Attachment 1: Bruce Highway (Cooroy to Curra) Upgrade Section C (Traveston Road to Keefton Road) Project Job No. 232/10A/2

Fauna Management Plan – Koala and Grey-headed Flying-fox

June 2015

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Glossary

Term	Description
CAR	Corrective Action Requests
DAF	Department of Agriculture and Fisheries
DEHP	Department of Environment and Heritage Protection
DERM (former)	Department of Environment and Resource Management
DNRM	Department of Natural Resources and Mines
DoE	Department of the Environment
EMP(C)	Environment Management Plan (Construction)
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
FMP	Fauna Management Plan
KSAT	Koala Spot Assessment Technique
MNES	Matters of National Environmental Significance
MRTS51 – Environmental Management	Department of Transport and Main Roads Technical Specification MRTS51 Environmental Management
NC Act	*Nature Conservation Act 1992*
NRM	Department of Natural Resources and Mines
QPWS	Queensland Parks and Wildlife Service
RE	Regional Ecosystem
REF	Review of Environmental Factors
RFI	Request for Information
SPRAT	Species Profile and Threats Database
TMR	Department of Transport and Main Roads
VMA	*Vegetation Management Act 1999*

1. Introduction

1.1 Purpose

This Fauna Management Plan (FMP) has been prepared by the Department of Transport and Main Roads (TMR) in response to a request for additional information (RFI) received for the Bruce Highway (Cooroy to Curra) Upgrade Section C (Traveston Road to Keefton Road) Project (herein referred to as the Project) *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) referral (EPBC 2014/7394). The Project has been assessed as having the potential to have a significant impact on the koala (*Phascolarctos cinereus*) and the grey-headed flying-fox (*Pteropus poliocephalus*), two Matters of National Environmental Significance (MNES) under the EPBC Act.

Item (a) of the RFI requires a FMP to be provided addressing the potential significant impacts of the proposed action on the koala and the grey-headed flying-fox and provide detail of suitable mitigation measures to minimise these impacts.

An assessment of residual impacts to the koala and grey-headed flying-fox is included in *Attachment 3: Bruce Highway (Cooroy to Curra) Upgrade Section C (Traveston Road to Keefton Road) Project Job No. 232/10A/2 Residual Impact Assessment and Federal Environmental Offsets Proposal for the Koala and Grey-Headed Flying-Fox* (the Residual Impact Assessment and Offsets Proposal), provided as part of the preliminary documentation, which is to be read in conjunction with this FMP.

This FMP outlines TMR's commitment to the management and mitigation of impacts, to minimise impacts to the koala and the grey-headed flying-fox as a result of construction and operation of the Project.

1.2 Objectives

This FMP has been developed to describe the impacts and provide management and mitigation measures for the koala and grey-headed flying-fox to be implemented during the construction and operation phases of the Project such that residual impacts are minimised. To assist in the identification of impacts that can be directly attributed to, and managed during the construction of the Project, existing threats and impacts to these two species in a regional context have been considered.

It is an important component of any management plan that the outcomes are quantifiable through an assessment against performance indicators. As such, the FMP outlines key performance indicators and monitoring requirements to assess the effectiveness of the mitigation measures proposed during the construction phase of the Project. Contingency measures and corrective actions to be applied in the event that a non-conformance occurs have been developed.

Table 1 provides a summary of the structure of the FMP identifying where specific aspects of Item (a) of the RFI are addressed.

Table 1: RFI Requirements Specific to the FMP

Item no	Item requirement	Reference in the FMP	Demonstration of how the plan addresses the item requirements in the RFI
1(a)	Details of the connectivity of koala and grey-headed flying-fox habitat within and surrounding the Project site.	Section 2.5.2, Section 2.6.2 and Section 3.5.2	The FMP provides details of suitable habitat in and around the Project area, based on a review of available databases, mapped habitat values, recent and historical survey efforts.
1(b)	Assessment of the risk of koala vehicle strike as a result of the Project.	Section 2.6.5	A review of available roadkill data and comparison of the existing and upgraded highway has been undertaken. The key factor reducing vehicle strike risk is the inclusion of fauna fencing and fauna crossings at defined locations along the upgraded highway corridor.
1(c)	Mitigation and management measures that reflect an adaptive approach to the management of koala and grey-headed flying-fox habitat.	Section 2.6, Section 2.7, Section 3.6 and Section 3.7	Mitigation and management measures have been developed with corresponding monitoring and corrective actions to enable adaptive mechanisms to be implemented, in the event of non-conformance.
1(d)	Methods to monitor the impact and effectiveness of the mitigation and management measures described above.	Section 4	The monitoring measures specified are appropriate to the species in question and nature of the construction activity. These are in accordance with TMR's approach to fauna monitoring for road projects.
1(e)	Clear and concise outcomes and performance indicators against which achievement of the outcomes identified will be measured.	Section 2.7 and Section 3.7	The FMP defines performance indicators for monitoring, against which the requirement for adaptive management/ corrective action can be determined.
1(f)	Identification of the contingency measures and appropriate corrective actions that will be undertaken if the performance indicators or outcomes are not being met.	Section 2.7, Section 3.7 and Section 4	The monitoring requirements also specify corrective measures to be implemented in the event of non-conformance with performance criteria.
1(g)	A timeframe for the implementation of the plan.	Section 2.7, Section 3.7 and Section 4	Three stages of implementation have been identified. This includes preconstruction activities, the construction stage, and a post-construction stage extending to 5 years.
1(h)	How the Fauna Management Plan addresses the requirements of the *EPBC Act referral guidelines for the vulnerable koala*.	Sections 1 to 6 of the Referral Guidelines are addressed in Section 2 of this FMP.	This FMP has been developed in response to the koala referral guidelines. Assessment of the Project impacts is contained in the Residual Impact Assessment and Offsets Proposal. Referral Guidelines section 1: addressed in Section 2.1, 2.2, 2.3 and 2.4 Referral Guidelines section 2: addressed in Section 2.5 Referral Guidelines section 3: addressed in Section 2.5 Referral Guidelines section 4: addressed in Section 2.6 Referral Guidelines section 5: addressed in Section 2.5.4 Referral Guidelines section 6: addressed in Section 2.6 Referral Guidelines section 7: addressed in the Residual Impact Assessment and Offsets Proposal Referral Guideline section 8: addressed in the Residual Impact Assessment and Offsets Proposal Referral Guideline section 9: not relevant.

2. Koala

2.1 Habitat Requirements

The koala is an arboreal herbivore that relies heavily on the presence of *Eucalyptus* species and related genera within a range of vegetation communities including forests, woodlands and semi-arid communities.

The *EPBC Act Referral Guidelines for the vulnerable koala* (DoE 2014) defines koala habitat as:

Any forest or woodland containing species that are known koala food trees, or shrubland with emergent food trees. This can include remnant and non-remnant vegetation in natural, agricultural, urban and peri-urban environments. Koala habitat is defined by the vegetation community present and the vegetation structure; koalas do not necessarily have to be present.

As stated in the above definition, the location of koala habitat is heavily dependent on the availability of koala food trees. The *EPBC Act Referral Guidelines for the vulnerable koala* define a koala food tree as:

Species of tree whose leaves are consumed by koalas. Koala food trees can generally be considered to be those of the following genus: Angophora, Corymbia, Eucalyptus, Lophostemon and Melaleuca. Note that food tree species may vary spatially and temporally and information specific to the local area is likely to be most accurate.

2.2 Breeding

DoE (2015a) documents the breeding season for the koala as occurring between October and May, though Ellis *et al* (2010) suggest that 60% of births occur between December and March. A maximum of one offspring is produced each year (DoE, 2015a). However averages of 0.3-0.8 offspring per year have been suggested (McLean 2003 and Land for Wildlife, date unknown). This suggests that females do not necessarily breed every year. Females are known to start reproducing from three or four years of age and have a lifespan of approximately 12 years in the wild (Land for Wildlife, date unknown).

After birth, the young remain in the mothers pouch for 6-8 months before riding on her back until around 12 months of age. At this point they become entirely independent (DoE, 2015a).

2.3 Distribution

Koalas are endemic to Australia, known to occur across much of the east coast of the country. The main populations are within Queensland, New South Wales and the Australian Capital Territory, though small populations are also present in Victoria and South Australia. The highest population densities of koalas occur in the South East Queensland bioregion.

Koalas have been known to occupy large home ranges, which overlap between individuals (Ellis *et al* 2009). Individuals have been reported to use the same trees but not typically at the same time, as they are largely solitary animals. Studies have found that males tend to have greater home ranges than females, though these can vary dramatically depending on the habitat quality (Ellis *et al* 2002 and Lassau *et al.* 2008).

2.4 Conservation Status and Threats

Koala populations of Queensland, New South Wales and the Australian Capital Territory were listed as vulnerable under the EPBC Act in April 2012. This applies to the combined populations of states listed above only. The South East Queensland bioregion population is also listed as vulnerable under the *Nature Conservation (Wildlife) Regulation 2006*.

The DoE Species Profiles and Threats database (SPRAT) for koalas provides an estimate on the populations across their range. In Queensland, the population estimate was 167,000 individuals in 2010 which is a 43% decline from the 1990 population, estimated to be 295,000 individuals (DoE, 2015a).

A number of significant threats to koala populations have been identified through years of research. A summary of the threats identified is provided in the listing advice on the SPRAT database (DoE, 2015a) as shown in Table 2.

Table 2: Significant Threats to Koala

Threat	Description of associated issues
Habitat loss and fragmentation	Urbanisation and land clearing are a major threat to koala habitat. There are direct impacts that result from vegetation removal such as mortality, in addition to indirect impacts through habitat and movement corridor removal, edge effects and pressuring koalas into small areas of urban vegetation. Urbanisation results in increased risk of vehicle strike and wild dog attack (DoE, 2015a), which is discussed in more detail below.
Habitat degradation	Habitat degradation is a threat to koalas in areas that are overpopulated. High densities of koalas have the potential to defoliate forests to a point where populations decline due to insufficient available resources.
Mortality as a result of vehicle strike and dog attacks	With increasing urbanisation of areas adjacent to koala habitat the impact of dog attack and the potential for vehicle strike has increased significantly. For example a comprehensive koala tagging and monitoring program undertaken for the Moreton Bay Rail Project has confirmed predation by wild dogs as a serious threat to koala populations. Of over 441 koalas monitored throughout the program (as at January 2015), approximately 130 are either confirmed or suspected to have been killed by wild dogs (TMR 2015)[1]. Vehicle strike, which has widely been considered a significant threat to koalas in the past, was found during monitoring of the Moreton Bay Rail Project (as at January 2015) to result in the death of only six koalas in the tagging and monitoring program (TMR 2015). Other reports have measured the combined impact of dog attack and vehicle strike across the South East Queensland. A 64% decline in the population was observed between 1999 and 2009 by Dique *et. al. (*2004) and Queensland DERM (2009).
Disease	Chlamydia has long been a well-known disease commonly occurring in koalas. Many koalas carry the disease but do not always express the symptoms which include eye, urinary tract, respiratory tract and reproductive tract infections (DoE,

[1] http://www.tmr.qld.gov.au/Projects/Featured-projects/Moreton-Bay-Rail/Publications/Moreton-Bay-Rail-Koala-tagging-and-monitoring.aspx

Threat	Description of associated issues
	2015a). There is potential for the disease to cause reduced fertility, thereby impacting local population sizes. Koala retrovirus is a more recently discovered disease that may also result in severe consequences in koala populations. This disease is thought to be responsible for a range of conditions such as leukaemia and immunodeficiency syndrome (DoE, 2015a). It is transmitted through genetics, from mother to offspring, and also between koalas in close contact to each other.
Climate change and drought	Projected climate changes, including increased temperatures, changes to rainfall, increased frequency and intensity of droughts and fire have the potential to affect the long term viability of koala habitats (NRMMC, 2009).

2.5 Distribution of Koalas and Habitat within the Project Area

The Project area is approximately 12 km long and traverses several watercourses and a variety of vegetation communities. The alignment traverses a section of Traveston State Forest, large areas of cleared land, riparian vegetation along creeks, rural residential properties and a landscape supply/recycling centre. The Project area is also adjacent to a portion of Woondum State Forest. A location plan is provided in Figure 1.

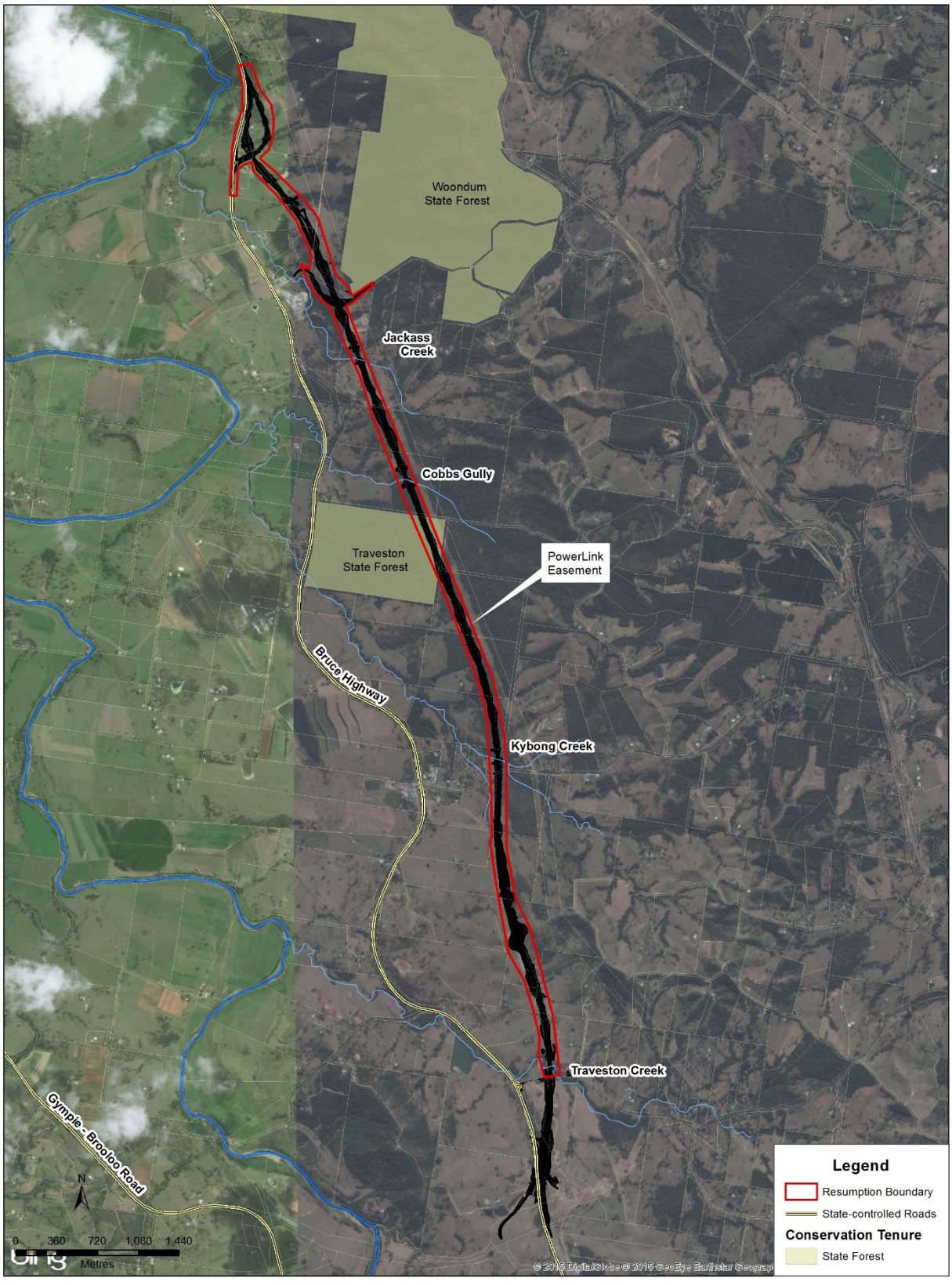


Figure 1: The Project locality

2.5.1 Koala Habitat within the Project Area

At a Federal level, koala habitat is mapped across the Gympie region as 'known to occur' under Commonwealth indicative mapping, as shown in Figure 2.

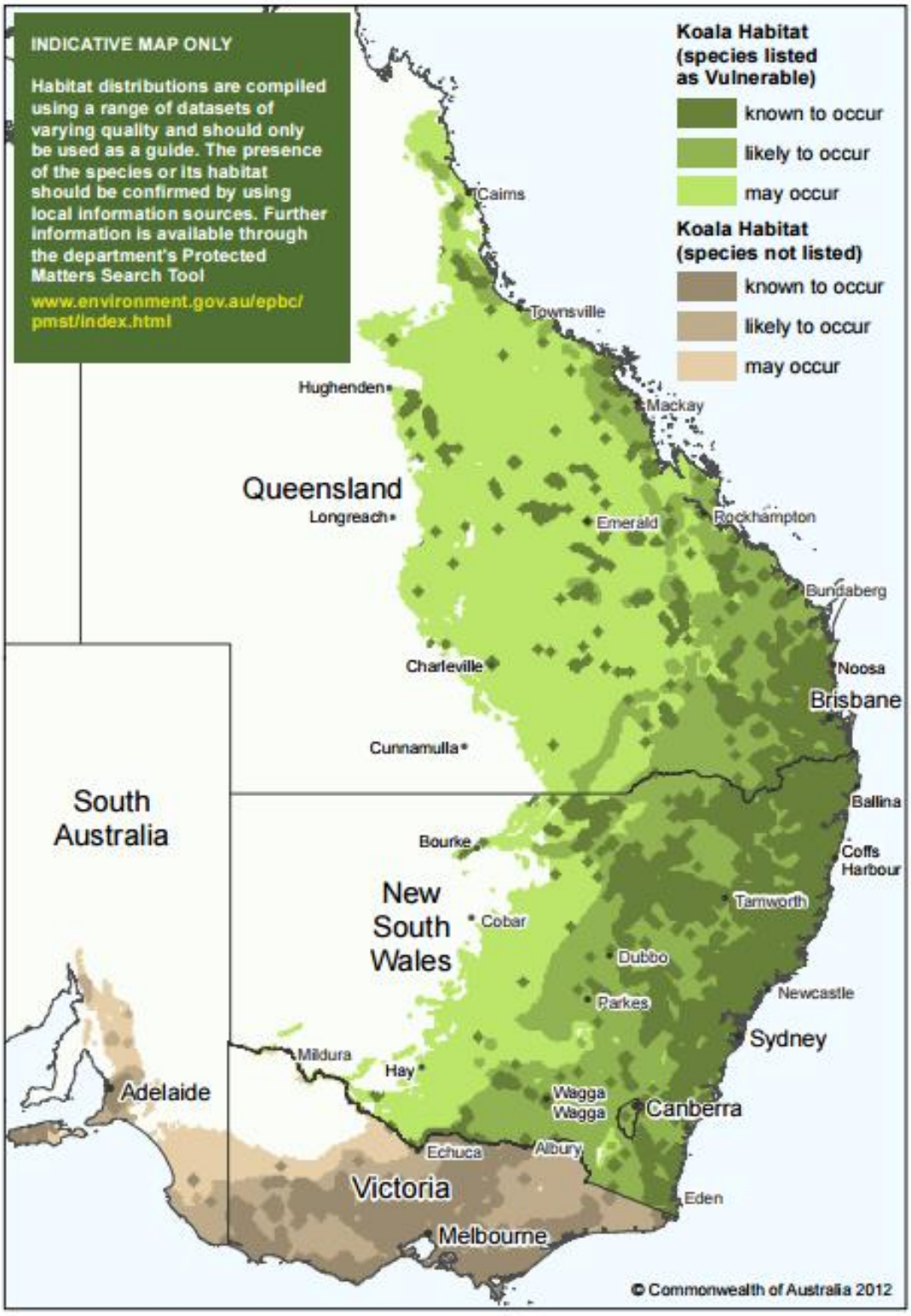


Figure 2: Indicative Distribution Map of the Koala (DoE)

source: *http://www.environment.gov.au/system/files/pages/187f297d-db69-4aab-b994-cec0bf27c716/files/phascolarctos-cinereus-distribution-map.pdf*

As discussed in section 2.1, the *EPBC Act Referral Guidelines for the vulnerable koala* (DoE) 2014 describe koala habitat as '*any forest or woodland containing species that are known koala food trees*.' and koala food trees as '*species of tree whose leaves are consumed by koalas*'. The guidelines note that koala food trees are generally considered to be of the *Angophora, Corymbia, Eucalyptus, Lophostemon* and *Melaleuca* genera.

