

# APPENDIX D

## Ecological Assessment

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Prepared by:

E2M



# Ecological Assessment




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# Document management

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## Executive Summary

BH Contracting is proposing to submit a development application for the construction of an industrial building at 28-34 Ellerslie Road, Meadowbrook (Lot 20 on RP91039 and Lot 21 on RP91039). E2M was engaged to undertake an ecological assessment to accompany a DA for the proposed development. The objective of the assessment was to evaluate the ecological features and values across the site to determine the potential impacts from the proposed development and provide appropriate mitigation measures to minimise identified ecological impacts.

Results of the field assessment identified that the site:

- contained remnant vegetation comprising 0.54 ha of 'endangered' RE 12.3.3d and 0.33 ha of 'of concern' RE 12.3.11. A total of 0.74 ha of ground-truthed remnant vegetation will require clearing, along with 0.64 ha of regrowth vegetation
- supports suitable habitat for three threatened and one NC Act-listed and special least concern fauna species, including
  - koala (*Phascolarctos cinereum*); and
  - grey-headed flying fox (*Pteropus poliocephalus*);
  - tusked frog (*Adelotus brevis*); and
  - short-beaked echidna (*Tachyglossus aculeatus*).
- comprises one modified stream order 1 watercourse; and
- supports the following fauna habitat features:
  - small hollows in limbs of trees, which provide potential habitat for small arboreal mammals, birds and microchiropteran bats
  - decorticating bark, which provide potential habitat for microchiropteran bats and arboreal reptiles
  - flowering trees and shrubs that provide a source of nectar for birds and flying-foxes
  - dense leaf litter and shrub layer for cryptic reptiles and small mammals
  - aquatic habitat in association with the watercourse providing habitat for amphibians, reptiles and waterbird species; and
  - bird nests.

Where possible, impacts to ecological values have been minimised through the retention of remnant vegetation within the eastern extent of the site. A total of 0.80 ha of rehabilitation will be undertaken across the site. This area may increase following completion of detailed earthworks. Impacts can be largely mitigated and minimised through the implementation of the management strategies. Based on the current site design, offsets will be provided for a significant residual impact to 0.58 ha of vegetation. The impact area may reduce following completion of detailed earthworks. Offsets will be provided in accordance with the LCC Environmental Management Planning Scheme Policy.





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## Definitions

Term	Definition
Core habitat	Suitable habitat/microhabitat that comprises suitable breeding places, habitat connectivity and access to foraging resources. Removal of core habitat is likely to cause a decline in the local population of the species.
Disturbance footprint	The area that is proposed to be impacted by the project.
General habitat	Habitat that is limited to a movement corridor by transient individuals, used intermittently or seasonally by foraging individuals and/or lacks suitable breeding places for the species. Removal of general habitat is unlikely to affect the species local population.
Habitat values	Those characteristics of an area that make it suitable as a habitat or refuge for native vegetation and animals. These characteristics include the physical structure, nutrient and energy flows, condition and extent of habitat and the location of the area in relation to other habitats (Schedule 1, Logan PS).
Regional Ecosystem	A vegetation community identified under the Queensland Herbarium's <i>Regional Ecosystem Description Database</i> (REDD).
The site	28-34 Ellerslie Road, Meadowbrook (Lot 20 on RP91039 and Lot 21 on RP91039)
Threatened species	Extinct (EX), extinct in the wild (XW), critically endangered (CE), endangered (E), vulnerable (V) or conservation dependent (CD) under the <i>Environmental Protection and Biodiversity Conservation Act 1999</i> or extinct in the wild (PE), Endangered, Vulnerable or Near Threatened (EVNT) under the <i>Nature Conservation Act 1992</i> .

## Abbreviations

Abbreviation	Description
DA	Development application
DEE	Commonwealth Government Department of the Environment and Energy
DES	Department of Environment and Science
DNRME	Department of Natural Resources, Mines and Energy
E2M	E2M Pty Ltd
EAR	Ecological Assessment Report
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
Fisheries Act	<i>Fisheries Act 1995</i>
GIS	Geographic Information Systems
GPS	Global Positioning System
GTRE	Ground-Truthed Regional Ecosystem



Abbreviation	Description
LGA	Local Government Area
LCC	Logan City Council
Logan PS	Logan Planning Scheme 2015 (v5.1)
MCU	Material change of use
NC Act	<i>Nature Conservation Act 1992</i>
NC Regulation	<i>Nature Conservation Wildlife Regulation 2006</i>
Planning Act	<i>Planning Act 2016</i>
Planning Regulation	<i>Planning Regulation 2017</i>
RE	Regional Ecosystem
SARA	State Assessment and Referral Agency
SMP	Species Management Program
SPP	State Planning Policy (July 2017)
sp.	Singular species. For example, <i>Eucalyptus</i> sp. refers to a single species of <i>Eucalyptus</i>
spp.	Multiple species. For example, <i>Eucalyptus</i> spp. refers to multiple species of <i>Eucalyptus</i>
TEC	Threatened Ecological Community
VC	Vegetation community
VM Act	<i>Vegetation Management Act 1999</i>



# 1 Introduction

## 1.1 Project background

On behalf of Trussmaster Pty Ltd (Trussmaster), BH Contracting Pty Ltd (BH Contracting) is seeking to lodge a Development Application (DA) for the construction of an industrial building at 28-34 Ellerslie Road, Meadowbrook (Lot 20 on RP91039 and Lot 21 on RP91039) (herein referred to as 'the site'). Specifically, a Material Change of Use (MCU) for a proposed Medium Impact Industry and Warehouse is being sought from Logan City Council (LCC). A DA has previously been approved for the site (MCUI/45/2011) for a similar development.

The site is subject to split zoning under the Logan Planning Scheme 2015 (v5.1) (Logan PS), including Rural Residential (Park Living) (20 on RP91039) and Medium Impact Industry (21 on RP91039).

## 1.2 Scope and objectives

E2M Pty Ltd (E2M) was engaged by Trussmaster to undertake an ecological assessment to accompany a DA for the site. The objective of the assessment was to evaluate the ecological values across the site to:

- confirm ecological attributes within the site as mapped by various governmental bodies
- determine the potential impacts from the proposed development; and
- provide appropriate mitigation measures to minimise identified ecological impacts.

This report addresses relevant Commonwealth, State and Local Government legislative requirements and has been undertaken in accordance with the requirements of the Logan Planning Scheme 2015. The scope of works for the preparation of this report included:

- reviewing Commonwealth, State and Local Government regulatory mapping and database records
- conducting a site assessment for in-situ confirmation of relevant regulatory trigger mapped extents, assessment of the presence, or otherwise, of ecological features within the site
- identifying and mapping of ecological features and processes that are essential to the maintenance and conservation of local ecosystem functioning, such as environmental corridors, *threatened*<sup>1</sup> species habitat and significant vegetation communities
- assessing likelihood of threatened species occurrence within the site
- reviewing and assessing the potential impacts of the proposed development on identified ecological features and processes
- detailing mitigation and management strategies (where required) which avoid or reduce identified impacts and enable the development to meet regulatory conservation obligations; and
- producing a series of maps depicting the ground-truthed extent of vegetation communities throughout the site and any other relevant ecological findings.

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<sup>1</sup> Extinct (EX), extinct in the wild (XW), critically endangered (CE), endangered (E), vulnerable (V) or conservation dependent (CD) under the *Environmental Protection and Biodiversity Conservation Act 1999* or extinct in the wild (PE), Endangered, Vulnerable or Near Threatened (EVNT) under the *Nature Conservation Act 1992*.



Additional scope of works included:

- Protected Plants Flora Survey and associated report; and
- development of a Bushfire Hazard Assessment and Management Plan in conjunction with this report.

### 1.3 Site description

The site comprises ~2 ha of undeveloped land with native vegetation across most of the site and a waterway traversing the eastern extent. Ellerslie Road bounds the site to the south, with residential and industrial development to the east and west respectively. A section of undeveloped land connects to the site via the northern boundary (refer to Figure 1).





### 1.4 Proposed development

The proposed development consists of an industrial facility. As depicted in Figure 1, the proposed disturbance footprint is approximately 1.61 ha, which is required to facilitate stormwater management requirements on site.






**Legend**

-  Watercourse
-  Site
-  Proposed Disturbance Footprint
-  Cadastre



Scale 1:2,750 (A4)



0 25 50 75 100 125  
Metres

Coordinate System: GDA 1994 MGA Zone 56  
Projection: Transverse Mercator



Notes:  
Aerial Imagery: © Nearmap 2018  
Cadastre: © DNRME 2018  
Watercourse: © Geoscience Australia 2017  
Road: © PSMA 2014

Rev	Description	Drawn	Approved	Date
0	Issued for Use	CO	PW	18/06/2018
A	Issued for Review	CD	PW	21/09/2018



**FIGURE 1: SITE LOCALITY**

ECOLOGICAL ASSESSMENT  
28-34 ELLERSLIE ROAD, MEADOWBROOK

Map Number	Job Number	Rev
1 of 1	QEJ18021	0

## 2 Methods

### 2.1 Desktop assessment and legislative review

A desktop assessment was undertaken to review and confirm Commonwealth, State and Local Government environmental mapping and databases. The following legislation, associated triggers and databases were reviewed:

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (Cth):
  - Protected Matters Report as issued by the Department of the Environment and Energy (DEE).
- *Planning Act 2016* (Planning Act) (Qld) and *Planning Regulation 2017* (Planning Regulation) (Qld):
  - Development Assessment Mapping System provided by the (Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) to review State Assessment and Referral Agency (SARA) mapping including *Coastal Protection and Management Act 1995* (CPM Act) matters and *Fisheries Act 1994* (Fisheries Act) matters.
- *Vegetation Management Act 1999* (VM Act) (Qld):
  - Regulated Vegetation Management Map as issued by the Department of Natural Resources, Mines and Energy (DNRME); and
  - Vegetation Management Supporting Map (DNRME).
- *Nature Conservation Act 1992* (NC Act) (Qld):
  - Wildlife Online Extract issued by the Department of Environment and Science (DES), for a search radius of 5 km from the approximate centre of the site (-27.6621, 153.1368)
  - Protected Plants Flora Survey Trigger Map issued by DES; and
  - Nature Conservation (Koala) Conservation Plan 2017 - Koala Habitat Region Map.
- *Environmental Offsets Act 2014* (EO Act) (Qld); and
- relevant Logan City Council Planning Scheme 2015 overlay.

### 2.2 Field assessment

A diurnal field assessment of the site was conducted by two E2M ecologists on 28 February 2018. The survey included:

- recording the floristic structure, composition and condition of vegetation communities located within the site. Quaternary surveys were undertaken to assess the spatial extent of vegetation on site in accordance with Neldner *et al.* 2017. Structural forms were described in accordance with Specht (1970)
- in-situ confirmation of relevant regulatory trigger mapped extents with methodologies undertaken in accordance with the relevant standards (e.g. *Flora survey guidelines - protected plants* (Department of Environment and Heritage Protection 2016))
- recording opportunistic observations of fauna encountered throughout the site
- identifying ecological features, such as fauna habitat values, within the site and assessing the potential for threatened flora and fauna species to utilise habitats throughout the site
- assessing the condition of waterway and wetland features within the site; and



- determining the ecological function of the site and surrounds.

Trimble Nomad Global Positioning System (GPS) devices were used to delineate the extent of vegetation communities within the site and record flora and fauna species encountered. Targeted searches for threatened flora species were not conducted. However, incidental observations were recorded. Similarly, while no targeted fauna surveys were conducted, opportunistic observations were recorded.

Captured data was validated, mapped and assessed using a geographical information system, whereby the development footprint and observed features and extents were overlaid on the relevant regulatory mapping (GDA94/MGA zone 56).

## 2.3 Likelihood of occurrence assessment

Threatened flora and fauna species identified in the desktop review were assessed for their likelihood of occurrence within the site. This assessment considered the species distribution, habitat requirements and historical records in proximity to the site as well as observations and evidence of occurrence, habitat suitability, threats and on-site conditions identified during the field survey.

The likelihood of occurrence of threatened and migratory species were based on the following criteria:

- Known to occur: species were recorded during field surveys.
- Likely to occur: suitable habitat to support the species is present and the species has previously been recorded within the desktop search extent.
- Possible occurrence: The site is within the species known distribution and suitable habitat to support the species is present; however,
  - the species has not previously been recorded within the desktop search extent; and/or,
  - suitable habitat is degraded or of limited extent, thereby reducing the likelihood of the species occurrence.
- Unlikely to occur: the site does not comprise suitable habitat for the species or is outside of the species known distribution. Species may also be considered unlikely to occur if they have not been detected after a comprehensive field survey at an intensity suitable to detect the species if present. For example, following the Department and Heritage Protection's *Flora Survey Guidelines - Protected Plants*.

For fauna species assessed as known or likely to occur, the site was categorised as containing:

- Core habitat where suitable habitat/microhabitat was present that comprised suitable breeding places, habitat connectivity and access to foraging resources. Removal of core habitat is likely to cause a decline in the local population of the species.
- General habitat where habitat is limited to a movement corridor by transient individuals, used intermittently or seasonally by foraging individuals and/or lacks suitable breeding places for the species. Removal of general habitat is unlikely to affect the species local population.



## 2.4 Survey limitations

Ecological surveys have a range of inherent limitations associated with seasonal timing of the survey, variable climate conditions and species behaviour. As such, the survey conducted only represents a “snapshot” in time and may not provide a true indication of presence or absence of flora and fauna species within the site. In light of the identified limitations, precautionary principles were applied to assume presence where necessary for impact assessment purposes.



## 3 Desktop assessment and legislative review

### 3.1 Commonwealth legislative considerations

The EPBC Act protects the environment in relation to Matters of National Environmental Significance (MNES). Under the EPBC Act, if a development proposal involves an action that is likely to result in a significant impact on an MNES, the proposal must be referred to the DEE. When an EPBC Referral for a development proposal is submitted, DEE provides a determination as to whether the project is considered a Controlled Action or Not a Controlled Action.

A Protected Matters Report, generated by the DEE, was generated to identify MNES that are predicted to occur within the site (the search results have been included in Appendix A). The report identified that:

- one wetland of International Importance (Ramsar) occurs within 10 km of the site (Moreton Bay)
- three listed Threatened Ecological Communities (TECs) have the potential to occur within 5 km of the site
- 24 threatened fauna species potentially occur within 5 km of the site
- 16 threatened flora species potentially occur within 5 km of the site; and
- eight migratory (marine, terrestrial, wetland) species potentially occur within 5 km of the site.

A likelihood of occurrence assessment has been conducted for MNES threatened flora and fauna species and ecological communities. This assessment is included in Section 4.1.2 and Section 4.2.2.

The Protected Matters Report identified numerous marine and pelagic species. These species have not been considered in this report due to the lack of marine environment and the site being located approximately 18 km from the coast.

### 3.2 State legislative considerations

#### 3.2.1 Planning Act 2016 and Planning Regulation 2017

The Planning Act is Queensland's key piece of legislation pertaining to the strategic planning and development of the State. The Planning Act mandates the framework of planning instruments and process for development assessment whilst incorporating the regulatory requirements of other Queensland environmental statutory legislation, such as the VM Act, CPM Act and Fisheries Act.

Subordinate to the Planning Act, the Planning Regulation details the mechanics for the operation of the Planning Act. This includes prescription of accepted, prohibited and assessable development, assessment benchmarks for assessable development and identification of the assessment manager (i.e. the chief executive or local government).

A review of the Development Assessment Mapping System used to review SARA mapping (Appendix A) identified that that the site comprises:

- areas of Regulated Vegetation, discussed in Section 3.2.2; and
- one low risk waterway for waterway barrier works.



### 3.2.1.1 State Planning Policy (July 2017)

The purpose of State planning instruments such as the SPP, is to guide local and State government in land-use planning and development by defining the Queensland Government policies relating to matters of State interest. Local governments must consider the State interest and reflect appropriately when amending local planning schemes and in some cases, assessing development applications.

Although LCC has amended the Logan Planning Scheme 2015 to align with the Planning Act, not all aspects of the SPP have been appropriately incorporated. As such, relevant environmental State interests under the SPP will need to be considered and addressed as part of the proposed development.

### 3.2.2 Vegetation Management Act 1999

The clearing of native vegetation and essential habitat in Queensland is regulated by the VM Act. Mapping is provided by DNRME, which outlines vegetation categories used to determine clearing and assessment requirements under the Planning Act.

A summary of the Regulated Vegetation (category B) and associated Regional Ecosystem (RE) mapped within the site is provided in Table 1. The DNRME Regulated Vegetation Management Map has been provided in Appendix A.

**Table 1 DNRME mapped Regulated Vegetation (Category B) within the site**

DNRME Mapped community	VM Act Class	Short description	Area mapped within the site (ha)
12.3.3d	Endangered	<i>Eucalyptus moluccana</i> woodland. Other frequently occurring species include <i>Eucalyptus tereticornis</i> , <i>E. crebra</i> , <i>E. siderophloia</i> , <i>Corymbia citriodora</i> subsp. <i>variegata</i> and <i>C. intermedia</i> . Occurs on margins of Quaternary alluvial plains often adjacent sedimentary geologies.	0.36
12.3.11	Of Concern	<i>Eucalyptus tereticornis</i> +/- <i>Eucalyptus siderophloia</i> , <i>Corymbia intermedia</i> open forest on alluvial plains.	0.52

### 3.2.3 Nature Conservation Act 1992

The primary purpose of the NC Act is to conserve biodiversity by creating and managing protected areas, managing and protecting native flora and fauna and managing the spread of introduced/non-native (i.e. pest) wildlife. Proposed developments must take in to consideration wildlife and natural areas protected under the NC Act and associated regulations and determine if permits or approvals are required to undertake the proposed works.

