ECOLOGICAL ASSESSMENT EASTERN ESCARPMENT CONSERVATION AREA REDLAND CITY

Prepared for MAK Planning







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Document Control Sheet

File Number: 0424-001

Project Manager/s: Paulette Jones

Client: MAK Planning and Design Pty Ltd

Project Title: Eastern Escarpment Conservation Area Ecological Assessment

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Project Summary: A desktop ecological assessment and risk assessment to inform an overall Environmental and Cultural Assessment of the Eastern Escarpment Conservation Area, Mt Cotton, Redland City.

Draft Preparation History:

		O. V	
Draft No.	Date draft completed	Reviewed by	Issued by
	compicted		
0424-001 Draft A	22/12/2016	Paulette Jones	Lindsay Popple

Revision/ Checking History Track:

	<u> </u>	\ }	
Version	Date of Issue	Checked by	Issued by
0424-001 Version 0	13/03/2017	Paulette Jones	Lindsay Popple

Document Distribution:

Destination	Rev	rision						
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Client Copy 1 -	A	22/12/2016	0	13/03/2017				
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Managing Director

Date: 13 March 2017

EASTERN ESCARPMENT CONSERVATION AREA ECOLOGICAL ASSESSMENT

MT COTTON, REDLAND CITY

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Table of Terms and Abbreviations

BAAM Biodiversity Assessment and Management Pty Ltd

DEHP Queensland Department of Environment and Heritage Protection

EECAP Eastern Escarpment Conservation Area Plan

EPBC Act Commonwealth Environment Protection and Biodiversity Conservation Act 1999

EVNT Endangered, Vulnerable or Near Threatened

MLES Matters of Local Environmental Significance

MNES Matters of National Environmental Significance

MSES Matters of State Environmental Significance
NC Act Queenstand Nature Conservation Act 1992

RCC Redland City Council

SMP Species Management Program

SPP Queensland State Planning Policy

TECO Threatened Ecological Community

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1.0 INTRODUCTION

1.1 BACKGROUND

The Eastern Escarpment Conservation Area Plan (EECAP) is intended to guide the protection and use of the Eastern Escarpment Conservation Area. This project is to prepare the EECAP and to make recommendations for ongoing management of the reserve including planning for a set of interconnected roads and looping trails (including fire trails) for walkers, runners, horse-riders, mountain bikers and for Conservation Area management access.

Biodiversity Assessment and Management Pty Ltd (BAAM) has been engaged by MAK Planning and Design Pty Ltd to provide input on in the ecological aspects of the EECAP. This involves a desktop analysis to identify values and potential constraints within the Eastern Escarpment Conservation Area.

Specifically, this report provides the following information:

- A description of currently recognised ecological values for the Eastern Escarpment Conservation Area, including the results of previous studies and database records, where available;
- An account of any flora and/or fauna species of special conservation significance known or considered likely to occur within the site and/or adjacent areas that could be affected by development for access and future management practices of the study area; and
- A constraints analysis and risk assessment to identify the potential consideration for future development and conservation management of the study area.

1.2 SITE DESCRIPTION

The ESCAP intended to cover the entire Eastern Escapphent Conservation Area. This includes the following land parcels:

Lot 1, \$P200199

Lot 3, RP176650.

Together, these land parcels cover an area of approximately 187 hectares, which is hereafter referred to as the "study area" (**Figure 1.1**).

2.0 STUDY METHODOLOGY

A desktop review was undertaken to broadly characterise the currently recognised ecological values of the study area, with an emphasis on ecological communities and flora and fauna species that are professed under federal and state legislation. This included a review of the following information:

- Commonwealth ERB Protected Matters
 Search Tool, to depth any matters of
 national environmental significance
 (MNES) known or likely to occur within the
 site:
- State mapping of vegetation, wetlands and habitats, to identify any matters of state environmental significance (MSES) known or likely to occur within the site;
- Queens land Wildlife Online and Atlas of Living Australia databases, to identify any species of conservation significance known from the vicinity;
- Overlay mapping under the Redland City Planning Scheme, to identify any matters of local environmental significance (MLES) considered to occur within the site;
- Previous studies from the site or local area, including the Land Management Plan for Eastern Escarpment Conservation Area, Don and Christine Conservation Area and Ford Road Conservation Area (RSC 2007);
- Additional ecological data held by Redland City Council (RCC) for the study area and surrounds; and
- Interpretation of aerial photography.

2.1.1 Assessment of Likelihood

In order to assist in the determination of the study area's value to significant species, a likelihood of occurrence exercise was completed. The assessment used the following four categories to determine the probability of conservation significant flora and fauna species occurring in the habitats available or previously available within the study area:

 Known to occur: the species has been detected during field assessment and is not now considered locally extinct.

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- Likely to occur: a medium to high probability the species occurs in or regularly visits the study area because suitable habitat occurs, the study area is within the known distribution of the species, there are past records of the species in the vicinity, and the species is not considered locally extinct.
- Potential to occur: either: (a) there are no past records of the species in the vicinity but suitable habitat occurs and there is insufficient information on the distribution of the species (e.g. it is naturally rare and/or difficult to detect) to categorise the species as likely or unlikely to occur; or (b) there are past records of the species in the vicinity of the study area but habitat in the study area is marginal or spatially limited meaning that the species' presence on the study area would be transitory at best.
- Unlikely to occur: a very low probability that the species occurs in the study area because: (a) suitable habitat does not occur; or (b) the study area is outside the known distribution of the species; or (c) the species is considered locally extinct; or (d) there are no records of the species in the local region despite adequate survey effort or (e) suitable habitat occurs, the study area is within the known distribution of the species and there are past records of the species in the vicinity but the species has not been observed despite sufficient spatial and temporal survey effort for detecting the species.

3.0 CURRENTLY RECOGNISED ECOLOGICAL VALUES

3.1 MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE

The results from an EPBC Protected Matters
Search completed for the site are provided in
Appendix 1. The relevant MNES are
discussed in Sections 3.3.1-3.3.3. It should be
noted that the EPBC Act Online Protected
Matters Search Tool, whilst based on some
species repords relies on modelling of suitable
habitats and is largely predictive.

3.1.1 Threatened Ecological Communities

The Protected Matters Search Tool identifies one threatened ecological community (TEC) listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act*

1999 (EPBC Act) that may occur within the site, namely the 'Lowland Rainforest of Subtropical Australia' TEC, listed as Critically Endangered.

State vegetation mapping (Appendix 2) identifies a small occurrence of motophyll vine forest on alluvium in the south western corner of the study area (mapped as Regional Ecosystem (RE) 12.3.1). This vegetation community may correspond to the TEC when sertain condition and species composition thresholds are met. A field assessment would be required to confirm whether the TEC is present. In the absence of such an assessment, the TEC must be considered as having potential to occur.

3.1.2 Listed Threatened species

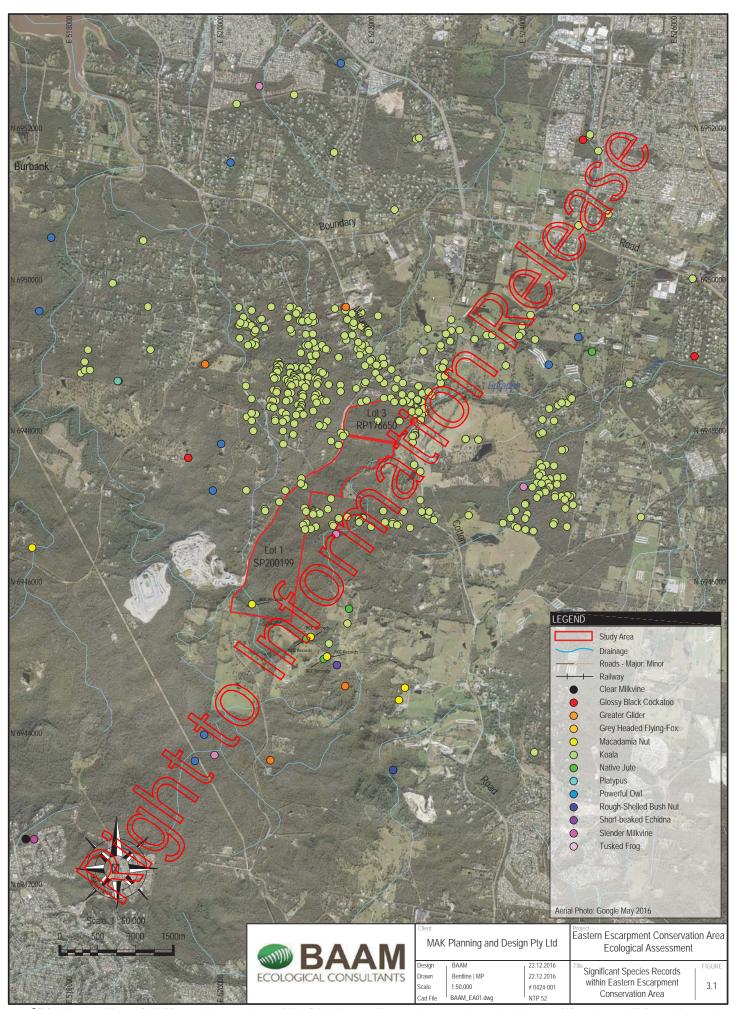
Flora

The Protected Matters Search Tool (Appendix predicts the potential occurrence of 10 plant species listed as threatened under the EPBC Act in the study area. Three of these plants are identified as unlikely to occur in the study area due to a lack of suitable habitat (Appendix 3). One species (Macadamia Nut Macadamia integrifolia – listed as Vulnerable under the EPBC Act) has previously been recorded within the study area (RSC 2007), while another species (Native Jute Corchorus cunninghamii - EPBC Act: Endangered) has previously been recorded adjacent to the study area (Figure 3.1) and is recognised as being likely to occur. A third species (Clear Milkvine Marsdenia longiloba – EPBC Act: Vulnerable) is known to be present in the broader landscape and is also considered likely to occur.

Macadamia Nut occurs in rainforest and in riparian forest. Native Jute is found on ecotone or clearings on the margins of wetter forest and its occurrence tends to shift in response to conditional changes. Clear Milkvine can occur in each of these habitats and all three species are most likely to be encountered along moist gully lines, in pockets of rainforest or on the margins of these habitats in the study area. There are records for Macadamia from the southern portion of the Conservation Area (**Figure 3.1**).

The remaining five species are recognised as having some potential to occur in suitable habitats within the study area. These include Jointed Baloghia Baloghia marmorata, Heartleaved Bosistoa Bosistoa transversa, Roughshelled Bush Nut Macadamia tetraphylla,

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Quassia Samadera bidwillii and Australian Toadflax Thesium australe. Each of these species is listed as Vulnerable under the EPBC Act and each is associated with rainforest, with the exception of Australian Toadflax, which is an inconspicuous species found in open forest. Notably, none of these species have been recorded previously in the broader landscape, with the exception of Rough-shelled Bush Nut, for which there is a single record south of the study area.

Fauna

Two fauna species listed as threatened under the EPBC Act are known to occur in the study area: Koala *Phascolarctos cinereus* and Greater Glider *Petauroides Volans* (both listed as Vulnerable under the EPBC Act). Another species (Grey-headed Flying-Fox *Pteropus poliocephalus* – EPBC Act: Vulnerable) is known to occur in the local area and is recognised as being likely to occur within the study area.

Koalas are well known in the area and are expected to occur regularly throughout the conservation area, given the majority of the vegetation provides ample foraging resources and sheltering habitat for the species (refer Section 3.2.1).

Greater Glider has been previously recorded within the study area (RSC 2007) and would occur within the eucalypt-dominated habitats, subject to the availability of suitable hollows.

No known roost sites for Grey-headed Flying-Fox occur within the conservation area, although the species utilises a wide variety of habitats for foraging and is likely to visit the study area on occasion in response to seasonal flowering events.

The full assessment of likelihood of occurrence for conservation significant fauna species is provided in **Appendix 3**.

3.1.3 Listed Migratory Species

The Protected Matters Search Tool (Appendix 1) Identifies a number of EPBC Act-listed migratory bird species as having potential to occur within habitats on or adjacent to the study area.

The study area offers some habitat values for common migratory species and several species

have been identified as being known or likely to occur (**Appendix 3**).

3.2 MATTERS OF STATE ENVIRONMENTAL SIGNIFICANCE

3.2.1 Regulated Vegetation

State regulated vegetation (mapping (Appendix 2) shows the majority of the site as supporting Category B (remnant) vegetation described as variants of Least Concern 2 12.11.5, including subcomponents)12.11.5k (Corymbia henryi woodland herealyptus crebra, E. carnea, E. tindalian, E. fibrosa subsp. fibrosa, E. siderophloia . . citriodora subsp. variegata, Angophora le jocarpa, E. acmenoides, E. helidonica, F. propinqua, C. intermedia), 12.11.5a (Eucalyptus tindaliae, E. carnea, Corymbia intermedia woodland +/- E. siderophio, E. microcorys, E. racemosa subsp. racemosa, E. propinqua) and 12.11.5j (Eucalyptus racemosa subsp. racemosa and/or E. seeana and Corymbia intermedia woodland). This RE complex occurs on hills and ranges of Palaeozoic and older, moderately to strongly deformed and metamorphosed sediments and interbedded volcanics. A minor area of a similar RE (12.11.3) is also mapped in the south-western corner of the site. This RE is described as Eucalyptus siderophloia and E. propinqua open forest +/- E. microcorys, Lophostemon confertus, Corymbia intermedia, E. biturbinata, E. acmenoides, E. tereticornis, E. moluccana, Angophora leiocarpa, Syncarpia verecunda with vine forest species and E. grandis or E. saligna in gullies.

The study area also contains two vegetation types on alluvium substrate. The predominant one is Of Concern RE 12.3.11: *Eucalyptus tereticornis +/- Eucalyptus siderophloia, Corymbia intermedia* open forest on alluvial plains usually near coast. It's Of Concern status recognises that 10–30% of this RE's pre-clearing, remnant extent remains across the south-east Queensland bioregion (or more than 30% remains and the remnant extent is less than 10,000ha), and 10–30% of its pre-clearing extent remains unaffected by moderate degradation and/or biodiversity loss.

The other RE on alluvial substrate is Endangered RE 12.3.1: Gallery rainforest (notophyll vine forest) on alluvial plains. This latter vegetation type is restricted to within the far south-western corner of the conservation area and is one of only a few examples of this vegetation community within Redland City



(RSC 2007). It's Endangered status recognises that less than 10% of this RE's pre-clearing, remnant extent remains across the south-east Queensland bioregion (or 10–30% of its pre-clearing extent remains and the remnant vegetation is less than 10,000ha), and either:

- less than 10% of its pre-clearing extent remains unaffected by severe degradation and/or biodiversity loss; or
- 10–30% of its pre-clearing extent remains unaffected by severe degradation and/or biodiversity loss and the remnant vegetation is less than 10,000ha; or
- it is a rare regional ecosystem subject to a threatening process.

No reports are available to determine the accuracy of the current Queensland Herbarium mapping. However, examination of aerial photography indicates the land zones have broadly been allocated correctly. Nevertheless, the boundary of remnant RE 12.3.1 may extend further along the associated drainage line than current State mapping indicates.

3.2.2 Essential Habitat

With the exception of the far south-western corner, the entire study area is mapped as Essential Habitat for Koala, Tusked Frog Adelotus brevis and/or Native Jute (Appendix 2).

Based on the RE descriptions noted above, it is assumed the mapping of Essential Habitat for Koala (which covers the majority of the Eastern Escarpment Conservation Area) is accurate as the REs are listed as mandatory essential habitat factors for the species dominant tree species present within the mapped REs are all known Koala food trees, and the area is well-known to support Koala. The mapping of Essential Habitat for Tusked Frog and Native Jute is also expected to be accurate given the mapped REs are listed as mandatory essential habitat factors for these species.

3.2.3 Koala Habitat

The reajority of the study area is mapped as high and medium value bushland habitat for Koala within a Priority Koala Assessable Development Area (**Appendix 2**), and is therefore subject to the South East Queensland Koala Conservation State Planning Regulatory Provisions (KSPRP).

Based on a review of aerial imagery and Statemapped vegetation, it is expected that the KSPRP mapping of Koala habitats for the study area is accurate.

3.2.4 Wetlands and Waterways

DEHP Referable Wetlands mapping shows the study area supports wetlands of General Ecological Significance, generally corresponding with the mapped extent of RE 12.3.11 and the associated main waterways as well as a small wetland of High Ecological Significance along the waterway associated with RE 12.3.1 (Appendix 2).

3.2.5 Threatened and Near Threatened

Flora

A search of the DEHP Wildlife Online database returned a number of NC Act-listed EVNT flora species as having been previously recorded within 5 km of the study area (Appendix 1).

Macadamia Nut (listed as Vulnerable under the NC Act) has previously been recorded within the study area (RSC 2007), while Native Jute (NC Act: Endangered) has been recorded on an adjacent property (Figure 3.1) and is recognised as being likely to occur. In addition, Clear Milkvine and Slender Milkvine Marsdenia coronata (both NC Act: Vulnerable) have been recorded in the broader landscape and are also considered likely to occur. The potential occurrence of other NC Act-listed EVNT flora species returned by the database search is addressed in Appendix 3.

One additional species, Richmond Birdwing Vine *Pararistolochia praevenosa* (NC Act: Near Threatened), is identified as being known to occur in the study area (RSC 2007). This species is associated with riparian vegetation and rainforest.

Fauna

A search of the DEHP Wildlife Online database returned a number of EVNT fauna species listed under the NC Act as having been previously recorded within 5 km of the site (**Appendix 1**). In addition to Koala, the EVNT species considered most likely to occur in the study area are Powerful Owl *Ninox strenua* and Tusked Frog. Both of these species are listed as Vulnerable under the NC Act.

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Powerful Owl prefers mature dry forest with numerous live, hollow-bearing trees, surrounded by a diversity of remnant habitats. The study area provides habitats that would typically support this species.

Tusked Frog Inhabits a variety of remnant and non-remnant habitats, and is likely to occur in association with riparian communities with flowing water.

Richmond Birdwing Butterfly *Ornithoptera richmondia* (NC Act: Vulnerable) also has potential to occur, given the likely occurrence of its host plant Birdwing Vine *Pararistolochia praevenosa* within the study area.

Glossy Black-Cockatoo *Calyptorhynchus lathami* (Vulnerable, NC Act) has potential to utilise the study area for foraging and breeding, although there have been no records of the species in the broader landscape in recent years. Habitat use in the study area could only be assessed through a targeted survey.

In addition to EVNT species, there is one 'culturally significant' Special Least Concern species known to occur in the study area: Short beaked Echidna *Tachyglossus aculeatus*. This species is associated with most woody terrestrial habitats and would occur throughout the study area.

A full assessment of likelihood of occurrence for EVNT and other conservation significant auna species is provided in **Appendix 3**

3.3 MATTERS OF LOCAL ENVIRONMENTAL SIGNIFICANCE

3.3.1 Redlands Planning Scheme 7.1

The entire study area is mapped as Bushland Habitat under the Habitat Protection – Bushland Habitat Overlay within the Redlands Planning Scheme 7.1 (Appendix 4). The waterways associated with REs 12.3.11 and 12.3.1 are also mapped as Minor Waterways with associated Drainage Buffers under the Waterways, Wetlands and Moreton Bay Overlay.

RCC also map the majority of the study area as supporting remnant Koala habitat, consistent with State mapping.

3.4 GENERAL HABITAT VALUES

RSC (2007) describe the bushland vegetation covering the majority of the Eastern Escarpment

Conservation Area as providing high quality habitat for numerous species, including arboreal mammals such as possums and gliders, and small, forest-dwelling birds that rely on a structurally complex shrub and understorey. The density of tree hollows was assessed as relatively low compared to certain other bushland reserves in Recland City, which limits resources for species such as Greater Glider and Powerful Owl

It was noted that the small patch of notophyll vine forest within the south-western corner of the study area offers habitat for EVNT and locally rare plant species, as well as specialist fauna species such as frugivorous birds and Richmond Birdwing Butterfly (RSC 2007). In addition, the trate-way at this location is known habitat for Soft-spined Sunfish Rhadinocentrus ornatus, a declining species of relatively restricted occurrence.

PSC (2007) also describe the study area as providing an important wildlife linkage to the Mount Cotton ridgeline and Venman Bushland National Park and Daisy Hill State Forest.

Overall, the study area provides a valuable contribution to conservation significant fauna and flora and provides important habitat and habitat linkages for numerous species.

Redland City Council maintains a list of flora and fauna species that are considered to be locally significant. Almost all of these species are currently or were formerly listed as EVNT species (MSES) under the NC Act. A list of locally significant species with potential to occur in the study area is provided in **Appendix 5**.

4.0 POTENTIAL IMPACTS AND ECOLOGICAL CONSTRAINTS

4.1 POTENTIAL IMPACTS

The study area is a relatively large connected bushland patch and potential impacts on the ecological values are primarily associated with prior and ongoing anthropogenic disturbances.

The main detrimental impacts on the study area can be summarised as:

- visitor impacts (lawful and unauthorised access and uses);
- weed infestations and introductions;

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- Illegal dumping/disposal
- Illegal collection of natural assets; and
- inappropriate fire regimes;
- feral and domestic animals management.

These impacts are discussed in further detail below.

4.1.1 Visitor impacts

Visitor impacts are recognised as being an ongoing issue and with increased population densities in the local landscape this pressure is expected to increase over time. Illegal activities, such as recreational four wheel drive vehicle and trail bike use, have caused obvious impacts to the conservation area by damaging vegetation through creation of additional trails and damaging and eroding existing trails.

RSC (2007) identified that unauthorised vehicles appear to be entering the conservation area via private properties and an area in the southern portion of the study area that can be accessed from West Mount Cotton Road. This access has resulted in damage to ecological values through vegetation removal and disturbance, including felling of trees.

RSC (2007) identified that there are portions of the study area where no formal tracks are provided or maintained for public use but where a number of unauthorised, 'informal' tracks have been formed by visitors. This access was recognised to have resulted in partiage to vegetation, particularly in the ranforest along Tingalpa Creek, where soil erosion has taken place.

