integrifolium		1
Celastraceae	Elaeodendron australe	White Cedar	1
Poaceae	Enneapogon nigricans	Black-head Grass	1
Poaceae	Enneapogon truncatus	Bottlewashers	1
Poaceae	Enteropogon unispiceus		1
Poaceae	Eragrostis alveiformis	Granite Love-grass	1
Poaceae	Eragrostis sororia	Lovegrass	1
Poaceae	Eragrostis spartinoides	Lovegrass	1
Fabaceae	Erythrina vespertilio subsp. vespertilio		1
Fabaceae	Erythrostemon gilliesii	Bird-of-paradise Flower	1
Myrtaceae	Eucalyptus coolabah	Coolabah	1
Myrtaceae	Eucalyptus exserta	Queensland Peppermint	1
Myrtaceae	Eucalyptus moluccana	Gum-topped Box	1
Myrtaceae	Eucalyptus tereticornis	Forest Red Gum	1
Myrtaceae	Eucalyptus	Studley Park Gum	1
Euphorbiaceae	Euphorbia hirta	Asthma Plant	1
Euphorbiaceae	Euphorbia papillifolia var. papillifolia		1
Rubiaceae	Everistia vacciniifolia var. vacciniifolia		1
Cyperaceae	Fimbristylis dichotoma	Fringe-rush	1
Rutaceae	Flindersia collina	Broad-leaved Leopard Tree	1
Cyperaceae	Gahnia aspera	Rough Saw-sedge	1

Fabaceae	Galactia tenuiflora var. lucida		1
Geraniaceae	Geranium solanderi var. solanderi	Austral Crane's-bill	1
Geraniaceae	Geranium solanderi	Austral Geranium	1
Verbenaceae	Glandularia aristigera	Mayne's Pest	1
Fabaceae	Glycine	Twining Glycine	1
Goodeniaceae	Goodenia glabra	Smooth Goodenia	1
Goodeniaceae	Goodenia rotundifolia		1
Malvaceae	Grewia latifolia	Dysentery Plant	1
Haloragaceae	Haloragis glauca	Grey Raspwort	1
Haloragaceae	Haloragis stricta		1
Fabaceae	Hardenbergia violacea	Native Lilac	1
Poaceae	Heteropogon contortus	Black Speargrass	1
Dilleniaceae	Hibbertia stricta	Upright Guinea-flower	1
Dilleniaceae	Hibbertia	Guinea Flowers	1
Araliaceae	Hydrocotyle acutiloba	Broad-leaf Pennywort	1
Hypoxidaceae	Hypoxis pratensis	Golden Weather-grass	1
Fabaceae	Indigofera linifolia	Flax-leaf Indigo	1
Fabaceae	Indigofera linnaei	Birdsville Indigo	1
Oleaceae	Jasminum didymum subsp. racemosum	Native Jasmine	1
Verbenaceae	Lantana montevidensis	Creeping Lantana	1
Asparagaceae	Laxmannia gracilis	Slender Wire Lily	1
Apocynaceae	Leichhardtia viridiflora subsp. viridiflora	Native Pear	1
Brassicaceae	Lepidium bonariense	Peppercress	1
Poaceae	Leptochloa digitata	Umbrella Cane-grass	1
Asteraceae	Leuzea australis	Austral Cornflower	1
Arecaceae	Livistona nitida	Carnavon Gorge Cabbage Palm	1
Asparagaceae	Lomandra multiflora subsp. multiflora	Lomandra	1
Myrtaceae	Lophostemon suaveolens	Swamp Box	1
Onagraceae	Ludwigia octovalvis	Willow Primrose	1
Moraceae	Maclura pomifera	Osage-orange	1
Fabaceae	Medicago polymorpha	Spineless Burr Medic	1
Poaceae	Melinis repens	Red Natal-grass	1
Primulaceae	Myrsine variabilis	Rapanea	1
Myrtaceae	Myrtaceae	Myrtle Family	1
Solanaceae	Nicotiana forsteri		1
Solanaceae	Nicotiana megalosiphon	Wild Tobacco	1
Amaranthaceae	Nyssanthes diffusa	Barbed-wire Weed	1
Asteraceae	Olearia canescens	Daisy Bush	1
Hydrocharitaceae	Ottelia ovalifolia subsp. ovalifolia	Swamp Lily	1
Meliaceae	Owenia x reliqua	Bellata Owenia	1
Oxalidaceae	Oxalis perennans	Native Sorrel	1
Asteraceae	Ozothamnus cassinioides	Everlasting	1
Bignoniaceae	Pandorea pandorana	Wonga Vine	1
Poaceae	Panicum larcomianum		1
Apocynaceae	Parsonsia eucalyptophylla	Gargaloo	1
Poaceae	Paspalidium caespitosum	Brigalow Grass	1
Poaceae	Paspalidium jubiflorum	Warrego Grass	1
Passifloraceae	Passiflora aurantia var. aurantia	Blunt-leaved Passionfruit	1
Phyllanthaceae	Phyllanthus maderaspatensis	Spurge	1
Phyllanthaceae	Phyllanthus virgatus	Phyllanthus	1
Phytolaccaceae	Phytolacca octandra	Red-ink Weed	1
Thymelaeaceae	Pimelea glauca	Smooth Riceflower	1
Sapotaceae	Planchonella cotinifolia	Yellow Lemon	1
Plantaginaceae	Plantago debilis	Shade Plantain	1
Caryophyllaceae	Polycarpaea corymbosa var. minor		1
Phyllanthaceae	Poranthera microphylla	Small Poranthera	1

Rubiaceae	Psydrax longipes		1
Rubiaceae	Psydrax odorata f. buxifolia		1
Rubiaceae	Psydrax odorata	Psydrax	1
Fabaceae	Pultenaea millarii var. angustifolia		1
Asteraceae	Rhodanthe polyphylla		1
Fabaceae	Rhynchosia minima	Rhynchosia	1
Lamiaceae	Salvia reflexa	Mintweed	1
Chenopodiaceae	Sclerolaena birchii	Galvinised Burr	1
Chenopodiaceae	Sclerolaena muricata var. muricata	Sclerolaena	1
Apocynaceae	Secamone elliptica	Secamone	1
Asteraceae	Senecio bathurstianus	Dissected Fireweed	1
Asteraceae	Senecio brigalowensis		1
Fabaceae	Senna occidentalis	Western Senna	1
Malvaceae	Sida corrugata	Variable Sida (peltate-hairy)	1
Asteraceae	Sigesbeckia orientalis	Indian Weed	1
Brassicaceae	Sisymbrium thellungii	African Turnip-weed	1
Solanaceae	Solanaceae	Tomato	1
Solanaceae	Solanum ellipticum	Potato Bush	1
Solanaceae	Solanum parvifolium	Nightshade	1
Fabaceae	Spartium junceum	Spanish Broom	1
Rubiaceae	Spermacoce brachystema	Spermacoce	1
Rubiaceae	Spermacoce multicaulis		1
Stylidiaceae	Stylidium eglandulosum	Woolly-stemmed Triggerplant	1
Fabaceae	Tephrosia filipes subsp. filipes		1
Lamiaceae	Teucrium junceum		1
Poaceae	Themeda triandra	Kangaroo Grass	1
Poaceae	Thyridolepis xerophila	Thyridolepis	1
Poaceae	Tragus australianus	Tickgrass	1
Hemerocallidaceae	Tricoryne elatior	Yellow Rush Lily	1
Poaceae	Urochloa foliosa	Leafy Panic	1
Poaceae	Urochloa gilesii	Hairy-edged Armgrass	1
Poaceae	Urochloa panicoides var. panicoides		1
Poaceae	Urochloa subquadripara	Armgrass Millet	1
Urticaceae	Urtica incisa	Scrub Nettle	1
Verbenaceae	Verbena africana	Inland Verbena	1
Asteraceae	Verbesina encelioides subsp. encelioides	Crownbeard	1
Asteraceae	Vittadinia dissecta var. hirta	Dissected New Holland Daisy	1
Asteraceae	Vittadinia hispidula var. hispidula		1
Asteraceae	Vittadinia hispidula		1
Asteraceae	Vittadinia sulcata	Furrowed New Holland Daisy	1
Asteraceae	Xanthium spinosum	Bathurst Burr	1
Xanthorrhoeaceae	Xanthorrhoea	Grasstree	1
Rutaceae	Zanthoxylum brachyacanthum	Thorny Yellowwood	1
Rutaceae	Zieria cytisoides	Downy Zieria	1
Rutaceae	Zieria smithii	Sandfly Zieria	1
Fabaceae	Zornia muriculata subsp. muriculata		1
Fabaceae	Zornia muriculata	Upright Zornia	1

Lifeform - Protozoa

Number of Protozoa **0**

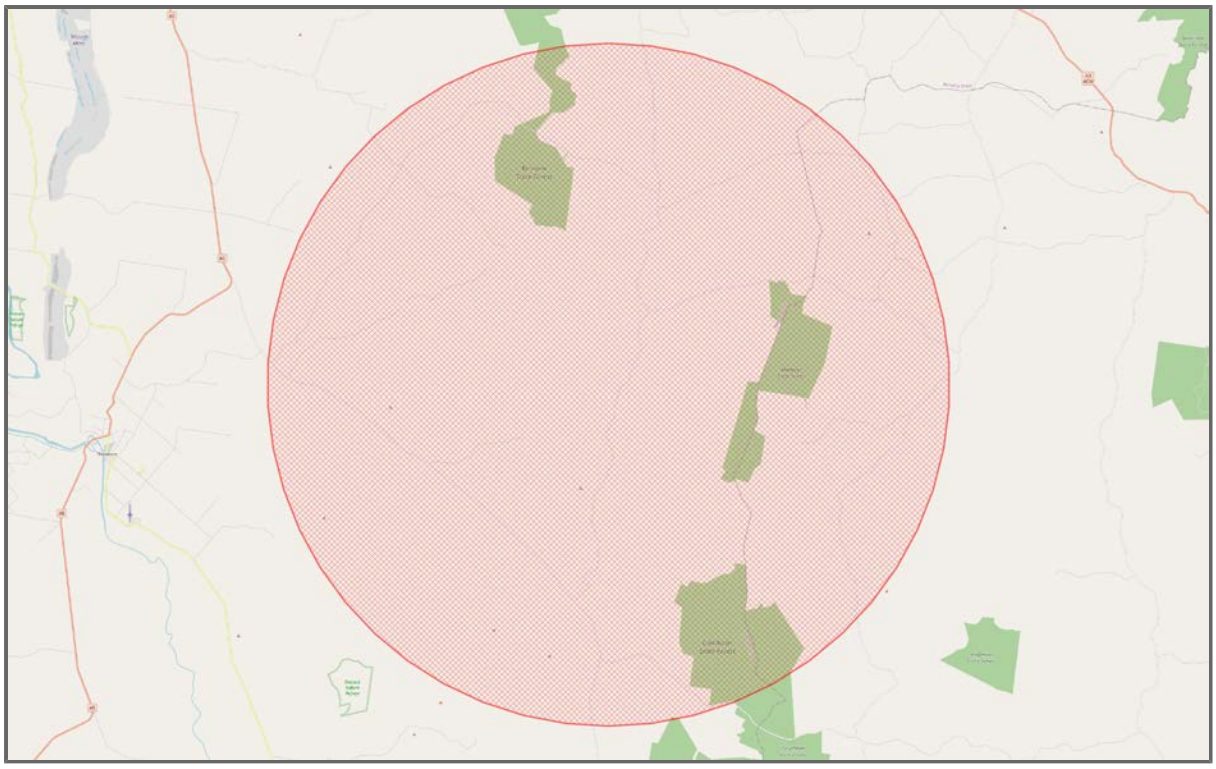

Figure 26 : Map of Lifeform - Protozoa

Table 25: Lifeform - Protozoa (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Reptiles

Number of Reptiles **44**

Figure 27 : Map of Lifeform - Reptiles

Table 26: Lifeform - Reptiles (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Gekkonidae	Heteronotia binoei	Bynoe's Gecko	21
Agamidae	Diporiphora australis	Tommy Roundhead	12
Gekkonidae	Gehyra dubia	Dubious Dtella	11
Diplodactylidae	Strophurus taenicauda albiocularis		11
Scincidae	Carlia pectoralis	Open-litter Rainbow-skink	9
Scincidae	Cryptoblepharus pulcher pulcher	Elegant Snake-eyed Skink	9
Scincidae	Lerista fragilis	Eastern Mulch-slider	9
Scincidae	Lygisaurus foliorum	Tree-base Litter-skink	9
Diplodactylidae	Oedura tryoni	Southern Spotted Velvet Gecko	8
Diplodactylidae	Diplodactylus vittatus	Eastern Stone Gecko	7
Elapidae	Brachyurophis australis	Coral Snake	5
Pygopodidae	Paradelma orientalis	Brigalow Scaly-foot	5
Elapidae	Cryptophis nigrescens	Eastern Small-eyed Snake	4
Diplodactylidae	Amalosia rhombifer	Zigzag Velvet Gecko	3
Elapidae	Denisonia maculata	Ornamental Snake	3
Scincidae	Egernia striolata	Tree Skink	3
Pygopodidae	Lialis burtonis	Burton's Snake-lizard	3
Carphodactylidae	Nephrurus asper	Prickly Knob-tailed Gecko	3
Agamidae	Pogona barbata	Common Bearded Dragon	3
Diplodactylidae	Strophurus taenicauda	Golden-tailed Gecko	3
Elapidae	Suta dwyeri	Dwyer's Snake	3
Varanidae	Varanus varius	Lace Monitor	3
Agamidae	Chlamydosaurus kingii	Frilled Lizard	2
Scincidae	Concinnia tenuis	Barred-sided Skink	2
Elapidae	Demansia psammophis	Yellow-faced Whip Snake	2

Gekkonidae	Gehyra versicolor	Eastern Tree Dtella	2
Elapidae	Hoplocephalus bitorquatus	Pale-headed Snake	2
Scincidae	Lerista punctatovittata	Eastern Robust Slider	2
Scincidae	Morethia boulengeri	Boulenger's Snake-eyed Skink	2
Scincidae	Morethia taeniopleura	Fire-tailed Skink	2
Varanidae	Varanus gouldii	Gould's Goanna	2
Pythonidae	Aspidites melanocephalus	Black-headed Python	1
Colubridae	Boiga irregularis	Night Tiger	1
Chelidae	Chelodina (Chelodina) longicollis	Snake-necked Turtle	1
Scincidae	Ctenotus spaldingi	Spalding's Ctenotus	1
Scincidae	Cyclodomorphus gerrardii	Pink-tongued Skink	1
Scincidae	Eulamprus quoyii	Eastern Water-skink	1
Gekkonidae	Gehyra		1
Scincidae	Lerista		1
Scincidae	Praeteropus brevicollis	Short-necked Worm-skink	1
Elapidae	Pseudechis australis	Mulga Snake	1
Scincidae	Pygmaeascincus timlowi	Dwarf Litter-skink	1
Elapidae	Suta suta	Curl Snake	1
Varanidae	Varanus tristis	Black-headed Monitor	1

Further Links

Geoscience Australia: http://www.ga.gov.au/
Global Biodiversity Information Facility: https://www.gbif.org/
Threatened Species & Ecological Communities: https://www.environment.gov.au/topics/threatened-species-ecological-communities
WWF Ecoregions: https://worldwildlife.org/biomes
Environmental Resources Information Network (ERIN): https://www.environment.gov.au/topics/science-and-research/databases-and-maps/erin
Australian National Fish Expert Distributions: https://collections.ala.org.au/public/show/dr803
Lists of Australian endemic species: http://Intreasures.com/australia.html

Federal

Department of the Environment: https://www.environment.gov.au/

State/Territory

Australian Capital Territory

Environment and Sustainable Development Directorate: https://www.environment.act.gov.au/

New South Wales

Office of Environment and Heritage: http://www.environment.nsw.gov.au/

Northern Territory

Department of Land Resource Management: 'https://www.lrm.nt.gov.au/

Queensland

Department of Environment and Heritage Protection: https://www.ehp.qld.gov.au/

South Australia

Department of Environment, Water and Natural Resources: 'https://www.environment.sa.gov.au/Home

Tasmania

Department of Primary Industries, Parks, Water and Environment: http://www.dpiw.tas.gov.au/

Western Australia

Department of Parks and Wildlife: https://www.dpaw.wa.gov.au/

Victoria

Department of Environment and Primary Industries: http://www.depi.vic.gov.au/

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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: 26-Aug-2024

Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	5
Listed Threatened Species:	38
Listed Migratory Species:	12

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	18
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:	1
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	6
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

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

Community Name	Threatened Category	Presence Text	Buffer Status
Brigalow (Acacia harpophylla dominant and co-dominant)	Endangered	Community known to occur within area	In feature area
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	Endangered	Community may occur within area	In feature area
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community likely to occur within area	In feature area
Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions	Endangered	Community likely to occur within area	In buffer area only
Weeping Myall Woodlands	Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

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

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
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
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Falco hypoleucos](#) Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area
[Geophaps scripta scripta](#) Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Grantiella picta](#) Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area	In feature area
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat may occur within area	In feature area
[Neochmia ruficauda ruficauda](#) Star Finch (eastern), Star Finch (southern) [26027]	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
[Stagonopleura guttata](#) Diamond Firetail [59398]	Vulnerable	Species or species habitat may occur within area	In feature area
[Turnix melanogaster](#) Black-breasted Button-quail [923]	Vulnerable	Species or species habitat may occur within area	In feature area
MAMMAL			
[Chalinolobus dwyeri](#) Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat may occur within area	In feature area
[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

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Macroderma gigas](#)			
Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In feature area
[Nyctophilus corbeni](#)			
Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat may occur within area	In feature area
[Petauroides volans](#)			
Greater Glider (southern and central) [254]	Endangered	Species or species habitat known to occur within area	In feature area
[Petaurus australis australis](#)			
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat may 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 likely to occur within area	In feature area
[Pteropus poliocephalus](#)			
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
PLANT			
[Arthraxon hispidus](#)			
Hairy-joint Grass [9338]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Cadellia pentastylis](#)			
Ooline [9828]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Cossinia australiana](#)			
Cossinia [3066]	Endangered	Species or species habitat known to occur within area	In feature area
[Dichanthium queenslandicum](#)			
King Blue-grass [5481]	Endangered	Species or species habitat known to occur within area	In feature area
[Dichanthium setosum](#)			
bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Leuzea australis listed as Rhaponticum australe			
Austral Cornflower, Native Thistle [9363]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Polianthion minutiflorum			
[82772]	Vulnerable	Species or species habitat may occur within area	In feature area
Solanum dissectum			
[75720]	Endangered	Species or species habitat may occur within area	In buffer area only
Solanum johnsonianum			
[84820]	Endangered	Species or species habitat may occur within area	In buffer area only
Xerothamnella herbacea			
[4146]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
Delma torquata			
Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area	In feature area
Denisonia maculata			
Ornamental Snake [1193]	Vulnerable	Species or species habitat known to occur within area	In feature area
Egernia rugosa			
Yakka Skink [1420]	Vulnerable	Species or species habitat may occur within area	In feature area
Elseya albagula			
Southern Snapping Turtle, White-throated Snapping Turtle [81648]	Critically Endangered	Species or species habitat may occur within area	In feature area
Furina dunmalli			
Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area	In feature area
Hemiaspis damelii			
Grey Snake [1179]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Rheodytes leukops](#)			
Fitzroy River Turtle, Fitzroy Tortoise, Fitzroy Turtle, White-eyed River Diver [1761]	Vulnerable	Species or species habitat likely to occur within area	In feature area
SNAIL			
[Adclarkia dawsonensis](#)			
Boggomoss Snail, Dawson River Snail, Dawson Valley Snail [67458]	Critically 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 Terrestrial Species			
[Cuculus optatus](#)			
Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
[Hirundapus caudacutus](#)			
White-throated Needletail [682]	Vulnerable	Species or species habitat may occur within area	In feature area
[Monarcha melanopsis](#)			
Black-faced Monarch [609]		Species or species habitat may occur within area	In feature area
[Motacilla flava](#)			
Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
[Myiagra cyanoleuca](#)			
Satin Flycatcher [612]		Species or species habitat likely to occur within area	In feature area
[Rhipidura rufifrons](#)			
Rufous Fantail [592]		Species or species habitat known 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

Scientific Name	Threatened Category	Presence Text	Buffer Status
[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
[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 may occur within area	In feature area

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
[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

Scientific Name	Threatened Category	Presence Text	Buffer Status
[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 known to occur within area overfly marine area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may 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 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
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In feature area
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Myiagra cyanoleuca			
Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In feature area
Pterodroma cervicalis			
White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons			
Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Oxtrack	Nature Refuge	QLD	In buffer area only

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Theodore Wind Farm	2024/09842		Assessment	In feature area
Controlled action				
Construct and operate 447km high pressure gas transmission pipeline	2009/4976	Controlled Action	Post-Approval	In feature area
Construction of a high pressure buried gas pipeline, Kogan to Gladstone, QLD	2009/5029	Controlled Action	Post-Approval	In feature area
Queensland Curtis LNG Project - Pipeline Network	2008/4399	Controlled Action	Post-Approval	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

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Surat Basin Railway	2008/3944	Not Controlled Action	Completed	In buffer area only

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

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

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

4 LIMITATIONS

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

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

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

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

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

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

Acknowledgements

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

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

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

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

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Queensland Government

WildNet species list

Search Criteria: Species List for a Specified Point
Species: All
Type: Native
Queensland status: Rare and threatened species
Records: All
Date: Since 1980
Latitude: -24.9007
Longitude: 150.4475
Distance: 25.5
Email: jethro.ottley@erm.com
Date submitted: Friday 23 Aug 2024 16:58:50
Date extracted: Friday 23 Aug 2024 17:00:05

The number of records retrieved = 8

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	1
animals	mammals	Petauridae	*Petaurus australis australis*	yellow-bellied glider (southern subspecies)		V	V	3
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	1
animals	mammals	Pseudocheiridae	*Petauroides volans volans*	southern greater glider		E	E	3
animals	reptiles	Diplodactylidae	*Strophurus taenicauda*	golden-tailed gecko		NT		5
plants	land plants	Asteraceae	*Leuzea australis*			V	V	1/1
plants	land plants	Euphorbiaceae	*Bertya pedicellata*			NT		2/2
plants	land plants	Sapindaceae	*Cossinia australiana*			E	E	1/1

CODES

I - Y indicates that the taxon is introduced to Queensland and has naturalised.

Q - Indicates the Queensland conservation status of each taxon under the *Nature Conservation Act 1992.*
The codes are Extinct (EX), Extinct in the Wild (PE), Critically Endangered (CR), Endangered (E), Vulnerable (V), Near Threatened (NT), Special Least Concern (SL) and Least Concern (C).

A - Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999.*
The values of EPBC are Extinct (EX), Extinct in the Wild (XW), Critically Endangered (CE), Endangered (E), Vulnerable (V) and Conservation Dependent (CD).