It is noted that the above definitions do not provide a comprehensive list of koala habitat and/or koala food tree species relevant to the Gympie Local Government area. However, the definition of koala habitat and/or koala food trees provided in the *EPBC Act Referral Guidelines for the vulnerable koala* can be applied to the region through the use of mapped regional ecosystems (REs) which are dominated by trees of the *Angophora, Corymbia, Eucalyptus, Lophostemon* and *Melaleuca* genera.

The Project area is currently a mosaic of remnant and non-remnant vegetation communities. The remnant vegetation is dominated by a variety of Eucalypt dominated Regional Ecosystems (REs) which provide habitat suitable for the koala. Three REs occur along the Project corridor, according to remnant vegetation mapping provided by Department of Natural Resources and Mines (DNRM), comprising RE 12.11.3, RE 12.3.11 and RE 12.11.14.

During preliminary ecological investigations for the Project, two additional REs were recorded and mapped by BAAM (2012) which were 12.3.2a and 12.11.9. A list and description of the five REs is provided in **Table 3**, including the dominant species of each and an indication of the level of field verification. The location and distribution of the REs as mapped by DNRM is illustrated in **Figure 3** with field verified REs mapped by BAAM within survey areas shown in **Figure 4**. All five REs listed are dominated by Eucalypts and related genera, thereby constituting koala habitat in accordance with the definition provided in the *EPBC Act Referral Guidelines for the vulnerable koala*. Furthermore koala activity has been recorded within all REs listed in **Table 3** (Jacobs SKM, 2014). The recent SMEC survey (2015) identified koala scats within the mapped REs and RE 12.3.2a as field verified by BAAM (2012).

At a State level, remnant vegetation immediately to the east of the Project corridor is mapped as essential habitat for the koala under the *Vegetation Management Act 1999* (VMA). This includes vegetation east of Kybong Creek, along Tandur Road, Traveston State Forest and across Woondum State Forest (refer to **Figure 3**). Essential habitat is defined under Section 20AC(2) the VMA as:

for protected wildlife, is a category A area, a category B area or category C area shown on the regulated vegetation management map –

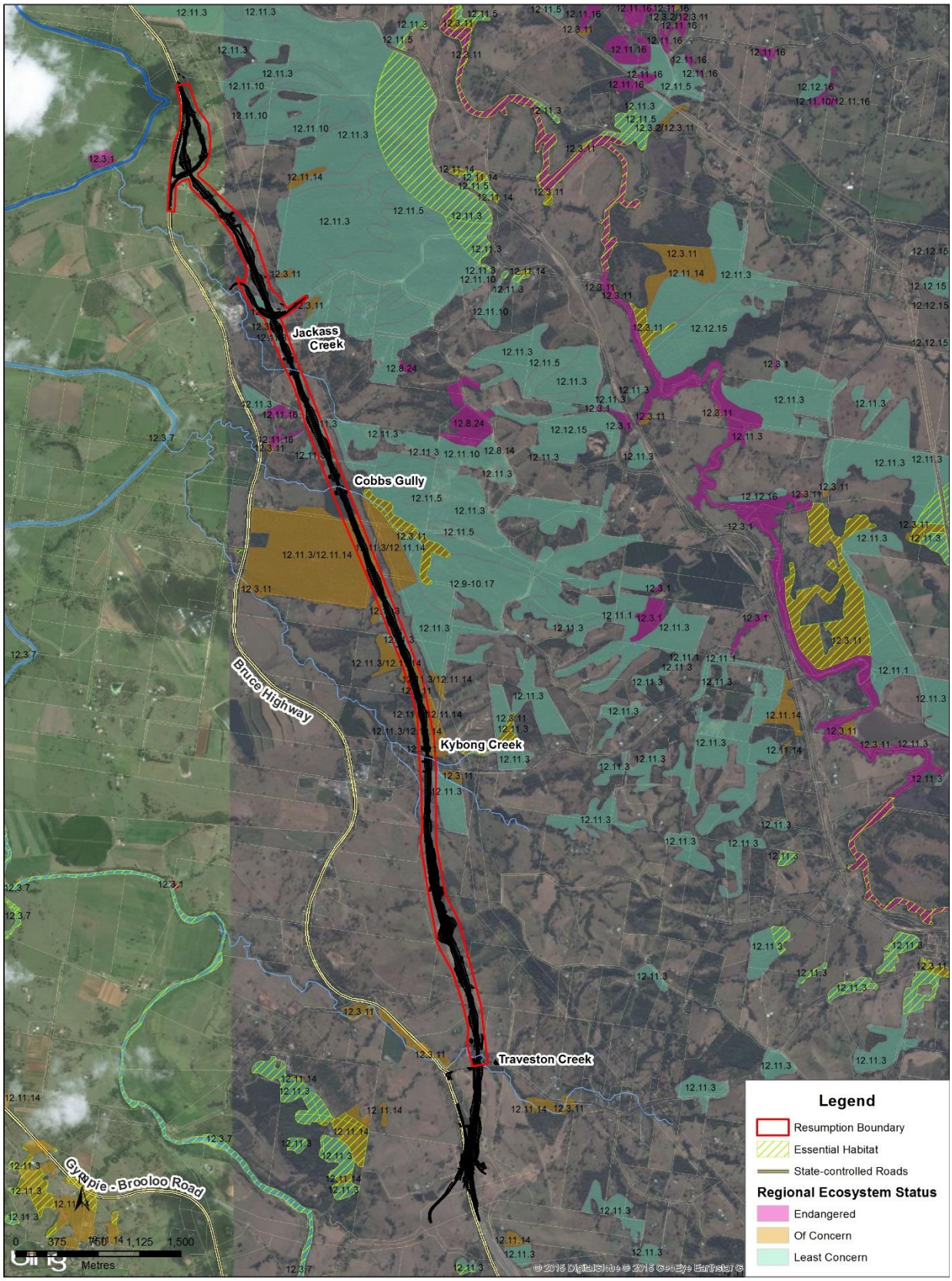
a) *That has at least 3 essential habitat factors for the protected wildlife that must include any essential habitat factors that are stated as mandatory for the protected wildlife in the essential habitat database; or*

b) *in which the protected wildlife, at any stage of its life cycle, is located.*

Table 3: Mapped and Field Verified REs

Regional Ecosystem Number	Vegetation Management Act Class	Description (from RE description database)[2]
12.3.11 mapped and field verified (BAAM, 2012)	Of Concern	*Eucalyptus tereticornis* +/- *E. siderophloia* and *Corymbia intermedia* open forest to woodland. *Corymbia tessellaris*, *Lophostemon suaveolens* and *Melaleuca quinquenervia* frequently occur and often form a low tree layer. Other species present in scattered patches or low densities include *Angophora leiocarpa, E. exserta, E. grandis, C. trachyphloia, C. citriodora subsp. variegata, E. latisinensis, E. tindaliae, E. racemosa* and *Melaleuca sieberi. E. seeana* may be present south of Landsborough. Occurs on Quaternary alluvial plains and drainage lines along coastal lowlands. Rainfall usually exceeds 1000 mm/yr.
12.11.3 Mapped and field verified (BAAM, 2012)	Least Concern	*Eucalyptus siderophloia* and *E. propinqua* open forest +/- *E. microcorys, Lophostemon confertus, Corymbia intermedia, E. biturbinata, E. acmenoides, E. tereticornis, E. moluccana, Angophora leiocarpa, Syncarpia verecunda* with vine forest species and *E. grandis or E. saligna* in gullies. *Eucalyptus pilularis* and *E. tindaliae* sometimes present e.g. mid D'Aguilar Range, Conondale Range. Occurs predominantly on hills and ranges of Palaeozoic and older moderately to strongly deformed and metamorphosed sediments and interbedded volcanics.
12.11.14 Mapped and field verified (BAAM, 2012)	Of Concern	*Eucalyptus crebra, E. tereticornis, Corymbia intermedia* grassy woodland. Other species including *Eucalyptus melanophloia, Corymbia clarksoniana, C. erythrophloia, C. tessellaris, E. siderophloia, Angophora spp.* May be present in low densities or in patches. Mid-layer generally sparse but can include low trees such as *Vachellia bidwillii, Capparis spp., Dodonaea triquetra, Alphitonia excelsa* and *Xanthorrhoea spp.* Occurs on mid and lower slopes on Palaeozoic and older moderately to strongly deformed and metamorphosed sediments and interbedded volcanics.
12.3.2a Field verified (BAAM, 2012)	Of Concern	Riverine wetland or fringing riverine wetland. Open forest of *Eucalyptus resinifera* and *Syncarpia glomulifera subsp. glomulifera* with a wet heath understorey. Other species include *Melaleuca linariifolia, Melaleuca sieberi* +/- *Corymbia gummifera*. Narrow gullies in high rainfall areas.
12.11.9 Field verified (BAAM, 2012)	Of Concern	Open forest to woodlands with *Eucalyptus tereticornis*. Other canopy species include *Eucalyptus biturbinata, E. melliodora, Corymbia intermedia, E. longirostrata, E. eugenioides, Allocasuarina torulosa, E. moluccana, E. saligna, E. siderophloia* and *Angophora subvelutina*. Occurs on ridges and upper slopes especially at higher altitudes on Palaeozoic and older moderately to strongly deformed and metamorphosed sediments and interbedded volcanics.

[2] https://environment.ehp.qld.gov.au/regional-ecosystems/



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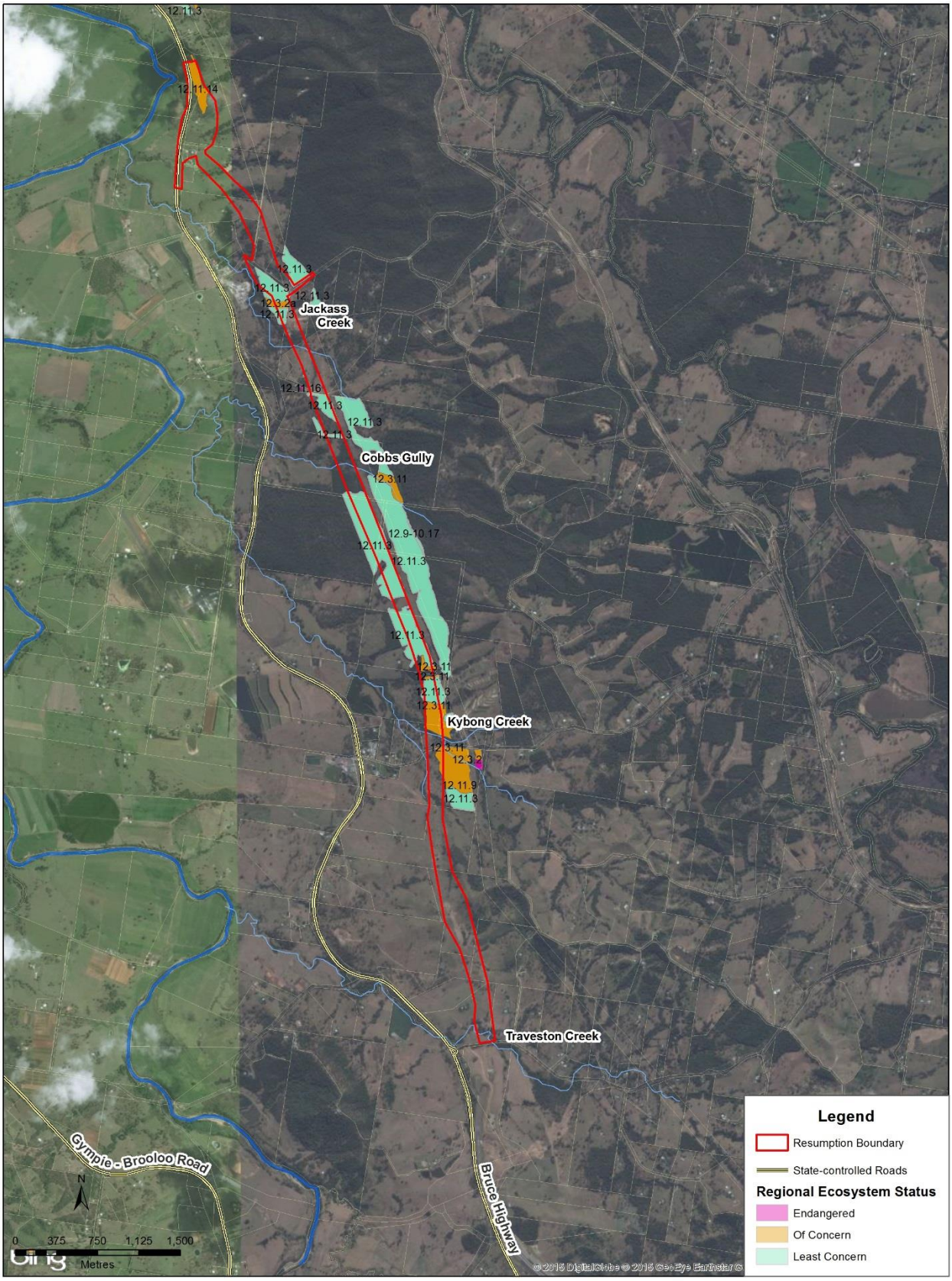
COORDINATE SYSTEM GDA 1994 MGA Zone 56 PAGE SIZE A3 SCALE	SOURCE QLD Govt, SKM, SMEC, BING	Copyright SMEC Australia Pty Ltd. All Rights Reserved. © State of Queensland (Department of Natural Resources and Mines) 2014. Updated data available at http://dds.information.qld.gov.au/dds/		

Figure 3: Essential Habitat for the Koala and Regional Ecosystems



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COORDINATE SYSTEM GDA 1994 MGA Zone 56 PAGE SIZE A3 SCALE	SOURCE QLD Govt, SKM, SMEC, BING	Copyright SMEC Australia Pty Ltd. All Rights Reserved. © State of Queensland (Department of Natural Resources and Mines) 2014. Updated data available at http://dds.information.qld.gov.au/dds/	Queensland Government CONSULTANT SMEC Australia

Figure 4: Field verified REs (BAAM in Jacobs SKM 2014)

Koala habitat within the Project area has been assessed in accordance with the Koala Habitat Assessment Tool contained within Section 6 of the *EPBC Act Referral Guidelines for the vulnerable koala*. A score of 2 is high, a score of 1 is medium and a score of 0 is low. The assessment is provided in **Table 4**, with justification for the allocation of each score. To inform this assessment, a desktop investigation, review of previous information and targeted field surveys[3] have been undertaken by SMEC in 2015. A total score of 5 or more indicates the habitat is considered 'critical to the survival of the koala' and triggers referral of a proposed action under the EPBC Act.

Table 4: Koala Habitat Assessment

Attribute	Score	Habitat Appraisal	
Koala occurrence	+2	Desktop	The Australian Koala Foundation mapping (2015) identifies two healthy koala records within 2km east of the Project corridor. The most recent record was December, 2014. The KoalaTracker map shows one dead, nine healthy and two sick koalas within 2km of the corridor. The most recent records were August, 2014. Department of Environment and Heritage Protection (DEHP) Wildnet data identifies koala records in the area, though all are more than two years old. The EPBC protected matters search tool listed the koala or koala habitat as 'known to occur' in the Project area (refer to **Appendix A**). During field surveys conducted by SMEC in October, 2014, residents in the vicinity of Kybong Creek, north of Tandur Road, reported koala sightings on their property. It is noted that there may be some overlap between the records from various sources.
		Field	Field surveys have been undertaken as part of various studies for the Project over a number of years. The most recent survey comprised 21 scat searches using the Koala Spot Assessment Technique (KSAT) (total 630 trees) and detected scats within 6 of the 21 surveys (refer Appendix B). Prior to that, field surveys conducted by Jacobs SKM (2014) identified koala scats and claw marks within the four sites assessed. No koala sightings have been reported in any of the surveys undertaken for the Project.
Vegetation Structure and Composition	+2	Desktop	RE mapping provided by DNRM identifies three REs immediately within the Project area, as listed in **Table 3**, all of which are forest or woodland vegetation that are dominated by Eucalypts and contain two or more known koala habitat tree species, as documented in the regional ecosystem description database.

[3] Refer Appendix C for details of survey methodology

Attribute	Score	Habitat Appraisal	
		Field	Surveys conducted by BAAM (2012) were undertaken to verify the REs mapped. The REs mapped were confirmed to occur. Two additional REs that were not mapped by DNRM were also identified. All of these REs are eucalypt dominated vegetation communities that provide suitable habitat for koala. They also include species that are regarded as primary koala food trees, except RE 12.3.2a. However, koala activity has been recorded within all REs listed above (Jacobs SKM, 2014; SMEC, 2015).
Habitat Connectivity	0/+1	The *EPBC Act Referral Guidelines for the vulnerable koala* (2014) defines a 'Contiguous Landscape' as '*an area of koala habitat that is greater than 300ha in the coastal context, or greater than 500ha in the inland context, which encompasses no barriers but is bounded by barriers*'. There are a number of existing barriers surrounding the vegetation within the Project area, including major roads (existing Bruce Highway), local roads, fences and large areas of cleared vegetation for grazing (more than 2km with minimal vegetation present). The Powerlink easement located immediately to the east of the Project area provides a linear break in the habitat, also contributing to the habitat of the Project area not being considered to be 'contiguous habitat'. This easement however does not limit koala movement across its width and is not considered to be a significant barrier. Consequently, the habitat within the Project area is considered to be part of a contiguous landscape of ≥300ha (coastal area).	
Key Existing Threats	+1	One koala mortality record attributed to vehicle strike on the Bruce Highway adjacent to Traveston State Forest is documented in KoalaTracker (2015), an online community mapping project site. This record is from 2011 and located at a distance of approximately 800m west of the new alignment. Wild dogs are recognised by Gympie Regional Council (2014) as occurring within the area and have been identified as having a significant impact on both native and domestic animals in the Gympie region. Two records of sick koalas are contained within the KoalaTracker mapping as a result of disease, these records are from 2010. The exact disease has not been specified, though conjunctivitis was noted at the time of observation.	
Recovery Value	+1	The Project area is within a mapped ecological corridor of regional significance (refer to **Figure 3**) and provides connectivity to larger areas of vegetation along riparian creek corridors. This is particularly evident in the vicinity of Traveston State Forest and Woondum State Forest and areas to the east of the Project area, where large tracts of remnant vegetation remain. However, the immediate Project area contains only a small area of contiguous habitat. As a result of these barriers and lack of habitat connectivity, the vegetation within the immediate Project area is not expected to be significant for the recovery of the koala, with areas to the east of the Project area considered likely to be of greater recovery value. However, as the recovery value of this vegetation is difficult to quantify a value of +1 was attributed to this assessment.	
Total	6/7	Outcome: Habitat is critical to the survival of the koala, thereby triggering the need for an assessment of significance.	

2.5.2 Habitat Connectivity

The DEHP Biodiversity Planning Assessment mapping[4] identifies the terrestrial ecological values of an area according to their conservation significance i.e. whether they are of regional or state significance. The Project area, from approximately Tandur Road to the northern extent, is mapped as part of a large, regional ecological corridor which stretches from Cooroibah, west of Tewantin, to Monkland just south of Gympie (refer to **Figure 5**). The eastern portion of the regional ecological corridor connects to a State ecological corridor which is mapped as occurring north and south along the coast between Maroochydore and Bundaberg. Similarly, the western extent of the regional corridor adjoins another mapped ecological corridor recognised as being of both state and regional significance which continues from the Queensland-New South Wales border to Bundaberg.