The installation of new track infrastructure to accommodate mountain bikes and dogs on leash has the potential to present additional impacts to ecological values within the study area, although such impacts could be offset by careful placement of new infrastructure, managing and restoring areas damaged by unlawful, (inregulated use and working to prevent orgoin) unlawful access.

It's important to note that there other aspects of providing increased access to reserves that actually confer benefits upon the reserve. Increased people traffic leads to increased appreciation for the reserve and a corresponding increase in the number of people who would look for and report harmful activities within the reserve. This reduces opportunities for illegal egg collecting, access and dumping

because of higher reporting rates and also deterrence of potential offenders.

4.1.2 Weed infestations and introductions

RSC (2007) identified that there are portions of the study area where weed in estations are resulting in loss of ecological values

It is recognised that considerable portions of the study area are heavily infested with Lantana camara, and this species will continue to result in detrimental impacts if not appropriately managed. RSC (2007) identified that there was an area near West Mount Cotton Road that was cleared of native vegetation (sometime in the past) that now supports a moneculture of lantana. The management plan also identified that lantana was impacting the endangered notophyll vine forest.

other weeds documented as being present include Climbing Asparagus *Protoasparagus plumosus*, which RSC (2007) recognised to be spreading and smothering native vegetation along Tingalpa Creek, and Coral Berry *Rivinia humilis*, which occurs in dense populations and has potential to become a major problem in the area. This latter weed is known to outcompete small native plants and reduce the native species complexity in the groundlayer. Its preferred habitats are known to overlap with the endangered Native Jute and may threaten existing undiscovered populations or the potential recovery of the species.

RSC (2007) also identified a range of other weeds at low infestation levels including Solanum hispidum, Solanum seaforthianum, Solanum mauritianum, Citrus limon, Passiflora edulis, Passiflora, whiteana, Ageratina riparia, Ageratina adenophora, Ageratum houstonianum. These weeds were not considered to have a major impact on the health of the native ecosystem. It is unknown if this situation has changed since 2007.

Where present, exotic weeds can reduce native plant regeneration and even completely change habitat values and species occurrence.

Weed species will continue to spread where opportunities exist and this primarily related to areas of disturbance. Introductions will continue from adjoining landholders, visitors also act as vectors for weed introductions and dispersal, as do many native wildlife species.



4.1.3 Illegal dumping/disposal

Public lands and particularly large bushland parcels are subject to illegal dumping and disposal of numerous varieties. In most instances this is household waste and green waste but can also extend to commercial operators dumping within bushland reserves to avoid waste disposal fees.

RSC (2007) recognised that illegal car dumping was common within the study area. Where there is unfettered or unrestrained access, especially if vehicle access is present, there will be ongoing management issues associated with illegal dumping.

Dumping of green waste is often viewed as harmless by the general public as they view the waste as proving "compost/mulch" and this will not be harmful. However, illegal dumping can lead to the proliferation of non-native species, including species listed under the *Biosecurity Act 2014* as restricted invasive plants. Many weed introductions into bushland reserves originate from illegal green waste dumping and non-management of the resulting establishment of introduced plants.

4.1.4 Illegal collection of natural assets

Bushland reserves are susceptible, due to their remote nature, to illegal collection of their natural assets. The type and extent of illegal collection varies depending on the type of assets present, ease of access and presence of regulators such as rangers. This type of activity can range from the opportunistic collections of 'bush rocks' and hollow logs for home gardens/landscaping, through to the targeted collection of rare plants for illegal trading purposes.

The rare and or attractive nature of some native plants (e.g. orchids ferns, grass tress etc.) also makes them rabable to individuals that have private plant collections or looking to improve their own landscapes. Whilst historically the illegal collection of native fauna, particularly egg collection was a recognised management issue, it is considered the threat of this is now comparatively low due to contemporary controls and reduced interest.

RSC (2007) noted that in some portions Orchids were expected to occur in the extant vegetation type but none were observed, and it was possible that plant collectors may have removed them all from this area.

It is likely that there is some recreational hunting of native and non-native fauna within the study area, although the regularity and extent of impacts is unknown.

4.1.5 Inappropriate fire regimes

Fire plays an important role in many southeast Queensland ecosystems. In general terms, whilst rainforests and mangroves can be damaged by fire, eucalypt, heath and grassy communities are fire adapted and rely on fires for regeneration and remygoration.

Fire is an important element in maintaining the diversity and health of many native plants and animals. This does not mean, however, that fire-adapted ecosystems will thrive under any burning regime.

Although plants and animals in these exercises have adaptions which allow them to persist in fire prone areas, there are limits to this ability. Equally, too frequent and too infrequent fire events can cause species to decline, or even become locally extinct.

Fire management, including fire regimes is an important part of managing bushland reserves. The time between fires is a key factor in ensuring maintenance of a range of plants and animals within fire-adapted landscapes. Equally the prevention of fire is important in maintaining rainforest habitats.

One key management aspect is the prevention/limitation of arson. Illegal fires cause significant impacts on habitat values, particularly when there is regular reoccurrence of fire events.

The maintenance of fire breaks and fire trails for managing wild fires is an important management tool. It is unknown if RCC have a Fire Management Plan and hazard reduction burning regime established for the study area.

4.1.6 Feral and domestic animals management

The control of non-native animals within bushland reserves is important in maintaining habitat values and protection of extant species. Feral animals (foxes, cats, pigs etc.) can be significant predators on native wildlife and it is expected that these species are present and have some impact on wildlife in the study area.

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In addition to predation, RSC (2007) identified that cattle from neighbouring properties had been observed grazing in the reserve. It is also assumed that there would be recreational horse riding occurring to various degrees. Horses and cattle access can damage vegetation, suppress regeneration, spread weeds, support increased weed germination through the provision of higher nutrients within droppings, cause soil erosion and pollution of waterways.

RSC (2007) noted that cattle were grazing within the ecotone where Native Jute is likely to occur.

4.2 LEGISLATIVE CONSIDERATIONS

4.2.1 MNES

Macadamia Nut and Native Jute

Under the EPBC Act, an action is likely to have a significant impact on an endangered species if there is a real chance or possibility that it will:

- lead to a long-term decrease in the size of a population;
- reduce the area of occupancy of the species;
- fragment an existing population into two or more populations;
- adversely affect habitat critical to the survival of a species;
- disrupt the breeding cycle of good attor;
- modify, destroy, remove or isotate or decrease the availability or quality of habitat to the extent that the species is likely to decline;
- result in invasive species that are harmful to an endangered species becoming established in the endangered species' habitat;
- introduce disease that may cause the species to decline; or
- interfere substantially with the recovery of the species (DotE 2013).

Native Jute typically grows in localised clusters of plants. Macadamia Nut is associated with closed vegetation on creeklines. In order to avoid impacts to these species during the construction of interconnected roads, trails and management tracks, a targeted field survey would be required during the early planning stages. This would allow potential impact sites to be ground-truthed, enabling avoidance of

sensitive sites where these species occur. In addition, the occurrence of these species in areas threatened by unlawful access and weed infestation should be identified and their habitat restored and managed.

Koala

An assessment of the importance of Koala habitats onsite has been made, in accordance with the EPBC Act referral guidelines for the vulnerable Koala (Date 2014) (Table 4.1). Based on these criteria, the study area is considered to contain mabitat critical to the survival of the koala (i.e. total score >5).

The extent to which development for improved visitor access will require removal of Koala habitats through the study area is not known at this stage; therefore, it is not possible to determine the extent of impacts on the local Koala population from the intended access development within the area. An EPBC Act referred may be required if it is determined that impacts in excess of approximately 5 hectares of Koala habitat would need to be removed.

Management responses to improve access should be conducted in association with reducing unlawful access and associated disturbances. Under such circumstances, impacts associated with works for improved visitor access are unlikely to be viewed as significant. In addition, any lost Koala habitat values can be readily replaced within previously disturbed habitats.

Other Threatened Species

Under the EPBC Act, an action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:

- lead to a long-term decrease in the size of an important population of a species;
- reduce the area of occupancy of an important population;
- fragment an existing important population into two or more populations;
- adversely affect habitat critical to the survival of a species;
- disrupt the breeding cycle of an important population;
- modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline;

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Attribute	Score	Coastal area criteria	Score	Assessment details
	+2	Evidence of one or more Koalas within the last 2 years	2	Desktop: The EPBC Act Protected Matters Search Tool report identified the Koala or Koala habitat as 'known to occur' in
Koala occurrence	+1	Evidence of one or more Koalas within 2 km of the edge of the impact area within the last 5 years		the study area; The Wildlife online point buffer search and the Atlas of Living Australia portal webs found to contain 34 records of Koala within 2 km of the study area since the beginning of 2011.
	0	None of the above		
Vegetation	+2	Has forest or woodland with 2 or more known Koala food tree species, OR 1 food tree species that alone accounts for >50% of the vegetation in the relevant strata.	2	tall open open forest dominated by known Koala food trees well as rainforest remnant vegetation.
Composition *	+1	Has forest or woodland with only 1 species of known Koala food tree present.		
	0	None of the above	////	
Llabitat	+2	Area is part of a contiguous landscape ≥ 500 ha.)) 2	Koala habitats within and adjoining the study area are connected through the Mt Cotton area to Venman Bushland National Park, Daisy Hill Regional Park, Ford Conservation
Habitat connectivity	+1	Area is part of a contiguous landscape < 500 ha but ≥300 ha.		Area and Neville Lawrie Reserve, with a limited number of single lane connecting roads, and covering an area substantially larger than 500 ha.
	0	None of the above		
	+2	Little or no evidence of Koala mortality from vehicle strike or dog attack at present in areas that score 1 or 2 for Koala occurrence. Areas which score 0 for Koala occurrence and are likely to have no dog or vehicle threat present.	1	Desktop: •The Wildlife online point buffer search identified six records of injured Koala within 2 km of the study area since the beginning of 2011. This is considered to be relatively infrequent by comparison with urbanised areas to
Key existing threats	+1	Evidence of infrequent or irregular Koala mortality from vehicle strike or dog attack at present in areas that score 1 or 2 for Koala occurrence; OR Areas which score 0 for Koala occurrence and are likely to have some degree dog or vehicle threat present.		the north within Redland City.
	0	Evidence of frequent erregular Koala mortality from vehicle strike or dog attack in the study area at present, OR Areas with score 0 for Koala occurrence and have a significant dog of vehicle threat present.		
	+2	Habitat is likely to be important for achieving the interim recovery objectives for the relevant context, as outlined in Table 1 of the referral guidelines (DotE 2014).	2	In relation to the attributes listed in Table 1 of the referral guidelines (DotE 2014), and the results of this assessment in relation to habitat connectivity and key existing threats, it is
Recovery value **	+1	Uncertain as to whether the habitat is important for achieving the interim recovery objectives for the relevant context, as outlined in Table 1 of the referral guidelines (Doit 2014).		considered that the study area is likely to be important for achieving the interim recovery objectives for the relevant
		Habitatis Inlikely to be important for achieving the interim recovery objectives for the relevant context, as outlined in Table 1 of the referral guidelines (DotE 2014).		context.
Total Score			9	As the total score is >5, Koala habitat within the study area is identified as 'habitat critical to the survival of Koala' under the EPBC Act referral guidelines.



- result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat;
- introduce disease that may cause the species to decline; or
- interfere substantially with the recovery of the species (DotE 2013).

Macadamia Nut and almost all of the other potentially occurring threatened flora species are most likely to be found in riparian forest and in rainforest. Impacts can be avoiding through minimising disturbance to gully and watercourse associated vegetation throughout the study area. A targeted field survey during the early planning stages for new infrastructure would enable sensitive sites for these species to be identified. This would provide opportunities for potential impacts to this species to be avoided as far as possible.

A more comprehensive assessment of the study area's value for Greater Glider may be warranted to determine the nature and extent of impacts on this species. A targeted field survey during the early planning stages would enable sensitive sites such as large, hollow-bearing trees to be identified. This would provide opportunities for potential impacts to this species to be avoided as far as possible.

A targeted field survey would also be able to confirm whether any flying-fox camps are present within the study area, thereby enabling potential impacts on Grey-headed Flying-fox to be identified and avoided.

4.2.2 MSES

Regulated Vegetation and Essential Habitat

Unless exempt from assessment under the Sustainable Planning Act 2009, the clearing of vegetation may trigger assessment against Module 8 of the State Development Assessment Provisions, which aims to restrict the clearing of Endangered and Of Concern REs and Essential Habitat. If applicable, any significant residual impacts would trigger the requirements for offsets in accordance with the Queensland Environmental Offsets Framework.

Koala Habitat

Unless exempt from assessment under the KSPRP, the clearing of non-juvenile Koala habitat trees from areas of mapped Koala bushland may be prohibited. The removal of vegetation from

mapped areas of high or medium value rehabilitation habitat would trigger the requirements for offsets in accordance with the Queensland Environmental Offsets Framework. A three to one replacement ratio of Koala habitat trees would be required.

Wetlands and Waterways

Wetlands of High Ecological Significance and General Ecological Significance outside of the Great Barrier Reef catchments are managed via local government planting schemes (refer to Section 4.2.3).

Flora

As the site is identified as occurring within a high risk area for protected plants on DEHP's flora survey trigger map (Appendix 2), targeted searches for EVNT flora species listed under the NC act would need to be undertaken in accordance with the Flora Survey Guidelines – Protected Plants, before a clearing permit or exemption notification could be applied for under the NC Act.

Fauna

Under the NC Act, any tampering with breeding places for native animals as part of site development activities must be conducted under the guidance of a Species Management Program (SMP) approved by DEHP.

Although the site supports eucalypts, which provide food resources for Koala, this mammal species is not an appropriate species for the purpose of an SMP as Koalas do not have a defined breeding place (i.e. Koalas rear their young in a pouch and then roam throughout the landscape). The removal of Koala habitat would therefore be viewed as clearing of habitat for this species, as opposed to a breeding place.

The site likely provides suitable habitat for nesting birds and may contain features that provide potential breeding habitat for bird and mammal species, some of which may be EVNT species (e.g. Greater Glider) and some of which are defined as colonial breeders (e.g. microbats).

DEHP provide two templates for an SMP, depending on the identified protected animals. The SMP "low risk of impacts" relate to protected animals classed as least concern where the impacts are unlikely to affect the broader population. The SMP "high risk of impacts" relate to protected animals identified as



EVNT, special least concern or colonial breeder, where the broader population is at a greater risk from impacts.

A animal breeding places survey during infrastructure planning would confirm the presence/absence of any breeding places for EVNT, special least concern and/or colonial breeding species to allow for avoidance if possible and to confirm whether or not the SMP "high risk of impacts" may apply.

4.2.3 MLES

Unless exempt from assessment under the Redlands Planning Scheme 7.1, the clearing of vegetation may trigger assessment against the Habitat Protection Overlay Code and Waterways, Wetlands and Moreton Bay Overlay Code. If applicable, and impacts are not avoidable, these codes could trigger the requirements for offsets in accordance with the Queensland Environmental Offsets Framework.

4.2.4 Redland City Council Significant Species

While there are no specific legislative measures in place to avoid impacts on locally significant species (listed in **Appendix 5**), avoiding impact on their habitats is expected, and if impacts cannot be avoided, mitigation and management measures should be in place to minimise impacts.

4.3 CONSTRAINTS MAPPING

With the exception of Koala, there are no publicly available database records of MNES or EVNT species within the study area. According to RSC (2007), species such as Macadamia Nut, Richmond Birdwing Vine and Greater Glider are known to occur in the study area; however the 2007 document does not provide any clear indication of where these species have been recorded. In addition, Koala is a highly mobile species that could potentially be recorded almost throughout the study area. Therefore due to limited available data, species records could not be relied upon to inform the constraints mapping exercise in this instance. Instead, focus was placed on the available information on suitable habitats where the most sensitive species were likely to be present. This included EVNT plant species, such as Native Jute and Macadamia Nut and fauna, such as Powerful Owl and Greater Glider, which are most likely to occur in more sheltered habitats, such as those in riparian areas.

The best available habitat mapping is the Queensland Herbarium RE mapping (provided in **Appendix 2**). The constraints mapping was undertaken using this vegetation mapping as base mapping units, with the following attributions.

- Remnant vegetation in all val/parian areas, including REs (2.3.1 and 12.3.11 were identified as having 'Bugh Ecological Constraints'.
- All remnant vegetation outside of alluvial/ripation areas was identified as having 'Medium Ecological Constraints'.
- Areas madped as non-remnant were identified as having 'Low Ecological Constraints'.

The constraints mapping is shown in **Figure 4.1**. It is intended as a broad guide to anticipated constraints only. The actual confirmation of 'ongoing constraints will be reliant on the ground-truthing of areas mapped as having either High or Medium Ecological Constraints, which would most suitably be undertaken during any future infrastructure design phase.

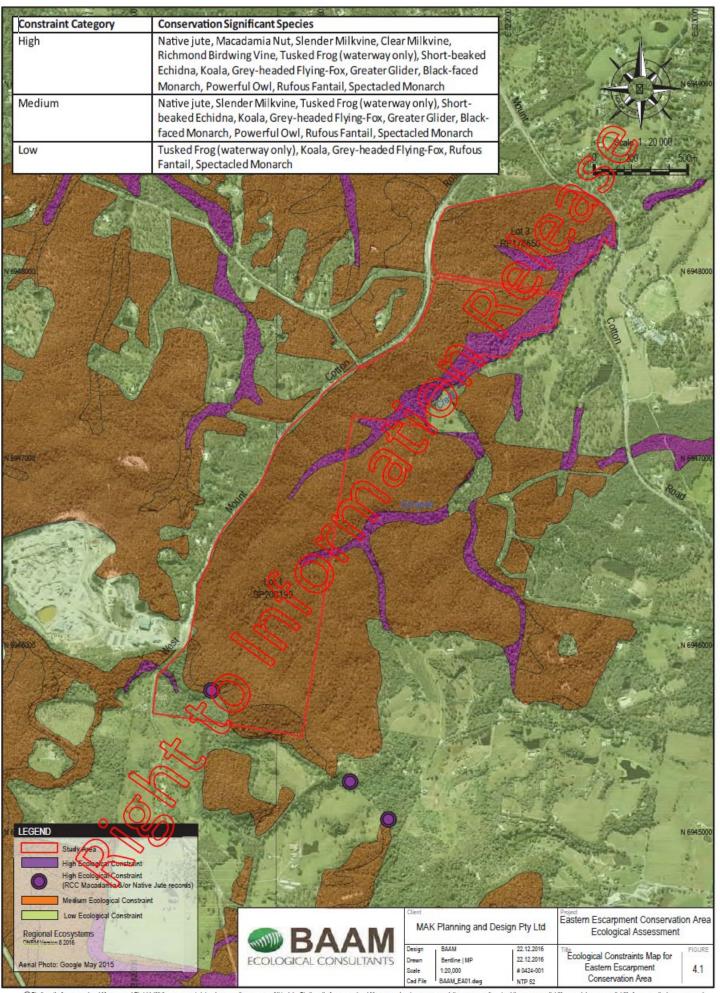
5.0 MANAGEMENT OPTIONS

The following management options for the protection of terrestrial ecological values have been developed with reference to the Land Management Plan for Eastern Escarpment Conservation Area, Don and Christine Conservation Area and Ford Road Conservation Area (RSC 2007).

5.1 WEED MANAGEMENT

- Removal of Lantana should be a staged and gradual process. Lantana should be removed from a mosaic of separate small areas (e.g. 0.5 ha) and those areas should be replanted with native shrubs. Removal of Lantana from adjacent areas should occur once native shrubs have become established.
- Active removal of infestations of Coral Berry and Asparagus Fern should be undertaken throughout the conservation area. Areas with previous infestation should be revisited on a regular (e.g. annual) basis to manage recurrences of these invasive weeds.

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- Prioritize weed management in the vicinity of waterways and access tracks to minimize the spread of invasive weeds. Perform regular weed control in accordance with Redland City Council Pest Management Plan 2012–2016.
- Consult with neighbouring landholders to discuss weed management strategies.

5.2 ACCESS MANAGEMENT

- Ensure informal tracks are closed and their closure clearly signposted and barricades installed if/where required.
- Ensure that track deviations are all clearly marked and barricaded if necessary to reduce the chances of people wandering off formed tracks and creating new informal tracks.
- Ensure all possible illegal access points are barricaded the condition of barricades is monitored on a regular basis to stop unauthorized vehicle entry into the conservation area. Also ensure that surveillance cameras are installed where appropriate.
- Consideration should be given to installing a boundary fence around the conservation area to reduce the opportunity for illegal removal of and damage to its ecological values.
- Ground-truth ecological values where lew tracks are proposed during the design phase so that trails can be strategically directed away from sensitive areas.

5.3 FLORA AND FAUNA MANAGEMENT

- Undertake ground-truthing of any proposed new tracks to minimise impacts to sensitive ecological values.
- Map locations and prioritise management of locally significant plant species and significant habitat (e.g. Freeding habitat) for fauna, and install public signage to raise public awareness where appropriate.
- Conduct annual monitoring of sensitive sites to ensure that the relevant ecological values are being adequately managed and maintained.
- Consider totalling artificial hollows of varying sizes at key locations to improve habitat values for fauna.

5.4 RRE MANAGEMENT

re study area contains three principal remnant vegetation REs that have different fire management considerations. In particular, rainforest vegetation in RE 12.3.1 is not fire telerant and occurs in areas that are shielded from fire under anything other than catastrophic conditions. In contrast, REs 12.3.11 and 12.11.5 do experience periodic fires and will generally recover following a fire event. Fire management recommendations for the different vegetation communities in the study area are provided in **Table 5.4**.

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Table 5.4. Fire management recommendations for relevant vegetation communities from the Regional Ecosystem Description Database (Queensland Herbarium 2015)

RE	Fire management recommendations
12.3.1	STRATEGY: Do not burn deliberately. Protection relies on broad-scale management of surrounding country. May need active protection from wildfire in extreme conditions or after prolonged drought. Planned burns should not create a running fire into vine forest. Ensuring conditions of good soil moisture and moisture of litter in surrounding communities will limit fire behaviour/intensity. ISSUES: Fire sensitive and not normally flammable. Some preliminary work suggests rainforest seedling germination from planned burning activities will assist the establishment of seedlings in newly burnt areas, especially due to smoke. There may be issues with lantana and other weeds from fire and other disturbance. Remnants may be limited by frequent fire at the margins; this requires further research.
12.3.11	SEASON: Summer to late-autumn. INTENSITY: Low.