A Wildlife Online Extract (DES) was obtained to identify the confirmed recorded presence of threatened flora and fauna species within a 5 km radius of the site (refer to Appendix A). The extract listed two amphibians, four birds, three mammals and five plant species. To determine potential presence within the site, a likelihood of occurrence assessment has been conducted for these species. This assessment is included in Section 4.1.2 for flora and Section 4.2.2 for fauna. As outlined in Section 3.1, marine and pelagic species have not been considered in this report.



### 3.2.3.1 NC Act Protected Plants

The *Nature Conservation Wildlife Regulation 2006* (NC Regulation) lists flora and fauna species considered to be extinct in the wild, Endangered, Vulnerable, Near Threatened (EVNT) or least concern in Queensland. Clearing of protected plants (i.e. EVNT species) is regulated by the NC Regulation. Further, the State Government has produced a mapping layer which triggers a flora survey requirement if disturbance is proposed within a mapped area. Protected plants high risk trigger mapping is mapped across the site (Appendix A). A protected plants survey in accordance with the *Flora Survey Guidelines: Protected Plants* (2016) was conducted in conjunction with the field assessment.

### 3.2.4 Nature Conservation (Koala) Conservation Plan 2017

The site is located within 'Koala District A' on the Koala Conservation Plan Map under the *Nature Conservation (Koala) Conservation Plan 2017* (Koala Conservation Plan). This requires the proposed development to comply with management measures when clearing koala habitat, as detailed in Part 3 of Koala Conservation Plan.

### 3.2.5 Fisheries Act 1994

The purpose of the Fisheries Act is to provide for the management and protection of fish habitats, fish ways, aquaculture, marine plants, coral limestone and general fisheries resources. Integrated into the Planning Act, approval from the State Government may be required when assessable development works include the construction or raising waterway barrier works, fisheries development works in declared fish habitat areas or the removal, destruction or damage to marine plant(s). Review of SARA mapping (Appendix A) identified that the site contains one Low Risk Queensland Waterway. The Low Risk Waterways consist of small ephemeral drainage tributaries of Scrubby Creek.

#### 3.2.5.1 Waterway barrier works

Waterway barrier works include the construction of dam, weir or other barriers across a waterway if the barrier limits fish access and movement along a waterway. This can include solid barriers, such as dams and weirs, which block a waterway to stop the flow of water and "other barriers", such as causeways and culverts, which may physically inhibit fish movement. Proposed waterway works should be assessed against the '*Accepted development requirements for operational work that is constructing or raising waterway barrier works*' (Department of Agriculture and Fisheries 2017), to determine whether the proposed works require referral to the SARA.

## 3.3 Local legislative considerations

The site is located within the Logan City Council (LCC) Local Government Area (LGA) and as such, is subject to the provisions of the Logan Planning Scheme 2015. Table 2 identifies the property holding details, overlay triggers and associated overlay codes applicable to the site.



**Table 2 Property holding details for the site**

Property address	28-32 Ellerslie Road, Meadowbrook
Lot and Plan	Lots 20 and 21 on RP91039
Tenure	Freehold
Zone(s)	Medium Impact Industry and Rural Residential
Neighbourhood Plan	Nil
Overlay(s)	<ul style="list-style-type: none"> <li>• Biodiversity Areas overlay               <ul style="list-style-type: none"> <li>• Biodiversity Areas Trigger</li> <li>• Primary Vegetation Management Area</li> <li>• Matters of State and Local Significance</li> </ul> </li> <li>• Waterway Corridors and Wetlands overlay               <ul style="list-style-type: none"> <li>• Waterway Corridors and Wetlands Trigger</li> <li>• Waterways</li> <li>• Wetlands</li> </ul> </li> </ul>
Overlay Code(s)	<ul style="list-style-type: none"> <li>• Biodiversity Areas overlay code</li> <li>• Waterway Corridors and Wetlands overlay code (relevant sections)</li> </ul>



## 4 Field assessment results

### 4.1 Flora

For ease of reading, the scientific name of each species has only been mentioned in the first instance where that species is described in the text. Vegetation which is introduced/non-native (i.e. pest) has been demarcated by '\*\*'. A total of 111 flora species were recorded within the site, which comprised 58 native species and 53 introduced species. A detailed list of flora species observed within the site is provided in Appendix B.

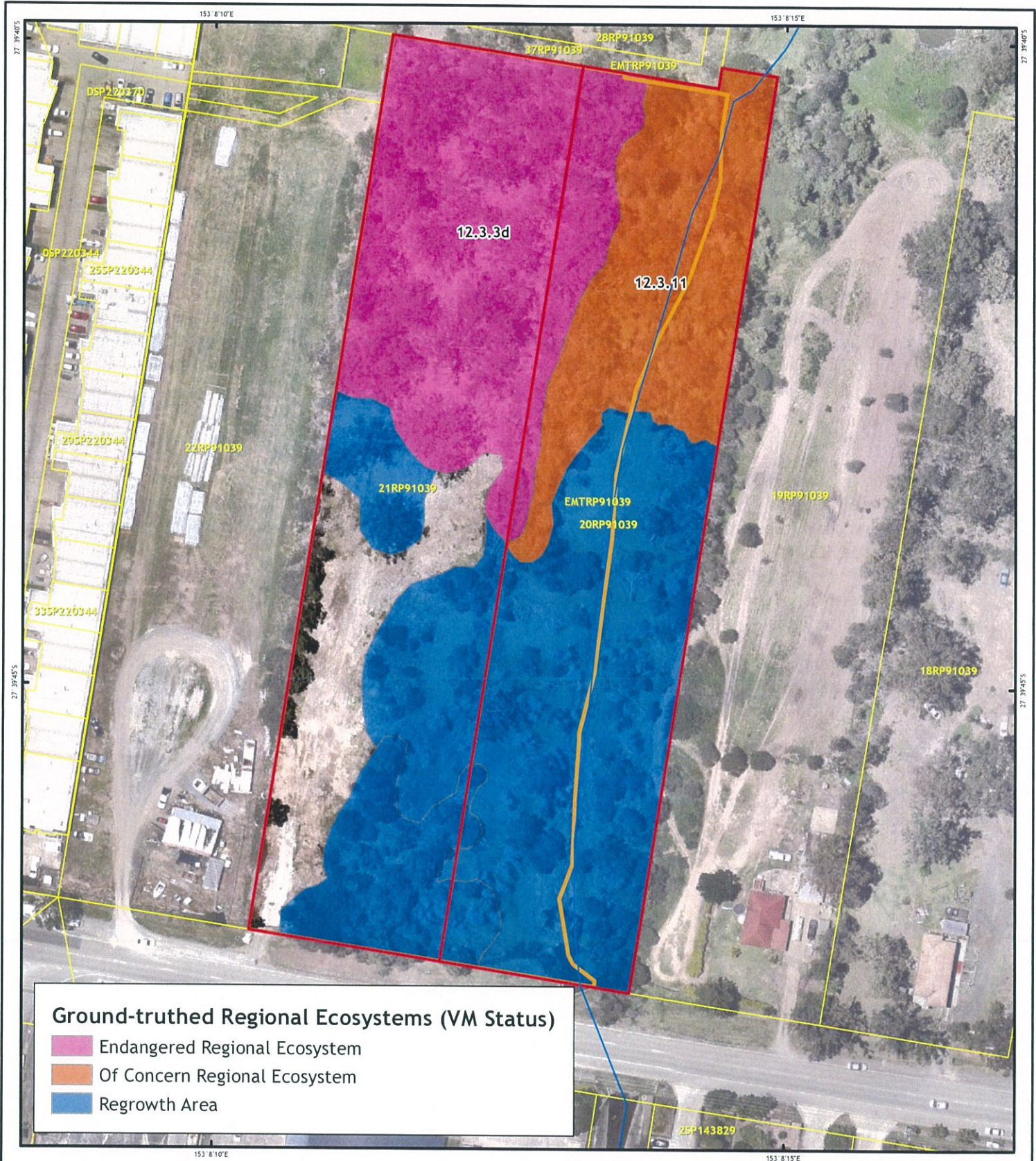
#### 4.1.1 Vegetation communities

The desktop assessment identified areas of remnant vegetation within the northern extent of the site. Two REs were verified within these areas comprising RE 12.3.3d and RE 13.3.11, associated with mature woodland and open forest communities on alluvial flats. The ground-truthed extent of remnant vegetation and associated REs within the site are depicted in Figure 2. Vegetation within the southern extent of the site had been subject to historical clearing and comprised disturbed regrowth woodland, as depicted in Figure 2. Descriptions of REs and non-remnant areas identified, including floristic structure and composition, are provided in Table 3.

No vegetation communities identified within the site were consistent with TECs listed under the EPBC Act. Areas of remnant vegetation also corresponded with DNRME Regulated Vegetation under the VM Act. Regulated Vegetation is discussed further within Section 5.6.3.

The site is mapped as a primary vegetation management area.





**Ground-truthed Regional Ecosystems (VM Status)**

- Endangered Regional Ecosystem
- Of Concern Regional Ecosystem
- Regrowth Area

**Legend**

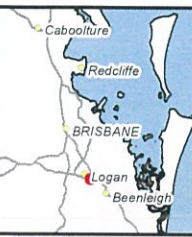
- Watercourse
- Site
- Proposed Disturbance Footprint
- Cadastre



Scale 1:1,250 (A4)



Coordinate System: GDA 1994 MGA Zone 56  
Projection: Transverse Mercator



Notes:  
Aerial Imagery: © Nearmap 2018  
Cadastral: © DNRME 2018  
Watercourse: © Geoscience Australia 2017  
Road: © PSMA 2014

Rev	Description	Drawn	Approved	Date
0	Issued for Use	CO	PW	21/09/2018
A	Issued for Review	CD	PW	18/06/2019

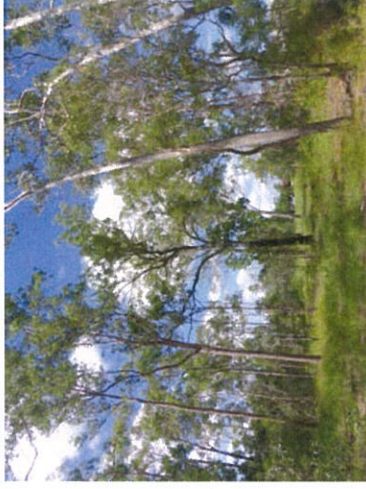
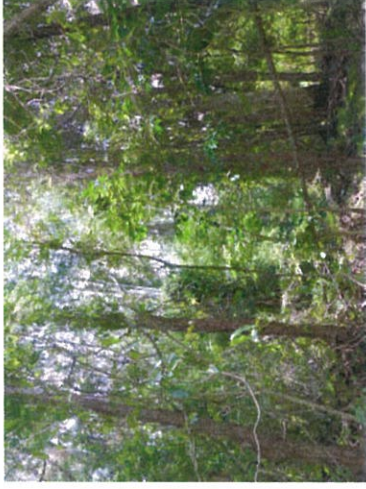



**FIGURE 2: GROUND-TRUTHED REMNANT REGIONAL ECOSYSTEMS**

ECOLOGICAL ASSESSMENT  
28-34 ELLERSLIE ROAD, MEADOWBROOK

Map Number	Job Number	Rev
1 of 1	QEJ18021	0

Table 3 E2M ground-truthed vegetation communities within the site

Vegetation Community	RE	VM Act class/ Biodiversity status	Vegetation description	Area (ha)	Representative photo
<i>Eucalyptus moluccana</i> and <i>Corymbia citriodora</i> woodland on alluvial flats	12.3.3d	Endangered/ Endangered	<i>Eucalyptus moluccana</i> and <i>Corymbia citriodora</i> woodland (to 26 m) with associated <i>E. siderophloia</i> and <i>E. tereticornis</i> on Quaternary alluvials. The sparse shrublayer comprised <i>Melaleuca linariifolia</i> , <i>Acacia disparrima</i> , <i>Lantana camara</i> * and juvenile eucalypts. The understorey comprised a combination of native and exotic grasses and forbs including <i>Themeda triandra</i> , <i>Cymbopogon refractus</i> , <i>Imperata cylindrica</i> , <i>Urochloa decumbens</i> * and <i>Fimbristylis dichotoma</i> .	0.54	
<i>Eucalyptus tereticornis</i> open forest on alluvial flats	12.3.11	Of Concern/ Concern	<i>E. tereticornis</i> open forest (to 27 m) with associated <i>E. propinqua</i> , <i>Angophora leiocarpa</i> and <i>C. citriodora</i> on Quaternary alluvials. A subcanopy of <i>Lophostemon suaveolens</i> , <i>Melaleuca quinquenervia</i> and juvenile eucalypts is also present. The moderately dense shrublayer consisted of <i>L. suaveolens</i> , <i>Senna pendula</i> *, <i>L. camara</i> *, <i>Schinus terebinthifolius</i> *, <i>Glochidion ferdinandii</i> and <i>Schefflera actinophylla</i> *. The dense groundlayer was dominated by exotic forbs and grasses including <i>Sphagneticola trilobata</i> *, <i>Urochloa decumbens</i> * and <i>Megathyrsus maximus</i> *.	0.33	

Vegetation Community	RE	VM Act class/ Biodiversity status	Vegetation description	Area (ha)	Representative photo
Mixed eucalypt regrowth woodland on alluvial flats	Non-remnant	-/-	Mixed eucalypt regrowth open woodland (to 12 m) comprising <i>E. siderophloia</i> , <i>E. tereticornis</i> and <i>C. citriodora</i> on Quaternary alluvials. A sparse shrublayer was present consisting of <i>A. disparima</i> , <i>A. leiocalyx</i> , <i>Leucaena leucocephala</i> *, <i>L. camara</i> * and juvenile eucalypts. The groundlayer comprised <i>M. maximus</i> *, <i>U. decumbens</i> *, <i>Digitaria eriantha</i> and <i>Echinochloa colona</i> *.	0.91	

### 4.1.2 Threatened flora

The desktop assessment identified 19 threatened flora species have been recorded or predicted to occur within 5 km of the site. A comprehensive survey of the site was undertaken in accordance with the *Protected Plants Flora Survey Guideline* (DEHP, 2016). No threatened flora species were observed within the site or are considered likely to occur.

An assessment of likelihood of occurrence based on habitat within the site, species habitat preferences and distribution is provided in Appendix B.

### 4.1.3 Introduced/non-native flora

Two weed species listed as Weeds of National Environmental Significance (WONS) and nine species of restricted matter under the Queensland *Biosecurity Act 2014* were identified within the site (Table 4). The 'general biosecurity obligation' under Part 1 of the Biosecurity Act states all individuals and organisations are responsible for biosecurity risks and threats under their control.

Most restricted plant species under the Biosecurity Act were recorded as scattered individuals, particularly within the riparian corridor within the eastern extent of the site. *Lantana camara*\* (lantana) was recorded throughout the site with moderate density clusters (3-4 individuals per 10 m<sup>2</sup>) observed within the riparian corridor within the eastern extent of the site. High density clusters (5-6 individuals per 10 m<sup>2</sup>) of *Sphagneticola trilobata*\* (Singapore daisy) were also observed within low-lying areas associated with the watercourse.

A total of 23 priority weed species under the *City of Logan Biosecurity Plan 2017-2022* (LCC Biosecurity Plan) were also recorded within the site (Table 4).

**Table 4 Weed species recorded within the site**

Scientific name	Common name	WONS <sup>1</sup>	Biosecurity Act 2014 status	LCC Priority status
<i>Ambrosia artemisiifolia</i> *	annual ragweed	-	Category 3	High
<i>Asparagus aethiopicus</i> *	ground asparagus fern	WONS	Category 3	High
<i>Baccharis halimifolia</i> *	groundsel bush	-	Category 3	Moderate
<i>Celtis sinensis</i> *	Chinese elm	-	Category 3	High
<i>Chloris gayana</i> *	Rhodes grass	-	-	Moderate
<i>Chloris virgata</i> *	feathertop Rhodes grass	-	-	Moderate
<i>Cinnamomum camphora</i> *	camphor laurel	-	Category 3	Moderate
<i>Corymbia torelliana</i>	cadaghi	-	-	Moderate
<i>Gomphocarpus physocarpus</i> *	balloon cotton bush	-	-	Moderate
<i>Jacaranda mimosifolia</i> *	jacaranda	-	-	Moderate
<i>Lantana camara</i> *	lantana	WONS	Category 3	High
<i>Leucaena leucocephala</i> *	leucaena	-	-	Moderate
<i>Megathyrsus maximus</i> *	Guinea grass	-	-	Moderate



Scientific name	Common name	WONS <sup>1</sup>	Biosecurity Act 2014 status	LCC Priority status
<i>Morus alba</i> *	mulberry	-	-	Moderate
<i>Paspalum urvillei</i> *	vasey grass	-	-	Moderate
<i>Passiflora spp.</i> *	passionfruit spp.	-	-	Moderate
<i>Rivina humilis</i> *	coral berry	-	-	Moderate
<i>Schinus terebinthifolius</i> *	broad-leaf pepper tree	-	Category 3	Moderate
<i>Senna pendula</i> *	easter cassia	-	-	Moderate
<i>Setaria sphacelata</i> *	South African pigeon grass	-	-	Moderate
<i>Spathodea campanulata</i> *	African tulip tree	-	Category 3	-
<i>Sphagneticola trilobata</i> *	Singapore daisy	-	Category 3	High
<i>Urochloa decumbens</i> *	signal grass	-	-	Moderate

<sup>1</sup> Weeds of National Environmental Significance

<sup>2</sup> City of Logan Biosecurity Plan 2017-2022

## 4.2 Fauna

### 4.2.1 Fauna observations and habitat

Incidental fauna observations within the site recorded generalist species typical of a disturbed, urban environment. A detailed list of fauna species recorded is provided in Appendix B. Bird assemblages observed comprised common woodland and urban specialists including noisy miners (*Manorina melanocephala*), Torresian crow (*Corvus orru*), rainbow lorikeets (*Trichoglossus haematodus moluccanus*) and superb fairy-wren (*Malurus leucopterus*). Two amphibian species, eastern dwarf sedge frog (*Litoria fallax*) and cane toad (*Rhinella marina*) were also recorded within the riparian corridor and wetland habitat in the eastern extent of the site.

