

## AMENDED IN RED

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## Old Pub Lane Commercial Precinct, Greenbank

### Ecological Assessment Report



15 May 2019

Report prepared on behalf of Old Pub Lane Pty Ltd  
C/- Ethos Urban

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# 1 Introduction

## 1.1 Background

28 South Environmental Pty Ltd (**28 South**) was engaged by Old Pub Lane Pty Ltd (the **Applicant**), to advise on ecological and environmental planning matters regarding the expansion of the existing Swim School at 43-47 Old Pub Lane, Greenbank. The Development Application (**DA**) is for a Preliminary Approval for Material Change of Use (**MCU**) to vary the effect of the Greater Flagstone Priority Development Area (**PDA**) Development Scheme (**Development Scheme**) in accordance with the proposed Masterplan. The property is more properly described as Lot 1 on RP184067 and is a total of 2.01 hectares (referred to herein as '**the Site**'). The Site is located within the Logan City Council (**LCC**) Local Government Area (**LGA**) and also falls within the northern component of the Greater Flagstone PDA. The locality and context of the Site is illustrated in **Attachment 1** and **2**.

The Masterplan of Development is for Health Care Services, Business (Vet), Warehouse (Self-Storage Facility), Shop (Pet supplies shop), Child Care Centre and Indoor Sport and Recreation (Gym and Swim School) (referred to herein as the '**Old Pub Lane Commercial Precinct**'). Collectively, the development subject to the DA constitutes the "**proposed development**" for the context of this report. A 30m wide buffer from the western boundary will be retained as part of the proposed development. It is understood that this component of the Site will be subject to land resumption by the Department of Transport and Main Roads and/or Queensland Rail for future rail corridor realignment works. The proposed Masterplan is included in **Attachment 3**. The character of the areas proposed for development is shown in **Plates 1 – 26**. The extent and layout of the proposed development was informed through consideration of multiple factors, including the results of desktop and on-ground ecological and environmental planning investigations. The ecological investigations were undertaken in parallel with other relevant studies (e.g. economic, engineering, traffic etc.) to define the proposed Gross Floor Area (**GFA**) associated with the Old Pub Lane Commercial Precinct and its associated volume of carparking.



## 1.2 Planning Context

The Site is located within the northern component of the Greater Flagstone PDA and is therefore subject to the provisions of the Development Scheme rather than the LCC Planning Scheme. The Site is zoned within the Development Scheme as an Urban Living Zone; close to the identified “Potential Rail Station” located in the far north of the PDA. The Site falls outside of any community greenspace network mapping; biodiversity corridors or potential greenspace areas as illustrated in Map 4 of the Development Scheme (**Attachment 4**). The Site is proximate to areas mapped as supporting “Vegetation” on Map 6 – Natural Values of the Development Scheme (**Attachment 5**); however, does not appear to support this mapping within the Site<sup>1</sup> or other mapping overlays within Map 6 – Natural Values. The western component of the Site, adjacent to the Interstate Railway corridor, is mapped as being within a Rail Buffer Area on Map 7 – Development Constraints (**Attachment 6**). No other Development Scheme constraints are mapped within the Site.

Within the Urban Living Zone, the proposed development is considered to be permissible development under Table 2: Levels of Assessment of the Development Scheme.

In addition to the Development Scheme, the proposed development is subject to environmental planning legislation and policy at the Commonwealth and State levels.

## 1.3 Purpose of this Report

The purpose of this Ecological Assessment Report (**EAR**) is to provide an assessment of the proposed development against relevant ecological and environmental planning legislation, policies and instruments at the Commonwealth, State and Development Scheme levels. The EAR achieves this through:

- i) desktop assessments;
- ii) field studies (methodology and results);

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<sup>1</sup> The PDA Development Scheme map is difficult to review at the scale provided in Map 6; however, the mapped “Vegetation” appears to align with mapped regulated vegetation to the north of the Site.

- iii) determination of potential impacts of the proposed development on ecological features within and adjoining the Site
- iv) assessment against the *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**);
- v) assessment against the *Nature Conservation Act 1992* (**NC Act**);
- vi) assessment against the Development Scheme and associated environmental guidelines including:
  - a. Environmental values and sustainable resource use - PDA Guideline No. 14;
  - b. Remnant vegetation and koala habitat obligations in Greater Flagstone and Yarrabilba PDAs – PDA Guideline No. 17; and
  - c. Development interfaces – PDA Guideline No. 18
- vii) a method 1 bushfire risk assessment of the proposed development;
- viii) recommendations for measures to avoid, minimise and mitigate potential impacts of the proposed development on environmental values within the Site.

This EAR is intended to form part of the overall package of material to support the proposed Masterplan. This EAR is not to be relied upon by any other party for commercial purposes. All parts of this EAR are to be read together, including attachments and figures. Further detail on other technical elements of the proposed DA can be found in the corresponding technical reports accompanying the Applicant's submission to Economic Development Queensland (**EDQ**).

This EAR considers historical clearing events and agricultural practices within the Site and takes into consideration potential impacts on Matters of National Environmental Significance (**MNES**) and Matters of State Environmental Significance (**MSES**) as well as temporally relevant policies, guidelines and codes.

## 1.4 Historical Context

The Site and the broader locality have been subject to extensive broadscale clearing and/or vegetation thinning in recent decades as illustrated in **Attachment 7**. A review of historical aerial photography from 1955 to 2019 identifies the following:

- In 1955 photography it is evident that the Site was well vegetated, with Pub Lane occurring as an unsealed access road without the curved deviation created for the Sydney-Brisbane (Interstate) rail overpass which now exists. Properties to the south and east of the Site were by this stage subject to broadscale historical clearing.
- In 1970 photography it is evident that Site remained well vegetated with the general locality being subject to further broadscale clearing; particularly to the north-west of the Site. Pub Lane remained an unsealed access road.
- In 1982, photography indicates evidence of selective clearing in the eastern portion of the Site and adjoining the Site to the north-east. Intersecting with Pub Lane, Lance Road was established and extended south/south-west, with a number of residential dwellings being built south of the Site. The broader area surrounding the Site was subject to further clearing. Notably, south of the Site a large powerline easement was established, traversing the locality from north-west to south-east. Pub Lane remained as an unsealed access road.
- In 1993 photography it is evident that the existing residential dwelling had been established within the Site. Additionally, the property adjoining to the north was subject to broadscale clearing and selective thinning. Pub Lane was predominantly sealed. Though the rail overpass had not been established, the Pub Lane deviation was largely cleared along the northern boundary of the Site. Generally surrounding the Site to the north and south, residential development was further consolidating.
- In 2002 photography it is evident that the curved deviation for Pub Lane to the north of the Site was established to accommodate the rail overpass. The immediate locality of the Site appeared to be regenerating with dense regrowth and scattered relict trees evident. Significant vegetation thinning was evident in the land west of the Site, with numerous pockets of residential development.



- In 2009 photography it is evident that the Site remains vegetated. The immediate locality had undergone further broadscale clearing and bulk earthworks, particularly to the north-east for the establishment of the Greenbank Shopping Centre complex and to the north-west for residential development (now heavily consolidated throughout the area). A second high-voltage powerline easement is shown to the north of the previously-existing easement, turning to the north and passing close to the Site's western boundary.
- The most recent aerial imagery (2014, 2018) illustrates the establishment of the existing swim school building and associated carpark. Elsewhere within the Site, vegetation is retained and allowed to regenerate from the 1980s clearing event. The broader locality remains reflective of 2009 photography with the exception of further earthworks to the north-west for a residential subdivision and to the east adjoining Teviot Road for the 'Everleigh' estate.

## 2 Statutory Environmental Matters for Consideration

Ecological values and ecologically important areas for the proposed development have been defined with reference to Commonwealth and State environmental legislation, as well as the provisions of the Development Scheme. A summary of relevant statutory considerations is provided below.

### 2.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**) provides the legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. These are defined under the EPBC Act as ‘Matters of National Environmental Significance’ (**MNES**). Under the EPBC Act, a referral to the Department of the Environment and Energy (**DoEE**) is required if the proposed development gives rise to a Significant Impact on any MNES. The determination of whether a Significant Impact will arise is made with reference to the MNES Significant Impact Guidelines 1.1 (DoE 2013)<sup>2</sup> and other EPBC Act policy statements.

A search of the Protected Matters Search Tool (**PMST**) indicates the likely or potential occurrence of MNES in the locality (**Attachment 8**). A search of the Department of Environment and Science (**DES**) Wildlife Online database provides confirmed records of MNES within the same search radius (**Attachment 9**).

### 2.2 Nature Conservation Act 1992

The *Nature Conservation Act 1992* (**NC Act**) established approval triggers and an assessment process for clearing protected plants. The Site is not located within a mapped “High Risk Trigger Area” (**Attachment 10**). Despite this, a detailed botanical survey was undertaken on 27 November 2018 to identify the presence of protected plants and/or suitable habitat within the Site.

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<sup>2</sup> Including significant impact guidelines for individual threatened species, groups of species and threatened ecological communities (refer <http://www.environment.gov.au/epbc/publications/guidelines.html>).

Potential impacts to fauna species listed under the *Nature Conservation (Wildlife) Regulation 2006 (NC Reg)* will require assessment for any residual impacts associated with the Old Pub Lane Commercial Precinct.

## 2.3 Matters of State Interest

Environmental matters of State interest relevant to the Development Scheme are discussed in the following sections.

### 2.3.1 Greater Flagstone and Yarrabilba – Viable Remnant Vegetation

A review of the Regulated Vegetation Management Map (**RVMM**) and Vegetation Management Supporting Map (**VMSM**) indicates that the Site is entirely mapped as Category X vegetation (**Attachment 11**), with no remnant vegetation existing within the Site.

### 2.3.2 Guideline 14 – Environmental Values and Sustainable Resource Use

PDA Guideline No. 14 *Environmental Values and Sustainable Resource Use* (**Guideline 14**) outlines values and strategies for protecting the environment and optimising resource use in PDAs. Guideline 14 requires development within a PDA to consider relevant Commonwealth and State Government environmental legislation and planning policies in addition to areas noted as being of environmental significance within the PDA's Development Scheme and the inherent environmental values identified within the Site through ecological assessments.

### 2.3.3 Guideline 17 – Greater Flagstone and Yarrabilba – Koala Habitat

PDA Guideline No. 17 *Remnant vegetation and koala habitat obligations in Greater Flagstone and Yarrabilba PDAs* (**Guideline 17**) outlines the obligations for development which will result in the clearing of "koala habitat"; areas identified as Koala Bushland or High and Medium Value Rehabilitation Habitat under the State Planning Policy 2/10 (**SPP**) Koala Habitat Value Mapping (Koala Habitat Mapping).

The Koala Habitat Mapping (**Attachment 12**) shows that the Site is mapped as Medium Value Rehabilitation Habitat. An assessment of the proposed development against Guideline 17 is provided in **Section 7.3**.



### 2.3.4 Guideline 18 – Development Interfaces

PDA Guideline No. 18 *Development Interfaces* (**Guideline 18**) outlines the development considerations which should inform the planning and design phase of a project to ensure that potential impacts are reduced to an acceptable level through the PDA. Development should consider ecological values at the land use interface and be informed by an ecological assessment.

### 2.3.5 Bushfire

The proposed development will require assessment of bushfire hazards as the western extent of the Site is mapped within the Potential Impact Buffer on the State Planning Policy Natural Hazards Risk and Resilience mapping (**Attachment 13**). It is noted that no Potential Bushfire Intensity Mapping occurs within the Site.

A bushfire risk assessment is provided in **Section 5** of this EAR.

### 3 Flora Assessment

#### 3.1 Desktop Assessment and Survey Methods

The Site is located on sedimentary deposits of early Jurassic age and is situated on relatively flat topography, falling slightly from east to west. The pre-clear Regional Ecosystem (RE) mapping shows that the Site historically supported a mix of REs 12.9-10.2/12.9-10.12/12.9-10.7 at a ratio of 50/30/20 respectively. These REs are described by DES as being:

- Least Concern RE 12.9-10.2: '*Corymbia citriodora* subsp. *variegata* open forest or woodland usually with *Eucalyptus crebra*. Other species such as *Eucalyptus tereticornis*, *E. moluccana*, *E. acmenoides* and *E. siderophloia* may be present in scattered patches or in low densities. Understorey can be grassy or shrubby. Shrubby understorey of *Lophostemon confertus* (whipstick form) often present in northern parts of bioregion. Occurs on Cainozoic and Mesozoic sediments';
- Endangered RE 12.9-10.12: '*Corymbia intermedia*, *Angophora leiocarpa*, *Eucalyptus seeana* +/- *E. siderophloia*, *E. tereticornis*, *E. racemosa* subsp. *racemosa*, *C. citriodora* subsp. *variegata* woodland to open forest. *E. seeana* and *Lophostemon suaveolens* are often present as sub-canopy or understorey trees. Occasional *Melaleuca quinquenervia* on lower slopes. Does not include areas dominated by *Eucalyptus racemosa* subsp. *racemosa*. Occurs on Cainozoic and Mesozoic sediments'; and
- Of Concern RE 12.9-10.7: '*Eucalyptus crebra* +/- *E. tereticornis*, *Corymbia tessellaris*, *Angophora leiocarpa*, *E. melanophloia* woodland. Occurs on Cainozoic and Mesozoic sediments'.

The PMST data (**Attachment 8**) indicates the potential occurrence of MNES plant communities and species in this locality. The Wildlife Online data also indicates confirmed records of Endangered, Vulnerable and Near Threatened (**EVNT**) species in the locality (**Attachment 9**). Conservation-significant species identified by these database searches were targeted during Site surveys.

Baseline botanical assessment was undertaken by ecologist Rebecca Freese of 28 South on 27 March 2019. Weather conditions were considered adequate for the level of ecological assessment undertaken. Surveys involved: a complete traverse of the Site; the spatial mapping of any and all significant or native habitat trees within the development area; and vegetation community and habitat assessments.

Surveys also involved an assessment to determine whether the Site:

- supported vegetation was analogous with Threatened Ecological Communities (TECs) identified as MNES under the EPBC Act;
- supported any plant species identified as MNES under the EPBC Act;
- was appropriately represented within the RVMM;
- supported EVNT plant species; and
- supported plant species or communities which were otherwise of conservation interest.

### 3.2 Survey Findings

The Site supports an existing Swim School with associated carparking as well as an existing central dwelling. The remainder of the Site is well vegetated and can be described as a single vegetation community with minor variations relating to landscaping species surrounding the house and a younger cohort in the eastern corner of the Site. The western corner of the Site contained two (2) man-made waterbodies. The western component of the Site supported dis-used access trails into the vegetation community.

Generally, the Site supported an open forest dominated by semi-mature to mature *Corymbia citriodora* subsp. *variegata* (spotted gum) with associated *Corymbia intermedia* (pink bloodwood), *Eucalyptus seeana* (narrow-leaved red gum) and *Angophora leiocarpa* (rusty gum) and suppressed *Corymbia tessellaris* (Moreton Bay ash) and *Eucalyptus tereticornis* (Queensland blue gum). The sub-canopy was moderately dense with *Allocasuarina littoralis* (black she-oak) dominating and *Alphitonia excelsa* (red ash) and *Acacia disparrima* (hickory wattle) also present. The shrub layer contained regenerating species of eucalypt present within the canopy as well as juvenile red ash, hickory wattle and patch incursions of *Lantana camara*<sup>3</sup> (lantana). The understorey was variable. Generally, the understorey can be described as supporting native grasses and forbs such as *Imperata cylindrica* (blady grass), *Entolasia stricta* (wiry panic), *Eragrostis brownii* (Brown's love grass), *Lomandra confertifolia*

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<sup>3</sup> \* denotes non-endemic or exotic plant species



subsp. *pallida* (a mat-rush) and *Goodenia rotundifolia* (star goodenia) at sparse densities. Leaf litter, particularly ‘needles’ from the black she-oak was prevalent in some areas. Patch infestations of pest plant species occurred in areas of historical disturbance such as near the two waterbodies, along each Site boundary adjoining the road and rail reserves and in proximity to the existing dwelling. Pest plant species included but were not limited to *Lantana montevidensis*\* (creeping lantana), lantana\*, *Asparagus aethiopicus* cv. *Sprengeri*\* (basket asparagus), *Asparagus plumosus*\* (feathered asparagus), *Megathyrsus maximus* var. *plubiglumis*\* (green panic), *Chloris gayana*\* (rhodes grass) and *Callisia repens*\* (inch weed). A flora species list collected during Site inspection is provided in **Attachment 14**. The existing condition of the Site is illustrated in **Plates 1 – 26**.

### 3.3 Threatened Flora and Vegetation Community Searches

The EPBC Act PMST (**Attachment 8**) indicates the potential occurrence of four TECs within the Site:

- Coastal Swamp Oak (*Casuarina glauca*) Forest;
- Lowland Rainforest of Subtropical Australia;
- Swamp Tea-tree (*Melaleuca irbyana*) Forest; and
- White Box-Yellow Box-Blakely’s Red Gum Grassy Woodland and Derived Native Grassland.

Surveys failed to record these communities or any other TECs listed under the EPBC Act. Many of these communities occur almost exclusively on specific geologies/soils or within rainforest habitat and would be highly unlikely to occur at the Site. Surveys also failed to record any species listed as MNES under the EPBC Act, or any EVNT species listed under the NC Act.

## 4 Fauna Habitat Assessment

### 4.1 Survey Methods

Database searches revealed the occurrence of several conservation-significant species in the locality (**Attachments 8 and 9**). Surveys included a detailed walk-through of the Site, assessment of all vegetation supported within and immediately adjoining the Site for habitat features important to species of conservation significance and active searches for fauna species or their evidence (such as koala and other scansorial fauna).