Records - The first number indicates the total number of records of the taxon (wildlife records and species listings for selected areas).
This number is output as 99999 if it equals or exceeds this value. A second number located after a / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

APPENDIX B MHQA HABITAT QUALITY SCORING

IMPACT- Poplar Box TEC

Assessment Unit - Regional Ecosystem	AU 1 - RE 11.3.2										
Site Reference	Benchmark	Impact 05			Impact 23			Average % Benchmark	Average Score	Total average % benchmark	Total average score
	11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score				
Site Condition											
Recruitment of woody perennial species in EDL	100	100	100	*5*	100	100	*5*				
Native plant species richness - trees	2	4	200	*5*	5	250	*5*				
Native plant species richness - shrubs	2	5	250	*5*	2	100	*5*				
Native plant species richness - grasses	9	13	144	*5*	7	78	*2.5*				
Native plant species richness - forbs	15	3	20	*0*	4	27	*2.5*				
Tree canopy height (average of emergent, canopy, sub-canopy)	13.5	9.5	70	*5*	24.5	181	*5*				
Tree canopy cover (average of emergent, canopy, sub-canopy)	22	24.4	111	*5*	20	91	*5*				
Shrub canopy cover	4	8.7	218	*3*	0	0	*0*				
Native grass cover	26	26	100	*5*	72	277	*5*				
Organic litter	35	37	106	*5*	11	31	*3*				
Large trees (euc plus non-euc)	18	12	67	*10*	16	89	*10*				
Coarse woody debris	281	1569	558	*2*	185	66	*5*				
Non-native plant cover	0	10	0	*5*	1	0	*10*				
Ground layer perennial vegetation cover	20			*16*			*20*				
Ground layer native plant species per ha	20			*12*			*12*				
Poplar box occurrence in multiple lifeform layers	20			*8*			*8*				
Large trees per ha per Conservation Advice	20			*20*			*20*				
Site Condition Score				116			123		119.5		119.5
MAX Site Condition Score				*160*			*160*		*160*		*160*
Site Condition Score - out of 7									5.23		5.23
Site Context	Max Score	Impact 05			Impact 23			Average % benchmark	Average Score	Total average % benchmark	Total average score
Size of patch	10			10			10				
Connectedness	10			0			0				
Context	10			8			8				
Ecological Corridors	0			0			0				
Role of site location to TEC overall population in the state	10			2			2				
Threats to the community	10			0			0				
Site Context Score				20			20		20.0		20
MAX Site Context Score				*50*			*50*		*50*		*50*
Site Context Score - out of 3									1.20		1.20

Final habitat quality score (weighted)	AU1	Average/Final
Site Condition score (out of 7)	5.23	
Site Context Score (out of 3)	1.20	
Habitat Quality score (out of 10)	*6.43*	
Assessment Unit area (ha) in disturbance footprint	6.4	
Total impact area (ha) for this MNES	6.4	
Size Weighting	1.00	
Weighted Habitat Quality Score	*6.43*	*6.43*

IMPACT - Koala

Assessment Unit - Regional Ecosystem	AU 1 - General breeding & foraging habitat (RE 11.12.1)																					AU 1 - General breeding & foraging habitat (RE 11.12.6)						
Site Reference	Benchmark	Impact 09			Impact 11			Impact 15			Impact 17			Impact 18			Impact 19			Impact 20			Benchmark	Impact 08			Impact 16		
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.6	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score
Recruitment of woody perennial species in EDL	100	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	100	*5*	100	100	*5*
Native plant species richness - trees	3	10	333	*5*	2	67	*2.5*	3	100	*5*	5	167	*5*	4	133	*5*	3	100	*5*	4	133	*5*	4	6	150	*5*	6	150	*5*
Native plant species richness - shrubs	6	5	83	*2.5*	5	83	*2.5*	3	50	*2.5*	6	100	*5*	11	183	*5*	3	50	*2.5*	3	50	*2.5*	5	7	140	*5*	10	200	*5*
Native plant species richness - grasses	8	1	13	*0*	4	50	*2.5*	10	125	*5*	11	138	*5*	12	150	*5*	7	88	*2.5*	4	50	*2.5*	8	4	50	*2.5*	2	25	*2.5*
Native plant species richness - forbes	13	3	23	*0*	6	46	*2.5*	11	85	*2.5*	1	8	*0*	4	31	*2.5*	4	31	*2.5*	6	46	*2.5*	15	6	40	*2.5*	12	80	*2.5*
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	6.5	52	*3*	7	56	*3*	12.5	100	*5*	18	144	*5*	14.3	114	*5*	19	152	*5*	18.3	146	*5*	17	7	41	*3*	9.5	56	*3*
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	3.55	17	*2*	16.35	78	*5*	31.85	152	*5*	36.25	173	*5*	27.5	131	*5*	39.25	187	*5*	32	152	*5*	29.5	18.7	63	*5*	15	51	*5*
Shrub canopy cover	4	6.8	170	*5*	1.5	38	*3*	0	0	*0*	1.5	38	*3*	17.9	448	*3*	1	25	*3*	25	625	*3*	4	5.5	138	*5*	3	75	*5*
Native grass cover	41	1	2	*0*	75.2	183	*5*	16	39	*1*	40	98	*5*	70	171	*5*	19	46	*1*	55	134	*5*	26	28	108	*5*	12	46	*1*
Organic litter	28	13.6	49	*3*	16	57	*5*	43	154	*5*	31	111	*5*	26	93	*5*	72	257	*3*	41	146	*5*	44	7.6	17	*3*	54	123	*5*
Large trees (euc plus non-euc)	20	0	0	*0*	16	80	*10*	16	80	*10*	6	30	*5*	8	40	*5*	10	50	*10*	8	40	*5*	13	0	0	*0*	6	46	*5*
Coarse woody debris	408	115	28	*2*	445	109	*5*	523.5	128	*5*	235	58	*5*	965	237	*2*	240	59	*5*	380	93	*5*	819	182.5	22	*2*	692.5	85	*5*
Non-native plant cover	0	30	0	*3*	17	0	*5*	5	0	*5*	1	0	*10*	1	0	*10*	1	0	*10*	1	0	*10*	0	14	0	*5*	45	0	*3*
Quality and availability of food and foraging habitat	40			*24*			*40*			*36*			*16*			*16*			*36*			*32*	40			*32*			*28*
Quality and availability of shelter and breeding habitat	40			*0*			*28*			*32*			*20*			*28*			*32*			*28*	40			*4*			*16*
Site Condition Score				54.5			124			124			99			107			128			121				84			96
MAX Site Condition Score				*160*			*160*			*160*			*160*			*160*			*160*			*160*				*160*			*160*
Site Condition Score - out of 3																													

Site Context	Max Score	Impact 09			Impact 11			Impact 15			Impact 17			Impact 17			Impact 17			Impact 20			Max Score	Impact 08			Impact 16		
Size of patch	10			10			10			10			10			10			10			10	10			10			10
Connectedness	10			10			10			10			10			10			10			10	10			10			10
Context	10			10			10			10			10			10			10			10	10			10			10
Ecological Corridors	10			10			10			10			10			10			10			10	10			10			10
Threats to the species	10			5			5			5			5			5			5			5	10			5			5
Site Context Score				45			45			45			45			45			45			45				45			45
MAX Site Context Score				*50*			*50*			*50*			*50*			*50*			*50*			*50*				*50*			*50*
Site Context Score - out of 3																													

Species Stocking Rate (SSR)						
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5		**10**	
		No	Yes - adjacent		**Yes - on site**	
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**	
		Not habitat	Dispersal	Foraging	**Breeding**	
Approximate density (per ha)	Score	0	**10**	20	30	
			1.67 records p/ 10,000 ha			
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	**5**	10	15	
		0	**5 - 15**	20 - 35	40 - 45	
Total SRR score (out of 70)	40					
SRR Score (out of 4)	**2.29**					

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	0	**15**
		No	**Yes/ Possibly**
*Near the limit of the species range	Score	**0**	15
		No	Yes

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	1.96	2.21	
Site Context Score (out of 3)	2.70	2.28	
Species Stocking Rate Score (out of 4)	2.29	2.29	
Habitat Quality score (out of 10)	*6.95*	*6.77*	
Assessment Unit area (ha) in disturbance footprint	851.7	16.5	
Total significant impact area (ha) for this MNES	868.1	868.1	
Size Weighting	0.98	0.02	
Weighted Habitat Quality Score	*6.81*	*0.14*	*6.94*

AU 1 - General breeding & foraging habitat (RE 11.12.17)				AU 1 - General breeding & foraging habitat (RE 11.3.26)						AU 2 - Preferred breeding & foraging habitat (RE 11.3.2)				AU 2 - Preferred breeding & foraging habitat (RE 11.3.25)													
Benchmark	Impact 10			Benchmark	Impact 21			Average %	Average	Benchmark	Impact 05			Benchmark	Impact 06			Impact 07			Impact 14			Average %	Average	Total average %	Total average score
11.12.17	Raw Data	% Benchmark	Score	11.3.26	Raw Data	% Benchmark	Score	benchmark	Score	11.3.2	Raw Data	% Benchmark	Score	11.3.25	Raw Data	% Benchmark	Score	Raw Data	% Benchmark	Score	Raw Data	% Benchmark	Score	benchmark	Score	benchmark	
100	100	100	5	100	100	100	5			100	100	100	5	100	100	100	5	100	100	5	100	100	5				
5	5	100	5	3	4	133	5			2	4	200	5	4	11	275	5	5	125	5	8	200	5				
4	9	225	5	3	5	167	5			2	5	250	5	4	16	400	5	1	25	3	4	100	5				
13	3	23	0	13	8	62	2.5			9	13	144	5	8	4	50	2.5	3	38	2.5	3	38	2.5				
14	4	29	2.5	14	5	36	2.5			15	3	20	0	13	18	138	5	9	69	2.5	15	115	5				
14.5	9	62	3	16.5	19	115	5			13.5	9.5	70	5	17	9.5	56	3	11.5	68	3	14	82	5				
22	12	55	5	30	44.5	148	5			22	24.4	111	5	23	23.05	100	5	18.8	82	5	34.25	149	5				
14	33	236	3	2	7.5	375	3			4	8.7	218	3	7	0.3	4	0	0	0	0	0	0	0				
26	21	81	3	36	30	83	3			26	26	100	5	35	62	177	5	78	223	5	16	46	1				
23	44.4	193	5	32	51	159	5			35	37	106	5	21	22.6	108	5	18.6	89	5	35	167	5				
10	4	40	5	16	24	150	15			18	12	67	10	32	2	6	5	20	63	10	8	25	5				
314	435	139	5	535	400	75	5			281	1569	558	2	473	919	194	5	502.5	106	5	408.7	86	5				
0	11	0	5	0	1	0	10			0	10	0	5	0	11	0	5	22	0	5	40	0	3				
40			32	40			24			40			16				36			36			36				
40			8	40			28			40			28				24			40			32				
			92				123		104.6				104				116			132			120		117.6		111
			160				160		160				160				160			160			160		160		160
									1.96																2.21		2.08

Max Score	Impact 10			Max Score	Impact 21			Average %	Average	Max Score	Impact 05			Max Score	Impact 06			Impact 07			Impact 14			Average %	Average	Total average %	Total average score
								benchmark	Score																Score	benchmark	
10			10	10			10			10			5	10			5			5			5				
10			10	10			10			10			8	10			8			8			8				
10			10	10			10			10			10	10			10			10			10				
10			10	10			10			10			10	10			10			10			10				
10			5	10			5			10			5	10			5			5			5				
			45				45		45				38				38			38			38		38		41.5
			50				50		50				50				50			50			50		50		50
									2.70																2.28		2.49

IMPACT - Greater Glider

Assessment Unit - Regional Ecosystem	AU 1 - Foraging & dispersal habitat (RE 11.12.1)																		
Site Reference	Benchmark	Impact 09			Impact 11			Impact 15			Impact 17			Impact 18			Impact 19		
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score
Recruitment of woody perennial species in EDL	100	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*
Native plant species richness - trees	3	10	333	*5*	2	67	*2.5*	3	100	*5*	5	167	*5*	4	133	*5*	3	100	*5*
Native plant species richness - shrubs	6	5	83	*2.5*	5	83	*2.5*	3	50	*2.5*	6	100	*5*	11	183	*5*	3	50	*2.5*
Native plant species richness - grasses	8	1	13	*0*	4	50	*2.5*	10	125	*5*	11	138	*5*	12	150	*5*	7	88	*2.5*
Native plant species richness - forbes	13	3	23	*0*	6	46	*2.5*	11	85	*2.5*	1	8	*0*	4	31	*2.5*	4	31	*2.5*
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	6.5	52	*3*	7	56	*3*	12.5	100	*5*	18	144	*5*	14.3	114	*5*	19	152	*5*
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	3.55	17	*2*	16.35	78	*5*	31.85	152	*5*	36.25	173	*5*	27.5	131	*5*	39.25	187	*5*
Shrub canopy cover	4	6.8	170	*5*	1.5	38	*3*	0	0	*0*	1.5	38	*3*	17.9	448	*3*	1	25	*3*
Native grass cover	41	1	2	*0*	75.2	183	*5*	16	39	*1*	40	98	*5*	70	171	*5*	19	46	*1*
Organic litter	28	13.6	49	*3*	16	57	*5*	43	154	*5*	31	111	*5*	26	93	*5*	72	257	*3*
Large trees (euc plus non-euc)	20	0	0	*0*	16	80	*10*	16	80	*10*	6	30	*5*	8	40	*5*	10	50	*10*
Coarse woody debris	408	115	28	*2*	445	109	*5*	523.5	128	*5*	235	58	*5*	965	237	*2*	240	59	*5*
Non-native plant cover	0	30	0	*3*	17	0	*5*	5	0	*5*	1	0	*10*	1	0	*10*	1	0	*10*
Quality and availability of food and foraging habitat	20			*4*			*12*			*12*			*12*			*12*			*12*
Quality and availability of shelter and breeding habitat	80			*4*			*36*			*24*			*24*			*32*			*40*
Site Condition Score				39			104			92			99			107			112
MAX Site Condition Score				*160*			*160*			*160*			*160*			*160*			*160*
Site Condition Score - out of 3																			

Site Context	Max Score	Impact 09	Impact 11	Impact 15	Impact 17	Impact 18	Impact 19
Size of patch	10	10	10	10	10	10	10
Connectedness	10	10	10	10	10	10	10
Context	10	10	10	10	10	10	10
Ecological Corridors	10	10	10	10	10	10	10
Threats to the species	10	5	5	5	5	5	5
Site Context Score		45	45	45	45	45	45
MAX Site Context Score		*50*	*50*	*50*	*50*	*50*	*50*
Site Context Score - out of 3							

Species Stocking Rate (SSR)					
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5		**10**
		No	Yes - adjacent		**Yes - on site**
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**
		Not habitat	Dispersal	Foraging	**Breeding**
Approximate density (per ha)	Score	0	10	20	**30**
					10.4 records per 10,000 ha
Role/importance of species population on site*	Score (*Total from supplementary table below)*	0	5	**10**	15
		0	5 - 15	**20 - 35**	40 - 45
Total SRR score (out of 70)	65				
SRR Score (out of 4)	**3.71**				

*SSR Supplementary Table			
*Key source population for breeding	Score	0	**10**
		No	**Yes/ Possibly**
*Key source population for dispersal	Score	0	**5**
		No	**Yes/ Possibly**
*Necessary for maintaining genetic diversity	Score	0	**15**
		No	**Yes/ Possibly**
*Near the limit of the species range	Score	**0**	15
		No	Yes

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	1.59	2.38	
Site Context Score (out of 3)	2.70	2.58	
Species Stocking Rate Score (out of 4)	3.71	3.71	
Habitat Quality score (out of 10)	*8.00*	*8.67*	
Assessment Unit area (ha) in disturbance footprint	810.3	27.7	
Total significant impact area (ha) for this MNES	841.1	841.1	
Size Weighting	0.96	0.03	
Weighted Habitat Quality Score	*7.68*	*0.26*	*7.94*

AU 1 - Foraging & dispersal habitat (RE 11.12.6)							AU 1 - Foraging & dispersal habitat (RE 11.12.17)						AU 2 - Likely/current denning habitat (RE 11.3.2)				AU 2 - Likely/current denning habitat (RE 11.3.25)						
Benchmark	Impact 08			Impact 16			Benchmark	Impact 10			Average %	Average	Benchmark	Impact 05			Benchmark	Impact 07			Impact 14		
11.12.6	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.17	Raw Data	% Benchmark	Score	benchmark	Score	11.3.2	Raw Data	% Benchmark	Score	11.3.25	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score
100	100	100	*5*	100	100	*5*	100	100	100	*5*			100	100	100	*5*	100	100	100	*5*	100	100	*5*
4	6	150	*5*	6	150	*5*	5	5	100	*5*			2	4	200	*5*	4	5	125	*5*	8	200	*5*
5	7	140	*5*	10	200	*5*	4	9	225	*5*			2	5	250	*5*	4	1	25	*3*	4	100	*5*
8	4	50	*2.5*	2	25	*2.5*	13	3	23	*0*			9	13	144	*5*	8	3	38	*2.5*	3	38	*2.5*
15	6	40	*2.5*	12	80	*2.5*	14	4	29	*2.5*			15	3	20	*0*	13	9	69	*2.5*	15	115	*5*
17	7	41	*3*	9.5	56	*3*	14.5	9	62	*3*			13.5	9.5	70	*5*	17	11.5	68	*3*	14	82	*5*
29.5	18.7	63	*5*	15	51	*5*	22	12	55	*5*			22	24.4	111	*5*	23	18.8	82	*5*	34.25	149	*5*
4	5.5	138	*5*	3	75	*5*	14	33	236	*3*			4	8.7	218	*3*	7	0	0	*0*	0	0	*0*
26	28	108	*5*	12	46	*1*	26	21	81	*3*			26	26	100	*5*	35	78	223	*5*	16	46	*1*
44	7.6	17	*3*	54	123	*5*	23	44.4	193	*5*			35	37	106	*5*	21	18.6	89	*5*	35	167	*5*
13	0	0	*0*	6	46	*5*	10	4	40	*5*			18	12	67	*10*	32	20	63	*10*	8	25	*5*
819	182.5	22	*2*	692.5	85	*5*	314	435	139	*5*			281	1569	558	*2*	473	502.5	106	*5*	408.7	86	*5*
0	14	0	*5*	45	0	*3*	0	11	0	*5*			0	10	0	*5*	0	22	0	*5*	40	0	*3*
20			*4*			*12*	20			*12*			20			*12*	20			*20*			*12*
80			*8*			*16*	80			*8*			80			*32*	80			*64*			*40*
			60			80				72		85				104				140			104
			160			*160*				*160*		*160*				*160*				*160*			*160*
												1.59											

Max Score	Impact 08			Impact 16			Max Score	Impact 10			Average % Benchmark	Average Score	Max Score	Impact 05			Max Score	Impact 07			Impact 14		
10			10			10	10			10			10			10	10			10			10
10			10			10	10			10			10			8	10			8			8
10			10			10	10			10			10			10	10			10			10
10			10			10	10			10			10			10	10			10			10
10			5			5	10			5			10			5	10			5			5
			45			45				45		45				43				43			43
			50			*50*				*50*		*50*				*50*				*50*			*50*
												2.70											

AU 2 - Likely/current denning habitat (RE 11.3.26)				AU 2 - Likely/current denning habitat (RE 11.12.1)							
Benchmark	Impact 21			Benchmark	Impact 20			Average %	Average	Total average %	Total average
11.3.26	Raw Data	% Benchmark	Score	11.12.1	Raw Data	% Benchmark	Score	benchmark	Score	benchmark	score
100	100	100	*5*	100	100	100	*5*				
3	4	133	*5*	3	4	133	*5*				
3	5	167	*5*	6	3	50	*2.5*				
13	8	62	*2.5*	8	4	50	*2.5*				
14	5	36	*2.5*	13	6	46	*2.5*				
16.5	19	115	*5*	12.5	18.3	146	*5*				
30	44.5	148	*5*	21	32	152	*5*				
2	7.5	375	*3*	4	25	625	*3*				
36	30	83	*3*	41	55	134	*5*				
32	51	159	*5*	28	41	146	*5*				
16	24	150	*15*	20	8	40	*5*				
535	400	75	*5*	408	380	93	*5*				
0	1	0	*10*	0	1	0	*10*				
20			*16*	20			*16*				
80			*72*	80			*52*				
			159				129		127		106
			160				*160*		*160*		*160*
									2.38		1.98

Max Score	Impact 21			Max Score	Impact 20			Average %	Average Score	Total average % benchmark	Total average score
10			10	10			10				
10			8	10			8				
10			10	10			10				
10			10	10			10				
10			5	10			5				
			43				43		43		44
			50				*50*		*50*		*50*
									2.58		2.64

IMPACT - Squatter Pigeon

Assessment Unit - Regional Ecosystem	AU 1 - Foraging & dispersal habitat (RE 11.12.1)													AU 1 - Foraging & dispersal habitat (RE 11.12.6)					
Site Reference	Benchmark	Impact 04			Impact 09			Impact 18			Impact 20			Benchmark	Impact 16			Average	Average
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.6	Raw Data	% Benchmark	Score	%	Score
Recruitment of woody perennial species in EDL	100	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	100	*5*		
Native plant species richness - trees	3	3	100	*5*	10	333	*5*	4	133	*5*	4	133	*5*	4	6	150	*5*		
Native plant species richness - shrubs	6	4	67	*2.5*	5	83	*2.5*	11	183	*5*	3	50	*2.5*	5	10	200	*5*		
Native plant species richness - grasses	8	4	50	*2.5*	1	13	*0*	12	150	*5*	4	50	*2.5*	8	2	25	*2.5*		
Native plant species richness - forbes	13	6	46	*2.5*	3	23	*0*	4	31	*2.5*	6	46	*2.5*	15	12	80	*2.5*		
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	7.5	60	*3*	6.5	52	*3*	14.3	114	*5*	18.3	146	*5*	17	9.5	56	*3*		
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	9.9	47	*2*	3.55	17	*2*	27.5	131	*5*	32	152	*5*	29.5	15	51	*5*		
Shrub canopy cover	4	0.7	18	*3*	6.8	170	*5*	17.9	448	*3*	25	625	*3*	4	3	75	*5*		
Native grass cover	41	48	117	*5*	1	2	*0*	70	171	*5*	55	134	*5*	26	12	46	*1*		
Organic litter	28	32.8	117	*5*	13.6	49	*3*	26	93	*5*	41	146	*5*	44	54	123	*5*		
Large trees (euc plus non-euc)	20	2	10	*5*	0	0	*0*	8	40	*5*	8	40	*5*	13	6	46	*5*		
Coarse woody debris	408	88.1	22	*2*	115	28	*2*	965	237	*2*	380	93	*5*	819	692.5	85	*5*		
Non-native plant cover	0	5	0	*5*	30	0	*3*	1	0	*10*	1	0	*10*	0	45	0	*3*		
Quality and availability of food and foraging habitat	40			*20*			*20*			*16*			*16*	40			28		
Quality and availability of shelter and breeding habitat	40			*16*			*12*			*16*			*16*	40			32		
Site Condition Score				84			63			95			93				112		89
MAX Site Condition Score				*160*			*160*			*160*			*160*				*160*		*160*
Site Condition Score - out of 3																			1.67
Site Context	Max Score	Impact 04			Impact 09			Impact 18			Impact 20			Max Score	Impact 16			Average %	Average Score
Size of patch	10			10			10			10			10	10			10		
Connectedness	10			10			10			10			10	10			10		
Context	10			10			10			10			10	10			10		
Ecological Corridors	10			10			10			10			10	10			10		
Threats to the species	10			5			5			5			5	10			5		
Site Context Score				45			45			45			45				45		45
MAX Site Context Score				*50*			*50*			*50*			*50*				*50*		*50*
Site Context Score - out of 3																			2.70