Remnant woodland and open forest communities contained numerous flowering/fruitlet tree species for nectivorous mammals and birds as well as decorticating bark for small reptiles. While a number of small hollow limbs (<10 cm) were observed in mature trees, few larger hollows (>10 cm) were observed within the site. The riparian corridor traversing the eastern extent of the site also provide suitable habitat for locally common amphibian species and waterbirds during times of inundation. Fauna habitat, including animal breeding places for *Least concern* (NC Act) fauna, identified within the site include:

- small hollows in limbs of trees, which provide potential habitat for small arboreal mammals, birds and microchiropteran bats
- decorticating bark, which provide potential habitat for microchiropteran bats and arboreal reptiles
- flowering trees and shrubs that provide a source of nectar for birds and flying-foxes
- dense leaf litter and shrublayer for cryptic reptiles and small mammals
- aquatic habitat in association with the watercourse providing habitat for amphibians, reptiles and waterbird species; and
- bird nests.



#### 4.2.2 Threatened fauna species

The desktop assessment identified 31 threatened fauna species have been recorded or predicted to occur within 5 km of the site. An assessment of likelihood of occurrence based on the field assessment, species habitat preferences and distribution is provided in Appendix C.

The likelihood of occurrence assessment determined the site is likely to provide core and general habitat for three threatened species, including the:

- Koala (*Phascolarctos cinereus*) - listed as Vulnerable under the EPBC Act and NC Act. A number of records had been previously detailed within the desktop search extent. Koala habitat within Queensland includes a range of temperate, sub-tropical and tropical forest, woodland and semi-arid communities dominated by species of the genus *Eucalyptus* (limited to <800 m above sea level) (DEE, 2018). While weedy infestations are likely to impede movement within some areas, remnant and regrowth communities within site provides suitable foraging and breeding habitat for the species.
- Grey-headed flying fox (*Pteropus poliocephalus*) - listed as Vulnerable under the EPBC Act. The species has been previously recorded at a flying fox roost camp (Slacks Creek, Meakin Park), located north of the site (1.75 km) (DEHP, 2016a). The species feeds on nectar and pollen from flowering eucalypts, melaleucas and banksias as well as introduced fruit trees (DEE, 2018). Although no roosting trees were identified within the site, suitable foraging habitat is afforded by remnant eucalypt woodland and open forest (RE 12.3.3d and RE 12.3.11).
- Tusked frog (*Adelotus brevis*) - listed as Vulnerable under the NC Act. The species has been recorded in a variety of habitats including slow-moving streams, ponds as well as dams and garden ponds (Cogger 2000; Meyer *et al.* 2001). The species is likely to use wetland areas within the site for breeding and foraging.

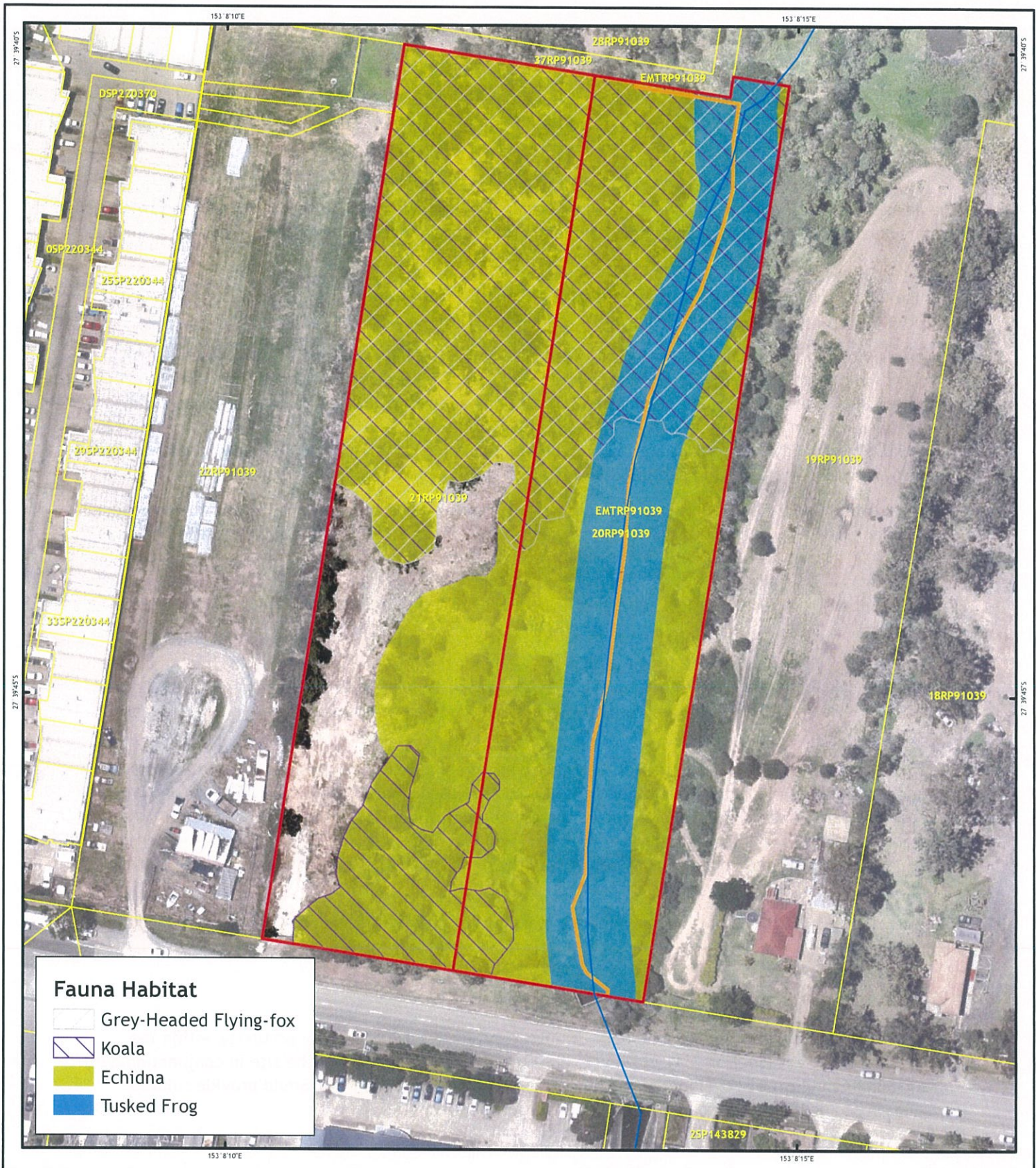
The site also contains suitable habitat for the short-beaked echidna (*Tachyglossus aculeatus*), a special least concern animal (non-migratory) under the NC Act. The species has been previously recorded within the desktop search extent. The species occurs throughout Australia in a wide variety of habitats; wherever there is a supply of ants and termites, upon which it feeds. The species usually seeks shelter under thick bushes, in hollow logs and under piles of debris (van Dyck and Strahan, 2002). Suitable habitat is afforded by remnant and non-remnant vegetation.

The extent of habitat for threatened and special least concern fauna species within the site is provided in Figure 3.

#### 4.2.3 Migratory species

The desktop assessment identified a number of migratory species as potentially occurring within the desktop search extent (Section 3.1). However, due to the disturbed nature of the site in conjunction with the surrounding industrial development, it is considered unlikely that the site would provide suitable foraging, breeding habitat or connectivity values for migratory species.





**Fauna Habitat**

- Grey-Headed Flying-fox
- Koala
- Echidna
- Tusked Frog

**Legend**

- Watercourse
- Site
- Proposed Disturbance Footprint
- Cadastre



Scale 1:1,250 (A4)

0 25 50  
Metres

Coordinate System: GDA 1994 MGA Zone 56  
Projection: Transverse Mercator



**Notes:**  
 Aerial Imagery: © Nearmap 2018  
 Cadastre: © DNRME 2018  
 Watercourse: © Geoscience Australia 2017  
 Road: © PSMA 2014

Rev	Description	Drawn	Approved	Date
0	Issued for Use	CO	PW	21/09/2018
A	Issued for Review	CD	PW	18/06/2018



**FIGURE 3: THREATENED FAUNA HABITAT**

ECOLOGICAL ASSESSMENT 28-34 ELLERSLIE ROAD, MEADOWBROOK		Rev
Map Number 1 of 1	Job Number QEJ18021	0

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## 4.3 Ecological functions

### 4.3.1 Waterway and wetland features

The site is traversed by one DNRME mapped watercourse (stream order 1), extending from the north-east corner to the south-east corner. The un-named tributary of Scrubby Creek was characterised by a minor meandering channel that has been modified due to changes in surrounding land use. Water was present within the watercourse at the time of the survey. Surrounding riparian vegetation was disturbed with dense infestations of *Lantana camara*\* (lantana), *Schinus terebinthifolius*\* (broad-leaved pepper tree), *Senna pendula*\* (easter cassia), *Urochloa decumbens*\* (signal grass), *Setaria sphacelata*\* (South African pigeon grass).

The location of the waterway centreline differed slightly in comparison with SARA mapping (Major Queensland waterways for waterway barrier works) (Department of Infrastructure, Local Government and Planning). The ground-truthed watercourse alignment is provided in Figure 2.

No Referable wetlands or Wetland Protection Areas as defined under the *Environmental Protection Regulation 2008* are identified within the site.

### 4.3.2 Corridors and connectivity

The site is located within a largely fragmented landscape resulting from urban, residential and industrial development. The site is also in proximity to a number of high traffic roads such as the Logan Motorway to the south and Loganlea Road to the east. A vegetation corridor associated with Scrubby Creek is located to the north of the site and may provide habitat and connectivity values for local fauna assemblages. As vegetation within the site is largely isolated from surrounding patches, disturbance to patches is considered unlikely to impact connectivity values in the greater landscape.



## 5 Potential ecological impacts and proposed mitigation measures

The proposed development is for an industrial facility. To facilitate stormwater requirements, earthworks extending outside of the building footprint will be required. The total disturbance footprint will result in the removal of 0.74 ha of ground-truthed remnant vegetation, along with 0.64 ha of regrowth vegetation. A total of 0.80 ha of rehabilitation will be undertaken across the site following the completion of earthworks.

Ecological and connectivity values will be retained within the eastern extent of the site, however impacts to flora, fauna and ecological communities are likely to be unavoidable as a result of the proposed development. Impacts to ecological features identified within the site include:

- removal of native vegetation
- reduction of fauna habitat for native species, including the threatened koala, tusked frog and grey-headed flying-fox
- potential injury and death of native fauna associated with construction activities
- sedimentation and erosion impacting water quality; and
- introduction and spread of exotic weeds and pest

Residual impacts to flora, fauna and ecological communities resulting from the proposed development can be effectively managed through the implementation of measures to minimise and mitigate impacts. The following sections outline the potential ecological impacts which have been identified based on the ecological values assessment and associated mitigation measures recommended for implementation to reduce these impacts. A legislative compliance summary is also provided.

### 5.1 Potential impacts to vegetation and threatened flora species and recommended mitigation measures

As detailed in Section 4.1, the site comprises remnant and regrowth vegetation. The proposed development will impact upon 0.74 ha of ground-truthed remnant vegetation, including 0.54 ha of 'endangered' and 0.20 ha of 'of concern' remnant vegetation, along with 0.64 ha of regrowth vegetation. This vegetation is within a primary vegetation management area mapped by LCC and provides habitat of varying quality for local fauna populations, including threatened fauna. Areas of aquatic habitat afforded by the watercourse in the eastern extent of the site will be largely retained.

Regulated vegetation and regulated vegetation intersecting a watercourse are mapped as an MSES. An assessment against the Assessment against the Significant Residual Impact Guideline for MSES - Regulated Vegetation is included in Appendix E.

The significant residual impact test is provided within Table 2.1 of the Significant Residual Impact Guideline. Clearing of Regulated Vegetation is not expected to exceed more than 2 ha for sparse (structural category) RE (12.3.3d) or 0.5 ha for the mid-dense (structural category) RE (12.3.11). As such, no significant residual impact is likely to result. Similarly, for regulated vegetation intersecting a watercourse, as the clearing extents for impacted REs does not exceed the thresholds within criteria 1 of Table 2.1, no significant residual impact is likely to occur.



To minimise impacts associated with the removal of vegetation and mitigate impacts to vegetation to be retained, the following management measures will be implemented:

- a rehabilitation management plan will be prepared for the eastern portion of the site, including the waterway corridor. A total area of 0.80 ha will be rehabilitated on site, including areas within and outside of the proposed disturbance footprint. Following final design of earthworks, this rehabilitation area may increase in size. The rehabilitation management plan will include:
  - a description of rehabilitation areas and treatments required
  - weed management measures to be implemented; and
  - requirements for ongoing monitoring and maintenance
- a vegetation management plan will be prepared to outline measures to be implemented throughout vegetation clearing activities. Measures will include:
  - vegetation to be retained within and adjacent to clearing areas should be clearly demarcated and protected (using barricade fencing, signage etc.) in accordance with Australian Standard 4970-2009 prior to the commencement of works on the site
  - clearing is to be undertaken by a suitably qualified contractor
- stockpiles, storage of materials, dumping of waste and excavation are to be outside of the tree protection zones of retained vegetation
- implement erosion and sediment control devices to limit impacts to water quality
- identified pest flora species are to be removed and properly disposed; and
- appropriate erosion and sediment control devices are to be installed to adequately manage run-off from disturbed areas.

## 5.2 Potential impacts to fauna and recommended mitigation measures

The proposed development is likely to require the removal of habitat for three threatened species, primarily the koala, tusked frog and grey-headed flying fox. Suitable habitat for one NC Act-listed special least concern (non-migratory) species, the echidna, was also observed within the site. Estimates of habitat removal for each species is provided in Table 5. While the site was found to contain suitable habitat for these threatened fauna, habitat for these species will be retained and rehabilitated within vegetated corridors within the eastern extent of the site.

To assist in determining if residual impacts associated with the development require referral, a self-assessment against the Matters of National Environmental Significance: Significant Impact Guidelines 1.1 (2013) (MNES Referral Guidelines) and the EPBC Act Referral Guidelines for the Vulnerable Koala (2014) (Koala Referral Guideline) was conducted and is included in Appendix D. The assessment determined that a significant impact on MNES is unlikely.

MSES values impacted by the proposed development include wildlife habitat, namely:

- 0.96 ha of habitat for koala
- 0.20 ha of habitat for tusked frog; and
- 1.39 ha of habitat for short-beaked echidna.

The significant residual impact test is provided within Table 2.1 of the Significant Residual Impact Guideline. Assessment against the Significant Residual Impact Guideline for protected wildlife habitat is



provided in Appendix E. The proposed development is considered unlikely to result in a significant residual impact under the EO Act.

To minimise impacts associated with the removal of vegetation and mitigate impacts to vegetation to be retained, the following management measures will be implemented:

- a pre-clearance survey within the disturbance footprint should be undertaken by a suitably qualified and licensed fauna spotter/catcher prior to the clearance of vegetation
- a suitably qualified and licensed fauna spotter/catcher is to be present during vegetation clearing activities, including disturbance to any structures that may serve as habitat or refugia for wildlife. It is recommended that the *Queensland Code of Practice for the welfare of wild animals affected by land-clearing and other habitat impacts and wildlife spotter/catchers* (Hanger and Nottidge, 2009) be used as a guide to inform clearing activities. Examples include:
  - all personnel are to be made aware of special habitat features and specialised equipment that may be required to safely extract fauna; and
  - directional clearing is to be implemented to avoid leaving isolated pockets of vegetation where fauna may become stranded.
- prior to removal, any hollow-bearing trees are to be thoroughly checked for fauna presence, prior to felling. If presence is identified, it is recommended that the tree be left overnight to allow for self-dispersal.
- if a koala is identified within impact area, clearing is to immediately cease and surveying, vegetation practices and interactions are to be undertaken in accordance with policies 4-6 of the *Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016* (EPA, 2006).

### 5.3 Potential impacts to waterway and wetland features and recommended mitigation measures

The development layout has retained or will rehabilitate the majority of the waterway corridor and associated riparian vegetation. Potential impacts include changes to water quality, weed spread and altered flow regimes. To mitigate potential impacts, the following measures are recommended:

- appropriate erosion and sediment control devices are to be installed to adequately manage run-off from disturbed areas; and
- weed control is to occur to reduce the potential for the spread of weeds throughout construction activities.

### 5.4 Potential impacts to corridors and connectivity and recommended mitigation measures

Impacts to habitat connectivity are considered limited with areas of retained vegetation along the riparian corridor and vegetation north of the site will continue to facilitate movement of native fauna through the surrounding areas. Implementation of the management strategies identified in Sections 5.1, Section 5.2 and Section 5.3 will provide for the maintenance of ecological corridors and fauna habitat connectivity provided by the site. Specifically, these management strategies include:

- retaining riparian vegetation within the site; and
- rehabilitation measures, primarily weed management, to improve the condition of retained Category B vegetation.



## 5.5 Legislative Compliance

Based on the findings of this assessment, a legislative compliance summary is provided below.

## 5.6 Summary

Legislative compliance requirements for the proposed development are summarised in Table 5.