Habitats were qualified based on the presence of the following habitat features:

- vegetation cover and structure;
- size and range of arboreal and terrestrial hollows;
- woody debris and leaf litter;
- rocky outcrops, overhangs and crevices;
- freestanding natural and anthropogenic water bodies, ephemeral drainage or seepage areas;
- disturbances including weed incursion, clearing and/or inappropriate fire regimes; and
- surrounding habitats and connectivity or fragmentation to these.

The quality of habitat persisting within the Site was assessed based on several criteria which are outlined within **Table 1**.

**Table 1: Habitat Quality Criteria**

Rating	Description of Habitat
Low	Many fauna habitat elements in low quality areas have been removed or altered such as mature, hollow bearing trees, fallen timber and deep leaf litter. For terrestrial habitats remnants are often small in size, support substantial weed infestations and are poorly connected to other areas of remnant vegetation. For aquatic habitats these may be waterways that have been de-snagged and riparian vegetation removed, or constructed drains.

Rating	Description of Habitat
Moderate	Some habitat components are present but others are lacking. For terrestrial habitats an example is remnant vegetation may have a reasonably intact understorey but lack fallen timber and hollow bearing trees. Linkages with other remnant habitats in the landscape may be lacking or somewhat tenuous. For aquatic habitats these may be semi-natural streams (including artificial channels and wetlands) with varying degrees of overhanging and instream vegetation with some snags and connectivity.
High	Most habitat components are present. For terrestrial habitats, habitats with old-growth trees, fallen timber, lack of weeds, the remnant is large enough to support forest dependant species and is well connected or contiguous with other areas of native vegetation. Habitat features such as rocky outcrops, steep jumps and areas supporting caves provide significant habitat features for a great many fauna species persisting within arid areas. For aquatic habitats these are natural water bodies (or water bodies designed along natural ecological functioning principles) with a high degree of in-stream and riparian features and good connectivity.

## 4.2 Rural and Current Landscape Context

Since settlement, the Site and surrounding areas have been and continue to be subject to a variety of agricultural and urban activities. These impacts have resulted in most of the surrounding properties and the Site being subject to broadscale clearing or selective thinning at some point; many of which include complete under-scrubbing of properties to support grazing or lawns. These historical clearing events and agricultural management practices, including inappropriate fire regimes, have resulted in the distinct lack of many important habitats and microhabitat features which are likely to have been present prior to these anthropogenic activities.

More recently, the broader locality has experienced the establishment of large residential subdivisions. Many of the subdivisions, particularly to the north, west and south-west of the Site have retained corridors along lower drainage features which provide connectivity for mobile and robust fauna species. Development to the east of the Site, particularly the 'Everleigh' estate, road, rail and powerline infrastructure has significantly fragmented ecological connectivity within the immediate locality (**Attachment 1**).

The Site itself forms part of a peri-urban fragmented landscape comprising rural-residential lifestyle allotments which support a mixture of modified vegetation communities, maintained



paddocks and landscaped gardens within large expanses of more contemporary suburban estates and commercial precincts.

## 4.3 Survey Findings

### 4.3.1 Fauna Habitat – General

The ground-truthed vegetation communities are mapped in **Attachment 15**. Vegetation and habitat surveys conducted over the Site identified that the Site supports medium to low quality habitat, primarily due to historic broadscale clearing, disturbance from rural residential activities and fragmentation of the immediate landscape as a result of infrastructure and development. The eastern components of the Site were noted as a younger cohort of vegetation likely to have regenerated from a historical clearing event evident in historical photography from 1982. There were no significant habitat trees or mature native canopy evident within this portion of the Site and the understorey contained significant infestations of pest plant species.

The western component of the Site supported more mature vegetation with a number of emergent eucalypts. However, this community demonstrated a distinct lack of habitat features such as hollow-bearing habitat trees or hollow logs. The south-western corner of the Site supported several large Queensland blue gums. Despite the significant size of these trees, there were no obvious hollows within canopy or the trunk. This western component of the Site did offer a level of habitat complexity and vegetative structure and also contained woody debris, leaf litter, small termitaria and two man-made waterbodies. However, such features are likely to be relatively common throughout the immediate landscape.

It is expected that the vegetation throughout the Site provides foraging and resources for locally common, more robust fauna species; particularly open country avifauna, flying mammal and common possum and glider species. Throughout the Site, numerous smooth-barked trees indicated scratch-marks of locally-common arboreal mammals. Despite this, it is considered that the Site does not support critical habitats for species of conservation significance.

### 4.3.2 Fauna Habitat – Koala

Surveys were conducted with the aim of assessing the vegetation communities present and their relevance to koala within the locality and Site. Surveys initially traversed the entire Site

to provide an understanding of vegetation communities supported on the Site as well as the presence and extent of non-juvenile koala habitat trees (**NJKHTs**). Surveys involved the identification and mapping of vegetation communities which supported varying levels of NJKHTs; as well as visual scanning of trees for koala presence and evidence such as scratches and scats.

The surveys did not result in the discovery of koala evidence within the Site; however, a lack of evidence does not preclude koalas from utilising the Site to some degree, given the presence of NJKHTs and considering that koalas are known from the locality.

## 5 Bushfire Risk Assessment

### 5.1 Within the Site

The proposed development will result in the removal of most vegetation within the Site, with the exception of a 30 m wide corridor along the western verge (this will be subject to removal at some point to accommodate expansion of the Interstate Railway corridor). The retained area will total 4,206 m<sup>2</sup> and at 30 m in width, the area meets the exclusion criteria for the CSIRO's small patch and narrow corridor filters and is appropriately separated from hazardous vegetation to the west. Under patch and corridor filters, the 30 m wide vegetation buffer is considered a non-bushfire hazard class (i.e. potential bushfire intensity < 4000 kW/m) in a planning context as it is less likely to ignite due to its disconnection with continuous areas of forest fuels that can carry running fire fronts. If ignited, it is most likely to be ignited by a point ignition which requires both distance and area to develop into a fire front of considerable hazard. If a fire emerges from the 30 m wide vegetation buffer it is likely to be narrow in width and significantly less in intensity than a fire front which has had more time and a larger area to develop. As such, this western area of retained vegetation is considered a low potential bushfire hazard in a planning context. Consequently, no credible bushfire risk will arise from within the Site.

### 5.2 External to the Site

To review the residual on-ground bushfire hazard applicable to the areas adjoining the Site as depicted by the SPP mapping, an inspection of the Site and surrounding area was undertaken by 28 South; this involved a visual inspection of lands within 100m of the Site. Bushfire risk assessments have been undertaken utilising Method 1 of AS3959-2009 as well as an assessment of Bushfire Attack Levels (**BAL**). An assessment of this vegetation utilising Method 1 calculates the BAL setback distances associated with the vegetation and the vegetation's topographical circumstance in relation to the Site. Each BAL category has been assigned specific construction parameters which align with the likely radiant heat flux a building may receive during a bushfire event.

Setbacks to hazardous vegetation adjoining the Site are:

- BAL Flame Zone – 0-6m;

- BAL 40 – 6-9m;
- BAL 29 – 9-13m;
- BAL 19 – 13-19m;
- BAL 12.5 – 19-100m; and
- BAL Low – 100m +.

In-field assessments identified that the vast majority of the areas surrounding the Site occur as maintained low threat vegetation or non-vegetated areas (AS3959-2009) with the exception of vegetation to the west of the Interstate Railway corridor. This confirms the general accuracy of the SPP Bushfire Hazard mapping (**Attachment 13**). An assessment of this vegetation west of the railway line confirmed it to be analogous with spotted gum/ironbark woodland (consistent with the Regulated Vegetation mapping to the south-west, showing RE 12.9-10.2). This vegetation occurs upslope of the Site and over an effective slope of 7% (or 4 degrees) and separated by the existing Interstate Railway corridor.

At its closest point, the hazardous vegetation is 64.3 m from the proposed development (**Attachment 16**). Most of the proposed development achieves a minimum separation of 100 m (BAL-LOW), with only the warehouse building being within BAL 12.5 (**Attachment 16**), which is considered appropriate for this development type. Mitigating measures applicable to the Site include:

- the Site being supplied with reticulated water;
- limited exposure of pedestrian and public vehicular access to areas between the buildings and hazardous vegetation; and
- areas between the vegetation and buildings accessible to firefighting appliances and personnel.

The proposed development has numerous points for access and egress, all allowing people vacating the Site to move in a direction away from potentially hazardous vegetation.

It is our assessment that bushfire risk remains relatively low across the Site, due to:

- the only applicable fire threat occurs off Site;
- the orientation and aspect of hazardous vegetation is to the west, with an easterly aspect and higher topography;
- the significant amount of vehicular access surrounding the fire threat;
- the positioning of the Interstate Railway corridor between the Site and the hazardous vegetation;
- the likely high-use of the Site by members of the public to detect fire and alert authorities;
- the proposed development being serviced by reticulated water; and
- public access being restricted from areas between bushfire hazard and buildings.

Notwithstanding this, AS3959-2009 requires all the portions of the proposed development between 19-100m being constructed to BAL 12.5 standard.

It is considered that the proposed development and its temporary inhabitants are not placed at an unacceptable level of risk. Further, the mitigation measures identified above can reduce the likelihood of impacts from bushfire hazards<sup>4</sup>.

### **5.3 State Planning Policy**

With regard to Part E of the State Planning Policy, it is considered that the proposed development:

- avoids or mitigates the risks of bushfire hazard within the Site to an acceptable level;

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<sup>4</sup> 28 South considers it likely that a Method 2 bushfire risk assessment by a qualified bushfire consultant would result in no BAL measures being required for the proposed development.



- does not unduly burden emergency services and their response to bushfire events as it provides direct sealed road access to areas of hazardous vegetation and infrastructure;
- does not increase the severity of bushfire hazard within the Site or adjoining it;
- avoids risks to public safety and environmental harm from bushfire hazard; and
- maintains natural processes such that vegetated corridors and waterway features have been retained where practicable while mitigating risks associated with bushfire hazard.

## 6 Impacts and Mitigation

### 6.1 Design Consideration and Vegetation Impacts

The proposed development involves the establishment of the Old Pub Lane Commercial Precinct expanding on the existing Swim School with a Health Care Service, Vet, Self-Storage Facility, Pet supplies shop and Child Care Centre with associated internal access and carparking. New vehicular access points to the commercial precinct will be established along both Old Pub Lane and Pub Lane to the north. It is understood that a 30m wide buffer from the western boundary will be retained as part of this DA (**Attachment 3**), and that this component of the Site will be subject to land resumption by the Department of Transport and Main Roads and/or Queensland Rail for future Interstate Railway corridor realignment works. **Attachment 15** indicates the extent of the development footprint and the resulting impact to the vegetation currently supported within the Site. This totals approximately 1,270 m<sup>2</sup> of the native vegetation for removal. No flora species of conservation significance will be removed as a result of the proposed development.

### 6.2 Habitat Impacts

#### 6.2.1 General

The proposed development will not result in the removal of the several large Queensland blue gums observed in the south-western corner of the Site. Additionally, the higher quality habitats supported within the 30m wide western buffer will be retained as a result of this proposed development.

The habitats observed throughout the Site are expected to be common throughout the immediate locality. As such, the proposed development is unlikely to give rise to any significant impact on species of conservation significance. A level of connectivity will be maintained with the retention of the western 30m buffer.

### 6.2.2 Koala Habitat

It is considered that the establishment of the Old Pub Lane Commercial Precinct is unlikely to give rise to significant impacts to koala populations within the locality<sup>5</sup>. The proposed development will result in clearing of 1,602 m<sup>2</sup> of Medium Rehabilitation Habitat Mapping within the Site. It is considered that the proposed development:

- is unlikely to cause significant levels of fragmentation to koalas within the locality. The proposed development will result in the removal of semi-mature and regrowth vegetation which is currently surrounded on all boundaries by significant ecological impediments. The presence of these existing impediments have resulted in fragmentation of medium to low quality habitats supported within the Site and the proposed development will not create any further significant fragmentation.
- is unlikely to cause a significant restriction in the ability for koalas to move through the landscape. It is unlikely that koalas would rely on the lower quality habitats supported within the Site, particularly given the lack of permeability for koalas through the Site due to existing barriers.
- will be appropriately designed to mitigate secondary impacts to surrounding habitat that may be attributable to bushfire and hydrological factors.

An assessment of the proposed development against the EPBC Act referral guidelines has identified that the action is unlikely to give rise to a significant impact to koala and as such no self-assessable referral to the DoEE is deemed necessary (refer **Section 7.1**).

### 6.3 Mitigation Measures

Due to the nature of the proposed development being for a commercial precinct, an extensive GFA is required to accommodate such a use; particularly for associated car parking volumes and access. As such, retention of individual trees within the development footprint is not practicable.

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<sup>5</sup> With regard to the EBPC Act referral guidelines for the vulnerable koala.

Notwithstanding, the incorporation of appropriate landscaping, particularly locally endemic flora species that are koala feed species or those that flower prolifically, will offer foraging opportunities for native fauna residing within the immediate locality. The focus of landscaping should attempt to create dense connective rows of vegetation along the northern, southern and western boundaries to assist in visual amenity and limit fauna interaction within the centre area itself.

Fauna management measures such as the preparation of a fauna management plan, pre-clearing fauna assessments, and the use of a suitably qualified fauna spotter catcher will reduce the potential for impacts to fauna during the clearing process.

Further, the incorporation of traffic calming devices and fauna friendly speed limits during construction and operational phases should be adopted. Fauna exclusion fencing should be established along the western boundary to prevent fauna movement into the development area and possible interaction with vehicles.

## **7 Statutory Compliance**

### **7.1 EPBC Act**

The impacts of the Old Pub Lane Commercial Precinct are unlikely to constitute a Significant Impact on MNES (impacts will be on native vegetation over 1.27 ha which has been historically disturbed and retains limited connectivity). As such, 28 South does not consider a controlled action referral to the DoEE is necessary for the Old Pub Lane Commercial Precinct. In making this recommendation, particular consideration has been given to the koala, and the EPBC Act Koala Referral Guideline.

### **7.2 NC Act**

No threatened flora species were found within the Site and the proposed development is unlikely to have an impact on flora species listed as MSES.

It is likely that fauna species of conservation significance may at some point fly-over, move through or infrequently forage within the Site; however, the proposed development over the Site (including clearing and the end commercial use) is unlikely to give rise to any significant impacts to MSES fauna.

Further mitigation measures such as a fauna management plan to govern works and the use of a suitably qualified fauna spotter catcher can assist in minimising and mitigating any impacts to fauna during the clearing and construction phases.

### **7.3 Greater Flagstone PDA**

#### **7.3.1 Significant Vegetation**

The Development Scheme defines Significant Vegetation within the PDA as significant in its:

- Ecological value at local, state or national levels, including:
  - Vegetation mapped as endangered REs;
  - Vegetation in areas identified in a ULDA guideline as requiring koala habitat offset;
- Contribution to the preservation of natural landforms;



- Contribution to the character of the landscape;
- Cultural or historical value; and
- Amenity value to the general public.

The Site does not contain any vegetation that could be deemed to be Significant Vegetation under the Development Scheme. In accordance with Schedule 1 of the Development Scheme, operational work that is the clearing of vegetation other than Significant Vegetation is considered Exempt Development.

### **7.3.2 Guideline 14 – Environmental Values and Sustainable Resource Use**

The Applicant has given due consideration to relevant Commonwealth and State Government legislation and regulations through the design of the proposed development. The proposed development represents a sound land use planning outcome, utilising existing infrastructure and avoiding the creation of new impacts in other undeveloped areas within the locality. An assessment of the proposed development has identified that it is unlikely the proposed actions will give rise to any significant impacts to MNES or MSES. The proposed development is also relatively close to an identified Potential Rail Station within the Development Scheme. The establishment of this station would allow future employees and patrons access to public transport close to the Site.

### **7.3.3 Guideline 17 – Viable and Non-viable Endangered Remnant Vegetation**

An assessment of the Site against the provisions and obligations of development set out within Guideline 17 has been undertaken as part of this EAR.

Ecological assessment identified that the Site does not support remnant or regrowth regulated vegetation and as such, has been appropriately omitted from the RVMM. Given this, the proposed development will not result in the clearing of viable or non-viable remnant vegetation containing endangered REs. The proposed development meets the obligations of the Guideline 17 by avoiding impacts to viable and non-viable endangered vegetation.

### **7.3.4 Guideline 17 – Koala Habitat**

The Site is identified as being Medium Value Rehabilitation Habitat under the Koala SPP Koala Habitat Mapping. More broadly there are areas of Koala Bushland Habitat scattered through

the locality, including areas on properties immediately to the south-east of the Site and to the north (Leanne Court).

Site survey confirmed that the Site is generally mapped appropriately under the SPP Koala Habitat Mapping. The Site's lower quality habitats have been historically disturbed by historical broadscale clearing events, particularly the eastern component of the Site which now supports a younger cohort of native regrowth vegetation.

The proposed development will result in impacts to approximately 1,602 m<sup>2</sup> of Medium Value Rehabilitation Habitat. Given the nature of the proposed development, the avoidance of impacts to this Medium Value Rehabilitation Habitat is not possible. This is due to the necessary floor space required to appropriately locate commercial buildings and associated carparking at a sufficient scale to deal with the expected level of public visitation. Within the Site there are no areas where the design would facilitate the retention of individual or groups of trees.

The proposed development within the Site represents a logical land use planning outcome insofar that it consolidates impacts to areas of Medium Value Rehabilitation Koala Habitat within the region (avoids Koala Bushland Habitat) and is an expansion of the broader Greenbank commercial and retail precinct within a strategic location in the PDA (i.e. the existing Greenbank Shopping Centre is to the immediate north-east of the Site).