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RE	Fire management recommendations
	INTERVAL: 3-6 years.
	STRATEGY: Aim to burn 40-60% of any given area. Spot ignition in cooler or moister periods encourages mosaics.
	ISSUES: Control of weeds is a major focus of planned burning in most areas. Maintain ground litter and fallen timber habitats by burning only with sufficient soil moieture. Burning should aim to produce fine scale mosaics of unburnt areas.
12.11.5	SEASON: Summer to winter.
	INTENSITY: Low to moderate.
	INTERVAL: 4-25 years.
	STRATEGY: Aim for 40-60% mosaic burn. Burn with soil mosture and with a spot ignition strategy so that a patchwork of burnt/unburnt country is achieved
	ISSUES: The fire regime should maintain a mosaic of srassy and shrubby understoreys. Control of weeds is a major focus of planned burning in most areas. Careful thought should be given to maintaining ground litter and fallen timber habitats by burning only with sufficient soil moisture. Burning should aim to produce fine scale mosaics of unburnt areas. Variability in season and fire intensity is important, as well as spot ignition in cooler or moister periods to encourage mosaics.

6.0 SUMMARY OF IDENTIFIED **ECOLOGICAL SENSITIVITIES AND RISKS**

The study area supports a range of terrestrial ecology values as outlined in **Section 3.9** The potential impacts to these values (sulmar) ed in Section 4.0) have different levels of risk, which are influenced by the type of habitat (and the corresponding constraint category) present at any given location. In order to synthesise the values and their potential impacts in the study area in a practical form, the interacting factors have been compiled into two risk matrices in Tables 6.1 and 6.2 These tables show risk of impact in order of management prioritisation for riparian and non-riparian areas, respectively.

The high risk category requires that active management measures should be prioritised to reduce the likelihood of significant impacts. The medium visk category indicates that appropriate management measures should be considered on a case-by-case basis, with active management implemented where necessary. The **low risk** category indicates a minor risk factor, such that active management would generally not be required. The negligible category denotes that there would effectively be no risk and therefore no management required.

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Table 6.1. Risk matrix for potential impact to ecological values in riparian communities mapped as High Ecological Constraint.

Value	Visitor impacts	Weed infestation	Illegal dumping	Illegal collection	Unregulated fire	Feral animals
Lowland Rainforest (potential TEC)	High	High	Medium	Medium	Low	Medium
Macadamia Nut (and other rainforest plants)	Medium	Medium	Medium	Low	Low	Low
Native Jute (and other sensitive ecotone plants)	High	High	Medium	Low	Medium	Low
Clear Milkvine and Slender Milkvine	High	High	Medium	Low	Medium	Low
Richmond Birdwing Vine (and butterfly)	Medium	Medium	Medium	Low	Low	Low
Koala (and other arboreal mammals)	Low	Medium	Low	Negligible	Medium	Medium
Greater Glider (and other gliders)	Medium	Medium	Negligible	L)dw	Medium	Medium
Grey-headed Flying- Fox (and other megabats)	Low	Low	Negligible	Negligible	Low	Low
Powerful Owl	Medium	Low	LØW	Low	Medium	Low
Glossy Black- Cockatoo	Low	Low	Megligible)	Low	Medium	Low
Tusked Frog (and other native amphibians)	Medium	Medium (Medium	Low	Low	Medium
Short-beaked Echidna	Medium	Low	Low	Low	Medium	Medium
Soft-spined Sunfish	Medium	Low	High	Medium	Low	Medium
Orchids (and other native ornamental species)	Medium	Medium	Low	High	Medium	Low

Table 6.2. Risk matrix for potential impact to ecological values in non-riparian communities mapped as Medium Ecological constraint.

Value	Visitor impacts	Weed Infestation	Illegal dumping	Illegal collection	Unregulated fire	Feral animals
Native Jute (and other	Hiigh	Medium	Medium	Low	High	Low
sensitive ecotone						
plants)						
Clear Milkvine and	High	Medium	Medium	Low	High	Low
Slender Milkvine						
Richmond Birdwing	√ Medium	Medium	Medium	Low	Low	Low
Vine (and butterfy)						
Koala (and other	Low	Medium	Low	Negligible	High	Medium
arboreal mamals)						
Greater Glider (and	Medium	Medium	Negligible	Low	High	Medium
other gliders						
Grewhended Twing-	Low	Low	Negligible	Negligible	Medium	Low
Fox (and other)						
megapats						
Powerful Owl	Medium	Low	Low	Low	High	Low
Glossy Black-	Low	Low	Negligible	Medium	High	Low
Cockatoo						
Short-beaked Echidna	Medium	Low	Low	Low	High	Medium
Orchids (and other	Medium	Medium	Low	High	High	Low
native ornamental						
species)						

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7.0 REFERENCES

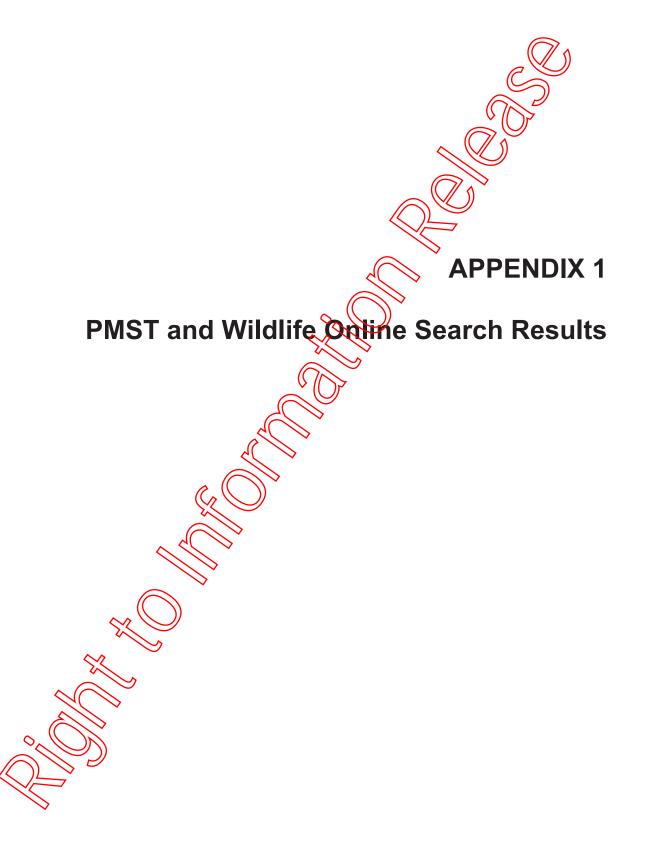
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DotE (2014). EPBC Act referral guidelines for the vulnerable Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory. Department of the Environment, Canberra.

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RSC 2007. Land Management Plan: Eastern Escarpment Conservation Area, Don and Christine Conservation Area and Ford Road Conservation Area. December 2007. Natural Area Management Unit, Environmental Management Group, Planning and Policy Department, Redland Shire Council.



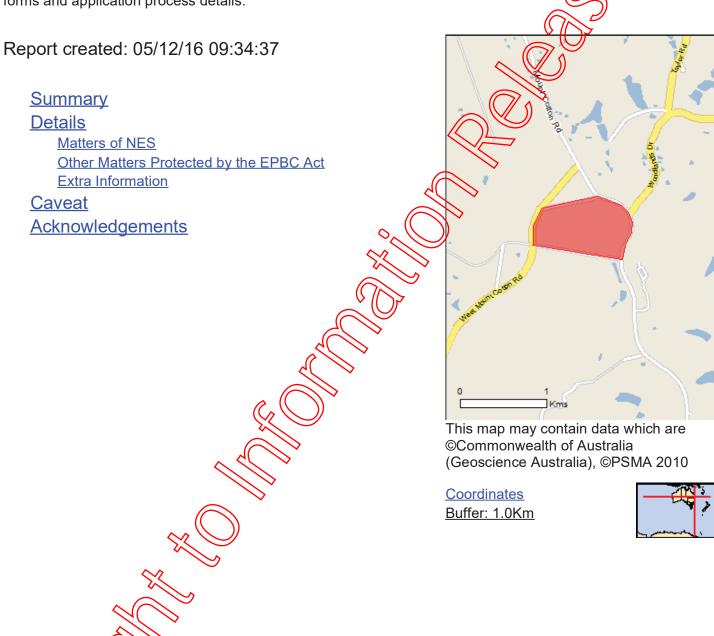


EPBC Act Protected Matters Report

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.

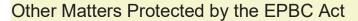
Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.



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:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	28
Listed Migratory Species:	12



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 http://www.environment.gov.au/heritage

A <u>permit</u> 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 Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	19
Whales and Other Cetereans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	39
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Moreton bay	Within 10km of Ramsar

[Resource Information] Listed Threatened Ecological Communities 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 Name Type of Presence Critically Endangered Lowland Rainforest of Subtropical Australia Community may occur within area **Listed Threatened Species** Resource Information Status Type of Presence Name Birds Anthochaera phrygia Critically Endangered Regent Honeyeater [82338] Foraging, feeding or related behaviour likely to occur within area Botaurus poiciloptilus Australasian Bittern [1001] Species or species habitat Endange known to occur within area Calidris ferruginea Curlew Sandpiper [856] riticatty Endangered Species or species habitat may occur within area Dasyornis brachypterus Eastern Bristlebird [533] Endangered Species or species habitat may occur within area **Erythrotriorchis radiatus** Red Goshawk [942] Vulnerable Species or species habitat likely to occur within area Geophaps scripta scripta Squatter Pigeon (southern) [644 Vulnerable Species or species habitat may occur within area Lathamus discolor Swift Parrot [744] Critically Endangered Species or species habitat may occur within area Numenius madagas carrex Eastern Curlew, Far Eastern Curlew [847] Critically Endangered Species or species habitat may occur within area Poephila Southern Black-throated Finch [64447] Endangered Species or species habitat may occur within area Rostratula australis Australian Painted Snipe [77037] Endangered Species or species habitat may occur within area

Mammals		
Chalinolobus dwyeri		
Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat may occur within area
Dasyurus maculatus maculatus (SE mainland populati	on)	
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area
Petauroides volans		
Greater Glider [254]	Vulnerable	Species or species habitat may occur within 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]	Vulnerable (Species of species habitat known to occur within area
<u>Pteropus poliocephalus</u>		
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Plants		
<u>Arthraxon hispidus</u>		
Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area
Baloghia marmorata		
Marbled Balogia, Jointed Baloghia [8463]	Vulnerable	Species or species habitat may occur within area
Bosistoa transversa		
Three-leaved Bosistoa, Yellow Satinheart [16091]	Waterable	Species or species habitat likely to occur within area
Corchorus cunninghamii	•	
Native Jute [14659]	Endangered	Species or species habitat likely to occur within area
Cryptocarya foetida		
Stinking Cryptocarya, Stinking Laurel (11976)	Vulnerable	Species or species habitat may occur within area
Macadamia integrifolia		
Macadamia Nut, Queensland (ut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat likely to occur within area
Macadamia tetraphyllay		
Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat may occur within area
Phaius australis		
Lesser Swamp-orchid [\$872]	Endangered	Species or species habitat may occur within area
Samadera bidwillii		
Quassia [29708]	Vulnerable	Species or species habitat likely to occur within area
Thesium australe		
Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
Reptiles		
Delma torquata		

Vulnerable Species or species Planifold of 84

Collared Delma [1656]

* Species is listed under a different scientific name o	n the EPBC Act - Threatene	d Species list.
Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
<u>Cuculus optatus</u>		
Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occurryithin area
<u>Hirundapus caudacutus</u>		
White-throated Needletail [682]		Species of species habitat known to occur within area
Monarcha melanopsis	^	
Black-faced Monarch [609]		species or species habitat known to occur within area
Monarcha trivirgatus		
Spectacled Monarch [610]		Species or species habitat likely to occur within area
Myiagra cyanoleuca	4()	
Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons	1// /	
Rufous Fantail [592]		Species or species habitat likely to occur within area
Migratory Wetlands Species		
<u>Calidris ferruginea</u>		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Gallinago hardwickii		C
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Numenius madagascariensis	Outside a Unit Final I	On a single control of the first
Eastern Curlew, Far Eastern Carlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat may occur within area
Tringa nebularia		
Common Green hank Greenshank [832]		Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Birds		,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Anseranas semipalmata		
Magpie Goose [978]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Breeding known to occur withing area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangere	Species or species habitat may occur within area
<u>Cuculus saturatus</u>		
Oriental Cuckoo, Himalayan Cuckoo [710]		Species or species habitat may occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Hirundapus caudacutus		
White-throated Needletail [682]		Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangere	d Species or species habitat may occur within area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat
		known to occur within area
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat
Speciacied Monarch 10]		likely to occur within area
Myiagra (xandleucă Satin Flycatober [612]		Species or species habitat
•		known to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangere	d Species or species habitat may occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat may occur within area

Rostratula benghalensis (sensu lato)

Painted Snipe [889] Endangered* Species or species habitat may occur within area

Tringa nebularia

Species or species habitat Common Greenshank, Greenshank [832]

likely to occur within area

[Resource Information]

Extra Information

Invasive Species

Weeds reported here are the 20 species of national significance (Works), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig. Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status (Type of Presence
Birds		
Acridotheres tristis		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos		
Mallard [974]	>	Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia		
Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Lonchura punctulata		
Nutmeg Mannikin [399]		Species or species habitat likely to occur within area
Passer domesticus		
House Sparrow [405]		Species or species habitat likely to occur within area
Streptopellachinensis		
Spotted Fortige Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris		
Common Starling [389]		Species or species habitat likely to occur within area
Eroge		

Frogs

Rhinella marina

Cane Toad [83218] Species or species habitat likely to occur

Page 31 of 84

likely to occur within area Canis lupus familiaris Domestic Dog [82654] Species or species habitat likely to occur within area Felis catus Cat, House Cat, Domestic Cat [19] Species or species habitat likely to occur within area Lepus capensis Species or/species habitat Brown Hare [127] likely to occur within area Mus musculus House Mouse [120] Species or species habitat likely to occur within area Oryctolagus cuniculus Rabbit, European Rabbit [128] Species or species habitat likely to occur within area Rattus norvegicus Brown Rat, Norway Rat [83] Species or species habitat likely to occur within area Rattus rattus Black Rat, Ship Rat [84] Species or species habitat likely to occur within area Sus scrofa Pig [6] Species or species habitat likely to occur within area Vulpes vulpes Red Fox, Fox [18] Species or species habitat likely to occur within area **Plants** Alternanthera philoxeroides Alligator Weed [11620] Species or species habitat likely to occur within area Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Fern, Species or species habitat likely to occur within area Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425] Asparagus africanus Climbing Asparagus, Climbing Asparagus Fern Species or species habitat [66907] likely to occur within area Asparagus premosus Climbing Asparagus-ferr [48993] Species or species habitat likely to occur within area Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Species or species habitat Washington Grass, Watershield, Carolina Fanwort, likely to occur within area Common Cabomba [5171] Chrysanthemoides monilifera Bitou Bush, Boneseed [18983] Species or species habitat may occur within area Chrysanthemoides monilifera subsp. rotundata Ritou Rush [16332] Species or species Plage 1821 of 84

openies of species habitat

Hymenachne amplexicaulis

Hymenachne, Olive Hymenachne, Water Stargrass, West Indian Grass, West Indian Marsh Grass [31754]

Species or species habitat likely to occur within area

Lantana camara

Lantana, Common Lantana, Kamara Lantana, Largeleaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892] Opuntia spp.

Species or species habitat likely to occur within area

Prickly Pears [82753]

ecies habitat likely to occur within area

Parthenium hysterophorus

Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]

es or species habitat (ke) to occur within area

Protasparagus densiflorus

Asparagus Fern, Plume Asparagus [5015]

Species or species habitat likely to occur within area

Protasparagus plumosus

Climbing Asparagus-fern, Ferny Asparagus [11747]

Species or species habitat likely to occur within area

Sagittaria platyphylla

Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]

Species or species habitat likely to occur within area

Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and

Species or species habitat likely to occur within area

Sterile Pussy Willow [68497]

Species or species habitat likely to occur within area

Salvinia molesta

Salvinia, Giant Salvinia, Aquarium Watermoss, Kanba Weed [13665]

Species or species habitat

Senecio madagascariensis

Fireweed, Madagascar Ragwort, Madagascar

Groundsel [2624]

likely to occur within area

Reptiles

Hemidactylus frenatus

Asian House Gecko [1708]

Species or species habitat likely to occur within area

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the gualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State regulation 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.

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

Where very little information is available for species or large number of maps are required in a smoot 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 apidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrante
- some species and ecological communities that have only recently seen listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant or only occur in small numbers

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

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

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

Coordinates

-27.591685 153.2184,-27.591647 163.218443,-27.589898 153.218443,-27.588262 153.21943,-27.587501 153.223507,-27.587159 153.225224,-27.587539 153.226468,-27.587996 153.2277,-27.588681 153.228443,-27.589555 153.228786,-27.590544 153.2287,-27.591723 153.228013,-27.593016 153.227713,-27.594685 153.2184

 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 Amarch 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

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

-Other groups and individuals

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

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Wildlife Online Extract

Search Criteria: Species List for a Specified Point

Species: All Type: All Status: All Records: All Date: All

Latitude: -27.5900 Longitude: 153.2231

Distance: 5

Email: lindsay@baamecology.com

Date submitted: Monday 05 Dec 2016 09:01:29

Date extracted: Monday 05 Dec 2016 09:10:02

The number of records retrieved = 583

Disclaimer

As the DSITIA is still in a process of collating and vetting data, it is possible the information given is not complete. The information provided should only be used for the project for which it was requested and it should be appropriately acknowledged as being derived from Wildlife Online when it is used.

The State of Queensland does not invite reliance upon, nor accept responsibility for this information. Persons should satisfy themselves through independent means as to the accuracy and completeness of this information.

No statements, representations or warranties are made about the accuracy or completeness of this information. The State of Queensland disclaims all responsibility for this information and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs you may incur as a result of the information being inaccurate or incomplete in any way for any reason.

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animals birds Acanthizidae <i>Acanthiza chrysolithob</i> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\							animals
animals birds Acanthizidae <i>Chthonicola sagitt</i> ata speckled warbler C 3			speckled warbler				animals
animals birds Acanthizidae <i>Smicrorpis brevirostos</i> weebill C 11					Acanthizidae	birds	animals
animals birds Acanthizidae Acanthiza reguloides buff-rumped thornbill C 4			buff-rumped thornbill	Acanthiza reguloides	Acanthizidae		animals
animals birds Accipitridae <i>Hieraaetus morphnoides</i> little eagle C 2	C 2						
animals birds Accipitridae Accipiter cirrocéphalus collared sparrowhawk C 3				Accipiter cirrocephalus			animals
animals birds Accipitridae Accipit <mark>e</mark> r novaehollandiae grey goshawk C 1	C						
animals birds Accipitridae Halisectus leucogaster white-bellied sea-eagle C 2	C 2						
animals birds Accipitridae Haliastur sphenurus whistling kite C 15					. ~ /		animals
animals birds Accipitridae Aviceda subcristata Pacific baza C 12							
animals birds Accipity(ae)\ \to Accipiter fasciatus brown goshawk C 9	•				Accipit/(dae\\		
animals birds Applitudge Lophoictinia isura square-tailed kite C 2	C 2				Accipitudae V		
animals birds Accipitridae Lophoictinia isura square-tailed kite C 2 animals birds Accipitridae Pandion cristatus eastern osprey SL 1 animals birds Black-shouldered kite C 2					Accipitridae		
animals birds () Accipitridae Elanus axillaris black-shouldered kite C 2)) Alcoloitridae		
animals birds \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			•		Accipitridae		
animals birds / Accipitridae Haliastur indus brahminy kite C 3							
animals birds Accipitridae Milvus migrans black kite C 1							
animals birds Accipitridae Aquila audax wedge-tailed eagle C 13							
animals birds Acrocephalidae Acrocephalus australis Australian reed-warbler C 1	C		Australian reed-warbler	Acrocephalus australis	Acrocephalidae	birds	animals