Species Stocking Rate (SSR)						
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5			**10**
		No	Yes - adjacent			**Yes - on site**
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10		**15**
		Not habitat	Dispersal	Foraging		**Breeding**
Approximate density (per ha)	Score	0	**10**	20		30
			3.8 records per 10,000 ha			
Role/importance of species population on site*	Score (*Total from supplementary table below)*	0	**5**	10		15
		0	**5 - 15**	20 - 35		40 - 45
Total SRR score (out of 70)	40					
SRR Score (out of 4)	**2.29**					

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	**0**	15
		No	Yes/ Possibly
*Near the limit of the species range	Score	0	**15**
		No	**Yes**

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	1.67	2.01	
Site Context Score (out of 3)	2.70	2.70	
Species Stocking Rate Score (out of 4)	2.29	2.29	
Habitat Quality score (out of 10)	*6.65*	*7.00*	
Assessment Unit area (ha) in disturbance footprint	23.3	168.8	
Total significant impact area (ha) for this MNES	192.1	192.1	
Size Weighting	0.12	0.88	
Weighted Habitat Quality Score	*0.80*	*6.16*	*6.96*

AU 2 - Breeding habitat (RE 11.12.21)										AU 2 - Breeding habitat (RE 11.3.2)				AU 2 - Breeding habitat (RE 11.12.1)							
Benchmark	Impact 01			Impact 02			Impact 13			Benchmark	Impact 05			Benchmark	Impact 17			Average	Average	Total average %	
11.12.21	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	11.12.1	Raw Data	% Benchm	Score	%	Score	benchmark	Total average score
100	100	100	*5*	100	100	*5*	100	100	*5*	100	100	100	*5*	100	100	100	*5*				
9	4	44	*2.5*	10	111	*5*	9	100	*5*	2	4	200	*5*	3	5	167	*5*				
12	5	42	*2.5*	3	25	*2.5*	7	58	*2.5*	2	5	250	*5*	6	6	100	*5*				
7	1	14	*0*	7	100	*5*	2	29	*2.5*	9	13	144	*5*	8	11	138	*5*				
19	6	32	*3*	11	58	*3*	5	26	*2.5*	15	3	20	*0*	13	1	8	*0*				
13.5	8	59	*3*	7.5	56	*3*	7	52	*3*	13.5	9.5	70	*5*	12.5	18	144	*5*				
35.5	22.1	62	*5*	24.05	68	*5*	47.8	135	*5*	22	24.4	111	*5*	21	36.25	173	*5*				
24	16.7	70	*5*	37.8	158	*5*	13.3	55	*5*	4	8.7	218	*3*	4	1.5	38	*3*				
14	0	0	*0*	23	164	*5*	0	0	*0*	26	26	100	*5*	41	40	98	*5*				
32	28.6	89	*5*	39.6	124	*5*	51.6	161	*5*	35	37	106	*5*	28	31	111	*5*				
41	2	5	*5*	8	20	*5*	2	5	*5*	18	12	67	*10*	20	6	30	*5*				
1520	5	0	*0*	870	57	*5*	990	65	*5*	281	1569	558	*2*	408	235	58	*5*				
0	5	0	*5*	1	0	*10*	5	0	*5*	0	10	0	*5*	0	1	0	*10*				
40			*12*			*24*			*16*	40			*40*	40			*32*				
40			*32*			*28*			*24*	40			*28*	40			*24*				
			85			115			91				128				119		107		98
			160			*160*			*160*				*160*				*160*		*160*		*160*
																			2.01		1.84
Max Score	Impact 01			Impact 02			Impact 13			Max Score	Impact 05			Max Score	Impact 17			Average	Average	Total average %	
																		%	Score	benchmark	Total average score
10			10			10			10	10			10	10			10				
10			10			10			10	10			10	10			10				
10			10			10			10	10			10	10			10				
10			10			10			10	10			10	10			10				
10			5			5			5	10			5	10			5				
			45			45			45				45				45		45		45
			50			*50*			*50*				*50*				*50*		*50*		*50*
																			2.70		2.70

IMPACT -Diamond Firetail

Assessment Unit - Regional Ecosystem	AU 1 - Breeding and foraging habitat (RE 11.3.2)				AU 1 - Breeding and foraging habitat (RE 11.12.1)																				AU1- Breeding and foraging habitat						Total average % benchmark	Total average score
Site Reference	Benchmark	Impact 05			Benchmar	Impact 09			Impact 17			Impact 11			Impact 15			Impact 19			Benchmar	Impact 10			Average % benchmark	Average Score		
	11.3.2	Raw Data	% Benchmark	Score	11.12.1	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.17	Raw Data	% Benchm	Score				
Recruitment of woody perennial species in EDL	100	100	100	5	100	100	100	5	100	100	5	100	100	5	100	100	5	100	100	5	100	100	100	5				
Native plant species richness - trees	2	4	200	5	3	10	333	5	5	167	5	2	67	2.5	3	100	5	3	100	5	5	5	100	5				
Native plant species richness - shrubs	2	5	250	5	6	5	83	2.5	6	100	5	5	83	2.5	3	50	2.5	3	50	2.5	4	9	225	5				
Native plant species richness - grasses	9	13	144	5	8	1	13	0	11	138	5	4	50	2.5	10	125	5	7	88	2.5	13	3	23	0				
Native plant species richness - forbes	15	3	20	0	13	3	23	0	1	8	0	6	46	2.5	11	85	2.5	4	31	2.5	14	4	29	2.5				
Tree canopy height (average of emergent, canopy, sub-canopy)	13.5	9.5	70	5	12.5	6.5	52	3	18	144	5	7	56	3	12.5	100	5	19	152	5	14.5	9	62	3				
Tree canopy cover (average of emergent, canopy, sub-canopy)	22	24.4	111	5	21	3.55	17	2	36.25	173	5	16.35	78	5	31.85	152	5	39.25	187	5	22	12	55	5				
Shrub canopy cover	4	8.7	218	3	4	6.8	170	5	1.5	38	3	1.5	38	3	0	0	0	1	25	3	14	33	236	3				
Native grass cover	26	26	100	5	41	1	2	0	40	98	5	75.2	183	5	16	39	1	19	46	1	26	21	81	3				
Organic litter	35	37	106	5	28	13.6	49	3	31	111	5	16	57	5	43	154	5	72	257	3	23	44.4	193	5				
Large trees (euc plus non-euc)	18	12	67	10	20	0	0	0	6	30	5	16	80	10	16	80	10	10	50	10	10	4	40	5				
Coarse woody debris	281	1569	558	2	408	115	28	2	235	58	5	445	109	5	523.5	128	5	240	59	5	314	435	139	5				
Non-native plant cover	0	10	0	5	0	30		3	1		10	17		5	5		5	1		10	0	11	0	5				
Quality and availability of food and foraging habitat	10			5				5			6			8			3			2				4				
Quality and availability of shelter and breeding habitat	10			4				4			3			5			2			3				8				
Site Condition Score				69				40			72			69			61			65				64		62		62
MAX Site Condition Score				*100*				*100*			*100*			*100*			*100*			*100*				*100*		*100*		*100*
Site Condition Score - out of 3																										1.87		1.87

Site Context	Max Score	Impact 05			Max Score	Impact 09			Impact 17			Impact 11			Impact 15			Impact 19			Max Score	Impact 10			Average %	Average Score		
Size of patch	10			10	10			10			10			10			10			10	10			10				
Connectedness	10			10	10			10			10			10			10			10	10			10				
Context	10			10	10			10			10			10			10			10	10			10				
Ecological Corridors	10			10	10			10			10			10			10			10	10			10				
Threats to the species	10			5	10			5			5			5			5			5	10			5				
Site Context Score				45				45			45			45			45			45				45		45		45
MAX Site Context Score				*50*				*50*			*50*			*50*			*50*			*50*				*50*		*50*		*50*
Site Context Score - out of 3																										2.7		2.7

Species Stocking Rate (SSR)					
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	**0**	5	10	
		No	Yes - adjacent	Yes - on site	
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**
		Not habitat	Dispersal	Foraging	**Breeding**
Approximate density (per ha)	Score	**0**	10	20	30
		0%			
Role/importance of species population on site*	Score (*Total from supplementary table below)*	0	**5**	10	15
		0	**May-15**	20 - 35	40 - 45
Total SRR score (out of 70)	20				
SRR Score (out of 4)	**1.14**				

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	**0**	15
		No	Yes/ Possibly
*Near the limit of the species range	Score	0	**15**
		No	**Yes**

Final habitat quality score (weighted)	AU1	Average/Final
Site Condition score (out of 3)	1.87	
Site Context Score (out of 3)	2.7	
Species Stocking Rate Score (out of 4)	1.14	
Habitat Quality score (out of 10)	5.71	
Assessment Unit area (ha) in disturbance footprint	95.8	
Total impact area (ha) for this MNES	95.8	
Size Weighting	1	
Weighted Habitat Quality Score	5.71	5.71

OFFSET - Poplar Box TEC

Assessment Unit - Regional Ecosystem	AU 1 - RE 11.3.2											
Site Reference	Benchmark	Offset 11			Offset 14			Offset 25			Average%	Average
	11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Benchma	Score
Site Condition												
Recruitment of woody perennial species in EDL	100	100	100	5	100	100	5	100	100	5	100	5
Native plant species richness - trees	2	5	250	5	5	250	5	5	250	5	250	5
Native plant species richness - shrubs	2	4	200	5	1	50	3	3	150	5.0	133	4
Native plant species richness - grasses	9	10	111	5	9	100	5	9	100	5.0	104	5
Native plant species richness - forbs	15	14	93	5	14	93	5	14	93	5.0	93	5
Tree canopy height (average of emergent, canopy, sub-canopy)	13.5	16.5	122	5	13.5	100	5	13.5	100	5	107	5
Tree canopy cover (average of emergent, canopy, sub-canopy)	22	28.75	131	5	22.75	103	5	20	91	5	108	5
Shrub canopy cover	4	4	100	5	4	100	5	4	100	5	100	5
Native grass cover	26	34	131	5	36	138	5	26	100	5	123	5
Organic litter	35	48	137	5	22	63	5	43	123	5	108	5
Large trees (euc plus non-euc)	18	40	222	15	12	67	10	12	67	10	119	12
Coarse woody debris	281	375	133	5	541	193	5	335	119	5	148	5
Non-native plant cover	0	1	0	10	1	n/a	10	1	n/a	10	0	10
Ground layer perennial vegetation cover	20			20			10			10		13
Ground layer native plant species per ha	20			10			20			16		15
Poplar box occurrence in multiple lifeform layers	20			20			20			20		20
Large trees per ha per Conservation Advice	20			20			20			20		20
Site Condition Score				150			143			141		144.5
MAX Site Condition Score				160			160			160		160
Site Condition Score - out of 7												6.32

Site Context	Max Score	Offset 11	Offset 14	Offset 25	Average %	Average Score
Size of patch	10	10	10	10		10
Connectedness	10	4	4	4		4
Context	10	8	8	8		8
Ecological Corridors	10	10	10	10		10
Role of site location to TEC overall population in the state	10	2	2	2		2
Threats to the species	10	8	8	8		8
Site Context Score		42	42	42		42
MAX Site Context Score		60	60	60		60
Site Context Score - out of 3						2.10

Final habitat quality score (weighted)	AU1
Site Condition score (out of 7)	6.32
Site Context Score (out of 3)	2.10
Habitat Quality score (out of 10)	*8.42*
Assessment Unit area (ha)	114.30
Total offset area (ha) for this MNES	114.30
Size Weighting	1.00
Weighted Habitat Quality Score	*8.42*

OFFSET - Koala

Assessment Unit - Regional Ecosystem																								
Site Reference	Benchmark	Offset 09			Offset 12			Offset 15			Benchmark	Offset 04			Offset 20			Benchmar	Offset 10			Offset 14		
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchmark	Score	Raw Data	% Benchmark	Score	11.12.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score
Site Condition																								
Recruitment of woody perennial species in EDL	100	*100*	100	*5*	100	100	*5*	100	100	*5*	100	100	100	*5*	100	100	*5*	100	100	100	*5*	100	100	*5*
Native plant species richness - trees	3	*7*	233	*5*	4	133	*5*	5	167	*5*	3	6	200	*5*	3	100	*5*	2	11	550	*5*	5	250	*5*
Native plant species richness - shrubs	6	*5.0*	83	*2.5*	4	67	*2.5*	1	17	*0.0*	5	4	80	*2.5*	0	0	*0.0*	2	5	250	*5.0*	1	50	*3*
Native plant species richness - grasses	8	*13*	163	*5*	8	100	*5*	8	100	*5*	9	9	100	*5.0*	9	100	*5.0*	9	9	100	*5.0*	9	100	*5*
Native plant species richness - forbes	13	*13*	100	*5*	13	100	*5*	13	100	*5*	19	18	95	*5*	18	95	*5.0*	15	18	120	*5.0*	18	120	*5*
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	*17*	139	*5*	11.5	92	*5*	4	32	*3*	15	10	67	*3*	13	87	*5*	13.5	19	141	*5*	10	74	*5*
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	*51*	243	*3*	38.25	182	*5*	14.5	69	*5*	20	30.5	153	*5*	25.5	128	*5*	22	33.25	151	*5*	22.75	103	*5*
Shrub canopy cover	4	*1*	13	*3*	1	25	*3*	0	0	*0*	2	1.6	80	*5*	0	0	*0*	4	19	475	*3*	0	0	*0*
Native grass cover	41	*67*	163	*5*	56	137	*5*	33	80	*3*	57	58.2	102	*5*	65.4	115	*5*	26	44	169	*5*	36	138	*5*
Organic litter	28	*30*	107	*5*	26	93	*5*	10	36	*3*	10	25	250	*3*	9	90	*5*	35	49	140	*5*	22	63	*5*
Large trees (euc plus non-euc)	20	*14*	70	*10*	10	50	*10*	14	70	*10*	10	3	30	*5*	3	30	*5*	18	24	133	*15*	12	67	*10*
Coarse woody debris	408	*270*	66	*5*	110	27	*2*	245	60	*5*	212	626	295	*2*	115	54	*5*	281	215	77	*5*	540	192	*5*
Non-native plant cover	0	*1*	n/a	*10*	1	n/a	*10*	1	n/a	*10*	0	1	n/a	*10*	1	n/a	*10*	0	1	n/a	*10*	1	n/a	*10*
Quality and availability of food and foraging habitat	40			34			34			36	40			34			34	40			36			*40*
Quality and availability of shelter	40			36			34			36	40			34			34	40			40			34
Site Condition Score				139			136			131				129			128				154			142
MAX Site Condition Score				*160*			*160*			*160*				*160*			*160*				*160*			*160*
Site Condition Score - out of 3																								
Site Context	Max Score	Offset 09			Offset 12			Offset 15			Max Score	Offset 04			Offset 20			Max Score	Offset 10					
Size of patch	10			10			10			10	10			10			10	10			10			10
Connectedness	10			8			8			8	10			10			8	10			10			8
Context	10			8			8			10	10			10			10	10			10			8
Ecological Corridors	10			10			10			10	10			10			10	10			10			10
Threats to the species	10			10			10			10	10			10			10	10			10			10
Site Context Score				46			46			48				50			48				50			
MAX Site Context Score				*50*			*50*			*50*				*50*			*50*				*50*			
Site Context Score - out of 3																								

Species Stocking Rate (SSR)					
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5	**10**	
		No	Yes - adjacent	**Yes - on site**	
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**
		Not habitat	Dispersal	Foraging	Breeding
Approximate density (per ha)	Score	0	**10**	20	30
			> 4 p/ 10,000 ha		
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	**5**	10	15
		0	**5 - 15**	20 - 35	40 - 45
Total SRR score (out of 70)	40				
SRR Score (out of 4)	**2.29**				

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	0	**15**
		No	**Yes/ Possibly**
*Near the limit of the species range	Score	**0**	15
		No	Yes

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	2.48	2.64	2.56
Site Context Score (out of 3)	2.45	2.94	2.69
Species Stocking Rate Score (out of 4)	2.29	2.29	2.29
Habitat Quality score (out of 10)	*7.21*	*7.86*	7.54
Assessment Unit area (ha)	5,006	263.4	5268.90
Total offset area (ha) for this MNES	5268.9	5268.9	5268.9
Size Weighting	0.95	0.05	1.00
Weighted Habitat Quality Score	*6.85*	*0.39*	*7.25*

AU 1 - General Breeding and Foraging Habtiat

Offset 27			Offset 25			Benchmar	Offset 26			Offset 18			Benchmark	Offset 31			Offset 32			Offset 33			Benchmar	Offset 34			Benchmar	Offset 35		
Raw Data	% Benchmark	Score	Raw Data	% Benchmark	Score	11.12.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.1	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.17	Raw Data	% Benchm	Score	11.12.2	Raw Data	% Benchm	Score
100	100	*5*	100	100	*5*	100	66	100	*5*	100	100	*5*	100	100	100	*5*	100	100	*5*	100	100	*5*	100	100	100	*5*	100	100	100	*5*
5	250	*5*	5	250	*5*	3	3	100	*5*	3	100	*5*	3	3	100	*5*	2	67	*3*	4	133	*5*	6	3	50	*3*	3	6	200	*5*
4	200	*5.0*	3	150	*5.0*	5	0	0	*0.0*	1	20	*0.0*	6	1	17	*0.0*	4	67	*2.5*	2	33	*3*	11	3	27	*3*	5	3	60	*2.5*
9	100	*5.0*	9	100	*5.0*	9	9	100	*5.0*	9	100	*5.0*	8	8	100	*5.0*	8	100	*5.0*	8	100	*5*	12	12	100	*5*	9	9	100	*5.0*
14	93	*5.0*	15	100	*5.0*	19	18	95	*5.0*	18	95	*5.0*	13	12	92	*5.0*	12	92	*5*	12	92	*5*	12	12	100	*5*	19	18	95	*5*
8.5	63	*3*	13.5	100	*5*	15	8	53	*3*	15	100	*5*	12.5	3.5	28	*3*	3	24	*0*	9.5	76	*5*	12.5	3.00	24	*0*	15	6.5	43	*3*
15.5	70	*5*	20	91	*5*	20	27	135	*5*	27	135	*5*	21	12	57	*5*	12	57	*5*	12	57	*5*	20.5	12	59	*5*	20	12	60	*5*
0	0	*0*	0.5	13	*3*	2	0	0	*0*	0	0	*0*	4	0	0	*0*	0	0	*0*	0	0	*0*	8	0	0	*0*	2	2	100	*5*
62.6	241	*5*	26	100	*5*	57	78	137	*5*	28	49	*1*	41	78	190	*5*	85	207	*5*	88	215	*5*	29	82	283	*5*	57	74	130	*5*
14	40	*3*	43	123	*5*	10	11	110	*5*	32	320	*3*	28	10	36	*3*	5	18	*3*	3	11	*3*	27	0	0	*0*	10	13	130	*5*
14	78	*10*	12	67	*10*	10	3	30	*5*	18	180	*15*	20	3	15	*5*	3	15	*5*	3	15	*5*	38	3	8	*5*	10	3	30	*5*
290	103	*5*	335	119	*5*	212	85	40	*2*	475	224	*2*	408	55	13	*2*	0	0	*0*	95	23	*2*	453	0	0	*0*	212	115	54	*5*
1	n/a	*10*	1	n/a	*10*	*0*	*1*	n/a	*10*	*1*	n/a	*10*	0	1	#DIV/0!	*10*	1	#DIV/0!	*10*	1	n/a	*10*	0	1	#DIV/0!	*10*	0	3	#DIV/0!	*10*
		36			40	*40*			*34*			*40*	20			*34*			*34*			34	20		0	34	20		0	*34*
		36			34	*40*			*34*			*40*	60			*34*			*34*			34	60		0	34	60		0	*34*
		138			143				123			141				121			116			126				113				134
		160			*160*				*160*			*160*				*160*			*160*			*160*				*160*				*160*

Offset 27			Offset 25			Max Score	Offset 26			Offset 18			Max Score	Offset 31			Offset 32			Offset 33			Max Score	Offset 34			Max Score	Offset 35		
		10			10	10			10			10	10			0			0			0	10			0	10			0
		10			2	10			10			10	10			4			2			4	10			4	10			2
		10			8	10			10			10	10			4			2			4	10			4	10			2
		10			10	10			10			10	10			10			10			10	10			10	10			10
		10			10	10			10			10	10			10			10			10	10			10	10			10
		50			32				50			50				28			24			28				28				24
		50			*50*				*50*			*50*				*50*			*50*			*50*				*50*				*50*

AU 2 - Preferred Breeding & Foraging Habitat																							
Benchmar	Offset 17			Average %	Average Score	Benchmar	Offset 16			Benchmar	Offset 11			Offset 30			Benchmar	Offset 24			Average %	Average Score
11.3.2	Raw Data	% Benchm	Score	benchma		11.3.25	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchmar	Score	11.3.17	Raw Data	% Benchmark	Score	benchmark	
100	100	100	*5*	100	5	100	100	100	*5*	100	100	100	5	100	100	*5*	100	89	89	*5*	*97*	*5*
2	5	250	*5*	184	5	4	9	225	*5*	2	5	250	*5*	11	550	*5*	6	9	150	*5*	*294*	*5*
2	3	150	*5.0*	75	2	4	2	50	*3*	2	4	200	*5*	2	100	*5*	11	3	27	*2.5*	*94*	*4*
9	9	100	*5.0*	104	5	8	8	100	*5.0*	9	10	111	*5*	9	100	*5*	12	12	100	*5.0*	*103*	*5*
15	14	93	*5.0*	99	5	13	12	92	*5*	15	14	93	*5*	14	93	*5*	12	11	92	*5*	*93*	*5*
13.5	11.5	85	*5*	72	4	17	14.5	85	*5*	13.5	18.67	138	*5*	10.50	78	*5*	12.5	10	80	*5*	*95*	*5*
22	21.75	99	*5*	109	5	23	12	52	*5*	22	28.75	131	*5*	30.5	139	*5*	20.5	12	59	*5*	*95*	*5*
4	1	25	*3*	43	1	7	1	14	*3*	4	0	0	*0*	0.5	13	*3*	8	0.5	6	*0*	*8*	*2*
26	52.6	202	*5*	156	5	35	59	169	*5*	26	34	131	*5*	44	169	*5*	29	16.8	58	*3*	*132*	*5*
35	53	151	*5*	101	4	21	8	38	*3*	35	48	137	*5*	33	94	*5*	27	17	63	*5*	*83*	*5*
18	9	50	*10*	55	8	32	30	94	*10*	18	40	222	*15*	10	56	*10*	38	22	58	*10*	*107*	*11*
281	295	105	*5*	86	3	473	385	81	*5*	281	375	133	*5*	745	265	*2*	453	490	108	*5*	*147*	*4*
0	1	n/a	*10*		10	0	3	n/a	*10*	0	1	n/a	*10*	1	n/a	*10*	0	1	n/a	*10*		*10*
40			34		35	40			34	40			34			34	20			*34*		*34*
40			34		35	40			34	40			40			34	60			*40*		*37*
			141		132				137				149			138				140		140.75
			160		*160*				*160*				*160*			*160*				*180*		*160*
					2.48																	2.64