In accordance with the provisions of Guideline 17, the proposed development is required to address impacts to areas mapped as Medium Value Rehabilitation Koala Habitat. Consequently, it is proposed that the Applicant submits a monetary contribution as part of the MCU application that is equivalent to \$5,000 per hectare of clearing within Medium Value Rehabilitation Koala Habitat. As the proposed development ultimately results in the loss of 1.6 ha of mapped Medium Value Rehabilitation Koala Habitat, the monetary contribution would total \$8,000.

### **7.3.5 Guideline 18 – Development Interfaces**

The proposed development represents a logical infill development within the locality as it will provide an extension to the existing Greenbank Shopping Centre complex to the north-east without the need to impact new bushland areas for development of this nature. The Site is

historically cleared, contains no significant vegetation, offers limited habitat value and displays evidence of edge effects from linear infrastructure and large-lot development in the surrounding areas. Development interfaces will remain consistent with those already existing. Landscape design should consider the inclusion of koala feed trees as landscaping trees particularly in the retained western areas of the Site between the proposed development footprint and the western boundary where possible. This will also provide a vegetated screen to the Interstate Railway corridor.

## 8 Summary and Conclusions

This EAR assessed the ecological and environmental planning matters applicable to the proposed development of the Old Pub Lane Commercial Precinct through statutory planning considerations and an ecological assessment of the Site. This ecological assessment has identified the ecological values supported within the Site and the impacts likely to occur should the proposed development be approved in its current layout.

No conservation-significant vegetation communities or flora species were detected during Site assessments. It is likely that more mobile and robust species would periodically visit the Site for foraging purposes; particularly avian, scansorial and flying mammal species. However, given the position of the Site in relation to the surrounding locality and ecological impediments bounding the Site, it is considered unlikely that the Site is of any significance to koalas or any other conservation-significant vegetation communities, flora or fauna species.

The Site is relatively unencumbered by Commonwealth or State ecological and environmental planning constraints. The proposed development is also consistent with relevant ecological guidelines for the Greater Flagstone PDA and ecological components of the Development Scheme. The establishment of the proposed Old Pub Lane Commercial Precinct will result in the loss of 1,270 m<sup>2</sup> of native vegetation within the Site.

It has been determined that the proposed development will not have impacts to viable or non-viable endangered remnant vegetation. The proposed development will result in a loss of 1,602 m<sup>2</sup> of Medium Value Rehabilitation Koala Habitat. A monetary contribution of \$8,000 has been proposed as part of this DA to meet the obligations set out within Guideline 17. Given the context of the surrounding development and bushland areas, the proposed development presents as a logical extension of urban development in the locality.



## Photo Plates



**Plate 1 – View from within western component of vegetation looking east towards existing swim school.**



**Plate 2 – View south-west from within western component of vegetation indicating the typical composition and structure of the vegetation and the internal access trails.**





**Plate 3 – View north-west from within western component of vegetation indicating the typical composition and structure of the vegetation and the internal access trails.**



**Plate 4 – View north from within western component of vegetation indicating the typical composition and structure of the vegetation and the internal access trails.**





**Plate 5 – View south from within western component of vegetation indicating the typical composition and structure of the vegetation and the internal access trails.**



**Plate 6 – View of the dam waterbody at the south-western extent of the Site.**





Plate 7 – View of the dam waterbody and the large *Eucalyptus tereticornis* along the western boundary in the background.



Plate 8 – View south-west showing the Interstate Railway corridor bounding the Site to the west.





**Plate 9 – View north-west of the Interstate Railway corridor and the railway overpass (Pub Lane).**



**Plate 10 – View of the smaller waterbody in the south-western corner of the Site.**





Plate 11 – Example of *Asparagus aethiopicus* cv. *Sprengeri*\* infestation occurring on northern bank of waterbody.



Plate 12 – View of the disused Old Pub Lane road corridor and the Interstate Railway (background). Site occurs to the right of image.





**Plate 13 – View east of Old Pub Lane road corridor and current entry into the Site (left).**



**Plate 14 – View of vegetation composition and structure within the Site and the current Site entry (background).**





**Plate 15 – View of current Site entry, carparking and existing swim school.**



**Plate 16 – View west of vegetation along northern boundary of the Site and behind the existing swim school.**





**Plate 17 – View east of vegetation along northern boundary of the Site and behind the existing swim school.**



**Plate 18 – View north-west of Pub Lane road corridor bounding the Site to the north and the railway overpass.**





**Plate 19 – View north-east of Pub Lane road corridor bounding the Site to the north.**



**Plate 20 - View south from within the eastern components of the Site showing internal fencing surrounding the existing residence.**





Plate 21 - View of the younger cohort of vegetation in the eastern components of the Site.



Plate 22 – Example of *Callisia repens*\*, exotic groundcover infestation occurring within the eastern component of the Site





**Plate 23 - View of the far eastern corner of the Site and the Pub Lane and Old Pub Lane intersection (background right).**



**Plate 24 - View north of the Site and the existing residence (left).**





**Plate 25 – View north of the ancillary shed structures associated within the existing residence occurring centrally within the Site.**



**Plate 26 - View north of the internal fencing and vegetation separating the existing swim school (background) and the existing residence (right).**

**ATTACHMENT 1**







## ATTACHMENT 2





43-47 Old Pub Lane, Greenbank

Legend

Site Context

Attachment 2 - Context

- Site Boundary
- Waterbody
- Waterway (DNRME)
- Property Boundaries

28 South Project Ref: 2019-032

Data Sources: Nearmap Aerial Imagery (Nearmap Nov 2018); Digital Cadastre Database (Dept. Natural Resources and Mines, 2018); Roads (DNRME, 2017); Railways (DNRME, 2017); Waterways (DNRME, 2018).

28°S  
ENVIRONMENTAL

Issue Date	Revision	Author
28 March 2019		RF
Approved	Revision Note	
MT		

(A3) GDA 94 MGA 56

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**AMENDED IN RED**

**By:** Brandon Bouda

**Date:** 17 October 2019



Queensland  
Government

### ATTACHMENT 3

Refer Approved Master Plan



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This drawing shall only be used for the purpose for which it was commissioned. Unauthorised use of the drawings is prohibited.  
Do not scale this drawing. Use only figured dimensions. Report any discrepancy to the Architect or Urban Designer immediately for the convenience of any work.

FINAL

ISSUE

ISSUE	DATE	DESCRIPTION	CHECKED BY
A	29.04.2019	Site Plan	BH
B	14.05.2019	Site Plan	MS

LEGEND



NOTES

Total maximum Gross Floor Area for each use category

Commercial - Health Care Service, Veterinary	3000m²
Industry - Warehouse (Self Storage Facility)	4600m²
Retail - Shop (Pet Supplies Store)	400m²
Service, Community and Other Uses - Child Care Centre	820m²
Sport and Recreation - Indoor Sport and Recreation (Gym, Swim School)	1000m²
<b>Total Approved Gross Floor Area</b>	<b>8820m²</b>
Recommended minimum supply of car parks	130

Development Specifications:

1. Minimum 30m setback is required to the western boundary of the site adjoining the railway corridor.
2. Maximum building height of 8.5m for all uses (except Industry).
3. Maximum (Warehouse) may comprise a building height up to 15m.
4. All buildings must be setback a minimum of 6m from Pub Lane and Old Pub Lane.
5. Landscaping is to be provided along all street frontages, around buildings and within car parking areas.

SCALE 1:1000 @ A3



DRAWING

MASTERPLAN

DRAWING NO.	ISSUE	JOB	DRAWN BY
01	A	7190332	TB

PROJECT

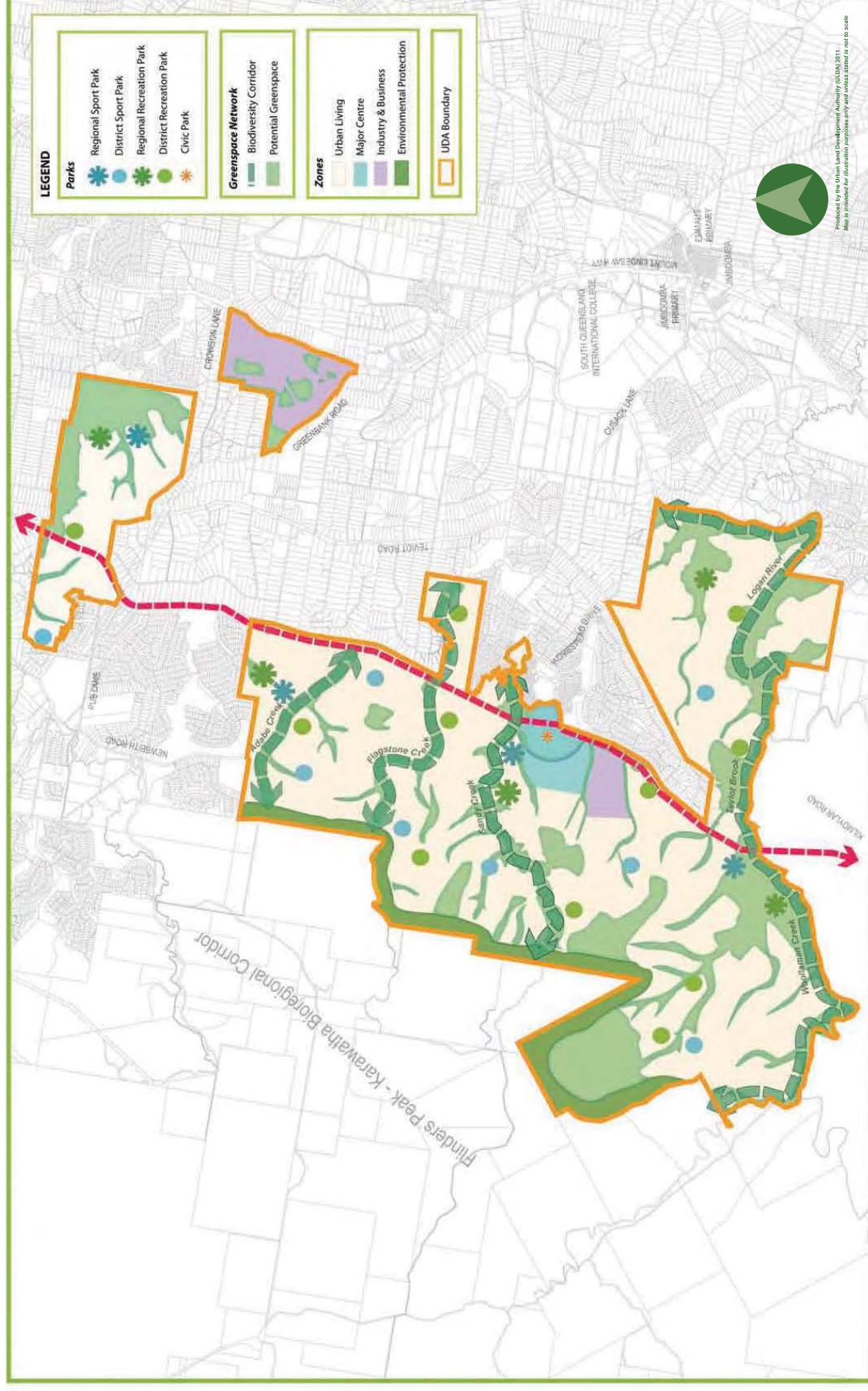
MASTERPLAN

43 - 77 Old Pub Lane, Greenbank QLD 4124  
Prepared for: Warren WWT, BW Advisory



**ATTACHMENT 4**

Map 4 - Community greenspace network



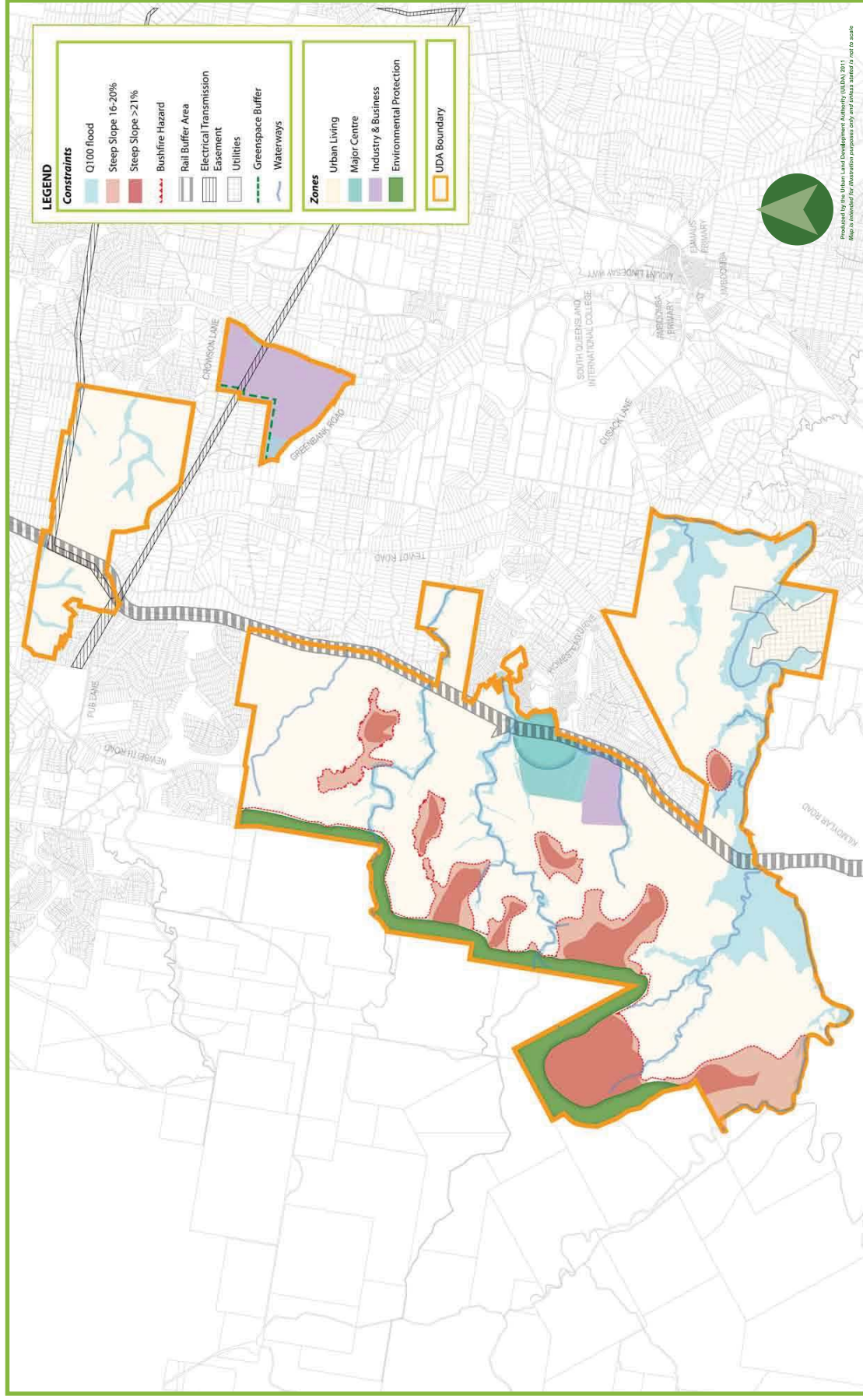
**ATTACHMENT 5**





**ATTACHMENT 6**

Map 7 - Development constraints



**ATTACHMENT 7**






1955



1970

43-47 Old Pub Lane, Greenbank

Legend

 Site Boundary

Attachment 7 - Historical Aerial Imagery (1955 & 1970)

28 South Project Ref: 2019-032

Data Sources: Digital Cadastre Database (Dept. Natural Resources and Mines, 2016); Q Imagery (1955 & 1970)

28°S  
ENVIRONMENTAL

Issue Date	Revision	Author
1 April 2019	Rev A	RF
Approved	Revision Note	
MT		

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1982



1993

43-47 Old Pub Lane, Greenbank

Legend

 Site Boundary

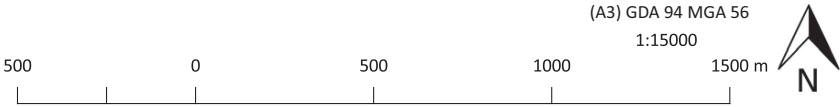
Attachment 7 - Historical Aerial Imagery (1982 & 1993)

28 South Project Ref: 2019-032

Data Sources: Digital Cadastre Database (Dept. Natural Resources and Mines, 2016); Q Imagery (1982 & 1993)