The Review of Environmental Factors Report (REF) (Jacobs SKM, 2014) identified fauna movement corridors, classified as' riparian' or 'terrestrial' corridors, along the length of the alignment. Riparian corridors were identified along Jackass Creek and Cobbs Gully, while terrestrial corridors were identified from Traveston State Forest to the vegetation corridor to the east of the alignment and from Woondum Road east to Woondum State Forest. An additional corridor is mapped running north to south from Woondum State Forest to the vegetation east of Traveston State Forest. These corridors are relatively intact and are shown in **Figure 5**. Other ecological corridors observed through desktop assessments and field investigations (SMEC, 2014; SMEC, 2015) include Kybong Creek and Traveston Creek.

While these ecological corridors have the potential to provide connectivity between areas of koala habitat at a regional and state scale, existing barriers may impede movement at a local scale. Existing barriers, including major roads (existing Bruce Highway), fences and large areas of cleared vegetation for grazing and other rural activities, mean that the Project area has been considered to be marginal in terms of supporting contiguous habitat, as discussed in **Table 4**. It is noted that substantial areas of forest and vegetation have been cleared to provide vehicle access and enable grazing, predominantly more than 20 years ago as identified through historic aerial imagery.

The Powerlink easement runs to the east, parallel to approximately 8.5km of the Project alignment and is approximately 120m wide, with 60m of this width largely cleared of vegetation, to accommodate a single 275kV transmission line, operated by Powerlink. Whilst disrupting continuity of the vegetation communities, this easement is not considered as a significant barrier to koala movement as evidence of koala on both sides of the easement indicate movement from one side to the other is likely to occur.

[4] Version 3.5 southeast Queensland, provided by DEHP (2014) at http://www.qld.gov.au/environment/plants-animals/biodiversity/planning/

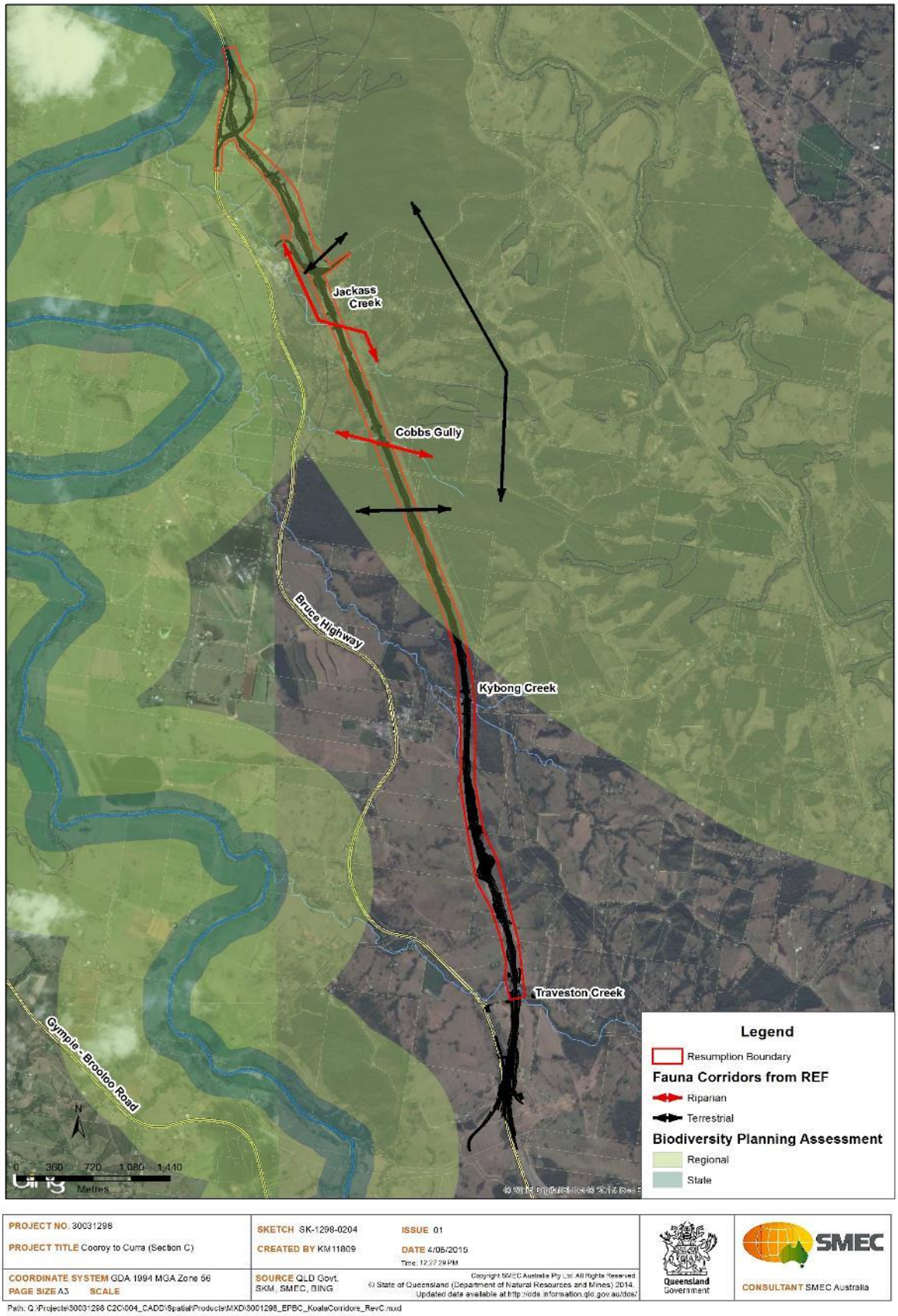
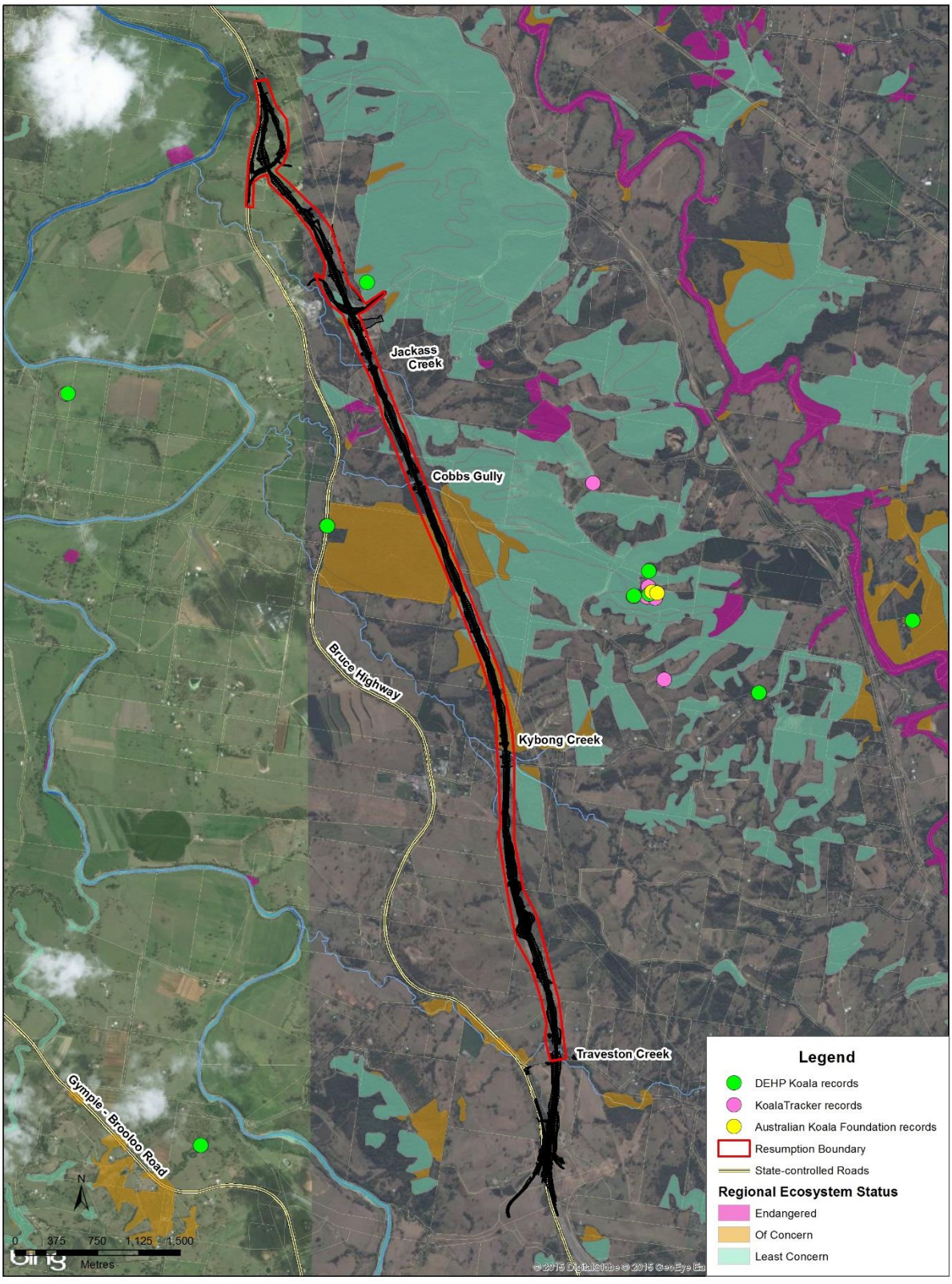


Figure 5: Ecological Corridors

2.5.3 Historic Koala Records

Historic records of koala sightings are maintained by the DEHP in the WildNet database. A review of these locations identified that there has been one koala sighting in 2006 approximately 200m east of the Project alignment, in Woondum State Forest. Other records occur in the surrounding region, although all are further than 800m from the alignment.

Mapping of koalas is also provided by the KoalaTracker website (2013) and the Australian Koala Foundation mapping. KoalaTracker shows one incident of koala mortality along the existing Bruce Highway, adjacent the Traveston State Forest in 2011. In addition, this mapping identifies nine healthy koalas and two sick with disease (conjunctivitis reported at the time of sighting), while Australian Koala Foundation mapping identifies two healthy koalas within 2km of the alignment. The most recent records from each website are August 2014 and December 2014 respectively. Koala records obtained from DEHP, Australian Koala Foundation mapping and the KoalaTracker website are provided in **Figure 6**. The recorded presence of koalas on either side of the Project alignment indicates that a koala population exists, or has previously existed and that vegetation communities within the general regional area are likely to be utilised as habitat.



PROJECT NO. 30031298 PROJECT TITLE Cooroy to Curra (Section C)	SKETCH SK-1298-0203 ISSUE 01 CREATED BY KM11809 DATE 10/06/2015 Time: 2:51:31 PM	Queensland Government	SMEC CONSULTANT SMEC Australia
COORDINATE SYSTEM GDA 1994 MGA Zone 56 PAGE SIZE A3 SCALE	SOURCE QLD Govt, SKM, SMEC, BING, KoalaTracker Copyright SMEC Australia Pty Ltd. All Rights Reserved. © State of Queensland (Department of Natural Resources and Mines) 2014. Updated data available at http://dds.information.qld.gov.au/dds/		

Figure 6: Historic Koala Records (DEHP, Koala Tracker, Australian Koala Foundation)

2.5.4 Results of Field Investigations

A number of field investigations have been completed in the Project and surrounding area, a brief overview of the approach and outcomes relevant to the koala are summarised below.

2.5.4.1 Jacobs SKM, 2014 (Review of Environmental Factors)

Fauna surveys undertaken for the REF (Jacobs SKM 2014) identified koala scats and claw marks at sites P1 (Traveston State Forest), P2 (east of Traveston State Forest), P3 (east of Jackass Creek) and P4 (Woondum State Forest) adjacent to the Project area, and koala claw marks within regrowth vegetation along Jackass Creek. The methodology adopted for this survey was noted to have followed the KSAT developed by Phillips and Callaghan (2011).

2.5.4.2 BAAM, 2011 and 2012

BAAM completed a baseline flora and fauna study in December 2011 and January 2012. The field assessment noted distinctive claw marks on trees along the Project alignment during surveys, though no KSATS were undertaken for this study. This study was included as an appendix to the REF (Jacobs SKM 2014).

2.5.4.3 SMEC, October 2014

A flora survey targeting endangered, vulnerable and near-threatened flora species was undertaken by SMEC in October 2014, in accordance with DEHP's *Flora Survey Guidelines – Protected Plants*. As part of this survey effort, signs of fauna activity were recorded opportunistically, including Koala scats and scratches, feeding signs, diggings and bird and frog calls. Koala scats locations were GPS recorded. This survey identified scats along Kybong Creek, north of Tandur Road, and south of Woondum Road. Both areas have been observed to contain a high density of koala habitat trees. A report summarising the methodology and findings of this survey are included in **Appendix B**.

2.5.4.4 SMEC, April 2015

A field investigation was conducted by SMEC between 30th March and 2nd April, 2015 to collate additional information for Koala and Grey-headed Flying-fox, and verify suitable habitat present for both species within the Project area.

The KSAT described by Phillips and Callaghan (2011) was utilised to assess the presence of koalas along the length of the alignment and assign an activity level, as a percentage score. The KSAT methodology is one of the indirect observational methods identified in the *EPBC Act Referral Guidelines for the vulnerable koala.* The KSATs were distributed in a standardised manner across sites whilst focussing primarily on areas where koalas were considered most likely to occur, based on previous survey results undertaken during preliminary planning for the project and interpretation of RE mapping which indicates where Eucalypt dominated REs and suitable habitat occur.

Of the 21 KSATs undertaken and shown in **Figure 7a and 7b**, six detected koala scats. Two of these identified scats beneath four of the 30 trees surveyed (13.3%), a third detected scats beneath three trees (10%), while a further three sites identified one tree of 30 with scats (3.3%). The three KSATS that detected the highest activity are located between Kybong Creek and Traveston State Forest. Two line transects were undertaken between these areas, in close proximity to KSATS where scats were identified. Neither transect recorded any direct observations of koalas. However this vegetation corridor is considered to be a significant movement corridor for koala within the Project area, as this area detected the highest level of koala activity within this study. A brief methodology, summary of the findings and field survey results are included in **Appendix C**.

2.5.4.5 Koala and Grey-headed Flying-fox habitat assessment, Impact Areas and Offset Sites May 2015

In May 2015, a field assessment was undertaken by SMEC within both impact areas and potentially suitable offset sites. This survey approach adopted the relevant criteria from the Biocondition assessment tool, recording the characteristics of each vegetation strata, the level of disturbance, evidence of canopy species recruitment, GPS locations, opportunities for improvements to offset sites and taking photographs of each site.

A 100 x 20m plot was established at each site, following a north-south (or vice versa) direction. Within the plot, the number of each tree species above 10cm diameter at breast height (DBH) was recorded for both Eucalypt and non-Eucalypt species. The DBH of all trees above 30cm was recorded to enable calculation of the density of large trees across the site. This provided sufficient data to extrapolate the tree density and composition to a 'per hectare' summary.

The level of disturbance for wildlife, logging, grazing and non-native plant cover was noted in accordance with the biocondition reference datasheet whereby the severity was ranked from 0 (nil) to 3 (severe) and time since last event was classified into the following categories:

- A: <1 year
- B: 1-5 years
- C: 5-10 years
- D: 10-20 years
- E: >20 years.

Additionally, the characteristics of each vegetation strata (emergent, canopy, sub-canopy, shrub and groundcover) were documented. Characteristics recorded include the floristic composition, height (m), and cover (%). Layers of significant weed invasion such as Lantana (*Lantana camara*) were highlighted. This information was used to determine the site condition, site context, and species stocking rate for each impact site within the Project area.

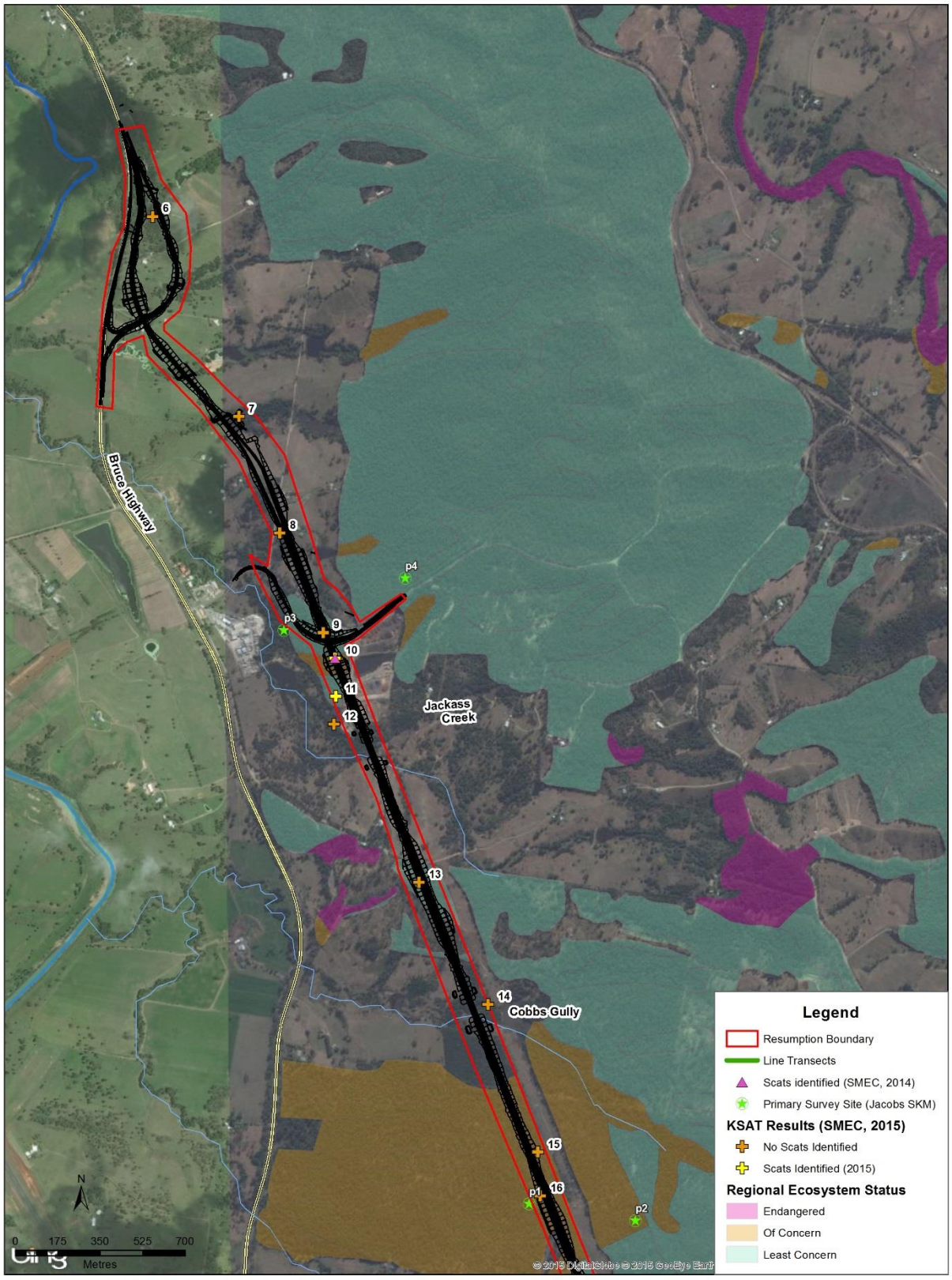
The results of the habitat assessments are documented in the Residual Impact Assessment and Offsets Proposal.

2.5.5 Estimated Koala Population

Although numerous ecological surveys have been undertaken within the Project area and surrounds, no direct observations of koalas have been recorded and correspondingly it is difficult to comprehensively quantify the size of the koala population in the Project area.

Results from the 2015 KSAT surveys undertaken by SMEC have been analysed and compared with the interpretation of koala activity levels based on KSAT results in Phillips and Callaghan (2011), indicating that across the 21 KSATS within the Project area, the level of koala activity was considered to be consistent with an 'East Coast – low use category'. Only 29% of the 21 KSATS undertaken in 2015 recorded scats, with two sites in the vicinity of Kybong Creek recording evidence demonstrating higher levels of activity. With an average usage of 2.2% across the 21 KSATs undertaken by SMEC (2015), the Project area as a whole is less than the 'medium (normal) use' criteria of an East Coast – Low population, whereby there is no criteria provided for 'low use'.