**Table 5 Summary of legislative compliance for the proposed project**

Legislation	Compliance requirement
EPBC Act	The proposed development is considered unlikely to have a significant impact on MNES, as defined under the EPBC Act <i>MNES Significant Impact Guidelines 1.1</i> . Referral to DEE under the EPBC Act is therefore unlikely to be required (Section 5.6.1).
Planning Act and Planning Regulations	Relevant state interests relating to biodiversity within the SPP have been adequately incorporated by the LCC Logan City Planning Scheme (refer to Section 5.6.2).
VM Act	Approval by the State Government to clear Category B Regulated Vegetation associated with the proposed development is not required under Schedule 21, Part 1 of the VM Regulation (refer to Section 5.6.3). Approval to clear Regulated Vegetation within the site will be dependent on the assessment and approval of the Development Application by LCC.
NC Act	<p>The proposed development is likely to require clearing of animal breeding places for colonially breeding and least concern fauna. As such, a Species Management Program (SMP) approved by DES, may be required prior to clearing.</p> <p>The disturbance footprint is mapped as containing a ‘high risk’ area within the Protected Plants Flora Survey Trigger mapping. No threatened flora under the NC Act were identified within the site or clearing impact area (100 m). A Protected Plants Flora Survey Report will need to be submitted along with an Exempt Clearing Notification to DES at least one week prior to any clearing activities within the site.</p>
<i>Nature Conservation (Koala) Conservation Plan 2017</i>	The site is located within ‘Koala District A’ on the Koala Conservation Plan Map under the <i>Nature Conservation (Koala) Conservation Plan 2017</i> . This requires the proposed development to comply with management measures when clearing koala food trees, as detailed in Section 5.6.4.1.
Fisheries Act	Assessment against the ‘Accepted development requirements for operational work that is constructing or raising waterway barrier works’ (Department of Agriculture and Fisheries, 2017), is required to determine whether the proposed works require referral to the SARA.
Local Planning Scheme	Assessment against the Biodiversity Areas and Waterway Corridors and Wetlands overlay are provided in Appendix F. As the proposed development will result in the removal of vegetation within a primary vegetation management area, offsets are proposed for a significant residual impact.



### 5.6.1 Environmental Protection and Biodiversity Conservation Act 1999

The field assessment identified the site affords habitat for the threatened koala and grey-headed flying-fox. Vegetation communities observed were not consistent with any Threatened Ecological Communities identified under the EPBC Act.

A self-assessment against the MNES Referral Guidelines and Koala Referral Guideline criteria is provided in Appendix D. It was determined that it is unlikely that the development will significantly impact upon habitat for koala or grey-headed flying fox.

### 5.6.2 Planning Act 2016 and Planning Regulations 2017

#### 5.6.2.1 State Planning Policy (July 2017)

The LCC Logan City Planning Scheme 2015 has not been amended to align with changes enacted by the Queensland Government *Planning Act 2016*. As such, the proposed development will need to incorporate the desired outcomes for environmental matters under the SPP. State interests relating to Biodiversity and associated responses are provided in Table 6.

Table 6 State interests - Biodiversity and associated responses

State Interest	Response
1) Development is located in areas to avoid significant impacts on matters of national environmental significance and considers the requirements of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .	Refer to Section 5.6.1. Self-assessment against the EPBC Act MNES Referral Guidelines has been provided in D. A referral to the DEE is unlikely to be required as a result of the proposed development.
2) Matters of state environmental significance are identified and development is located in areas that avoid adverse impacts; where adverse impacts cannot be reasonably avoided, they are minimised.	MSES have been incorporated into the LCC Planning Scheme.
3) Matters of local environmental significance are identified and development is located in areas that avoid adverse impacts; where adverse impacts cannot be reasonably avoided, they are minimised.	Refer to Section 5.6.6.
4) Ecological processes and connectivity is maintained or enhanced by avoiding fragmentation of matters of environmental significance.	Refer to Section 5.4.
5) Viable koala populations in South East Queensland are protected by conserving and enhancing koala habitat extent and condition.	Refer to Section 5.2.



### 5.6.3 Vegetation Management Act 1999

Approval by the State Government to clear Category B regulated vegetation associated with the proposed development is not required under Schedule 21, Part 1, section 1, (1)(b) as the site is under 5 Approval to clear regulated vegetation within the site will be dependent on the assessment and approval of the Development Application by LCC.

### 5.6.4 Nature Conservation Act 1992

A Protected Plants Flora Survey was conducted as part of the site assessment. No threatened flora species were identified within the site of clearing impact area (100 m buffer). The Protected Plants Flora Survey Report (E2M, 2018) for the site will need to be submitted along with an Exempt Clearing Notification to DES. A Protected Plant Clearing Exemption Notification should be submitted to DES at least one week prior to any clearing activities within the site.

The proposed development is likely to require clearing of animal breeding places for threatened species, special least concern and least concern fauna identified under the NC Act. As such, a Species Management Program (SMP) approved by DES, may be required prior to clearing. In addition, an animal breeding place assessment report and impact management plan may be required for the purposes of clearing animal breeding places for threatened and special least concern fauna (DEHP, 2016c).

#### 5.6.4.1 Nature Conservation (Koala) Conservation Plan 2017

The site is located within 'Koala District A' on the Koala Conservation Plan Map under the *Nature Conservation (Koala) Conservation Plan 2017*. This requires the proposed development to comply with management measures when clearing koala food trees. When clearing koala food trees, clearing must be undertaken:

- in a sequential fashion, as defined in the *Nature Conservation (Koala) Conservation Plan 2017*; and
- under the supervision of a suitably qualified koala spotter.

### 5.6.5 Fisheries Act 1994

The site contains mapped SARA Referable Waterways, which are defined under the Fisheries Act. Under the Fisheries Act, any operational works within a mapped SARA Referable Waterway may require assessment under the Planning Act, if the proposed development temporarily or permanently limits fish access and movement along a waterway (waterway barrier works). Proposed works should be assessed against the 'Accepted development requirements for operational work that is constructing or raising waterway barrier works' (Department of Agriculture and Fisheries 2017). This will assist with determining whether the proposed works require referral to the SARA.

### 5.6.6 Local Planning Scheme

#### 5.6.6.1 Biodiversity Areas Overlay

Approximately 1.61 ha of Primary Vegetation and 1.61 ha of Matters of State and Local Significance are mapped under the LCC Biodiversity areas overlay (Figure 4). The development application is required to address the Biodiversity Areas Overlay Code. Responses to the applicable code is included in Appendix F.

Where impacts cannot be avoided or minimised, environmental offsets are required. A total of 1.38 ha of vegetation mapped by LCC and ground-truthed as being of some ecological value will require removal. The waterway corridor will be rehabilitated to ensure a net gain to biodiversity values. This will result in the reinstatement or enhancement of 0.80 ha of vegetation. The residual impact area of 0.58 ha will be offset in accordance with the LCC Environmental Management Planning Scheme Policy.

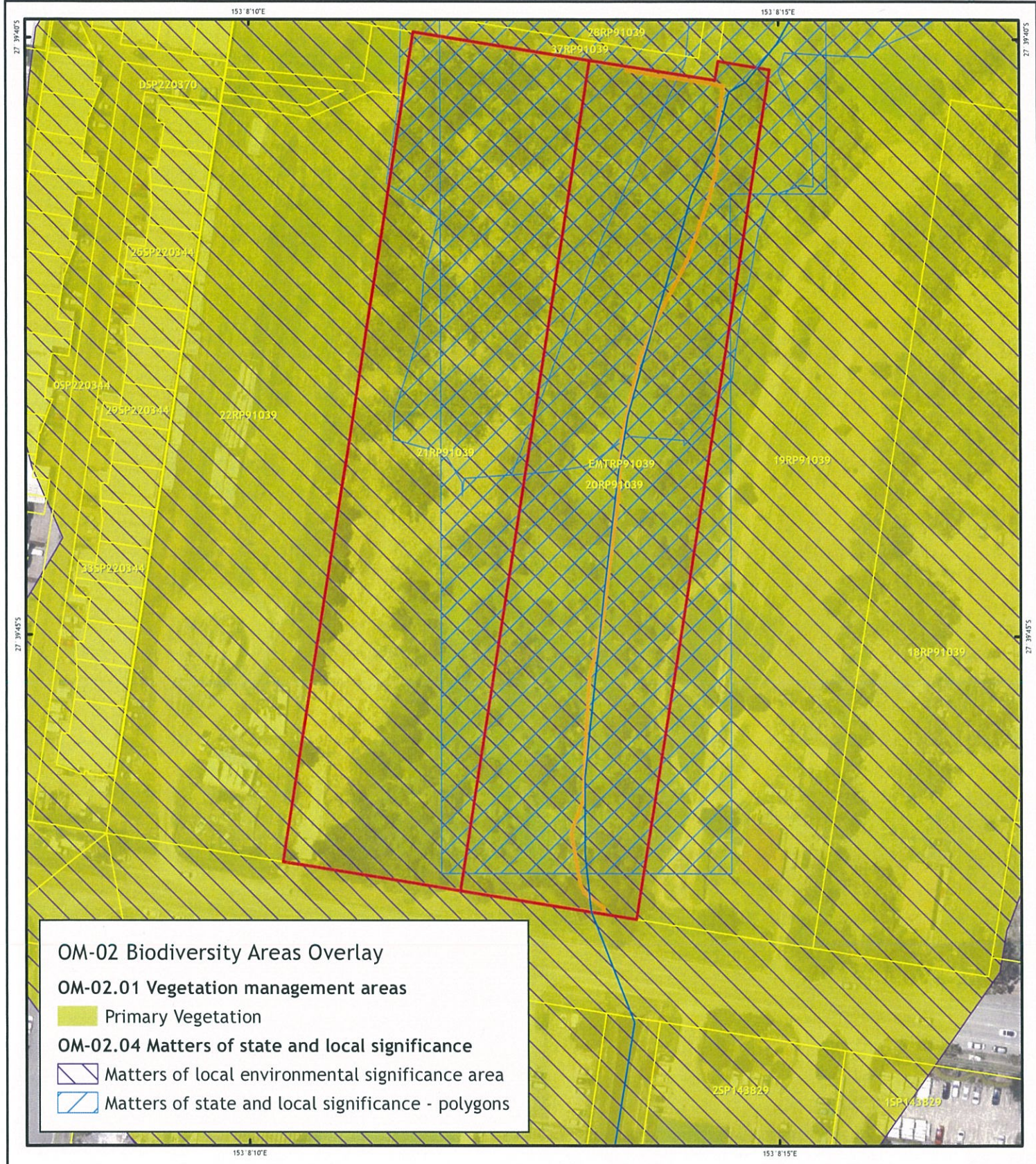


### 5.6.6.2 Waterway Corridors and Wetlands Overlay

Areas of LCC mapped Waterway Corridors and Wetlands Overlay will be impacted by the proposed development, including:

- 0.24 ha waterways (minor waterway)
- 1.19 ha of major wetlands; and
- 0.42 ha of wetland buffer.

LCC mapped waterway corridors and wetlands overlay areas within the site are depicted in Figure 5. The development application is required to address the Waterway Corridors and Wetlands Overlay Code. Responses to the applicable code is included in Appendix F.



**OM-02 Biodiversity Areas Overlay**

**OM-02.01 Vegetation management areas**

Primary Vegetation

**OM-02.04 Matters of state and local significance**

Matters of local environmental significance area

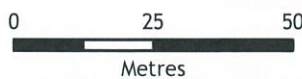
Matters of state and local significance - polygons

**Legend**

- Watercourse
- Site
- Proposed Disturbance Footprint
- Cadastre



Scale 1:1,350 (A4)



Coordinate System: GDA 1994 MGA Zone 56  
Projection: Transverse Mercator



**Notes:**  
Aerial Imagery: © Nearmap 2018  
Cadastral: © DNRME 2018  
Watercourse: © Geoscience Australia 2017  
Road: © PSMA 2014  
Biodiversity: © Logan City Council 2018

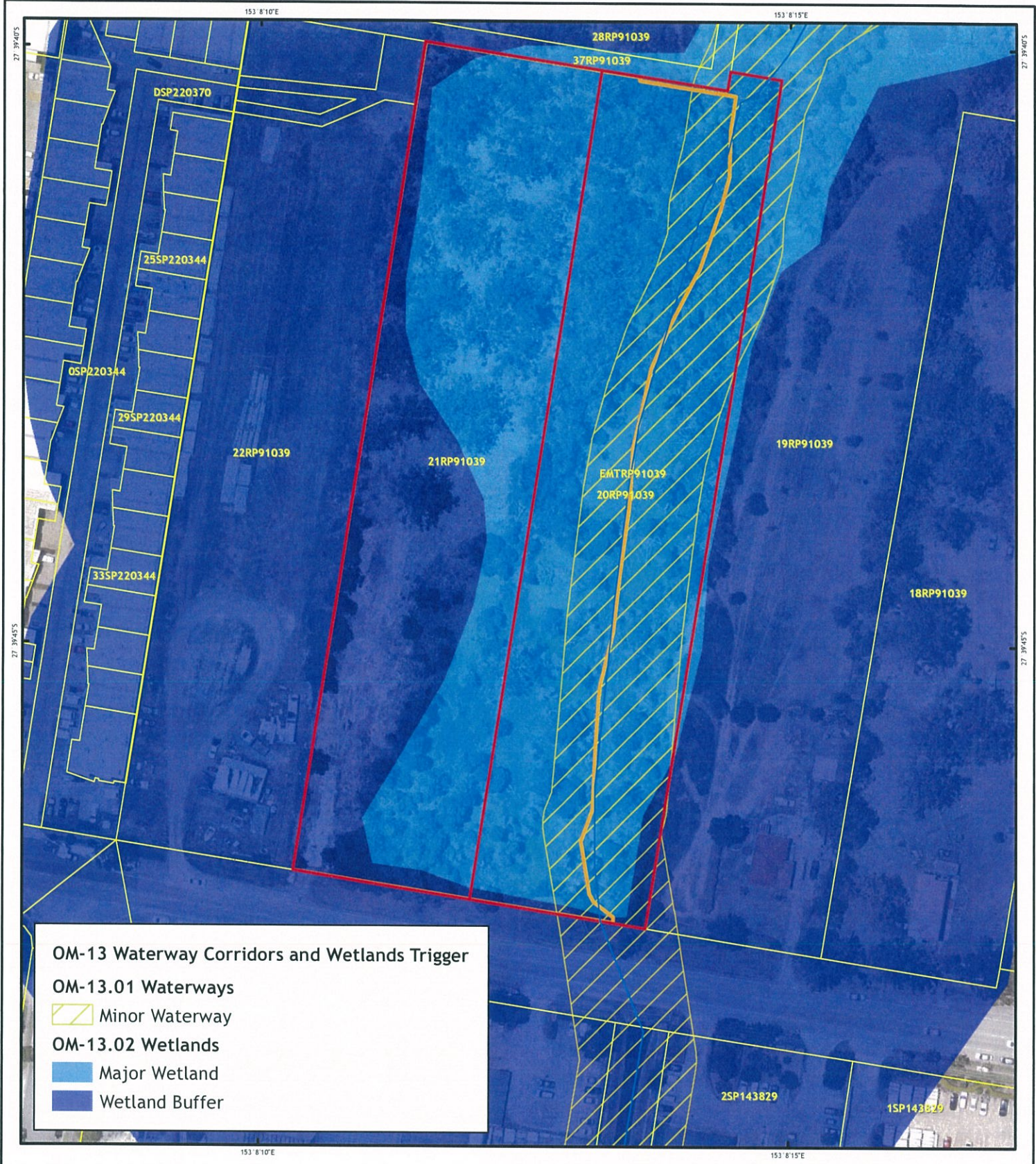
0	Issued for Use	CO	PW	21/09/2018
A	Issued for Review	CD	PW	18/06/2018
Rev	Description	Drawn	Approved	Date



**FIGURE 4: LCC BIODIVERSITY AREAS OVERLAY**

ECOLOGICAL ASSESSMENT  
28-34 ELLERSLIE ROAD, MEADOWBROOK

Map Number	Job Number	Rev
1 of 1	QEJ18021	0



**OM-13 Waterway Corridors and Wetlands Trigger**

**OM-13.01 Waterways**

- Minor Waterway

**OM-13.02 Wetlands**

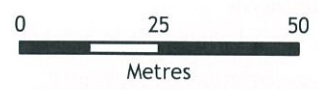
- Major Wetland
- Wetland Buffer

**Legend**

- Watercourse
- Site
- Proposed Disturbance Footprint
- Cadastre



Scale 1:1,350 (A4)



Coordinate System: GDA 1994 MGA Zone 56  
Projection: Transverse Mercator



**Notes:**  
 Aerial Imagery: © Nearmap 2018  
 Cadastre: © DNRME 2018  
 Watercourse: © Geoscience Australia 2017  
 Road: © PSMA 2014  
 Waterways and Wetlands: © Logan City Council 2018

Rev	Description	Drawn	Approved	Date
A	Issued for Use	CO	PW	21/09/2018
A	Issued for Review	CD	PW	18/06/2018



**FIGURE 5: LCC WATERWAY CORRIDORS AND WETLANDS OVERLAY**

ECOLOGICAL ASSESSMENT  
 28-34 ELLERSLIE ROAD, MEADOWBROOK

Map Number	Job Number	Rev
1 of 1	QEJ18021	0

## 6 Conclusion

The proposed development is an industrial building at 28-34 Ellerslie Road, Meadowbrook (Lot 20 on RP91039 and Lot 21 on RP91039). The development will result in the removal of 0.54 ha of 'endangered' RE 12.3.3d and 0.20 ha of 'of concern' RE 12.3.11, along with 0.64 ha of regrowth vegetation. A total of 0.80 ha of vegetation will be reinstated or rehabilitated on site. This area has the potential to increase following the completion of detailed earthworks.