Issue Date	Revision	Author
1 April 2019	Rev A	RF
Approved	Revision Note	
MT		

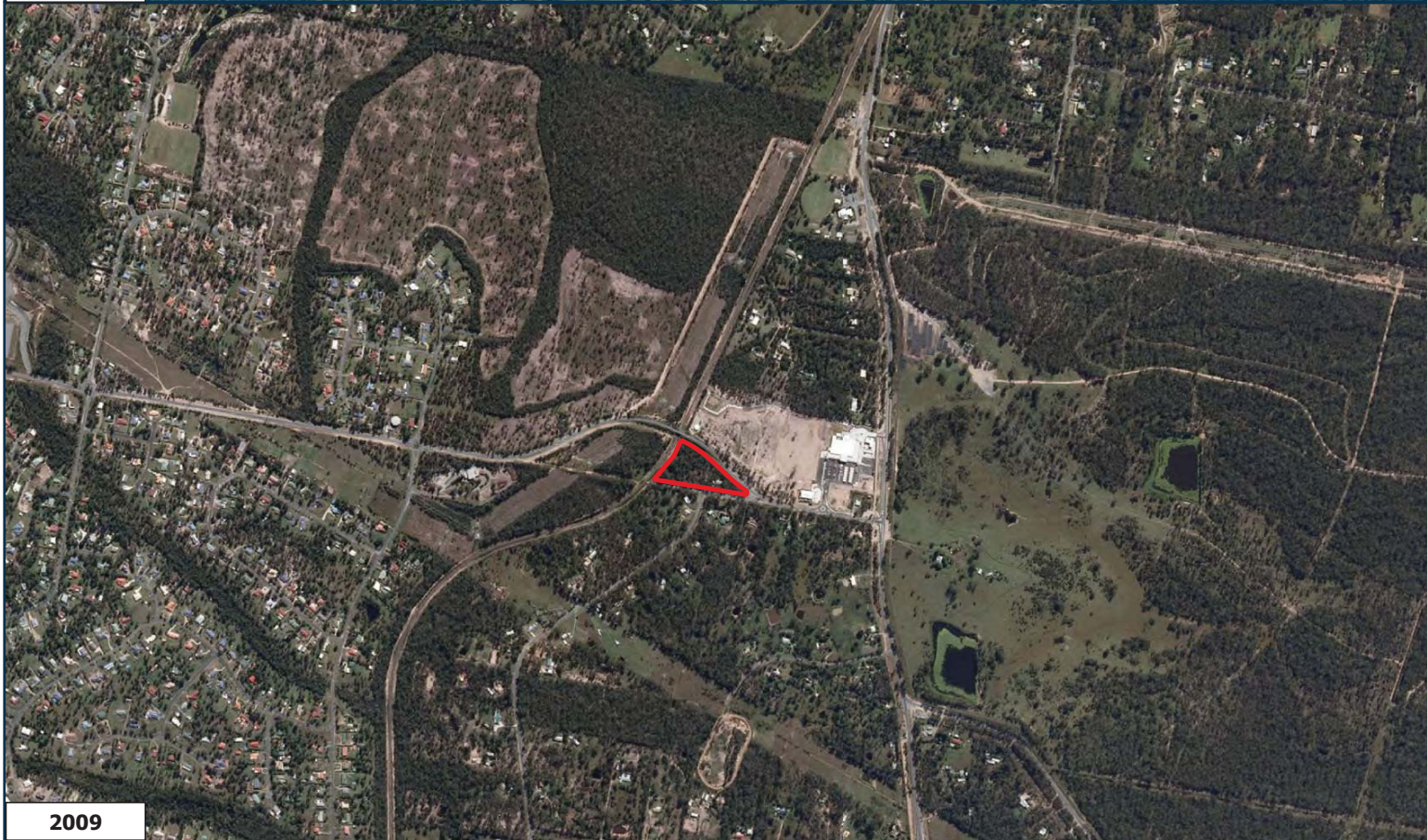


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2002




2009

43-47 Old Pub Lane, Greenbank

Legend

### Attachment 7 - Historical Aerial Imagery (2002 & 2009)

 Site Boundary

Issue Date	Revision	Author
1 & April 2018	Re3 &	RA
Approved	Revision Note	
Mv		

2F SoutT hrolect Rej: 2018f0- 2

Data Sources: Digital Cadastre Database (Dept. Natural Resources and Mines, 2016); Q Imagery (2002 9 2008)

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ENVIRONMENTAL

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1:15000







2014



2018

43-47 Old Pub Lane, Greenbank


Legend

### Attachment 7 - Historical Aerial Imagery (2014 & 2018)

28 South Project Ref: 2019-032

Data Sources: Digital Cadastre Database (Dept. Natural Resources and Mines, 2016); Nearmap Aerial Imagery (September 2014 & November 2018).

**28°S**  
ENVIRONMENTAL

 Site Boundary

Issue Date	Revision	Author
1 April 2019	Rev A	RF
Approved	Revision Note	
MT		

(A3) GDA 94 MGA 56  
1:15000





**ATTACHMENT 8**



# 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: 20/03/19 17:05:26

## [Summary](#)

## [Details](#)

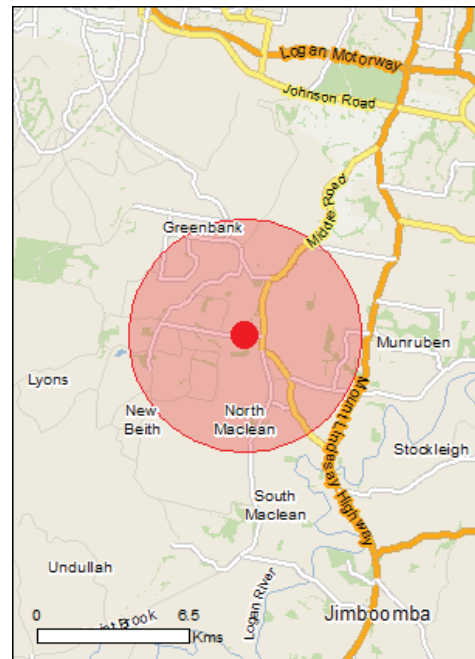
[Matters of NES](#)

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

[Extra Information](#)

## [Caveat](#)

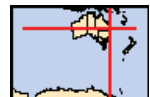
## [Acknowledgements](#)



This map may contain data which are  
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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>	2
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	4
<a href="#">Listed Threatened Species:</a>	35
<a href="#">Listed Migratory Species:</a>	16

## 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>	1
<a href="#">Commonwealth Heritage Places:</a>	1
<a href="#">Listed Marine Species:</a>	22
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</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>	2
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Invasive Species:</a>	38
<a href="#">Nationally Important Wetlands:</a>	1
<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>	20 - 30km upstream	
<a href="#">Moreton bay</a>	20 - 30km upstream	

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="#">Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community</a>	Endangered	Community may occur within area
<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 likely to 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
Birds		
<a href="#">Anthochaera phrygia</a>		
Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Botaurus poiciloptilus</a>		
Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
<a href="#">Calidris ferruginea</a>		
Curlew Sandpiper [856]	Critically 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="#">Erythrorchis radiatus</a>		
Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Geophaps scripta scripta</a>		
Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
<a href="#">Grantiella picta</a>		
Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Lathamus discolor</a>		
Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area



Name	Status	Type of Presence
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may 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, Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
<a href="#">Turnix melanogaster</a> Black-breasted Button-quail [923]	Vulnerable	Species or species habitat likely to occur within area
Fish		
<a href="#">Maccullochella mariensis</a> Mary River Cod [83806]	Endangered	Translocated population known to occur within area
Insects		
<a href="#">Argynnis hyperbius inconstans</a> Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within area
Mammals		
<a href="#">Chalinolobus dwyeri</a> Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to 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 known to occur within area
<a href="#">Petauroides volans</a> Greater Glider [254]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Petrogale penicillata</a> Brush-tailed Rock-wallaby [225]	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="#">Pteropus poliocephalus</a> Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Plants		
<a href="#">Bosistoa transversa</a> Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Cycas ophiolitica</a> [55797]	Endangered	Species or species habitat likely to occur within area
<a href="#">Dichanthium setosum</a> bluegrass [14159]	Vulnerable	Species or species habitat likely 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 within area

Name	Status	Type of Presence
<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="#">Notelaea ipsviciensis</a> Cooneana Olive [81858]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Notelaea lloydii</a> Lloyd's Olive [15002]	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="#">Plectranthus habrophyllus</a> [64589]	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 likely to occur within area

#### Reptiles

<a href="#">Delma torquata</a> Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
<a href="#">Furina dunmalli</a> Dunmall's Snake [59254]	Vulnerable	Species or species habitat may 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](#) ]

\* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
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#### Migratory Marine Birds

<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
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#### Migratory Terrestrial Species

<a href="#">Cuculus optatus</a> Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur 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 likely to occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area



Name	Threatened	Type of Presence
<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 may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat likely to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may 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 may 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

### Commonwealth Land [\[ Resource Information \]](#)

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name
Defence - GREENBANK TRAINING AREA

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

Name	State	Status
<b>Natural</b>		
<a href="#">Greenbank Military Training Area (part)</a>	QLD	Listed place

### 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 may occur within area
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<a href="#">Anseranas semipalmata</a> Magpie Goose [978]		Species or species habitat may occur within area
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<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species
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Name	Threatened	Type of Presence
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		habitat likely to occur within area  Species or species habitat known to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat likely to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may 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="#">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 likely to occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may 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 likely to occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may 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="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat may 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



Name	Threatened	Type of Presence
<a href="#">Tringa nebularia</a>		within area
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

## Extra Information

State and Territory Reserves	[ Resource Information ]
Name	State
A and T Koala Billabong	QLD
Koolena	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 Resouces Audit, 2001.	

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

Name	Status	Type of Presence
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
Equus caballus Horse [5]		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
Plants		
Alternanthera philoxeroides Alligator Weed [11620]		Species or species habitat likely to occur within area
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		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 habitat may occur within area
Chrysanthemoides monilifera subsp. rotundata Bitou Bush [16332]		Species or species habitat likely to occur within area
Cryptostegia grandiflora Rubber Vine, Rubbervine, India Rubber Vine, India Rubbervine, Palay Rubbervine, Purple Allamanda [18913]		Species or species habitat likely to occur within area
Eichhornia crassipes Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		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]		Species or species habitat likely to occur within area
Parkinsonia aculeata Parkinsonia, Jerusalem Thorn, Jelly Bean Tree, Horse Bean [12301]		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
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
Solanum elaeagnifolium Silver Nightshade, Silver-leaved Nightshade, White Horse Nettle, Silver-leaf Nightshade, Tomato Weed, White Nightshade, Bull-nettle, Prairie-berry, Satansbos, Silver-leaf Bitter-apple, Silverleaf-nettle, Trompillo [12323]		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
Ramphotyphlops braminus Flowerpot Blind Snake, Brahminy Blind Snake, Cacing Besi [1258]		Species or species habitat likely to occur within area

Nationally Important Wetlands		[ Resource Information ]
Name		State
<a href="#">Greenbank Army Training Area C</a>		QLD



# 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

-27.73746 152.97865

# 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.

**ATTACHMENT 9**





# Queensland Government

## Wildlife Online Extract

Search Criteria: Species List for a Specified Point

Species: All

Type: All

Status: All

Records: All

Date: All

Latitude: -27.7374

Longitude: 152.9786

Distance: 5

Email: [Mitch@28south.com.au](mailto:Mitch@28south.com.au)

Date submitted: Wednesday 20 Mar 2019 16:05:58

Date extracted: Wednesday 20 Mar 2019 16:10:03

The number of records retrieved = 358

### **Disclaimer**

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

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

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

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Bufonidae	<i>Rhinella marina</i>	cane toad	Y			18
animals	amphibians	Hylidae	<i>Litoria nasuta</i>	striped rocketfrog		C		3
animals	amphibians	Hylidae	<i>Litoria dentata</i>	bleating treefrog		C		3
animals	amphibians	Hylidae	<i>Litoria peronii</i>	emerald spotted treefrog		C		5
animals	amphibians	Hylidae	<i>Litoria rubella</i>	ruddy treefrog		C		6
animals	amphibians	Hylidae	<i>Litoria wilcoxii</i>	eastern stony creek frog		C		2
animals	amphibians	Hylidae	<i>Litoria gracilenta</i>	graceful treefrog		C		5
animals	amphibians	Hylidae	<i>Litoria latopalmata</i>	broad palmed rocketfrog		C		7
animals	amphibians	Hylidae	<i>Litoria brevipalmata</i>	green thighed frog		C		1
animals	amphibians	Hylidae	<i>Litoria fallax</i>	eastern sedgefrog		C		17
animals	amphibians	Hylidae	<i>Litoria caerulea</i>	common green treefrog		C		11
animals	amphibians	Limnodynastidae	<i>Limnodynastes tasmaniensis</i>	spotted grassfrog		C		3
animals	amphibians	Limnodynastidae	<i>Limnodynastes terraereginae</i>	scarlet sided pobblebonk		C		6
animals	amphibians	Limnodynastidae	<i>Platylectrum ornatum</i>	ornate burrowing frog		C		8
animals	amphibians	Limnodynastidae	<i>Limnodynastes peronii</i>	striped marshfrog		C		9
animals	amphibians	Limnodynastidae	<i>Adelotus brevis</i>	tusked frog		V		2
animals	amphibians	Myobatrachidae	<i>Crinia parinsignifera</i>	beeping froglet		C		11
animals	amphibians	Myobatrachidae	<i>Mixophyes fasciolatus</i>	great barred frog		C		3
animals	amphibians	Myobatrachidae	<i>Pseudophryne coriacea</i>	red backed broodfrog		C		3
animals	amphibians	Myobatrachidae	<i>Uperoleia laevigata</i>	eastern gungan		C		1
animals	amphibians	Myobatrachidae	<i>Pseudophryne raveni</i>	copper backed broodfrog		C		2
animals	amphibians	Myobatrachidae	<i>Pseudophryne major</i>	great brown broodfrog		C		1
animals	amphibians	Myobatrachidae	<i>Uperoleia rugosa</i>	chubby gungan		C		3
animals	amphibians	Myobatrachidae	<i>Uperoleia fusca</i>	dusky gungan		C		2
animals	birds	Acanthizidae	<i>Smicromis brevirostris</i>	weebill		C		7
animals	birds	Acanthizidae	<i>Acanthiza chrysorrhoa</i>	yellow-rumped thornbill		C		2
animals	birds	Acanthizidae	<i>Sericornis frontalis</i>	white-browed scrubwren		C		11
animals	birds	Acanthizidae	<i>Gerygone olivacea</i>	white-throated gerygone		C		10
animals	birds	Acanthizidae	<i>Acanthiza nana</i>	yellow thornbill		C		2
animals	birds	Acanthizidae	<i>Gerygone mouki</i>	brown gerygone		C		2
animals	birds	Acanthizidae	<i>Acanthiza lineata</i>	striated thornbill		C		1
animals	birds	Acanthizidae	<i>Acanthiza pusilla</i>	brown thornbill		C		11
animals	birds	Accipitridae	<i>Accipiter cirrocephalus</i>	collared sparrowhawk		C		4
animals	birds	Accipitridae	<i>Accipiter novaehollandiae</i>	grey goshawk		C		3
animals	birds	Accipitridae	<i>Haliaeetus leucogaster</i>	white-bellied sea-eagle		C		3
animals	birds	Accipitridae	<i>Haliastur spheonurus</i>	whistling kite		C		8
animals	birds	Accipitridae	<i>Aquila audax</i>	wedge-tailed eagle		C		6
animals	birds	Accipitridae	<i>Elanus axillaris</i>	black-shouldered kite		C		3
animals	birds	Accipitridae	<i>Accipiter fasciatus</i>	brown goshawk		C		2
animals	birds	Accipitridae	<i>Aviceda subcristata</i>	Pacific baza		C		34
animals	birds	Acrocephalidae	<i>Acrocephalus australis</i>	Australian reed-warbler		C		1
animals	birds	Aegothelidae	<i>Aegotheles cristatus</i>	Australian owl-nightjar		C		3
animals	birds	Alcedinidae	<i>Ceyx azureus</i>	azure kingfisher		C		9
animals	birds	Alcedinidae	<i>Ceyx pusillus</i>	little kingfisher		C		1
animals	birds	Anatidae	<i>Cygnus atratus</i>	black swan		C		2
animals	birds	Anatidae	<i>Dendrocygna arcuata</i>	wandering whistling-duck		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Anatidae	<i>Dendrocygna eytoni</i>	plumed whistling-duck		C		3
animals	birds	Anatidae	<i>Anas platyrhynchos</i>	northern mallard	Y			1
animals	birds	Anatidae	<i>Chenonetta jubata</i>	Australian wood duck		C		67
animals	birds	Anatidae	<i>Anas superciliosa</i>	Pacific black duck		C		52
animals	birds	Anatidae	<i>Aythya australis</i>	hardhead		C		2
animals	birds	Anatidae	<i>Anas rhynchosotis</i>	Australasian shoveler		C		1
animals	birds	Anatidae	<i>Anas gracilis</i>	grey teal		C		2
animals	birds	Anhingidae	<i>Anhinga novaehollandiae</i>	Australasian darter		C		4
animals	birds	Anseranatidae	<i>Anseranas semipalmata</i>	magpie goose		C		2
animals	birds	Apodidae	<i>Apus pacificus</i>	fork-tailed swift		SL		1
animals	birds	Apodidae	<i>Hirundapus caudacutus</i>	white-throated needletail		SL		3
animals	birds	Ardeidae	<i>Nycticorax caledonicus</i>	nankeen night-heron		C		29
animals	birds	Ardeidae	<i>Ardea alba modesta</i>	eastern great egret		C		7
animals	birds	Ardeidae	<i>Ardea intermedia</i>	intermediate egret		C		6
animals	birds	Ardeidae	<i>Ardea pacifica</i>	white-necked heron		C		9
animals	birds	Ardeidae	<i>Bubulcus ibis</i>	cattle egret		C		31
animals	birds	Ardeidae	<i>Egretta novaehollandiae</i>	white-faced heron		C		58
animals	birds	Ardeidae	<i>Strepera graculina</i>	pied currawong		C		66
animals	birds	Artamidae	<i>Artamus personatus</i>	masked woodswallow		C		1
animals	birds	Artamidae	<i>Artamus tibicen</i>	Australian magpie		C		129
animals	birds	Artamidae	<i>Cracticus sp.</i>					4
animals	birds	Artamidae	<i>Artamus leucorhynchus</i>	white-breasted woodswallow		C		3
animals	birds	Artamidae	<i>Cracticus nigrogularis</i>	pied butcherbird		C		48
animals	birds	Artamidae	<i>Cracticus torquatus</i>	grey butcherbird		C		92
animals	birds	Cacatuidae	<i>Calyptorhynchus lathami lathami</i>	glossy black-cockatoo (eastern)		V		2
animals	birds	Cacatuidae	<i>Calyptorhynchus banksii</i>	red-tailed black-cockatoo		C		1
animals	birds	Cacatuidae	<i>Cacatua galerita</i>	sulphur-crested cockatoo		C		71
animals	birds	Cacatuidae	<i>Cacatua tenuirostris</i>	long-billed corella	Y	C		1
animals	birds	Cacatuidae	<i>Eolophus roseicapilla</i>	galah		C		67
animals	birds	Cacatuidae	<i>Nymphicus hollandicus</i>	cockatiel		C		1
animals	birds	Campephagidae	<i>Lalage leucomela</i>	varied triller		C		2
animals	birds	Campephagidae	<i>Coracina novaehollandiae</i>	black-faced cuckoo-shrike		C		68
animals	birds	Campephagidae	<i>Coracina tenuirostris</i>	cicadabird		C		5
animals	birds	Campephagidae	<i>Coracina papuensis</i>	white-bellied cuckoo-shrike		C		2
animals	birds	Charadriidae	<i>Vanellus miles novaehollandiae</i>	masked lapwing (southern subspecies)		C		39
animals	birds	Charadriidae	<i>Vanellus miles</i>	masked lapwing		C		2
animals	birds	Charadriidae	<i>Vanellus tricolor</i>	banded lapwing		C		2
animals	birds	Ciconiidae	<i>Ephippiorhynchus asiaticus</i>	black-necked stork		C		1
animals	birds	Cisticolidae	<i>Cisticola exilis</i>	golden-headed cisticola		C		5
animals	birds	Climacteridae	<i>Cormobates leucophaea metastasis</i>	white-throated treecreeper (southern)		C		9
animals	birds	Climacteridae	<i>Cormobates leucophaea</i>	white-throated treecreeper		C		1
animals	birds	Columbidae	<i>Lopholaimus antarcticus</i>	topknot pigeon		C		1
animals	birds	Columbidae	<i>Macropygia amboinensis</i>	brown cuckoo-dove		C		16
animals	birds	Columbidae	<i>Streptopelia chinensis</i>	spotted dove	Y			13
animals	birds	Columbidae	<i>Geopelia humeralis</i>	bar-shouldered dove		C		41
animals	birds	Columbidae	<i>Phaps chalcoptera</i>	common bronzewing		C		17