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	Α	Records
animals	birds	Aegothelidae	Aegotheles cristatus	Australian owlet-nightjar		С		10
animals	birds	Alcedinidae	Ceyx azureus	azure kingfisher		С		3
animals	birds	Anatidae	Anas castanea	chestnut teal		С		1
animals	birds	Anatidae	Anas gracilis	grey teal		С		7
animals	birds	Anatidae	Aythya australis	hardhead		С		11
animals	birds	Anatidae	Cygnus atratus	black swan		С		4
animals	birds	Anatidae	Malacorhynchus membranaceus	pink-eared duck		C		1
animals	birds	Anatidae	Dendrocygna arcuata	wandering whistling-duck	> \%	I C		3
animals	birds	Anatidae	Anas superciliosa	Pacific black duck		С		39
animals	birds	Anatidae	Chenonetta jubata	Australian wood duck		С		48
animals	birds	Anatidae	Anas platyrhynchos	northern mallard 🔨 🦳 (())	Υ			1
animals	birds	Anhingidae	Anhinga novaehollandiae	Australasian darter		С		11
animals	birds	Anseranatidae	Anseranas semipalmata	magpie goose		С		12
animals	birds	Apodidae	Hirundapus caudacutus	white-throated needletail		SL		6
animals	birds	Ardeidae	Egretta novaehollandiae	white-face heren		С		22
animals	birds	Ardeidae	Nycticorax caledonicus	nankeen night-heron		С		4
animals	birds	Ardeidae	Ixobrychus flavicollis	black buttern \				1
animals	birds	Ardeidae	Ardea alba modesta	eastern great egret		C C C		7
animals	birds	Ardeidae	Ixobrychus dubius	Australian little bittern		С		1
animals	birds	Ardeidae	Egretta garzetta	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		С		5
animals	birds	Ardeidae	Ardea intermedia	intermediate egret		С		10
animals	birds	Ardeidae	Ardea ibis	cattle egret		С		16
animals	birds	Ardeidae	Ardea pacifica	white-necked heron		С		4
animals	birds	Artamidae	Cracticus tibicen	Australian magpie		C		163
animals	birds	Artamidae	Strepera graculina	pied currawong		С		10
animals	birds	Artamidae	Artamus cyanopterus (\)	dusky woodswallow		С		3
animals	birds	Artamidae	Cracticus torquatus	grey butcherbird		С		69
animals	birds	Artamidae	Artamus leucorylochus	white-breasted woodswallow		С		4
animals	birds	Artamidae	Cracticus nigrogularis	pied butcherbird		С		100
animals	birds	Artamidae	Artamus minor	little woodswallow		С		2
animals	birds	Burhinidae	Burhinus gratarius	bush stone-curlew		С		3
animals	birds	Cacatuidae	Eolophus roseicapillus	galah		С		38
animals	birds	Cacatuidae	Ceryptorhynchus banksii	red-tailed black-cockatoo		С		1
animals	birds	Cacatuidae 📏	Calyptorhynchus funereus	yellow-tailed black-cockatoo		С		4
animals	birds	Cacatuidae	Calvotorhynchus lathami lathami	glossy black-cockatoo (eastern)		V		7
animals	birds	Cacatuidae	Cacatua galerita	sulphur-crested cockatoo		С		58
animals	birds	Cacatuidae	Cacatua tenuirostris	long-billed corella	Υ	С		1
animals	birds	Cacatultae\\	Cacatua sanguinea	little corella		С		2
animals	birds	Campephagidae	Coracina novaehollandiae	black-faced cuckoo-shrike		С		87
animals	birds	Campaphagidae	Coracina tenuirostris	cicadabird		С		18
animals	birds	Campenhagidae Campenhagidae Campenhagidae	Coracina papuensis	white-bellied cuckoo-shrike		С		2
animals	birds	Campaphagidae	Coracina lineata	barred cuckoo-shrike		С		1
animals	birds	Campephagidae	Lalage leucomela	varied triller		С		7
animals	birds	Charadriidae	Vanellus miles novaehollandiae	masked lapwing (southern subspecies	s)	С		34
animals	birds	Charadriidae	Vanellus miles	masked lapwing `	,	С		6
animals	birds	Charadriidae	Elseyornis melanops	black-fronted dotterel		С		5
			,					

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	Α	Records
animals	birds	Ciconiidae	Ephippiorhynchus asiaticus	black-necked stork		С		2
animals	birds	Cisticolidae	Cisticola exilis	golden-headed cisticola		С		17
animals	birds	Climacteridae	Cormobates leucophaea metastasis	white-throated treecreeper (southern)		С		46
animals	birds	Climacteridae	Cormobates leucophaea	white-throated treecreeper		С		19
animals	birds	Climacteridae	Climacteris erythrops	red-browed treecreeper		С		2
animals	birds	Climacteridae	Climacteris picumnus	brown treecreeper		С		4
animals	birds	Climacteridae	Climacteris affinis	white-browed treecreeper	()	Ç		3
animals	birds	Columbidae	Streptopelia chinensis	spotted dove	> W 1)		20
animals	birds	Columbidae	Leucosarcia melanoleuca	wonga pigeon	$\supset \sim$	С		10
animals	birds	Columbidae	Lopholaimus antarcticus	topknot pigeon		С		2
animals	birds	Columbidae	Macropygia amboinensis	brown cuckoo-dove		С		20
animals	birds	Columbidae	Ptilinopus magnificus	wompoo fruit-dove		С		1
animals	birds	Columbidae	Geopelia humeralis	bar-shouldered dove		С		68
animals	birds	Columbidae	Phaps chalcoptera	common bronzewing		С		15
animals	birds	Columbidae	Ocyphaps lophotes	crested pigeon		С		43
animals	birds	Columbidae	Columba livia	rock dove	Υ			2
animals	birds	Columbidae	Geopelia striata	peaceful dove		С		32
animals	birds	Columbidae	Columba leucomela	white-headed pigeon		С		5
animals	birds	Coraciidae	Eurystomus orientalis	o dollarbird		С		27
animals	birds	Corvidae	Corvus orru	(\Torresian crow		С		135
animals	birds	Cuculidae	Chalcites minutillus barnardi	bronze-cuckoo		С		2
animals	birds	Cuculidae	Cacomantis variolosus	brush cuckoo		С		2
animals	birds	Cuculidae	Eudynamys orientalis	eastern koel		C C		22
animals	birds	Cuculidae	Centropus phasianinus	pheasant coucal		С		39
animals	birds	Cuculidae	Chalcites lucidus	shining bronze-cuckoo		С		22
animals	birds	Cuculidae	Chalcites basalis	Horsfield's bronze-cuckoo		C C		6
animals	birds	Cuculidae	Scythrops novaehollandiae	channel-billed cuckoo		С		12
animals	birds	Cuculidae	Cacomantis flabelliformis	fan-tailed cuckoo		С		40
animals	birds	Cuculidae	Cacomantis pallidus	pallid cuckoo		С		1
animals	birds	Dicruridae	Dicrurus bracteatus practeatus	spangled drongo (eastern Australia)		С		2
animals	birds	Dicruridae	Dicrurus oracteatus	spangled drongo		С		41
animals	birds	Estrildidae	Neochmia\temporalis	red-browed finch		С		32
animals	birds	Estrildidae	Taeniopygia guttata	zebra finch		С		1
animals	birds	Estrildidae 🤇	Taeniopygia bichenovii	double-barred finch		С		10
animals	birds	Estrildidae 🧸 🐣	Lonshura castaneothorax	chestnut-breasted mannikin		С		1
animals	birds	Eurostopodigae	Eurostopodus mystacalis	white-throated nightjar		С		9
animals	birds	Falconida e	Falco berigora	brown falcon		С		2
animals	birds	Falcondae \\	Falco cenchroides	nankeen kestrel		С		3
animals	birds	Fateonidae V	Falco peregrinus	peregrine falcon		С		1
animals	birds	(Halicyonidae	Dacelo novaeguineae	laughing kookaburra		С		131
animals	birds	(()) Haicyopiqae	Todiramphus sordidus	Torresian kingfisher		С		1
animals	birds	Halcyonidae	Todiramphus sanctus	sacred kingfisher		С		25
animals	birds	Malcyonidae	Todiramphus macleayii	forest kingfisher		C C C		21
animals	birds	Hirundinidae	Petrochelidon nigricans	tree martin		C		5
animals	birds	Hirundinidae	Petrochelidon ariel	fairy martin		C		6
animals	birds	Hirundinidae	Hirundo neoxena	welcome swallow		С		33

Kingdom	Class	Family	Scientific Name	Common Name	1	Q	Α	Records
animals	birds	Jacanidae	Irediparra gallinacea	comb-crested jacana		С		7
animals	birds	Maluridae	Malurus cyaneus	superb fairy-wren		С		17
animals	birds	Maluridae	Malurus lamberti	variegated fairy-wren		С		51
animals	birds	Maluridae	Malurus melanocephalus	red-backed fairy-wren		С		44
animals	birds	Megaluridae	Megalurus timoriensis	tawny grassbirď		С		2
animals	birds	Megapodiidae	Alectura lathami	Australian brush-turkey	6	С		10
animals	birds	Meliphagidae	Manorina melanophrys	bell miner		Ç		1
animals	birds	Meliphagidae	Melithreptus lunatus	white-naped honeyeater	≈ (K	瓜		4
animals	birds	Meliphagidae	Philemon corniculatus	noisy friarbird		C		45
animals	birds	Meliphagidae	Manorina melanocephala	noisy miner		С		116
animals	birds	Meliphagidae	Myzomela sanguinolenta	scarlet honeyeater ()	>	С		64
animals	birds	Meliphagidae	Philemon citreogularis	little friarbird		С		5
animals	birds	Meliphagidae	Anthochaera chrysoptera	little wattlebird		С		2
animals	birds	Meliphagidae	Melithreptus albogularis	white-throated honeyeater		C C		74
animals	birds	Meliphagidae	Plectorhyncha lanceolata	striped honeyeater		С		2
animals	birds	Meliphagidae	Acanthorhynchus tenuirostris	eastern spinebill		С		25
animals	birds	Meliphagidae	Lichmera indistincta	brown-boneyeater		C C		38
animals	birds	Meliphagidae	Manorina flavigula	yellow-throated miner		С		1
animals	birds	Meliphagidae	Entomyzon cyanotis	blue-faced honeyeater		C		13
animals	birds	Meliphagidae	Caligavis chrysops	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		С		88
animals	birds	Meliphagidae	Meliphaga lewinii	win's honeyeater		С		73
animals	birds	Meliphagidae	Myzomela obscura	dusky honeyeater		С		1
animals	birds	Meropidae	Merops ornatus	rainbow bee-eater		С		38
animals	birds	Monarchidae	Monarcha melanopsis	black-faced monarch		SL		11
animals	birds	Monarchidae	Carterornis leucotis	white-eared monarch		С		4
animals	birds	Monarchidae	Symposiachrus trivirgatus 🗸 📏	spectacled monarch		SL		5
animals	birds	Monarchidae	Myiagra rubecula	leaden flycatcher		С		27
animals	birds	Monarchidae	Myiagra inquieta((> ((\\\\)	restless flycatcher		С		3
animals	birds	Monarchidae	Grallina cyanoleuca	magpie-lark		C C		57
animals	birds	Nectariniidae	Dicaeum hirundinaceum	mistletoebird		С		19
animals	birds	Neosittidae	Daphoenositta chiysoptera	varied sittella		С		15
animals	birds	Oriolidae	Sphecotheres vieilloti	Australasian figbird		С		29
animals	birds	Oriolidae	Oriolus sagittatus	olive-backed oriole		С		37
animals	birds	Pachycephalidae 🚫	Pachycephala pectoralis	golden whistler		С		66
animals	birds	Pachycephalidae 1	Pachycephala rufiventris	rufous whistler		С		95
animals	birds	Pachycephalicae	Wolfuricincla megarhyncha	little shrike-thrush		С		19
animals	birds	Pachycephalidae	Pachycephala pectoralis youngi	golden whistler (south-eastern Australia)		С		2
animals	birds	Pachycephalloae	Colluricincla harmonica	grey shrike-thrush		С		90
animals	birds	✓ Pardalotidae	Pardalotus striatus	striated pardalote		С		76
animals	birds	Randalohidae	Pardalotus punctatus	spotted pardalote		С		42
animals	birds	Passeridae	Passer domesticus	house sparrow	Υ			1
animals	birds	Pelecanidae	Pelecanus conspicillatus	Australian pelican		С		9
animals	birds	Petroicidae	Petroica rosea	rose robin		С		25
animals	birds	Petroicidae	Microeca fascinans	jacky winter		С		7
animals	birds	Petroicidae	Tregellasia capito	pale-yellow robin		С		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	Α	Records
animals	birds	Petroicidae	Eopsaltria australis	eastern yellow robin		С		95
animals	birds	Phalacrocoracidae	Phalacrocorax carbo	great cormorant		С		6
animals	birds	Phalacrocoracidae	Microcarbo melanoleucos	little pied cormorant		С		27
animals	birds	Phalacrocoracidae	Phalacrocorax varius	pied cormorant		С		8
animals	birds	Phalacrocoracidae	Phalacrocorax sulcirostris	little black cormorant		С		21
animals	birds	Phasianidae	Coturnix ypsilophora	brown quail	6	С		6
animals	birds	Phasianidae	Pavo cristatus	Indian peafowl	(Y)	>>		2
animals	birds	Pittidae	Pitta versicolor	noisy pitta	$\mathbb{C}^{\mathbb{W}}$	戊		4
animals	birds	Podargidae	Podargus strigoides	tawny frogmouth		C		13
animals	birds	Podicipedidae	Tachybaptus novaehollandiae	Australasian grebe	\mathbb{N}	С		25
animals	birds	Pomatostomidae	Pomatostomus temporalis	grey-crowned babbler	<i>)</i> ,>	С		6
animals	birds	Psittacidae	Platycercus adscitus	pale-headed rosella	7	С		77
animals	birds	Psittacidae	Trichoglossus haematodus moluccanus	rainbow lorikeet		С		129
animals	birds	Psittacidae	Platycercus adscitus palliceps	pale-headed rose a (southern form))	С		4
animals	birds	Psittacidae	Trichoglossus chlorolepidotus	scaly-breasted orikeet		С		40
animals	birds	Psittacidae	Parvipsitta pusilla	little lorikeet		С		13
animals	birds	Psittacidae	Platycercus eximius	eastern rosella		С		3
animals	birds	Psittacidae	Alisterus scapularis	Australian king-parrot		С		8
animals	birds	Psophodidae	Psophodes olivaceus	eastern whipbird		С		52
animals	birds	Psophodidae	Cinclosoma punctatum	(\spotted quail-thrush		C C		4
animals	birds	Ptilonorhynchidae	Ptilonorhynchus violaceus	sain bowerbird		С		1
animals	birds	Ptilonorhynchidae	Sericulus chrysocephalus			С		1
animals	birds	Rallidae	Porphyrio melanotus	purple swamphen		С		27
animals	birds	Rallidae	Gallinula tenebrosa	dusky moorhen		С		25
animals	birds	Rallidae	Porzana pusilla	Baillon's crake		С		2
animals	birds	Rallidae	Amaurornis moluccana	pale-vented bush-hen		С		1
animals	birds	Rallidae	Fulica atra	Eurasian coot		С		17
animals	birds	Recurvirostridae	Himantopus himantopus	black-winged stilt		С		6
animals	birds	Rhipiduridae	Rhipidura leucophoxs	willie wagtail		С		39
animals	birds	Rhipiduridae	Rhipidura ruffrons \\	rufous fantail		SL		11
animals	birds	Rhipiduridae	Rhipidura albiscapa	grey fantail		С		99
animals	birds	Rhipiduridae	Rhipidura Yeucophrys leucophrys	willie wagtail (southern)		С		1
animals	birds	Scolopacidae	Gallinago handwickii	Latham's snipe		SL		2
animals	birds	Strigidae	> Ninox Ipobook	southern boobook		С		18
animals	birds	Strigidae 🧸 📉	Winox strenua	powerful owl		V		18
animals	birds	Sturnidae 🔀	Styrnus vulgaris	common starling	Υ			5
animals	birds	Sturnidae	Acridotheres tristis	common myna	Υ			3
animals	birds	Sulidae \\	Morus serrator	Australasian gannet		С		1
animals	birds	Threskiomithidae	Platalea regia	royal spoonbill		С		4
animals	birds	Threskjornythidae	Platalea flavipes	yellow-billed spoonbill		С		3
animals	birds	Threskiomithidae	Threskiornis molucca	Australian white ibis		С		24
animals	birds	Threskio hithidae	Threskiornis spinicollis	straw-necked ibis		С		13
animals	birds	Mmaliidae	Zosterops lateralis	silvereye		С		42
animals	birds	Timaliidae	Zosterops lateralis cornwalli	silvereye (eastern)		С		3
animals	birds	Turnicidae	Turnix varius	painted button-quail		С		4
animals	insects	Hesperiidae	Telicota ancilla ancilla	green darter				1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	Α	Records
animals	insects	Hesperiidae	Hesperilla picta	painted sedge-skipper				1
animals	insects	Hesperiidae	Ocybadistes walkeri sothis	green grass-dart (Bassian subspecie	es)			1
animals	insects	Nymphalidae	Danaus plexippus plexippus	monarch	•			4
animals	insects	Nymphalidae	Hypocysta metirius	brown ringlet				2
animals	insects	Nymphalidae	Euploea core corinna	common crow				2
animals	insects	Nymphalidae	Melanitis leda bankia	common evening-brown	6			1
animals	insects	Nymphalidae	Junonia villida calybe	meadow argus	_ (()	>>		1
animals	insects	Nymphalidae	Hypolimnas bolina nerina	varied eggfly	$\mathscr{C} \vee \!\!\! \vee$	Ŋ		1
animals	insects	Nymphalidae	Hypocysta adiante adiante	orange ringlet				1
animals	insects	Nymphalidae	Hypocysta sp.		\mathbb{N}			1
animals	insects	Nymphalidae	Acraea andromacha andromacha	glasswing	<i>)</i> }			2
animals	insects	Nymphalidae	Doleschallia bisaltide australis	leafwing				1
animals	insects	Nymphalidae	Danaus petilia	lesser wanderer				2
animals	insects	Papilionidae	Ornithoptera richmondia	Richmond birdwind		V		1
animals	insects	Papilionidae	Graphium sarpedon choredon	blue triangle				1
animals	insects	Papilionidae	Papilio aegeus aegeus	orchard swallowtait (Australian				1
				subspecies)				
animals	insects	Pieridae	Eurema hecabe	large grass-yellow				1
animals	insects	Pieridae	Delias nigrina	O black ezebel				1
animals	mammals	Canidae	Vulpes vulpes	\(\red)fox	Υ			1
animals	mammals	Canidae	Canis lupus familiaris	(\\ dog	Υ			3
animals	mammals	Dasyuridae	Antechinus flavipes flavipes	∀ yellow-footed antechinus		С		7
				(south-east Queensland)		_		
animals	mammals	Dasyuridae	Sminthopsis murina murina	common dunnart (SE mainland)		С		2
animals	mammals	Dasyuridae	Sminthopsis murina	common dunnart		С		5
animals	mammals	Dasyuridae	Planigale maculata	common planigale		С		1
animals	mammals	Leporidae	Lepus europaeus	European brown hare	Υ	_		5
animals	mammals	Macropodidae	Macropus rufogriseus (\\\\\	red-necked wallaby		С		14
animals	mammals	Macropodidae	Macropus giganteus	eastern grey kangaroo		C		4
animals	mammals	Macropodidae	Wallabia bicdor	swamp wallaby		С		12
animals	mammals	Macropodidae	Macropus sp \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					1
animals	mammals	Miniopteridae	Miniopterus australis	little bent-wing bat		С		4
animals	mammals	Molossidae	Morriopterus sp.					1
animals	mammals	Molossidae		white-striped freetail bat		С		8
animals	mammals	Molossidae	Mormanterus ridei	eastern free-tailed bat		С		1
animals	mammals	Muridae	Mus musculus	house mouse	Υ			3
animals	mammals	Muridae	Hydromys chrysogaster	water rat		C		4/1
animals	mammals	Muridae \\	Rattus fuscipes	bush rat		C		1
animals	mammals	Muridae Muridae	Rattus lutreolus	swamp rat		С		3
animals	mammals	Muridae V	Rattus rattus	black rat	Υ			3
animals	mammals ()) Ornitherhynchidae	Ornithorhynchus anatinus	platypus		SL		1
animals	mammals \\	Peramelidae	Perameles nasuta	long-nosed bandicoot		С		4
animals	mammals	Peramelidae	Isoodon macrourus	northern brown bandicoot		С		8
animals	mammals	Petauridae	Petaurus breviceps	sugar glider		С		6
animals	mammals	Petauridae	Petaurus norfolcensis	squirrel glider		С		4
animals	mammals	Phalangeridae	Trichosurus vulpecula	common brushtail possum		С		13

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Kingdom	Class	Family	Scientific Name	Common Name	I	Q	Α	Records
animals	mammals	Phalangeridae	Trichosurus caninus	short-eared possum		С		4
animals	mammals	Phascolarctidae	Phascolarctos cinereus	koala		V	V	5450
animals	mammals	Pseudocheiridae	Pseudocheirus peregrinus	common ringtail possum		С		11
animals	mammals	Pseudocheiridae	Petauroides volans volans	southern greater glider		С	V	6
animals	mammals	Pteropodidae	Pteropus alecto	black flying-fox		С		1
animals	mammals	Pteropodidae	Pteropus scapulatus	little red flying-fox	6	С		1
animals	mammals	Pteropodidae	Pteropus sp.		_ (()	≫		1
animals	mammals	Pteropodidae	Pteropus poliocephalus	grey-headed flying-fox	~ (K	<i>J</i> C	V	1
animals	mammals	Tachyglossidae	Tachyglossus aculeatus	short-beaked echidna		SL		3
animals	mammals	Vespertilionidae	Chalinolobus gouldii	Gould's wattled bat		С		1
animals	mammals	Vespertilionidae	Vespadelus darlingtoni	large forest bat	/>	С		2
animals	mammals	Vespertilionidae	Chalinolobus nigrogriseus	hoary wattled bat		C		1
animals	mammals	Vespertilionidae	Vespadelus regulus	southern forest bat		С		1
animals	mammals	Vespertilionidae	Scotorepens greyii	little broad nosed bat		C C		3
animals	mammals	Vespertilionidae	Chalinolobus morio	chocolate wattled bat		С		3
animals	mammals	Vespertilionidae	Scotorepens orion	south-eastern bread-nosed bat		С		3
animals	mammals	Vespertilionidae	Nyctophilus bifax	norther long-eared bat		С		1
animals	mammals	Vespertilionidae	Nyctophilus sp.					2
animals	mammals	Vespertilionidae	Myotis macropus 🚫	Targe footed myotis		С		1
animals	ray-finned fishes	Ambassidae	Ambassis agassizii	∖∖Agassiz's glassfish				3
animals	ray-finned fishes	Anguillidae	Anguilla australis	thern shortfin eel				32
animals	ray-finned fishes	Anguillidae	Anguilla reinhardtii	√ longfin eel				58
animals	ray-finned fishes	Atherinidae	Craterocephalus stercusmuscarum	flyspecked hardyhead				15
animals	ray-finned fishes	Cichlidae	Oreochromis mossambicus	Mozambique mouthbrooder	Υ			2
animals	ray-finned fishes	Eleotridae	Hypseleotris galii	firetail gudgeon				91
animals	ray-finned fishes	Eleotridae	Gobiomorphus australis 🎺 \ \	striped gudgeon				40
animals	ray-finned fishes	Eleotridae	Hypseleotris compresse	empire gudgeon				54
animals	ray-finned fishes	Eleotridae	Hypseleotris klunzingeri	western carp gudgeon				7
animals	ray-finned fishes	Kuhliidae	Kuhlia rupestris 🔨	jungle perch				1
animals	ray-finned fishes	Melanotaeniidae	Rhadinocentrus ornatus	ornate rainbowfish				44
animals	ray-finned fishes	Melanotaeniidae	Melanotaenia duboulayi	crimsonspotted rainbowfish				42
animals	ray-finned fishes	Mugilidae	Mugil cephalus	sea mullet				7
animals	ray-finned fishes	Percichthyidae	Macquaria nověmaculeata	Australian bass				1
animals	ray-finned fishes	Plotosidae	> Tandayus tandanus	freshwater catfish				26
animals	ray-finned fishes	Poeciliidae	Gambusia holbrooki	mosquitofish	Y			79
animals	ray-finned fishes	Poeciliidae	Xiphophorus hellerii	swordtail	Υ			53
animals	ray-finned fishes	Synbranchidae	Ophisternon gutturale	swamp eel				2
animals	ray-finned fishes	Terapontidae 💛	Leiopotherapon unicolor	spangled perch		_		2
animals	reptiles	Agarolidae	Intellagama lesueurii	eastern water dragon		С		8
animals	reptiles	⟨Agamidae⟩	Diporiphora australis	tommy roundhead		C		3
animals	reptiles (())	Algamidae	Pogona barbata	bearded dragon		С		8
animals	reptiles	Boldae	Morelia spilota	carpet python		С		25
animals	reptiles	Chelidae	Emydura macquarii macquarii	Murray turtle		С		1
animals	reptiles	Chelidae	Wollumbinia latisternum	saw-shelled turtle		С		1
animals	reptiles	Chelidae	Chelodina longicollis	eastern snake-necked turtle		С		1
animals	reptiles	Colubridae	Tropidonophis mairii	freshwater snake		С		1