While the site provides potential habitat for some threatened fauna species it is considered unlikely to support threatened flora species. The proposed development is considered unlikely to have a significant impact on matters of National or State environmental significance. To minimise impacts to ecological values, the following mitigation measures will be implemented:

- a rehabilitation management plan will be prepared for the eastern portion of the site, including the waterway corridor. A total area of 0.80 ha will be rehabilitated on site, including areas within and outside of the proposed disturbance footprint. Following final design of earthworks, this rehabilitation area may increase in size
- a vegetation management plan will be prepared to outline measures to be implemented throughout vegetation clearing activities
- stockpiles, storage of materials, dumping of waste and excavation are to be outside of the tree protection zones of retained vegetation
- implement erosion and sediment control devices to limit impacts to water quality
- identified pest flora species are to be removed and properly disposed
- appropriate erosion and sediment control devices are to be installed to adequately manage run-off from disturbed areas
- a pre-clearance survey within the disturbance footprint should be undertaken by a suitably qualified and licensed fauna spotter/catcher prior to the clearance of vegetation
- a suitably qualified and licensed fauna spotter/catcher is to be present during vegetation clearing activities, including disturbance to any structures that may serve as habitat or refugia for wildlife. It is recommended that the *Queensland Code of Practice for the welfare of wild animals affected by land-clearing and other habitat impacts and wildlife spotter/catchers* (Hanger and Nottidge, 2009) be used as a guide to inform clearing activities
- prior to removal, any hollow-bearing trees are to be thoroughly checked for fauna presence, prior to felling. If presence is identified, it is recommended that the tree be left overnight to allow for self-dispersal; and
- if a koala is identified within impact area, clearing is to immediately cease and surveying, vegetation practices and interactions are to be undertaken in accordance with policies 4-6 of the *Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016* (EPA, 2006).

Based on the current site design, offsets will be provided for a significant residual impact to 0.58 ha of vegetation. The impact area may reduce following completion of detailed earthworks. Offsets will be provided in accordance with the LCC Environmental Management Planning Scheme Policy.



## 7 References

- Amos, P. J. (1982). *The potoroo in Queensland*. *Queensland Agricultural Journal* 108: 5-6.
- Black-throated Finch Recovery Team (BTF Recovery Team) (2004). *Recovery Plan for the Black-throated Finch Southern Subspecies Poephila cincta cincta*. Hurstville, NSW: Department of Environment and Conservation; and Brisbane, Queensland: Queensland Parks and Wildlife Service.
- Braby, M, F. (2016). *The Complete Field Guide to Butterflies of Australia*. CSIRO Publishing, Clayton South.
- Britton, P.L. and Britton, H.A. (2000). The birds of Charters Towers, north Queensland. *Sunbird* 30:61-88.
- Churchill, S. (2008) *Australian Bats*. Allen and Unwin, Crows Nest.
- Claridge, A. W., Tanton M. T., Seebeck J. H., Cork S. J. and Cunningham R. B. (1992). Establishment of ectomycorrhizae on the roots of two species of Eucalyptus from fungal spores contained in the faeces of the long-nosed potoroo (*Potorous tridactylus*). *Australian Journal of Ecology* 17: 207-217.
- Cogger. H.G. (2000) *Reptiles and Amphibians of Australia*. 6th Edition. Reed New Holland: Sydney.
- Department of Environment and Climate Change (DECC) (2007). *Terrestrial vertebrate fauna of the Greater Southern Sydney region: Volume 2 Species of conservation concern and priority pest species*. A joint project between the Sydney Catchment Authority and the Parks and Wildlife Division of the Department of Environment and Climate Change by the Information and Assessment Section, Metropolitan Branch, Climate Change and Environment Protection Group, Department of Environment and Climate Change (NSW).
- Department of Environment and Conservation (2004). *Approved NSW and National Recovery Plan: Endiandra floydii (Crystal Creek walnut), December 2004*. Department of Environment and Conservation (NSW), Coffs Harbour.
- Department of Environment and Heritage Protection (2016c). *Download the Regional Ecosystem Description Database*, Queensland Government, Brisbane. Available from: <https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/download/>.
- Department of Environment and Heritage Protection (DEHP) (2013). Beach stone-curlew. Available from: [https://www.ehp.qld.gov.au/wildlife/animals-az/beach\\_stonecurlew.html](https://www.ehp.qld.gov.au/wildlife/animals-az/beach_stonecurlew.html) (Accessed 9 February 2018).
- Department of Environment and Heritage Protection (DEHP) (2016a). *Protected plants flora survey trigger map*, Queensland Government, Brisbane. Available from: <https://www.ehp.qld.gov.au/licences-permits/plants-animals/protected-plants/map-request.php>.
- Department of Environment and Heritage Protection (DEHP) (2016a). Flying Fox monitoring data 2003-2015. Available from: <https://data.qld.gov.au/dataset/flying-fox-monitoring-program/resource/161f7356-4d58-42ea-a586-8f40fb029d42> (accessed 27 February 2018).
- Department of Environment and Heritage Protection (DEHP) (2016b). *Flora Survey Guidelines - Protected Plants*. Queensland Government, Brisbane.
- Department of Environment and Heritage Protection (DEHP) (2016c). *Species Management Program: Requirements for tampering with a protected animal breeding place in Queensland*. Queensland Government, Brisbane.



Department of Environment and Resource Management (DERM) (2011). *National recovery plan for the large-eared pied bat *Chalinolobus dwyeri**. Report to the Department of Sustainability, Environment, Water, Population and Communities, Canberra.

Department of Environment and Science (DES) 2018. *Request a species list*, Queensland Government: Brisbane. Available from: <https://environment.ehp.qld.gov.au/report-request/species-list/>.

Department of Environment, Land, Water and Planning (DELWP) (2016). *National recovery plan for the spotted-tailed quoll *Dasyurus maculatus**. Department of the Environment, Canberra.

Department of Natural Resources, Mines and Energy (2018). *Request a property report and vegetation maps*, Queensland Government, Brisbane. Available from: <https://www.qld.gov.au/environment/land/vegetation/map-request/>.

Department of the Environment (DoE) (2013). *Matters of National Environmental Significance: Significant Impact Guidelines 1.1*. Department of the Environment, Canberra.

Department of the Environment (DoE) (2014). *EPBC Act Referral Guidelines for the Vulnerable Koala*. Department of the Environment, Canberra.

Department of the Environment (DoE) (2014a). *Approved Conservation Advice for: *Corchorus cunninghamii* (Native Jute)*. Department of the Environment, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/14659-conservation-advice.pdf> (Accessed 27 February 2018).

Department of the Environment (DoE) (2014b). *Approved Conservation Advice for *Phaius australis* (Common Swamp-orchid)*. Department of the Environment, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/5872-conservation-advice.pdf> (Accessed 27 February 2018).

Department of the Environment (DoE) (2015). *Conservation Advice *Numenius madagascariensis* eastern curlew*. Canberra: Department of the Environment. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/847-conservation-advice.pdf> (Accessed 9 February 2018).

Department of the Environment and Energy (DEE) (2016). *Protected Matters Search Tool*, Australian Government, Canberra. Available from: <https://www.environment.gov.au/epbc/protected-matters-search-tool>.

Department of the Environment and Energy (DEE) (2018). *Species Profile and Threats Database*. Australian Government, Canberra. Available from: <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>.

Department of the Environment and Energy (DotEE) (2018). *Species Profiles and Threats Database*. Available from <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>.

Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008a). *Approved Conservation Advice for *Arthraxon hispidus* (Hairy-joint Grass)* Department of the Environment, Water, Heritage and the Arts, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/9338-conservation-advice.pdf> (Accessed 27 February 2018).

Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008b). *Approved Conservation Advice for *Macadamia integrifolia* (Macadamia Nut)*. Department of the Environment, Water, Heritage and the Arts, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/7326-conservation-advice.pdf> (Accessed 27 February 2018).



Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008c). *Approved Conservation Advice for Macadamia tetraphylla (Rough-shelled Bush Nut)*. Department of the Environment, Water, Heritage and the Arts, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/6581-conservation-advice.pdf> (Accessed 27 February 2018).

Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008d). *Approved Conservation Advice for Quassia bidwillii (Quassia)*. Department of the Environment, Water, Heritage and the Arts, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/10094-conservation-advice.pdf> (Accessed 27 February 2018).

Duncan, A., Baker G.B. and Montgomery, N. (1999). *The Action Plan for Australian Bats*. Environment Australia, Canberra.

Eyre, T.J. (2002). *Habitat preferences and management of large gliding possums in southern Queensland*. Ph.D. thesis, Southern Cross University, Lismore.

Glossy Black Conservancy (2010). *Glossy black-cockatoo Conservation Guidelines for South-Eastern Queensland and far North-Eastern New South Wales*. Glossy Black Conservancy.

Halford D. (1998). *Survey of Threatened Plant Species in south-east Queensland Biogeographic Region*. Department of Environment, Queensland CRA/RFA Steering Committee, Brisbane.

Higgins, P.J. and Davies, S.J. eds (1996). *Handbook of Australian, New Zealand and Antarctic Birds. Volume Three - Snipe to Pigeons*. Oxford University Press, Melbourne.

Hines, H. B. (2012). *Tusked frog, Adelotus brevis*. In Queensland's Threatened Animals (Eds L. K. Curtis, A.J. Dennis, K. R. McDonald, P. M. Kyne and S. J. S. Debus) pp. 132-133. CSIRO Publishing: Collingwood.

Hourigan, C. (2012). *Glossy black-cockatoo, Calyptorhynchus lathami. Targeted species survey guidelines*. Queensland Herbarium, Department of Science, Information Technology and Innovation, Brisbane.

Jessup, L. W. (1993). Two new species of Symplocos Jacquin (Symplocaceae) from Queensland. *Austrobaileya* 4(1): 7.

Krockenberger, M. (2012). *Cryptococcosis in koalas*. In: *Diagnostic Pathology of the Diseases of Aquatic, Aerial and Terrestrial Wildlife*. Wildlife Pathology Short Course, Sydney.

Ley, A.J. and Cook, S.M. (2001). The Black-throated Finch *Poephila cincta* in New South Wales. *Australian Bird Watcher* 19:115-20.

Marchant, S. and Higgins, P.J. (1990). *Handbook of Australian, New Zealand and Antarctic Birds. Volume One - Ratites to Ducks*. Oxford University Press, Melbourne.

Marchant, S. and Higgins, P.J. eds. (1993). *Handbook of Australian, New Zealand and Antarctic Birds. Volume 2 - Raptors to Lapwings*. Oxford University Press, Melbourne.

Mason, R. J. (1997). Habitat use and population size of the long-nosed potoroo, *Potorous tridactylus* (Marsupialia: Potoroidae) in a coastal reserve, north-eastern New South Wales. *Australian Mammalogy* 20:35-42.

Mathieson, M.T. and Smith, G.C. (2009). *National recovery plan for the black-breasted button-quail Turnix melanogaster*. Report to the Department of the Environment, Water, Heritage and the Arts, Canberra. Department of Environment and Resource Management, Brisbane.

Meyer, E., Hines, H. and Hero, J. M. (2001). *Wet forest frogs of south-east Queensland*. Griffith University: Queensland.



Mitchell, D.F. (1996). *Foraging Ecology of the Black-throated Finch Poephila cincta cincta*. M.Sc. Thesis. Townsville: James Cook University of North Queensland.

Neldner, V. J., Wilson, B. A., Dillewaard, H. A., Ryan, T. S. and Butler, D. W. (2017). *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland*. Version 4.0. Queensland Herbarium, Department of Science, Information Technology and Innovation, Brisbane.

Pierce, R. (1984). Range extension of glossy black cockatoos. *Sunbird* 14:10-11.

Pizzey, G and Knight, F. (2010) *The Field Guide to the Birds of Australia*. Harper Collins Publishers, Sydney.

Queensland Environmental Protection Agency (EPA) (2006) *Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016*. EPA, Brisbane.

Reid, T.A., Hindell, M.A., Eades, D.W. and Newman, M. (2002). *Seabird Atlas of South-east Australian Waters*. Royal Australasian Ornithologists Union Monograph 4. Birds Australia (R.A.O.U.), Melbourne.

Schodde, R., Mason, I.J., Wood, J.T. (1993). Geographical differentiation in the glossy black-cockatoo *Calyptorhynchus lathamii* (Temminck) and its history. *Emu* 93:156-166.

Threatened Species Scientific Committee (2015). Conservation Advice *Nyctophilus corbeni* south-eastern long-eared bat. Canberra: Department of the Environment. Available from: [http://www.environment.gov.au/biodiversity/threatened/species/pubs/83395-conservation\\_advice-01102015.pdf](http://www.environment.gov.au/biodiversity/threatened/species/pubs/83395-conservation_advice-01102015.pdf) (Accessed 9 February 2018).

Threatened Species Scientific Committee (2016). Conservation Advice *Limosa lapponica menzbieri* Bar-tailed godwit (northern Siberian). Canberra: Department of the Environment. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/86432-conservation-advice-05052016.pdf> (Accessed 9 February 2018).

Threatened Species Scientific Committee (2016). Conservation Advice *Petauroides volans* greater glider. Canberra: Department of the Environment. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/254-conservation-advice-20160525.pdf> (Accessed 9 February 2018).

Turbill, C. and Ellis, M. (2006). Distribution and abundance of the south eastern form of the Greater Long-eared Bat *Nyctophilus timoriensis*. *Australian Mammalogy* 28:1-7.

Van Dyck, S. and Strahan, R. (2002). *The Mammals of Australia*. New Holland Publishers, Sydney.

Woinarski, J.C.Z., Burbidge, A.A., Harrison, P.L. (2014). *The action plan for Australian mammals 2012*. CSIRO Publishing. Melbourne.





## Appendix A Database Searches



## 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 [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 26/02/18 17:39:35

[Summary](#)

[Details](#)

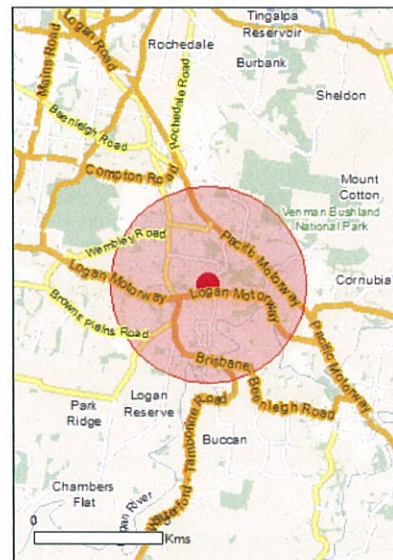
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



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[Coordinates](#)

Buffer: 5.0Km



## Summary

### Matters of National Environmental Significance

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

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance:</a>	1
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	3
<a href="#">Listed Threatened Species:</a>	61
<a href="#">Listed Migratory Species:</a>	31

### Other Matters Protected by the EPBC Act

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

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

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

<a href="#">Commonwealth Land:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	41
<a href="#">Whales and Other Cetaceans:</a>	1
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Commonwealth Reserves Marine:</a>	None

### Extra Information

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

<a href="#">State and Territory Reserves:</a>	5
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Invasive Species:</a>	37
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">Key Ecological Features (Marine)</a>	None

## Details

### Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)		[ Resource Information ]
Name		Proximity
<a href="#">Moreton bay</a>		Within 10km of Ramsar

Listed Threatened Ecological Communities		[ Resource Information ]
For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.		

Name	Status	Type of Presence
<a href="#">Lowland Rainforest of Subtropical Australia</a>	Critically Endangered	Community may occur within area
<a href="#">Swamp Tea-tree (Melaleuca irbyana) Forest of South-east Queensland</a>	Critically Endangered	Community may occur within area
<a href="#">White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</a>	Critically Endangered	Community may occur within area

Listed Threatened Species		[ Resource Information ]
---------------------------	--	--------------------------

Name	Status	Type of Presence
<b>Birds</b>		
<a href="#">Anthochaera phrygia</a> Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Botaurus poiciloptilus</a> Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Cyclopsitta diophthalma coxeni</a> Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat may occur within area
<a href="#">Dasyornis brachypterus</a> Eastern Bristlebird [533]	Endangered	Species or species habitat likely to occur within area
<a href="#">Diomedea antipodensis</a> Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area
<a href="#">Diomedea antipodensis gibsoni</a> Gibson's Albatross [82270]	Vulnerable	Species or species habitat may occur within area
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
<a href="#">Erythrotriorchis radiatus</a> Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area

Name	Status	Type of Presence
<a href="#">Geophaps scripta scripta</a> Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Pachyptila turtur subantarctica</a> Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Poephila cincta cincta</a> Southern Black-throated Finch [64447]	Endangered	Species or species habitat may occur within area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
<a href="#">Thalassarche cauta cauta</a> Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche cauta steadi</a> White-capped Albatross [82344]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Thalassarche eremita</a> Chatham Albatross [64457]	Endangered	Species or species habitat may occur within area
<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche salvini</a> Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area
<a href="#">Turnix melanogaster</a> Black-breasted Button-quail [923]	Vulnerable	Species or species habitat may occur within area
<b>Fish</b>		
<a href="#">Epinephelus daemeli</a> Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat may occur within area
<a href="#">Maccullochella mariensis</a> Mary River Cod [83806]	Endangered	Translocated population known to occur within area
<b>Insects</b>		
<a href="#">Argynnis hyperbius inconstans</a> Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within