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animals	birds	Columbidae	<i>Ocyphaps lophotes</i>	crested pigeon		C		47
animals	birds	Columbidae	<i>Geopelia striata</i>	peaceful dove		C		8
animals	birds	Columbidae	<i>Columba livia</i>	rock dove	Y			5
animals	birds	Coraciidae	<i>Eurystomus orientalis</i>	dollarbird		C		36
animals	birds	Corvidae	<i>Corvus orru</i>	Torresian crow		C		137
animals	birds	Corvidae	<i>Corvus coronoides</i>	Australian raven		C		1
animals	birds	Cuculidae	<i>Eudynamys orientalis</i>	eastern koel		C		31
animals	birds	Cuculidae	<i>Scythrops novaehollandiae</i>	channel-billed cuckoo		C		21
animals	birds	Cuculidae	<i>Cacomantis flabelliformis</i>	fan-tailed cuckoo		C		12
animals	birds	Cuculidae	<i>Centropus phasianinus</i>	pheasant coucal		C		47
animals	birds	Cuculidae	<i>Cacomantis variolosus</i>	brush cuckoo		C		16
animals	birds	Cuculidae	<i>Chalcites lucidus</i>	shining bronze-cuckoo		C		2
animals	birds	Cuculidae	<i>Cuculus optatus</i>	oriental cuckoo		SL		1
animals	birds	Cuculidae	<i>Cacomantis pallidus</i>	pallid cuckoo		C		2
animals	birds	Dicruridae	<i>Dicrurus bracteatus</i>	spangled drongo		C		62
animals	birds	Estrildidae	<i>Neochmia temporalis</i>	red-browed finch		C		25
animals	birds	Estrildidae	<i>Lonchura castaneothorax</i>	chestnut-breasted mannikin		C		1
animals	birds	Estrildidae	<i>Taeniopygia bichenovii</i>	double-barred finch		C		5
animals	birds	Eurostopodidae	<i>Eurostopodus mystacalis</i>	white-throated nightjar		C		1
animals	birds	Falconidae	<i>Falco berigora</i>	brown falcon		C		4
animals	birds	Falconidae	<i>Falco hypoleucos</i>	grey falcon		V		1
animals	birds	Falconidae	<i>Falco longipennis</i>	Australian hobby		C		1
animals	birds	Falconidae	<i>Falco cenchroides</i>	nankeen kestrel		C		8
animals	birds	Falconidae	<i>Falco peregrinus</i>	peregrine falcon		C		1
animals	birds	Halcyonidae	<i>Todiramphus sanctus</i>	sacred kingfisher		C		20
animals	birds	Halcyonidae	<i>Todiramphus macleayii</i>	forest kingfisher		C		52
animals	birds	Halcyonidae	<i>Dacelo novaeguineae</i>	laughing kookaburra		C		113
animals	birds	Hirundinidae	<i>Petrochelidon ariel</i>	fairy martin		C		4
animals	birds	Hirundinidae	<i>Hirundo neoxena</i>	welcome swallow		C		41
animals	birds	Hirundinidae	<i>Petrochelidon nigricans</i>	tree martin		C		2
animals	birds	Hirundinidae	<i>Cheramoeca leucosterna</i>	white-backed swallow		C		3
animals	birds	Jacaniidae	<i>Irediparra gallinacea</i>	comb-crested jacana		C		1
animals	birds	Maluridae	<i>Malurus cyaneus</i>	superb fairy-wren		C		21
animals	birds	Maluridae	<i>Malurus lamberti</i>	variegated fairy-wren		C		20
animals	birds	Maluridae	<i>Malurus melanocephalus</i>	red-backed fairy-wren		C		21
animals	birds	Megaluridae	<i>Cincloramphus mathewsi</i>	rufous songlark		C		1
animals	birds	Megaluridae	<i>Megalurus timoriensis</i>	tawny grassbird		C		1
animals	birds	Megapodiidae	<i>Alectura lathami</i>	Australian brush-turkey		C		10
animals	birds	Meliphagidae	<i>Philemon citreogularis</i>	little friarbird		C		28
animals	birds	Meliphagidae	<i>Anthochaera chrysoptera</i>	little wattlebird		C		2
animals	birds	Meliphagidae	<i>Myzomela erythrocephala</i>	red-headed honeyeater		C		1
animals	birds	Meliphagidae	<i>Melithreptus albogularis</i>	white-throated honeyeater		C		28
animals	birds	Meliphagidae	<i>Plectorhyncha lanceolata</i>	striped honeyeater		C		4
animals	birds	Meliphagidae	<i>Acanthorhynchus tenuirostris</i>	eastern spinebill		C		15
animals	birds	Meliphagidae	<i>Myzomela sanguinolenta</i>	scarlet honeyeater		C		81
animals	birds	Meliphagidae	<i>Manorina melanocephala</i>	noisy miner		C		44

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animals	birds	Meliphagidae	<i>Philemon corniculatus</i>	noisy friarbird		C		142
animals	birds	Meliphagidae	<i>Lichmera indistincta</i>	brown honeyeater		C		18
animals	birds	Meliphagidae	<i>Entomyzon cyanotis</i>	blue-faced honeyeater		C		63
animals	birds	Meliphagidae	<i>Caligavis chrysops</i>	yellow-faced honeyeater		C		58
animals	birds	Meliphagidae	<i>Meliphaga lewinii</i>	Lewin's honeyeater		C		81
animals	birds	Meropidae	<i>Merops ornatus</i>	rainbow bee-eater		C		27
animals	birds	Monarchidae	<i>Myiagra cyanoleuca</i>	satin flycatcher		SL		1
animals	birds	Monarchidae	<i>Grallina cyanoleuca</i>	magpie-lark		C		64
animals	birds	Monarchidae	<i>Monarcha melanopsis</i>	black-faced monarch		SL		4
animals	birds	Monarchidae	<i>Carterornis leucotis</i>	white-eared monarch		C		1
animals	birds	Monarchidae	<i>Myiagra inquieta</i>	restless flycatcher		C		1
animals	birds	Monarchidae	<i>Myiagra rubecula</i>	leaden flycatcher		C		10
animals	birds	Motacillidae	<i>Anthus novaeseelandiae</i>	Australasian pipit		C		8
animals	birds	Nectariniidae	<i>Dicaeum hirundinaceum</i>	mistletoebird		C		9
animals	birds	Neosittidae	<i>Daphoenositta chrysoptera</i>	varied sittella		C		3
animals	birds	Oriolidae	<i>Sphecotheres vieilloti</i>	Australasian figbird		C		18
animals	birds	Oriolidae	<i>Oriolus sagittatus</i>	olive-backed oriole		C		25
animals	birds	Pachycephalidae	<i>Pachycephala rufiventris</i>	rufous whistler		C		48
animals	birds	Pachycephalidae	<i>Colluricincla megarrhyncha</i>	little shrike-thrush		C		3
animals	birds	Pachycephalidae	<i>Pachycephala pectoralis</i>	golden whistler		C		41
animals	birds	Pachycephalidae	<i>Colluricincla harmonica</i>	grey shrike-thrush		C		62
animals	birds	Pachycephalidae	<i>Pachycephala sp.</i>					1
animals	birds	Pardalotidae	<i>Pardalotus punctatus</i>	spotted pardalote		C		36
animals	birds	Pardalotidae	<i>Pardalotus striatus</i>	striated pardalote		C		28
animals	birds	Pelecanidae	<i>Pelecanus conspicillatus</i>	Australian pelican		C		7
animals	birds	Petroicidae	<i>Eopsaltria australis</i>	eastern yellow robin		C		29
animals	birds	Petroicidae	<i>Tregellasia capito</i>	pale-yellow robin		C		1
animals	birds	Petroicidae	<i>Microeca fascians</i>	jacky winter		C		1
animals	birds	Petroicidae	<i>Petroica rosea</i>	rose robin		C		12
animals	birds	Phalacrocoracidae	<i>Phalacrocorax carbo</i>	great cormorant		C		1
animals	birds	Phalacrocoracidae	<i>Microcarbo melanoleucos</i>	little pied cormorant		C		22
animals	birds	Phalacrocoracidae	<i>Phalacrocorax sulcirostris</i>	little black cormorant		C		11
animals	birds	Phasianidae	<i>Coturnix ypsilophora</i>	brown quail		C		11
animals	birds	Podargidae	<i>Podargus strigoides</i>	tawny frogmouth		C		28
animals	birds	Podicipedidae	<i>Tachybaptus novaehollandiae</i>	Australasian grebe		C		7
animals	birds	Pomatostomidae	<i>Pomatostomus temporalis</i>	grey-crowned babbler		C		20
animals	birds	Psittacidae	<i>Alisterus scapularis</i>	Australian king-parrot		C		30
animals	birds	Psittacidae	<i>Platycercus elegans</i>	crimson rosella		C		1
animals	birds	Psittacidae	<i>Aprosmictus erythropterus</i>	red-winged parrot		C		1
animals	birds	Psittacidae	<i>Platycercus adscitus</i>	pale-headed rosella		C		79
animals	birds	Psittacidae	<i>Parvipsitta pusilla</i>	little lorikeet		C		10
animals	birds	Psittacidae	<i>Trichoglossus chlorolepidotus</i>	scaly-breasted lorikeet		C		52
animals	birds	Psittacidae	<i>Trichoglossus haematodus moluccanus</i>	rainbow lorikeet		C		99
animals	birds	Psittacidae	<i>Psophodes olivaceus</i>	eastern whiplbird		C		34
animals	birds	Rallidae	<i>Porphyrion melanotus</i>	purple swamphen		C		9
animals	birds	Rallidae	<i>Gallinula tenebrosa</i>	dusky moorhen		C		9

animals	birds	Rallidae	<i>Fulica atra</i>	Eurasian coot		C	4
animals	birds	Rallidae	<i>Lewinia pectoralis</i>	Lewin's rail		C	1
animals	birds	Recurvirostridae	<i>Himantopus himantopus</i>	black-winged stilt		C	1
animals	birds	Rhipiduridae	<i>Rhipidura leucophrys leucophrys</i>	willie wagtail (southern)		C	1
animals	birds	Rhipiduridae	<i>Rhipidura leucophrys</i>	willie wagtail		C	40
animals	birds	Rhipiduridae	<i>Rhipidura albiscapa</i>	grey fantail		C	75
animals	birds	Rhipiduridae	<i>Rhipidura rufifrons</i>	rufous fantail		SL	12
animals	birds	Scolopacidae	<i>Gallinago hardwickii</i>	Latham's snipe		SL	1
animals	birds	Strigidae	<i>Ninox strenua</i>	powerful owl		V	5
animals	birds	Strigidae	<i>Ninox boobook</i>	southern boobook		C	35
animals	birds	Sturnidae	<i>Acridotheres tristis</i>	common myna	Y		4
animals	birds	Sturnidae	<i>Sturnus vulgaris</i>	common starling	Y		2
animals	birds	Threskiornithidae	<i>Threskiornis spinicollis</i>	straw-necked ibis		C	40
animals	birds	Threskiornithidae	<i>Platalea flavipes</i>	yellow-billed spoonbill		C	24
animals	birds	Threskiornithidae	<i>Threskiornis molucca</i>	Australian white ibis		C	20
animals	birds	Threskiornithidae	<i>Platalea regia</i>	royal spoonbill		C	20
animals	birds	Timaliidae	<i>Zosterops lateralis</i>	silveryeye		C	41
animals	insects	Lycaenidae	<i>Zizina otis labradus</i>	common grass-blue (Australian subspecies)			1
animals	insects	Nymphalidae	<i>Euploea corinna</i>	common crow			1
animals	insects	Nymphalidae	<i>Danaus plexippus</i>	monarch	Y		2
animals	insects	Nymphalidae	<i>Acraea andromacha andromacha</i>	glasswing			1
animals	insects	Nymphalidae	<i>Melanitis leda bankia</i>	evening brown			1
animals	insects	Nymphalidae	<i>Tirumala hamata hamata</i>	blue tiger			1
animals	insects	Nymphalidae	<i>Junonia villida villida</i>	meadow argus			1
animals	insects	Nymphalidae	<i>Danaus petilia</i>	lesser wanderer			1
animals	insects	Nymphalidae	<i>Vanessa kershawi</i>	Australian painted lady			1
animals	mammals	Acrobatidae	<i>Acrobates pygmaeus</i>	feathertail glider		C	1
animals	mammals	Canidae	<i>Vulpes vulpes</i>	red fox	Y		25
animals	mammals	Canidae	<i>Canis lupus familiaris</i>	dog	Y		7
animals	mammals	Dasyuridae	<i>Sminthopsis murina</i>	common dunnart		C	2
animals	mammals	Dasyuridae	<i>Antechinus stuartii</i>	brown antechinus		C	1
animals	mammals	Dasyuridae	<i>Antechinus flavipes flavipes</i>	yellow-footed antechinus (south-east Queensland)		C	4
animals	mammals	Dasyuridae	<i>Dasyurus maculatus maculatus</i>	spotted-tailed quoll (southern subspecies)		V	6
animals	mammals	Dasyuridae	<i>Antechinus flavipes sensu lato</i>	yellow-footed antechinus		C	1
animals	mammals	Dasyuridae	<i>Phascogale tapoatafa tapoatafa</i>	brush-tailed phascogale		C	5
animals	mammals	Emballonuridae	<i>Saccolaimus flaviventris</i>	yellow-bellied sheathail bat		C	2
animals	mammals	Felidae	<i>Felis catus</i>	cat	Y		1
animals	mammals	Leporidae	<i>Oryctolagus cuniculus</i>	rabbit	Y		3
animals	mammals	Leporidae	<i>Lepus europaeus</i>	European brown hare	Y		21
animals	mammals	Macropodidae	<i>Macropus agilis</i>	agile wallaby		C	2
animals	mammals	Macropodidae	<i>Macropus parryi</i>	whiptail wallaby		C	51
animals	mammals	Macropodidae	<i>Macropus sp.</i>				1
animals	mammals	Macropodidae	<i>Macropus rufogriseus</i>	red-necked wallaby		C	26