Max Score	Offset 17				Max Score	Offset 16			Max Score	Offset 11			Offset 30			Max Score	Offset 24			Average %	Average Score
10			10	7	10			10	10			10			10	10			10		*10*
10			10	4	10			10	10			10			10	10			8		*10*
10			10	4	10			10	10			10			10	10			8		*10*
10			10	10	10			10	10			10			10	10			10		*10*
10			10	10	10			10	10			10			10	10			10		*10*
			50	41				50				50			50				46		49
			50	*50*				*50*				*50*			*50*				*50*		*50*
				2.45																	2.94

OFFSET - Greater Glider

Assessment Unit - Regional Ecosystem																						
Site Reference	Benchmark	Offset 09			Offset 12			Offset 15			Benchmar	Offset 27			Benchmar	Offset 04			Offset 26		
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	11.12.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score
Site Condition																					
Recruitment of woody perennial species in EDL	100	*100*	100	*5*	100	100	*5*	100	100	*5*	100	100	100	*5*	100	100	100	*5*	100	100	*5*
Native plant species richness - trees	3	*7*	233	*5*	4	133	*5*	5	167	*5*	2	5	250	*5*	3	6	200	*5*	3	100	*5*
Native plant species richness - shrubs	6	*6.0*	100	*5.0*	6	100	*5.0*	6	100	*5.0*	2	4	200	*5.0*	5	4	80	*2.5*	0	0	*0.0*
Native plant species richness - grasses	8	*13*	163	*5*	8	100	*5*	8	100	*5*	9	9	100	*5.0*	9	9	100	*5.0*	9	100	*5.0*
Native plant species richness - forbs	13	*13*	100	*5*	13	100	*5*	13	100	*5*	15	15	100	*5.0*	19	19	100	*5*	19	100	*5.0*
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	*17*	139	*5*	11.5	92	*5*	4	32	*3*	13.5	8.5	63	*3*	15	10	67	*3*	8	53	*3*
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	*51*	243	*3*	38.25	182	*5*	14.5	69	*5*	22	15.5	70	*5*	20	30.5	153	*5*	27	135	*5*
Shrub canopy cover	4	*1*	13	*3*	1	25	*3*	0	0	*0*	4	0	0	*0*	2	1.6	80	*5*	0	0	*0*
Native grass cover	41	*67*	163	*5*	56	137	*5*	33	80	*3*	26	62.6	241	*5*	57	58.2	102	*5*	78	137	*5*
Organic litter	28	*30*	107	*5*	26	93	*5*	10	36	*3*	35	14	40	*3*	10	25	250	*3*	11	110	*5*
Large trees (euc plus non-euc)	20	*14*	70	*10*	10	50	*10*	14	70	*10*	18	14	78	*10*	10	3	30	*5*	3	30	*5*
Coarse woody debris	408	*270*	66	*5*	110	27	*2*	245	60	*5*	281	290	103	*5*	212	626	295	*2*	85	40	*2*
Non-native plant cover	0	*1*	n/a	*10*	1	n/a	*10*	1	n/a	*10*	0	1	n/a	*10*	0	5	n/a	*5*	*1*		*10*
Quality and availability of food and foraging habitat	20			*18*			*18*			18	20			18	20			*18*			*18*
Quality and availability of shelter	60			*58*			*58*			58	60			58	60			*58*			*60*
Site Condition Score				147			146			140				142				132			133
MAX Site Condition Score				*160*			*160*			*160*				*160*				*160*			*160*
Site Condition Score - out of 3																					
Site Context																					
Size of patch	10			10			10			10	10			10	10			10	10		10
Connectedness	10			8			8			8	10			10	10			10	10		10
Context	10			8			8			10	10			10	10			10	10		10
Ecological Corridors	10			10			10			10	10			10	10			10	10		10
Threats to the species	10			10			10			10	10			10	10			10	10		10
Site Context Score				46			46			48				50				50			50
MAX Site Context Score				*50*			*50*			*50*				*50*				*50*			*50*
Site Context Score - out of 3																					

Species Stocking Rate (SSR)						
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	**5**		10	
		No	**Yes - adjacent**		Yes - on site	
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**	
		Not habitat	Dispersal	Foraging	**Breeding**	
Approximate density (per ha)	Score	0	**10**	**20**		30
				> 4.9 p/ 10,000 ha		
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	5	**10**		15
		0	5 - 15	**20 - 35**		40 - 45
Total SRR score (out of 70)	55					
SRR Score (out of 4)	**3.14**					

*SSR Supplementary Table			
*Key source population for breeding	Score	0	**10**
		No	**Yes/ Possibly**
*Key source population for dispersal	Score	0	**5**
		No	**Yes/ Possibly**
*Necessary for maintaining genetic diversity	Score	0	**15**
		No	**Yes/ Possibly**
*Near the limit of the species range	Score	**0**	15
		No	Yes

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	2.52	2.73	2.62
Site Context Score (out of 3)	2.64	2.92	2.78
Species Stocking Rate Score (out of 4)	3.14	3.14	3.14
Habitat Quality score (out of 10)	*8.30*	*8.80*	8.55
Assessment Unit area (ha)	4817.8	250.4	5068.20
Total offset area (ha) for this MNES	5068.2	5068.2	5068.2
Size Weighting	0.95	0.05	1.00
Weighted Habitat Quality Score	*7.89*	*0.43*	*8.33*

AU 1 - Foraging & Dispersal Habitat																																	
Offset 18			Offset 20			Benchmar	Offset 31			Offset 32			Offset 33			Benchmar	Offset 34			Benchmar	Offset 35			Benchmar	Offset 17			Average	Average	Benchmar	Offset 16		
Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.17	Raw Data	% Benchm	Score	11.12.2	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	%	Score	11.3.25	Raw Data	% Benchm	Score
100	100	5	100	100	5	100	100	100	5	100	100	5	100	100	5	100	100	100	5	100	100	100	5	100	100	100	5	100	5	100	100	100	5
4	133	5	3	100	5	3	3	100	5	2	67	3	4	133	5	6	3	50	3	3	6	200	5	2	5	250	5	151	5	4	9	225	5
5	100	5.0	0	0	0.0	6	1	17	0.0	4	67	2.5	2	33	3	11	3	27	3	5	3	60	2.5	2	3	150	5.0	74	3	4	2	50	3
9	100	5.0	9	100	5.0	8	8	100	5.0	8	100	5.0	8	100	5	12	12	100	5	9	9	100	5.0	9	9	100	5.0	104	5	8	8	100	5.0
19	100	5.0	19	100	5.0	13	13	100	5.0	13	100	5	13	100	5	12	12	100	5	19	19	100	5	15	15	100	5.0	100	5	13	13	100	5
11	73	5	13	87	5	12.5	3.5	28	3	3	24	0	9.5	76	5	12.5	3.00	24	0	15	6.5	43	3	13.5	11.5	85	5	63	3	17	14.5	85	5
27	135	5	25.5	128	5	21	12	57	5	12	57	5	12	57	5	20.5	12	59	5	20	10	50	5	22	21.75	99	5	107	5	23	12	52	5
0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	8	0	0	0	2	2	100	5	4	1	25	3	17	1	7	1	14	3
28	49	1	65.4	115	5	41	78	190	5	85	207	5	88	215	5	29	82	283	5	57	74	130	5	26	52.6	202	5	161	5	35	59	169	5
32	320	3	9	90	5	28	10	36	3	5	18	3	3	11	3	27	0	0	0	10	13	130	5	35	53	151	5	99	4	21	8	38	3
18	180	15	3	30	5	20	3	15	5	3	15	5	3	15	5	38	3	8	5	10	3	30	5	18	6	33	5	47	7	32	32	100	15
475	224	2	115	54	5	408	55	13	2	0	0	0	95	23	2	453	0	0	0	212	115	54	5	281	295	105	5	76	3	473	385	81	5
1	n/a	10	7	n/a	5	0	5	#DIV/0!	5	7	#DIV/0!	5	5	n/a	5	0	5	#DIV/0!	5	0	3	#DIV/0!	10	0	7	n/a	5		8	0	3	n/a	10
		18			18	20		0	18			18			18	20			18	20			18	20			18		18	20			18
		58			58	60		0	58			58			58	60			58	60			58	60			58		58	60			58
		142			131				124			119			129				116				142				139		134				150
		160			160				160			160			160				160				160				160		160				160
																													2.52				
		10			10	10			10			10			10	10			10	10			10	10			10		10	10			10
		10			8	10			4			2			2	10			2	10			4	10			10		7	10			10
		10			10	10			4			2			2	10			2	10			4	10			10		7	10			10
		10			10	10			10			10			10	10			10	10			10	10			10		10	10			10
		10			10	10			10			10			10	10			10	10			10	10			10		10	10			10
		50			48				38			34			34				34				38				50		44				50
		50			50				50			50			50				50				50				50		50				50
																													2.64				

AU 2 - Likely/current denning Habitat																						
Benchmar	Offset 10			Offset 11			Offset 14			Offset 30			Offset 25			Benchmar	Offset 24			Average	Average
11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.17	Raw Data	% Benchm	Score	%	
100	100	100	*5*	100	100	5	100	100	*5*	100	100	5	100	100	5	100	100	100	*5*	100	5
2	11	550	*5*	5	250	*5*	5	250	*5*	11	550	5	5	250	5	6	9	150	*5*	318	5
2	5	250	*5.0*	4	200	*5.0*	1	50	*3*	2	100	5	3	150	5	11	3	27	*2.5*	118	4
9	9	100	*5.0*	10	111	*5.0*	9	100	*5*	9	100	5	9	100	5	12	12	100	*5.0*	102	5
15	15	100	*5.0*	15	100	5	15	100	*5*	15	100	5	15	100	5	12	12	100	*5*	100	5
13.5	19	141	*5*	18.66667	138	*5*	13.5	100	*5*	10.50	78	*5*	13.5	100	*5*	12.5	10	80	*5*	103	5
22	33.25	151	*5*	28.75	131	*5*	22.75	103	*5*	30.5	139	*5*	20	91	*5*	20.5	12	59	*5*	104	5
4	19	475	*3*	0	0	*0*	0	0	*0*	0.5	13	*3*	0.5	13	*3*	8	0.5	6	*0*	74	2
26	44	169	*5*	34	131	*5*	36	138	*5*	44	169	*5*	26	100	*5*	29	16.8	58	*3*	133	5
35	49	140	*5*	48	137	*5*	22	63	*5*	33	94	*5*	43	123	*5*	27	17	63	*5*	94	5
18	24	133	*15*	40	222	*15*	12	67	*10*	10	56	*10*	12	67	*10*	38	22	58	*10*	100	12
281	215	77	*5*	375	133	*5*	541	193	*5*	745	265	*2*	335	119	*5*	453	490	108	*5*	139	5
0	1	n/a	*10*	1	n/a	*10*	1	n/a	*10*	1	n/a	*10*	1	n/a	*10*	0	5	n/a	*5*		9
20			*18*			*18*			18			18			18	20			*18*		18
60			*58*			*58*			58			58			58	60			*58*		58
			154			151			144			146			139				137		146
			160			*160*			*160*			*160*			*160*				*160*		*160*
																					2.73
10			10			10			10			10			10	10			10		10
10			10			10			8			10			10	10			10		10
10			10			10			8			10			10	10			10		10
10			10			10			10			10			10	10			10		10
10			10			10			10			10			10	10			10		10
			50			50			46			50			45				50		49
			50			*50*			*50*			*50*			*50*				*50*		*50*
																					2.92

OFFSET - Squatter Pigeon

Assessment Unit - Regional Ecosystem	AU 1 - Breeding Habitat																														
Site Reference	Benchmark	Offset 04				Offset 20				Benchmar	Offset 16				Benchmar	Offset 10				Offset 11				Offset 14				Offset 27				Offset 25			
	11.12.2	Raw Data	% Benchmark		Score	Raw Data	% Benchm		Score	11.3.25	Raw Data	% Benchm		Score	11.3.2	Raw Data	% Benchm		Score	Raw Data	% Benchm		Score	Raw Data	% Benchm		Score	Raw Data	% Benchm		Score	Raw Data	% Benchm		Score
Site Condition																																			
Recruitment of woody perennial species in EDL	100	100	100		*5*	100	100		*5*	100	100	100		*5*	100	100	100		*5*	100	100		*5*	100	100		*5*	100	100		*5*	100	100		*5*
Native plant species richness - trees	3	6	200		*5*	3	100		*5*	4	9	225		*5*	2	11	550		*5*	5	250		*5*	5	250		*5*	5	250		*5*	5	250		*5*
Native plant species richness - shrubs	5	5	100		*5.0*	5	100		*5.0*	4	4	100		*5*	2	5	250		*5.0*	4	200		*5*	2	100		*5*	4	200		*5.0*	3	150		*5.0*
Native plant species richness - grasses	9	9	100		*5.0*	9	100		*5.0*	8	8	100		*5.0*	9	9	100		*5.0*	10	111		*5*	9	100		*5*	9	100		*5.0*	9	100		*5.0*
Native plant species richness - forbes	19	18	95		*5*	18	95		*5.0*	13	12	92		*5*	15	14	93		*5.0*	14	93		*5*	14	93		*5*	14	93		*5.0*	14	93		*5.0*
Tree canopy height (average of emergent, canopy, sub-canopy)	15	10	67		*3*	13	87		*5*	17	14.5	85		*5*	13.5	19	141		*5*	18.66667	138		*5*	13.5	100		*5*	8.5	63		*3*	13.5	100		*5*
Tree canopy cover (average of emergent, canopy, sub-canopy)	20	30.5	153		*5*	25.5	128		*5*	23	20	87		*5*	22	33.25	151		*5*	28.75	131		*5*	22.75	103		*5*	15.5	70		*5*	20	91		*5*
Shrub canopy cover	2	0.5	25		*3*	0.5	25		*3*	7	1	14		*3*	4	19	475		*3*	1	25		*3*	1	25		*3*	1	25		*3*	0.5	13		*3*
Native grass cover	57	58.2	102		*5*	65.4	115		*5*	35	59	169		*5*	26	44	169		*5*	34	131		*5*	36	138		*5*	62.6	241		*5*	26	100		*5*
Organic litter	10	25	250		*3*	9	90		*5*	21	8	38		*3*	35	49	140		*5*	48	137		*5*	22	63		*5*	14	40		*3*	43	123		*5*
Large trees (euc plus non-euc)	10	0	0		*0*	0	0		*0*	32	30	94		*10*	18	24	133		*15*	40	222		*15*	12	67		*10*	14	78		*10*	12	67		*10*
Coarse woody debris	212	626	295		*2*	115	54		*5*	473	385	81		*5*	281	215	77		*5*	375	133		*5*	541	193		*5*	290	103		*5*	335	119		*5*
Non-native plant cover	0	1	n/a		*10*	1	n/a		*10*	0	3	n/a		*10*	0	1	n/a		*10*	1	n/a		*10*	1	n/a		*10*	1	n/a		*10*	1	n/a		*10*
Quality and availability of food and foraging habitat	40				*32*				32					32	40				*32*				*32*	28			*32*				32				32
Quality and availability of shelter and breeding habitat	40				*32*				32					32	40				*32*				*32*	32			36				32				40
Site Condition Score					120				127					135					142				142				141				133				126
MAX Site Condition Score					*160*				*160*					*160*					*160*				*160*				*160*				*160*				*160*
Site Condition Score - out of 3																																			
Site Context	Max Score	Offset 04				Offset 20				Max Score	Offset 16				Max Score	Offset 10				Offset 11				Offset 14				Offset 27				Offset 25			
Size of patch	10				10				10	10				10	10				10				10				10				10				10
Connectedness	10				10				10	10				10	10				10				10				10				10				10
Context	10				10				10	10				10	10				10				10				10				10				10
Ecological Corridors	10				10				10	10				10	10				10				10				10				10				10
Threats to the species	10				10				10	10				10	10				10				10				10				10				10
Site Context Score					50				50					50					50				50								50				45
MAX Site Context Score					*50*				*50*					*50*					*50*				*50*								*50*				*50*
Site Context Score - out of 3																																			

Species Stocking Rate (SSR)					
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5		**10**
		No	Yes - adjacent		**Yes - on site**
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**
		Not habitat	Dispersal	Foraging	**Breeding**
Approximate density (per ha)	Score	0	**10**	20	30
			>4.9 but < 9.9 p/ 10,000 ha		
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	**5**	10	15
		0	**5 - 15**	20 - 35	40 - 45
Total SRR score (out of 70)	40				
SRR Score (out of 4)	**2.29**				

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	**0**	15
		No	Yes/ Possibly
*Near the limit of the species range	Score	0	**15**
		No	**Yes**

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	2.51	2.57	2.54
Site Context Score (out of 3)	2.91	3.00	2.96
Species Stocking Rate Score (out of 4)	2.29	2.29	2.29
Habitat Quality score (out of 10)	*7.70*	*7.85*	7.78
Assessment Unit area (ha)	3,437.70	673.9	4111.60
Total offset area (ha) for this MNES	4,111.60	4,111.60	4,111.60
Size Weighting	0.80	0.20	1.00
Weighted Habitat Quality Score	*6.16*	*1.57*	*7.73*

												AU 2 - Foraging & Dispersal Habitat																					
Benchmar	Offset 09			Offset 12			Offset 15			% benchma	Average	Benchmar	Offset 30			Benchmar	Offset 24			Benchmar	Offset 26			Offset 18			Average %	Average					
11.12.1	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	rk	Score	11.3.2	Raw Data	% Benchm	Score	11.3.17	Raw Data	% Benchm	Score	11.12.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	benchmark	Score				
100	*100*	100	*5*	100	100	*5*	100	100	*5*	100	5	100	100	100	*5*	100	89	89	*5*	100	100	100	*5*	100	100	*5*	97	5				
3	*7*	233	*5*	4	133	*5*	5	167	*5*	237	5	2	5	250	*5*	6	9	150	*5*	3	3	100	*5*	4	133	*5*	158	5				
6	*6.0*	100	*5.0*	6	100	*5.0*	6	100	*5.0*	136	5	2	4	200	*5*	11	10	91	*5.0*	5	5	100	*5.0*	5	100	*5.0*	123	5				
8	*13*	163	*5*	8	100	*5*	8	100	*5*	107	5	9	10	111	*5*	12	12	100	*5.0*	9	9	100	*5.0*	9	100	*5.0*	103	5				
13	*12*	92	*5*	12	92	*5*	12	92	*5*	93	5	15	14	93	*5*	12	12	100	*5*	19	18	95	*5.0*	18	95	*5.0*	96	5				
12.5	*17*	139	*5*	11.5	92	*5*	4	32	*3*	95	4	13.5	18.67	138	*5*	12.5	10	80	*5*	15	8	53	*3*	11	73	*5*	86	5				
21	*20*	95	*5*	38.25	182	*5*	14.5	69	*5*	115	5	22	28.75	131	*5*	20.5	20	98	*5*	20	27	135	*5*	27	135	*5*	125	5				
4	*1*	13	*3*	1	25	*3*	1	25	*3*	63	3	4	1	25	*3*	8	2	25	*3*	2	0.5	25	*3*	0.5	25	*3*	25	3				
41	*67*	163	*5*	56	137	*5*	33	80	*3*	140	5	26	34	131	*5*	29	16.8	58	*3*	57	78	137	*5*	28	49	*1*	94	4				
28	*30*	107	*5*	26	93	*5*	10	36	*3*	102	4	35	48	137	*5*	27	17	63	*5*	10	11	110	*5*	32	320	*3*	158	5				
20	*14*	70	*10*	10	50	*10*	14	70	*10*	77	9	18	40	222	*15*	38	22	58	*10*	10	0	0	*0*	18	180	*15*	115	10				
408	*270*	66	*5*	110	27	*2*	245	60	*5*	110	4	281	375	133	*5*	453	490	108	*5*	212	85	40	*2*	475	224	*2*	126	4				
0	*1*	n/a	*10*	1	n/a	*10*	1	n/a	*10*		10	0	1	n/a	*10*	0	1	n/a	*10*	*0*	*1*	n/a	*10*	*1*	*#REF!*	*10*		10				
40			*32*			*32*			32		32	40			*32*	40			*32*	*40*			*32*			*32*		32				
40			*32*			*32*			36		33	40			40	40			*32*	*40*			*32*			*40*		36				
			137			134			135		134				150				135				122			141		137				
			160			*160*			*160*		*160*				*160*				*160*				*160*			*160*		*160*				
											2.51																	2.57				
Max Score	Offset 09			Offset 12			Offset 15			Average %	Average Score	Max Score	Offset 30			Max Score	Offset 24			Max Score	Offset 26			Offset 18			Average %	Average Score				
10			10			10			10		10	10			10	10			10	10			10			10		10				
10			8			8			8		9	10			10	10			10	10			10			10		10				
10			8			8			10		10	10			10	10			10	10			10			10		10				
10			10			10			10		10	10			10	10			10	10			10			10		10				
10			10			10			10		10	10			10	10			10	10			10			10		10				
			46			46			48		49				50				50				50			50		50				
			50			*50*			*50*		*50*				*50*				*50*				*50*			*50*		*50*				
											2.91																	3.00				