Kingdom	Class	Family	Scientific Name	Common Name	I Q A	Records
animals	reptiles	Colubridae	Dendrelaphis punctulatus	green tree snake	С	10
animals	reptiles	Colubridae	Boiga irregularis	brown tree snake	С	8
animals	reptiles	Diplodactylidae	Nebulifera robusta	robust velvet gecko	С	1
animals	reptiles	Elapidae	Cacophis krefftii	dwarf crowned snake	С	1
animals	reptiles	Elapidae	Cacophis harriettae	white-crowned snake	С	2
animals	reptiles	Elapidae	Demansia psammophis	yellow-faced whipsnake	C C	3
animals	reptiles	Elapidae	Cryptophis nigrescens	eastern small-eyed snake	(8/1
animals	reptiles	Elapidae	Pseudechis porphyriacus	red-bellied black snake	$\mathcal{C} \otimes \mathcal{K}$	2
animals	reptiles	Elapidae	Pseudonaja textilis	eastern brown snake		1
animals	reptiles	Gekkonidae	Heteronotia binoei	Bynoe's gecko	<i>∕ ∕ ∕ C</i>	1
animals	reptiles	Gekkonidae	Gehyra dubia	dubious dtella	(()> c	1
animals	reptiles	Pygopodidae	Lialis burtonis	Burton's legless lizard	C	6
animals	reptiles	Scincidae	Carlia vivax	tussock rainbow-skink	С	3
animals	reptiles	Scincidae	Concinnia tenuis	bar-sided akink	С	1
animals	reptiles	Scincidae	Ctenotus arcanus	arcane cterrotus	С	1
animals	reptiles	Scincidae	Eulamprus quoyii	eastern water skink	С	4
animals	reptiles	Scincidae	Bellatorias major	land mullet	С	1
animals	reptiles	Scincidae	Concinnia martini	dark bar sided skink	C C	3
animals	reptiles	Scincidae	Bellatorias frerei	major skink	C	1
animals	reptiles	Scincidae	Ctenotus spaldingi	straight-browed ctenotus	С	3/1
animals	reptiles	Scincidae	Tiliqua scincoides	eastern blue-tongued lizard	C C	6
animals	reptiles	Scincidae	Lygisaurus foliorum	tree-base litter-skink	C	1
animals	reptiles	Scincidae	Ctenotus taeniolatus	copper-tailed skink	C	3
animals	reptiles	Scincidae	Lampropholis amicula	friendly sunskink	C C	6
animals	reptiles	Scincidae	Anomalopus verreauxii	three-clawed worm-skink	С	3/1
animals	reptiles	Scincidae	Lampropholis delicata	dark-flecked garden sunskink	C	11
animals	reptiles	Scincidae	Calyptotis scutirostrum	scute-snouted calyptotis	C	9
animals	reptiles	Scincidae	Cryptoblepharus bulcher pylcher	elegant snake-eyed skink	C	21
animals	reptiles	Typhlopidae	Anilios proximus	proximus blind snake	С	1/1
animals	reptiles	Varanidae	Varanus varius	lace monitor	C C	9
animals	uncertain	Indeterminate	Indeterminate	Unknown or Code Pending	C	2
fungi	club fungi	Basidiomycota	Phylloporus	• · · · · · · · · · · · · · · · · · · ·	Č	_ 1/1
fungi	club fungi	Basidiomycota	Tyrophus		C	1/1
fungi	club fungi		Panaeolus sphinctrinus		C	1/1
fungi	club fungi	Basidiomycota	Boletellus ananiceps		C	1/1
fungi	club fungi	Basidiomycol	Amanita pyramidifera		C	1/1
fungi	club fungi	Basidiomysota	Macrolepiota dolichaula		Č	1/1
fungi	club fungi	Basidiomycota	Lactarius		Č	1/1
fungi	club fungi	Basidlomycota	Alnicola		C	1/1
fungi	club fungi	Basidiomycota	Russula		C	1/1
fungi	club fungi	Basidiomycota Basidiomycota Basidiomycota	Amanita		Č	3/3
fungi	club fungi	Basidiomycota	Psilocybe cubensis		Č	3/3
fungi	club fungi	Basidiomycota	Strobilomyces velutipes		Č	1/1
fungi	sac fungi	Candelariaceae	Candelaria concolor		Č	1/1
fungi	sac fungi	Cladiaceae	Cladia muelleri		Č	1/1
fungi	sac fungi	Cladoniaceae	Cladonia rigida var. rigida		Č	1/1
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Kingdom	Class	Family	Scientific Name	Common Name	<u> </u>	Q	Α	Records
fungi	sac fungi	Cladoniaceae	Cladonia floerkeana			С		1/1
fungi	sac fungi	Coccocarpiaceae	Coccocarpia erythroxyli			С		1/1
fungi	sac fungi	Graphidaceae	Dictyographa			С		1/1
fungi	sac fungi	Lecanoraceae	Lecanora caesiorubella			С		2/2
fungi	sac fungi	Lecanoraceae	Lecanora helva			С		1/1
fungi	sac fungi	Lichen	Lichen		6	C		2/2
fungi	sac fungi	Mycocaliciaceae	Stenocybe			≫c		1/1
fungi	sac fungi	Parmeliaceae	Bulbothrix tabacina	and the second s	> //	TC.		1/1
fungi	sac fungi	Parmeliaceae	Parmotrema tinctorum		<i></i>	2 C		1/1
fungi	sac fungi	Parmeliaceae	Parmotrema crinitum			С		1/1
fungi	sac fungi	Parmeliaceae	Austroparmelina conlabrosa	$\langle \langle \langle \langle \rangle \rangle \rangle \rangle$	>	С		1/1
fungi	sac fungi	Pertusariaceae	Pertusaria thiospoda			С		2/2
fungi	sac fungi	Pertusariaceae	Pertusaria undulata			С		1/1
fungi	sac fungi	Physciaceae	Heterodermia speciosa			С		1/1
fungi	sac fungi	Physciaceae	Dirinaria applanata			CCC		1/1
fungi	sac fungi	Physciaceae	Buellia dissa			С		1/1
fungi	sac fungi	Physciaceae	Buellia			С		1/1
fungi	sac fungi	Teloschistaceae	Teloschistes flavicans	- (// //		С		1/1
plants	ferns	Adiantaceae	Cheilanthes distans	brietly cloak fern		С		2/2
plants	ferns	Adiantaceae	Pityrogramma calomelanos var. austroamericana	((//)	Υ			1/1
plants	ferns	Adiantaceae	Adiantum atroviride			С		1/1
plants	ferns	Dicksoniaceae	Calochlaena dubia			Č		1/1
plants	ferns	Dryopteridaceae	Lastreopsis decomposita	trim shield fern		C		1/1
plants	ferns	Gleicheniaceae	Sticherus flabellatus var. flabellatus			Č		1/1
plants	ferns	Lindsaeaceae	Lindsaea incisa			Č		1/1
plants	ferns	Lindsaeaceae	Lindsaea linearis	screw fern		CCCC		1/1
plants	ferns	Ophioglossaceae	Botrychium australe	parsley fern		Č		1/1
plants	ferns	Polypodiaceae	Platycerium bifurcatum	parata y rann		Č		1/1
plants	ferns	Pteridaceae	Pteris tremula _			Č		1/1
plants	ferns	Salviniaceae	Salvinia molesta	salvinia	Υ			2/2
plants	ferns	Schizaeaceae	Schizaea bifida	forked comb fern		С		1/1
plants	higher dicots	Acanthaceae	Pseuderanthemum variabile	pastel flower		Č		2/2
plants	higher dicots	Amaranthaceae	Gomphrena celosioides	gomphrena weed	Υ			1/1
plants	higher dicots	Amaranthaceae \(\)	Alternanthera denticulata	lesser joyweed		С		1/1
plants	higher dicots	Anacardiaceae	Schings terebinthifolius	leese. Jeymesu	Υ	·		1
plants	higher dicots	Apiaceae	Syclospermum leptophyllum		Ϋ́			1/1
plants	higher dicots	Apiaceae	Platysace ericoides	heath platysace	•	С		2/2
plants	higher dicots	Apocynaceae	Gomphocarpus physocarpus	balloon cottonbush	Υ	Ŭ		1/1
plants	higher dicots	Appeynageae	Marsdenia longiloba	balloon cottonbach	•	V	V	6
plants	higher dicots	Apocynaceae	Marsdenia coronata	slender milkvine		V	•	7
plants	higher dicets	Apocypaceae	Parsonsia straminea	monkey rope		č		2/2
plants	higher dicots	Araliaceae	Astrotricha latifolia	monko, ropo		Č		2/2
plants	higher dicots	Araliaceae	Astrotricha umbrosa			C		1/1
plants	higher dicots	Araliaceae	Trachymene incisa subsp. incisa			Č		1/1
plants	higher dicots	Asteraceae	Cotula australis	common cotula		Č		1, 1
plants	higher dicots	Asteraceae	Olearia nernstii	Ipswich daisy		Č		2/2
ριαιτιο	ingrier dicots	Asieraceae	Oleana Herrisul	ipowien daloy		C		Z1 Z

Kingdom	Class	Family	Scientific Name	Common Name	I Q A	Records
plants	higher dicots	Asteraceae	Senecio vulgaris	common groundsel	Υ	1
plants	higher dicots	Asteraceae	Erigeron canadensis		Υ	1/1
plants	higher dicots	Asteraceae	Ageratina adenophora	crofton weed	Υ	1/1
plants	higher dicots	Asteraceae	Erigeron bonariensis		Υ	1/1
plants	higher dicots	Asteraceae	Erigeron sumatrensis		Υ	1/1
plants	higher dicots	Asteraceae	Euchiton involucratus		C	1/1
plants	higher dicots	Asteraceae	Ambrosia artemisiifolia	annual ragweed	(∀ >>	1/1
plants	higher dicots	Asteraceae	Sphagneticola trilobata	_		1
plants	higher dicots	Asteraceae	Senecio madagascariensis	fireweed		1/1
plants	higher dicots	Asteraceae	Symphyotrichum subulatum			1/1
plants	higher dicots	Asteraceae	Gymnocoronis spilanthoides	$\wedge \bigcirc$. (()> Y	1/1
plants	higher dicots	Asteraceae	Pseudognaphalium luteoalbum	Jersey cudweed	n C	1/1
plants	higher dicots	Asteraceae	Centipeda minima subsp. minima		C	1/1
plants	higher dicots	Asteraceae	Vittadinia cuneata var. hirsuta		С	1/1
plants	higher dicots	Bignoniaceae	Saritaea magnifica		Υ	1/1
plants	higher dicots	Boraginaceae	Heliotropium amplexicaule	blue heliotrope	Υ	1/1
plants	higher dicots	Brassicaceae	Lepidium didymum		Υ	1/1
plants	higher dicots	Brassicaceae	Lepidium virginicum	Virginian peppercress	Υ	1/1
plants	higher dicots	Byttneriaceae	Seringia arborescens		С	1/1
plants	higher dicots	Caesalpiniaceae	Senna septemtrionalis	~ (()) <i>\(\)</i>	Υ	1/1
plants	higher dicots	Caesalpiniaceae	Chamaecrista nomame var. nomame		С	1/1
plants	higher dicots	Caesalpiniaceae	Senna pendula var. glabrata	Easter cassia	Υ	1
plants	higher dicots	Casuarinaceae	Allocasuarina littoralis		С	1/1
plants	higher dicots	Celastraceae	Denhamia celastroides	broad-leaved boxwood		1/1
plants	higher dicots	Chenopodiaceae	Dysphania carinata		C C C	1/1
plants	higher dicots	Chenopodiaceae	Einadia hastata		С	3/3
plants	higher dicots	Clusiaceae	Hypericum gramineum		С	1/1
plants	higher dicots	Dilleniaceae	Hibbertia vestita (\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		С	1/1
plants	higher dicots	Droseraceae	Drosera lunata_		C C C	1/1
plants	higher dicots	Ericaceae	Melichrus procumbens	jam tarts	С	1/1
plants	higher dicots	Ericaceae	Acrotriche aggregata	red cluster heath	С	1/1
plants	higher dicots	Euphorbiaceae	Euphorbia cyathophora	dwarf poinsettia	Υ	1/1
plants	higher dicots	Euphorbiaceae	Euphorbia hyssopifolia	•	Υ	1/1
plants	higher dicots	Euphorbiaceae 🔇	> Euphorpia maculata		Υ	1/1
plants	higher dicots	Fabaceae 🗸	Metilotus albus	sweet clover	Υ	1/1
plants	higher dicots	Fabaceae 🔀	Crotalaria lanceolata subsp. lanceolata		Υ	1/1
, plants	higher dicots	Fabaceae	Pultenaea euchila	orange pultenaea	С	3/3
plants	higher dicots	Fabaceae \	Daviesia villifera	prickly daviesia	C	1/1
plants	higher dicete	Eakadaahh	Daviesia wyattiana	long-leaved bitter pea	C	1/1
plants	higher dicots	Fabaceae	Hovea heterophylla	3	C	1/1
plants	higher dicete	FabaceAe	Jacksonia scoparia		Č	1/1
plants	higher dicots	Fanaceae	Aeschynomene indica	budda pea	Č	1/1
plants	higher dicots	Pabaceae	Phyllota phylicoides	yellow peabush	Č	1/1
plants	higher dicots	Fabaceae	Platylobium formosum	flat pea	C C	1/1
plants	higher dicots	Fabaceae	Podolobium ilicifolium	I	Č	3/3
plants	higher dicots	Fabaceae	Gompholobium latifolium	broad wedge pea	Č	1/1
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Kingdom	Class	Family	Scientific Name	Common Name	I Q A	Records
plants	higher dicots	Fabaceae	Medicago sativa subsp. sativa		Υ	1/1
plants	higher dicots	Fabaceae	Crotalaria pallida var. obovata		Υ	1/1
plants	higher dicots	Fabaceae	Dillwynia retorta		С	1/1
plants	higher dicots	Gentianaceae	Schenkia australis		С	1/1
plants	higher dicots	Goodeniaceae	Goodenia bellidifolia subsp. argentea		С	1/1
plants	higher dicots	Goodeniaceae	Goodenia rotundifolia		C	1/1
plants	higher dicots	Haloragaceae	Myriophyllum gracile var. gracile		⊘ c	1/1
plants	higher dicots	Lamiaceae	Gmelina leichhardtii	white beech	C V K	1/1
plants	higher dicots	Lentibulariaceae	Utricularia caerulea	blue bladderwort		1/1
plants	higher dicots	Loganiaceae	Logania pusilla	_ ()	$\nearrow \bigcirc$ C	1/1
plants	higher dicots	Malvaceae	Pavonia hastata	pink pavonia	(()> Y	1/1
plants	higher dicots	Malvaceae	Sida rhombifolia		Y	1/1
plants	higher dicots	Malvaceae	Malvastrum coromandelianum subsp. coromand	delianum	Υ	1/1
plants	higher dicots	Mimosaceae	Acacia ulicifolia		С	1/1
plants	higher dicots	Mimosaceae	Acacia leiocalyx subsp. leiocalyx		С	1/1
plants	higher dicots	Mimosaceae	Acacia juncifolia		С	1/1
plants	higher dicots	Mimosaceae	Acacia concurrens		С	2/2
plants	higher dicots	Mimosaceae	Acacia fimbriata	Brisbane golden wattle	С	3/3
plants	higher dicots	Myrtaceae	Eucalyptus propinqua	small-fruited grey gum	С	2/2
plants	higher dicots	Myrtaceae	Melaleuca nodosa		С	1/1
plants	higher dicots	Myrtaceae	Backhousia myrtifolia	carrol	С	2/2
plants	higher dicots	Myrtaceae	Eucalyptus resinifera	red mahogany	С	1/1
plants	higher dicots	Myrtaceae	Rhodomyrtus psidioides	native guava	С	2/2
plants	higher dicots	Myrtaceae	Eucalyptus planchoniana (U)	,	С	1/1
plants	higher dicots	Myrtaceae	Leptospermum trinervium	woolly tea-tree	С	1/1
plants	higher dicots	Myrtaceae	Melaleuca quinquenervia	swamp paperbark	С	1/1
plants	higher dicots	Myrtaceae	Eucalyptus fibrosa subsp fibrosa		С	1/1
plants	higher dicots	Myrtaceae	Eucalyptus racernosa subsp. racemosa	scribbly gum	С	3/2
plants	higher dicots	Myrtaceae	Lophostemon comertus x D suaveolens	, ,	С	1/1
plants	higher dicots	Myrtaceae	Eucalyptus tereticornis subsp. basaltica		С	1/1
plants	higher dicots	Myrtaceae	Eucalyptus pulularis	blackbutt	С	1/1
plants	higher dicots	Myrtaceae	Angophora leiocarpa	rusty gum	С	1/1
plants	higher dicots	Myrtaceae	Egcalyptus seeana	narrow-leaved red gum	С	1/1
plants	higher dicots	Myrtaceae 🕥	Eucalyptus carnea	· ·	С	1/1
plants	higher dicots	Myrtaceae 🔪	Eucalyotus tindaliae	Queensland white stringybark	С	1/1
plants	higher dicots	Ochnaceae	Ochna serrulata	ochna	Υ	1/1
plants	higher dicots	Oleaceae	Notelaea longifolia forma glabra		С	1/1
plants	higher dicots	Oleaceae \	Notelaea ovata	forest olive	С	1/1
plants	higher dicots	Oleacleach V	Chionanthus ramiflorus	northern olive	С	1/1
plants	higher dicots	Phyllanthaceae	Poranthera microphylla	small poranthera	С	1/1
plants	higher dicots	Phylanthaceae	Glochidion sumatranum	umbrella cheese tree	С	1/1
plants	higher dicots	Phyllanthaceae	Phyllanthus tenellus		Υ	1/1
plants	higher dicots	Plantaginaceae	Plantago lanceolata		Υ	1/1
plants	higher dicots	Plantaginaceae	Scoparia dulcis	scoparia	Υ	2/2
plants	higher dicots	Polygalaceae	Comesperma sphaerocarpum	•	С	1/1
plants	higher dicots	Proteaceae	Banksia spinulosa var. spinulosa		С	1/1
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Kingdom	Class	Family	Scientific Name	Common Name	1	Q	Α	Records
plants	higher dicots	Proteaceae	Persoonia stradbrokensis			С		1/1
plants	higher dicots	Proteaceae	Macadamia integrifolia	macadamia nut		V	V	11/3
plants	higher dicots	Proteaceae	Macadamia tetraphylla			V	V	1/1
plants	higher dicots	Proteaceae	Persoonia tenuifolia			С		1/1
plants	higher dicots	Proteaceae	Hakea florulenta	three-nerved willow hakea		С		2/2
plants	higher dicots	Rutaceae	Acronychia laevis	glossy acronychia	6	C		2/2
plants	higher dicots	Rutaceae	Boronia polygalifolia	dwarf boronia	_ ((.	 ₩Ç		1/1
plants	higher dicots	Sambucaceae	Sambucus nigra					1/1
plants	higher dicots	Sapindaceae	Alectryon connatus	grey birds-eye		C		1/1
plants	higher dicots	Solanaceae	Physalis angulata					1/1
plants	higher dicots	Solanaceae	Solanum stelligerum	devil's needles	(\bigcirc)	С		1/1
plants	higher dicots	Sparrmanniaceae	Corchorus cunninghamii		1	Ε	Е	6/1
plants	higher dicots	Sparrmanniaceae	Grewia latifolia	dysentery plant		С		1/1
plants	higher dicots	Stylidiaceae	Stylidium graminifolium	grassy-leaved trigger flower		С		2/2
plants	higher dicots	Thymelaeaceae	Pimelea linifolia subsp. linifolia			С		1/1
plants	higher dicots	Verbenaceae	Verbena incompta		Υ			1/1
plants	higher dicots	Verbenaceae	Lantana			С		1
plants	higher dicots	Violaceae	Viola hederacea			C		1/1
plants	higher dicots	Violaceae	Viola hederacea subsp. hederacea	0. () ,		С		1/1
plants	higher dicots	Viscaceae	Viscum articulatum	(flat)mistletoe		С		1/1
plants	higher dicots	Viscaceae	Notothixos subaureus	den mistletoe		С		1/1
plants	lower dicots	Calceolariaceae	Calceolaria tripartita	∖ ∖ lady's slipper	Y			1/1
plants	lower dicots	Lauraceae	Cryptocarya			C		1/1
plants	lower dicots	Lauraceae	Cryptocarya macdonaldii	McDonald's laurel		C		3/3
plants	lower dicots	Lauraceae	Cassytha glabella forma glabella			С		1/1
plants	lower dicots	Monimiaceae	Wilkiea huegeliana	veiny wilkiea		С		1/1
plants	lower dicots	Monimiaceae	Wilkiea macrophylla	large-leaved wilkiea		C		1/1
plants	lower dicots	Piperaceae	Peperomia blanda var floribunda			С		1/1
plants	lower dicots	Ranunculaceae	Clematis glycinoldes			C		1/1
plants	monocots	Colchicaceae	Tripladenia cumninghamii			С		1/1
plants	monocots	Commelinaceae	Callisia repens		Y	_		1/1
plants	monocots	Cyperaceae	Chorizandra cymbaria			C		1/1
plants	monocots	Cyperaceae	Speria levis			С		1/1
plants	monocots	Cyperaceae	> Soleria rugosa			C		1/1
plants	monocots	Cyperaceae	Vsolopis cernua	nodding club rush		C		1/1
plants	monocots	Cyperaceae	Fuirena ciliaris			С		1/1
plants	monocots	Cyperaceae \\	Cyperus aquatilis			C		2/2
plants	monocots	Cyperaceae\	Cyperus difformis	rice sedge		С		1/1
plants	monocots	O Chaelyageae //	Cyperus brevifolius	Mullumbimby couch	Y	_		1/1
plants	monocots	Cyperaceae Cyperaceae	Lepironia articulata			C		1/1
plants	monocots () Chberaceae	Eleocharis equisetina			С		1/1
plants	monocots	Cyperaceae	Fimbristylis cinnamometorum			C		1/1
plants	monocots	eyperaceae	Lepidosperma laterale			C		1/1
plants	monocots	Hemerocallidaceae	Dianella			C		1/1
plants	monocots	Iridaceae	Patersonia sericea var. sericea	labora skama		С		1/1
plants	monocots	Iridaceae	Aristea ecklonii	blue stars	Y			1/1