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animals	mammals	Macropodidae	<i>Macropus giganteus</i>	eastern grey kangaroo		C		29
animals	mammals	Macropodidae	<i>Wallabia bicolor</i>	swamp wallaby		C		8
animals	mammals	Molossidae	<i>Tadarida australis</i>	white-striped freetail bat		C		5
animals	mammals	Muridae	<i>Pseudomys gracilicaudatus</i>	eastern chestnut mouse		C		1
animals	mammals	Muridae	<i>Rattus rattus</i>	black rat	Y			10
animals	mammals	Muridae	<i>Mus musculus</i>	house mouse	Y			2
animals	mammals	Ornithorhynchidae	<i>Ornithorhynchus anatinus</i>	platypus		SL		4
animals	mammals	Peramelidae	<i>Isodon macrourus</i>	northern brown bandicoot		C		6
animals	mammals	Peramelidae	<i>Perameles nasuta</i>	long-nosed bandicoot		C		1
animals	mammals	Petauridae	<i>Petaurus australis australis</i>	yellow-bellied glider (southern subspecies)		C		2
				squirrel glider		C		5
animals	mammals	Petauridae	<i>Petaurus norfolcensis</i>					3
animals	mammals	Petauridae	<i>Petaurus sp.</i>					6
animals	mammals	Petauridae	<i>Petaurus breviceps</i>	sugar glider		C		7
animals	mammals	Phalangeridae	<i>Trichosurus sp.</i>					76
animals	mammals	Phalangeridae	<i>Trichosurus vulpecula</i>	common brushtail possum		C		1
animals	mammals	Phalangeridae	<i>Trichosurus caninus</i>	short-eared possum		C		183
animals	mammals	Phascolarctidae	<i>Phascolarctos cinereus</i>	koala		V	V	12
animals	mammals	Pseudocheiridae	<i>Pseudocheirus peregrinus</i>	common ringtail possum		C		3/1
animals	mammals	Pseudocheiridae	<i>Petauroides volans volans</i>	southern greater glider		V	V	7
animals	mammals	Pteropodidae	<i>Pteropus poliocephalus</i>	grey-headed flying-fox		C	V	4
animals	mammals	Pteropodidae	<i>Pteropus scapulatus</i>	little red flying-fox		C		2
animals	mammals	Pteropodidae	<i>Pteropus sp.</i>					2
animals	mammals	Pteropodidae	<i>Pteropus alecto</i>	black flying-fox		C		2
animals	mammals	Suidae	<i>Sus scrofa</i>	pig	Y			2
animals	mammals	Tachyglossidae	<i>Tachyglossus aculeatus</i>	short-beaked echidna		SL		1
animals	ray-finned fishes	Eleotridae	<i>Mogurnda adspersa</i>	southern purplespotted gudgeon				2
animals	ray-finned fishes	Poeciliidae	<i>Gambusia holbrooki</i>	mosquitofish	Y			1
animals	reptiles	Agamidae	<i>Pogona barbata</i>	bearded dragon		C		12
animals	reptiles	Agamidae	<i>Intellagama lesueurii</i>	eastern water dragon		C		58
animals	reptiles	Agamidae	<i>Diporiphora australis</i>	tommy roundhead		C		5
animals	reptiles	Boidae	<i>Morelia spilota</i>	carpet python		C		18
animals	reptiles	Chelidae	<i>Wollumbinia latisternum</i>	saw-shelled turtle		C		2
animals	reptiles	Chelidae	<i>Emydura macquarii macquarii</i>	Murray turtle		C		1
animals	reptiles	Chelidae	<i>Chelodina longicollis</i>	eastern snake-necked turtle		C		1
animals	reptiles	Chelidae	<i>Chelodina sp.</i>					1
animals	reptiles	Colubridae	<i>Tropidonophis mairii</i>	freshwater snake		C		5
animals	reptiles	Colubridae	<i>Dendrelaphis punctulatus</i>	green tree snake		C		33
animals	reptiles	Diplodactylidae	<i>Amalosia jacovae</i>	clouded gecko		C		1
animals	reptiles	Elapidae	<i>Demansia sp.</i>					1
animals	reptiles	Elapidae	<i>Furina diadema</i>	red-naped snake		C		1
animals	reptiles	Elapidae	<i>Cacophis harriettae</i>	white-crowned snake		C		2
animals	reptiles	Elapidae	<i>Demansia psammophis</i>	yellow-faced whipsnake		C		5
animals	reptiles	Elapidae	<i>Pseudechis guttatus</i>	spotted black snake		C		1
animals	reptiles	Elapidae	<i>Pseudonaja textilis</i>	eastern brown snake		C		2
animals	reptiles	Elapidae	<i>Vermicella annulata</i>	bandy-bandy		C		2

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animals	reptiles	Elapidae	<i>Cacophis squamulosus</i>	golden crowned snake		C		2
animals	reptiles	Elapidae	<i>Cryptophis nigrescens</i>	eastern small-eyed snake		C		6
animals	reptiles	Elapidae	<i>Brachyurophis australis</i>	coral snake		C		2
animals	reptiles	Elapidae	<i>Pseudechis porphyriacus</i>	red-bellied black snake		C		7
animals	reptiles	Gekkonidae	<i>Gehyra dubia</i>	dubious dtella		C		3
animals	reptiles	Gekkonidae	<i>Hemidactylus frenatus</i>	house gecko	Y			5
animals	reptiles	Pygopodidae	<i>Lialis burtonis</i>	Burton's legless lizard		C		2
animals	reptiles	Scincidae	<i>Tiliqua scincoides</i>	eastern blue-tongued lizard		C		6
animals	reptiles	Scincidae	<i>Lygisaurus foliorum</i>	tree-base litter-skink		C		3
animals	reptiles	Scincidae	<i>Ctenotus taeniolatus</i>	copper-tailed skink		C		1
animals	reptiles	Scincidae	<i>Lampropholis amicala</i>	friendly sunskink		C		1
animals	reptiles	Scincidae	<i>Anomalopus verreauxii</i>	three-clawed worm-skink		C		4
animals	reptiles	Scincidae	<i>Lampropholis delicata</i>	dark-flecked garden sunskink		C		8
animals	reptiles	Scincidae	<i>Calyptotis scutirostrum</i>	scute-snouted calyptotis		C		2
animals	reptiles	Scincidae	<i>Cryptoblepharus pulcher pulcher</i>	elegant snake-eyed skink		C		7
animals	reptiles	Scincidae	<i>Ctenotus spaldingi</i>	straight-browed ctenotus		C		1
animals	reptiles	Scincidae	<i>Carlia pectoralis</i>	open-litter rainbow skink		C		1
animals	reptiles	Scincidae	<i>Carlia vivax</i>	tussock rainbow-skink		C		6
animals	reptiles	Scincidae	<i>Eulamprus quoyii</i>	eastern water skink		C		3
animals	reptiles	Typhlopidae	<i>Anilius proximus</i>	proximus blind snake		C		1
animals	reptiles	Varanidae	<i>Varanus varius</i>	lace monitor		C		7
animals	reptiles	Varanidae	<i>Varanus gouldii</i>	sand monitor		C		1
fungi	Agaricomycetes	Hyphodermataceae	<i>Hyphoderma setigerum</i>			C		1/1
fungi	Agaricomycetes	Meripilaceae	<i>Anthrobia</i>			C		1/1
fungi	lecanoromycetes	Acarosporaceae	<i>Acarospora citrina</i>			C		1/1
fungi	lecanoromycetes	Caliciaceae	<i>Buellia</i>			C		1/1
fungi	lecanoromycetes	Candelariaceae	<i>Candelariella aurella</i>			C		1/1
fungi	lecanoromycetes	Cladoniaceae	<i>Thysanothecium scutellatum</i>			C		1/1
fungi	lecanoromycetes	Lecanoraceae	<i>Lecanora</i>			C		1/1
fungi	lecanoromycetes	Lecanoraceae	<i>Lecanora oreinoides</i>			C		1/1
fungi	lecanoromycetes	Parmeliaceae	<i>Parmotrema subsumptum</i>			C		1/1
fungi	lecanoromycetes	Pertusariaceae	<i>Pertusaria xanthoplaca</i>			C		1/1
fungi	lecanoromycetes	Physciaceae	<i>Dirinaria flava</i>			C		1/1
fungi	lecanoromycetes	Porpidiaceae	<i>Paraporpidia glauca</i>			C		1/1
fungi	lecanoromycetes	Ramalinaceae	<i>Ramalinora glaucolivida</i>			C		1/1
fungi	lecanoromycetes	Teloschistaceae	<i>Caloplaca crenulata</i>			C		2/2
fungi	lecanoromycetes	Teloschistaceae	<i>Caloplaca</i>			C		1/1
plants	Equisetopsida	Araliaceae	<i>Trachymene incisa</i> subsp. <i>incisa</i>	yellow buttons		C		1/1
plants	Equisetopsida	Asteraceae	<i>Chryscephalum apiculatum</i>		Y			1
plants	Equisetopsida	Asteraceae	<i>Euryops chrysanthemoides</i>	white dogwood		C		1/1
plants	Equisetopsida	Asteraceae	<i>Ozothamnus diosmifolius</i>		Y			1/1
plants	Equisetopsida	Asteraceae	<i>Erigeron pusillus</i>		Y			1
plants	Equisetopsida	Bignoniaceae	<i>Campsis radicans</i>					2/1
plants	Equisetopsida	Caesalpiniaceae	<i>Chamaecrista rotundifolia</i> var. <i>rotundifolia</i>					1
plants	Equisetopsida	Campanulaceae	<i>Lobelia quadrangularis</i>			C		2/1
plants	Equisetopsida	Casuarinaceae	<i>Allocasuarina littoralis</i>			C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	Equisetopsida	Cyperaceae	<i>Cyperus rotundus</i>	nutgrass	Y			1
plants	Equisetopsida	Droseraceae	<i>Drosera spatulata</i>			C		1
plants	Equisetopsida	Droseraceae	<i>Drosera</i>			C		1
plants	Equisetopsida	Fabaceae	<i>Daviesia villifera</i>	prickly davesia		C		1
plants	Equisetopsida	Fabaceae	<i>Jacksonia scoparia</i>			C		1
plants	Equisetopsida	Fabaceae	<i>Glycine clandestina</i>			C		1
plants	Equisetopsida	Fabaceae	<i>Hardenbergia violacea</i>			C		1
plants	Equisetopsida	Fabaceae	<i>Erythrina crista-galli</i>			C		1
plants	Equisetopsida	Goodeniaceae	<i>Velleia spathulata</i>	wild pansies	Y			1/1
plants	Equisetopsida	Goodeniaceae	<i>Goodenia rotundifolia</i>			C		1
plants	Equisetopsida	Goodeniaceae	<i>Goodenia bellidifolia</i>			C		1
plants	Equisetopsida	Hemerocallidaceae	<i>Dianella longifolia</i>			C		1
plants	Equisetopsida	Iridaceae	<i>Patersonia sericea</i>			C		1
plants	Equisetopsida	Laxmanniaceae	<i>Lomandra longifolia</i>			C		1
plants	Equisetopsida	Laxmanniaceae	<i>Lomandra filiformis</i>			C		1
plants	Equisetopsida	Laxmanniaceae	<i>Lomandra multiflora</i>			C		1
plants	Equisetopsida	Mimosaceae	<i>Acacia concurrens</i>			C		1
plants	Equisetopsida	Myrsinaceae	<i>Myrsine howittiana</i>			C		1/1
plants	Equisetopsida	Myrtaceae	<i>Eucalyptus propinqua</i>	small-fruited grey gum		C		1
plants	Equisetopsida	Myrtaceae	<i>Corymbia tessellaris</i>	Moreton Bay ash		C		1
plants	Equisetopsida	Myrtaceae	<i>Leptospermum polygalifolium</i>	tantoon		C		1/1
plants	Equisetopsida	Myrtaceae	<i>Melaleuca decora</i>			C		1/1
plants	Equisetopsida	Myrtaceae	<i>Lophostemon suaveolens</i>	swamp box		C		1
plants	Equisetopsida	Myrtaceae	<i>Melaleuca irbyana</i>			E		2/2
plants	Equisetopsida	Myrtaceae	<i>Eucalyptus tereticornis</i>			C		1
plants	Equisetopsida	Orchidaceae	<i>Cymbidium canaliculatum</i>			C		1
plants	Equisetopsida	Orchidaceae	<i>Pterostylis nutans</i>			C		1/1
plants	Equisetopsida	Phylodraceae	<i>Philydrum lanuginosum</i>	frogsmouth		C		1
plants	Equisetopsida	Picrodendraceae	<i>Petalostigma pubescens</i>	quinine tree		C		1
plants	Equisetopsida	Poaceae	<i>Cenchrus purpurascens</i>			C		1
plants	Equisetopsida	Poaceae	<i>Themeda triandra</i>	kangaroo grass		C		1
plants	Equisetopsida	Poaceae	<i>Sporobolus fertilis</i>	giant Parramatta grass	Y			1/1
plants	Equisetopsida	Proteaceae	<i>Grevillea banksii</i>			C		1
plants	Equisetopsida	Rhamnaceae	<i>Alphitonia excelsa</i>	soap tree		C		1
plants	Equisetopsida	Rubiaceae	<i>Richardia brasiliensis</i>	white eye	Y			2/2
plants	Equisetopsida	Rutaceae	<i>Acronychia imperforata</i>	beach acronychia		C		2/2
plants	Equisetopsida	Rutaceae	<i>Severinia buxifolia</i>		Y			1/1
plants	Equisetopsida	Stylidiaceae	<i>Stylidium debile</i>	frail trigger plant		C		1/1
plants	Equisetopsida	Thymelaeaceae	<i>Pimelea linifolia</i>			C		1
plants	Equisetopsida	Viscaceae	<i>Notothixos incanus</i>			C		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.

**ATTACHMENT 10**



**Protected Plants Flora Survey Trigger Map**

**Legend**

- Coordinates
- High risk area
- Cadastral line
- Property boundaries shown are provided as a locational aid only
- Freeways / motorways / highways
- Secondary roads / streets



0 480 960 1,440 1,920 2,400 m

This product is projected into:  
GDA 1994 Queensland Albers

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

This map is produced at a scale relevant to the size of the area selected and should be printed as A4 size in portrait orientation.

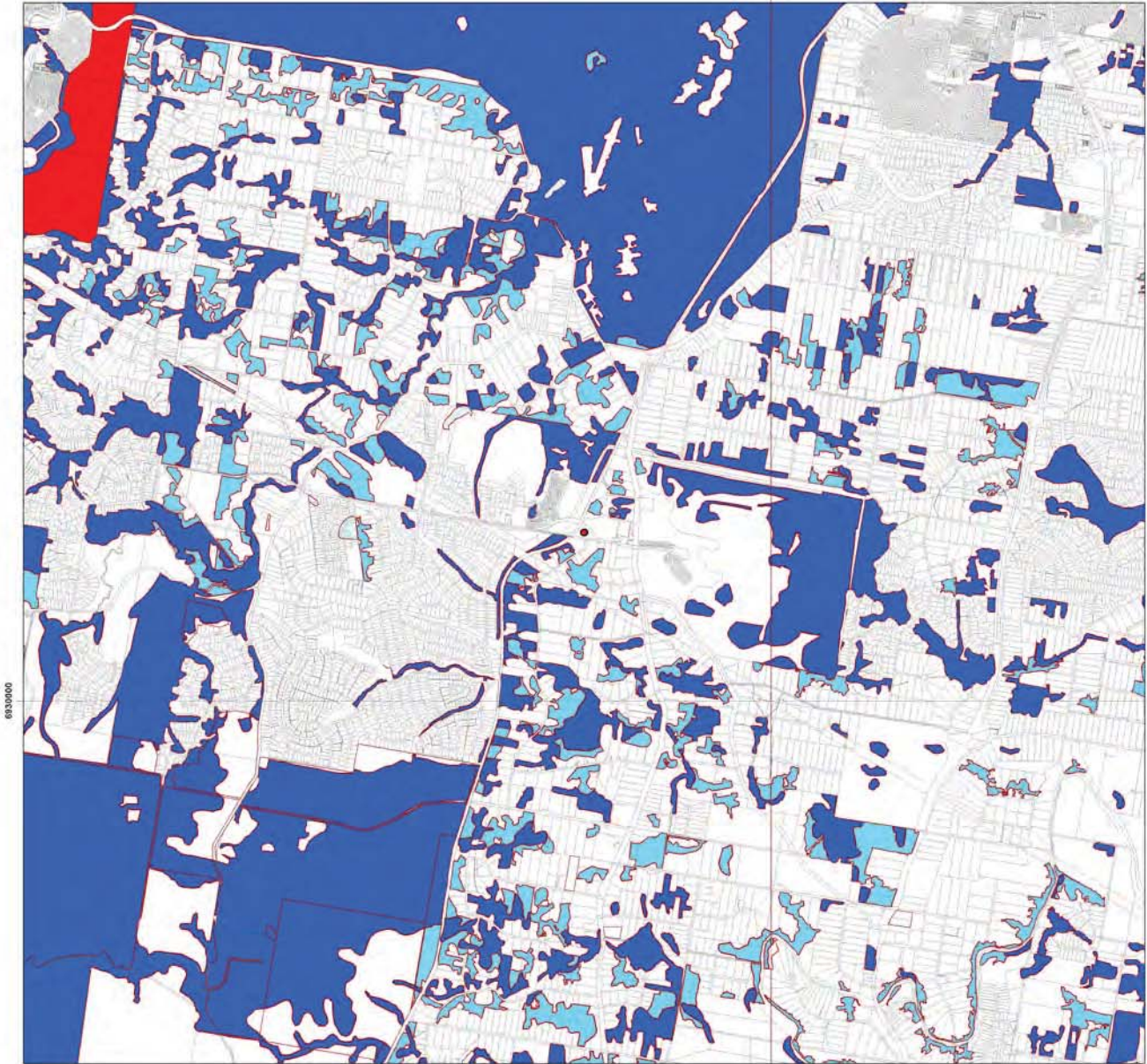
For further information or assistance with interpretation of this product, please contact the Department of Environment and Science at [palm@ehp.qld.gov.au](mailto:palm@ehp.qld.gov.au)

**Disclaimer:**  
While every care is taken to ensure the accuracy of the data used to generate this product, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damages) and costs which might be incurred as a consequence of reliance on the data, or as a result of the data being inaccurate or incomplete in any way and for any reason.