OFFSET - Diamond Firetail

Assessment Unit - Regional Ecosystem	AU 1 - Breeding and Foraging Habitat																									
Site Reference	Benchmark	Offset 09			Offset 15			Benchmar	Offset 04				Offset 20				Benchmar	Offset 10			Offset 14				Average	Average
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	11.12.2	Raw Data	% Benchm	Score		Raw Data	% Benchm	Score		11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score		%	Score
Site Condition																										
Recruitment of woody perennial species in EDL	100	*100*	100	*5*	60	60	*3*	100	100	100	*5*		100	100	*5*		100	100	100	*5*	100	100	*5*		93	5
Native plant species richness - trees	3	*7*	233	*5*	5	167	*5*	3	6	200	*5*		3	100	*5*		2	11	550	*5*	5	250	*5*		250	5
Native plant species richness - shrubs	6	*5.0*	83	*2.5*	1	17	*0.0*	5	4	80	*2.5*		0	0	*0.0*		2	5	250	*5.0*	1	50	*3*		80	2
Native plant species richness - grasses	8	*13*	163	*5*	9	113	*5*	9	9	100	*5.0*		9	100	*5.0*		9	9	100	*5.0*	9	100	*5*		113	5
Native plant species richness - forbes	13	*12*	92	*5*	12	92	*5*	19	18	95	*5*		18	95	*5.0*		15	14	93	*5.0*	14	93	*5*		93	5
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	*17*	139	*5*	4	32	*3*	15	10	67	*3*		13	87	*5*		13.5	19	141	*5*	13.5	100	*5*		94	4
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	*51*	243	*3*	14.5	69	*5*	20	30.5	153	*5*		25.5	128	*5*		22	33.25	151	*5*	22.75	103	*5*		141	5
Shrub canopy cover	4	*4*	100	*5*	4	100	*5*	2	2	100	*5*		2	100	*5*		4	19	475	*3*	4	100	*5*		163	5
Native grass cover	41	*67*	163	*5*	33	80	*3*	57	58.2	102	*5*		65.4	115	*5*		26	44	169	*5*	36	138	*5*		128	5
Organic litter	28	*30*	107	*5*	10	36	*3*	10	25	250	*3*		9	90	*5*		35	49	140	*5*	22	63	*5*		114	4
Large trees (euc plus non-euc)	20	*14*	70	*10*	14	70	*10*	10	5	50	*10*		5	50	*10*		18	24	133	*15*	12	67	*10*		73	11
Coarse woody debris	408	*270*	66	*5*	245	60	*5*	212	626	295	*2*		115	54	*5*		281	215	77	*5*	541	193	*5*		124	5
Non-native plant cover	0	*1*		*10*	1	n/a	*10*	0	1	n/a	*10*		1	n/a	*10*		0	1	n/a	*10*	1	n/a	*10*			10
Quality and availability of food and foraging habitat	10			*9*			*9*	10			*9*				*9*		10			*9*			*9*			9
Quality and availability of shelter and breeding habitat	10			*9*			*9*	10			*9*				*9*		10			*9*			*9*			9
Site Condition Score				89			80				84				88					96			91			*87.75*
MAX Site Condition Score				*100*			*100*				*100*				*100*					*100*			*100*			*100*
Site Condition Score - out of 3																										2.63
Site Context	Max Score				Offset 15																				Average %	Average Score
Size of patch	10			10			10	10			10				10		10			10			10			10
Connectedness	10			8			8	10			10				10		10			10			10			9
Context	10			8			10	10			10				10		10			10			10			10
Ecological Corridors	10			10			10	10			10				10		10			10			10			10
Threats to the species	10			10			10	10			10				10		10			10			10			10
Site Context Score				46			48				50				50					50			50			*49*
MAX Site Context Score				*50*			*50*				*50*				*50*					*50*			*50*			*50*
Site Context Score - out of 3																										2.94

Species Stocking Rate (SSR)						
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	**0**		5		10
		No		Yes - adjacent		Yes - on site
Species usage of the site (habitat type & evidenced usage)	Score	0		**5**	10	**15**
		Not habitat		Dispersal	Foraging	**Breeding**
Approximate density (per ha)	Score	**0**		10	20	30
		0%				
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0		**5**	10	15
		0	**5 - 15**		20 - 35	40 - 45
Total SRR score (out of 70)	20					
SRR Score (out of 4)	**1.14**					

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	**0**	15
		No	Yes/ Possibly
*Near the limit of the species range	Score	0	**15**
		No	**Yes**

Final habitat quality score (weighted)	AU1
Site Condition score (out of 3)	2.63
Site Context Score (out of 3)	2.94
Species Stocking Rate Score (out of 4)	1.14
Habitat Quality score (out of 10)	*6.72*
Assessment Unit area (ha)	1,226.20
Total offset area (ha) for this MNES	1,226.20
Size Weighting	1.00
Weighted Habitat Quality Score	*6.72*

IMPACT- Poplar Box TEC

Assessment Unit - Regional Ecosystem	AU 1 - RE 11.3.2										
Site Reference	Benchmark	Impact 05			Impact 23			Average % Benchmark	Average Score	Total average % benchmark	Total average score
	11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score				
Site Condition											
Recruitment of woody perennial species in EDL	100	100	100	*5*	100	100	*5*				
Native plant species richness - trees	2	4	200	*5*	5	250	*5*				
Native plant species richness - shrubs	2	5	250	*5*	2	100	*5*				
Native plant species richness - grasses	9	13	144	*5*	7	78	*2.5*				
Native plant species richness - forbs	15	3	20	*0*	4	27	*2.5*				
Tree canopy height (average of emergent, canopy, sub-canopy)	13.5	9.5	70	*5*	24.5	181	*5*				
Tree canopy cover (average of emergent, canopy, sub-canopy)	22	24.4	111	*5*	20	91	*5*				
Shrub canopy cover	4	8.7	218	*3*	0	0	*0*				
Native grass cover	26	26	100	*5*	72	277	*5*				
Organic litter	35	37	106	*5*	11	31	*3*				
Large trees (euc plus non-euc)	18	12	67	*10*	16	89	*10*				
Coarse woody debris	281	1569	558	*2*	185	66	*5*				
Non-native plant cover	0	10	0	*5*	1	0	*10*				
Ground layer perennial vegetation cover	20			*16*			*20*				
Ground layer native plant species per ha	20			*12*			*12*				
Poplar box occurrence in multiple lifeform layers	20			*8*			*8*				
Large trees per ha per Conservation Advice	20			*20*			*20*				
Site Condition Score				116			123		119.5		119.5
MAX Site Condition Score				*160*			*160*		*160*		*160*
Site Condition Score - out of 7									5.23		5.23
Site Context	Max Score	Impact 05			Impact 23			Average % benchmark	Average Score	Total average % benchmark	Total average score
Size of patch	10			10			10				
Connectedness	10			0			0				
Context	10			8			8				
Ecological Corridors	0			0			0				
Role of site location to TEC overall population in the state	10			2			2				
Threats to the community	10			0			0				
Site Context Score				20			20		20.0		20
MAX Site Context Score				*50*			*50*		*50*		*50*
Site Context Score - out of 3									1.20		1.20

Final habitat quality score (weighted)	AU1	Average/Final
Site Condition score (out of 7)	5.23	
Site Context Score (out of 3)	1.20	
Habitat Quality score (out of 10)	*6.43*	
Assessment Unit area (ha) in disturbance footprint	6.4	
Total impact area (ha) for this MNES	6.4	
Size Weighting	1.00	
Weighted Habitat Quality Score	*6.43*	*6.43*

IMPACT - Koala

Assessment Unit - Regional Ecosystem	AU 1 - General breeding & foraging habitat (RE 11.12.1)																					AU 1 - General breeding & foraging habitat (RE 11.12.6)						
Site Reference	Benchmark	Impact 09			Impact 11			Impact 15			Impact 17			Impact 18			Impact 19			Impact 20			Benchmark	Impact 08			Impact 16		
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.6	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score
Recruitment of woody perennial species in EDL	100	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	100	*5*	100	100	*5*
Native plant species richness - trees	3	10	333	*5*	2	67	*2.5*	3	100	*5*	5	167	*5*	4	133	*5*	3	100	*5*	4	133	*5*	4	6	150	*5*	6	150	*5*
Native plant species richness - shrubs	6	5	83	*2.5*	5	83	*2.5*	3	50	*2.5*	6	100	*5*	11	183	*5*	3	50	*2.5*	3	50	*2.5*	5	7	140	*5*	10	200	*5*
Native plant species richness - grasses	8	1	13	*0*	4	50	*2.5*	10	125	*5*	11	138	*5*	12	150	*5*	7	88	*2.5*	4	50	*2.5*	8	4	50	*2.5*	2	25	*2.5*
Native plant species richness - forbes	13	3	23	*0*	6	46	*2.5*	11	85	*2.5*	1	8	*0*	4	31	*2.5*	4	31	*2.5*	6	46	*2.5*	15	6	40	*2.5*	12	80	*2.5*
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	6.5	52	*3*	7	56	*3*	12.5	100	*5*	18	144	*5*	14.3	114	*5*	19	152	*5*	18.3	146	*5*	17	7	41	*3*	9.5	56	*3*
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	3.55	17	*2*	16.35	78	*5*	31.85	152	*5*	36.25	173	*5*	27.5	131	*5*	39.25	187	*5*	32	152	*5*	29.5	18.7	63	*5*	15	51	*5*
Shrub canopy cover	4	6.8	170	*5*	1.5	38	*3*	0	0	*0*	1.5	38	*3*	17.9	448	*3*	1	25	*3*	25	625	*3*	4	5.5	138	*5*	3	75	*5*
Native grass cover	41	1	2	*0*	75.2	183	*5*	16	39	*1*	40	98	*5*	70	171	*5*	19	46	*1*	55	134	*5*	26	28	108	*5*	12	46	*1*
Organic litter	28	13.6	49	*3*	16	57	*5*	43	154	*5*	31	111	*5*	26	93	*5*	72	257	*3*	41	146	*5*	44	7.6	17	*3*	54	123	*5*
Large trees (euc plus non-euc)	20	0	0	*0*	16	80	*10*	16	80	*10*	6	30	*5*	8	40	*5*	10	50	*10*	8	40	*5*	13	0	0	*0*	6	46	*5*
Coarse woody debris	408	115	28	*2*	445	109	*5*	523.5	128	*5*	235	58	*5*	965	237	*2*	240	59	*5*	380	93	*5*	819	182.5	22	*2*	692.5	85	*5*
Non-native plant cover	0	30	0	*3*	17	0	*5*	5	0	*5*	1	0	*10*	1	0	*10*	1	0	*10*	1	0	*10*	0	14	0	*5*	45	0	*3*
Quality and availability of food and foraging habitat	40			*24*			*40*			*36*			*16*			*16*			*36*			*32*	40			*32*			*28*
Quality and availability of shelter and breeding habitat	40			*0*			*28*			*32*			*20*			*28*			*32*			*28*	40			*4*			*16*
Site Condition Score				54.5			124			124			99			107			128			121				84			96
MAX Site Condition Score				*160*			*160*			*160*			*160*			*160*			*160*			*160*				*160*			*160*
Site Condition Score - out of 3																													

Site Context	Max Score	Impact 09			Impact 11			Impact 15			Impact 17			Impact 17			Impact 17			Impact 20			Max Score	Impact 08			Impact 16		
Size of patch	10			10			10			10			10			10			10			10	10			10			10
Connectedness	10			10			10			10			10			10			10			10	10			10			10
Context	10			10			10			10			10			10			10			10	10			10			10
Ecological Corridors	10			10			10			10			10			10			10			10	10			10			10
Threats to the species	10			5			5			5			5			5			5			5	10			5			5
Site Context Score				45			45			45			45			45			45			45				45			45
MAX Site Context Score				*50*			*50*			*50*			*50*			*50*			*50*			*50*				*50*			*50*
Site Context Score - out of 3																													

Species Stocking Rate (SSR)						
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5		**10**	
		No	Yes - adjacent		**Yes - on site**	
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**	
		Not habitat	Dispersal	Foraging	**Breeding**	
Approximate density (per ha)	Score	0	**10**	20	30	
			1.67 records p/ 10,000 ha			
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	**5**	10	15	
		0	**5 - 15**	20 - 35	40 - 45	
Total SRR score (out of 70)	40					
SRR Score (out of 4)	**2.29**					

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	0	**15**
		No	**Yes/ Possibly**
*Near the limit of the species range	Score	**0**	15
		No	Yes

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	1.96	2.21	
Site Context Score (out of 3)	2.70	2.28	
Species Stocking Rate Score (out of 4)	2.29	2.29	
Habitat Quality score (out of 10)	*6.95*	*6.77*	
Assessment Unit area (ha) in disturbance footprint	851.7	16.5	
Total significant impact area (ha) for this MNES	868.1	868.1	
Size Weighting	0.98	0.02	
Weighted Habitat Quality Score	*6.81*	*0.14*	*6.94*

AU 1 - General breeding & foraging habitat (RE 11.12.17)				AU 1 - General breeding & foraging habitat (RE 11.3.26)						AU 2 - Preferred breeding & foraging habitat (RE 11.3.2)				AU 2 - Preferred breeding & foraging habitat (RE 11.3.25)													
Benchmark	Impact 10			Benchmark	Impact 21			Average %	Average	Benchmark	Impact 05			Benchmark	Impact 06			Impact 07			Impact 14			Average %	Average	Total average %	Total average score
11.12.17	Raw Data	% Benchmark	Score	11.3.26	Raw Data	% Benchmark	Score	benchmark	Score	11.3.2	Raw Data	% Benchmark	Score	11.3.25	Raw Data	% Benchmark	Score	Raw Data	% Benchmark	Score	Raw Data	% Benchmark	Score	benchmark	Score	benchmark	
100	100	100	5	100	100	100	5			100	100	100	5	100	100	100	5	100	100	5	100	100	5				
5	5	100	5	3	4	133	5			2	4	200	5	4	11	275	5	5	125	5	8	200	5				
4	9	225	5	3	5	167	5			2	5	250	5	4	16	400	5	1	25	3	4	100	5				
13	3	23	0	13	8	62	2.5			9	13	144	5	8	4	50	2.5	3	38	2.5	3	38	2.5				
14	4	29	2.5	14	5	36	2.5			15	3	20	0	13	18	138	5	9	69	2.5	15	115	5				
14.5	9	62	3	16.5	19	115	5			13.5	9.5	70	5	17	9.5	56	3	11.5	68	3	14	82	5				
22	12	55	5	30	44.5	148	5			22	24.4	111	5	23	23.05	100	5	18.8	82	5	34.25	149	5				
14	33	236	3	2	7.5	375	3			4	8.7	218	3	7	0.3	4	0	0	0	0	0	0	0				
26	21	81	3	36	30	83	3			26	26	100	5	35	62	177	5	78	223	5	16	46	1				
23	44.4	193	5	32	51	159	5			35	37	106	5	21	22.6	108	5	18.6	89	5	35	167	5				
10	4	40	5	16	24	150	15			18	12	67	10	32	2	6	5	20	63	10	8	25	5				
314	435	139	5	535	400	75	5			281	1569	558	2	473	919	194	5	502.5	106	5	408.7	86	5				
0	11	0	5	0	1	0	10			0	10	0	5	0	11	0	5	22	0	5	40	0	3				
40			32	40			24			40			16				36			36			36				
40			8	40			28			40			28				24			40			32				
			92				123		104.6				104				116			132			120		117.6		111
			160				160		160				160				160			160			160		160		160
									1.96																2.21		2.08

Max Score	Impact 10			Max Score	Impact 21			Average %	Average	Max Score	Impact 05			Max Score	Impact 06			Impact 07			Impact 14			Average %	Average	Total average %	Total average score
								benchmark	Score																Score	benchmark	
10			10	10			10			10			5	10			5			5			5				
10			10	10			10			10			8	10			8			8			8				
10			10	10			10			10			10	10			10			10			10				
10			10	10			10			10			10	10			10			10			10				
10			5	10			5			10			5	10			5			5			5				
			45				45		45				38				38			38			38		38		41.5
			50				50		50				50				50			50			50		50		50
									2.70																2.28		2.49

IMPACT - Greater Glider

Assessment Unit - Regional Ecosystem	AU 1 - Foraging & dispersal habitat (RE 11.12.1)																			AU 1 - Foraging & dispersal habitat (RE 11.12.6)						
Site Reference	Benchmark	Impact 09			Impact 11			Impact 15			Impact 17			Impact 18			Impact 19			Benchmark	Impact 08			Impact 16		
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.6	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score
Recruitment of woody perennial species in EDL	100	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	100	*5*	100	100	*5*
Native plant species richness - trees	3	10	333	*5*	2	67	*2.5*	3	100	*5*	5	167	*5*	4	133	*5*	3	100	*5*	4	6	150	*5*	6	150	*5*
Native plant species richness - shrubs	6	5	83	*2.5*	5	83	*2.5*	3	50	*2.5*	6	100	*5*	11	183	*5*	3	50	*2.5*	5	7	140	*5*	10	200	*5*
Native plant species richness - grasses	8	1	13	*0*	4	50	*2.5*	10	125	*5*	11	138	*5*	12	150	*5*	7	88	*2.5*	8	4	50	*2.5*	2	25	*2.5*
Native plant species richness - forbes	13	3	23	*0*	6	46	*2.5*	11	85	*2.5*	1	8	*0*	4	31	*2.5*	4	31	*2.5*	15	6	40	*2.5*	12	80	*2.5*
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	6.5	52	*3*	7	56	*3*	12.5	100	*5*	18	144	*5*	14.3	114	*5*	19	152	*5*	17	7	41	*3*	9.5	56	*3*
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	3.55	17	*2*	16.35	78	*5*	31.85	152	*5*	36.25	173	*5*	27.5	131	*5*	39.25	187	*5*	29.5	18.7	63	*5*	15	51	*5*
Shrub canopy cover	4	6.8	170	*5*	1.5	38	*3*	0	0	*0*	1.5	38	*3*	17.9	448	*3*	1	25	*3*	4	5.5	138	*5*	3	75	*5*
Native grass cover	41	1	2	*0*	75.2	183	*5*	16	39	*1*	40	98	*5*	70	171	*5*	19	46	*1*	26	28	108	*5*	12	46	*1*
Organic litter	28	13.6	49	*3*	16	57	*5*	43	154	*5*	31	111	*5*	26	93	*5*	72	257	*3*	44	7.6	17	*3*	54	123	*5*
Large trees (euc plus non-euc)	20	0	0	*0*	16	80	*10*	16	80	*10*	6	30	*5*	8	40	*5*	10	50	*10*	13	0	0	*0*	6	46	*5*
Coarse woody debris	408	115	28	*2*	445	109	*5*	523.5	128	*5*	235	58	*5*	965	237	*2*	240	59	*5*	819	182.5	22	*2*	692.5	85	*5*
Non-native plant cover	0	30	0	*3*	17	0	*5*	5	0	*5*	1	0	*10*	1	0	*10*	1	0	*10*	0	14	0	*5*	45	0	*3*
Quality and availability of food and foraging habitat	20			*4*			*12*			*12*			*12*			*12*			*12*	20			*4*			*12*
Quality and availability of shelter and breeding habitat	80			*4*			*36*			*24*			*24*			*32*			*40*	80			*8*			*16*
Site Condition Score				39			104			92			99			107			112				60			80
MAX Site Condition Score				*160*			*160*			*160*			*160*			*160*			*160*				*160*			*160*
Site Condition Score - out of 3																										

Site Context	Max Score	Impact 09			Impact 11			Impact 15			Impact 17			Impact 18			Impact 19			Max Score	Impact 08			Impact 16		
Size of patch	10			10			10			10			10			10			10	10			10			10
Connectedness	10			10			10			10			10			10			10	10			10			10
Context	10			10			10			10			10			10			10	10			10			10
Ecological Corridors	10			10			10			10			10			10			10	10			10			10
Threats to the species	10			5			5			5			5			5			5	10			5			5
Site Context Score				45			45			45			45			45			45				45			45
MAX Site Context Score				*50*			*50*			*50*			*50*			*50*			*50*				*50*			*50*
Site Context Score - out of 3																										

Species Stocking Rate (SSR)						
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5		**10**	
		No	Yes - adjacent		**Yes - on site**	
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**	
		Not habitat	Dispersal	Foraging	**Breeding**	
Approximate density (per ha)	Score	0	10	20	**30**	
					10.4 records per 10,000 ha	
Role/importance of species population on site*	Score (*Total from supplementary table below)*	0	5	**10**	15	
		0	5 - 15	**20 - 35**	40 - 45	
Total SRR score (out of 70)	65					
SRR Score (out of 4)	**3.71**					

*SSR Supplementary Table			
*Key source population for breeding	Score	0	**10**
		No	**Yes/ Possibly**
*Key source population for dispersal	Score	0	**5**
		No	**Yes/ Possibly**
*Necessary for maintaining genetic diversity	Score	0	**15**
		No	**Yes/ Possibly**
*Near the limit of the species range	Score	**0**	15
		No	Yes

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	1.59	2.38	
Site Context Score (out of 3)	2.70	2.58	
Species Stocking Rate Score (out of 4)	3.71	3.71	
Habitat Quality score (out of 10)	*8.00*	*8.67*	
Assessment Unit area (ha) in disturbance footprint	810.3	27.7	
Total significant impact area (ha) for this MNES	841.1	841.1	
Size Weighting	0.96	0.03	
Weighted Habitat Quality Score	*7.68*	*0.26*	*7.94*

AU 1 - Foraging & dispersal habitat (RE 11.12.17)						AU 2 - Likely/current denning habitat (RE 11.3.2)						AU 2 - Likely/current denning habitat (RE 11.3.25)							AU 2 - Likely/current denning habitat (RE 11.3.26)					AU 2 - Likely/current denning habitat (RE 11.12.1)							
Benchmark	Impact 10			Average %	Average	Benchmark	Impact 05			Average %	Average	Benchmark	Impact 07			Impact 14			Benchmark	Impact 21			Average %	Average	Benchmark	Impact 20			Average %	Average	Total average %	Total average
11.12.17	Raw Data	% Benchmark	Score	benchmark	Score	11.3.2	Raw Data	% Benchmark	Score	benchmark	Score	11.3.25	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.26	Raw Data	% Benchmark	Score	benchmark	Score	11.12.1	Raw Data	% Benchmark	Score	benchmark	Score	benchmark	score
100	100	100	5			100	100	100	5			100	100	100	5	100	100	5	100	100	100	5			100	100	100	5				
5	5	100	5			2	4	200	5			4	5	125	5	8	200	5	3	4	133	5			3	4	133	5				
4	9	225	5			2	5	250	5			4	1	25	3	4	100	5	3	5	167	5			6	3	50	2.5				
13	3	23	0			9	13	144	5			8	3	38	2.5	3	38	2.5	13	8	62	2.5			8	4	50	2.5				
14	4	29	2.5			15	3	20	0			13	9	69	2.5	15	115	5	14	5	36	2.5			13	6	46	2.5				
14.5	9	62	3			13.5	9.5	70	5			17	11.5	68	3	14	82	5	16.5	19	115	5			12.5	18.3	146	5				
22	12	55	5			22	24.4	111	5			23	18.8	82	5	34.25	149	5	30	44.5	148	5			21	32	152	5				
14	33	236	3			4	8.7	218	3			7	0	0	0	0	0	0	2	7.5	375	3			4	25	625	3				
26	21	81	3			26	26	100	5			35	78	223	5	16	46	1	36	30	83	3			41	55	134	5				
23	44.4	193	5			35	37	106	5			21	18.6	89	5	35	167	5	32	51	159	5			28	41	146	5				
10	4	40	5			18	12	67	10			32	20	63	10	8	25	5	16	24	150	15			20	8	40	5				
314	435	139	5			281	1569	558	2			473	502.5	106	5	408.7	86	5	535	400	75	5			408	380	93	5				
0	11	0	5			0	10	0	5			0	22	0	5	40	0	3	0	1	0	10			0	1	0	10				
20			12			20			12			20			20			12	20			16		20			16				
80			8			80			32			80			64			40	80			72		80			52				
			72		85				104						140			104				159					129		127		106
			160		160				160						160			160				160					160		160		160
					1.59																								2.38		1.98

Max Score	Impact 10			Average % Benchmark	Average Score	Max Score	Impact 05			Max Score	Impact 07			Impact 14			Max Score	Impact 21			Max Score	Impact 20			Average %	Average Score	Total average % benchmark	Total average score
10			10			10			10	10			10			10	10			10	10			10				
10			10			10			8	10			8			8	10			8	10			8				
10			10			10			10	10			10			10	10			10	10			10				
10			10			10			10	10			10			10	10			10	10			10				
10			5			10			5	10			5			5	10			5	10			5				
			45		45				43				43			43				43				43		43		44
			50		50				50				50			50				50				50		50		50
					2.70																					2.58		2.64