This conclusion is supported by the outcomes of previous survey efforts in 2013 and 2014, and therefore a low-density sedentary population is considered likely to be present in the area. Phillips and Callaghan (2011) note that low activity levels are associated with low-density koala populations and that stable, low density koala populations will occur naturally in some areas.



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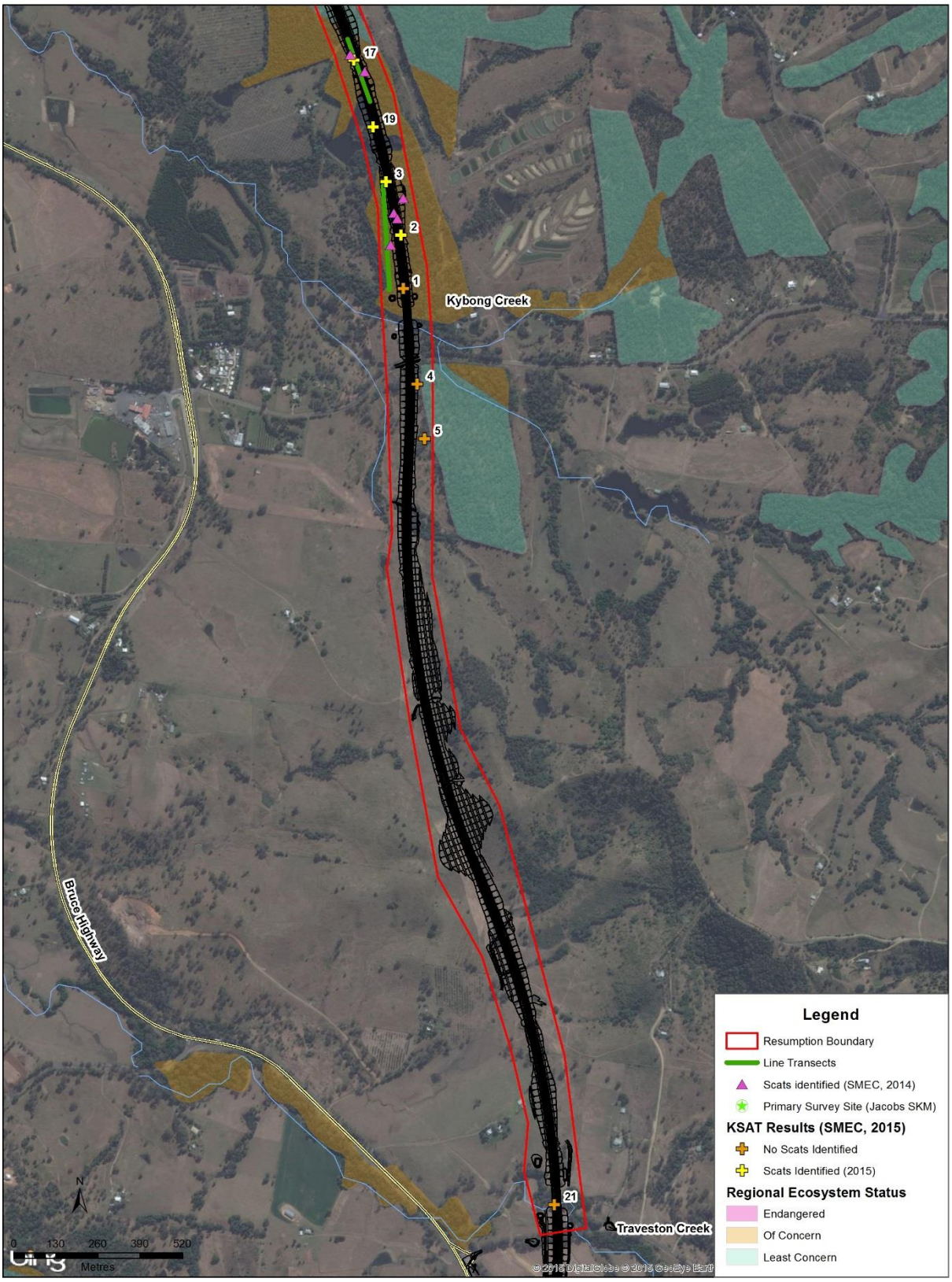
COORDINATE SYSTEM GDA 1994 MGA Zone 56 PAGE SIZE A3 SCALE	SOURCE QLD Govt, SKM, SMEC, BING	Copyright SMEC Australia Pty Ltd. All Rights Reserved. © State of Queensland (Department of Natural Resources and Mines) 2014. Updated data available at http://dds.information.qld.gov.au/dds/	Queensland Government CONSULTANT SMEC Australia

Figure 7a: Field Survey Results



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COORDINATE SYSTEM GDA 1994 MGA Zone 56 PAGE SIZE A3 SCALE	SOURCE QLD Govt, SKM, SMEC, BING	Copyright SMEC Australia Pty Ltd. All Rights Reserved. © State of Queensland (Department of Natural Resources and Mines) 2014. Updated data available at http://dds.information.qld.gov.au/dds/	Queensland Government

Figure 7b: Field Survey Results

2.6 Potential Impacts of the Project and Mitigation and Management Measures

A number of potential impacts to the koala were identified in the EPBC Act referral (2014/7394) for the Project. These include direct loss of fauna habitat, habitat fragmentation and subsequent impacts from fragmentation including fatalities or injury through car strikes, dog attacks and disease. However, the EPBC Act referral concluded that despite the loss of habitat, koalas will continue to utilise the habitat across the landscape if connectivity is maintained.

The following sections outline each of the potential impacts to the koala as a result of the Project, with consideration of the existing conditions, and proposed mitigation measures. The assessment of impacts and identification of residual impacts are contained in the Residual Impact Assessment and Offsets Proposal. Management actions for koalas have been developed with reference to the following relevant guidelines and previous investigations:

- EPBC Act Referral Guidelines for the vulnerable koala
- DoE's Environmental Management Plan Guideline (2014)
- EPBC Act Referral for the Project (2014) – EPBC Ref: 2014/7394
- The REF (Jacobs SKM, 2014)
- Fauna Sensitive Road Design Volume 2 (TMR, 2010)
- Koala-sensitive Design Guideline – A guide to Koala-sensitive design measures for planning and development activities (DEHP, 2012).
- Fauna Movement and Road Impact Mitigation (Biodiversity Assessment and Management, 2008 in Bruce Highway (Cooroy to Curra) Strategic Planning Study: Recommended Corridor Report (2008)).

2.6.1 Habitat Removal

Review of existing research and recent field investigations have suggested that the population of koalas in the Project area is consistent with Phillips and Callaghan (2011) 'East Coast – low' category, despite being assessed as containing habitat that is 'critical to the survival of the koala' in accordance with the Koala Habitat Assessment Tool provided in the *EPBC Act Referral Guidelines for the vulnerable koala*. Section 2.5.1 describes the results of this assessment, the REs present within the Project area and the species composition of each vegetation community. All REs mapped and field verified within the Project area provide suitable habitat for koala as they are dominated by Eucalypts and related genera.

Potential Impacts of the Project

The Project is expected to result in the direct removal of 45.9ha of koala habitat, comprising eucalypt vegetation of RE 12.11.3, RE 12.3.11, RE 12.11.14, RE 12.11.9 and RE 12.3.2a.

This 'impact area' is a reduction in the total area of koala habitat impacted from the 48ha documented in the EPBC Act Referral for the Project (2014/7394), due to the progression to Detailed Design, clearer definition of the Project area (within the resumption boundary) and refinement of the construction footprint.

The 'Project area' in this Report is defined as the area within the resumption boundary to accommodate a six-lane highway, which will be converted to State-controlled Road Reserve following completion of the construction of the proposed highway upgrade. The current Project will only deliver a four-lane highway and in this regard clearing of the entire footprint of the Project area will not be required at this stage. Notwithstanding, the Project area may be subject to clearing for future upgrades, maintenance and access reasons, TMR proposes to include all koala and grey-

headed flying-fox habitat mapped within the resumption boundary in the calculation of offset requirements. As a result the areas identified as 'impact areas' are therefore greater than the required clearing footprint for the Project. 'Impact areas' included in clearing calculations are shown in Figure 8.

Further detail regarding the determination of 'impact areas' is described in the Residual Impact Assessment and Offsets Proposal. Offsets provided in the Residual Impact Assessment and Offsets Proposal have been determined based on the whole Project area which includes the provision of a six-lane highway to minimise the extent of statutory requirements on the Project in the future.

Given that the mapped koala habitat was assessed as 'critical to the survival of the species', the removal of 45.9ha of suitable koala habitat was assessed as a residual impact of the Project.

Management and Mitigation Measures

The following management and mitigation measures will be incorporated into construction contract documentation for the construction phase of the Project:

Minimise Clearing

Clearing will be limited to the disturbance area required for the construction and operation phases of the Project, and will be clearly defined in the Project contract documentation. A plan of clearing limits will be prepared by the Contractor and clearing shall not proceed on site until the limits of clearing have been approved by the Contract Administrator. Clearing will not be permitted outside these extents, without prior approval from the Construction Administrator.

Staged Clearing

A staged and sequential clearing process will be adopted along the Project area to provide the best opportunity for resident fauna to move on their own accord prior to clearing activities.

It is anticipated due to the scale of the Project area, clearing will be conducted in stages. Furthermore, within each stage, sequential clearing principles will be employed during clearing activities. In accordance with the TMR Fauna Sensitive Road Design Manual (2010) this will include:

- Vegetation clearing to be carried out in a way that allows koalas in the area subject to clearing sufficient time to move out of the clearing site without human intervention
- Vegetation clearing to be carried out in a way that ensures habitat links are maintained for as long as possible within the clearing site and between the site and its adjacent areas to allow koalas to move away.
- Trees with koalas present are not to be cleared, as well as trees that overlap with such trees, until the koala has moved on.

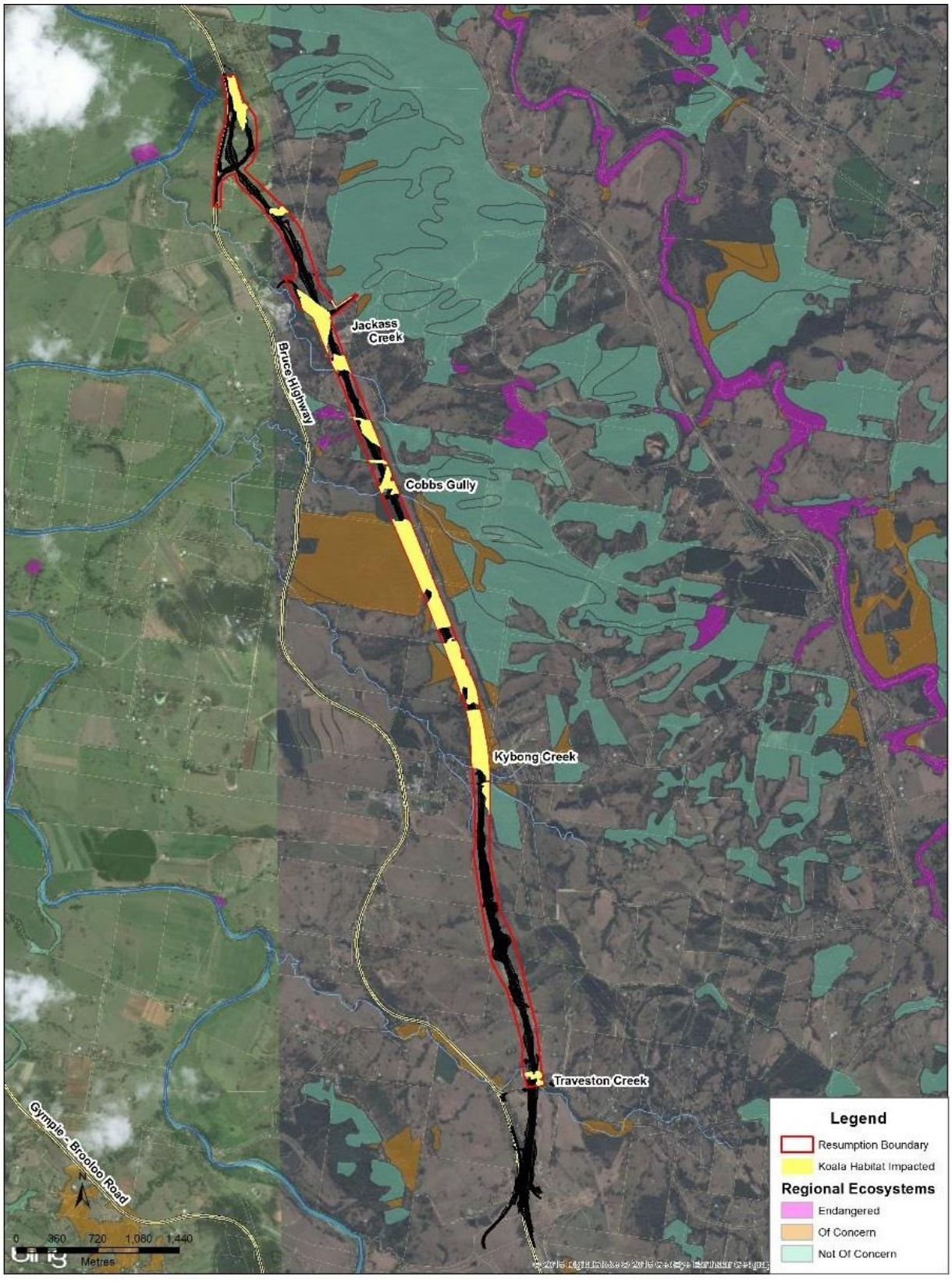

Figure 8: Potential Koala Habitat in the Project area

Fauna Fencing

Fauna fencing is planned to minimise the risk of vehicle strike during operation of the highway, which is further discussed in section 2.6.5. As part of the construction scheduling, TMR is planning the early installation of fauna fencing in associated with staged and sequential clearing, to exclude fauna from the construction zone. Where early installation is not feasible or practical, (i.e. at waterway crossings) temporary no-entry fencing will be installed and replaced with permanent fauna fencing on completion of works in an area. The fencing specification will be in accordance with TMR standard drawing SD1603, *Koala Proof Fence and Gate* (refer to **Figure 9)**. Fauna fencing will be installed in accordance with the following principles:

- Fauna fencing will extend at least 200m either side of a nominated fauna crossing location (refer section 2.6.2)
- Fauna fencing will be installed to limit the potential for fauna (including koalas) from entering the Project area
- Fauna fencing will be installed with appropriate clearance zones to minimise opportunities for fauna to jump from adjacent vegetation and climb over the fence into the Project area.

Fauna Spotter/Catcher

Prior to clearing in each stage, a fauna spotter/catcher will undertake a pre-clearing survey and prepare and submit a report to the Contract Administrator no less than 14 days prior to clearing commencing in an area (refer below for approach to staged clearing).

The fauna spotter/catcher will be present during clearing activities to clear the area of fauna and minimise the risk of koala or other fauna mortality. The fauna spotter/ catcher will prepare and submit a post-clearing report to the Construction Administrator no later than 14 days following completion of clearing in an area.

Spotter/catcher principles (TMR 2010) that will be applied on the Project include:

- A fauna spotter/catcher must be present during clearing
- The fauna spotter/ catcher must be suitably qualified for the task and also have the appropriate permits/licences in place from the Queensland Government
- If there is more than one machine operating (clearing vegetation), there will be the requirement for more than one fauna spotter/catcher
- The fauna spotter/ catcher must be in close proximity to the vegetation being cleared.
- Their role is to spot fauna in vegetation, mark any trees appropriately and ensure that fauna are not injured during any clearing. They are also required to relay information to the machine operator/s and stop clearing activities in the area if a koala is observed.
- Koalas are not to be physically removed from a tree to another location. In the event of a koala being encountered within the clearing extent, works shall cease in the immediate vicinity to allow time for the fauna to voluntarily disperse. No koalas are to be relocated but left to move on by their own means. If koalas do not move on within 48 hours, the TMR Senior Environmental Officer is to be contacted for direction.
- Any tree (or patch of vegetation) that has been identified as a risk to the animal if cleared, must not be felled, damaged or interfered with until the animal has moved from the site as noted in the point above.
- Should an animal (not limited to koalas) be found sick or injured, contact must be made with a suitable treatment facility (such as the Australian Wildlife Hospital (Australia Zoo) – phone 1300 369 652) or an approved alternative wildlife handler. Any sick, injured or orphaned animals shall be reported by the Construction Contractor in the first instance to RSPCA Queensland via the 1300 ANIMAL 1300 264 625. This information will be provided to the relevant Queensland Parks and Wildlife Service (QPWS) Officer for the region.

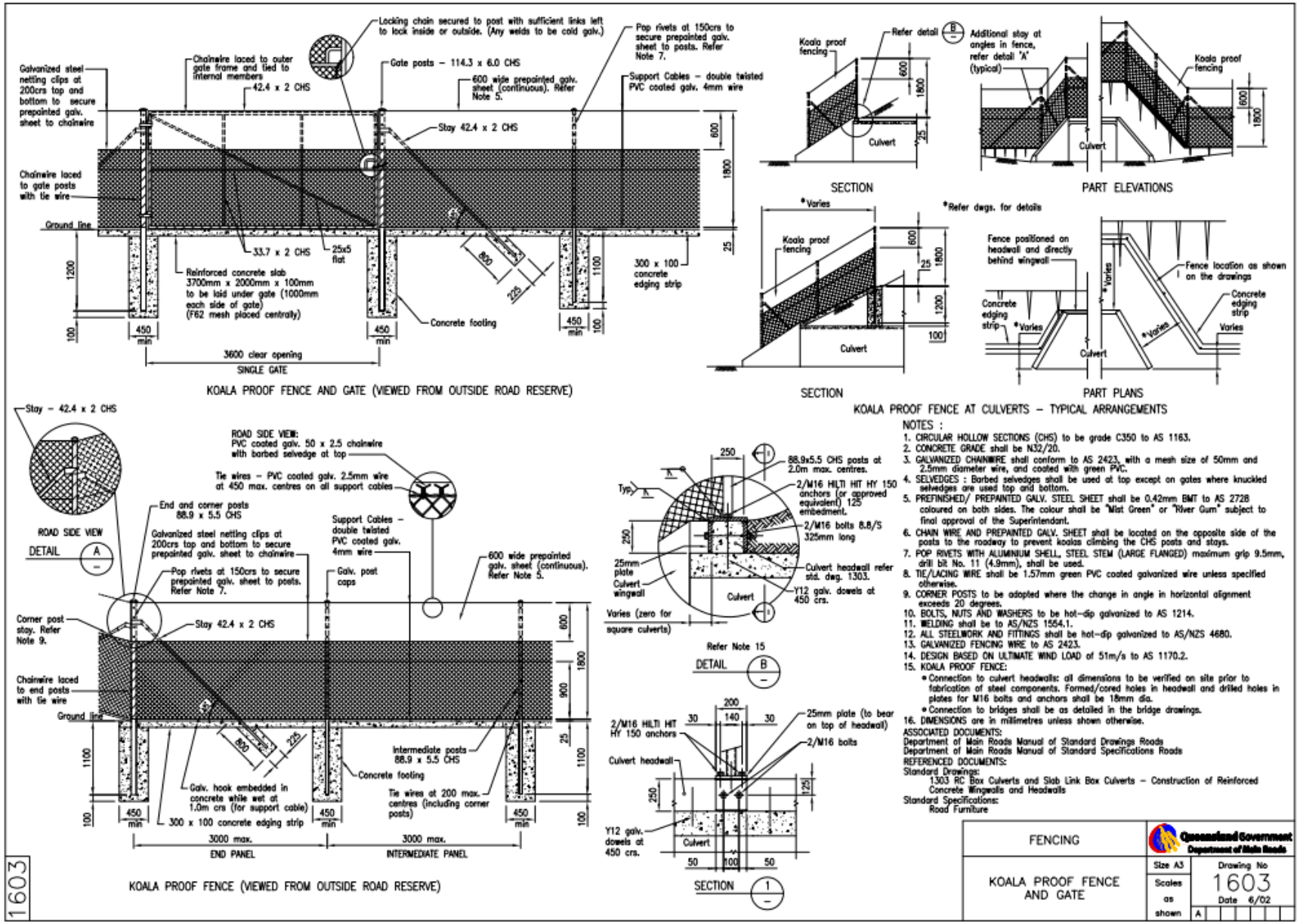

Figure 9: TMR Standard Drawing 1603 Koala Proof Fence and Gate

Offset for Habitat Removal

Despite these mitigation measures, habitat removal is a residual impact that cannot be fully addressed through the mitigation measures outlined above. Therefore TMR has prepared an Offsets Proposal, in accordance with *EPBC Act Environmental Offsets Policy 2012*. Details of habitat quality of impact areas and offset sites, as well as other offset initiatives are included in the Residual Impact Assessment and Offsets Proposal.