Name	Status	Type of Presence area
<a href="#">Phyllodes imperialis smithersi</a> Pink Underwing Moth [86084]	Endangered	Species or species habitat may occur within area
<b>Mammals</b>		
<a href="#">Chalinolobus dwyeri</a> Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat may occur within area
<a href="#">Dasyurus maculatus maculatus (SE mainland population)</a> Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area
<a href="#">Petauroides volans</a> Greater Glider [254]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)</a> Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Potorous tridactylus tridactylus</a> Long-nosed Potoroo (SE mainland) [66645]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pseudomys novaehollandiae</a> New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Pteropus poliocephalus</a> Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
<a href="#">Xeromys myoides</a> Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat likely to occur within area
<b>Plants</b>		
<a href="#">Arthraxon hispidus</a> Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area
<a href="#">Baloghia marmorata</a> Marbled Baloghia, Jointed Baloghia [8463]	Vulnerable	Species or species habitat may occur within area
<a href="#">Bosistoa transversa</a> Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Corchorus cunninghamii</a> Native Jute [14659]	Endangered	Species or species habitat likely to occur within area
<a href="#">Cryptocarya foetida</a> Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat may occur within area
<a href="#">Endiandra floydii</a> Floyd's Walnut [52955]	Endangered	Species or species habitat may occur within area
<a href="#">Fontainea venosa</a> [24040]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Gossia gonoclada</a> Angle-stemmed Myrtle [78866]	Endangered	Species or species habitat known to occur within area
<a href="#">Macadamia integrifolia</a> Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat likely to occur

Name	Status	Type of Presence within area
<a href="#">Macadamia tetraphylla</a> Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat may occur within area
<a href="#">Marsdenia longiloba</a> Clear Milkvine [2794]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Notelaea ipsviciensis</a> Cooneana Olive [81858]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Persicaria elatior</a> Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Phaius australis</a> Lesser Swamp-orchid [5872]	Endangered	Species or species habitat likely to occur within area
<a href="#">Samadera bidwillii</a> Quassia [29708]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Thesium australe</a> Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
<b>Reptiles</b>		
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Congregation or aggregation known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Delma torquata</a> Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Furina dunmali</a> Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area
<a href="#">Lepidochelys olivacea</a> Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Saiphos reticulatus</a> Three-toed Snake-tooth Skink [88328]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species		[ Resource Information ]
Name	Threatened	Type of Presence
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Migratory Marine Birds		

Name	Threatened	Type of Presence
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat known to occur within area
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche cauta</a> Tasmanian Shy Albatross [89224]	Vulnerable*	Species or species habitat may occur within area
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<b>Migratory Marine Species</b>		
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Congregation or aggregation known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Lamna nasus</a> Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area
<a href="#">Lepidochelys olivacea</a> Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat known to occur within area
<a href="#">Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat may occur within area
<a href="#">Manta birostris</a> Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat may occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Orcaella brevirostris</a> Irrawaddy Dolphin [45]		Species or species habitat may occur within area
<b>Migratory Terrestrial Species</b>		
<a href="#">Cuculus optatus</a> Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat known to occur

Name	Threatened	Type of Presence within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat known to occur within area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area
<a href="#">Monarcha trivirgatus</a> Spectacled Monarch [610]		Species or species habitat known to occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat known to occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat known to occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

#### Other Matters Protected by the EPBC Act

Listed Marine Species		[ Resource Information ]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
<b>Birds</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Anseranas semipalmata</a> Magpie Goose [978]		Species or species habitat may occur within

Name	Threatened	Type of Presence area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat known to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Breeding likely to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat known to occur within area
<a href="#">Cuculus saturatus</a> Oriental Cuckoo, Himalayan Cuckoo [710]		Species or species habitat known to occur within area
<a href="#">Diomedea antipodensis</a> Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
<a href="#">Diomedea gibsoni</a> Gibson's Albatross [64466]	Vulnerable*	Species or species habitat may occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat known to occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area
<a href="#">Monarcha trivirgatus</a> Spectacled Monarch [610]		Species or species habitat known to occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Pachyptila turtur</a> Fairy Prion [1066]		Species or species habitat likely to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat known to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat known to occur within area
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area
<a href="#">Thalassarche cauta</a> Tasmanian Shy Albatross [89224]	Vulnerable*	Species or species habitat may occur within area
<a href="#">Thalassarche eremita</a> Chatham Albatross [64457]	Endangered	Species or species habitat may occur within area
<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche salvini</a> Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area
<b>Reptiles</b>		
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Congregation or aggregation known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area

Name	Threatened	Type of Presence
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Lepidochelys olivacea</a> Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area

Whales and other Cetaceans		[ Resource Information ]
Name	Status	Type of Presence
<b>Mammals</b>		
<a href="#">Orcaella brevirostris</a> Irrawaddy Dolphin [45]		Species or species habitat may occur within area

## Extra Information

State and Territory Reserves		[ Resource Information ]
Name		State
Daisy Hill		QLD
Koala Bushland		QLD
Leslie Parade		QLD
Murray's Environmental		QLD
Springwood		QLD

Invasive Species	[ Resource Information ]
Weeds reported here are the 20 species of national significance (WoNS), 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 Resources Audit, 2001.	

Name	Status	Type of Presence
<b>Birds</b>		
<i>Acridotheres tristis</i> Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
<i>Anas platyrhynchos</i> Mallard [974]		Species or species habitat likely to occur within area
<i>Carduelis carduelis</i> European Goldfinch [403]		Species or species habitat likely to occur within area
<i>Columba livia</i> Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
<i>Lonchura punctulata</i> Nutmeg Mannikin [399]		Species or species habitat likely to occur within area
<i>Passer domesticus</i> House Sparrow [405]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Streptopelia chinensis Spotted Turtle-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
<b>Frogs</b>		
Rhinella marina Cane Toad [83218]		Species or species habitat likely to occur within area
<b>Mammals</b>		
Bos taurus Domestic Cattle [16]		Species or species habitat 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 Brown Hare [127]		Species or species habitat 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
<b>Plants</b>		
Alternanthera philoxeroides Alligator Weed [11620]		Species or species habitat likely to occur within area
Asparagus africanus Climbing Asparagus, Climbing Asparagus Fern [66907]		Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species

Name	Status	Type of Presence
Chrysanthemoides monilifera subsp. rotundata Bitou Bush [16332]		habitat may occur within area  Species or species habitat likely to occur within area
Cryptostegia grandiflora Rubber Vine, Rubbervine, India Rubber Vine, India Rubbervine, Palay Rubbervine, Purple Allamanda [18913] Eichhornia crassipes Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area  Species or species habitat likely to occur within area
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, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892] Opuntia spp. Prickly Pears [82753]		Species or species habitat likely to occur within area  Species or species habitat likely to occur within area
Parthenium hysterophorus Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]		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 Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Senecio madagascariensis Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
<b>Reptiles</b>		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area

## Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

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 qualifications 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 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.

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, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More 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 do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been 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

-27.6621 153.1368

## Acknowledgements

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

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

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

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



# Queensland Government

## Wildlife Online Extract

Search Criteria: Species List for a Specified Point

Species: All

Type: All

Status: Rare and threatened species

Records: All

Date: All

Latitude: -27.6621

Longitude: 153.1368

Distance: 5

Email: peter.wagner@e2mconsulting.com.au

Date submitted: Monday 26 Feb 2018 16:38:13

Date extracted: Monday 26 Feb 2018 16:40:16

The number of records retrieved = 14

### **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 that may incur as a result of the information being inaccurate or incomplete in any way for any reason.

Kingdom Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	Limnodynastidae	<i>Adelotus brevis</i>	tusked frog		V		4/1
animals	Myobatrachidae	<i>Crinia tinnula</i>	wallum froglet		V		5
animals	Cacatuidae	<i>Calyptorhynchus lathamii lathamii</i>	glossy black-cockatoo (eastern)		V		6
animals	Charadriidae	<i>Charadrius leschenaultii</i>	greater sand plover		V	V	1
animals	Menuridae	<i>Menura alberti</i>	Albert's lyrebird		NT		1
animals	Strigidae	<i>Ninox strenua</i>	powerful owl		V		3
animals	Phascolarctidae	<i>Phascolarctos cinereus</i>	koala		V	V	2167/1
animals	Pseudocheiridae	<i>Petauroides volans</i>	greater glider		V	V	1
animals	Pseudocheiridae	<i>Petauroides volans volans</i>	southern greater glider		V	V	8/1
plants	Apocynaceae	<i>Marsdenia longiloba</i>	slender milkvine		V	V	1/1
plants	Apocynaceae	<i>Marsdenia coronata</i>			V		2/2
plants	Myrtaceae	<i>Melaleuca irbyana</i>			E	E	6/6
plants	Myrtaceae	<i>Gossia gonoclada</i>			E	E	21/18
plants	Symplocaceae	<i>Symplocos harroldii</i>	hairy hazelwood		NT		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 (CD), 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.



## Vegetation management report

For Lot: 20 Plan: RP91039

Current as at 26/02/2018

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## Overview

**IMPORTANT INFORMATION-** As a result of the new *Planning Act 2016*, which commenced on 3 July 2017, there are a number of changes to the Vegetation Management Framework. These changes include;

- Exemptions from the Vegetation Management Framework, commonly known as exemptions and detailed in the Sustainable Planning Regulations 2012, are now known as "exempt clearing works", and are detailed in the Planning Regulations Schedule 21; and
- Self-assessable vegetation clearing codes are now known as "accepted development vegetation clearing codes". However, as there are 15 self-assessable vegetation clearing codes available for use that will not be re-named as a result of the recent changes, the term self-assessable vegetation clearing code will be used throughout this report.

Vegetation clearing is predominantly regulated under the *Vegetation Management Act 1999* (VMA) and the *Planning Act 2016* (PA). A development permit is required to clear where the clearing is not exempt clearing work through the Planning Regulation 2017, or where it cannot be carried out under a self-assessable vegetation clearing code or an area management plan under the VMA.

Many routine vegetation management activities can be carried out as exempt clearing work listed in the Planning Regulation 2017, or through an self-assessable vegetation clearing code or an area management plan (AMP). Other activities may require you to apply for a development permit under the *Planning Act 2016*. The requirements for a development 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.

Please be aware that other requirements for clearing and managing vegetation may apply, even if the activity is not regulated by the Vegetation Management framework. Prior to commencing the clearing of vegetation, it is important to confirm that no other requirements apply under other legislation, including:

- Local laws in your local government area;
- Other State legislation, such as Protected Plants under the *Nature Conservation Act 1992* (NCA);
- The Commonwealth Government's *Environmental Protection and Biodiversity Act 1999* (EPBC).

Please see section 6 for contact details of other agencies you should confirm requirements with before commencing vegetation clearing.

Please note that the requirements for clearing Category C or Category R areas are located in the self-assessable vegetation clearing codes (SAVCC) for managing Category C and Category R vegetation respectively.

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

- *Vegetation management framework* - an explanation of the options that may be available to manage vegetation on your property.
- *Property details* - information about the specified Lot on Plan, lot size, local government area, bioregion(s), subregion(s), catchment(s), coastal or non coastal status, and any applicable area management plans associated with your property.
- *Vegetation management details for the specified Lot on Plan* - specific information about your property including vegetation categories, regional ecosystems, watercourses, wetlands, essential habitat, land suitability and protected plants.
- *Contact information.*
- *Maps* - a series of colour maps to assist in identifying regulated vegetation on your property including:
  - regulated vegetation management map;
  - vegetation management supporting map;
  - land suitability map;
  - coastal/non coastal map;
  - protected plants map.
- *Other legislation contact information.*

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# 1. Vegetation management framework

The *Vegetation Management Act 1999* (VMA), the *Vegetation Management Regulation 2012*, the *Planning Act 2016* and the *Planning Regulation 2017*, in conjunction with associated policies and codes, form the Vegetation Management Framework. This framework regulates the management and clearing of assessable vegetation in Queensland.

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 or clearing vegetation may require permits under these laws.

The information provided in Sections 2 and 3 of this report, as well as the maps provided in Section 5, will assist you to determine whether your proposed clearing is:

- exempt clearing works;
- requires notification and compliance with a self-assessable vegetation clearing code or area management plan;
- requires a development permit; and/or
- in a high risk area and is therefore subject to the protected plants legislative framework (see section 3.7 of this report).

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

- grass or non-woody herbage;
- a plant within a grassland regional ecosystem prescribed under the VM Regulation 2012; and
- a mangrove.

Although vegetation management laws may allow clearing, there may be other state, local or Commonwealth laws that apply, such as the Queensland Government's [Nature Conservation Act 1992](#) (see [Protected Plants](#)) and the Commonwealth Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act regulates matters of national environmental significance, such as threatened species and ecological communities. You may need to obtain approval under the EPBC Act if your proposed clearing could have a significant impact on matters of national environmental significance. Further details are available at [www.environment.gov.au](http://www.environment.gov.au).

## 1.1 Exempt Clearing Work

The vegetation management framework allows clearing for certain purposes without approval, known as an exempt clearing work. Exempt clearing work provisions under the *Planning Act 2016* were formerly called exemptions.

In areas that are mapped as Category X (white in colour) on the regulated vegetation management map (see section 5.1), and where the land tenure is freehold, indigenous land and leasehold land for agriculture and grazing purposes, the clearing of vegetation is considered exempt clearing work, or exempt from the VMA. For all other land tenures, contact DNRME before commencing clearing to ensure that the proposed activity is exempt clearing work. Please see Section 4 for DNRME's contact details.

A range of routine property management activities are considered exempt clearing work. A list of these is available at <https://www.qld.gov.au/environment/land/vegetation/exemptions/>.

Although vegetation management laws may allow clearing as exempt clearing work, there may be other state, local or Commonwealth laws that apply. For example, a clearing permit under the *Nature Conservation Act 1992* may be required for clearing protected plants. These requirements apply irrespective of the classification of the vegetation under the vegetation management framework. In addition, clearing that is exempt clearing work may not apply in an area subject to a development permit, a covenant, an environmental offset, an Exchange Area, a Restoration Notice, or an area mapped as Category A. Landholders considering clearing in any of these areas should contact DNRME prior to clearing to clarify if any conditions apply in the area that affect the use of the provisions for exempt clearing work.

## 1.2 Self-assessable vegetation clearing 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 DNRME before commencing. The information in this report will assist you to complete the online notification form.

Please note that a self-assessable vegetation clearing code cannot be used in an area mapped as Category A.(see section 5.1)

You can complete the online form at

<https://apps.dnrm.qld.gov.au/vegetation/>

## 1.3 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 Section 2.2 of this report.

To clear under an existing AMP, you must notify the DNRME before clearing starts and follow the conditions listed in the AMP. You can download the area management plan notification form and obtain a copy of the relevant AMP at

<https://www.qld.gov.au/environment/land/vegetation/area-plans/>

## 1.4 Development permits

If your proposed clearing is not exempt clearing work, or is not permitted under a self-assessable vegetation clearing code, or an AMP, you may be able to apply for a development permit. Information on how to apply for a development permit is available at

<https://www.qld.gov.au/environment/land/vegetation/applying/>

## 2. Property details

### 2.1 Tenure

All of the lot, plan and tenure information associated with property Lot: 20 Plan: RP91039 (Calculated area in Hectares - 1.01ha), including links to relevant Smart Maps, are listed in Table 1. 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 1: Lot, plan and tenure information for the property**

Lot	Plan	Tenure	Link to property on SmartMap
EMT	RP91039	Easement	<a href="http://globe.information.qld.gov.au/cgi-bin/SmartMapgen.py?q=EMT\RP91039">http://globe.information.qld.gov.au/cgi-bin/SmartMapgen.py?q=EMT\RP91039</a>
20	RP91039	Freehold	<a href="http://globe.information.qld.gov.au/cgi-bin/SmartMapgen.py?q=20\RP91039">http://globe.information.qld.gov.au/cgi-bin/SmartMapgen.py?q=20\RP91039</a>

The tenure of the land may affect whether the clearing is considered exempt clearing work.

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

### 2.2 Property location

Table 2 provides a summary of the locations for property Lot: 20 Plan: RP91039, in relation to natural and administrative boundaries.

Local Government(s)
Logan City

Bioregion(s)	Subregion(s)
Southeast Queensland	Moreton Basin

Catchment(s)
Logan-Albert

For the purposes of the Self-assessable vegetation clearing codes and the State Development Assessment Provisions (SDAP), this property is regarded as *
Coastal

\*See also Map 5.4

Area Management Plan(s): Nil

### 3. Vegetation management details for Lot: 20 Plan: RP91039

#### 3.1 Vegetation categories

Vegetation categories are shown on the regulated vegetation management map in section 5.1 of this report. A summary of vegetation categories on the subject lot are listed in Table 3. Descriptions for these categories are shown in Table 4.

**Table 3: Vegetation categories for subject property. Total area: 1.01ha**

Vegetation category	Area (ha)
Category B	0.46
Category X	0.55

**Table 4**

Category	Colour on Map	Description	Requirements
A	red	Compliance areas, environmental offset areas and voluntary declaration areas	There may be special conditions that apply in a Category A area. Before clearing, contact DNRME to confirm any requirements in a Category A area.
B	dark blue	Remnant vegetation areas	Clearing may be considered exempt clearing work, or can be undertaken after notifying under a self-assessable vegetation clearing code or an Area Management Plan, or may require a Development Permit.
C	light blue	High-value regrowth areas	Clearing may be considered exempt clearing work, or can be undertaken after notifying under the self-assessable vegetation clearing code for Managing Category C Regrowth vegetation.
R	yellow	Regrowth within 50m of a watercourse or drainage feature in the priority reef catchment areas	Clearing may be considered exempt clearing work, or can be undertaken after notifying under the self-assessable vegetation clearing code for Managing Category R Regrowth vegetation.
X	white	Clearing is considered accepted development on freehold land, indigenous land and leasehold land for agriculture and grazing purposes. Contact DNRME to clarify whether a development permit is required for other State land tenures.	No permit or notification required on freehold land, indigenous land and leasehold land for agriculture and grazing. A Development Permit may be required for some State land tenures.

#### Property Map of Assessable Vegetation (PMAV)

This report does not confirm if a Property Map of Assessable Vegetation (PMAV) exists on a lot. To confirm whether or not a PMAV exists on a lot, please check the PMAV layer on the Queensland Globe<sup>2</sup>, or contact DNRME on 135 834.