**ATTACHMENT 11**

500000



## Regulated Vegetation Management Map

### Legend

- Coordinates
- 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



0 675 1,350 2,025 2,700 3,375 m

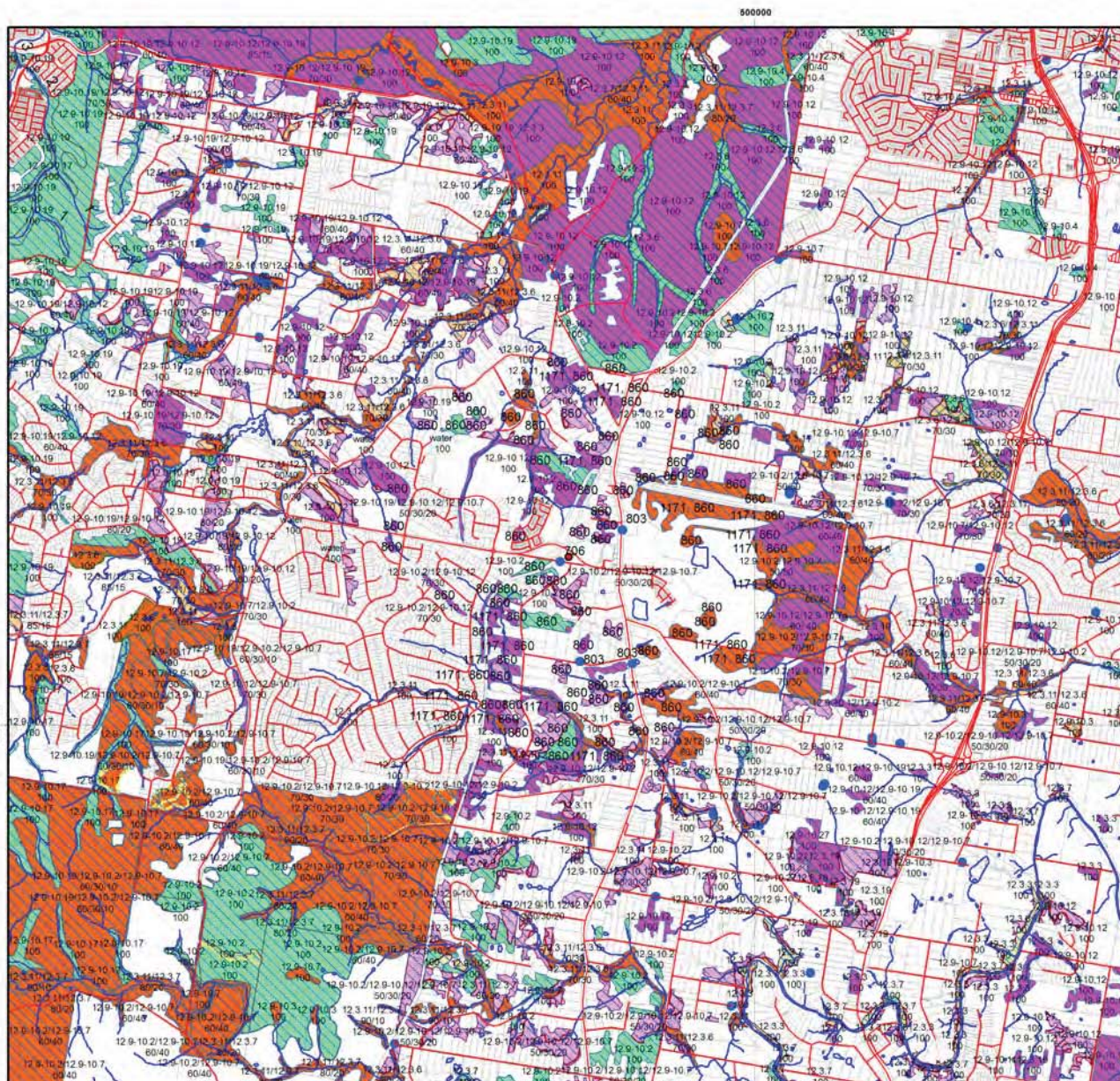
**Disclaimer:**  
While every care is taken to ensure the accuracy of this product, the Department of Natural Resources, Mines and Energy makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which you might incur as a result of the product being inaccurate or incomplete in any way and for any reason.

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.

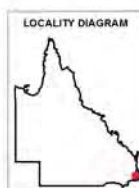




## Vegetation Management Supporting Map

### Legend

- Coordinates
- 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 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 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



0 480 960 1,440 1,920 2,400 m

This product is projected into:  
GDA 1994 MGA Zone 56

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.

### Disclaimer:

While every care is taken to ensure the accuracy of this product, the Department of Natural Resources, Mines and Energy makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which you might incur as a result of the product being inaccurate or incomplete in any way and for any reason.

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.dnrm.qld.gov.au](http://www.dnrm.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/>



# Vegetation Management Act 1999 - Extract from the essential habitat database

Essential habitat is required for assessment under the:

- State Development Assessment Provisions - State Code 16: Native vegetation clearing which sets out the matters of interest to the state for development assessment under the *Planning Act 2016*; and
- Accepted development vegetation clearing codes made under the *Vegetation Management Act 1999*

Essential habitat for one or more of the following species is found on and within 1.1 km of the identified subject lot/s on the accompanying essential habitat map.

This report identifies essential habitat in Category A, B and Category C areas.

The numeric labels on the essential habitat map can be cross referenced with the database below to determine which essential habitat factors might exist for a particular species.

Essential habitat is compiled from a combination of species habitat models and buffered species records.

The Department of Natural Resources, Mines and Energy website (<http://www.dnrme.qld.gov.au>) has more information on how the layer is applied under the State Development Assessment Provisions - State Code 16: Native vegetation clearing and the *Vegetation Management Act 1999*.

Regional ecosystem is a mandatory essential habitat factor, unless otherwise stated.

Essential habitat, for protected wildlife, means a category A area, a category B area or category C area shown on the regulated vegetation management map-

- 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; or
- 2) in which the protected wildlife, at any stage of its life cycle, is located.

Protected wildlife includes endangered, vulnerable or near-threatened native wildlife prescribed under the *Nature Conservation Act 1992*.

## Essential habitat in Category A and/or Category B and/or Category C

Label	Scientific Name	Common Name	NCA Status	Vegetation Community	Altitude	Soils	Position in Landscape
860	Phascolarctos cinereus	koala	V	SEQ: Open eucalypt forest and woodland that has: a) multiple strata layers containing Eucalyptus, Corymbia, Angophora, Lophostemon or Melaleuca trees that-at 1.3 metres above the ground-have a diameter both greater and less than 30 centimetres; and b) at least 1 of the following species: Eucalyptus tereticornis, E. fibrosa, E. propinqua; E. umbra, E. grandis, E. microcorys, E. tindalliae, E. resinifera, E. populnea, E. robusta, E. nigra, E. racemosa, E. crebra, E. exserta, E. seeana, Lophostemon confertus, L. suaveolens, Melaleuca quinquenervia. Outside SEQ: Open eucalypt forest and woodland that contains Eucalyptus &/or Corymbia spp. Tree species used for food varies across State and can include Eucalyptus tereticornis, E. camaldulensis, E. coolabah; E. drepanophylla, E. platyphylla, E. orgadophilla, E. thozetiana, E. melanophloia, E. populnea, E. melliodora, E. dealbata, E. microtheca, E. crebra, E. exserta, E. blakelyi, E. papuana, Corymbia tessellaris, C. citriodora, Melaleuca quinquenervia, M. leucadendra.	Sea level to 1000m.	None	Riparian areas, plains and hill/escarpment slopes.
1171	Calyptorhynchus lathamii	glossy black-cockatoo	V	Lowland and highland eucalypt forest and woodland, including riparian, callitris and brigalow scrub areas, with Casuarina (C. glauca, C. cristata)/Allocasuarina spp. (A. torulosa, A. littoralis). Nest in large vertical hollow (1-2m deep, 25-50cm diameter) up to 28m above ground in tall slightly isolated tree usually near principal food source (Allocasuarina/Casuarina).	Sea level to 1200m.	None	None
706	Adelotus brevis	tusked frog	V	In cavities, under debris (logs, stones) in subtropical vine forest, tall open moist forest, heaths, Melaleuca swamp and pasturelands near puddles and streams.	Sea level to 1000m.	None	None
803	Dasyurus maculatus maculatus	spotted-tailed quoll (southern subsp.)	V	Rainforest, wet and dry structurally complex sclerophyll forest (e.g. Eucalyptus andrewsii, E. saligna, E. tereticornis & Corymbia intermedia) on productive soils (gullies & flats) and in rocky areas (ridges), also open woodland (E. alba, E. melliodora, Callitris glaucophylla), coastal heathland (adjacent to forest) and riparian forest. Dens in caves, rock crevices and hollow logs.	Sea level to 1000m.	None	None

Label	Regional Ecosystem (mandatory unless otherwise specified)
860	SEQ: 11.3.2, 11.3.4, 11.3.25, 11.3.26, 11.8.2, 11.8.4, 11.8.5, 11.8.8, 11.9.9, 12.2.5, 12.2.6, 12.2.7, 12.2.8, 12.2.10, 12.3.2, 12.3.3, 12.3.4, 12.3.5, 12.3.6, 12.3.7, 12.3.9, 12.3.10, 12.3.11, 12.3.14, 12.3.18, 12.3.19, 12.3.20, 12.5.1, 12.5.2, 12.5.3, 12.5.4, 12.5.6, 12.5.7, 12.5.10, 12.5.12, 12.8.1, 12.8.8, 12.8.9, 12.8.11, 12.8.12, 12.8.14, 12.8.16, 12.8.17, 12.8.20, 12.8.24, 12.8.25, 12.9-10.1, 12.9-10.2, 12.9-10.3, 12.9-10.4, 12.9-10.5, 12.9-10.7, 12.9-10.8, 12.9-10.11, 12.9-10.12, 12.9-10.14, 12.9-10.17, 12.9-10.18, 12.9-10.19, 12.9-10.21, 12.9-10.25, 12.9-10.26, 12.9-10.27, 12.9-10.28, 12.9-10.29, 12.11.2, 12.11.3, 12.11.5, 12.11.6, 12.11.7, 12.11.8, 12.11.9, 12.11.10, 12.11.11, 12.11.12, 12.11.16, 12.11.17, 12.11.18, 12.11.22, 12.11.23, 12.11.24, 12.11.25, 12.11.26, 12.11.27, 12.11.28, 12.12.2, 12.12.3, 12.12.5, 12.12.6, 12.12.7, 12.12.8, 12.12.9, 12.12.11, 12.12.12, 12.12.14, 12.12.15, 12.12.23, 12.12.24, 12.12.25, 12.12.28. Outside SEQ: 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, 4.3.6, 4.3.8, 4.3.10, 4.3.11, 4.4.1, 4.5.3, 4.5.5, 4.5.6, 4.5.8, 4.5.9, 4.7.1, 4.7.7, 4.7.8, 4.9.6, 4.9.10, 4.9.12, 4.9.17, 6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.8, 6.3.9, 6.3.11, 6.3.12, 6.3.17, 6.3.18, 6.3.22, 6.3.24, 6.3.25, 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.5.1, 6.5.2, 6.5.3, 6.5.5, 6.5.6, 6.5.7, 6.5.8, 6.5.9, 6.5.10, 6.5.11, 6.5.13, 6.5.14, 6.5.15, 6.5.16, 6.5.17, 6.5.18, 6.5.19, 6.6.2, 6.7.1, 6.7.2, 6.7.5, 6.7.6, 6.7.7, 6.7.9, 6.7.11, 6.7.12, 6.7.13, 6.7.14, 6.7.17, 6.9.3, 7.2.3, 7.2.4, 7.2.7, 7.2.11, 7.3.7, 7.3.8, 7.3.9, 7.3.12, 7.3.13, 7.3.14, 7.3.16, 7.3.19, 7.3.20, 7.3.21, 7.3.25, 7.3.26, 7.3.39, 7.3.40, 7.3.42, 7.3.43, 7.3.44, 7.3.45, 7.3.47, 7.3.48, 7.3.50, 7.5.1, 7.5.2, 7.5.3, 7.5.4, 7.8.7, 7.8.8, 7.8.10, 7.8.15, 7.8.16, 7.8.17, 7.8.18, 7.8.19, 7.11.5, 7.11.6, 7.11.13, 7.11.14, 7.11.16, 7.11.18, 7.11.19, 7.11.20, 7.11.21, 7.11.31, 7.11.32, 7.11.33, 7.11.34, 7.11.35, 7.11.37, 7.11.41, 7.11.42, 7.11.43, 7.11.44, 7.11.45, 7.11.46, 7.11.47, 7.11.48, 7.11.49, 7.11.50, 7.11.51, 7.12.4, 7.12.5, 7.12.17, 7.12.21, 7.12.22, 7.12.23, 7.12.24, 7.12.25, 7.12.26, 7.12.27, 7.12.28, 7.12.29, 7.12.30, 7.12.33, 7.12.34, 7.12.35, 7.12.51, 7.12.52, 7.12.53, 7.12.54, 7.12.55, 7.12.56, 7.12.57, 7.12.58, 7.12.59, 7.12.60, 7.12.61, 7.12.62, 7.12.63, 7.12.65, 7.12.66, 7.12.69, 8.1.5, 8.2.3, 8.2.6, 8.2.7, 8.2.8, 8.2.11, 8.2.12, 8.2.13, 8.2.14, 8.3.1, 8.3.2, 8.3.3, 8.3.5, 8.3.6, 8.3.8, 8.3.10, 8.3.11, 8.3.13, 8.5.1, 8.5.2, 8.5.3, 8.5.5, 8.5.6, 8.5.7, 8.9.1, 8.10.1, 8.11.1, 8.11.3, 8.11.4, 8.11.5, 8.11.6, 8.11.8, 8.11.10, 8.11.12, 8.12.4, 8.12.5, 8.12.6, 8.12.7, 8.12.8, 8.12.9, 8.12.12, 8.12.14, 8.12.20, 8.12.22, 8.12.23, 8.12.25, 8.12.26, 8.12.27, 8.12.29, 8.12.31, 8.12.32, 9.3.1, 9.3.2, 9.3.3, 9.3.4, 9.3.5, 9.3.6, 9.3.7, 9.3.8, 9.3.10, 9.3.11, 9.3.13, 9.3.14, 9.3.15, 9.3.16, 9.3.17, 9.3.19, 9.3.20, 9.3.21, 9.3.22, 9.3.27, 9.4.1, 9.4.2, 9.4.3, 9.5.1, 9.5.3, 9.5.4, 9.5.5, 9.5.6, 9.5.7, 9.5.8, 9.5.9, 9.5.10, 9.5.11, 9.5.12, 9.5.15, 9.5.16, 9.5.17, 9.7.1, 9.7.2, 9.7.3, 9.7.4, 9.7.5, 9.7.6, 9.8.1, 9.8.2, 9.8.3, 9.8.4, 9.8.5, 9.8.9, 9.8.10, 9.8.11, 9.8.13, 9.10.1, 9.10.3, 9.10.4, 9.10.5, 9.10.7, 9.10.8, 9.11.1, 9.11.2, 9.11.3, 9.11.4, 9.11.5, 9.11.7, 9.11.10, 9.11.12, 9.11.13, 9.11.14, 9.11.15, 9.11.16, 9.11.17, 9.11.18, 9.11.19, 9.11.21, 9.11.22, 9.11.23, 9.11.24, 9.11.25, 9.11.26, 9.11.28, 9.11.29, 9.11.30, 9.11.31, 9.11.32, 9.12.1, 9.12.2, 9.12.3, 9.12.4, 9.12.5, 9.12.6, 9.12.7, 9.12.10, 9.12.11, 9.12.12, 9.12.13, 9.12.14, 9.12.15, 9.12.16, 9.12.17, 9.12.18, 9.12.19, 9.12.20, 9.12.21, 9.12.22, 9.12.23, 9.12.24, 9.12.25, 9.12.26, 9.12.27, 9.12.28, 9.12.29, 9.12.30, 9.12.31, 9.12.32, 9.12.33, 9.12.35, 9.12.36, 9.12.37, 9.12.38, 9.12.39, 9.12.44, 10.3.2, 10.3.3, 10.3.5, 10.3.6, 10.3.9, 10.3.10, 10.3.11, 10.3.12, 10.3.13, 10.3.14, 10.3.15, 10.3.17, 10.3.20, 10.3.27, 10.3.28, 10.4.3, 10.4.9, 10.5.1, 10.5.2, 10.5.4, 10.5.5, 10.5.7, 10.5.8, 10.5.9, 10.5.10, 10.5.11, 10.5.12, 10.7.1, 10.7.2, 10.7.3, 10.7.4, 10.7.5, 10.7.9, 10.7.10, 10.7.11, 10.7.12, 10.9.2, 10.9.3, 10.9.5, 10.10.1, 10.10.3, 10.10.4, 10.10.5, 10.10.7, 11.2.1, 11.2.5, 11.3.1, 11.3.2, 11.3.3, 11.3.4, 11.3.5, 11.3.6, 11.3.7, 11.3.9, 11.3.10, 11.3.12, 11.3.13, 11.3.14, 11.3.15, 11.3.16, 11.3.17, 11.3.18, 11.3.19, 11.3.21, 11.3.23, 11.3.25, 11.3.26, 11.3.27, 11.3.28, 11.3.29, 11.3.30, 11.3.32, 11.3.33, 11.3.35, 11.3.36, 11.3.37, 11.3.38, 11.3.39, 11.4.2, 11.4.3, 11.4.7, 11.4.8, 11.4.9, 11.4.10, 11.4.12, 11.4.13, 11.5.1, 11.5.2, 11.5.3, 11.5.4, 11.5.5, 11.5.7, 11.5.8, 11.5.9, 11.5.12, 11.5.13, 11.5.14, 11.5.17, 11.5.18, 11.5.20, 11.5.21, 11.7.1, 11.7.2, 11.7.3, 11.7.4, 11.7.6, 11.7.7, 11.8.1, 11.8.2, 11.8.4, 11.8.5, 11.8.8, 11.8.11, 11.8.12, 11.8.14, 11.8.15, 11.8.1, 11.9.2, 11.9.3, 11.9.5, 11.9.6, 11.9.7, 11.9.9, 11.9.10, 11.9.11, 11.9.13, 11.9.14, 11.10.1, 11.10.2, 11.10.3, 11.10.4, 11.10.5, 11.10.6, 11.10.7, 11.10.9, 11.10.11, 11.10.12, 11.10.13, 11.11.1, 11.11.2, 11.11.3, 11.11.4, 11.11.6, 11.11.7, 11.11.8, 11.11.9, 11.11.10, 11.11.11, 11.11.12, 11.11.13, 11.11.14, 11.11.15, 11.11.16, 11.11.17, 11.11.19, 11.11.20, 11.12.1, 11.12.2, 11.12.3, 11.12.5, 11.12.6, 11.12.7, 11.12.8, 11.12.9, 11.12.10, 11.12.13, 11.12.14, 11.12.15, 11.12.16, 11.12.17, 11.12.19, 11.12.20, 13.3.1, 13.3.2, 13.3.3, 13.3.4, 13.3.5, 13.3.7, 13.9.2, 13.11.1, 13.11.2, 13.11.3, 13.11.4, 13.11.5, 13.11.6, 13.11.8, 13.11.9, 13.12.1, 13.12.2, 13.12.3, 13.12.4, 13.12.5, 13.12.6, 13.12.8, 13.12.9, 13.12.10.