2.6.2 Habitat Fragmentation and Connectivity

The Project area traverses patches of discontinuous koala habitat, fragmented over time due to historic land clearing for rural activities, construction of farm dams and access roads. The Project area and surrounds however supports patches of habitat that are relatively intact, including Traveston State Forest, and the corridor of vegetation from the southern tributary of Kybong Creek north to Traveston State Forest, as discussed in section 2.5.2.

Potential Impacts of the Project

Habitat clearing will result in in additional fragmentation of koala habitat and disruption of fauna movement corridors across the Project area. This is particularly evident at Traveston State Forest, the area of vegetation south of Woondum Road, the north-south corridor between Traveston State Forest and Kybong Creek, and riparian corridors within the Project area. Consequently the loss of connectivity would impact potential koala movement within the regional area.

Habitat fragmentation will also result in increased isolation of existing habitat patches. This can limit food and shelter availability for koalas, result in reduction of habitat connectivity, and subsequently impact the ability for genetic transfer between existing populations. Habitat fragmentation may also result in koalas travelling further between areas of suitable habitat, increasing the risk of predation due to the increased distances travelled on ground by koala. The risk of predation is discussed further in Section 2.6.6.

Management and Mitigation Measures

Minimise Clearing

As noted in section 2.6.1, clearing will be limited to the disturbance area required for the construction and operation phases of the Project, and will be clearly defined in the Project contract documentation.

Rehabilitation and Revegetation

Temporary disturbance areas will be progressively rehabilitated as quickly as possible following completion of construction and will be designed to meet site specific requirements.

Fauna Passage provisions

Provision of fauna passage is a key mitigation measure designed to maintain habitat connectivity, counter the effect of habitat fragmentation and reduce the risk of vehicle strike, which is further discussed in section 2.6.5. The Project design incorporates provisions for fauna passage, including koalas, in the locations listed in **Table 5**, and shown in **Figure 10.** Fauna passage will be accommodated at the four major creek bridges, and an additional two dedicated fauna culverts. The Traveston State Forest dedicated fauna culvert will provide connectivity between Traveston State Forest and habitat to the east. The second dedicated fauna culvert is located approximately 750m to the north of Kybong Creek, and 1.1km south of the Traveston State Forest fauna culvert, to provide connectivity between habitat patches to the west of the Project.

Fauna underpasses and dedicated fauna culverts will be designed and constructed in association with fauna fencing to direct fauna to dedicated crossing points and prevent them from entering the highway road reserve.

Table 5: Fauna passage locations

Location	Type	Design Provisions
Traveston Creek Bridge	Fauna underpass under road bridge structure	Dry passage, habitat connectivity
Kybong Creek Bridge	Fauna underpass under road bridge structure	Dry passage, habitat connectivity
Culvert 1, north of Kybong Creek	Dedicated fauna culvert	Dry passage, koala furniture
Culvert 2, adjacent to Traveston State Forest	Dedicated fauna culvert	Dry passage, koala furniture
Cobbs Gully Bridge	Fauna underpass under road bridge structure	Dry passage, habitat connectivity
Jackass Creek Bridge	Fauna underpass under road bridge structure	Dry passage, habitat connectivity

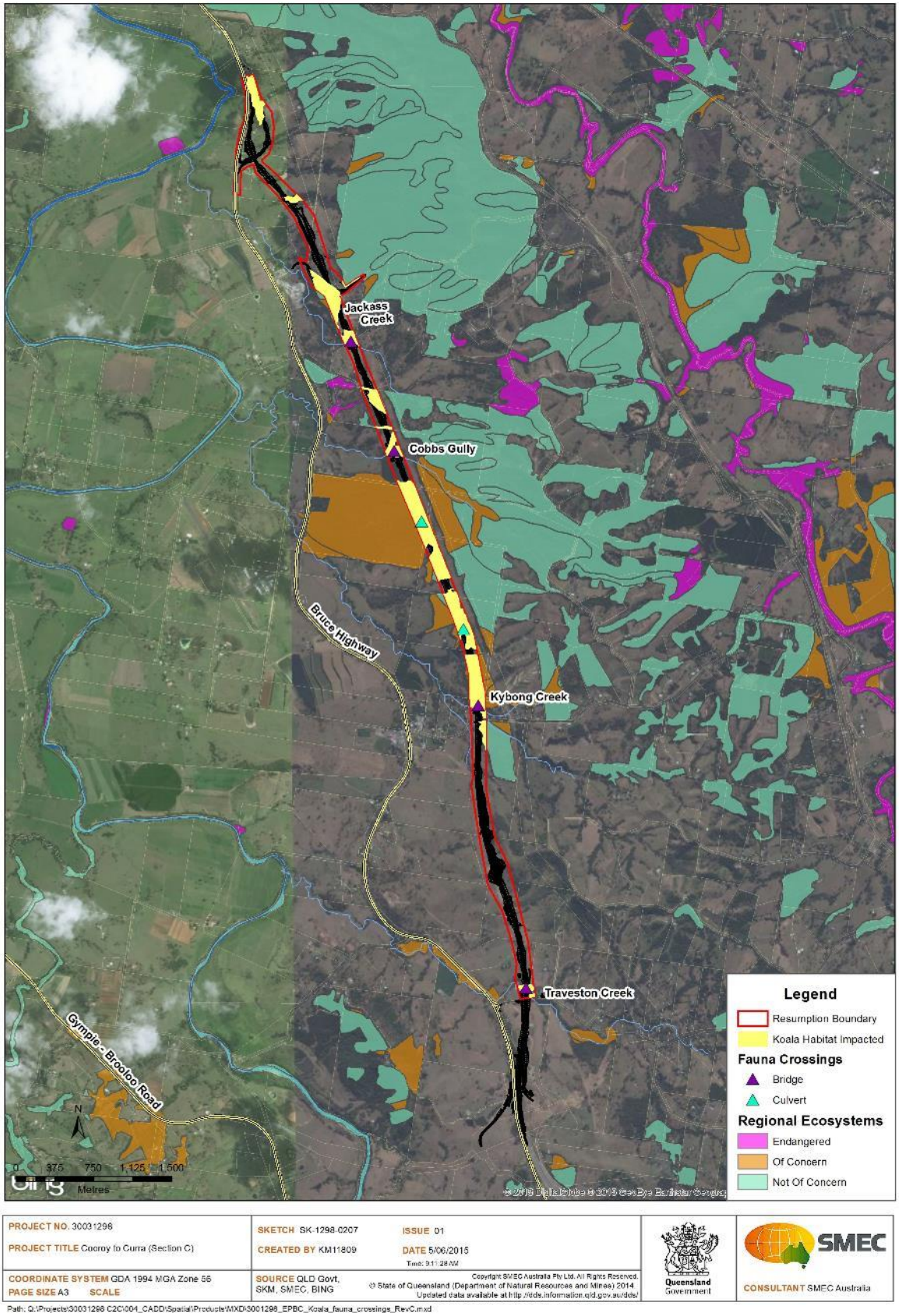

Figure 10: Proposed Fauna Crossing Locations

2.6.3 Habitat Degradation

Field surveys in the Project area and surrounds have identified significant areas of lantana (*Lantana camara)* (a weed of national environmental significance) and numerous other weeds that are declared under the Queensland *Land Protection (Pest and Stock Route Management) Act 2002*.

Potential Impacts of the Project

Removal and fragmentation of habitat are known causes of 'edge effects' which have the potential to exacerbate habitat degradation. Impacts associated with edge effects include increased competition and predation (addressed in Section 2.6.6), increased risk of disease (discussed in Section 2.6.4) and invasion by exotic species. Invasion by weed species, such as Lantana, have the potential to physically impede koala movement along the ground between trees, thereby limiting the habitat available for the species. Habitat fragmentation can also expose new areas of vegetation to the spread of weeds.

Additionally, dense understory weeds may suppress regrowth by outcompeting native species for space and light. This has the potential to inhibit canopy regrowth if not properly managed.

Management and Mitigation Measures

Requirements for weed management during construction will be incorporated into the Project contract documentation, to be implemented by the Construction Contractor. This will minimise the potential for Project derived weed impacts, and remove and dispose of existing weed material within the clearing area utilising suitable methods to limit further spread. Weed management measures will include:

- Pre-clearing weed survey and reporting, documenting areas of existing weed infestation and identifying treatment and management requirements
- Weed monitoring and reporting during construction, including any area subject to ground disturbance, including stockpiles
- Washdown of vehicles and construction machinery prior to entering the construction zone
- Weed hygiene protocols for material being transported into the site
- Removal of invasive species using suitable techniques
- Conduct weed inspections as part of rehabilitation monitoring and reporting.

2.6.4 Disease and Pathogens

As noted in section 2.4, the koala is known to be susceptible to a number of diseases, including Chlamydia and Koala retrovirus. No data is available about the presence of these diseases in local koala populations.

Potential Impacts of the Project

The spread and introduction of diseases and pathogens in koala populations is a potential risk associated with construction of roads. Construction activities have the potential to result in increased stress in koalas through vegetation clearing, habitat fragmentation, increased noise levels, traffic and alteration to existing conditions. Increased levels of stress may cause the expression of disease symptoms in koalas.

Management and Mitigation Measures

Staged Clearing

Clearing will be staged in accordance with the requirements detailed in section 2.6.1. This is to provide an opportunity for fauna to move from the works site on their own accord and reduce the potential for increased stress and expression of chlamydia symptoms.

No additional mitigation measures for diseases and pathogens is recommended at this time as there is no formal translocation program of koalas proposed as part of the Project that will require quarantine or other disease preventive measures.

Fauna Spotter/Catcher

Fauna management during clearing activities will include the engagement of a fauna spotter/catcher as outlined in section 2.6.1. The fauna spotter/catcher will provide advice and monitor potentially stress inducing construction activities (vegetation clearing and noise) in proximity to areas where koalas are observed. Any fauna injured/separated from parent/s during construction shall be promptly transported to a veterinarian for treatment. The Construction Contractor is to nominate contact details for approved local wildlife handler/s and local vet in the Environmental Management Plan (Construction) (EMP(C)). Any fauna that are injured or killed during construction shall be reported immediately to the Contract Administrator as an environmental incident. If koalas are injured during the works they shall be taken to the Australian Wildlife Hospital (Australia Zoo) – phone 1300 369 652 or an approved alternative wildlife handler. Any sick, injured or orphaned animals shall be reported by the Construction Contractor to RSPCA Queensland via the 1300 ANIMAL 1300 264 625. All incidents/ encounters with fauna shall be documented in the Construction Contractor's Monthly Environmental Report.

2.6.5 Vehicle Strike

Existing Conditions

No formal records of vehicle strike of koala are available for the existing roads in the Project area. However, as outlined in **Table 4**, available koala records (both KoalaTracker and DEHP data) indicate one individual being struck by a vehicle along the existing Bruce Highway, adjacent to the Traveston State Forest in 2011. Koala mitigation measures, such as fauna proof fencing and fauna crossings, are absent from the existing Bruce Highway adjacent to the Project area, thereby providing no barrier or deterrent to prevent koalas crossing the existing highway.

Potential Impacts of the Project

Upgrading the Bruce Highway through vegetated areas presents an increased risk of vehicle strike for koalas in the region. Areas where koala evidence has been confirmed, significant vegetation is evident on either side of the corridor and movement corridors are likely to present a higher risk of vehicle strike. This primarily includes Kybong Creek, Traveston State Forest and the corridor between these two locations, Cobbs Gully, Traveston Creek and Jackass Creek. As the vehicle speed will typically be 110km/h along the Project alignment under normal conditions, there is a high risk of mortality for koalas if struck by a vehicle.

Management and Mitigation Measures

Mitigation measures to minimise the risk of vehicle strike to koalas include fauna fencing and fauna crossings, as discussed in section 2.6.2.

Diversion of Through Traffic

The existing highway will remain as a State-controlled local access road, and the new highway will form a new State-controlled road constructed to the east. The new highway will be designed for a

posted speed limit of 110km/h, and will ultimately divert the existing traffic from the old highway to the new highway.

The diversion of through traffic from the old Bruce Highway between Old Traveston Road to Woondum Road onto the new Bruce Highway (with fauna fences and fauna passage provisions) will result in the old highway being used predominantly for local movements. This is anticipated to result in fewer vehicles utilising the old highway, and consequently result in a reduction in the risk of vehicle strike on the Old Bruce Highway.

2.6.6 Wild Dog Attack

Existing Conditions

Wild dogs are a known issue in south-east Queensland and exacerbate the impacts of habitat fragmentation on koala (DEHP, 2014). The existing Project area is not recognised as a large contiguous landscape due to significant historic clearing for rural activities and the high voltage Powerlink easement which runs parallel to the proposed road corridor for approximately 8.5km. Under existing conditions, there are open spaces which have the potential to leave koalas vulnerable to predation from wild dogs, including along the Powerlink easement, on properties that are absent of significant vegetation or where open space occurs between vegetation corridors such as the area immediately south of Traveston State Forest.

Gympie Regional Council has established a Wild Dog Control Plan to assist landholders and the community in controlling the population in the region. Council itself is not implementing a baiting program but rather encouraging landholders to do so. The vision for the plan is '*To minimise the impact of wild dogs on the economic and social activities of rural and urban communities, and the natural environment within Gympie Region'*. The plan also highlights three priorities for the Gympie region as follows:

- Reduce wild dog attacks on livestock and other wild dog threats
- Promote stakeholder leadership of wild dog control activities
- Continuously improve how wild dogs are managed in the Gympie region by data collection and analysis, and through innovation in the implementation of wild dog control programs.

Potential Impacts of the Project

Through vegetation removal and habitat fragmentation, the Project will result in an increase of open space and exposed vegetation community edges. There is therefore potential for the increase in open space to amplify mortality rates of koalas, due to an absence of sufficient shelter and escape options. Trees are required to provide refuge from predators.

Management and Mitigation Measures

Koala refuge poles will be installed at dedicated fauna crossings. Rehabilitation at creek crossings/ fauna underpasses will be undertaken as quickly as possible to restore habitat connectivity and cover, and re-establish habitat connections to enable koalas and other fauna to move between the east and west. TMR is currently in discussion with Gympie Regional Council on potential control measures that may be included during the construction and post construction of the project including the funding of a wild dog abatement program.

2.6.7 Other Construction Related Activities

Potential Impacts of the Project

There is a potential risk of koala mortality as a result of clearing activities during the Construction phase. This includes vehicle strike or impacts during tree felling.

Further, there is potential for indirect impacts to occur to koala and koala habitat from vegetation clearing including enhanced stress levels, and construction impacts as discussed below. This is particularly relevant in those areas where koala usage has been identified during field surveys, or more generally in areas of suitable habitat. These areas are illustrated in **Figure 7**.

Management and Mitigation Measures

Mitigation and management measures to reduce the impacts to koalas during construction are as follows:

- The preparation and implementation of an EMP(C) which incorporates the management measures identified in this FMP. The Construction Contractor will be required to prepare the EMP(C) for approval by the Contract Administrator prior to construction commencing and shall identify the likely impacts, procedures to follow and mitigation measures to be implemented.
- Provide environmental training to site personnel through a site induction and toolbox talks to identify species that may be encountered during construction, potential impacts, and the procedure to follow in the event an animal (including koala) is encountered.
- Implement appropriate vehicle speed limits during construction to minimise the risk of vehicle strike and resultant mortality to koala.
- Direct artificial construction lighting away from retained vegetation communities, particularly in association with areas identified as koala habitat including Traveston Creek, Kybong Creek, Jackass Creek, Cobbs Gully and Traveston State Forest.
- Install fauna fencing as part of early construction works where practical and feasible to limit fauna from entering the works site and to demarcate no-entry zones. Temporary no-go fencing may be implemented where it is not practical to install permanent fencing until later in the construction process.

2.7 Mitigation, Management and Monitoring

The Project has the potential to impact the koala and suitable habitat for the species as a result of construction and operation activities. Management actions for koalas have been developed with reference to the relevant guidelines and previous investigations listed in Section 2.6. The proposed management actions are provided in **Table 6**, along with performance criteria, timing for implementation and responsible party for each measure.

The monitoring requirements also outlined in **Table 6** are proposed for implementation during the Construction phase of the Project.

Monitoring of the proposed offset sites and the outcome of other offset commitments is addressed the Residual Impact Assessment and Offsets Proposal. Therefore the monitoring requirements outlined below are specific to construction of the Project only.

Corrective actions will be initiated where environmental outcomes and performance indicators have not been met. Where an exceedance of the performance indicators occurs the Contractor shall investigate the cause of the exceedance and where the exceedance is deemed to be a result of the construction works, it shall be treated as a non-conformance.

In the event of an incident during construction immediate actions are to be undertaken to minimise the potential impacts to koala individuals or habitat, and the appropriate government agency will be notified (TMR, DEHP and DoE). Actions may include transportation of injured fauna to a wildlife carer or veterinarian and corrective measures to prevent the occurrence from reoccurring.