## 3.2 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**

Regional Ecosystem	VMA Status	Category	Area (Ha)	Short Description	Structure Category
12.3.11	Of concern	B	0.36	Eucalyptus tereticornis +/- Eucalyptus siderophloia, Corymbia intermedia open forest on alluvial plains usually near coast	Mid-dense
12.3.3	Endangered	B	0.10	Eucalyptus tereticornis woodland on Quaternary alluvium	Sparse
non-rem	None	X	0.55	None	None

Please note:

1. All area and area derived figures included in this table have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.
2. If Table 5 contains a Category 'plant', please be aware that this refers to 'plantations' such as forestry, and these areas are considered non-remnant under the VMA.

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:

- exempt clearing work
- self assessable vegetation clearing codes
- performance outcomes in State Development Assessment Provisions (SDAP).

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

## 3.3 Watercourses

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

## 3.4 Wetlands

There are no vegetation management wetlands present on this property.

## 3.5 Essential habitat

Protected wildlife is native wildlife prescribed under the *Nature Conservation Act 1992* (NCA), and includes endangered or vulnerable wildlife.

Essential habitat identifies areas in which species of wildlife that are Endangered or Vulnerable under the *Nature Conservation Act 1992* for which suitable habitat occurs on the lot, or where they have been known to occur up to 1.1 kilometres from a lot on which there is assessable vegetation. These important habitat areas are protected under the VMA.

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

If essential habitat is identified on the lot, information about the protected wildlife species is provided in Table 6 below. The numeric labels on the vegetation management supporting map can be cross referenced with Table 6 to outline the essential

habitat factors for that particular species. There may be essential habitat for more than one species on each lot, and areas of Category A, Category B and Category C can be mapped as Essential Habitat.

Essential habitat is compiled from a combination of species habitat models and buffered species records. Regional ecosystem is a mandatory essential habitat factor, unless otherwise stated. Essential habitat, for protected wildlife, means an area of vegetation shown on the Regulated Vegetation Management Map as assessable vegetation -

- 1) that has at least 3 essential habitat factors for the protected wildlife that must include any essential habitat factors that are stated as mandatory for the protected wildlife in the essential habitat database. Essential habitat factors are comprised of - regional ecosystem (mandatory for most species), vegetation community, altitude, soils, position in landscape; or
- 2) in which the protected wildlife, at any stage of its life cycle, is located.

If there is no essential habitat mapping shown on the vegetation management supporting map for this lot, and there is no table in the sections below, it confirms that there is no essential habitat on the lot.

### 3.5.1 Category A and/or Category B

**Table 6: Essential habitat in Category A and/or Category B**

No records

### 3.5.2 Category C

**Table 7: Essential habitat in Category C**

No records

## 3.6 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 assessment 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 8 and Table 9.

**Table 8: 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 9: 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 <a href="http://www.publications.qld.gov.au">www.publications.qld.gov.au</a>

## 3.7 Protected plants (administered by the Department of Environment and Science (DES))

In Queensland, all plants that are native to Australia are protected plants under the *Nature Conservation Act 1992* (NCA), with clearing of protected plants in the wild regulated by the [Nature Conservation \(Wildlife Management\) Regulation 2006](#). These requirements apply irrespective of the classification of the vegetation under the *Vegetation Management Act 1999*.

Prior to clearing, if the plants proposed to be cleared are in the wild (see [Operational policy: When a protected plant in Queensland is considered to be 'in the wild'](#)) and the exemptions under the [Nature Conservation \(Wildlife Management\) Regulation 2006](#) are not applicable to the proposed clearing, you must check the flora survey trigger map to determine if any part of the area to be cleared is within a high risk area. The trigger map for this property is provided in section 5.5. The exemptions relate to:

- imminent risk of death or serious injury (refer s261A)
- imminent risk of serious damage to a building or other structure on land, or to personal property (refer s261B)
- *Fire and Emergency Service Act 1990* (refer 261C)
- previously cleared areas (refer s261ZB)
- maintenance activities (refer s261ZC)
- firebreak or fire management line (refer s261ZD)
- self-assessable vegetation clearing code (refer s261ZE)
- conservation purposes (refer s261ZG)
- authorised in particular circumstances (refer s385).

Some exemptions under the NCA are the same as exempt clearing work (formerly known as exemptions) from the *Vegetation Management Act 1999* (i.e. listed in the Planning Regulations 2017) while some are different.

If the proposed area to be cleared is shown as blue (i.e. high risk) on the flora survey trigger map, a flora survey of the clearing impact area must be undertaken in accordance with the flora survey guidelines. The main objective of a flora survey is to locate any endangered, vulnerable or near threatened plants (EVNT plants) that may be present in the clearing impact area.

If a flora survey identifies that EVNT plants are not present within the clearing impact area or clearing within 100m of EVNT plants can be avoided, the clearing activity is exempt from a permit. An [exempt clearing notification form](#) must be submitted to the Department of Environment and Science, with a copy of the flora survey report, at least one week prior to clearing. The clearing must be conducted within two years after the flora survey report was submitted.

If a flora survey identifies that EVNT plants are present in, or within 100m of, the area to be cleared, a clearing permit is required before any clearing is undertaken. The flora survey report, as well as an impact management report, must be submitted with the [application form clearing permit](#).

In an area other than a high risk area, a clearing permit is only required where a person is, or becomes aware that EVNT plants are present in, or within 100m of, the area to be cleared. You must keep a copy of the flora survey trigger map for the area subject to clearing for five years from the day the clearing starts. If you do not clear within the 12 month period that the flora survey trigger map was printed, you need to print and check a new flora survey trigger map.

Further information on protected plants is available at <http://www.ehp.qld.gov.au/licences-permits/plants-animals/protected-plants/>

For assistance on the protected plants flora survey trigger map for this property, please contact the Department of Environment and Science at [palm@ehp.qld.gov.au](mailto:palm@ehp.qld.gov.au).

### 3.8 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. Contact information for DNRME

For further information on vegetation management:

**Phone** 135VEG (135 834)

**Email** [vegetation@dnrme.qld.gov.au](mailto:vegetation@dnrme.qld.gov.au)

**Visit** [www.dnrme.qld.gov.au/our-department/contact-us/vegetation-contacts](http://www.dnrme.qld.gov.au/our-department/contact-us/vegetation-contacts) to submit an online enquiry.

For contact details for other State and Commonwealth agencies, please see the "Other relevant legislation contacts list" in Section 6.

## 5. Maps

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

<https://www.dnrme.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 [property maps of assessable vegetation \(PMAV\)](#).

### **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.

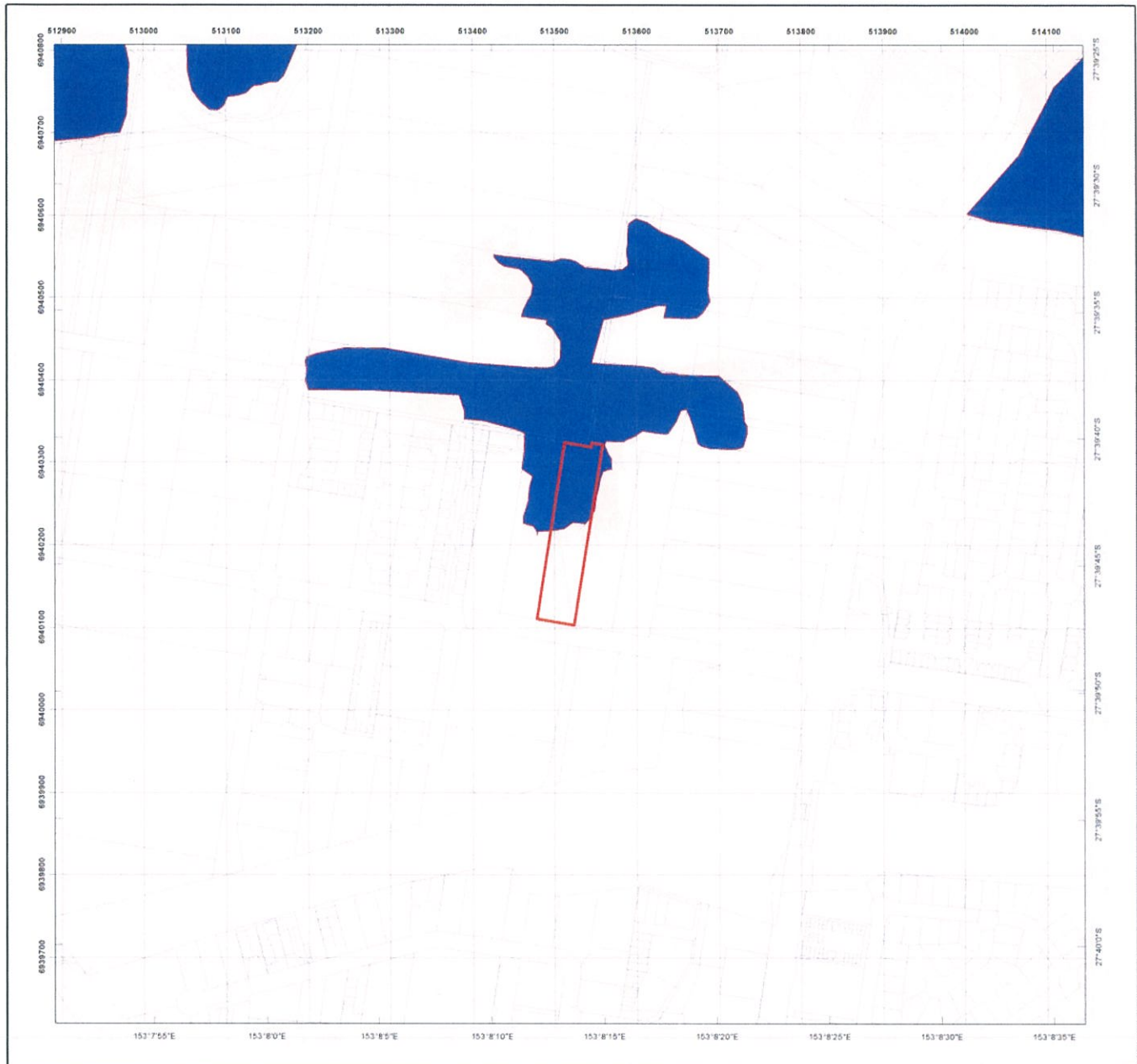
### **Coastal/non coastal map**

The coastal/non-coastal map confirms whether the lot, or which parts of the lot, are considered coastal or non-coastal for the purposes of the self-assessable vegetation clearing codes and the State Development Assessment Provisions (SDAP).

### **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



## Regulated Vegetation Management Map

### Legend

- Lot and Plan
- Category A area (Vegetation offsets/compliance notices/VDecs)
- Category B area (Remnant vegetation)
- Category C area (High-value regrowth vegetation)
- Category R area (Reef regrowth watercourse vegetation)
- Category X area (Exempt clearing work on Freehold, Indigenous and Leasehold land)
- Water
- Area not categorised
- Cadastral line
- Property boundaries shown are provided as a locational aid only



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Additional information required for the assessment of vegetation values is provided in the accompanying "Vegetation Management Supporting map". For further information go to the web site: [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) or contact the Department of Natural Resources, Mines and Energy.

Digital data for the regulated vegetation management map is available from the Queensland Spatial Portal at <http://www.information.qld.gov.au/>

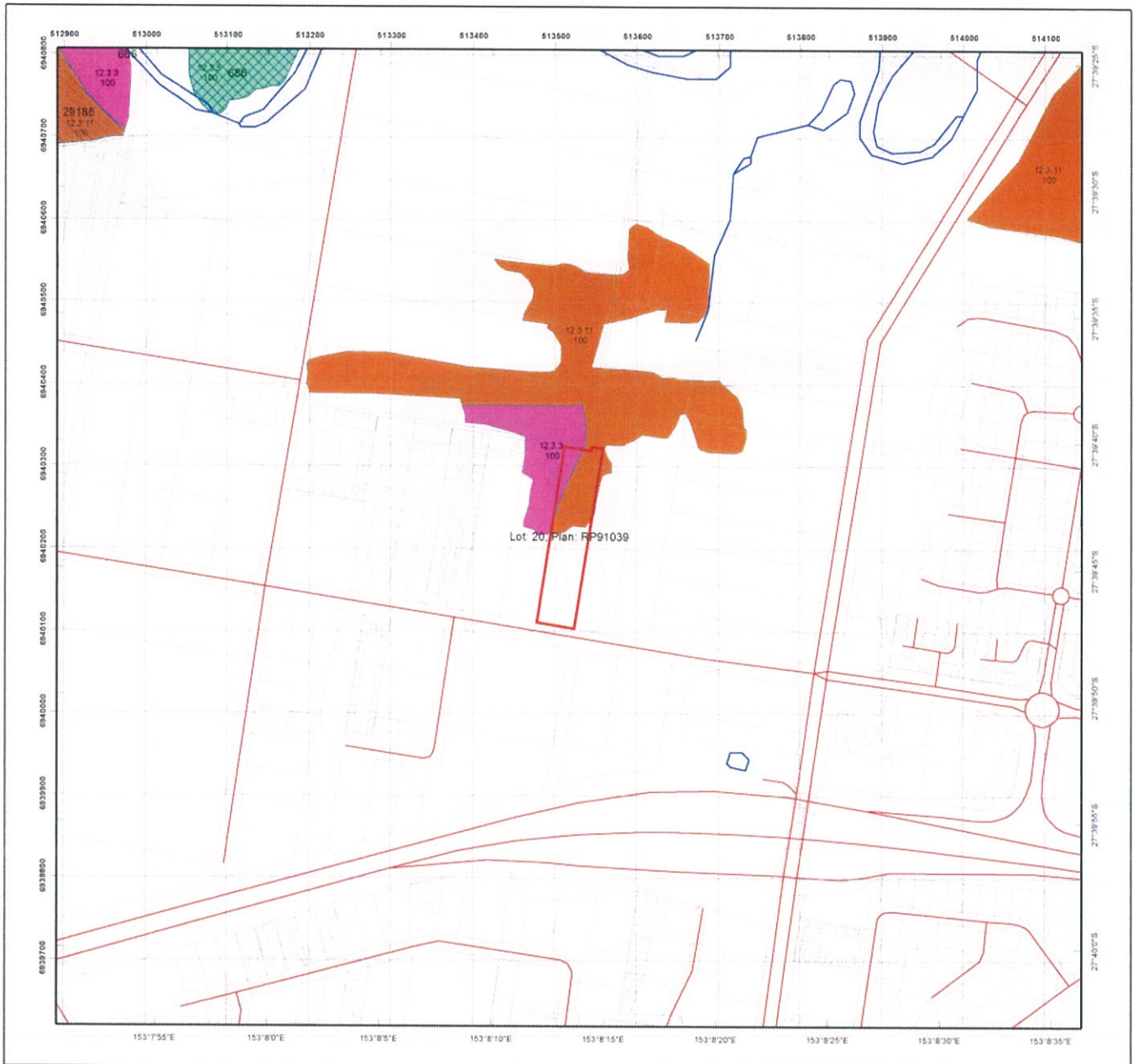
This map is updated on a monthly basis to ensure new PMAVs are included as they are approved.



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GDA 1994 MGA Zone 56

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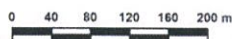
## 5.2 Vegetation management supporting map



### Vegetation Management Supporting Map

#### Legend

- Lot and Plan
- Category A or B area containing endangered regional ecosystems
- Category A or B area containing of concern regional ecosystems
- Category A or B area that is a least concern regional ecosystem
- Category A or B area containing remnant vegetation
- Category A or B area under Section 20AH  
These areas are edged in yellow and filled with the remnant RE Status
- Category C area containing endangered regional ecosystems
- Category C area containing of concern regional ecosystems
- Category C area that is a least concern regional ecosystem
- Category C area containing high value regrowth vegetation
- Category C area under Section 20AI  
These areas are edged in purple and filled with the remnant RE Status
- Non Remnant
- Water
- Wetland on the vegetation management wetlands map
- Essential habitat on the essential habitat map
- Essential habitat species record
- Watercourses and drainage features on the vegetation management watercourse and drainage features map  
(Stream order shown as black number against stream where available)
- Roads
- National Parks, State Forest and other reserves
- Cadastral line
- Property boundaries shown are provided as a locational aid only



This product is projected into:  
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Labels for Essential Habitat are centred on the area of enquiry.

Regional ecosystem linework has been compiled at a scale of 1:100 000, except in designated areas where a compilation scale of 1:50 000 is available. Linework should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100 000 is +/- 100 metres.