Label	Regional Ecosystem (mandatory unless otherwise specified)
1171	6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.8, 6.3.9, 6.3.16, 6.3.17, 6.3.18, 6.3.24, 6.3.25, 6.4.1, 6.4.2, 6.4.3, 6.5.1, 6.5.2, 6.5.3, 6.5.5, 6.5.17, 6.5.19, 6.7.2, 6.7.5, 6.7.6, 8.2.1, 8.2.3, 8.2.4, 8.2.6, 8.2.7, 8.2.8, 8.2.12, 8.2.13, 8.2.14, 8.3.2, 8.3.3, 8.3.5, 8.3.6, 8.3.8, 8.3.11, 8.3.13, 8.5.1, 8.5.2, 8.5.3, 8.5.5, 8.5.6, 8.9.1, 8.11.1, 8.11.3, 8.11.4, 8.11.5, 8.11.6, 8.11.8, 8.12.4, 8.12.5, 8.12.6, 8.12.7, 8.12.8, 8.12.9, 8.12.12, 8.12.14, 8.12.20, 8.12.22, 8.12.23, 8.12.25, 8.12.26, 8.12.27, 8.12.31, 8.12.32, 9.3.1, 9.3.2, 9.3.3, 9.3.4, 9.3.5, 9.3.6, 9.3.7, 9.3.8, 9.3.9, 9.3.11, 9.3.13, 9.3.14, 9.3.15, 9.3.16, 9.3.17, 9.3.18, 9.3.19, 9.3.20, 9.3.21, 9.3.22, 9.3.23, 9.4.1, 9.4.2, 9.4.3, 9.5.1, 9.5.3, 9.5.4, 9.5.5, 9.5.6, 9.5.7, 9.5.8, 9.5.9, 9.5.10, 9.5.11, 9.5.12, 9.5.16, 9.7.1, 9.7.2, 9.7.3, 9.7.5, 9.7.6, 9.8.1, 9.8.2, 9.8.4, 9.8.5, 9.8.6, 9.8.9, 9.8.10, 9.8.11, 9.10.1, 9.10.3, 9.10.4, 9.10.5, 9.10.6, 9.10.7, 9.10.8, 9.11.1, 9.11.2, 9.11.3, 9.11.4, 9.11.5, 9.11.7, 9.11.10, 9.11.11, 9.11.12, 9.11.13, 9.11.15, 9.11.16, 9.11.17, 9.11.18, 9.11.19, 9.11.23, 9.11.26, 9.11.28, 9.11.29, 9.11.31, 9.11.32, 9.12.1, 9.12.2, 9.12.3, 9.12.4, 9.12.5, 9.12.6, 9.12.7, 9.12.10, 9.12.11, 9.12.12, 9.12.13, 9.12.16, 9.12.17, 9.12.18, 9.12.19, 9.12.20, 9.12.21, 9.12.22, 9.12.23, 9.12.24, 9.12.26, 9.12.28, 9.12.30, 9.12.31, 9.12.33, 9.12.35, 9.12.37, 9.12.39, 11.2.1, 11.2.2, 11.2.5, 11.3.1, 11.3.2, 11.3.3, 11.3.4, 11.3.6, 11.3.7, 11.3.8, 11.3.9, 11.3.10, 11.3.12, 11.3.13, 11.3.14, 11.3.15, 11.3.16, 11.3.17, 11.3.18, 11.3.19, 11.3.23, 11.3.25, 11.3.26, 11.3.27, 11.3.28, 11.3.29, 11.3.30, 11.3.35, 11.3.36, 11.3.37, 11.3.38, 11.3.39, 11.4.2, 11.4.3, 11.4.5, 11.4.7, 11.4.8, 11.4.9, 11.4.10, 11.4.12, 11.4.13, 11.5.1, 11.5.2, 11.5.3, 11.5.4, 11.5.5, 11.5.7, 11.5.8, 11.5.9, 11.5.12, 11.5.13, 11.5.14, 11.5.16, 11.5.17, 11.5.20, 11.5.21, 11.7.1, 11.7.2, 11.7.4, 11.7.6, 11.8.1, 11.8.2, 11.8.4, 11.8.5, 11.8.8, 11.8.9, 11.8.11, 11.8.12, 11.8.14, 11.8.15, 11.9.1, 11.9.2, 11.9.3, 11.9.5, 11.9.6, 11.9.7, 11.9.9, 11.9.10, 11.9.13, 11.9.14, 11.10.1, 11.10.2, 11.10.3, 11.10.4, 11.10.5, 11.10.6, 11.10.7, 11.10.9, 11.10.11, 11.10.12, 11.10.13, 11.11.1, 11.11.3, 11.11.4, 11.11.6, 11.11.7, 11.11.8, 11.11.9, 11.11.10, 11.11.11, 11.11.13, 11.11.14, 11.11.15, 11.11.16, 11.11.19, 11.11.20, 11.12.1, 11.12.2, 11.12.3, 11.12.5, 11.12.6, 11.12.7, 11.12.8, 11.12.9, 11.12.10, 11.12.11, 11.12.12, 11.12.13, 11.12.14, 11.12.15, 11.12.17, 11.12.19, 11.12.20, 11.12.21, 12.2.5, 12.2.6, 12.2.13, 12.2.14, 12.3.11, 12.5.1, 12.5.2, 12.5.3, 12.5.4, 12.5.6, 12.8.1, 12.8.2, 12.8.8, 12.8.10, 12.8.11, 12.8.12, 12.8.14, 12.8.16, 12.8.19, 12.8.20, 12.8.23, 12.8.25, 12.9-10.2, 12.9-10.4, 12.9-10.5, 12.9-10.6, 12.9-10.9, 12.9-10.12, 12.9-10.14, 12.9-10.17, 12.9-10.19, 12.9-10.20, 12.11.2, 12.11.3, 12.11.5, 12.11.6, 12.11.9, 12.11.15, 12.11.23, 12.11.24, 12.11.25, 12.11.27, 12.12.2, 12.12.5, 12.12.6, 12.12.9, 12.12.11, 12.12.15, 12.12.20, 12.12.23, 12.12.26, 13.3.1, 13.3.2, 13.3.3, 13.3.4, 13.3.5, 13.3.7, 13.9.2, 13.11.1, 13.11.2, 13.11.3, 13.11.4, 13.11.5, 13.11.6, 13.11.8, 13.12.1, 13.12.2, 13.12.3, 13.12.4, 13.12.5, 13.12.8, 13.12.9, 13.12.10
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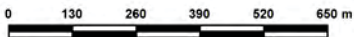
**ATTACHMENT 12**





### Koala Habitat in South East Queensland

- Lot and Plan
- Koala SPP - Habitat Values**
- Bushland Habitat**
- High Value Bushland
- Medium Value Bushland
- Low Value Bushland
- Suitable for Rehabilitation**
- High Value Rehabilitation
- Medium Value Rehabilitation
- Low Value Rehabilitation
- Other Areas of Value**
- High Value Other
- Medium Value Other
- Low Value Other
- Generally not suitable
- Water
- South East Queensland Koala Habitat Values western SEQ**
- Bushland Habitat
- Suitable for rehabilitation
- Other areas of value
- Generally not suitable
- Water
- Cadastral Boundaries
- Local Government Boundaries



This product is projected into GDA 1994 MGA Zone 56

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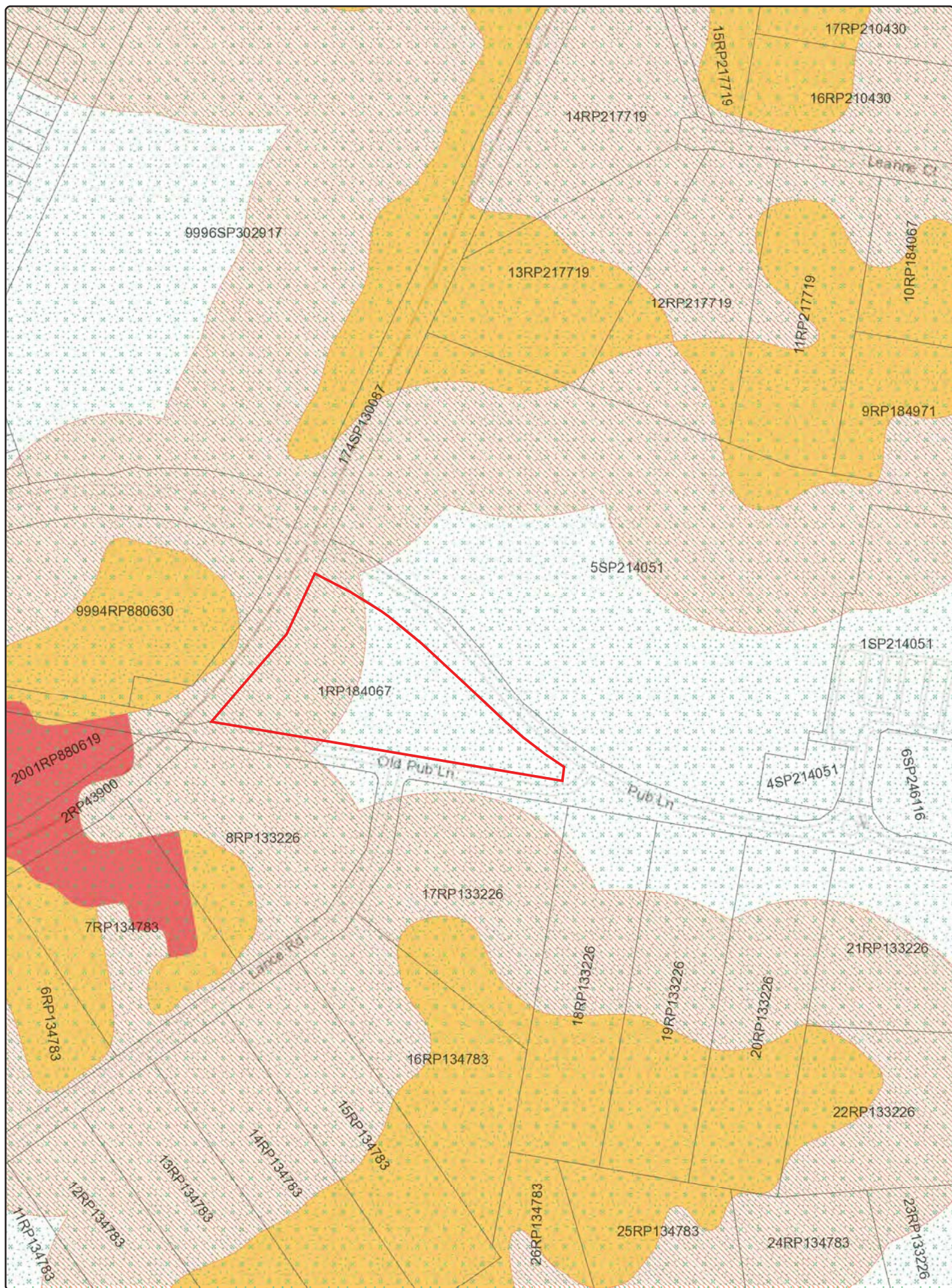
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**ATTACHMENT 13**





## DA Mapping System – Print Screen

Date: 20/03/2019

0 70 140 210 280

Metres



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Development, Manufacturing,  
Infrastructure and Planning

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### Disclaimer:

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# Legend


## Drawn Polyline Layer

 Override 1


## Cadastre (5k)

 Cadastre (5k)


## Flood hazard area - local Government flood mapping area

 Flood hazard area - local Government flood mapping area


## Erosion prone area

 Erosion prone area


## High storm tide inundation area


 High storm tide inundation area


## Medium storm tide inundation area

 Medium storm tide inundation area

## Bushfire prone area


 Very High Potential Bushfire Intensity

 High Potential Bushfire Intensity

 Medium Potential Bushfire Intensity

 Potential Impact Buffer

## Flood hazard area - Level 1 - Queensland floodplain assessment overlay

 Flood hazard area - Level 1 - Queensland floodplain assessment overlay

## DA Mapping System – Print Screen

Date: 20/03/2019

### Disclaimer:

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Development, Manufacturing,  
Infrastructure and Planning

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**ATTACHMENT 14**

## Flora Species List

Scientific Name	Common Name
<b>Native species</b>	
<i>Acacia disparrima</i> subsp. <i>disparrima</i>	hickory wattle
<i>Acacia leiocalyx</i>	
<i>Allocasuarina littoralis</i>	black she-oak
<i>Alphitonia excelsa</i>	red ash
<i>Angophora leiocarpa</i>	smooth-barked apple
<i>Brachychiton rupestris</i>	narrow-leaved bottle tree
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Mulga fern
<i>Chrysocephalum apiculatum</i>	golden yellow buttons
<i>Cladium procerum</i>	leafy twigrush
<i>Commelina diffusa</i>	native wandering jew
<i>Corymbia intermedia</i>	pink bloodwood
<i>Corymbia tessellaris</i>	Moreton Bay ash
<i>Cymbopogon refractus</i>	barbed wire grass
<i>Cyperus polystachyos</i>	bunchy sedge
<i>Dianella caerulea</i>	blueberry flax lily
<i>Entolasia stricta</i>	wiry panic
<i>Eragrostis brownii</i>	Brown's lovegrass
<i>Eremophila debilis</i>	winter apple
<i>Eucalyptus crebra</i>	narrow-leaved red ironbark
<i>Eucalyptus propinqua</i>	small-fruited grey gum
<i>Eucalyptus seeana</i>	narrow-leaved blue gum
<i>Eucalyptus tereticornis</i>	Queensland blue gum
<i>Gahnia aspera</i>	red-fruited saw sedge
<i>Glycine tomentella</i>	woolly glycine
<i>Goodenia rotundifolia</i>	trailing goodenia
<i>Imperata cylindrica</i>	blady grass
<i>Kennedia procurrens</i>	
<i>Lomandra confertifolia</i> subsp. <i>pallida</i>	
<i>Lophostemon suaveolens</i>	swamp box
<i>Nymphoides indica</i>	
<i>Ozothamnus diosmifolius</i>	
<i>Parsonsia straminea</i>	monkey rope
<i>Zornia dyctiocarpa</i>	zornia
<i>Macadamia integrifolia</i>	Queensland nut



Scientific Name	Common Name
<b>Exotic</b>	
<i>Agave americana</i>	
<i>Ageratum houstonianum</i>	blue billygoat weed
<i>Caesalpinia ferrara</i>	leopard tree
<i>Callisia repens</i>	money plant
<i>Catharanthus roseus</i>	
<i>Chamaesyce prostrata</i>	red caustic weed
<i>Chloris gayana</i>	Rhodes grass
<i>Cuphea carthagenensis</i>	Columbian waxweed
<i>Dypsis lutescens</i>	golden cane palm
<i>Emilia sonchifolia</i>	emilia
<i>Gamochaeta</i> spp.	cudweed
<i>Gomphocarpus physocarpus</i>	balloon cotton bush
<i>Hypochaeris radicata</i>	flatweed
<i>Jacaranda mimosifolia</i>	jacaranda
<i>Megathyrsus maximus</i> var. <i>pubiglumis</i>	green panic
<i>Melinis repens</i>	red Natal grass
<i>Nymphaea caerulea</i>	water lily
<i>Ochna serrulata</i>	Mickey Mouse bush
<i>Sansevieria trifasciata</i>	
<i>Solanum seaforthianum</i>	
<i>Syagrus romanzoffiana</i>	Cocos palm
<i>Verbena bonariensis</i>	
<i>Asparagus aethiopicus</i> 'Sprengeri'	ground asparagus
<i>Asparagus africanus</i>	asparagus fern
<i>Asparagus plumosus</i>	climbing asparagus fern
<i>Lantana camara</i>	common lantana
<i>Lantana montevidensis</i>	creeping lantana
<i>Sporobolus pyramidalis</i>	giant rat's tail grass

**ATTACHMENT 15**





#### 43-47 Old Pub Lane, Greenbank

#### Legend

#### Proposed Development Impact

28 South Project Ref: 2019-032

Data Sources: Nearmap Aerial Imagery (Nearmap Nov 2018); Digital Cadastre Database (Dept. Natural Resources and Mines, 2018); Roads (DNRME, 2017); Railways (DNRME, 2017); Waterways (DNRME, 2018).

28°S  
ENVIRONMENTAL

--- Railway

Waterbody

Habitat Trees

Tree Protection Zones

Vegetation Communities

Western Component

Eastern Component (younger cohort)

Vegetation associated with existing dwelling

Site Boundary

Development Footprint (1.6 ha)

Issue Date	Revision	Author
1 April 2019		RF
Approved	Revision Note	
MT		

(A3) GDA 94 MGA 56

1:1000

100 m





**ATTACHMENT 16**





43-47 Old Pub Lane, Greenbank

Legend

**Hazardous Vegetation**

28 South Project Ref: 2019-032

Data Sources: Nearmap Aerial Imagery (Nearmap Nov 2018); Digital Cadastre Database (Dept. Natural Resources and Mines, 2018); Roads (DNRME, 2017); Railways (DNRME, 2017); Waterways (DNRME, 2018).

**28°S**  
ENVIRONMENTAL

- Site Boundary
- Rail way
- BAL 19 (13m - 19m Setback from Hazardous Vegetation)
- BAL 12.5 (19m - 100m Setback from Hazardous Vegetation)
- Hazardous Vegetation (SPP)
- Property Boundaries

Issue Date	Revision	Author
15 May 2019	Rev B	RF
Approved	Revision Note	
MT	Final Masterplan Design	

(A3) GDA 94 MGA 56

1:1000

25 0 25 50 75 100 m

N

Scale bar