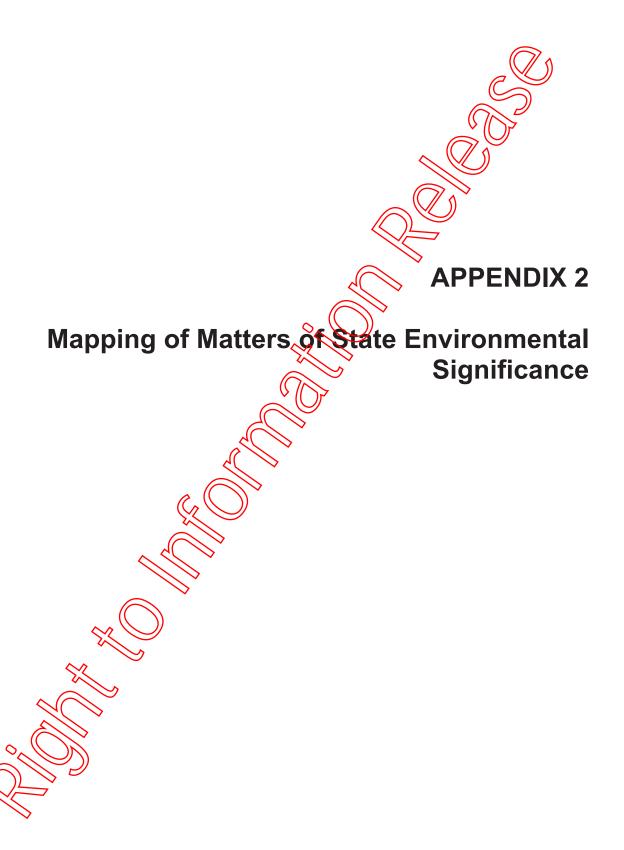
Kingdom	Class	Family	Scientific Name	Common Name	I Q A	Records
plants	monocots	Iridaceae	Freesia laxa		Υ	2/2
plants	monocots	Johnsoniaceae	Caesia parviflora		С	1/1
plants	monocots	Laxmanniaceae	Lomandra filiformis subsp. coriacea		С	2/2
plants	monocots	Laxmanniaceae	Thysanotus tuberosus subsp. parviflorus		С	1/1
plants	monocots	Orchidaceae	Dipodium variegatum		С	1/1
plants	monocots	Orchidaceae	Genoplesium acuminatum		C	1/1
plants	monocots	Orchidaceae	Arthrochilus irritabilis	leafy elbow orchid	(C C	2/2
plants	monocots	Poaceae	Poa labillardierei var. labillardierei	tussock grass	C V D	1/1
plants	monocots	Poaceae	Bothriochloa decipiens var. decipiens	Ţ.		1/1
plants	monocots	Poaceae	Dichanthium sericeum subsp. sericeum		$\mathcal{S} \longrightarrow \mathcal{C}$	1/1
plants	monocots	Poaceae	Setaria pumila subsp. subtesselata	$\wedge \bigcirc$. (()> Y	1/1
plants	monocots	Poaceae	Megathyrsus maximus var. coloratus		η Y	1/1
plants	monocots	Poaceae	Lachnagrostis filiformis		C	1/1
plants	monocots	Poaceae	Arundinella nepalensis	reedgrass	С	1/1
plants	monocots	Poaceae	Eragrostis tenuifolia	elastic grass	Υ	1/1
plants	monocots	Poaceae	Sorghum arundinaceum	Rhodesian Sudan grass	Υ	1/1
plants	monocots	Poaceae	Eragrostis mexicana	Mexican lovegrass	Υ	1/1
plants	monocots	Poaceae	Entolasia marginata	bordered panic	С	2/2
plants	monocots	Poaceae	Digitaria didactyla	Queensland blue couch	Υ	1/1
plants	monocots	Poaceae	Urochloa decumbens		Υ	1/1
plants	monocots	Poaceae	Paspalum dilatatum	paspalum	Υ	1/1
plants	monocots	Poaceae	Oplismenus aemulus	creeping shade grass	С	1/1
plants	monocots	Poaceae	Entolasia whiteana		С	1/1
plants	monocots	Poaceae	Digitaria eriantha	<i>)</i> }>	Υ	1/1
plants	monocots	Poaceae	Cenchrus purpureus		Υ	1/1
plants	monocots	Poaceae	Eriachne glabrata		С	1/1
plants	monocots	Poaceae	Entolasia stricta	wiry panic	С	1/1
plants	monocots	Poaceae	Themeda triandre ((\\\\	kangaroo grass	С	1/1
plants	monocots	Poaceae	Chloris virgata	feathertop rhodes grass	Υ	1/1
plants	monocots	Poaceae	Panicum simile		С	1/1
plants	monocots	Poaceae	Chloris gayana \\	rhodes grass	Υ	1/1
plants	monocots	Poaceae	Poa annua\\\	annual poa	Υ	1/1
plants	monocots	Smilacaceae	Srailax australis	barbed-wire vine	С	1/1
plants	mosses	Hypopterygiaceae	>> Hypopterygium tamarisci		С	1/1
-						

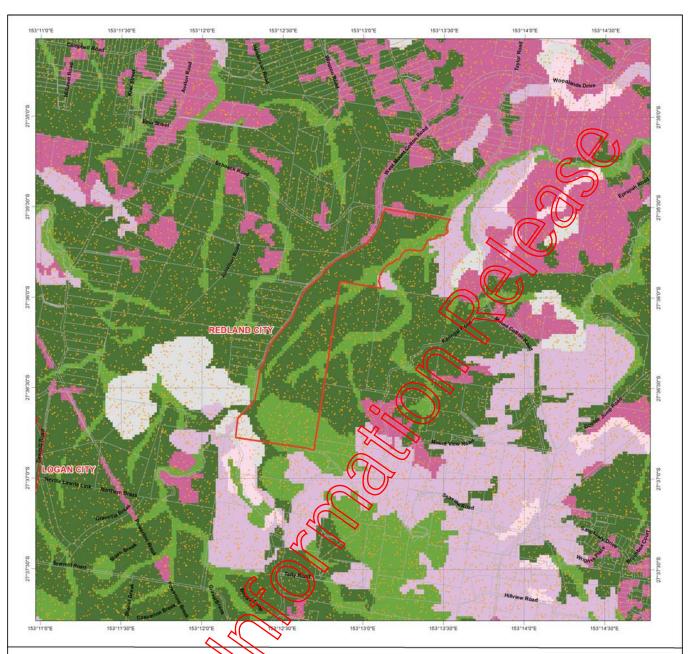
CODES

- 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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ().
- A Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999.* The values of EPBC are Conservation Dependent (CB), Critically Endangered (CE), Endangered (E), Extinct (EX), Extinct in the Wild (XW) and Vulnerable (V).

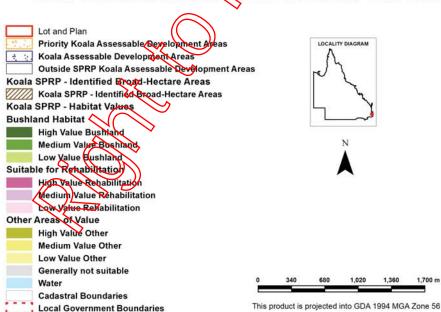
Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).

This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon. This number is output as 999 if it equals or exceeds this value.





Koala Conservation in South East Queensland State Planning Regulatory Provisions



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Based on or contains data provided by the State of Queensland 2010.

1,700 m

Note - These maps are not regulatory. Regulatory maps and requirements can be downloaded from the EHP website. Further information in relation to regulatory requirements for development and planning activities should be sought from the relevant Local Government Authority or the Department of Environment and Heritage Protection.

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For Lot: 1 Plan: SP200199

Current as at 05/12/2016



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Overview

The management and clearing of native vegetation in Queensland is regulated by the *Vegetation Management Act 1999*, the Vegetation Management Regulation 2009, the *Sustainable Planning Act 2009* and the Sustainable Planning Regulation 2009 in conjunction with associated policies and codes. These legislation, policies and codes are referred to as the Vegetation Management Framework.

Many routine vegetation management activities can be carried out under exemptions or self-assessable codes under the *Vegetation Management Act 1999*. Other activities may require you to apply for a development approval under the *Sustainable Planning Act 2009*. The requirements for a permit depend on the type of vegetation, the land tenure (e.g. freehold or leasehold land), the location, and the extent and purpose of the proposed clearing. In urban weak, vegetation may be regulated by local government provisions even if it is not regulated vegetation under the VMA.

The information in this report will assist you to determine the options for managing vegetation of your property. Based on the lot on plan you have supplied, this report provides the following detailed information:

- 1. *Property region* the local government area, bioregion(s), subregion(s), catchment(s) and any applicable area management plans associated with your property.
- 2. Vegetation management framework an explanation of the options that may be available to manage vegetation on your property.
- 3. Property details for the specified Lot on Plan specific information about your property including land tenure, vegetation categories, regional ecosystems, watercourses, wetlands, essential habitat, land suitability and protected plants.
- 4. Maps a series of colour maps to assist in identifying regulated vegetation on your property including:
- regulated vegetation management map
- vegetation management map
- land suitability map
- protected plants map.

Iable of Contents 1. Property regions
2. Vegetation management framework
2.1 Exemptions
2.2 Self-assessable codes
2.3 Area management plans
2.4 Development approvals
3. Property details for Lot: 1 Plan: SP200199
3.2 Vegetation categories
3.3 Regional ecosystems
3.4 Watercourses
3.5 Wetlands
3.6 Essential habitat
3.7 Land suitability
3.8 Protected plants
3.9 Emissions Reduction Fund (ERF)
4. Contacts for further information
5. Maps
5.1 Regulated vegetation management map
5.2 Vegetation management supporting map
5.3 Land suitability map
5.4 Protected plants map

1. Property regions

Table 1 provides a summary of the regions that property Lot: 1 Plan: SP200199 is located within.

Table 1: Property regions

Local Government(s)
Redland City

Bioregion(s)	Subregion(s)	
Southeast Queensland	Burringbar - Conondale Ranges	

Catchment(s)
Logan-Albert

Area Management Plan(s): Nil



2. Vegetation management framework

Vegetation clearing is regulated under the *Vegetation Management* Act 1999 (VMA) and the *Sustainable Planning Act* 2009 (SPA). A development approval is required to clear where the clearing is not exempt under the SPA, or where it cannot be carried out under a self-assessable clearing code or an area management plan under the VMA.

The VMA does not apply to all land tenures or vegetation types. State forests, national parks, forest reserves and some tenure types as defined under the *Forestry Act 1959* and *Nature Conservation Act 1992* are not regulated by the VMA. Managing vegetation not regulated under the VMA page tenuire permits under these laws.

The following native vegetation is not regulated under the VMA but may require permit(s) under other laws:

- a) grass or non-woody herbage;
- b) a plant within a grassland regional ecosystem; and
- c) a mangrove.

The regulated vegetation management map, the vegetation management map, the land suitability map and the protected plants map provided in section 4 and the information provided in section 2 and 3 of this report will assist you in identifying clearing suitability and enable you to determine whether your proposed clearing is:

- · exempt;
- requires notification and compliance with a self-assessable code or area management plan; or
- requires a development approval.

2.1 Exemptions

The vegetation management framework allows clearing for certain purposes without approval, known as an exemption.

Areas that are mapped as Category X (white in colour) on the regulated vegetation management map (section 5.1) on most State land tenures are exempt and therefore do not require a development approval or notification.

There are other exemptions that apply to a range of routine property management activities. A list of these is available at https://www.gld.gov.au/environment/land/vegetation/exemptions/.

Although vegetation management laws may allow clearing under an exemption, there may be other state, local or Commonwealth laws that apply. Exemptions may not apply if the vegetation is subject to permit conditions, a covenant, an

2.2 Self-assessable codes

Some clearing activities can be undertaken using a self-assessable vegetation clearing code and notification process. The codes can be downloaded at

https://www.qld.gov.au/environment/land/vegetation/codes/

If you intend to clear vegetation under a self-assessable vegetation clearing code, you must notify the commencing. The information in this report will assist you to complete the online notification form.

You can complete the online form at

https://apps.dnrm.gld.gov.au/vegetation/

2.3 Area management plans

Area Management Plans (AMP) provide an alternative approval system for vegetation clearing. They list the purposes and clearing conditions that have been approved for the areas covered by the plan. It is not necessary to use an AMP, even when an AMP applies to your property.

If an area management plan applies to your property, it will be listed in Table this report.

To clear under an existing AMP, you must notify the DNRM before clearing starts and follow the conditions listed in the AMP. You can download the area management clearing notification form and obtain a copy of the relevant AMP at https://www.gld.gov.au/environment/land/vegetation/area-plans/

2.4 Development approvals

If your proposed clearing is not exempt, or is not permitted under a self-assessable vegetation clearing code, or an AMP, you may be able to apply for a development approval. Information on how to apply for a development approval is available at https://www.qld.gov.au/environment/land/vegetation/applying/



3. Property details for Lot: 1 Plan: SP200199

3.1 Tenure

All of the lot, plan and tenure information associated with property Lot: 1 Plan: SP200199, including links to relevant Smart Maps, are listed in Table 2. The tenure of the property (whether it is freehold, leasehold, or other) may be viewed by clicking on the Smart Map link(s) provided.

Table 2: Lot, plan and tenure information for the property

Tenure	Lot	Plan	Link to property on SmartMap
Freehold	1	SP200199	http://globe.information.qld.gov.au/cgi-bin/SmartMengen.py?q=1\SP200199

The tenure of the land determines whether certain exemptions are applicable.

Some self-assessable codes apply only to freehold and leasehold land granted for grazing and agricultural purposes.

3.2 Vegetation categories

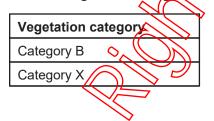
Vegetation categories are shown on the regulated vegetation management map in section 5.1 of this report. Descriptions for these categories are shown in Table 3.

Table 3

Category	Colour on Map	Description ()	Requirements
A	red	Compliance areas, environmental offset areas and voluntary declaration areas	Clearing requires a development approval, exemption, or self-assessable clearing code or area management plan notification.
В	dark blue	Remnant vegetation areas	Clearing requires a development approval, exemption, or self-assessable clearing code or area management plan notification.
С	light blue	High-value regrowth areas	Clearing requires exemption, or self-assessable clearing code or area management plan notification.
R	yellow	Regrowth within 50m of a watercourse in the priority reef catchment areas	Clearing requires exemption, or self-assessable clearing code or area management plan notification.
Х	white	Areas not regulated under the	No permit or notification required on all but certain state land tenures.

The vegetation categories on this property are listed in Table 4.

Table 4: Vegetation categories for subject property



3.3 Regional ecosystems

The endangered, of concern and least concern regional ecosystems on your property are shown on the vegetation management supporting map in section 5.2 and are listed in Table 5.

A description of regional ecosystems can be accessed online at https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/descriptions/

Table 5: Regional ecosystems present on subject property

Regulated vegetation description	Regional ecosystem patch	
rem_leastc	12.11.5	
rem_leastc	12.11.3	
rem_end	12.3.1	\sim \bigcirc
rem_oc	12.3.11	
rem_leastc	12.11.10	

rem_leastc is vegetation category A or B with a VMA status of least concert

rem_oc is vegetation category A or B with a VMA status of concern

rem_end is vegetation category A or B with a VMA status of endangered

hvr_leastc is vegetation category C or R with a VMA status of least concern

hvr_oc is vegetation category C or R with a VMA status of consern

hvr_end is vegetation category C or R with a VMA status of endangered

The VMA status of the regional ecosystem (whether it is endangered, of concern or least concern) also determines if any of the following are applicable:

- · exemptions
- performance outcomes in State Development Assessment Provisions (SDAP)
- self-assessable codes.

Some clearing purposes are limited to a particular group of regional ecosystems (e.g. encroachment) and some self-assessable codes allow clearing only in certain regional ecosystems.

3.4 Watercourses

Vegetation management watercourses for this property are shown on the vegetation management supporting map in section 5.2.

3.5 Wetlands

There are no vegetation management wetlands present on this property.

3.6 Essential habitat

Any essential habitat on this property will be shown on the vegetation management supporting map in section 5.2.

Essential habitat identifies areas in which species of wildlife that are endangered, vulnerable, rare or near threatened under the *Nature Conservation Act 1992* have been known to occur. These important habitat areas are protected under the VMA.

If essential habitat is identified on this property, the information about the protected wildlife species is provided in Table 6 below (if no table is displayed below, there has not been any essential habitat identified on this property). The species label is shown on the vegetation management supporting map in section 5.2. The essential habitat factors are stated in the columns marked with an asterisk.

Table 6: Endangered, vulnerable, or near threatened wildlife species identified within the property if no table is shown below, there is no essential habitat identified on the property)

Label	Scientific Name	Common Name	NCA Status	*Vegetation Community	*Altitude
29186	Phascolarctos cinereus (southeast	Koala	V	Open eucalypt forest and woodland that has a) multiple strata	Sea level to
	Queensland bioregion)			layers containing Eucalyptus Corymbia Angophora,	1000m.
				Lophostemon or Melaleuce trees that -at 1.3 metres above the	
				ground—have a diameter both greater and less than 30	
				centimetres; and b) at least 1 or the following species: Eucalyptus	
				tereticornis, E. fibrosa, E. propinqua; E. umbra, E. grandis, E.	
				microcorys E. tindaliae, E. resinifera, E. populnea, E. robusta, E.	
				nigra, Exacemosa, Excrebra, E. exserta, E. seeana,	
				Lophostemon confertus, L. suaveolens, Melaleuca	
				quirquenervia	

Additional essential habitat information

Label	*Regional Ecosystem (mandatory)
29186	12.3.3, 12.3.4, 12.3.6, 12.3.7, 12.3 0, 12.3.1, 12.5.2, 12.5.3, 12.8.14, 12.9-10.4, 12.9-10.7, 12.9-10.17, 12.11.5, 12.11.18, 12.12.12

3.7 Land suitability

Land suitability mapping and information is required if you are applying to clear vegetation for high value or irrigated high value agriculture. Land suitability as essment addresses the capacity of land to sustain specific land uses such as cropping, irrigated agriculture and forestry.

A land suitability map for this property is provided in section 5.3. The map provides detailed land suitability, agricultural land classification, or soil and land resource mapping data where it is available.

The land suitability project that applies to this property is shown in Table 7 and Table 8.

Table 7: Land suitability project details for this property

Project name	Project code	Start date	Scale
Soil Landscapes of Brisbane and South East Environs (ZAA)	ZAA	1987-01-01 00:00:00	100000

Table 8: Available land suitability project reports for this property

Project name	Availability of report
Soil Landscapes of Brisbane and South East Environs (ZAA)	CSIRO report. Available at www.publications.qld.gov.au

3.8 Protected plants

In Queensland, all plants that are native to Australia are protected plants under the *Nature Conservation Act 1992*. The Act endeavours to ensure that protected plants (whole plants or protected plant parts) are not illegally removed from the wild or illegally traded.

Prior to clearing, you must check the flora survey trigger map to determine if the clearing is within a high risk area. The trigger map for this property is provided in section 5.4.

If your property is in a high risk area, a flora survey must be undertaken and a clearing permit may be required for clearing endangered, vulnerable and near threatened plants (EVNT plants) and their supporting habitat.

If a flora survey identifies that EVNT plants are not present or can be avoided by 100m, the clearing activity may be exempt from a permit. An exempt clearing notification form is required. This form can be downloaded at http://www.ehp.qld.gov.au/licences-permits/plants-animals/protected-plants/

In an area other than a high risk area, a clearing permit is only required where a person is becomes aware that EVNT plants are present.

Clearing of least concern plants is exempt from requiring a clearing permit within a low risk area.

To be eligible for certain clearing exemptions you need to keep a copy of the map for the area subject to clearing. Protected plants flora survey trigger maps are valid for a period of 12 months from the date of request. After 12 months you will need to obtain a new protected plants flora survey trigger map to determine clearing requirements for your area of interest. This can be accessed online at

http://www.ehp.qld.gov.au/licences-permits/plants-animals/protected-plants/map-request.php

For further information or assistance on the protected plants flore survey rigger map for this property, please contact the Department of Environment and Heritage Protection at palm@ehp.gld.gov.au

3.9 Emissions Reduction Fund (ERF)

The ERF is an Australian Government scheme which offers incentives for businesses and communities across the economy to reduce emissions.