IMPACT - Squatter Pigeon

Assessment Unit - Regional Ecosystem	AU 1 - Foraging & dispersal habitat (RE 11.12.1)													AU 1 - Foraging & dispersal habitat (RE 11.12.6)					
Site Reference	Benchmark	Impact 04			Impact 09			Impact 18			Impact 20			Benchmark	Impact 16			Average	Average
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.6	Raw Data	% Benchmark	Score	%	Score
Recruitment of woody perennial species in EDL	100	100	100	*5*	100	100	*5*	100	100	*5*	100	100	*5*	100	100	100	*5*		
Native plant species richness - trees	3	3	100	*5*	10	333	*5*	4	133	*5*	4	133	*5*	4	6	150	*5*		
Native plant species richness - shrubs	6	4	67	*2.5*	5	83	*2.5*	11	183	*5*	3	50	*2.5*	5	10	200	*5*		
Native plant species richness - grasses	8	4	50	*2.5*	1	13	*0*	12	150	*5*	4	50	*2.5*	8	2	25	*2.5*		
Native plant species richness - forbes	13	6	46	*2.5*	3	23	*0*	4	31	*2.5*	6	46	*2.5*	15	12	80	*2.5*		
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	7.5	60	*3*	6.5	52	*3*	14.3	114	*5*	18.3	146	*5*	17	9.5	56	*3*		
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	9.9	47	*2*	3.55	17	*2*	27.5	131	*5*	32	152	*5*	29.5	15	51	*5*		
Shrub canopy cover	4	0.7	18	*3*	6.8	170	*5*	17.9	448	*3*	25	625	*3*	4	3	75	*5*		
Native grass cover	41	48	117	*5*	1	2	*0*	70	171	*5*	55	134	*5*	26	12	46	*1*		
Organic litter	28	32.8	117	*5*	13.6	49	*3*	26	93	*5*	41	146	*5*	44	54	123	*5*		
Large trees (euc plus non-euc)	20	2	10	*5*	0	0	*0*	8	40	*5*	8	40	*5*	13	6	46	*5*		
Coarse woody debris	408	88.1	22	*2*	115	28	*2*	965	237	*2*	380	93	*5*	819	692.5	85	*5*		
Non-native plant cover	0	5	0	*5*	30	0	*3*	1	0	*10*	1	0	*10*	0	45	0	*3*		
Quality and availability of food and foraging habitat	40			*20*			*20*			*16*			*16*	40			28		
Quality and availability of shelter and breeding habitat	40			*16*			*12*			*16*			*16*	40			32		
Site Condition Score				84			63			95			93				112		89
MAX Site Condition Score				*160*			*160*			*160*			*160*				*160*		*160*
Site Condition Score - out of 3																			1.67
Site Context	Max Score	Impact 04			Impact 09			Impact 18			Impact 20			Max Score	Impact 16			Average %	Average Score
Size of patch	10			10			10			10			10	10			10		
Connectedness	10			10			10			10			10	10			10		
Context	10			10			10			10			10	10			10		
Ecological Corridors	10			10			10			10			10	10			10		
Threats to the species	10			5			5			5			5	10			5		
Site Context Score				45			45			45			45				45		45
MAX Site Context Score				*50*			*50*			*50*			*50*				*50*		*50*
Site Context Score - out of 3																			2.70

Species Stocking Rate (SSR)						
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5		**10**	
		No	Yes - adjacent		**Yes - on site**	
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**	
		Not habitat	Dispersal	Foraging	**Breeding**	
Approximate density (per ha)	Score	0	**10**	20	30	
			3.8 records per 10,000 ha			
Role/importance of species population on site*	Score (*Total from supplementary table below)*	0	**5**	10	15	
		0	**5 - 15**	20 - 35	40 - 45	
Total SRR score (out of 70)	40					
SRR Score (out of 4)	**2.29**					

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	**0**	15
		No	Yes/ Possibly
*Near the limit of the species range	Score	0	**15**
		No	**Yes**

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	1.67	2.01	
Site Context Score (out of 3)	2.70	2.70	
Species Stocking Rate Score (out of 4)	2.29	2.29	
Habitat Quality score (out of 10)	*6.65*	*7.00*	
Assessment Unit area (ha) in disturbance footprint	23.3	168.8	
Total significant impact area (ha) for this MNES	192.1	192.1	
Size Weighting	0.12	0.88	
Weighted Habitat Quality Score	*0.80*	*6.16*	*6.96*

AU 2 - Breeding habitat (RE 11.12.21)										AU 2 - Breeding habitat (RE 11.3.2)				AU 2 - Breeding habitat (RE 11.12.1)				Average %	Average Score	Total average % benchmark	Total average score
Benchmark 11.12.21	Impact 01			Impact 02			Impact 13			Benchmark 11.3.2	Impact 05			Benchmark 11.12.1	Impact 17						
	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score		Raw Data	% Benchm	Score		Raw Data	% Benchm	Score				
100	100	100	*5*	100	100	*5*	100	100	*5*	100	100	100	*5*	100	100	100	*5*				
9	4	44	*2.5*	10	111	*5*	9	100	*5*	2	4	200	*5*	3	5	167	*5*				
12	5	42	*2.5*	3	25	*2.5*	7	58	*2.5*	2	5	250	*5*	6	6	100	*5*				
7	1	14	*0*	7	100	*5*	2	29	*2.5*	9	13	144	*5*	8	11	138	*5*				
19	6	32	*3*	11	58	*3*	5	26	*2.5*	15	3	20	*0*	13	1	8	*0*				
13.5	8	59	*3*	7.5	56	*3*	7	52	*3*	13.5	9.5	70	*5*	12.5	18	144	*5*				
35.5	22.1	62	*5*	24.05	68	*5*	47.8	135	*5*	22	24.4	111	*5*	21	36.25	173	*5*				
24	16.7	70	*5*	37.8	158	*5*	13.3	55	*5*	4	8.7	218	*3*	4	1.5	38	*3*				
14	0	0	*0*	23	164	*5*	0	0	*0*	26	26	100	*5*	41	40	98	*5*				
32	28.6	89	*5*	39.6	124	*5*	51.6	161	*5*	35	37	106	*5*	28	31	111	*5*				
41	2	5	*5*	8	20	*5*	2	5	*5*	18	12	67	*10*	20	6	30	*5*				
1520	5	0	*0*	870	57	*5*	990	65	*5*	281	1569	558	*2*	408	235	58	*5*				
0	5	0	*5*	1	0	*10*	5	0	*5*	0	10	0	*5*	0	1	0	*10*				
40			*12*			*24*			*16*	40			*40*	40			*32*				
40			*32*			*28*			*24*	40			*28*	40			*24*				
			85			115			91				128				119		107		98
			160			*160*			*160*				*160*				*160*		*160*		*160*
																			2.01		1.84

Max Score	Impact 01			Impact 02			Impact 13			Max Score	Impact 05			Max Score	Impact 17			Average %	Average Score	Total average % benchmark	Total average score
10			10			10			10	10			10	10			10				
10			10			10			10	10			10	10			10				
10			10			10			10	10			10	10			10				
10			10			10			10	10			10	10			10				
10			5			5			5	10			5	10			5				
			45			45			45				45				45		45		45
			50			*50*			*50*				*50*				*50*		*50*		*50*
																			2.70		2.70

IMPACT -Diamond Firetail

Assessment Unit - Regional Ecosystem	AU 1 - Breeding and foraging habitat (RE 11.3.2)				AU 1 - Breeding and foraging habitat (RE 11.12.1)																				AU1- Breeding and foraging habitat						Total average % benchmark	Total average score
Site Reference	Benchmark	Impact 05			Benchmar	Impact 09			Impact 17			Impact 11			Impact 15			Impact 19			Benchmar	Impact 10			Average % benchmark	Average Score		
	11.3.2	Raw Data	% Benchmark	Score	11.12.1	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.17	Raw Data	% Benchm	Score				
Recruitment of woody perennial species in EDL	100	100	100	5	100	100	100	5	100	100	5	100	100	5	100	100	5	100	100	5	100	100	100	5				
Native plant species richness - trees	2	4	200	5	3	10	333	5	5	167	5	2	67	2.5	3	100	5	3	100	5	5	5	100	5				
Native plant species richness - shrubs	2	5	250	5	6	5	83	2.5	6	100	5	5	83	2.5	3	50	2.5	3	50	2.5	4	9	225	5				
Native plant species richness - grasses	9	13	144	5	8	1	13	0	11	138	5	4	50	2.5	10	125	5	7	88	2.5	13	3	23	0				
Native plant species richness - forbes	15	3	20	0	13	3	23	0	1	8	0	6	46	2.5	11	85	2.5	4	31	2.5	14	4	29	2.5				
Tree canopy height (average of emergent, canopy, sub-canopy)	13.5	9.5	70	5	12.5	6.5	52	3	18	144	5	7	56	3	12.5	100	5	19	152	5	14.5	9	62	3				
Tree canopy cover (average of emergent, canopy, sub-canopy)	22	24.4	111	5	21	3.55	17	2	36.25	173	5	16.35	78	5	31.85	152	5	39.25	187	5	22	12	55	5				
Shrub canopy cover	4	8.7	218	3	4	6.8	170	5	1.5	38	3	1.5	38	3	0	0	0	1	25	3	14	33	236	3				
Native grass cover	26	26	100	5	41	1	2	0	40	98	5	75.2	183	5	16	39	1	19	46	1	26	21	81	3				
Organic litter	35	37	106	5	28	13.6	49	3	31	111	5	16	57	5	43	154	5	72	257	3	23	44.4	193	5				
Large trees (euc plus non-euc)	18	12	67	10	20	0	0	0	6	30	5	16	80	10	16	80	10	10	50	10	10	4	40	5				
Coarse woody debris	281	1569	558	2	408	115	28	2	235	58	5	445	109	5	523.5	128	5	240	59	5	314	435	139	5				
Non-native plant cover	0	10	0	5	0	30		3	1		10	17		5	5		5	1		10	0	11	0	5				
Quality and availability of food and foraging habitat	10			5				5			6			8			3			2				4				
Quality and availability of shelter and breeding habitat	10			4				4			3			5			2			3				8				
Site Condition Score				69				40			72			69			61			65				64		62		62
MAX Site Condition Score				*100*				*100*			*100*			*100*			*100*			*100*				*100*		*100*		*100*
Site Condition Score - out of 3																										1.87		1.87

Site Context	Max Score	Impact 05			Max Score	Impact 09			Impact 17			Impact 11			Impact 15			Impact 19			Max Score	Impact 10			Average %	Average Score	Total average % benchmark	Total average score
Size of patch	10			10	10			10			10			10			10			10	10			10				
Connectedness	10			10	10			10			10			10			10			10	10			10				
Context	10			10	10			10			10			10			10			10	10			10				
Ecological Corridors	10			10	10			10			10			10			10			10	10			10				
Threats to the species	10			5	10			5			5			5			5			5	10			5				
Site Context Score				45				45			45			45			45			45				45		45		45
MAX Site Context Score				*50*				*50*			*50*			*50*			*50*			*50*				*50*		*50*		*50*
Site Context Score - out of 3																										2.7		2.7

Species Stocking Rate (SSR)					
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	**0**	5	10	
		No	Yes - adjacent	Yes - on site	
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**
		Not habitat	Dispersal	Foraging	**Breeding**
Approximate density (per ha)	Score	**0**	10	20	30
		0%			
Role/importance of species population on site*	Score (*Total from supplementary table below)*	0	**5**	10	15
		0	**May-15**	20 - 35	40 - 45
Total SRR score (out of 70)	20				
SRR Score (out of 4)	**1.14**				

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	**0**	15
		No	Yes/ Possibly
*Near the limit of the species range	Score	0	**15**
		No	**Yes**

Final habitat quality score (weighted)	AU1	Average/Final
Site Condition score (out of 3)	1.87	
Site Context Score (out of 3)	2.7	
Species Stocking Rate Score (out of 4)	1.14	
Habitat Quality score (out of 10)	5.71	
Assessment Unit area (ha) in disturbance footprint	95.8	
Total impact area (ha) for this MNES	95.8	
Size Weighting	1	
Weighted Habitat Quality Score	*5.71*	*5.71*

OFFSET - Poplar Box TEC

Assessment Unit - Regional Ecosystem	AU 1 - RE 11.3.2											
Site Reference	Benchmark	Offset 11			Offset 14			Offset 25			Average%	Average
	11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Benchma	Score
Site Condition												
Recruitment of woody perennial species in EDL	100	100	100	*5*	60	60	*3*	100	100	*5*	87	4
Native plant species richness - trees	2	5	250	*5*	5	250	*5*	5	250	*5*	250	5
Native plant species richness - shrubs	2	4	200	*5*	1	50	*3*	3	150	*5.0*	133	4
Native plant species richness - grasses	9	10	111	*5*	8	89	*3*	9	100	*5.0*	100	4
Native plant species richness - forbs	15	3	20	*0*	13	87	*3*	8	53	*2.5*	53	2
Tree canopy height (average of emergent, canopy, sub-canopy)	13.5	16.5	122	*5*	13.5	100	*5*	13.5	100	*5*	107	5
Tree canopy cover (average of emergent, canopy, sub-canopy)	22	28.75	131	*5*	22.75	103	*5*	20	91	*5*	108	5
Shrub canopy cover	4	0	0	*0*	0	0	*0*	0.5	13	*3*	4	1
Native grass cover	26	34	131	*5*	36	138	*5*	26	100	*5*	123	5
Organic litter	35	48	137	*5*	22	63	*5*	43	123	*5*	108	5
Large trees (euc plus non-euc)	18	40	222	*15*	12	67	*10*	12	67	*10*	119	12
Coarse woody debris	281	375	133	*5*	541	193	*5*	335	119	*5*	148	5
Non-native plant cover	0	1	0	*10*	1	n/a	*10*	1	n/a	*10*	0	10
Ground layer perennial vegetation cover	20			*20*			*8*			*4*		11
Ground layer native plant species per ha	20			*8*			*20*			*16*		15
Poplar box occurrence in multiple lifeform layers	20			*20*			*20*			*20*		20
Large trees per ha per Conservation Advice	20			*20*			*20*			*20*		20
Site Condition Score				138			129			131		*132.333*
MAX Site Condition Score				*160*			*160*			*160*		*160*
Site Condition Score - out of 7												5.79
Site Context	Max Score	Offset 11			Offset 14			Offset 25			Average %	Average Score
Size of patch	10			10			10			10		10
Connectedness	10			4			4			4		4
Context	10			8			8			8		8
Ecological Corridors	10			10			10			10		10
Role of site location to TEC overall population in the state	10			2			2			2		2
Threats to the species	10			0			0			0		0
Site Context Score				34			34			34		*34*
MAX Site Context Score				*60*			*60*			*60*		*60*
Site Context Score - out of 3												1.70

Final habitat quality score (weighted)	AU1
Site Condition score (out of 7)	5.79
Site Context Score (out of 3)	1.70
Habitat Quality score (out of 10)	*7.49*
Assessment Unit area (ha)	114.30
Total offset area (ha) for this MNES	114.30
Size Weighting	1.00
Weighted Habitat Quality Score	*7.49*

OFFSET - Koala

Assessment Unit - Regional Ecosystem																									
Site Reference	Benchmark	Offset 09			Offset 12			Offset 15			Benchmark	Offset 04			Offset 20			Benchmar	Offset 10			Offset 14		
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchmark	Score	Raw Data	% Benchmark	Score	11.12.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score
Site Condition																								
Recruitment of woody perennial species in EDL	100	*100*	100	*5*	100	100	*5*	60	60	*3*	100	100	100	*5*	100	100	*5*	100	100	100	*5*	60	60	*3*
Native plant species richness - trees	3	*7*	233	*5*	4	133	*5*	5	167	*5*	3	6	200	*5*	3	100	*5*	2	11	550	*5*	5	250	*5*
Native plant species richness - shrubs	6	*5.0*	83	*2.5*	4	67	*2.5*	1	17	*0.0*	5	4	80	*2.5*	0	0	*0.0*	2	5	250	*5.0*	1	50	*3*
Native plant species richness - grasses	8	*13*	163	*5*	8	100	*5*	7	88	*3*	9	5	56	*2.5*	8	89	*2.5*	9	8	89	*2.5*	8	89	*3*
Native plant species richness - forbes	13	*1*	8	*0*	4	31	*3*	10	77	*3*	19	4	21	*0*	10	53	*2.5*	15	9	60	*2.5*	13	87	*3*
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	*17*	139	*5*	11.5	92	*5*	4	32	*3*	15	10	67	*3*	13	87	*5*	13.5	19	141	*5*	10	74	*5*
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	*51*	243	*3*	38.25	182	*5*	14.5	69	*5*	20	30.5	153	*5*	25.5	128	*5*	22	33.25	151	*5*	22.75	103	*5*
Shrub canopy cover	4	*1*	13	*3*	1	25	*3*	0	0	*0*	2	1.6	80	*5*	0	0	*0*	4	19	475	*3*	0	0	*0*
Native grass cover	41	*67*	163	*5*	56	137	*5*	33	80	*3*	57	58.2	102	*5*	65.4	115	*5*	26	44	169	*5*	36	138	*5*
Organic litter	28	*30*	107	*5*	26	93	*5*	10	36	*3*	10	25	250	*3*	9	90	*5*	35	49	140	*5*	22	63	*5*
Large trees (euc plus non-euc)	20	*14*	70	*10*	10	50	*10*	14	70	*10*	10	0	0	*0*	0	0	*0*	18	24	133	*15*	12	67	*10*
Coarse woody debris	408	*270*	66	*5*	110	27	*2*	245	60	*5*	212	626	295	*2*	115	54	*5*	281	215	77	*5*	540	192	*5*
Non-native plant cover	0	*1*	n/a	*10*	1	n/a	*10*	1	n/a	*10*	0	5	n/a	*5*	7	n/a	*5*	0	1	n/a	*10*	1	n/a	*10*
Quality and availability of food and foraging habitat	40			28			24			36	40			12			24	40			36			*40*
Quality and availability of shelter	40			36			32			36	40			20			20	40			40			32
Site Condition Score				128			121			124				75			89				149			133
MAX Site Condition Score				*160*			*160*			*160*				*160*			*160*				*160*			*160*
Site Condition Score - out of 3																								
Site Context	Max Score	Offset 09			Offset 12			Offset 15			Max Score	Offset 04			Offset 20			Max Score	Offset 10					
Size of patch	10			10			10			10	10			10			10	10			10			10
Connectedness	10			8			8			8	10			10			8	10			10			8
Context	10			8			8			10	10			10			10	10			10			8
Ecological Corridors	10			10			10			10	10			10			10	10			10			10
Threats to the species	10			2			2			2	10			2			2	10			2			2
Site Context Score				38			38			40				42			40				42			
MAX Site Context Score				*50*			*50*			*50*				*50*			*50*				*50*			
Site Context Score - out of 3																								

Species Stocking Rate (SSR)					
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	**5**	10	
		No	**Yes - adjacent**	Yes - on site	
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**
		Not habitat	Dispersal	Foraging	Breeding
Approximate density (per ha)	Score	**0**	10	20	30
		< 2 p/ 10,000 ha			
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	**5**	10	15
		0	**5 - 15**	20 - 35	40 - 45
Total SRR score (out of 70)	25				
SRR Score (out of 4)	**1.43**				

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	0	**15**
		No	**Yes/ Possibly**
*Near the limit of the species range	Score	**0**	15
		No	Yes

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	1.84	2.27	2.05
Site Context Score (out of 3)	2.00	2.46	2.23
Species Stocking Rate Score (out of 4)	1.43	1.43	1.43
Habitat Quality score (out of 10)	*5.26*	*6.16*	5.71
Assessment Unit area (ha)	5,006	263.4	5268.90
Total offset area (ha) for this MNES	5268.9	5268.9	5268.9
Size Weighting	0.95	0.05	1.00
Weighted Habitat Quality Score	*5.00*	*0.31*	*5.31*

AU 1 - General Breeding and Foraging Habtiat

Offset 27			Offset 25			Benchmar	Offset 26			Offset 18			Benchmark	Offset 31			Offset 32			Offset 33			Benchmar	Offset 34			Benchmar	Offset 35		
Raw Data	% Benchmark	Score	Raw Data	% Benchmark	Score	11.12.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.1	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.17	Raw Data	% Benchm	Score	11.12.2	Raw Data	% Benchm	Score
66.7	67	*3*	100	100	*5*	100	66	66	*3*	66	66	*3*	100	66	66	*3*	50	50	*3*	100	100	*5*	100	33	33	*3*	100	100	100	*5*
5	250	*5*	5	250	*5*	3	3	100	*5*	3	100	*5*	3	3	100	*5*	2	67	*3*	4	133	*5*	6	3	50	*3*	3	6	200	*5*
4	200	*5.0*	3	150	*5.0*	5	0	0	*0.0*	1	20	*0.0*	6	1	17	*0.0*	4	67	*2.5*	2	33	*3*	11	3	27	*3*	5	3	60	*2.5*
5	56	*2.5*	9	100	*5.0*	9	6	67	*2.5*	6	67	*2.5*	8	3	38	*2.5*	5	63	*2.5*	7	88	*3*	12	7	58	*3*	9	9	100	*5.0*
14	93	*5.0*	8	53	*2.5*	19	10	53	*2.5*	11	58	*2.5*	13	9	69	*2.5*	9	69	*3*	10	77	*3*	12	8	67	*3*	19	8	42	*3*
8.5	63	*3*	13.5	100	*5*	15	8	53	*3*	15	100	*5*	12.5	3.5	28	*3*	3	24	*0*	9.5	76	*5*	12.5	3.00	24	*0*	15	6.5	43	*3*
15.5	70	*5*	20	91	*5*	20	27	135	*5*	27	135	*5*	21	0	0	*0*	0	0	*0*	6	29	*2*	20.5	0	0	*0*	20	0.75	4	*0*
0	0	*0*	0.5	13	*3*	2	0	0	*0*	0	0	*0*	4	0	0	*0*	0	0	*0*	0	0	*0*	8	0	0	*0*	2	2	100	*5*
62.6	241	*5*	26	100	*5*	57	78	137	*5*	28	49	*1*	41	78	190	*5*	85	207	*5*	88	215	*5*	29	82	283	*5*	57	74	130	*5*
14	40	*3*	43	123	*5*	10	11	110	*5*	32	320	*3*	28	10	36	*3*	5	18	*3*	3	11	*3*	27	0	0	*0*	10	13	130	*5*
14	78	*10*	12	67	*10*	10	0	0	*0*	18	180	*15*	20	0	0	*0*	0	0	*0*	0	0	*0*	38	1	3	*5*	10	0	0	*0*
290	103	*5*	335	119	*5*	212	85	40	*2*	475	224	*2*	408	55	13	*2*	0	0	*0*	95	23	*2*	453	0	0	*0*	212	115	54	*5*
1	n/a	*10*	1	n/a	*10*	*0*	*1*	n/a	*10*	*1*	n/a	*10*	0	5	#DIV/0!	*5*	7	#DIV/0!	*5*	5	n/a	*5*	0	5	#DIV/0!	*5*	0	3	#DIV/0!	*10*
		36			40	*40*			*32*			*40*	20			*8*			*8*			10	20		0	2	20		0	*8*
		36			34	*40*			*20*			*40*	60			*0*			*0*			8	60		0	0	60		0	*0*
		134			143				95			134				39			34			58				30				61
		160			*160*				*160*			*160*				*160*			*160*			*160*				*160*				*160*