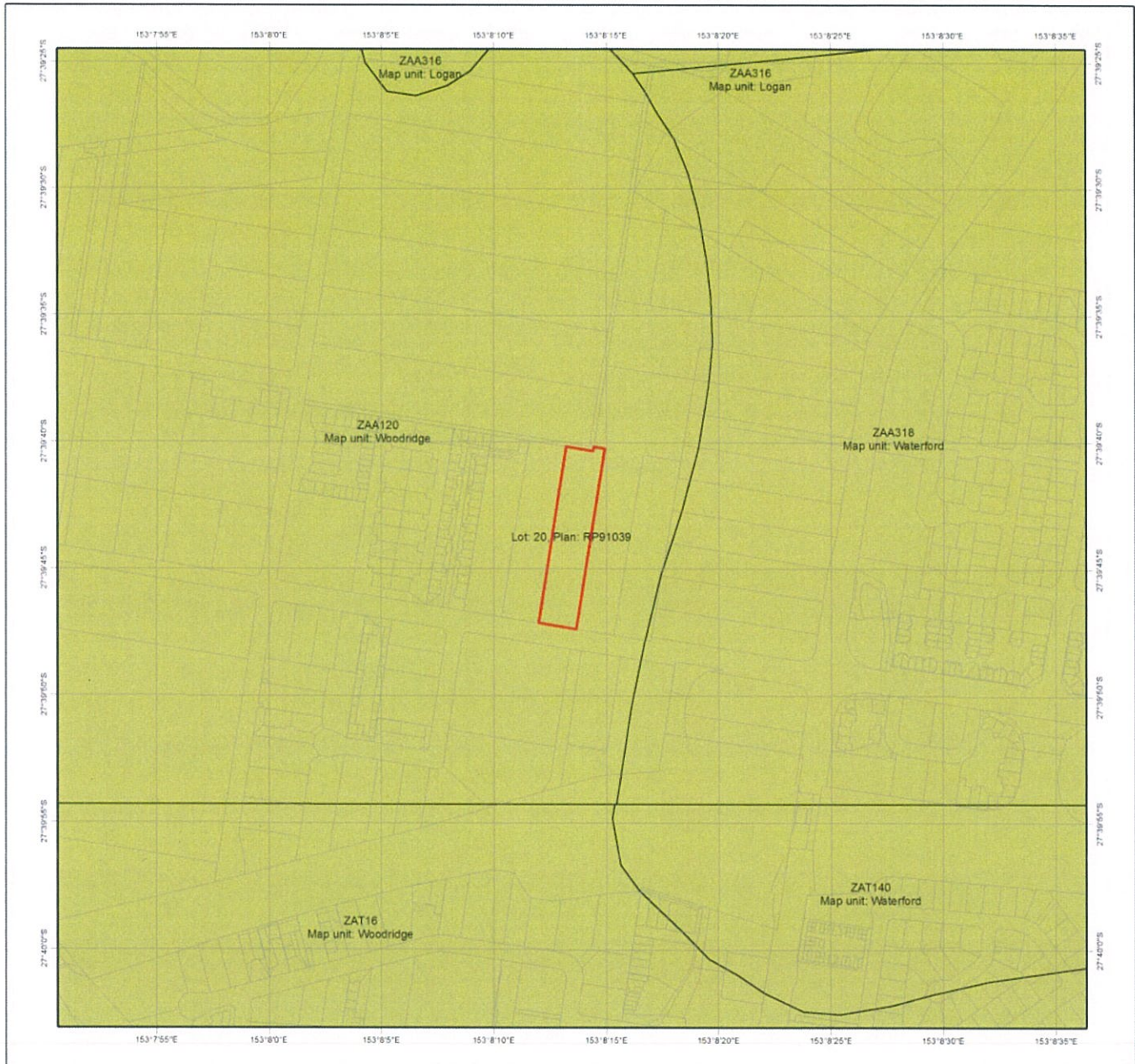
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Additional information may be required for the purposes of land clearing or assessment of a regional ecosystem map or PMAV applications. For further information go to the web site: [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) or contact the Department of Natural Resources, Mines and Energy.






Digital data for the vegetation management watercourse and drainage feature map, vegetation management wetlands map, essential habitat map and the vegetation management remnant and regional ecosystem map are available from the Queensland Spatial Portal at <http://www.information.qld.gov.au/>

## 5.3 Land suitability map



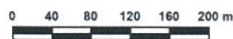
### Land Suitability Overview Map

#### Legend

-  Lot and Plan
-  Cadastral Boundaries
-  Land suitability mapping 1:100,000 scale or better (Category 2 or 3\*)
-  Land suitability mapping greater than 1:100,000 scale (Category 4)
-  No mapping available (Category 4)

\* Category 3 applies to applications where there is some land resource mapping or information available however it either does not cover the entire area, or the land suitability mapping and information does not identify the land as suitable for the proposed crop and management systems.

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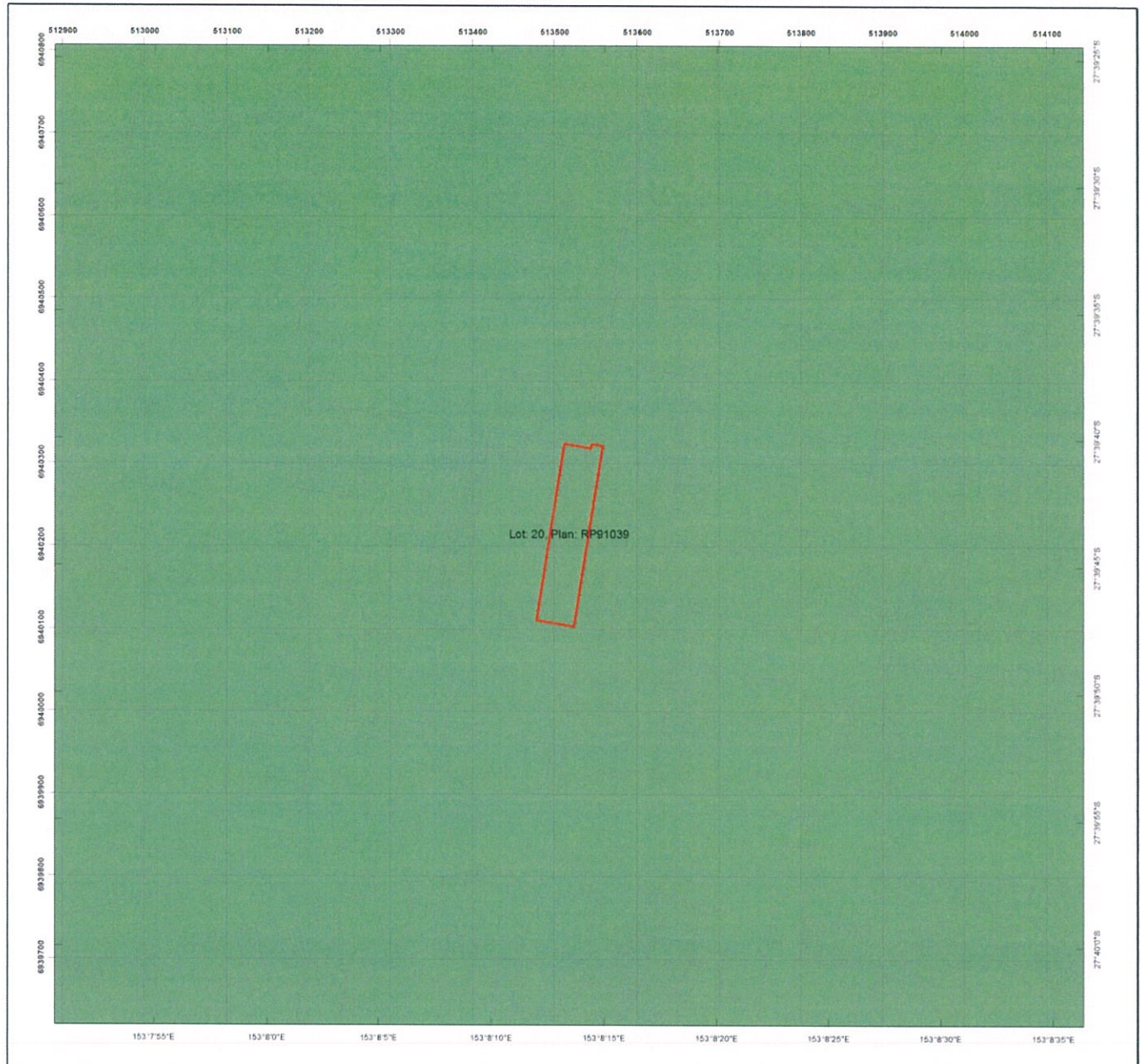
This product is projected into:  
GDA 1994 MGA Zone 56

#### Important information

The Land Suitability Overview Map assists with identifying the Land Suitability category under the high value and irrigated high value agriculture vegetation clearing purpose. This map provides detailed land suitability, agricultural land classification, or soil and land resource mapping data where it is available on the selected lots. Where no data is available, the maps will be blank, with no mapping visible.






Further information on these categories is available in the Guideline for applying to clear for high-value or irrigated high-value agriculture ([www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au)).

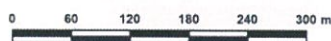
## 5.4 Coastal/non coastal map



### Coastal/Non Coastal Map

#### Legend

-  Lot and Plan
-  Coastal
-  Non Coastal
-  Cadastral line
-  Property boundaries shown are provided as a locational aid only



#### Disclaimer:

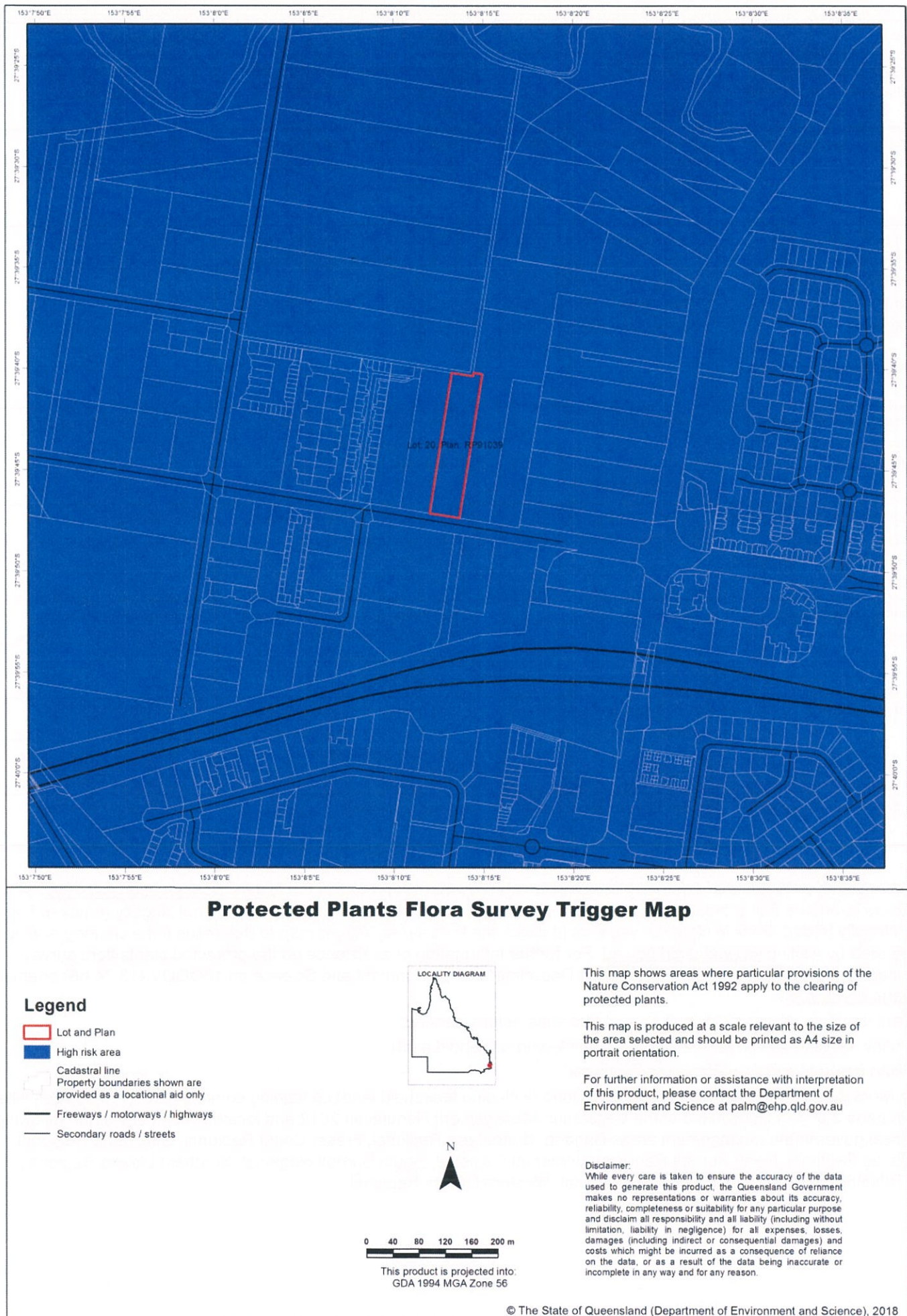
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## 5.5 Protected plants map administered by DES



## 6. Other relevant legislation contacts list

Activity	Legislation	Agency	Contact details
Interference with overland flow Earthworks, significant disturbance	<i>Water Act 2000</i> <i>Soil Conservation Act 1986</i>	Department of Natural Resources, Mines and Energy (Queensland Government)	Ph: 13 QGOV (13 74 68) <a href="http://www.dnrme.qld.gov.au">www.dnrme.qld.gov.au</a>
Indigenous Cultural Heritage	<i>Aboriginal Cultural Heritage Act 2003</i> <i>Torres Strait Islander Cultural Heritage Act 2003</i>	Department of Aboriginal and Torres Strait Islander Partnerships (Queensland Government)	Ph: 13 QGOV (13 74 68) <a href="http://www.datsip.qld.gov.au">www.datsip.qld.gov.au</a>
Mining and environmentally relevant activities Infrastructure development (coastal) Heritage issues  Protected plants and protected areas <sup>1</sup>	<i>Environmental Protection Act 1994</i> <i>Coastal Protection and Management Act 1995</i> <i>Queensland Heritage Act 1992</i> <i>Nature Conservation Act 1992</i>	Department of Environment and Science (Queensland Government)	Ph: 13 QGOV (13 74 68) <a href="http://www.ehp.qld.gov.au">www.ehp.qld.gov.au</a>
Interference with fish passage in a watercourse, mangroves Forestry activities	<i>Fisheries Act 1994</i>  <i>Forestry Act 1959</i> <sup>2</sup>	Department of Agriculture and Fisheries (Queensland Government)	Ph: 13 QGOV (13 74 68) <a href="http://www.daf.qld.gov.au">www.daf.qld.gov.au</a>
Matters of National Environmental Significance including listed threatened species and ecological communities	<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Department of the Environment (Australian Government)	Ph: 1800 803 772 <a href="http://www.environment.gov.au">www.environment.gov.au</a>
Development and planning processes	<i>Planning Act 2016</i>	Department of State Development, Manufacturing, Infrastructure and Planning (Queensland Government)	Ph: 13 QGOV (13 74 68) <a href="http://www.statedevelopment.qld.gov.au">www.statedevelopment.qld.gov.au</a>
State Development	<i>State Development and Public Works Organisation Act 1971</i>	Department of State Development, Manufacturing, Infrastructure and Planning (Queensland Government)	Ph: 13 QGOV (13 74 68) <a href="http://www.statedevelopment.qld.gov.au">www.statedevelopment.qld.gov.au</a>
Local government requirements	<i>Local Government Act 2009</i>	Local government	Contact your relevant local government office

1. In Queensland, all plants that are native to Australia are protected plants under the [Nature Conservation Act 1992](#), which endeavours to ensure that protected plants (whether whole plants or protected plants parts) are not illegally removed from the wild, or illegally traded. Prior to clearing, you should check the flora survey trigger map to determine if the clearing is within a high-risk area by visiting [www.ehp.qld.gov.au](http://www.ehp.qld.gov.au). For further information or assistance on the protected plants flora survey trigger map for your property, please contact the Department of Environment and Science on 13QGOV (13 74 68) or email [palm@ehp.qld.gov.au](mailto:palm@ehp.qld.gov.au).

2. Contact the Department of Agriculture and Fisheries before clearing:

- Any sandalwood on state-owned land (including leasehold land)
- On freehold land in a 'forest consent area'
- More than five hectares on state-owned land (including leasehold land) containing commercial timber species listed in parts 2 or 3 of Schedule 6 of the Vegetation Management Regulation 2012 and located within any of the following local government management areas-Banana, Bundaberg Regional, Fraser Coast Regional, Gladstone Regional, Isaac Regional, North Burnett Regional, Somerset Regional, South Burnett Regional, Southern Downs Regional, Tablelands Regional, Toowoomba Regional, Western Downs Regional.

# State Assessment and Referral Agency

Date: 27/02/2018

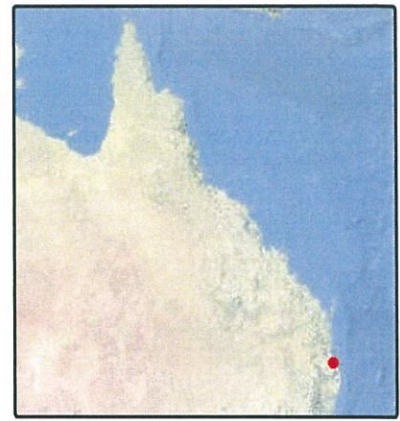


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## Matters of Interest for all selected Lot Plans

*SEQ Regional Plan land use categories*  
*Water resource planning area boundaries*  
*Regulated vegetation management map (Category A and B extract)*  
*Queensland waterways for waterway barrier works*

## Matters of Interest by Lot Plan

**Lot Plan: 20RP91039 (Area: 10070 m<sup>2</sup>)**  
*SEQ Regional Plan land use categories*  
*Queensland waterways for waterway barrier works*  
*Water resource planning area boundaries*  
*Regulated vegetation management map (Category A and B extract)*

**Lot Plan: 21RP91039 (Area: 10010 m<sup>2</sup>)**  
*SEQ Regional Plan land use categories*  
*Water resource planning area boundaries*  
*Regulated vegetation management map (Category A and B extract)*



## State Assessment and Referral Agency

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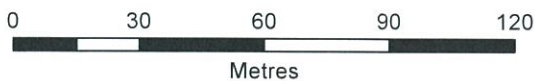
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### Legend

Water resource planning area boundaries



Water resource planning area boundaries



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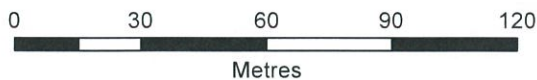
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### Legend

Regulated vegetation management map  
(Category A and B extract)

-  Category A on the regulated vegetation management map
-  Category B on the regulated vegetation management map



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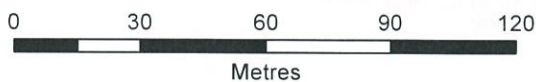
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### Legend

Queensland waterways for waterway  
barrier works

- 1 - Low
- 2 - Moderate
- 3 - High
- 4 - Major



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