Table 6: Management Actions - Koala

Measure ID	Management Action	Performance Indicator	Project Stage for Implementation	Responsible Party	Monitoring Requirement	Corrective Action
1	**(1) Minimise Clearing**					
1.1	Minimise Project footprint and vegetation clearing extents to the area necessary for construction.	No evidence of disturbance, vegetation clearing or removal of habitat beyond the designated clear and grub footprint and no-entry zones. The integrity of no-entry fencing is maintained throughout the construction phase of the Project.	Detailed Design	Designer/TMR	Daily inspections of the extent of works to be undertaken to ensure vegetation outside the Project footprint has not been impacted. Audit against design drawings and plans issued to contractor.	Install additional barriers to delineate no-entry zones and rehabilitate areas outside the planned disturbance immediately.
1.2	Define clearing and grubbing extents on drawings, including clearly defined and fenced no-entry zones. Fenced no-go zones will target areas identified as potential habitat for koalas including Traveston State Forest, riparian corridors associated with Traveston Creek, Kybong Creek, Jackass Creek and Cobbs Gully. Install fauna exclusion fencing in association with staged clearing of the works area.		Detailed Design	Designer/TMR		
1.3	Comply with the defined clear and grub extents and no-entry zones during construction. No-entry zones are to be marked out with high visibility temporary fencing until construction is complete.		Construction	Construction Contractor		
1.4	Conduct sequential clearing to provide fauna with the best opportunity to move from the works site on their own accord.	No evidence of clearing outside defined clearing limits.	Construction	Construction Contractor		
1.5	Limit the project construction footprint to the area required to construct the works.	No construction activities or disturbance beyond the prescribed extents.	Detailed Design	Designer/TMR		
1.6	Temporary access tracks are to be contained within the defined clearing limits.	No access tracks beyond the defined clearing limits.		Designer/TMR		
2	**(2) Fauna Fencing**					
2.1	Incorporate fauna exclusion fencing into the design at locations adjacent to habitat edges and within 200m of nominated fauna crossings. Fauna fencing to be installed as per TMR standard drawing SD1603, *Koala Proof Fence and Gate*. Fauna fencing to be maintained in accordance with the TMR Road Maintenance Performance Contract.	Fauna exclusion fencing installed as nominated on design drawings. No trees within 3m of any fauna fences. No increased mortality of koalas as a result of vehicle strike. Fauna fencing integrity is maintained, including clear zones	Clearly defined in design phase. Installed accordingly during construction phase. Operational	Designer/TMR Construction Contractor TMR/ Maintenance Contractor	Fauna fencing is regularly inspected during construction in accordance with the TMR Road Performance Maintenance Contract to ensure effectiveness in preventing fauna from entering the Project area.	Repair damage to fences Maintain clear zones free of woody vegetation

Measure ID	Management Action	Performance Indicator	Project Stage for Implementation	Responsible Party	Monitoring Requirement	Corrective Action
2.2	Maintain fauna exclusion fencing, fauna crossing structures and fauna furniture.	No evidence of damage to fauna exclusion fencing, crossings or furniture evident.	Operation	TMR		
3	**(3) Fauna Passage**					
3.1	Reinstate habitat connectivity, through provision of fauna passage at recommended locations and rehabilitation of adjacent habitat within the Project area. Fauna passage for koala and inclusion of fauna furniture suitable for koala in culverts and bridges is proposed to be incorporated into the design along vegetation and riparian corridors, including South of Traveston State Forest, Traveston Creek, Kybong Creek, Jackass Creek and Cobbs Gully. Fauna crossings to be maintained in accordance with the TMR Road Maintenance Performance Contract.	Fauna passages constructed in accordance with Project designs. Rehabilitation works completed and monitored in accordance with the Project contract documentation. No construction activities or disturbance beyond the prescribed extents. Fauna crossing function is maintained, no blockages	Design Operational	Designer/TMR/ Construction Contractor TMR/ Maintenance Contractor	Fauna crossings (including dedicated fauna culverts) are regularly inspected and maintained in accordance with the Maintenance Contract.	Clear blockages
3.2	Retain vegetation and koala habitat to the greatest extent possible.		Design and Construction	Designer/ TMR/ Construction Contractor		
4	**(4) Fauna Spotter/Catcher**					
4.1	Conduct pre-clearing surveys immediately before construction activities commence in an area. A licenced fauna spotter/catcher is to be engaged to search animal breeding places and vegetation for fauna.	Pre-clearing and post-clearing reporting, documenting any actions required to move fauna on from the clearing zone.	Prior to and on completion of clearing in a stage.	Construction Contractor	Ensure that fauna spotter/catchers are on site during clearing vegetation management activities.	Stop work and gain clearance from a suitably qualified fauna spotter/catcher before works are resumed.
4.2	A fauna spotter/catcher is required to be present on site during all vegetation clearing activities. Should a koala be identified, construction is to stop and wait for the koala to move of its own accord.	Clearing activities do not result in fauna injury or mortality.	Construction	Construction Contractor		
5	**(5) Management of Construction Related Activities**					
5.1	Implement construction vehicle speed limits in the Project area.	No vehicles travelling above the signed speed limits. Speed limit signs evident in the construction area.	Construction	Construction Contractor		

Measure ID	Management Action	Performance Indicator	Project Stage for Implementation	Responsible Party	Monitoring Requirement	Corrective Action
		No koalas struck by vehicle during the construction phase.				
5.2	Provide environmental training to construction staff including training on the procedure to follow in the event of a koala, alive, sick or injured, being encountered.	No deviations from the requirements of the procedure to follow.	Construction	Construction Contractor/TMR		
5.3	Prepare and implement an Environmental Management Plan (Construction) (EMP(C)), which incorporates the management measures identified in this Fauna Management Plan.	No deviations from the requirements prescribed in the EMP(C). No fauna injury or mortality as a result of construction.	Throughout the life of the Project.	TMR/ Construction Contractor		
5.4	Where possible, direct artificial light during construction and operation away from retained vegetation communities.	Lighting is directed away from habitat areas.	Throughout construction and operation	Designer/ TMR/ Construction Contractor		
6	**(6) Weed Management**					
6.1	Implement weed management as part of the EMP(C) including: • Pre-clearing weed survey and reporting, documenting areas of existing weed infestation and identifying treatment and management requirements • Weed monitoring and reporting during construction, including any area subject to ground disturbance, including stockpiles • Washdown of vehicles and construction machinery prior to entering the construction zone • Weed hygiene protocols for material being transported into the site • Removal of invasive species using suitable techniques • Conduct weed inspections as part of rehabilitation monitoring and reporting.	Pre-clearing weed survey and reporting documents requirements for treatment and management, which are implemented and reported on in accordance with the contract documentation throughout the construction and post-construction phase. No increase in weed spread across the Project area that can be attributed to construction activity or negligence.	Throughout construction and at regular intervals during operation.	Construction Contractor/TMR	Conduct daily monitoring during clearing activities to ensure weeds are being correctly removed and treated and vehicles are being suitably washed down. Conduct regular inspections in accordance with the contract documents during the defects liability period.	Implement additional weed management controls
7	**(7) Rehabilitation and Revegetation**					
8.1	Rehabilitate temporary disturbance areas as quickly as possible following completion of construction, including revegetation with suitable species (koala habitat trees) where relevant. Early rehabilitation should be particularly targeted to areas adjacent to fauna crossing structures.	No evidence of bare ground within disturbed areas after construction activities are complete. Rehabilitation undertaken in accordance with contract specifications.	Construction	Construction Contractor/TMR		

3. Grey-headed flying-fox

3.1 Habitat Requirements

Habitat for the grey-headed flying-fox is generally grouped into two categories, foraging and roosting habitat. This species feeds on fruits and nectar in the canopy of various vegetation communities, including rainforests, open forests, closed and open woodlands, *Melaleuca* swamps and *Banksia* woodlands (DoE, 2015b). It is understood that the primary source of food is nectar and pollen from flowers of *Eucalyptus, Corymbia, Angophora, Melaleuca* and *Banksia* genera species, but the grey-headed flying-fox may also feed on various fruits including rainforest fruits when available (Duncan *et al,* 1999; Eby, 1998). As these species flower and fruit at different times throughout the year, grey-headed flying-fox will utilise these food resources seasonally, as they become available.

3.2 Breeding

Roosting sites or camps are defined as a communal aggregation of grey-headed flying-fox in a particular area of vegetation communities. The vegetation communities may comprise rainforest, paperbark, mangroves and other riparian vegetation or urban vegetation areas, though are generally located near bodies of water as documented in a number of studies (Nelson, 1965; Ratcliffe, 1931; Van der Ree *et al,* 2005).

Grey-headed flying-fox have fairly complex inter-breeding relationships. Mating occurs in early autumn after which time the roost camp then splits and re-joins towards the end of spring and start of summer (Hall and Richards, 2000). The females give birth generally in October following a gestation period typically of six months duration. One young is produced annually and once developed the juveniles are independent from approximately 12 weeks of age (Hall and Richards, 2000).

3.3 Distribution

The distribution of grey-headed flying-fox extends along the east coast of Australia from Bundaberg in Queensland to Melbourne in Victoria (Tidemann 1998). It is also thought that this distribution may be shifting further south as a result of increased pressure from competition with other species such as the black flying-fox (*Pteropus alecto*) (DoE, 2015b).

Given the highly localised nature of roost sites and foraging areas that change with the availability of resources, only a small portion of the total area of distribution is occupied at any one time.

3.4 Conservation Status and Threats

The grey-headed flying-fox is listed as vulnerable under the EPBC Act. The species is not listed as threatened under Queensland legislation. A number of significant threats to the grey-headed flying-fox across its distribution have been identified through years of research on the species. A description of the threats identified is provided in the listing advice on the SPRAT database (DoE, 2015b) and has been summarised in **Table 6** below.

Table 6: Existing Major Threats to Grey-headed Flying-fox

Threat	Description of associated issues
Habitat loss	Vegetation clearing for agriculture, forestry and development has been significant across Queensland, resulting in destruction of and disturbance to both roosting and foraging habitat for the grey-headed flying-fox (DoE, 2015b). This causes a decrease in the variety of flowering and fruiting tree species, reducing the availability of foraging resources. The grey-headed flying-fox relies on a variety of species to provide foraging habitat throughout the year, particularly winter flowering eucalypts and similar genera, including *Eucalyptus tereticornis* (Birt, 2000). Removal of roosting sites is also a significant threat to the species as a result of habitat clearing.
Exploitation	Grey-headed flying-fox have been known to damage commercial fruit crops across Queensland which may result in landowners illegally shooting individuals in order to protect crops. Estimates for the number of grey-headed flying-fox shot every year are in the vicinity of 100,000 individuals (Vardon and Tidemann, 1995). The extent of this threat across populations is unknown but has the potential to be significant.
Competition	The SPRAT database (DoE, 2015b) suggests there may be indirect competition between the grey-headed flying-fox and black flying-fox which are closely related and share roost sites and foraging resources. This is based on an observed decrease in grey-headed flying-fox within coastal areas and a significant decline in grey-headed flying-fox in comparison to black flying-foxes during the 1990's (Luckoff, date unknown).
Pollutants, electrocution and pathogens	With pressures from habitat loss, grey-headed flying-fox are sometimes forced into urban areas where they are at risk of lead accumulation and electrocution on powerlines. Several pathogens also have the potential to impact grey-headed flying-fox populations in Australia including Lyssavirus, Bat paramyxovirus and Menangle Pig virus (Hoar, *et al* 1998). The University of Sydney (2000) found that approximately 25% of individuals in the wild carry the antibodies of Menangle Pig virus.

3.5 Distribution of Grey-headed Flying-fox Habitat within the Project Area

3.5.1 Grey-headed Flying-fox Habitat within the Project Area

Grey-headed flying-fox utilise a wide variety of vegetation types, as discussed in Section 3.1, including Eucalypt forest and riparian vegetation. Despite these vegetation communities occurring across the Project area, a review of desktop mapping, existing research (Jacobs SKM, 2014) and field investigations (SMEC, 2015) has indicated that there are no known roosts or camps within or adjacent the footprint that are likely to be impacted by the Project. The nearest camp is located approximately 8km south of the Project area, as discussed further in Section 3.5.3.

Surveys completed by BAAM and reported in Jacobs SKM (2014) and more recent surveys (SMEC, 2014; SMEC, 2015) conclude although no roost sites/camps have been observed, the Project area is likely to support an important population necessary for the species' long term survival recovery, due to the proximity to the northern extent of the species range. The presence of winter and spring flowering species is defined as 'habitat critical to the survival of the grey-headed flying-fox' in the Draft National Recovery Plan for the grey-headed flying-fox (NSW DECCW, 2008).

However, given that the Project area and surrounds contain vegetation communities dominated by REs that comprise *Eucalyptus* species and related genera, and a number of water bodies and watercourses are present, it is considered that there is suitable habitat for grey-headed flying-fox within the Project area. Section 2.5.1 discusses the RE present within the Project area. Notably within the Project area and surrounds, the foraging habitat requirements of the grey-headed flying-fox are consistent with the habitat preference of the koala. All of the REs described for the Project area and associated adjacent regrowth areas have the potential to provide foraging habitat for grey-headed flying-fox due to the presence of flowering eucalypts within these vegetation communities, particularly where winter and spring flowering species occur. These species were particularly evident south of Tandur Road, north and south of Woondum Road, along Cobbs Gully, Traveston State Forest and Traveston Creek. The habitat present is suitable for both foraging and roosting for the species (Jacobs SKM, 2014). **Table 7** lists flowering species within the Project area and notes their dominance or sub-dominance within the REs in the Project area (described in section 2.5.1) and surrounds.

Table 7: Flowering species and presence within REs of the Project area and surrounds

Species	Flowering Season	Dominance in REs
Melaleuca quinquenervia (Broad-leaved Paperbark)[5]	Winter	Sub-dominant in RE 12.3.11.
Corymbia citriodora	Winter to spring	Sub-dominant in RE 12.3.11.
Eucalyptus tereticornis	Autumn, winter, spring	**Dominant** in RE 12.3.11, RE 12.11.14 and RE 12.11.9. Sub-dominant in RE 12.11.3.
Eucalyptus resinifera	Spring to summer	**Dominant** in RE 12.3.2a.
Eucalyptus microcorys	Winter to spring	Sub-dominant in RE 12.11.3.

[5] Highlighted in the Species and Threats Database Profile for Grey-headed Flying-fox: http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=186

Eucalyptus acmenoides (White Mahogany)	Spring to summer	Sub-dominant in RE 12.11.3.
Eucalyptus tindaliae	Autumn to winter	Sub-dominant in RE 12.3.11 and RE 12.11.3.
Corymbia tessellaris (Moreton Bay Ash)	Spring to summer	Sub-dominant in RE 12.11.14 and RE 12.3.11
Eucalyptus racemosa	Spring to summer	Sub-dominant in RE 12.3.11.
Eucalyptus grandis	Autumn to winter	Sub-dominant in RE 12.3.11 and RE 12.11.3.
Eucalyptus melliodora (Yellow Box)	Winter, spring, summer	Sub-dominant in RE 12.11.9.
Angophora subvelutina (Broadleaf Apple)	Spring to summer	Sub-dominant in RE 12.11.9.
Eucalyptus melanophloia (Silver-leaved Ironbark)	Spring to summer	Sub-dominant in RE 12.11.14.
Eucalyptus crebra	Autumn, winter, spring	**Dominant** in RE 12.11.14.
Eucalyptus seeana	Spring to summer	Sub-dominant in RE 12.3.11.
Eucalyptus siderophloia	Winter to spring	**Dominant** in RE 12.11.3. Sub-dominant in RE 12.11.14, RE 12.3.11 and RE 12.11.9.

Substantial areas of forest and vegetation have historically been cleared and fragmented across the Project due to agricultural activity, land development and roads/vehicle access. However, large vegetated areas within the regional context such as Traveston State Forest, Woondum State Forest and the large contiguous vegetated areas to the east of the Project area will continue to provide foraging habitat for the grey-headed flying-fox in the region.

3.5.2 Habitat Connectivity

As the grey-headed flying-fox is a highly mobile species, habitat connectivity is not a significant factor, but rather correlates with the availability of foraging and habitat resources.

3.5.3 Historic Grey-headed Flying-fox Records

Historic records of grey-headed flying-fox sightings are kept by DEHP. A review of these DEHP records (WildNet database) identified one sighting approximately 5km north of the Project (2004), while all other records are greater than 10km from the Project area. The Protected Matters Search Tool lists the type of presence for the grey-headed flying-fox as 'foraging, feeding or related behaviour known to occur within area'. Results of desktop searches are included in **Appendix A**.

The map of nationally important camps of grey-headed flying-fox developed as part of the National Flying-fox Monitoring Viewer[6] identifies three significant camps within a 10km radius of the Project area, listed below and shown in **Figure 11**:

[6] http://www.environment.gov.au/webgis-framework/apps/ffc-wide/ffc-wide.jsf

- Gympie - located approximately 8.5km northwest of the alignment, with an estimated population of 5,000-9,999 individuals at the May 2014 survey
- Cooran (Yellow Belly Reserve) – located approximately 9.5km east of the alignment, with an estimated population of 1-999 individuals as at May, 2014
- Kandanga – located approximately 8km south of the alignment, with an estimated population of 5,000-9,999 individuals as at August, 2014.

3.5.4 Results of Field Investigations

A number of field investigations have been completed in the Project area and surrounding areas, the results relevant to the grey-headed flying-fox are discussed below.

3.5.4.1 Jacobs SKM, 2014 (Review of Environmental Factors)

These reports do not provide details of any field investigations undertaken for the grey-headed flying-fox. They do however note that RE verification was undertaken and determined that the REs contain suitable foraging habitat for the grey-headed flying-fox as both winter and spring flowering species are present. No camps or roosts were reported during field surveys.

3.5.4.2 SMEC, October 2014

The field survey in 2014 walked the entire alignment, searching for threatened flora and fauna, recording flora species in accordance with the Queensland Flora Survey Guidelines and documenting suitable habitat for threatened species. No evidence of grey-headed flying-fox was observed during the survey, though the presence of suitable winter and spring flowering species was noted.

3.5.4.3 SMEC, April 2015

The field investigation confirmed the occurrence of REs and suitable vegetation along the Project alignment, noting the presence of Eucalypt vegetation communities with species that flower seasonally and provide foraging habitat for the grey-headed flying-fox. These areas are illustrated in **Figure 12**. Field surveys were conducted in accordance with DoE Survey Guidelines for Australia's Threatened Bats (2010) whereby the entire Project area was walked and trees searched for direct observations of grey-headed flying-fox individuals and roosts, as detailed in **Appendix C**.

The results of the field survey and desktop assessments indicated that there are no roost sites within the Project area that would be impacted by the proposed upgrade. No individuals were recorded. Potential habitat within the Project area includes areas dominated by *Eucalyptus resinifera, Eucalyptus acmenoides, Eucalyptus grandis, Eucalyptus siderophloia* and *Eucalyptus tereticornis* which were observed in large densities. These species were particularly evident south of Tandur Road, north and south of Woondum Road, along Cobbs Gully, Traveston State Forest and Traveston Creek.

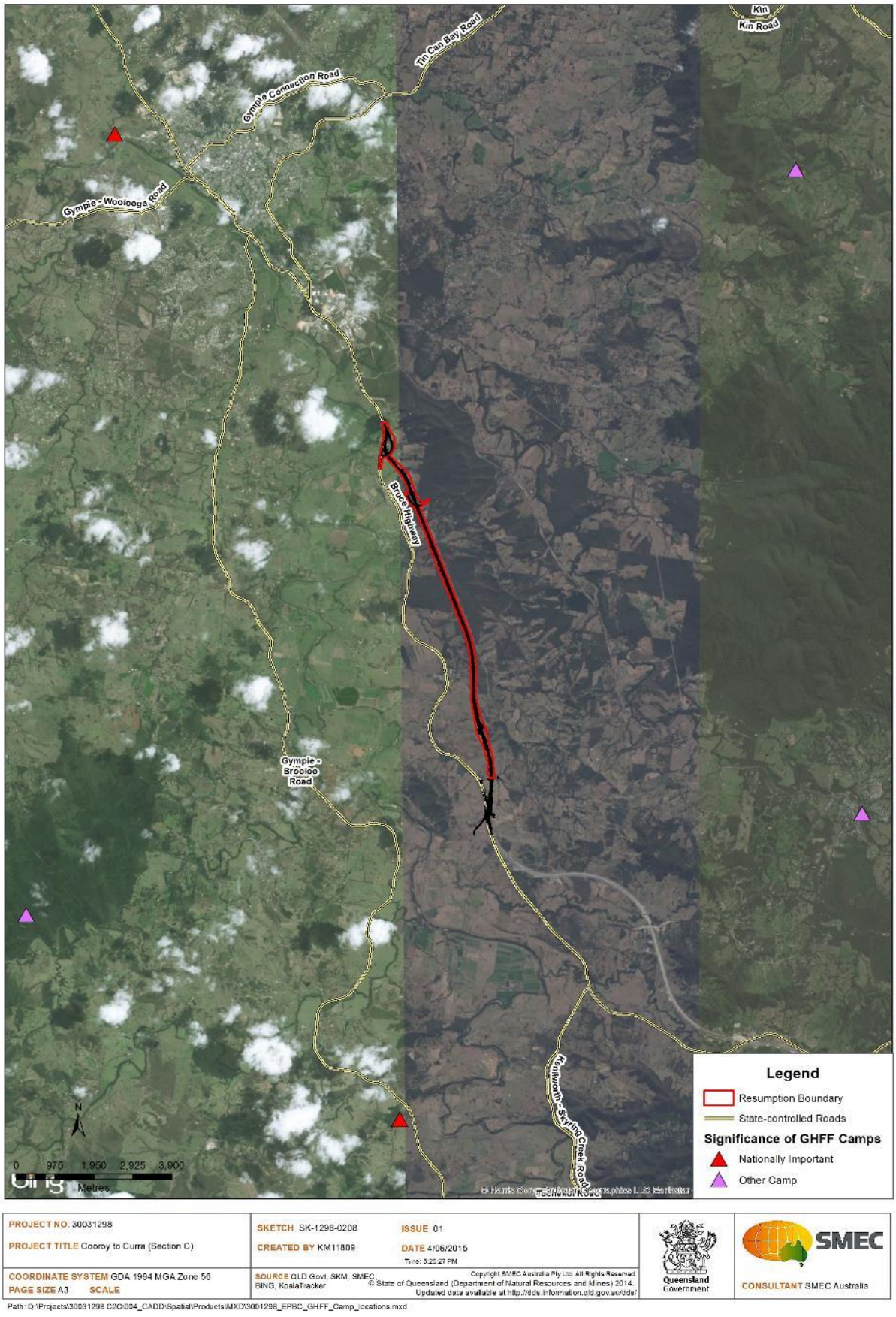

Figure 11: Nationally Important Grey-headed Flying-fox Camps

(http://www.environment.gov.au/webgis-framework/apps/ffc-wide/ffc-wide.jsf)

3.6 Potential Impacts of the Project and Mitigation and Management Measures

Potential impacts on the grey-headed flying-fox were identified in the EPBC Act Referral for the Project and in the REF (Jacobs SKM, 2014) and the subsequent SMEC assessment (2015). The most notable impact associated with the Project is the direct removal of 45.9ha of potential foraging habitat for the species. Additional impacts include construction related activity impacts and weed invasion exacerbated by edge effects. Electrocution on overhead powerlines is not considered a risk of the project.