Offset 27			Offset 25			Max Score	Offset 26			Offset 18			Max Score	Offset 31			Offset 32			Offset 33			Max Score	Offset 34			Max Score	Offset 35		
		10			10	10			10			10	10			0			0			0	10			0	10			0
		10			2	10			10			10	10			4			2			4	10			4	10			2
		10			8	10			10			10	10			4			2			4	10			4	10			2
		10			10	10			10			10	10			10			10			10	10			10	10			10
		2			2	10			2			2	10			2			2			2	10			2	10			2
		42			32				42			42				20			16			20				20				16
		50			*50*				*50*			*50*				*50*			*50*			*50*				*50*				*50*

AU 2 - Preferred Breeding & Foraging Habitat																							
Benchmar	Offset 17			Average %	Average Score	Benchmar	Offset 16			Benchmar	Offset 11			Offset 30			Benchmar	Offset 24			Average %	Average Score
11.3.2	Raw Data	% Benchm	Score	benchma		11.3.25	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchma	Score	11.3.17	Raw Data	% Benchmark	Score	benchmark	
100	100	100	*5*	80	4	100	66	66	*3*	100	100	100	*5*	100	100	*5*	100	89	89	*5*	*89*	*5*
2	5	250	*5*	184	5	4	9	225	*5*	2	5	250	*5*	11	550	*5*	6	9	150	*5*	*294*	*5*
2	3	150	*5.0*	75	2	4	2	50	*3*	2	4	200	*5*	2	100	*5*	11	3	27	*2.5*	*94*	*4*
9	9	100	*5.0*	83	3	8	5	63	*2.5*	9	10	111	*5*	5	56	*3*	12	7	58	*2.5*	*72*	*3*
15	14	93	*5.0*	59	3	13	9	69	*3*	15	3	20	*0*	11	73	*3*	12	7	58	*3*	*55*	*2*
13.5	11.5	85	*5*	72	4	17	14.5	85	*5*	13.5	18.67	138	*5*	10.50	78	*5*	12.5	10	80	*5*	*95*	*5*
22	21.75	99	*5*	94	4	23	9.25	40	*2*	22	28.75	131	*5*	30.5	139	*5*	20.5	9.5	46	*2*	*89*	*4*
4	1	25	*3*	43	1	7	1	14	*3*	4	0	0	*0*	0.5	13	*3*	8	0.5	6	*0*	*8*	*2*
26	52.6	202	*5*	156	5	35	59	169	*5*	26	34	131	*5*	44	169	*5*	29	16.8	58	*3*	*132*	*5*
35	53	151	*5*	101	4	21	8	38	*3*	35	48	137	*5*	33	94	*5*	27	17	63	*5*	*83*	*5*
18	6	33	*5*	44	6	32	30	94	*10*	18	40	222	*15*	10	56	*10*	38	22	58	*10*	*107*	*11*
281	295	105	*5*	86	3	473	385	81	*5*	281	375	133	*5*	745	265	*2*	453	490	108	*5*	*147*	*4*
0	7	n/a	*5*		8	0	3	n/a	*10*	0	1	n/a	*10*	1	n/a	*10*	0	5	n/a	*5*		*9*
40			32		24	40			28	40			16			24	20			*32*		*25*
40			28		22	40			26	40			40			32	60			*40*		*35*
			123		98				113				126			121				125		121
			160		*160*				*160*				*160*			*160*				*180*		*160*
					1.84																	2.27
Max Score	Offset 17					Max Score	Offset 16			Max Score	Offset 11			Offset 30			Max Score	Offset 24			Average %	Average Score
10			10		7	10			10	10			10			10	10			10		*10*
10			10		4	10			10	10			10			10	10			8		*10*
10			10		4	10			10	10			10			10	10			8		*10*
10			10		10	10			10	10			10			10	10			10		*10*
10			2		2	10			2	10			2			2	10			2		*2*
			42		33				42				42			42				38		41
			50		*50*				*50*				*50*			*50*				*50*		*50*
					2.00																	2.46

OFFSET - Greater Glider

Assessment Unit - Regional Ecosystem																						
Site Reference	Benchmark	Offset 09			Offset 12			Offset 15			Benchmar	Offset 27			Benchmar	Offset 04			Offset 26		
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	11.12.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score
Site Condition																					
Recruitment of woody perennial species in EDL	100	*100*	100	*5*	100	100	*5*	60	60	*3*	100	66.7	67	*3*	100	100	100	*5*	66	66	*3*
Native plant species richness - trees	3	*7*	233	*5*	4	133	*5*	5	167	*5*	2	5	250	*5*	3	6	200	*5*	3	100	*5*
Native plant species richness - shrubs	6	*5.0*	83	*2.5*	4	67	*2.5*	1	17	*0.0*	2	4	200	*5.0*	5	4	80	*2.5*	0	0	*0.0*
Native plant species richness - grasses	8	*13*	163	*5*	8	100	*5*	7	88	*3*	9	5	56	*2.5*	9	5	56	*2.5*	6	67	*2.5*
Native plant species richness - forbes	13	*1*	8	*0*	4	31	*3*	10	77	*3*	15	14	93	*5.0*	19	4	21	*0*	10	53	*2.5*
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	*17*	139	*5*	11.5	92	*5*	4	32	*3*	13.5	8.5	63	*3*	15	10	67	*3*	8	53	*3*
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	*51*	243	*3*	38.25	182	*5*	14.5	69	*5*	22	15.5	70	*5*	20	30.5	153	*5*	27	135	*5*
Shrub canopy cover	4	*1*	13	*3*	1	25	*3*	0	0	*0*	4	0	0	*0*	2	1.6	80	*5*	0	0	*0*
Native grass cover	41	*67*	163	*5*	56	137	*5*	33	80	*3*	26	62.6	241	*5*	57	58.2	102	*5*	78	137	*5*
Organic litter	28	*30*	107	*5*	26	93	*5*	10	36	*3*	35	14	40	*3*	10	25	250	*3*	11	110	*5*
Large trees (euc plus non-euc)	20	*14*	70	*10*	10	50	*10*	14	70	*10*	18	14	78	*10*	10	0	0	*0*	0	0	*0*
Coarse woody debris	408	*270*	66	*5*	110	27	*2*	245	60	*5*	281	290	103	*5*	212	626	295	*2*	85	40	*2*
Non-native plant cover	0	*1*	n/a	*10*	1	n/a	*10*	1	n/a	*10*	0	1	n/a	*10*	0	5	n/a	*5*	*1*		*10*
Quality and availability of food and foraging habitat	20			*12*			*12*			12	20			16	20			*8*			*20*
Quality and availability of shelter	60			*52*			*36*			44	60			40	60			*16*			*60*
Site Condition Score				128			113			108				118				67			123
MAX Site Condition Score				*160*			*160*			*160*				*160*				*160*			*160*
Site Condition Score - out of 3																					
Site Context																					
Size of patch	10			10			10			10	10			10	10			10	10		10
Connectedness	10			8			8			8	10			10	10			10	10		10
Context	10			8			8			10	10			10	10			10	10		10
Ecological Corridors	10			10			10			10	10			10	10			10	10		10
Threats to the species	10			5			5			5	10			5	10			5	10		5
Site Context Score				41			41			43				45				45			45
MAX Site Context Score				*50*			*50*			*50*				*50*				*50*			*50*
Site Context Score - out of 3																					

Species Stocking Rate (SSR)						
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	**5**			10
		No	**Yes - adjacent**			Yes - on site
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10		**15**
		Not habitat	Dispersal	Foraging		**Breeding**
Approximate density (per ha)	Score	0	**10**	20		30
			>4.9 but < 9.9 p/ 10,000 ha			
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	5	**10**		15
		0	5 - 15	**20 - 35**		40 - 45
Total SRR score (out of 70)	40					
SRR Score (out of 4)	**2.29**					

*SSR Supplementary Table			
*Key source population for breeding	Score	0	**10**
		No	**Yes/ Possibly**
*Key source population for dispersal	Score	0	**5**
		No	**Yes/ Possibly**
*Necessary for maintaining genetic diversity	Score	0	**15**
		No	**Yes/ Possibly**
*Near the limit of the species range	Score	**0**	15
		No	Yes

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	1.56	2.33	1.94
Site Context Score (out of 3)	2.34	2.64	2.49
Species Stocking Rate Score (out of 4)	2.29	2.29	2.29
Habitat Quality score (out of 10)	*6.18*	*7.26*	6.72
Assessment Unit area (ha)	4817.8	250.4	5068.20
Total offset area (ha) for this MNES	5068.2	5068.2	5068.2
Size Weighting	0.95	0.05	1.00
Weighted Habitat Quality Score	*5.88*	*0.36*	*6.24*

AU 1 - Foraging & Dispersal Habitat

Offset 18			Offset 20			Benchmar	Offset 31			Offset 32			Offset 33			Benchmar	Offset 34			Benchmar	Offset 35			Benchmar	Offset 17			Average	Average	Benchmar	Offset 16		
Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.17	Raw Data	% Benchm	Score	11.12.2	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	%	Score	11.3.25	Raw Data	% Benchm	Score
100	100	*5*	100	100	*5*	100	66	66	*3*	50	50	*3*	100	100	*5*	100	33	33	*3*	100	100	100	*5*	100	100	100	*5*	*82*	*4*	100	66	66	*3*
4	133	*5*	3	100	*5*	3	3	100	*5*	2	67	*3*	4	133	*5*	6	3	50	*3*	3	6	200	*5*	2	5	250	*5*	*151*	*5*	4	9	225	*5*
5	100	*5.0*	0	0	*0.0*	6	1	17	*0.0*	4	67	*2.5*	2	33	*3*	11	3	27	*3*	5	3	60	*2.5*	2	3	150	*5.0*	*64*	*2*	4	2	50	*3*
7	78	*2.5*	8	89	*2.5*	8	3	38	*2.5*	5	63	*2.5*	7	88	*3*	12	7	58	*3*	9	9	100	*5.0*	9	9	100	*5.0*	*81*	*3*	8	5	63	*2.5*
11	58	*2.5*	10	53	*2.5*	13	9	69	*2.5*	9	69	*3*	10	77	*3*	12	8	67	*3*	19	8	42	*3*	15	14	93	*5.0*	*58*	*3*	13	9	69	*3*
11	73	*5*	13	87	*5*	12.5	3.5	28	*3*	3	24	*0*	9.5	76	*5*	12.5	3.00	24	*0*	15	6.5	43	*3*	13.5	11.5	85	*5*	*63*	*3*	17	14.5	85	*5*
27	135	*5*	25.5	128	*5*	21	0	0	*0*	0	0	*0*	6	29	*2*	20.5	0	0	*0*	20	0.75	4	*0*	22	21.75	99	*5*	*89*	*3*	23	9.25	40	*2*
0	0	*0*	0	0	*0*	4	0	0	*0*	0	0	*0*	0	0	*0*	8	0	0	*0*	2	2	100	*5*	4	1	25	*3*	*17*	*1*	7	1	14	*3*
28	49	*1*	65.4	115	*5*	41	78	190	*5*	85	207	*5*	88	215	*5*	29	82	283	*5*	57	74	130	*5*	26	52.6	202	*5*	*161*	*5*	35	59	169	*5*
32	320	*3*	9	90	*5*	28	10	36	*3*	5	18	*3*	3	11	*3*	27	0	0	*0*	10	13	130	*5*	35	53	151	*5*	*99*	*4*	21	8	38	*3*
18	180	*15*	0	0	*0*	20	0	0	*0*	0	0	*0*	0	0	*0*	38	1	3	*5*	10	0	0	*0*	18	6	33	*5*	*35*	*5*	32	30	94	*10*
475	224	*2*	115	54	*5*	408	55	13	*2*	0	0	*0*	95	23	*2*	453	0	0	*0*	212	115	54	*5*	281	295	105	*5*	*76*	*3*	473	385	81	*5*
1	n/a	*10*	7	n/a	*5*	0	5	#DIV/0!	*5*	7	#DIV/0!	*5*	5	n/a	*5*	0	5	#DIV/0!	*5*	0	3	#DIV/0!	*10*	0	7	n/a	*5*		*8*	0	3	n/a	*10*
		12			4	20		0	*8*			*8*			8	20			0	20			*8*	20			16		*10*	20			18
		36			20	60		0	*0*			*0*			2	60			3	60			*0*	60			36		*25*	60			32
		109			69				39			34			50				31				61				115		83				109
		160			*160*				*160*			*160*			*160*				*160*				*160*				*160*		*160*				*160*
																													1.56				
		10			10	10			10			10			10	10			10	10			10	10			10		*10*	10			10
		10			8	10			4			2			2	10			2	10			4	10			10		*7*	10			10
		10			10	10			4			2			2	10			2	10			4	10			10		*7*	10			10
		10			10	10			10			10			10	10			10	10			10	10			10		*10*	10			10
		5			5	10			5			5			5	10			5	10			5	10			5		*5*	10			2
		45			43				33			29			29				29				33				45		39				42
		50			*50*				*50*			*50*			*50*				*50*				*50*				*50*		*50*				*50*
																													2.34				

AU 2 - Likely/current denning Habitat																						
Benchmar	Offset 10			Offset 11			Offset 14			Offset 30			Offset 25			Benchmar	Offset 24			Average	Average
11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.17	Raw Data	% Benchm	Score	%	
100	100	100	*5*	100	100	*5*	60	60	*3*	100	100	*5*	100	100	*5*	100	89	89	*5*	88	4
2	11	550	*5*	5	250	*5*	5	250	*5*	11	550	*5*	5	250	*5*	6	9	150	*5*	318	5
2	5	250	*5.0*	4	200	*5.0*	1	50	*3*	2	100	*5*	3	150	*5*	11	3	27	*2.5*	118	4
9	8	89	*2.5*	10	111	*5.0*	8	89	*3*	5	56	*3*	9	100	*5*	12	7	58	*2.5*	81	3
15	9	60	*2.5*	3	20	*0*	13	87	*3*	11	73	*3*	8	53	*3*	12	7	58	*3*	60	2
13.5	19	141	*5*	18.66667	138	*5*	13.5	100	*5*	10.50	78	*5*	13.5	100	*5*	12.5	10	80	*5*	103	5
22	33.25	151	*5*	28.75	131	*5*	22.75	103	*5*	30.5	139	*5*	20	91	*5*	20.5	9.5	46	*2*	100	4
4	19	475	*3*	0	0	*0*	0	0	*0*	0.5	13	*3*	0.5	13	*3*	8	0.5	6	*0*	74	2
26	44	169	*5*	34	131	*5*	36	138	*5*	44	169	*5*	26	100	*5*	29	16.8	58	*3*	133	5
35	49	140	*5*	48	137	*5*	22	63	*5*	33	94	*5*	43	123	*5*	27	17	63	*5*	94	5
18	24	133	*15*	40	222	*15*	12	67	*10*	10	56	*10*	12	67	*10*	38	22	58	*10*	99	11
281	215	77	*5*	375	133	*5*	541	193	*5*	745	265	*2*	335	119	*5*	453	490	108	*5*	139	5
0	1	n/a	*10*	1	n/a	*10*	1	n/a	*10*	1	n/a	*10*	1	n/a	*10*	0	5	n/a	*5*		9
20			*16*			*12*			16			4			16	20			*12*		13
60			*52*			*52*			54			40			52	60			*44*		47
			141			134			131			109			139				109		124
			160			*160*			*160*			*160*			*160*				*160*		*160*
																					2.33
10			10			10			10			10			10	10			10		10
10			10			10			8			10			10	10			10		10
10			10			10			8			10			10	10			10		10
10			10			10			10			10			10	10			10		10
10			5			5			5			5			5	10			5		5
			45			45			41			45			45				45		44
			50			*50*			*50*			*50*			*50*				*50*		*50*
																					2.64

OFFSET - Squatter Pigeon

Assessment Unit - Regional Ecosystem	AU 1 - Breeding Habitat																							
Site Reference	Benchmark	Offset 04			Offset 20			Benchmar	Offset 16			Benchmar	Offset 10			Offset 11			Offset 14			Offset 27			Offset 25		
	11.12.2	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	11.3.25	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score
Site Condition																											
Recruitment of woody perennial species in EDL	100	100	100	*5*	100	100	*5*	100	66	66	*3*	100	100	100	*5*	100	100	*5*	60	60	*3*	66.7	67	*3*	100	100	*5*
Native plant species richness - trees	3	6	200	*5*	3	100	*5*	4	9	225	*5*	2	11	550	*5*	5	250	*5*	5	250	*5*	5	250	*5*	5	250	*5*
Native plant species richness - shrubs	5	4	80	*2.5*	0	0	*0.0*	4	2	50	*3*	2	5	250	*5.0*	4	200	*5*	1	50	*3*	4	200	*5.0*	3	150	*5.0*
Native plant species richness - grasses	9	5	56	*2.5*	8	89	*2.5*	8	5	63	*2.5*	9	8	89	*2.5*	10	111	*5*	8	89	*3*	5	56	*2.5*	9	100	*5.0*
Native plant species richness - forbes	19	4	21	*0*	10	53	*2.5*	13	9	69	*3*	15	9	60	*2.5*	3	20	*0*	13	87	*3*	14	93	*5.0*	8	53	*2.5*
Tree canopy height (average of emergent, canopy, sub-canopy)	15	10	67	*3*	13	87	*5*	17	14.5	85	*5*	13.5	19	141	*5*	18.66667	138	*5*	13.5	100	*5*	8.5	63	*3*	13.5	100	*5*
Tree canopy cover (average of emergent, canopy, sub-canopy)	20	30.5	153	*5*	25.5	128	*5*	23	9.25	40	*2*	22	33.25	151	*5*	28.75	131	*5*	22.75	103	*5*	15.5	70	*5*	20	91	*5*
Shrub canopy cover	2	1.6	80	*5*	0	0	*0*	7	1	14	*3*	4	19	475	*3*	0	0	*0*	0	0	*0*	0	0	*0*	0.5	13	*3*
Native grass cover	57	58.2	102	*5*	65.4	115	*5*	35	59	169	*5*	26	44	169	*5*	34	131	*5*	36	138	*5*	62.6	241	*5*	26	100	*5*
Organic litter	10	25	250	*3*	9	90	*5*	21	8	38	*3*	35	49	140	*5*	48	137	*5*	22	63	*5*	14	40	*3*	43	123	*5*
Large trees (euc plus non-euc)	10	0	0	*0*	0	0	*0*	32	30	94	*10*	18	24	133	*15*	40	222	*15*	12	67	*10*	14	78	*10*	12	67	*10*
Coarse woody debris	212	626	295	*2*	115	54	*5*	473	385	81	*5*	281	215	77	*5*	375	133	*5*	541	193	*5*	290	103	*5*	335	119	*5*
Non-native plant cover	0	5	n/a	*5*	7	n/a	*5*	0	3	n/a	*10*	0	1	n/a	*10*	1	n/a	*10*	1	n/a	*10*	1	n/a	*10*	1	n/a	*10*
Quality and availability of food and foraging habitat	40			*16*			12				16	40			*28*			*28*	28		12			12			20
Quality and availability of shelter and breeding habitat	40			*24*			12				24	40			*16*			*24*	32		36			32			40
Site Condition Score				83			69				99				117			122			109			106			126
MAX Site Condition Score				*160*			*160*				*160*				*160*			*160*			*160*			*160*			*160*
Site Condition Score - out of 3																											
Site Context	Max Score	Offset 04			Offset 20			Max Score	Offset 16			Max Score	Offset 10			Offset 11			Offset 14			Offset 27			Offset 25		
Size of patch	10			10			10	10			10	10			10			10			10			10			10
Connectedness	10			10			10	10			10	10			10			10			10			10			10
Context	10			10			10	10			10	10			10			10			10			10			10
Ecological Corridors	10			10			10	10			10	10			10			10			10			10			10
Threats to the species	10			5			5	10			5	10			5			5			5			5			5
Site Context Score				45			45				45				45			45						45			45
MAX Site Context Score				*50*			*50*				*50*				*50*			*50*						*50*			*50*
Site Context Score - out of 3																											

Species Stocking Rate (SSR)					
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5		**10**
		No	Yes - adjacent		**Yes - on site**
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	**15**
		Not habitat	Dispersal	Foraging	**Breeding**
Approximate density (per ha)	Score	0	**10**	20	30
			>4.9 but < 9.9 p/ 10,000 ha		
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	**5**	10	15
		0	**5 - 15**	20 - 35	40 - 45
Total SRR score (out of 70)	40				
SRR Score (out of 4)	**2.29**				

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	**0**	15
		No	Yes/ Possibly
*Near the limit of the species range	Score	0	**15**
		No	**Yes**

Final habitat quality score (weighted)	AU1	AU2	Average/Final
Site Condition score (out of 3)	1.97	2.22	2.10
Site Context Score (out of 3)	2.64	2.70	2.67
Species Stocking Rate Score (out of 4)	2.29	2.29	2.29
Habitat Quality score (out of 10)	*6.89*	*7.21*	7.05
Assessment Unit area (ha)	3,437.70	673.9	4111.60
Total offset area (ha) for this MNES	4,111.60	4,111.60	4,111.60
Size Weighting	0.80	0.20	1.00
Weighted Habitat Quality Score	*5.51*	*1.44*	*6.96*