Under the ERF, farmers can earn money from activities such as planting (and keeping) trees, managing regrowth vegetation and adopting more sustainable agricultural practices.

The purpose of a project is to remove greenhouse gases from the atmosphere. Each project will provide new economic opportunities for farmers, forest growers and land managers.

Further information on ERF is available at https://www.qld.gov.au/environment/land/state/use/carbon-rights/

4. Contacts for further information

For further information on vegetation management:

Phone 135VEG (135 834)

Email vegetation @dnm at .gov.au

Visit www.dpm.qd.govau/our-department/contact-us/vegetation-contacts to submit an online enquiry.

5. Maps

The maps included in this report may also be requested individually at:

https://www.dnrm.qld.gov.au/qld/environment/land/vegetation/vegetation-map-request-form and

http://www.ehp.qld.gov.au/licences-permits/plants-animals/protected-plants/map-request.php

Regulated vegetation management map

The regulated vegetation management map shows vegetation categories to determine clearing requirements. These maps are updated monthly to show new <u>property maps of assessable vegetation</u>

Vegetation management supporting map

The vegetation management supporting map provides information on regional ecosystems, wetlands watercourses and essential habitat.

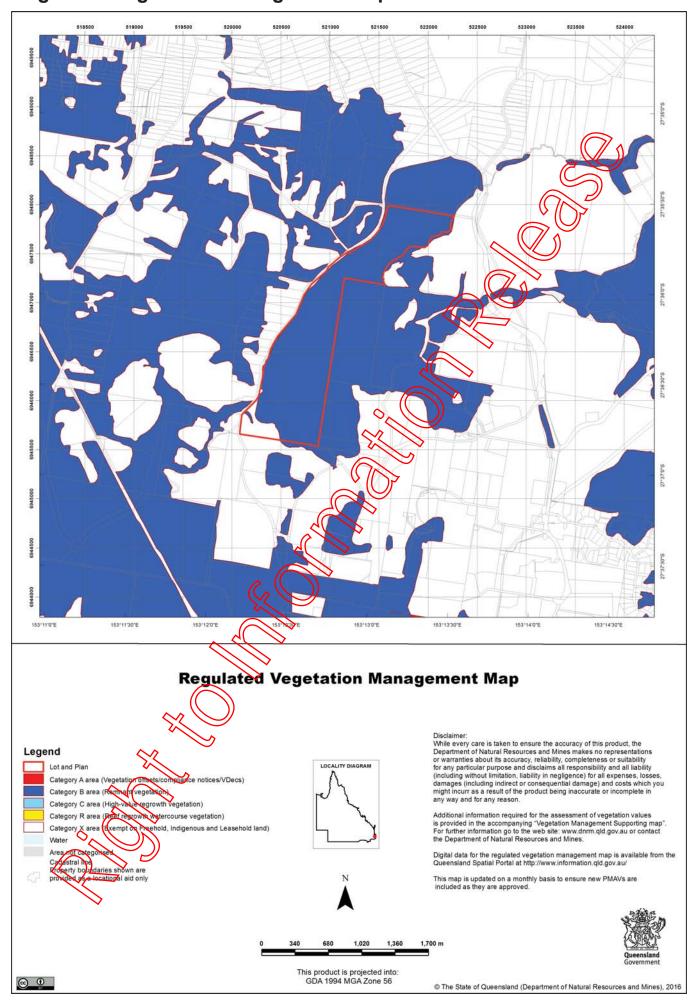
Land suitability map

The land suitability map assists with identifying the land suitability category under the high value and irrigated high value agriculture vegetation clearing purpose.

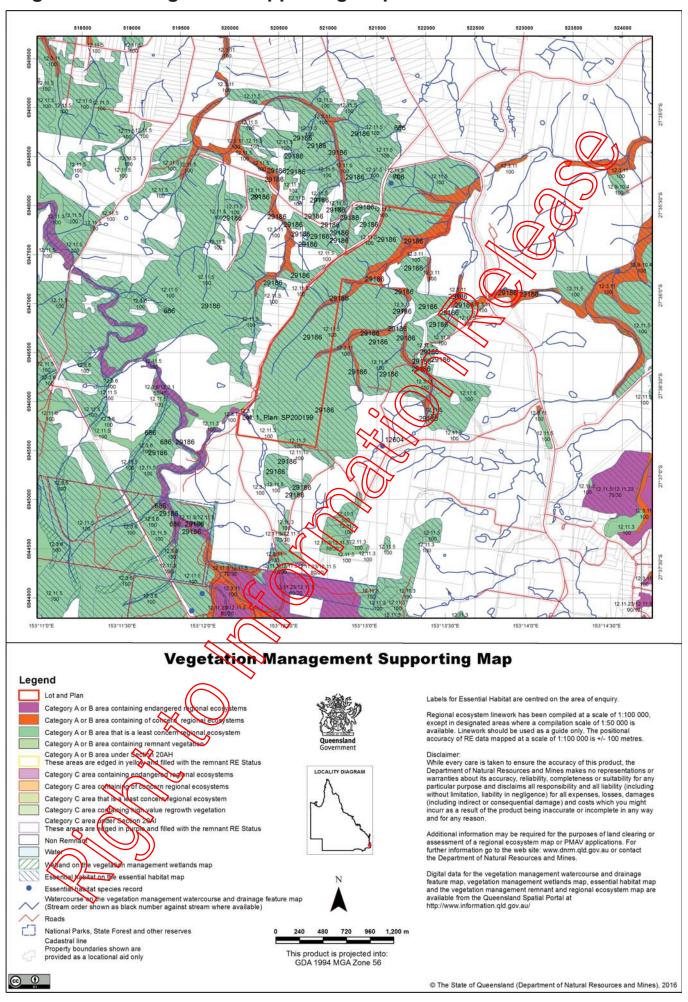
Protected plants map

The protected plants map shows areas where particular provisions of the Nature Conservation Act 1992 apply to the clearing of protected plants.

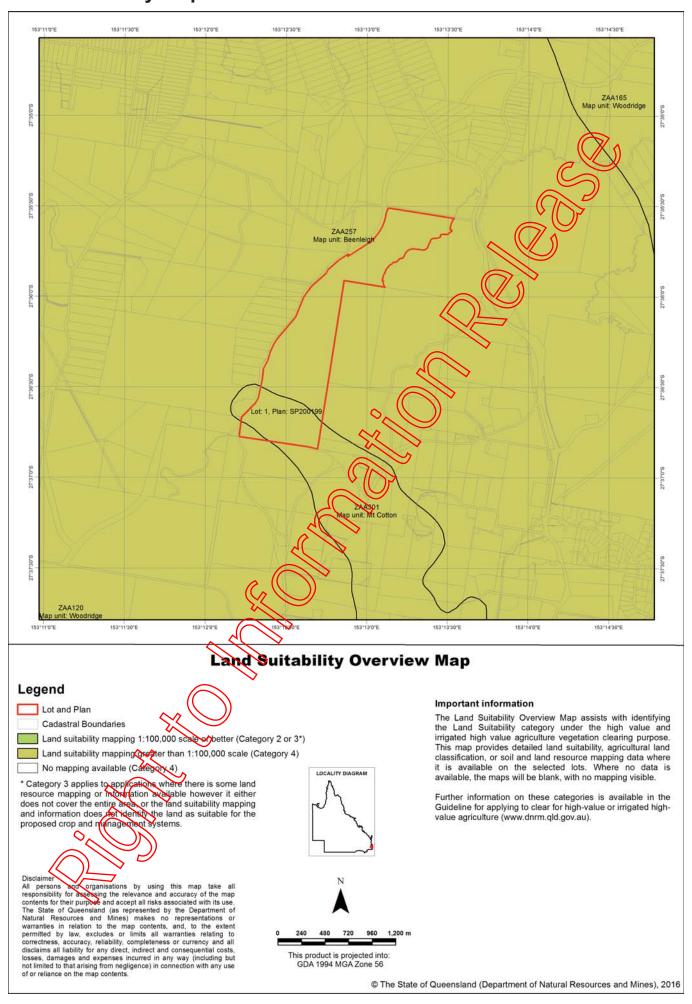
5.1 Regulated vegetation management map



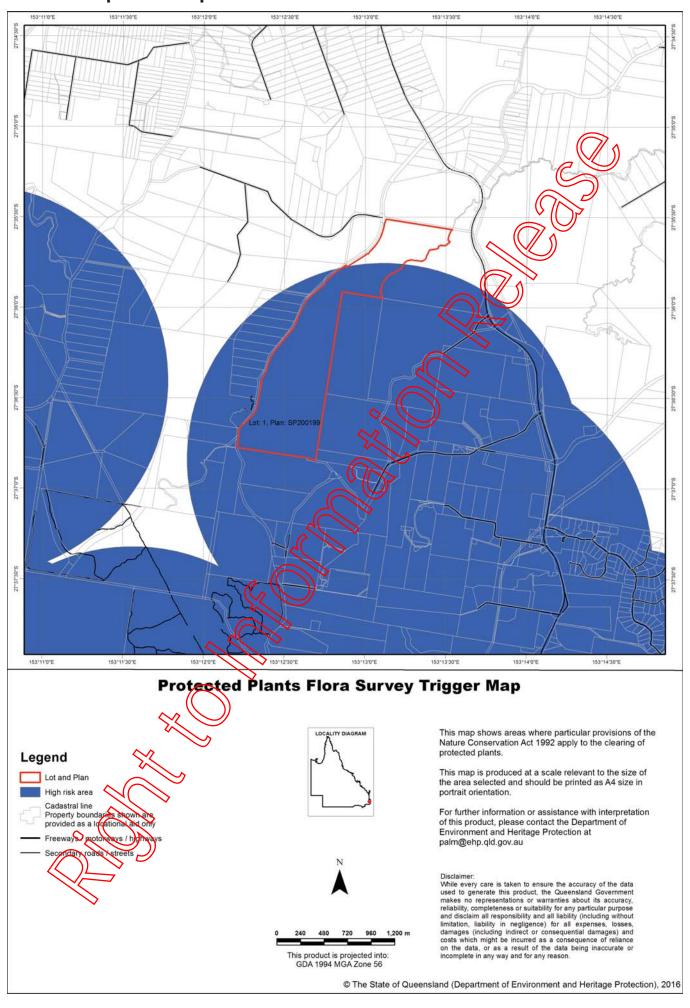
5.2 Vegetation management supporting map

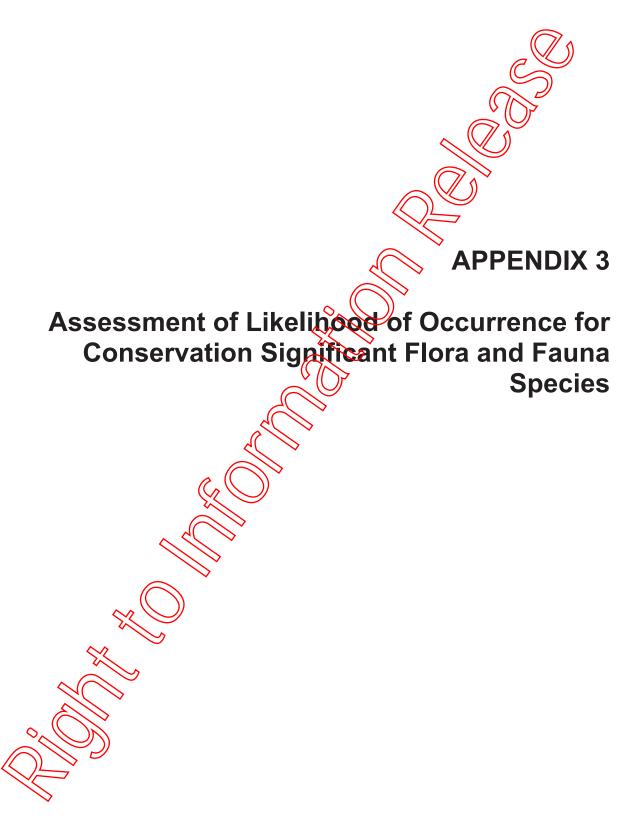


5.3 Land suitability map



5.4 Protected plants map







Conservation significant terrestrial flora and fauna species recorded or predicted to occur within a 5 km radius of the subject site and their likelihood of occurrence (known, likely, potential, unlikely) within or immediately adjoining the subject site.

Abbreviations: EPBC = status under the Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth); NCA = status under the Nature Conservation Act 1992 (Queensland); PM = EPBC Protected Matters Search Tool database search within a 10 km radius of the study area; WN = Queensland Department of Environment and Heritage Protection WildNet database search within a 5 km radius of the study area; ALA = Atlas of Living Australia search within a 5 km radius of the study area; E = Endangered; V = Vulnerable; NT = Near Threatened; M = Migratory; S = Special Least Concern (Migratory or culturally significant); LC = Least Concern; V = Special Least Concern (PM).

Likelihood of occurrence categories: Known - from other surveys (BAAM, other consultancies, databases), species recorded oxite, kikely to occur - species not known to occur onsite but the site is within the known range of the species, potentially suitable habitat is present and there are either database records for the local region or knowledge of the species occurrence suggests it may occur as a resident or visitor; means 'high potential' or good habitat is present but no species were observed onsite; Potential to occur - the site is within the known range of the species and potentially suitable habitat is present but there are no database records for the local region and/or it is a rare, erratic or poorly known species; means 'low potential' or habitat for species is not definitive; Unlikely to occur - no suitable habitat present and/or the tite is outside of the known range of the species.

Species	Common name	EPBC	NCA	PM	WN/ ALA	Preferred habitat characteristics	Likelihood of occurrence				
FLORA											
Arthraxon hispidus	Hairy -Joint Grass	V	NT	Х	-	Wetlands and molet grasslands between Northern NSW and SE asia typically associated with baselft.	Unlikely: No suitable habitats present.				
Baloghia marmorata	Jointed Baloghia	V	V	x (C		Subtropical rainforest/notophyll vine forest and wet sclerophyll forest (brush box woodland) with rainforest understorey between 150 and 550 m above sea level. Soils are rich black or dark brown clay and loam derived from basalt (DotE 2015a).	Potential: Suitable habitat for this species may be present; however there are no records in the broader landscape.				
Bosistoa transversa (includes B. selwynii)	Three Leaved Bosistoa, Heart-leaved Bosistoa	\$\fr\(\left(\))) //	J.K.		Rainforests from Mullumbimby NSW to Mt Larcom near Gladstone.	Potential: Suitable habitat for this species may be present; however there are no records in the broader landscape.				
Corchorus cunninghamii	Native Jute	E	E	х	x	Occurs in the ecotone of wet sclerophyll forest and dry to dry-subtropical rainforest (e.g. araucarian microphyll vine forest), and in Hoop Pine (Araucaria cunninghamii) plantations. Often occurs on hill crests, exposed slopes, ridges or upper slopes of hilly terrain on south or south-east aspect. It also occurs on sheltered slopes, gullies and on lower slopes, depending on the topographic position of the sclerophyll-rainforest margin (DotE, 2015).	Likely: According to the Land Management Plan (RSC 2007), this species is known to occur adjacent to the study area. It is most likely to be found at the intersection of areas shown in Figure 4.1 of the main report as High and Medium Ecological Constraint.				



Species	Common name	EPBC	NCA	РМ	WN/ ALA	Preferred habitat characteristics	Likelihood of occurrence
Cryptocarya foetida	Stinking Cryptocarya	V	V	х		Littoral and Coastal Rainforests between Cooloola QLD and Iluka NSW. Favours littoral rainforests on sand or basaltic soils within 2km of coast.	Unlikely: No surable rabite ts present.
Macadamia integrifolia	Macadamia Nut	V	V	x	x	Grows in subtropical rainforest, preferring well-drained sites on hill crests, hill slopes, scree slopes, foot slopes and along the edges of hoop pine Araucaria cunninghamii scrubs and creek beds (SCC 2006)	Known: The Land Management Plan (RSC 2007) indicates that this species is known to occur in the study area: Populations of this species are also known in adjacent conservation areas. It is most likely to be found in areas shown in Figure 4.1 of the main report as High Ecological Constraint.
Macadamia tetraphylla	Rough- shelled Bush Nut	V	V	x	x	Generally occurs in subtropical rainforest and complex notophyll vineforest, at the margins of these forests and in mixed sclerothyll forest. It occurs in restricted habitat, growing on moderate to steep hillslopes on alluvial soils at well-drained sites (DotE 2015).	Potential: There is a single record of this species to the south of the study area and it could potentially occur in the site, including through complex hybrid interaction with <i>Macadamia integrifolia</i> .
Mardenia coronata	Slender Milkvine	-	V	-	X	Commonly found in open aucalypt forest and woodland communities on nillslopes and ridge tops at attitudes of 40–780 m above sea level. Also known from possybutcrops along clifflines. Most commonly recorded with Lophostemon confertus and eucalypts, including E. carnea, Corymbia oitriodora, C. henryi, Eucalyptus acmenoides and E. propingua.	Likely: There are records in the local landscape and suitable habitat for this species is mapped within the study area. It may be found in areas shown in Figure 4.1 of the main report as High or Medium Ecological Constraint.
Marsdenia longiloba	Clear Milkvine	V	V//			This inconspicuous vine is associated with wet scleophyll forest and rainforest.	Likely: There are records in the local landscape and suitable habitat for this species is mapped within the study area. It is most likely to be found in areas shown in Figure 4.1 of the main report as High Ecological Constraint.
Pararistolochia praevenosa	Richmond Birdwing Vine	E/ (№ T	-	-	Grows in lowland rain forest, mainly on basaltic and metamorphic rocks (CSIRO 2010).	Known: The vine is known to be present along gullys within the study area (RSC 2007). It is most likely to be found in areas shown in Figure 4.1 of the main report as High Ecological Constraint.
Phaius australis	Swarpp Orchid	Œ	E	X	-	Swamp sclerophyll forest and swampy heathland.	Unlikely: No suitable habitats present.
Samadera bidwilii	Quaseia	V	V	х	-	Rainforest and open forest in northern, central and south-eastern Queensland south to the Sunshine Coast.	Potential: Suitable habitat for this species is likely to be present; however there are no records in the broader landscape.
Thesium australe	Australian Toadflax	V	V	X	-	Forest and woodland areas on clay loams and duplex soils where it typically is found in associated with host grasses, especially <i>Themeda triandra</i> (DotE 2016).	Potential: Suitable habitat for this species may be present; however there are no records in the broader landscape.



Species	Common name	EPBC	NCA	PM	WN/ ALA	Preferred habitat characteristics	Likelihood of occurrence
FAUNA							
Amphibians							
Adelotus brevis	Tusked Frog	-	V	-	X	Inhabits a variety of habitats including rainforest, wet sclerophyll, dry sclerophyll, woodland and vine forest, and can even be found in low numbers in open grazing country (Eyre et al. 1997) and ponde in urban areas (Curtis et al. 2012).	Likely: There are several database records in the broader and scape and this species is likely to occur association with riparian communities with flowing water. It is most likely to be found in areas shown in Figure 4.1 of the main report as High Ecological Constraint, but could also occur in riparian areas mapped as Medium or Low Ecological Constraint.
Crina tinnula	Wallum Froglet	-	V	-	X	Associated with wallum habitats Vandorduys 2012).	Unlikely: There is a single database record in the broader landscape; however, habitats in the subject site are considered unlikely to support this species, as it is exclusively associated with coastal wallum habitats.
Mammals							
Ornithorhynchus anatinus	Platypus	-	S	- (X	Inhabit reshwater streams, rivers, lakes and days, and are tolerant of a wide range of conditions, but have a preference for steep, well vegetated banks for burrowing (Low 1995; Menkhorst and Knight 2004).	Unlikely: There is a single record of a Platypus in the broader landscape; however the study area is considered to be positioned too high in the Hilliards Creek catchment to support this species.
Tachyglossus aculeatus	Short- beaked Echidna	- S. (C	S		/x	Associated with most woody terrestrial habitats.	Known: The Land Management Plan (RSC 2007) indicates that this species is known to occur in the study area. It may be found in areas shown in Figure 4.1 of the main report as High or Medium Ecological Constraint.
Phascolarctos cinereus	Koala		<i>y</i>)	X	Х	Koala are associated with Eucalypt dominated forest and woodland habitats. They use a variety of trees, including non-eucalypts for feeding and resting.	Known: The Land Management Plan (RSC 2007) indicates that this species is known to occur in the study area and there are records of Koala in the EHP database within 2km of the study area from as recent as 2014. There are ample resources for this species in the study area and it is expected to utilise the study area on regular occasions. It is likely to be found in any areas shown in Figure 4.1 of the main report as High, Medium or Low Ecological Constraint.
Pteropus poliocephalus	Grey-headed Flying-fox	V	С	Х	-	The species is a canopy-feeding frugivore and nectarivore, that utilise vegetation including rainforests, open eucalypt forests, woodlands,	Likely: While there is only a single database record in the surrounding landscape, this species is likely to visit the subject site in response to