The existing Powerlink easement is roughly 120m wide and runs parallel to the Project alignment for approximately 8.5km. This easement will remain during and post construction, thereby not posing any increased risk to the grey-headed flying-fox.

The assessment of impacts and identification of residual impacts is contained in the Residual Impact Assessment and Offsets Proposal.

3.6.1 Habitat Removal and Degradation

Existing Conditions

Review of desktop information and recent field investigations have suggested that grey-headed flying-fox may utilise the existing eucalypt and riparian forest within the Project area for foraging, particularly during winter and spring (Jacobs SKM, 2014; SMEC, 2015).

Potential Impacts of the Project

The Project is expected to result in the direct removal of 45.9ha of suitable foraging habitat, as indicated in **Figure 12**. This has been determined through mapping and field verification (BAAM, 2012) of REs in the Project area, and habitat assessments (SMEC, 2015 based on the resumption boundary. The REF (Jacobs SKM, 2014) and more recent surveys (SMEC, 2014; SMEC, 2015) highlight that although no roost sites/camps have been observed, the Project area is likely to support an important population necessary for the species' long term survival recovery, due to the proximity to the northern extent of the species range.

The Draft National Recovery Plan (NSW DECCW, 2008) identifies winter and spring flowering trees as 'habitat critical to the survival of the grey-headed flying-fox'. Winter and spring flowering eucalypts have been observed in all mapped RE vegetation communities across the Project area, and were particularly evident south of Tandur Road, north and south of Woondum Road, along Cobbs Gully, Traveston State Forest and Traveston Creek.

As there are no roost sites/camps within the Project area, and the species is highly mobile, easily detectable and largely nocturnal, the grey-headed flying-fox is not expected to be at a significant risk of direct mortality during clearing activities. With the implementation of appropriate mitigation measures, the risk is expected to be minor.

However, there is potential for indirect impacts to occur to grey-headed flying-fox as a result of vegetation clearing. Habitat degradation through 'edge effects' is a potential indirect impact on food resources which may include increased competition and invasion by exotic flora species. Ground cover weed invasion may have the potential to inhibit regrowth of native species, including winter and spring flowering eucalypts that are important food resources to the grey-headed flying-fox. However, that edge effects typically only extend 1-2 m from the edge of disturbance these impacts are not anticipated to significantly alter food availability for this species.

Large vegetated areas surrounding the Project area (i.e. Woondum State Forest and vegetated areas to the east, and the large residual portion of Traveston State Forest), will continue to provide foraging habitat for the grey-headed flying-fox, and are not impacted by the Project.

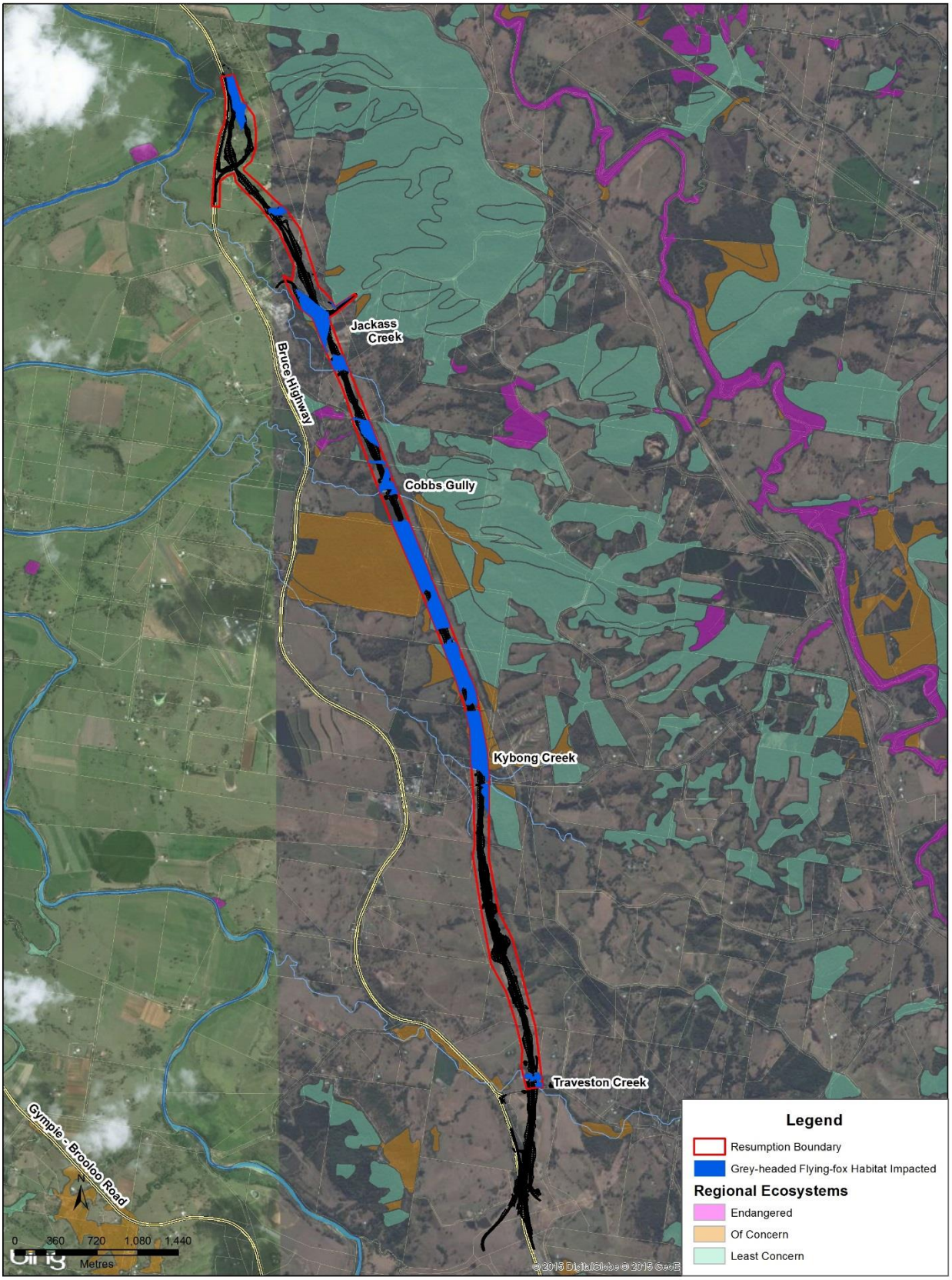

Figure 12: Grey-Headed Flying-fox Habitat within the Project area

Management and Mitigation Measures

Minimise Clearing

Clearing will be limited to the disturbance area necessary to safely construct the works, and will be clearly defined in the Project contract documentation. A plan of clearing limits will be prepared by the Contractor and clearing shall not proceed on site until the limits of clearing have been approved by the Contract Administrator. Clearing will not be permitted outside these extents, without prior approval from the Construction Administrator.

Staged Clearing

A staged and sequential clearing process will be adopted along the Project area to provide the best opportunity for resident fauna to move on their own accord prior to clearing activities.

It is anticipated due to the scale of the Project area, clearing will be conducted in stages. Furthermore, within each stage, sequential clearing principles will be employed during clearing activities.

Fauna/Spotter Catcher

A fauna spotter/catcher will be required to undertake a pre-clearing survey and be present during vegetation clearing activities within an area. Clearing activities should be restricted to daylight hours when grey-headed flying-fox are most likely to be absent from the Project area.

The fauna spotter/catcher will be required to provide a report no less than 14 days prior to clearing commencing, and be present during clearing activities to clear the area of fauna and minimise the risk of mortality. A post-clearing report will need to be provided no later than 14 days following completion of clearing. Sequential clearing principles will be employed and reporting timeframes adapted to this accordingly.

The spotter/catcher principles (TMR 2010) to be applied include:

- A fauna spotter/catcher must be present during clearing of grey-headed flying-fox habitat.
- The fauna spotter/catcher must be suitably qualified for the task and also have the appropriate permits/licences in place from the State Government.
- If there is more than one machine operating (clearing vegetation), there may be the requirement for more than one fauna spotter/catcher.
- The fauna spotter/ catcher must be in close proximity to the vegetation being cleared.
- Care is to be taken when handling flying-foxes due to the potential for them to carry Lyssavirus.
- Their role is to spot fauna in vegetation, mark any trees appropriately and ensure that fauna are not injured during any clearing. They are also required to relay information to the machine operator/s regarding presence or absence of fauna.
- Should an animal be found sick or injured, contact must be made with a suitable treatment facility (such as the Australian Wildlife Hospital (Australia Zoo) – phone 1300 369 652) or an approved alternative wildlife handler. Any sick, injured or orphaned animals shall be reported by the Construction Contractor in the first instance to RSPCA Queensland via the 1300 ANIMAL 1300 264 625. This information will be provided to the relevant Queensland Parks and Wildlife Service (QPWS) Officer for the region.

Weed Management

Requirements for weed management during construction will be incorporated into the Project contract documentation, to be implemented by the Construction Contractor. This will minimise the potential for habitat degradation.

Offset for Habitat Removal

Despite these mitigation measures, habitat removal is a residual impact that cannot be fully addressed through the mitigation measures outlined above. Therefore TMR has prepared an Offsets Proposal, in accordance with EPBC Act Environmental Offset Guidelines. Details of habitat quality of impact areas and offset sites, as well as other offset initiatives are included in the Residual Impact Assessment and Offsets Proposal. Given that these two species are not direct competitors i.e. koalas utilise the foliage while grey-headed flying-fox rely on the flowers and fruits, the offset area proposed is for both grey-headed flying-fox foraging habitat and koala habitat. Further detail is provided in the Residual Impact Assessment and Offsets Proposal.

3.6.2 Other Construction Related Activities

Potential Impacts of the Project

There is a low risk of grey-headed flying-fox mortality as a result of clearing activities during the construction phase, due to the requirement of a pre-clearing fauna survey.

Construction activities, particularly clearing and grubbing, have the potential to impact the grey-headed flying-fox and the quality of their habitat through noise generation and increased light production. Being a nocturnal species, if night works are undertaken there is potential for the construction activities to disrupt the species. However, these impacts are anticipated to be minor and temporary in nature due to the restricted timeframes of night works.

Management and Mitigation Measures

Mitigation and management measures to reduce the impacts to grey-headed flying-fox during construction are as follows:

- The preparation and implementation of an EMP(C) which incorporates the management measures identified in this FMP. The Construction Contractor will be required to prepare the EMP(C) for approval by the Contract Administrator prior to construction commencing and shall identify the likely impacts, procedures to follow and mitigation measures to be implemented.
- Provide environmental training to site personnel through a site induction and toolbox talks to identify species that may be encountered during construction, potential impacts, and the procedure to follow in the event an animal (including grey-headed flying fox) is encountered.
- Direct artificial construction lighting away from retained vegetation communities, particularly in association with areas identified as suitable habitat including south of Tandur Road, north and south of Woondum Road, along Cobbs Gully, Traveston State Forest and Traveston Creek.

Fauna spotter/catcher

A fauna spotter/catcher will be required to undertake a pre-clearing survey no less than 14 days prior to clearing occurring in an area, and be present during vegetation clearing activities. Clearing activities should be restricted to daylight hours when grey-headed flying-fox are most likely to be absent from the Project area. Further detail on the requirements of the fauna spotter/catcher is provided in Section 3.6.1.

3.7 Mitigation, Management and Monitoring

The Project has the potential to adversely affect suitable foraging and roosting habitat for the grey-headed flying-fox through a direct loss of habitat. Management actions to assist in the implementation and review of mitigation measures will be incorporated into the design, construction and operation phases of the Project to minimise impacts to this species and potential habitat. The recommended management actions are detailed in Section 3.6 and **Table 8**, with the specific phase of development relevant to each measure identified.

The provision of rehabilitation of temporary disturbance areas and provision of offsets for the removal of suitable foraging habitat will be important management measures for the species. It is anticipated that a separate approved offset area management plan will be required for the offsets sites. The habitat requirements for the koala and grey-headed flying-fox are relatively similar, both utilising *Eucalyptus* species and related genera. Given that these two species are not direct competitors i.e. koalas utilise the foliage while grey-headed flying-fox rely on the flowers and fruits, the offset area proposed is for both grey-headed flying-fox foraging habitat and koala habitat. Further detail is provided in the Residual Impact Assessment and Offsets Proposal.

Table 8 details the recommended management actions for the Project, in addition to the performance indicators, timing for implementation and responsible party for each measure. Management actions for the grey-headed flying-fox have been developed with reference to relevant guidelines and previous investigations including the following:

- Department of the Environment's Environmental Management Plan Guideline (2014)
- EPBC Act Referral for the Project (2014) – EPBC Ref: 2014/7394
- Draft National Recovery Plan for the Grey-headed Flying-fox *Pteropus poliocephalus* (2010)
- REF (Jacobs SKM, 2014).

The monitoring requirements also outlined in **Table 8** are proposed for implementation during the Construction phase of the Project.

Monitoring of the proposed offset sites and the outcome of other offset commitments is addressed in the Residual Impact Assessment and Offsets Proposal.

Corrective actions will be initiated where environmental outcomes and performance indicators have not been met. Where an exceedance of the performance indicators occurs the Contractor shall investigate the cause of the exceedance and where the exceedance is deemed to be a result of the construction works, it shall be treated as a non-conformance.

In the event of an incident during construction immediate actions are to be undertaken to minimise the potential impacts to koala and grey-headed flying fox individuals or habitat, and the appropriate government agency will be notified (TMR, DEHP and DoE). Actions may include transportation of injured fauna to a wildlife carer or veterinarian and corrective measures to prevent the occurrence from reoccurring.

Table 8: Management Actions – Grey-headed Flying-fox

Measure ID	Management Action	Performance Indicator	Project Stage for Implementation	Responsible Party	Monitoring requirement	Corrective Action
1	**(1) Minimise Clearing**					
1.1	Minimise Project footprint and clearing extents to the area necessary for construction.	No evidence of disturbance, vegetation clearing or removal of habitat beyond the designated clear and grub footprint and no-go zones. The integrity of no-entry fencing is maintained throughout the construction phase of the Project. No access tracks beyond the prescribed extents.	Design	Designer/TMR	Daily inspections of the extent of works to be undertaken to ensure vegetation outside the Project footprint has not been impacted. Audit against design drawings and plans issued to contractor.	Install additional barriers to delineate no-entry zones and rehabilitate areas outside the planned disturbance immediately.
1.2	Define clearing and grubbing extents on drawings, including clearly defined no-entry zones.			Designer/TMR		
1.3	Limit the Project construction footprint to the area required to construct the works.			Designer/TMR		
1.4	Temporary access tracks are to be contained within the defined clearing limits.			Designer/TMR		
1.5	Comply with the defined clear and grub extents and no-entry zones. No-entry zones are to be marked out with flagging tape until construction is complete.		Construction	Construction Contractor		
1.6	Retain vegetation and habitat where possible.		Design and Construction	Designer/TMR /Construction Contractor		
2	**(2) Fauna Spotter/Catcher**					
2.1	Conduct pre-clearing surveys immediately before construction activities commence in an area to confirm whether any roosting camps are present. A licenced fauna spotter/catcher is to be engaged to search vegetation for evidence of grey-headed flying-fox within clearing areas.	Pre-clearing and post-clearing reporting, documenting any actions required to move fauna on from the clearing zone. Clearing activities do not result in fauna injury or mortality.	Immediately prior to construction (clear and grub)	Fauna spotter/catcher Construction Contractor	Ensure that fauna spotter/catchers are on site during clearing vegetation management activities.	Stop work and gain clearance from a suitably qualified fauna spotter/catcher before works are resumed.
2.2	A fauna spotter/catcher is required to be present on site during all vegetation clearing activities.		Construction	Fauna spotter/catcher TMR/Construction Contractor		
3	**(3) Management of Construction Related Activities**					

3.1	Prepare and implement an EMP(C), which incorporates the management measures identified in this FMP.	No deviations from the requirements prescribed in the EMP(C). No grey-headed flying-fox injury or mortality as a result of construction.	Throughout the life of the Project.	TMR/Construction Contractor	Conduct weekly inspections of the Project works to ensure compliance with the EMP (C).	Issue Corrective action request in accordance with the nature and severity of the non-compliance. Stop work procedure to be initiated if animals are in danger of physical harm.
3.2	Environmental training to construction staff is to include training on the procedure to follow in the event of a grey-headed flying-fox being encountered.	No deviations from the requirements of the procedure to follow.	Construction	Construction Contractor/TMR		
	(4) Weed Management					
4	Implement weed management as part of the EMP(C).	Pre-clearing weed survey and reporting documents requirements for treatment and management, which are implemented and reported on in accordance with the contract documentation throughout the construction and post-construction phase. No increase in weed spread across the Project area that can be attributed to construction activity or negligence.	Throughout construction and at regular intervals during operation.	Construction Contractor	Conduct daily monitoring during clearing activities to ensure weeds are being correctly removed and treated and vehicles are being suitably washed down. Conduct regular inspections in accordance with the contract documents during the defects liability period.	Implement additional weed management controls.
	(5) Rehabilitation and Revegetation					
5	Rehabilitate temporary disturbance areas as quickly as possible following completion of construction, including revegetation with suitable species, particularly winter and spring flowering species that occur in the surrounding vegetation including *Eucalyptus tereticornis, Eucalyptus siderophloia* and *Eucalyptus acmenoides* as appropriate.	No evidence of bare ground within disturbed areas after construction activities are complete. Rehabilitation undertaken in accordance with contract specifications.	Construction	TMR/ Construction Contractor	Regular monitoring of the rehabilitation process to check it is being undertaken with suitable species and in accordance with the relevant design drawings and standards. Conduct weekly inspections of the Project works to ensure compliance with the EMP (C).	Issue Corrective action request in accordance with the nature and severity of the non-compliance. Stop work procedure to be initiated if animals are in danger of physical harm.

4. Environmental Risk Assessment

4.1 Introduction

An Environmental Risk Assessment (ERA) has been undertaken to identify the potential impacts to the koala and grey-headed flying-fox as a result of the Project. Furthermore, this assessment is provided to assess the effectiveness of the proposed mitigation and management measures proposed in sections 2.7 and 3.7 of this Fauna Management Plan.

The methodology for the ERA has adopted the general principles outlined in *Australian Standard AS/NZS 4360:1999 Risk Management and Environmental Risk Management – Principles and Process (Standards Australia, 2000),* and the risk assessment framework outlined in the DoE's *Environmental Management Plan Guidelines* (2014). The ERA involves the following key steps:

- Establish the context for the risk assessment
- Identify environmental risks to the koala and the grey-headed flying-fox
- Analyse risks, with mitigation and management measures in place
- Evaluate risks to determine if the level of residual risk is acceptable
- Consider the ERA outcome against the DoE's *Significant Impact Guidelines* (2013), which is documented in the Residual Impact Assessment and Offsets Proposal.

4.2 Risk Assessment Framework

The ERA has been completed in accordance with the EPBC Act Environmental Management Plan Guidelines[7]. The Guidelines detail individual ratings which are assigned to the likelihood and consequence of each impact, with reference to the criteria below. The ratings of these two factors together determines the final risk rating (refer to Table 9). This risk evaluation method is based on *AS/NZS ISO 31000:2009 Risk management – Principles and guidelines* (Standards Australia 2009) which contains further guidance.