												AU 2 - Foraging & Dispersal Habitat																							
Benchmar	Offset 09			Offset 12			Offset 15			% benchma	Average	Benchmar	Offset 30			Benchmar	Offset 24			Benchmar	Offset 26			Offset 18			Average %	Average							
11.12.1	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	rk	Score	11.3.2	Raw Data	% Benchm	Score	11.3.17	Raw Data	% Benchm	Score	11.12.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	benchmark	Score						
100	*100*	100	*5*	100	100	*5*	60	60	*3*	87	4	100	100	100	*5*	100	89	89	*5*	100	66	66	*3*	100	100	*5*	89	5						
3	*7*	233	*5*	4	133	*5*	5	167	*5*	237	5	2	5	250	*5*	6	9	150	*5*	3	3	100	*5*	4	133	*5*	158	5						
6	*5.0*	83	*2.5*	4	67	*2.5*	1	17	*0.0*	104	3	2	4	200	*5*	11	3	27	*2.5*	5	0	0	*0.0*	5	100	*5.0*	82	3						
8	*13*	163	*5*	8	100	*5*	7	88	*3*	91	3	9	10	111	*5*	12	7	58	*2.5*	9	6	67	*2.5*	7	78	*2.5*	78	3						
13	*1*	8	*0*	4	31	*3*	10	77	*3*	52	2	15	3	20	*0*	12	7	58	*3*	19	10	53	*2.5*	11	58	*2.5*	47	2						
12.5	*17*	139	*5*	11.5	92	*5*	4	32	*3*	95	4	13.5	18.67	138	*5*	12.5	10	80	*5*	15	8	53	*3*	11	73	*5*	86	5						
21	*51*	243	*3*	38.25	182	*5*	14.5	69	*5*	124	5	22	28.75	131	*5*	20.5	9.5	46	*2*	20	27	135	*5*	27	135	*5*	112	4						
4	*1*	13	*3*	1	25	*3*	0	0	*0*	56	2	4	0	0	*0*	8	0.5	6	*0*	2	0	0	*0*	0	0	*0*	2	0						
41	*67*	163	*5*	56	137	*5*	33	80	*3*	140	5	26	34	131	*5*	29	16.8	58	*3*	57	78	137	*5*	28	49	*1*	94	4						
28	*30*	107	*5*	26	93	*5*	10	36	*3*	102	4	35	48	137	*5*	27	17	63	*5*	10	11	110	*5*	32	320	*3*	158	5						
20	*14*	70	*10*	10	50	*10*	14	70	*10*	77	9	18	40	222	*15*	38	22	58	*10*	10	0	0	*0*	18	180	*15*	115	10						
408	*270*	66	*5*	110	27	*2*	245	60	*5*	110	4	281	375	133	*5*	453	490	108	*5*	212	85	40	*2*	475	224	*2*	126	4						
0	*1*	n/a	*10*	1	n/a	*10*	1	n/a	*10*		9	0	1	n/a	*10*	0	5	n/a	*5*	*0*	*1*	n/a	*10*	*1*	*#REF!*	*10*		9						
40			*16*			*28*			20		19	40			28	40			*28*	*40*			*20*			*32*		27						
40			*20*			*24*			36		26	40			40	40			*32*	*40*			*28*			*40*		35						
			100			117			108		105				138				113				91			133		119						
			160			*160*			*160*		*160*				*160*				*160*				*160*			*160*		*160*						
											1.97																	2.22						
Max Score	Offset 09			Offset 12			Offset 15			Average %	Average Score	Max Score	Offset 30			Max Score	Offset 24			Max Score	Offset 26			Offset 18			Average %	Average Score						
10			10			10			10		10	10			10	10			10	10			10			10		10						
10			8			8			8		9	10			10	10			10	10			10			10		10						
10			8			8			10		10	10			10	10			10	10			10			10		10						
10			10			10			10		10	10			10	10			10	10			10			10		10						
10			5			5			5		5	10			5	10			5	10			5			5		5						
			41			41			43		44				45				45				45			45		45						
			50			*50*			*50*		*50*				*50*				*50*				*50*			*50*		*50*						
											2.64																	2.70						

OFFSET - Diamond Firetail

Assessment Unit - Regional Ecosystem	AU 1 - Breeding and Foraging Habitat																						
Site Reference	Benchmark	Offset 09			Offset 15			Benchmar	Offset 04			Offset 20			Benchmar	Offset 10			Offset 14			Average	Average
	11.12.1	Raw Data	% Benchmark	Score	Raw Data	% Benchm	Score	11.12.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	11.3.2	Raw Data	% Benchm	Score	Raw Data	% Benchm	Score	%	Score
Site Condition																							
Recruitment of woody perennial species in EDL	100	*100*	100	*5*	60	60	*3*	100	100	100	*5*	100	100	*5*	100	100	100	*5*	60	60	*3*	87	4
Native plant species richness - trees	3	*7*	233	*5*	5	167	*5*	3	6	200	*5*	3	100	*5*	2	11	550	*5*	5	250	*5*	250	5
Native plant species richness - shrubs	6	*5.0*	83	*2.5*	1	17	*0.0*	5	4	80	*2.5*	0	0	*0.0*	2	5	250	*5.0*	1	50	*3*	80	2
Native plant species richness - grasses	8	*13*	163	*5*	7	88	*3*	9	5	56	*2.5*	8	89	*2.5*	9	8	89	*2.5*	8	89	*3*	95	3
Native plant species richness - forbes	13	*1*	8	*0*	10	77	*3*	19	4	21	*0*	10	53	*2.5*	15	9	60	*2.5*	13	87	*3*	51	2
Tree canopy height (average of emergent, canopy, sub-canopy)	12.5	*17*	139	*5*	4	32	*3*	15	10	67	*3*	13	87	*5*	13.5	19	141	*5*	13.5	100	*5*	94	4
Tree canopy cover (average of emergent, canopy, sub-canopy)	21	*51*	243	*3*	14.5	69	*5*	20	30.5	153	*5*	25.5	128	*5*	22	33.25	151	*5*	22.75	103	*5*	141	5
Shrub canopy cover	4	*1*	13	*3*	0	0	*0*	2	1.6	80	*5*	0	0	*0*	4	19	475	*3*	0	0	*0*	95	2
Native grass cover	41	*67*	163	*5*	33	80	*3*	57	58.2	102	*5*	65.4	115	*5*	26	44	169	*5*	36	138	*5*	128	5
Organic litter	28	*30*	107	*5*	10	36	*3*	10	25	250	*3*	9	90	*5*	35	49	140	*5*	22	63	*5*	114	4
Large trees (euc plus non-euc)	20	*14*	70	*10*	14	70	*10*	10	0	0	*0*	0	0	*0*	18	24	133	*15*	12	67	*10*	57	8
Coarse woody debris	408	*270*	66	*5*	245	60	*5*	212	626	295	*2*	115	54	*5*	281	215	77	*5*	541	193	*5*	124	5
Non-native plant cover	0	*1*		*10*	1	n/a	*10*	0	5	n/a	*5*	7	n/a	*5*	0	1	n/a	*10*	1	n/a	*10*		8
Quality and availability of food and foraging habitat	10			*7*			7	10			*6*			5	10			*5*			5		6
Quality and availability of shelter and breeding habitat	10			*2*			1	10			*3*			0	10			*4*			1		2
Site Condition Score				73			60				52			50				82			67		*63.8333*
MAX Site Condition Score				*100*			*100*				*100*			*100*				*100*			*100*		*100*
Site Condition Score - out of 3																							1.92
Site Context	Max Score				Offset 15																	Average %	Average Score
Size of patch	10			10			10	10			10			10	10			10			10		10
Connectedness	10			8			8	10			10			10	10			10			10		9
Context	10			8			10	10			10			10	10			10			10		10
Ecological Corridors	10			10			10	10			10			10	10			10			10		10
Threats to the species	10			5			5	10			5			5	10			5			5		5
Site Context Score				41			43				45			45				45			45		*44*
MAX Site Context Score				*50*			*50*				*50*			*50*				*50*			*50*		*50*
Site Context Score - out of 3																							2.64

Species Stocking Rate (SSR)					
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	**0**	5	10	
		No	Yes - adjacent	Yes - on site	
Species usage of the site (habitat type & evidenced usage)	Score	0	**5**	10	**15**
		Not habitat	Dispersal	Foraging	**Breeding**
Approximate density (per ha)	Score	**0**	10	20	30
		0%			
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	**5**	10	15
		0	**5 - 15**	20 - 35	40 - 45
Total SRR score (out of 70)	20				
SRR Score (out of 4)	**1.14**				

*SSR Supplementary Table			
*Key source population for breeding	Score	**0**	10
		No	Yes/ Possibly
*Key source population for dispersal	Score	**0**	5
		No	Yes/ Possibly
*Necessary for maintaining genetic diversity	Score	**0**	15
		No	Yes/ Possibly
*Near the limit of the species range	Score	0	**15**
		No	**Yes**

Final habitat quality score (weighted)	AU1
Site Condition score (out of 3)	1.92
Site Context Score (out of 3)	2.64
Species Stocking Rate Score (out of 4)	1.14
Habitat Quality score (out of 10)	*5.70*
Assessment Unit area (ha)	1,226.20
Total offset area (ha) for this MNES	1,226.20
Size Weighting	1.00
Weighted Habitat Quality Score	*5.70*

APPENDIX C OFFSET ASSESSMENT GUIDE

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	Poplar Box
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	**1.2%**

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	Yes		**Area**	6.6	Hectares	
			Quality	**6**	Scale 0-10	
			Total quantum of impact	3.96	Adjusted hectares	
Threatened species habitat						
Area of habitat	No		**Area**			
			Quality			
			Total quantum of impact	0.00		
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																				
Area of community	Yes	3.96	Adjusted hectares		**Risk-related time horizon (max. 20 years)**	20	**Start area (hectares)**	114.3	**Risk of loss (%) without offset**	0%	**Risk of loss (%) with offset**	0%	0.00	60%	0.00	0.00	5.40	136.42%	Yes	
									Future area without offset (adjusted hectares)	114.3	**Future area with offset (adjusted hectares)**	114.3								
					Time until ecological benefit	20	**Start quality (scale of 0-10)**	**7**	**Future quality without offset (scale of 0-10)**	**7**	**Future quality with offset (scale of 0-10)**	**8**	1.00	60%	0.60	0.47				
Threatened species habitat																				
Area of habitat	No				**Time over which loss is averted (max. 20 years)**		**Start area (hectares)**		**Risk of loss (%) without offset**		**Risk of loss (%) with offset**			90%						
									Future area without offset (adjusted hectares)	0.0	**Future area with offset (adjusted hectares)**	0.0								
					Time until ecological benefit		**Start quality (scale of 0-10)**		**Future quality without offset (scale of 0-10)**		**Future quality with offset (scale of 0-10)**			90%						
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**		**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No																			
Condition of habitat Change in habitat condition, but no change in extent	No																			
Threatened species																				
Birth rate e.g. Change in nest success	No																			
Mortality rate e.g Change in number of road kills per year	No																			
Number of individuals e.g. Individual plants/animals	No																			

Summary

Summary

Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost ($)		
					Direct offset ($)	Other compensatory measures ($)	Total ($)
Birth rate	0				$0.00		$0.00
Mortality rate	0				$0.00		$0.00
Number of individuals	0				$0.00		$0.00
Number of features	0				$0.00		$0.00
Condition of habitat	0				$0.00		$0.00
Area of habitat	0				$0.00		$0.00
Area of community	3.96	5.40	136.42%	**Yes**	$0.00	N/A	$0.00
					$0.00	**$0.00**	**$0.00**

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

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Matter of National Environmental Significance	
Name	greater glider
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	**1.2%**

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	No		**Area**			
			Quality			
			Total quantum of impact	0.00		
Threatened species habitat						
Area of habitat	Yes		**Area**	643.8	Hectares	
			Quality	**8**	Scale 0-10	
			Total quantum of impact	515.04	Adjusted hectares	
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																				
Area of community	No				**Risk-related time horizon (max. 20 years)**		**Start area (hectares)**		**Risk of loss (%) without offset**		**Risk of loss (%) with offset**									
									Future area without offset (adjusted hectares)	0.0	**Future area with offset (adjusted hectares)**	0.0								
					Time until ecological benefit		**Start quality (scale of 0-10)**		**Future quality without offset (scale of 0-10)**		**Future quality with offset (scale of 0-10)**									
Threatened species habitat																				
Area of habitat	Yes	515.04	Adjusted hectares		**Time over which loss is averted (max. 20 years)**	20	**Start area (hectares)**	5068.2	**Risk of loss (%) without offset**	0%	**Risk of loss (%) with offset**	0%	0.00	85%	0.00	0.00	678.72	131.78%	Yes	
									Future area without offset (adjusted hectares)	5068.2	**Future area with offset (adjusted hectares)**	5068.2								
					Time until ecological benefit	20	**Start quality (scale of 0-10)**	**6**	**Future quality without offset (scale of 0-10)**	**6**	**Future quality with offset (scale of 0-10)**	**8**	2.00	85%	1.70	1.34				
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**		**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No																			
Condition of habitat Change in habitat condition, but no change in extent	No																			
Threatened species																				
Birth rate e.g. Change in nest success	No																			
Mortality rate e.g Change in number of road kills per year	No																			
Number of individuals e.g. Individual plants/animals	No																			

Summary

Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost ($)		
					Direct offset ($)	Other compensatory measures ($)	Total ($)
Birth rate	0				$0.00		$0.00
Mortality rate	0				$0.00		$0.00
Number of individuals	0				$0.00		$0.00
Number of features	0				$0.00		$0.00
Condition of habitat	0				$0.00		$0.00
Area of habitat	515.04	678.72	131.78%	**Yes**	$0.00	N/A	$0.00
Area of community	0				$0.00		$0.00
					$0.00	**$0.00**	**$0.00**

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	koala
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	**1.2%**

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	No		**Area**			
			Quality			
			Total quantum of impact	0.00		
Threatened species habitat						
Area of habitat	Yes		**Area**	663.5	Hectares	
			Quality	**7**	Scale 0-10	
			Total quantum of impact	464.45	Adjusted hectares	
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																				
Area of community	No				**Risk-related time horizon (max. 20 years)**		**Start area (hectares)**		**Risk of loss (%) without offset**		**Risk of loss (%) with offset**									
									Future area without offset (adjusted hectares)	0.0	**Future area with offset (adjusted hectares)**	0.0								
					Time until ecological benefit		**Start quality (scale of 0-10)**		**Future quality without offset (scale of 0-10)**		**Future quality with offset (scale of 0-10)**									
Threatened species habitat																				
Area of habitat	Yes	464.45	Adjusted hectares		**Time over which loss is averted (max. 20 years)**	20	**Start area (hectares)**	5268.9	**Risk of loss (%) without offset**	0%	**Risk of loss (%) with offset**	0%	0.00	85%	0.00	0.00	705.60	151.92%	Yes	
									Future area without offset (adjusted hectares)	5268.9	**Future area with offset (adjusted hectares)**	5268.9								
					Time until ecological benefit	20	**Start quality (scale of 0-10)**	**5**	**Future quality without offset (scale of 0-10)**	**5**	**Future quality with offset (scale of 0-10)**	**7**	2.00	85%	1.70	1.34				
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**		**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No																			
Condition of habitat Change in habitat condition, but no change in extent	No																			
Threatened species																				
Birth rate e.g. Change in nest success	No																			
Mortality rate e.g Change in number of road kills per year	No																			
Number of individuals e.g. Individual plants/animals	No																			

Summary

Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost ($)		
					Direct offset ($)	Other compensatory measures ($)	Total ($)
Birth rate	0				$0.00		$0.00
Mortality rate	0				$0.00		$0.00
Number of individuals	0				$0.00		$0.00
Number of features	0				$0.00		$0.00
Condition of habitat	0				$0.00		$0.00
Area of habitat	464.45	705.60	151.92%	**Yes**	$0.00	N/A	$0.00
Area of community	0				$0.00		$0.00
					$0.00	**$0.00**	**$0.00**

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	Squatter Pigeon
EPBC Act status	Vulnerable
Annual probability of extinction Based on IUCN category definitions	**0.2%**

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	No		**Area**			
			Quality			
			Total quantum of impact	0.00		
Threatened species habitat						
Area of habitat	Yes		**Area**	152.5	Hectares	
			Quality	**7**	Scale 0-10	
			Total quantum of impact	106.75	Adjusted hectares	
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																				
Area of community	No				**Risk-related time horizon (max. 20 years)**		**Start area (hectares)**		**Risk of loss (%) without offset**		**Risk of loss (%) with offset**									
									Future area without offset (adjusted hectares)	0.0	**Future area with offset (adjusted hectares)**	0.0								
					Time until ecological benefit		**Start quality (scale of 0-10)**		**Future quality without offset (scale of 0-10)**		**Future quality with offset (scale of 0-10)**									
Threatened species habitat																				
Area of habitat	Yes	106.75	Adjusted hectares		**Time over which loss is averted (max. 20 years)**	20	**Start area (hectares)**	4,112	**Risk of loss (%) without offset**	0%	**Risk of loss (%) with offset**	0%	0.00	85%	0.00	0.00	335.80	314.56%	Yes	
									Future area without offset (adjusted hectares)	4111.6	**Future area with offset (adjusted hectares)**	4111.6								
					Time until ecological benefit	20	**Start quality (scale of 0-10)**	**7**	**Future quality without offset (scale of 0-10)**	**7**	**Future quality with offset (scale of 0-10)**	**8**	1.00	85%	0.85	0.82				
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**		**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No																			
Condition of habitat Change in habitat condition, but no change in extent	No																			
Threatened species																				
Birth rate e.g. Change in nest success	No																			
Mortality rate e.g Change in number of road kills per year	No																			
Number of individuals e.g. Individual plants/animals	No																			

Summary

Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost ($)		
					Direct offset ($)	Other compensatory measures ($)	Total ($)
Birth rate	0				$0.00		$0.00
Mortality rate	0				$0.00		$0.00
Number of individuals	0				$0.00		$0.00
Number of features	0				$0.00		$0.00
Condition of habitat	0				$0.00		$0.00
Area of habitat	106.75	335.80	314.56%	**Yes**	$0.00	N/A	$0.00
Area of community	0				$0.00		$0.00
					$0.00	**$0.00**	**$0.00**

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	Squatter Pigeon
EPBC Act status	Vulnerable
Annual probability of extinction Based on IUCN category definitions	**0.2%**

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	No		**Area**			
			Quality			
			Total quantum of impact	0.00		
Threatened species habitat						
Area of habitat	Yes		**Area**	95.8	Hectares	
			Quality	**6**	Scale 0-10	
			Total quantum of impact	57.48	Adjusted hectares	
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																				
Area of community	No				**Risk-related time horizon (max. 20 years)**		**Start area (hectares)**		**Risk of loss (%) without offset**		**Risk of loss (%) with offset**									
									Future area without offset (adjusted hectares)	0.0	**Future area with offset (adjusted hectares)**	0.0								
					Time until ecological benefit		**Start quality (scale of 0-10)**		**Future quality without offset (scale of 0-10)**		**Future quality with offset (scale of 0-10)**									
Threatened species habitat																				
Area of habitat	Yes	57.48	Adjusted hectares		**Time over which loss is averted (max. 20 years)**	20	**Start area (hectares)**	1,226	**Risk of loss (%) without offset**	0%	**Risk of loss (%) with offset**	0%	0.00	85%	0.00	0.00	100.14	174.22%	Yes	
									Future area without offset (adjusted hectares)	1226.2	**Future area with offset (adjusted hectares)**	1226.2								
					Time until ecological benefit	20	**Start quality (scale of 0-10)**	**6**	**Future quality without offset (scale of 0-10)**	**6**	**Future quality with offset (scale of 0-10)**	**7**	1.00	85%	0.85	0.82				
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**		**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No																			
Condition of habitat Change in habitat condition, but no change in extent	No																			
Threatened species																				
Birth rate e.g. Change in nest success	No																			
Mortality rate e.g Change in number of road kills per year	No																			
Number of individuals e.g. Individual plants/animals	No																			

Summary

Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost ($)		
					Direct offset ($)	Other compensatory measures ($)	Total ($)
Birth rate	0				$0.00		$0.00
Mortality rate	0				$0.00		$0.00
Number of individuals	0				$0.00		$0.00
Number of features	0				$0.00		$0.00
Condition of habitat	0				$0.00		$0.00
Area of habitat	57.48	100.14	174.22%	**Yes**	$0.00	N/A	$0.00
Area of community	0				$0.00		$0.00
					$0.00	**$0.00**	**$0.00**

APPENDIX D MHQA SCORING JUSTIFICATION

Theodore WF MHQA Scoring Criteria and Justification
Koala

MNES	Attribute	Criteria		Justification
Koala	Quality and availability of food and foraging habitat (40)	Important and ancillary food trees	0: Neither in EDL 4: Only ancillary in EDL and non-large (per benchmark) 8: Only ancillary in EDL and large (per benchmark) 12: Important food tree in EDL and non-large (per benchmark) 16: Important food tree in EDL and large (per benchmark) 20: Both in EDL and large (per benchmark)	This was determined by the presence (number) of koala habitat trees within the MHQA transect and amended to reflect a per ha rate. Koala habitat trees, for the purposes of food and foraging habitat, were any tree of the *Eucalyptus, Corymbia, Angophora, Lophostemon or Melaleuca* genera present within the MHQA. Subsequent scoring for this metric was derived from a range with a higher number range yielding a positive habitat score and inverse for lower ranged results.
		Non-juvenile koala habitat tree	0: 0 p/ ha 4: ≤ 39 p/ ha 8: 40 - 69 p/ ha 12: 60 - 89 p/ ha 16: 90 - 119 p/ ha 20: ≥ 120 p/ ha	
	Quality and availability of shelter and breeding habitat (40)	Canopy cover (% of benchmark)	0: ≤ 10% 4: 10% - 14% 8: 15% - 19% 12: 20% - 24% 16: 25% - 29% 20: ≥ 30%	Quality and availability of shelter has been determined by canopy cover (measured along a 100 m transect as per the BioCondition assessment methodology and compared with the canopy cover benchmark for the state-mapped RE) as dense canopies may provide more shelter for the species during extreme weather (e.g. intense heat or rain) (Beale, Marsh & Youngentob 2022).
		Large eucalyptus trees per ha	0: ≤ 9% of benchmark 4: 10% - 29% of benchmark 8: 30% - 49% of benchmark 12: 50% - 69% of benchmark 16: 70% - 89% of benchmark 20: ≥ 90% of benchmark	Quality and availability of shelter has been determined by the presence of large trees (Eucalypt spp. trees of a diameter at breast height (DBH) as determined by the BioCondition Benchmark for the respective MHQA plot) per hectare. Scoring is subsequently derived from a range. Large trees are deemed to provide shelter habitat due to both their developed canopy structure and ability to produce a stable food resource where other more juvenile koala habitat trees may be more prone to senescence from a stochastic event such as drought and fire.
	Absence of threats to species (10)	Inappropriate fire regimes i.e. evidence of fire intensity		High severity fires immediately affect food quality and availability and shelter. Negative impacts and scale are dependent on many factors, however high severity fires remove canopy foliage having impacts on shelter, affects microclimate and quality and availability of food (Beale, P 2022).
		Zoning i.e. mapped under PMAV/ non rem and can be cleared, or is it regulated veg		Zoning may impact koala with relation to varying inconsistencies between Commonwealth and State laws for land use (i.e. Category X vegetation may legally be cleared under the Queensland VM Act). Areas of koala habitat may can legally be impacted under state laws, diminishing connectivity, quality and availability of koala habitat.
		Fragmentation i.e. barbed wire fences, roads		Land-use changes, through habitat fragmentation, is one of the most significant impacts to koala where it reduces the area to which the koala can safely occupy (DAWE, 2022a). Such habitat fragmentation can result in genetically isolated populations, increase risk of predation, as well as increasingly prone to threats from extreme weather events (DAWE, 2022a).
		Evidence of feral predators i.e. wild dogs		Feral predators, particularly wild dogs, are known to prey upon koalas resulting in direct mortality and subsequent reduced fecundity (DAWE, 2022b). Dog attacks leading to koala mortality have the ability to potentially remove otherwise healthy breeding koalas from the population (Gonzales-Astudillo, 2018).
		Proximity to roads		This metric was used as direct mortality from vehicle collisions is a known and listed threat for the species within the Conservation Advice (DAWE, 2022a).
	Ecological corridors (10)	Queensland Globe's 'Statewide Biodiversity Corridors' layer, proximity of the site to a state, bioregional, regional or subregional corridor (terrestrial or riparian);	0: Not located within 5: Sharing common boundary with 10: Located within (in whole or in part) an ecological corridor or an ecological corridor buffer	Ecological corridors are critical to the scoring and assessment of habitat for all MNES under Guide to Determining Terrestrial Habitat Quality 1.2 (Eyre et al. 2017) and is applied to MHQA for the purposes of this assessment.

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