Species	Common name	EPBC	NCA	PM	WN/ ALA	Preferred habitat characteristics	Likelihood of occurrence
						melaleuca swamps and banksia woodlands.	flowering events. This species could be found in areas shown in Figure 4.1 of the main report as High, Medium of Lew Ecological Constraint.
Chalinolobus dwyeri	Large-eared Pied Bat	V	V	X	-	Little known, but may depend heavily on sandstone outcrops. It has been found roosting in disused mine shafts, caves, overhangs and disused Fairy Martin <i>Petrochelidon ariel</i> nests (Hoye and Schulz 2008). It also possibly roosts the hollows of trees (Duncan <i>et al.</i> 1999)	Unlikely: There are no database records in the broader and scape and no typical roosting habitat within foraging range of the subject site.
Dasyurus maculatus maculatus	Spotted- tailed Quoll (SE Mainland)	E	V	Х	-	Wide variety of habitats including rainforests, wet and dry sclerophyll forests, coastal heath, schub and sometimes Red Gum forests along inland rivers (Menkhorst and Knight 2004). Shelter in rock caves, boulder piles and hollow logs or trees, with basking sites available hearby.	Unlikely: Habitats within the study area are considered unlikely to support this species and there are no database records within 5 km of the site.
Petaurus volans	Greater Glider	V	С	Х	X	This species is associated with mature eucalypt forest and woodland with hollow trees available for shelter (Menchors and Knight 2004).	Known: The Land Management Plan (RSC 2007) indicates that this species is known to occur in the study area. It may be found in areas shown in Figure 4.1 of the main report as High or Medium Ecological Constraint.
Reptiles		•		(
Delma torquata	Collared Delma	V	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	XX		Open eucalypt forest with a shrub and tussock grass understorey. Soil type is usually shallow and deep-cracking or stony (Ehmann 1992; Wilson and Swan 2008).	Unlikely: No suitable habitats present and the species is not known to occur in the broader landscape.
Saiphos reticulatus	Three-toed Snake-tooth Skink	Et/	5	X	-	Rainforest, closed forest, wet sclerophyll forest, tall open Blackbutt (<i>Eucalyptus pilularis</i>) forest, tall layered open eucalypt forest and closed Brush Box (<i>Lophostemon confertus</i>) forest in mountainous areas and sandy coastal plains.	Unlikely: No suitable habitats present and the species is not known to occur in the broader landscape.
Insects	2/////	9					
Ornithoptera richmondia	Richmond Birdwing Butterfly	-	V	-	X	Associated with rainforest on rich basalt soils.	Potential: There is a single database record in the broader landscape and the subject site contains habitat that may support a population of this species.
Birds							
Anthochaera phrygia	Regent Honeyeater	E	E	X	-	Box-ironbark eucalypt forests and woodlands on the inland slopes of the Great Dividing Range,	Unlikely: There is a slight possibility that this species could visit the study area as a vagrant;

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Species	Common name	EPBC	NCA	PM	WN/ ALA	Preferred habitat characteristics	Likelihood of occurrence
						preferring the wettest, most fertile sites (Garnett <i>et al</i> 2011).	however habitats within the study area would be expected to provide limited esources for this species. There are no database records for this species within kine the site.
Apus pacificus	Fork-tailed Swift	М	S	-	Х	This is an aerial species, typically occurring over open, inland habitats, but occasionally over coastal areas (Higgins 1999; Pizzey and Knight 2003).	Likely: Expected to occur in the aerial space above the study area on occasions during the warmer months. It could be flying over areas shown in Figure 4.1 of the main report as High, Medium or Low Ecological Constraint; however activities within the study area would be of little consequence to this aerial species.
Botaurus poiciloptilus	Australasian Bittern	Е	С	X	-	Prefers permanent shallow vegetated treshwater or brackish swamps, favouring those dominated by tall sedges, rushes and/or reeds (Garnett et al. 2011).	Unlikely: No suitable habitats present.
Actitis hypoleucos	Common Sandpiper	М	S	-	Х	Terrestrial shallow wetlands, both ephemeral and permanent Usually occurs on open edges of wetlands and on recky shorelines (Pizzy and Knight 2003).	Unlikely: No suitable habitats present.
Calidris accuminata	Sharp-tailed Sandpiper	М	S	-	×	Shallow open wetlands, both inland and coastal (Higgins and Davies 1996).	Unlikely: No suitable habitats present.
Calidris canutis	Red Knot	E	S		X	Coastal interidal areas, including sandflats and mudflats (Higgins and Davies 1996).	Unlikely: No suitable habitats present.
Calidris ferruginea	Curlew Sandpiper	CE, M	s	1/1	X	Shallow wetlands, including sandflats and mudflats, predominantly coastal (Higgins and Davies 1996).	Unlikely: No suitable habitats present.
Calidris ruficollis	Red-necked Stint	5 W/	3)	-	X	Shallow open wetlands and wetland margins, both inland and coastal (Higgins and Davies 1996).	Unlikely: No suitable habitats present.
Calidris tenuirostris	Great Knot	CE	S	-	Х	Coastal interidal areas, including sandflats and mudflats (Higgins and Davies 1996).	Unlikely: No suitable habitats present.
Calyptorhynchus lathami lathami	Slosev Black- Codkatoo (eastern)	-	V	-	X	Resident in association with localised occurrences of fruiting <i>Allocasuarina</i> (Pizzey and Knight 2003).	Potential: There are several database records in the broader landscape and the study area contains suitable food trees; however the species has become scarce over much of Redland City. The site holds potential breeding habitats. Targeted searches for the species distinctive feeding evidence should be undertaken to ascertain if the species is utilising the extant habitats.



Species	Common name	EPBC	NCA	PM	WN/ ALA	Preferred habitat characteristics	Likelihood of occurrence
Charadrius bicinctus	Double- banded Plover	М	S	-	Х	Coastal sandflats and mudflats; spends non- breeding winter months in Australia (Pizzey and Knight 2003).	Unlikely: No suitable habitats present.
Cuculus optatus	Oriental Cuckoo	М	S	Х	X	Migrant species that can occur in a variety of habitats including rainforest, open eucalypt forest, leafy trees in paddocks and mangroves.	Potential: There are records in the broader and this species could be an occasional visitor to the area.
Dasyornis brachypterus	Eastern Bristlebird	E	Е	Х	-	Eastern Bristlebird occurs in wet sclerophyllorest and moist heath habitats (Pizzey & Knight 2003).	Unlikely: No suitable habitats present.
Erythrotriorchis radiatus	Red Goshawk	V	E	X	-	Woodlands and forests, ideally with a mosaic of vegetation types and permanent water, particularly riverine forests. The species avoids both very dense and very open habitats (Marchant and Higgins 1993).	Unlikely: This species is wide ranging and there is a remote possibility it could occur over the study area as a vagrant. However, there are no database records for this species within 5 km of the site.
Gallinago hardwickii	Latham's Snipe	М	S	Х	X	Swamp and marsh margins and in wet pasture (Pringle 1987)	Unlikely: No suitable habitats present.
Gelochelidon nilotica	Gull-billed Tern	М	S	-	X	Expansive wettand areas, including dams, lakes and coastal areas (Pizzy and Knight 2003).	Unlikely: No suitable habitats present.
Geophaps scripta scripta	Squatter Pigeon (southern subspecies)	V	V	×		Open dry sclerophyll woodland with grassy understorey, nearly always near permanent water. Birds may occasionally feed in sown grasslands and pastures (Crome and Shields 1992; Higgins and Davies 1996).	Unlikely: No suitable habitats present and there are no database records for this species within Redland City.
Hirundapus caudacutus	White- throated Needleta	M	S	X	X	This is an aerial species, typically occurring over open habitats, including coastal areas (Higgins 1999; Pizzey and Knight 2003).	Likely: The Land Management Plan (RSC 2007) indicates that this species is known to occur in the study area. Expected to occur in the aerial space above the study area on occasions during the warmer months. It could be flying over areas shown in Figure 4.1 of the main report as High, Medium or Low Ecological Constraint; however activities within the study area would be of little consequence to this species.
Hydroprogne caspie	Casplan Tern	М	S	-	Х	Large wetlands, both coastal and inland.	Unlikely: No suitable habitats present.
Lathamus discolor	Swift arrot	E	Е	Х	-	Mainly dry open eucalypt forest and woodland, including those with Grey Box or River Red Gum, or Spotted Gum closer to the coast (Higgins 1999).	Unlikely: There is a slim possibility of the species visiting the study area during the winter months as a vagrant; however the site lacks the habitat that would typically support an over-wintering population of the species. Furthermore, there are no database records for this species within 5 km of

APPENDIX 3: LIKELIHOOD OF OCCURRENCE FOR CONSERVATION SIGNIFICANT FLORA AND FAUNA SPECIES

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Species Common name EPBC		NCA PM WN/			Preferred habitat characteristics	Likelihood of occurrence	
							the site.
Limicola falcinellus	Broad-billed Sandpiper	М	S	-	Х	Coastal interidal areas, including sandflats and mudflats (Marchant and Higgins 1993).	Unlikely: No sultable habitats present.
Limosa lapponica baueri	Bar-tailed Godwit	V, M	S	X	X	Principally associated with shallow coastal wetlands, mudflats, sandflats and estuaries, particularly tidal areas (Marchant and Higgins 1993).	Unlikely: No suitable habitats present.
Monarcha melanopsis	Black-faced Monarch	M	S	X	X	This species inhabits vegetated gullies in eucalypt-dominated forests and taller woodlands (Higgins et al. 2006).	and the study area contains habitats that would typically support this species. It is most likely to be found in areas shown in Figure 4.1 of the main report as High or Medium Ecological Constraint.
Myiagra cyanoleuca	Satin Flycatcher	М	S	X	X	This species inhabits heavily vegetated gullies in eucalypt-dominated forests and taller woodlands.	Potential: There are records in the broader landscape and the species may visit the study area on occasion during migration.
Ninox strenua	Powerful Owl	-	V	-	×	The species or urs in mountain rainforests, gullies and forest margins, sparser hilly woodlands, coestal forests woodlands, scrubs, exotic pine plantations and large trees in private/public pardens (Pizzey and Knight 2003). Powerful Owless most likely to be observed at sites with mature dry forest, many live hollow-bearing trees, diverse habitats within two km, and not much pure regrowth within five kilometres (Loyn et al. 2001).	Likely: There are numerous records in the broader landscape and the study area contains habitats that would typically support this species and its preferred prey. The site holds suitable habitats for breeding requirments. It is most likely to be found in areas shown in Figure 4.1 of the main report as High or Medium Ecological Constraint.
Numenius madagascariensis	Eastern Curlew	CE, M	V //) A)	Х	Shallow wetlands, including sandflats and mudflats in coastal areas (Marchant and Higgins 1993).	Unlikely: No suitable habitats present.
Numenius phaeopus	Whimbret		3	X	X	Shallow wetlands, including sandflats, mudflats and mangroves in coastal areas (Marchant and Higgins 1993).	Unlikely: No suitable habitats present.
Pandion cristatus	Eastern Osprey	М	S	Х	Х	A raptor species associated with coastal, typically intertidal, habitats (Pizzey and Knight 2003).	Unlikely: No suitable habitats present.
Plegadis fatoinellus	Glossy Ibis	М	S	-	Х	Shallow, freshwater wetlands, typically with aquatic vegetation (Pizzey and Knight 2003)	Unlikely: No suitable habitats present.
Pluvialis fulva	Pacific Golden Plover	М	S	Х	Х	Shallow open wetlands (Marchant and Higgins 1993).	Unlikely: No suitable habitats present.



Species	Common name	EPBC	NCA	PM	WN/ ALA	Preferred habitat characteristics	Likelihood of occurrence
Poephila cincta cincta	Black- throated Finch (Southern subsp.)	E	E	X		Dry open grassy woodlands and forests with seeding native grasses and free-standing water (Higgins <i>et al.</i> 2006).	Unlikely: No suitable habitats present and there are no database records for this species within Redland City
Rhipidura rufifrons	Rufous Fantail	М	S	X	X	This species inhabits vegetated gullies, rainforest and riparian forest (Higgins <i>et al.</i> 2006).	Known: The Land Management Plan (RSC 2007) Indicates that this species is known to occur in the study area. It is most likely to be found in areas shown in Figure 4.1 of the main report as High Ecological Constraint, but could also occur in riparian areas mapped as Medium or Low Ecological Constraint.
Rostratula australis	Australian Painted Snipe	E	V	Х	-	Terrestrial shallow we lands, ephemeral and permanent, usually free water but occasionally brackish. They also use mundated grasslands, saltmarsh, dams rice crops, sewage farms and bore drains (Hipgins and Davies 1996). Most likely in alluvial areas but could also occur in giftalied areas.	Unlikely: No suitable habitats present.
Sterna hirundo	Common Tern	М	S	-	X	Found in coastal waters, on beaches and mud	Unlikely: No suitable habitats present.
Sternula alibrons	Little Tern	М	S	- 24	X	Coastal areas, including beaches and estuaries.	Unlikely: No suitable habitats present.
Symposiarchus trivirgatus	Spectacled Monarch	M M	S			This species inhabits vegetated gullies, rainforest and riparian forest (Higgins <i>et al.</i> 2006).	Likely: There are records in the broader landscape and the study area contains habitats that would typically support this species. It is most likely to be found in areas shown in Figure 4.1 of the main report as High Ecological Constraint, but could also occur in riparian areas mapped as Medium or Low Ecological Constraint.
Thalasseus bergii	Crested Vern	M	S	X	X	Expansive wetlands, with deep water, including dams, lakes and coastal areas (Pizzey and Knight 2003).	Unlikely: No suitable habitats present.
Tringa brevipes	Grey tailed	М	S	-	Х	Shallow coastal wetlands and estuaries (Higgins and Davies 1996).	Unlikely: No suitable habitats present.
Tringa nebularia	Common Greenshank	М	S	Х	Х	Terrestrial shallow wetlands, both ephemeral and permanent (Pizzey and Knight 2003).	Unlikely: No suitable habitats present.
Tringa stagnatalis	Marsh Sandpiper	М	S	-	Х	Shallow, mainly intertidal, open wetlands (Higgins and Davies 1996).	Unlikely: No suitable habitats present.



Species	Common name	EPBC	NCA	PM	WN/ ALA	Preferred habitat characteristics	Likelihood of occurrence
Turnix melanogaster	Black- breasted Button-quail	V	V	X	-	Semi-evergreen vine thicket and low microphyll vine forest; also dry rainforest (softwood scrubs) of Brigalow Belt, mature Hoop Pine <i>Araucaria cunninghamii</i> plantations, and <i>Acacia</i> and <i>Austromytrus</i> scrubs on sandy coastal soils (Garnett <i>et al.</i> 2011).	Unlikely: Habitats whim the study area are considered unlikely to support this species and there are productabase records within 5 km of the site.
Xenus cinereus	Terek Sandpiper	М	S	-	Х	Coastal interidal areas, including sandflats and mudflats (Higgins and Davies 1996).	Unitkely: No suitable habitats present.

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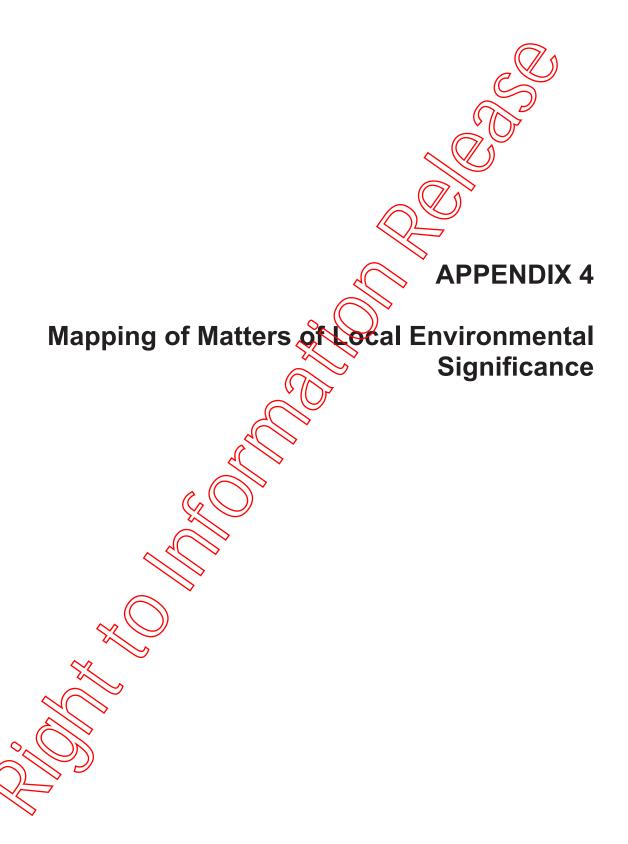
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BAAM Pty Ltd File No: 0424-001

for MAK Planning and Design Pty Ltd



605 - 769 West Mount Cotton Road Mount Cotton

Details

12/21/2016

Property Number: 302410 Legal Description: Lot 1 SP 200199

Division Number: 6 Property Name: Eastern Escarpment Conservation Area

Status

Current

Site Area

(Area: 1465550.000000 SQ METRES)

Applications

Application #	Submitted	Description	
OES00010	73/09/2009	DTMP expansion of Cleveland-Pedland Bay Poad, Mour	t Cotton

Zoning

Land Affected: 346085
• CN - Conservation

- CN Conservation SubArea CN2

Overlays

Land Affected: 346085

- Bushfire Hazard Overlay
- Bushland Habitat Overlay
- Extractive Resources Overlay
- Flood Storm and Drainage Constrained Land Overlay
- Landslide Hazard Overlay
- Protection of Poultry Industry Overlay
- Road and Rail Noise Impact Overlay
- Water Supply Catchment Overlay
- Waterways Wetlands and Moreton Bay Overlay

Precincts

Other Details

Water Meter

Мар

State Interest Check

Click here to view eDA State Interest

12/21/2016 Red-e-map



http://gis.redland.qid.gov.au/redemap/





Table 1. List of Redland City Council locally significant species with potential to occur in Eastern Escarpment Conservation Area

			Status					
Scientific_Name	Common_Name	EPBC Act	NC Act	Back On Track	RE habitat description	Regional Ecosystems		
Accipiter novaehollandiae	Grey/White Goshawk	-	Least Concern	Low	Wooded habitats, sparse in region - concentrated on Mt Cotton - Sheldon	12.11.10,12.11.3,12.3.1,12.11.23,12.5.2,12.2.5,12.11.5k,12.11.5e,12.3.3d 12.25,12.5 12.9 10.19a,12.11.3,12.11.5j,12.9-10.17d,12.2.8,12.3.11,12.5.3,12.11.3a,12.1.5a,12.11.23,12.9 10.4,12.3.11a,12.5.6c,12.9-10.17c		
Adelotus brevis	Tusked Frog	-	Vulnerable	Medium	Waterways and temporary and permanent pools	12.1.1,12.2.1,12.2.2,12.2.5,12.2.6,12.2.7,12.2.8,12.3.9,12.7.10,12.2.13,12.3.1,12.3.1,12.3.5,12.3.6,12.3.11,1 2.3.13,12.5.2,12.5.3,12.9-10.4,12.11.3,12.11.10,12.11.23 (2.12.14)		
Calyptorhynchus lathami	Glossy Black Cockatoo	Endangered	Vulnerable	High	Allocasuarina spp. and C. glauca	12.1.1,12.2.5,12.2.6,12.2.7,12.2.8,12.2.10.12.01.12.05,12.3.6,12.3.11,12.5.2,12.5.3,12.9-10.4,12.11.3,12.11.23,12.12.14		
Corchorus cunninghamii	Native jute or Cunninghams jute	Endangered	Endangered	High	Margins of Rainforest and Tall Eucalypt Forest	12.11.10,12.11.3,12.11.5,12.11.2		
Lewinia pectoralis	Lewin's Rail	-	Least Concern	Low	Riparian - with cover	12.1.1,12.1.2,12.1.3,12.2 12 ,12.15,12.2 15 ,12.2.5f,12.2.5a,12.2.7,12.3.11,12.3.13,12.3.5,12.3.6,12.3.8,12.5. 9,12.3.1,12.3.11a		
Lophoictinia isura	Square-tailed Kite	-	Least Concern	Low	Eucalypt woodland and open forest, rare and breeding in area	12.1.1,12.2,12.12,12.13,12.6,12.2.7,12.2.8,12.2.10,12.3.1,12.3.5,12.3.6,12.3.11,12.5.2,12.5.3,12.9-10.4,12.13,12.11,10,12)1.23,12.12.14		
Macadamia integrifolia	Macadamia	Vulnerable	Vulnerable	Medium	Dry Rainforests and Riparian Forests	123 12. 13,12 11.10		
Macadamia tetraphylla	Rough Shelled Macadamia	Vulnerable	Vulnerable	Medium	Rainforests and Riparian Forests	12.11.10, 12.3.1		
Marsdenia coronata	Slender Milk Vine	Vulnerable	Vulnerable	Low	Eucalypt Forests to Woodlands and Rainforest Margins Particularly associated with Logariste from contents in Whipstick (Growth Habit	12.3.11,12.11.3,12.11.10,12.11.5e		
Marsdenia Iongiloba	Clear Milk Vine	Vulnerable	Vulnerable	Kdw /	Moret Tall Open Forest and rainforest margins	12.11.10,12.11.3,12.11.23,12.3.8,12.3.2		
Melithreptus gularis	Black-chinned Honeyeater	-	Least	Low	Eucalypt woodland and open forest, occasional visitor	12.2.5,12.2.6,12.2.8,12.3.3d,12.3.11,12.3.11a,12.5.2,12.5.3,12.5.6c,12.9-10.4,12.9-10.17c,12.9-10.17d,12.9-10.19,12.11.3,12.11.5a,12.11.5e,12.11.5h,12.11.5k,12.11.23,12.12.14		
Ninox strenua	Powerful Owl	13	Vulnerable	Medium	Larger bushland areas containing patches of moderately dense cover	12.1.1,12.2.1,12.2.2,12.2.5,12.2.7,12.2.8,12.3.1,12.3.5,12.3.11,12.5.3,12.9-10.4,12.11.3,12.11.10,12.11.23		
Ornithoptera richmondia	Richmond Birdwing Butterfly		ulnerable	High	Rainforest associated with Pararistolochia praevenosa	12.11.10,12.3.1		
Thesium australe	Austral Toadhax	Minerable	Vulnerable	Medium	Grasslands Woodlands and Forests associated with Themeda triandra as it parisitises the roots of this grass	12.12.19,12.3.11,12.5.2		
Tyto tenebricosa	Greater South Owl	-	Least Concern	Low	Closed forests	12.2.1,12.2.2,12.3.1,12.11.10		



Table 2. Proposed additional Redland City Council locally significant species (2015) with potential to occur in Eastern Escarpment Conservation Area

			Status			
Scientific_Name	Common_Name	EPBC Act	NC Act	Back On Track		
Phascolarctos cinereus	Koala	Vulnerable	Vulnerable	Low		
Petauroides volans	Greater Glider	Vulnerable	Least Concern	Low		
Petaurus breviceps	Sugar Glider		Least Concern	Low		
Family Maluridae	wrens		Least Concern	Low		
Family Estrildidae	finches		Least Concern	Low		