Criteria for the likelihood of impact occurrence:

- Highly likely - Is expected to occur in most circumstances
- Likely - Will probably occur during the life of the Project
- Possible - Might occur during the life of the Project
- Unlikely - Could occur but considered unlikely or doubtful
- Rare - May occur in exceptional circumstances

Criteria for the consequence of the impact:

[7] Department of the Environment (2014) http://www.environment.gov.au/system/files/resources/21b0925f-ea74-4b9e-942e-a097391a77fd/files/environmental-management-plan-guidelines.pdf

- Minor - Minor incident of environmental damage that can be reversed
- Moderate - Isolated but substantial instances of environmental damage that could be reversed with intensive efforts
- High - Substantial instances of environmental damage that could be reversed with intensive efforts
- Major - Major loss of environmental amenity and real danger of continuing
- Critical - Severe widespread loss of environmental amenity and irrecoverable environmental damage

Table 9: Risk Rating Table

	Consequence				
	Minor (1)	**Moderate (2)**	**High (3)**	**Major (4)**	**Critical (5)**
Highly Likely (5)	Medium (5)	High (10)	High (15)	**Severe (20)**	**Severe (25)**
Likely (4)	**Low (4)**	Medium (8)	High (12)	High (16)	**Severe (20)**
Possible (3)	**Low (3)**	Medium (6)	Medium (9)	High (12)	**Severe (15)**
Unlikely (2)	**Low (2)**	**Low (4)**	Medium (6)	High (8)	High (10)
Rare (1)	**Low (1)**	**Low (2)**	**Low (3)**	Medium (4)	High (5)

4.3 Environment Risk Assessment

Table 10 provides an assessment of the potential impacts in accordance with the risk assessment framework outlined above. A residual risk rating of 'low' is deemed to be an acceptable risk, and indicates that the proposed mitigation measures are considered to be appropriate to the quantum of the risk.

Table 10 Environment Risk Assessment, Koala and Grey-headed Flying-fox

Impact category	Potential impact	Phase	Likelihood	Consequence	Risk Rating	Mitigation/Management Measures	Likelihood	Consequence	Residual Risk
	Koala								
Habitat Removal (refer section 2.6.1)	Direct habitat removal of 45.9ha Koala habitat, 13 impact sites in total	Construction	5	3	15	Minimise clearing extents. Staged and sequential clearing. Retention of vegetation within the future road reserve that is not immediately required to be cleared for construction, where practical. Fauna fencing and no-entry fencing to define clearing limits during construction. Fauna spotter surveys, monitoring and reporting.	5	2	10
Habitat Fragmentation and Connectivity (refer section 2.6.2)	Habitat fragmentation and removal of fauna movement corridors	Design	5	3	15	Minimise clearing extents. Staged and sequential clearing. Retention of vegetation, where practical. Rehabilitation and revegetation of disturbed areas. Incorporation of six fauna crossings. Inclusion of fauna furniture at the two dedicated fauna culverts.	2	2	4
	Habitat fragmentation and removal of fauna movement corridors	Construction Operation	5	3	15	Minimise clearing extents. Staged and sequential clearing. Retention of vegetation, where practical. Incorporation of six fauna crossings into the Project design.	2	2	4

Impact category	Potential impact	Phase	Likelihood	Consequence	Risk Rating	Mitigation/Management Measures	Likelihood	Consequence	Residual Risk
						Inclusion of fauna furniture at the two dedicated fauna culverts.			
Habitat Degradation (refer section 2.6.3)	Indirect effects of habitat removal and vegetation clearing e.g. edge effects and habitat degradation	Operation (post-construction)	3	2	6	Minimise clearing extents. Weed management.	3	1	3
Diseases and Pathogens (refer section 2.6.4)	Increased risk of disease or pathogens, through introduction or spread	Construction	2	3	6	Staged and sequential clearing. Fauna Spotter. Implement a protocol for identification and management of sick or injured animals. Provide training to construction staff on the protocol to follow if a sick animal is encountered.	1	3	3
	Increased risk of disease or pathogens, through introduction or spread	Operation	2	3	6	Implement a protocol for identification and management of sick or injured animals. Provide training to maintenance staff on the protocol to follow if a sick animal is encountered.	1	3	3
Vehicle Strike (refer section 2.6.5)	Increased mortality through vehicle strike	Construction	3	3	9	Pre-clear survey, staged and sequential clearing. Establishment of no-entry zones. Implementation of speed limits for construction vehicles and plant.	1	3	3

Impact category	Potential impact	Phase	Likelihood	Consequence	Risk Rating	Mitigation/Management Measures	Likelihood	Consequence	Residual Risk
Wild Dog Attack (refer section 2.6.6)	Increased mortality through vehicle strike	Operation	4	3	12	Installation of fauna fencing, fauna crossings.	1	3	3
	Increased mortality through predation e.g. wild dog attack	Operation	3	4	12	Provision of fauna furniture, such as refuge poles, at the two dedicated fauna culverts.	2	3	6
	Grey-headed Flying-fox								
Habitat Removal and Degradation (refer section 3.6.1)	Direct removal of 45.9ha Grey-headed Flying-fox foraging habitat, including winter and spring flowering species.	Design Construction	5	2	10	Minimise clearing extents. Staged and sequential clearing. Retention of vegetation within the future road reserve that is not immediately required to be cleared for construction, where practical. Fauna fencing and no-entry fencing to define clearing limits during construction. Fauna Spotter/catcher surveys, monitoring and reporting. Weed management.	5	1	5
Other Construction Related Activities (refer section 3.6.2)	Indirect effects of habitat removal and vegetation clearing on nocturnal species.	Operation (post-construction)	3	1	6	Fauna Spotter/ catcher	3	1	3

The outcome of the environmental risk assessment, documented in Table 9 shows that of the residual risks remaining after mitigation is applied, habitat removal for the koala is the only residual risk rated as 'high', which cannot be effectively mitigated to a risk rating of 'low'. Habitat removal for grey-headed flying–fox and the risk of predation are the only other two risks that are unable to be reduced to a low level via mitigation.

The Residual Impact Assessment and Offsets Proposal considers the potential impacts identified in this environmental risk assessment against the DoE's *Significant Impact Guidelines* (2013), with a focus on those that are unable to be sufficiently mitigated to a 'low' rating.

5. Project Requirements

5.1 Environmental Roles and Responsibilities

5.1.1 Department of Transport and Main Roads

TMR are the proponents and asset manager of the Project. With respect to this FMP it is the responsibility of TMR to ensure that:

- Appropriate fauna management and mitigation measures are included in the design
- The requirements of the FMP are included in the tender documents for construction
- The Construction Contractor complies with the requirements of the FMP
- All activities are verified and reported to the relevant statutory authorities
- Incidents relating to fauna are reported to relevant government agencies where necessary
- Report and monitor any non-compliance and review management procedures where necessary
- Manage remediation actions to correct incidents of non-conformance.

5.1.2 Construction Contractor

The key responsibilities of the Construction Contractor in relation to the FMP include:

- Prepare and implement the EMP(C)
- Undertake the works in accordance with the FMP and ensure implementation of the FMP requirements
- Undertake the works in accordance with the conditions of the contract including the Transport and Main Roads Specifications MRTS51 Environmental Management and Transport and Main Roads Specifications MRTS52 Erosion and Sediment Control and the EMP(C)
- Appoint a suitably experienced, licensed fauna spotter/catcher to conduct pre-clearing surveys, monitor clearing activities, and to prepare pre-clearing and post-clearing reports
- Inform all staff and sub-contractors of their environmental obligations
- Report, monitor and act on any non-compliance and review management procedures where necessary
- Adhere to relevant requirements of state and federal legislation.

5.2 Reporting Requirements

The Contractor is required to prepare a monthly report for TMR detailing any incidents of environmental nuisance and non-conformance in accordance with Clause 7.4 of MRTS51 – Environmental Management and Clause 8.2.3 of MRTS52 – Erosion and Sediment Control. TMR has a responsibility to report all major environmental incidents that risk causing environmental harm to DEHP under the *Environment Protection Act 1994*.

Pre-clearance and post-clearance fauna survey reports by the spotter/catcher will be provided as part of the monthly environmental reports during vegetation clearing works.

Any non-compliance with the requirements of the management plan is to be documented, along with details of the corrective actions undertaken.

Other reporting requirements are nominated in **Table 6** and **Table 8.**

The DERM/TMR Koala MOA Section 7.2 states that:

TMR is to maintain a register of government supported transport infrastructure projects that intersect koala habitat areas. The register should identify:

- *The name of the transport infrastructure project;*
- *Whether the transport infrastructure project was assessable against the State Government Supported Community Infrastructure Koala Conservation Policy (CI Policy), and if not, the reason for the exemption;*
- *If the project was assessable against the CI Policy - a brief description of how the CI Policy was complied with. The description could include any of the following:*
  - *details of koala sensitive design measures included in infrastructure design;*
  - *details of the amount of koala habitat impacted by the development (in the form of number of individual trees or hectares impacted);*
  - *details of any actions undertaken to mitigate these impacts, for example, re-vegetation, the provision of direct environmental offset, financial contribution provided to DEHP*

5.3 Environmental Training

Site staff will be required to undergo environmental training through site inductions prior to commencing work on site. This is to include a briefing on environmental legislative requirements, the requirements of the FMP, conditions of approval, potential impacts, corrective actions and reporting requirements throughout the Construction phase, particularly concerning koalas and grey-headed flying-fox.

Regular toolbox talks will also be used to discuss conservation significant species that may occur, no-go zones and any other sensitive areas that are present within or adjacent the Project area.

5.4 Emergency Contacts and Procedures

The EMP(C) for the Project will be required to identify the key emergency contacts that are to be notified in the event of an environmental emergency. These personnel may stop works and provide directions to effectively manage emergencies.

Furthermore, the EMP (C) will outline the procedures that are to be complied with in the management of emergencies and include measures that ensure these procedures are implemented and maintained throughout the construction of the Project.

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APPENDIX A: DESKTOP SEARCH RESULTS

Search Criteria: Species List for a Specified Point

Species:	All
Type:	All
Status:	All
Records:	Confirmed
Date:	Since 1980
Latitude:	-26.309
Longitude:	152.7273
Distance:	8
Email:	kylie.meldrum@smec.com
Date submitted:	Friday 05 Jun 2015 16:24:21
Date extracted:	Friday 05 Jun 2015 16:30:13

The number of records retrieved = 515

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.

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Description of the 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). The second number located after the / indicates the number of specimen records for the taxon.

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Sighting Re	Specimen Records
animals	amphibians	Bufonidae	Rhinella marina	cane toad	Y			70	0
animals	amphibians	Hylidae	Litoria caerulea	common green treefrog		C		5	0
animals	amphibians	Hylidae	Litoria latopalmata	broad palmed rocketfrog		C		4	0
animals	amphibians	Hylidae	Litoria pearsoniana	cascade treefrog		V		5	0
animals	amphibians	Hylidae	Litoria lesueuri sensu lato	stony creek frog		C		103	0
animals	amphibians	Hylidae	Litoria wilcoxii	eastern stony creek frog		C		18	0
animals	amphibians	Hylidae	Litoria gracilenta	graceful treefrog		C		37	0
animals	amphibians	Hylidae	Litoria rubella	ruddy treefrog		C		3	0
animals	amphibians	Hylidae	Litoria peronii	emerald spotted treefrog		C		20	0
animals	amphibians	Hylidae	Litoria tyleri	southern laughing treefrog		C		1	0
animals	amphibians	Hylidae	Litoria rothii	northern laughing treefrog		C		3	0
animals	amphibians	Hylidae	Litoria nasuta	striped rocketfrog		C		4	0
animals	amphibians	Hylidae	Litoria fallax	eastern sedgefrog		C		123	0
animals	amphibians	Hylidae	Litoria sp.					9	0
animals	amphibians	Limnodynastidae	Limnodynastes terraereginae	scarlet sided pobblebonk		C		2	0
animals	amphibians	Limnodynastidae	Platyplectrum ornatum	ornate burrowing frog		C		1	0
animals	amphibians	Limnodynastidae	Limnodynastes peronii	striped marshfrog		C		46	0
animals	amphibians	Limnodynastidae	Adelotus brevis	tusked frog		V		42	0
animals	amphibians	Myobatrachidae	Mixophyes fasciolatus	great barred frog		C		61	0
animals	amphibians	Myobatrachidae	Crinia parinsignifera	beeping froglet		C		4	0
animals	amphibians	Myobatrachidae	Mixophyes iteratus	giant barred frog		E	E	6	0
animals	birds	Acanthizidae	Sericornis magnirostra	large-billed scrubwren		C		9	0
animals	birds	Acanthizidae	Gerygone mouki	brown gerygone		C		21	0
animals	birds	Acanthizidae	Acanthiza lineata	striated thornbill		C		11	0
animals	birds	Acanthizidae	Acanthiza pusilla	brown thornbill		C		28	0
animals	birds	Acanthizidae	Gerygone albogularis	white-throated gerygone		C		2	0
animals	birds	Acanthizidae	Sericornis frontalis	white-browed scrubwren		C		28	0
animals	birds	Accipitridae	Accipiter novaehollandiae	grey goshawk		C		2	0
animals	birds	Accipitridae	Accipiter cirrocephalus	collared sparrowhawk		C		1	0

animals	birds	Accipitridae	Hieraaetus morphnoides	little eagle	C	2	0
animals	birds	Accipitridae	Haliaeetus leucogaster	white-bellied sea-eagle	SL	1	0
animals	birds	Accipitridae	Aviceda subcristata	Pacific baza	C	1	0
animals	birds	Accipitridae	Accipiter fasciatus	brown goshawk	C	1	0
animals	birds	Accipitridae	Aquila audax	wedge-tailed eagle	C	1	0
animals	birds	Aegothelidae	Aegotheles cristatus	Australian owlet-nightjar	C	13	0
animals	birds	Alcedinidae	Ceyx azureus	azure kingfisher	C	2	0
animals	birds	Anatidae	Aythya australis	hardhead	C	1	0
animals	birds	Anatidae	Anas superciliosa	Pacific black duck	C	3	0
animals	birds	Anatidae	Chenonetta jubata	Australian wood duck	C	1	0
animals	birds	Anatidae	Dendrocygna eytoni	plumed whistling-duck	C	1	0
animals	birds	Ardeidae	Ardea modesta	eastern great egret	SL	1	0
animals	birds	Ardeidae	Egretta novaehollandiae	white-faced heron	C	1	0
animals	birds	Artamidae	Cracticus torquatus	grey butcherbird	C	3	0
animals	birds	Artamidae	Artamus cyanopterus	dusky woodswallow	C	3	0
animals	birds	Artamidae	Strepera graculina	pied currawong	C	6	0
animals	birds	Artamidae	Cracticus tibicen	Australian magpie	C	11	0
animals	birds	Artamidae	Artamus leucorynchus	white-breasted woodswallow	C	2	0
animals	birds	Artamidae	Cracticus nigrogularis	pied butcherbird	C	2	0
animals	birds	Cacatuidae	Cacatua galerita	sulphur-crested cockatoo	C	1	0
animals	birds	Cacatuidae	Calyptorhynchus funereus	yellow-tailed black-cockatoo	C	6	0
animals	birds	Campephagidae	Coracina novaehollandiae	black-faced cuckoo-shrike	C	8	0
animals	birds	Campephagidae	Coracina papuensis	white-bellied cuckoo-shrike	C	1	0
animals	birds	Campephagidae	Lalage leucomela	varied triller	C	5	0
animals	birds	Charadriidae	Vanellus miles novaehollandiae	masked lapwing (southern subspecies)	C	1	0
animals	birds	Climacteridae	Cormobates leucophaea metastas	white-throated treecreeper (southern)	C	17	0
animals	birds	Columbidae	Macropygia amboinensis	brown cuckoo-dove	C	4	0
animals	birds	Columbidae	Ptilinopus magnificus	wompoo fruit-dove	C	3	0
animals	birds	Columbidae	Leucosarcia picata	wonga pigeon	C	4	0
animals	birds	Columbidae	Geopelia humeralis	bar-shouldered dove	C	3	0
animals	birds	Columbidae	Chalcophaps indica	emerald dove	C	1	0
animals	birds	Columbidae	Columba leucomela	white-headed pigeon	C	1	0
animals	birds	Columbidae	Geopelia striata	peaceful dove	C	4	0
animals	birds	Columbidae	Lopholaimus antarcticus	topknot pigeon	C	1	0
animals	birds	Corvidae	Corvus orru	Torresian crow	C	14	0
animals	birds	Cuculidae	Chalcites lucidus	shining bronze-cuckoo	C	13	0
animals	birds	Cuculidae	Centropus phasianinus	pheasant coucal	C	2	1
animals	birds	Cuculidae	Cacomantis flabelliformis	fan-tailed cuckoo	C	5	0

animals	birds	Dicruridae	Dicrurus bracteatus	spangled drongo	C	2	0
animals	birds	Estrildidae	Taeniopygia bichenovii	double-barred finch	C	1	0
animals	birds	Estrildidae	Neochmia temporalis	red-browed finch	C	7	0
animals	birds	Halcyonidae	Todiramphus sanctus	sacred kingfisher	C	1	0
animals	birds	Halcyonidae	Dacelo novaeguineae	laughing kookaburra	C	5	0
animals	birds	Hirundinidae	Petrochelidon ariel	fairy martin	C	3	0
animals	birds	Hirundinidae	Petrochelidon nigricans	tree martin	C	1	0
animals	birds	Hirundinidae	Hirundo neoxena	welcome swallow	C	3	0
animals	birds	Maluridae	Malurus melanocephalus	red-backed fairy-wren	C	1	0
animals	birds	Maluridae	Malurus lamberti	variegated fairy-wren	C	2	0
animals	birds	Megaluridae	Megalurus timoriensis	tawny grassbird	C	1	0
animals	birds	Megapodiidae	Alectura lathami	Australian brush-turkey	C	2	0
animals	birds	Meliphagidae	Lichmera indistincta	brown honeyeater	C	4	0
animals	birds	Meliphagidae	Acanthorhynchus tenuirostris	eastern spinebill	C	10	0
animals	birds	Meliphagidae	Melithreptus albogularis	white-throated honeyeater	C	10	0
animals	birds	Meliphagidae	Philemon citreogularis	little friarbird	C	1	0
animals	birds	Meliphagidae	Myzomela sanguinolenta	scarlet honeyeater	C	21	0
animals	birds	Meliphagidae	Meliphaga lewinii	Lewin's honeyeater	C	60	0
animals	birds	Meliphagidae	Caligavis chrysops	yellow-faced honeyeater	C	18	0
animals	birds	Meliphagidae	Melithreptus lunatus	white-naped honeyeater	C	24	0
animals	birds	Meropidae	Merops ornatus	rainbow bee-eater	SL	18	0
animals	birds	Monarchidae	Grallina cyanoleuca	magpie-lark	C	1	0
animals	birds	Monarchidae	Myiagra rubecula	leaden flycatcher	C	1	0
animals	birds	Monarchidae	Carterornis leucotis	white-eared monarch	C	4	0
animals	birds	Monarchidae	Symposiachrus trivirgatus	spectacled monarch	SL	5	0
animals	birds	Nectariniidae	Dicaeum hirundinaceum	mistletoebird	C	10	0
animals	birds	Neosittidae	Daphoenositta chrysoptera	varied sittella	C	2	0
animals	birds	Oriolidae	Sphecotheres vieilloti	Australasian figbird	C	10	0
animals	birds	Oriolidae	Oriolus sagittatus	olive-backed oriole	C	1	0
animals	birds	Orthonychidae	Orthonyx temminckii	Australian logrunner	C	4	0
animals	birds	Pachycephalidae	Pachycephala rufiventris	rufous whistler	C	5	0
animals	birds	Pachycephalidae	Colluricincla megarhyncha	little shrike-thrush	C	13	0
animals	birds	Pachycephalidae	Pachycephala pectoralis	golden whistler	C	32	0
animals	birds	Pachycephalidae	Colluricincla harmonica	grey shrike-thrush	C	13	0
animals	birds	Pachycephalidae	Falcunculus frontatus	crested shrike-tit	C	1	0
animals	birds	Pardalotidae	Pardalotus striatus	striated pardalote	C	8	0
animals	birds	Pardalotidae	Pardalotus punctatus	spotted pardalote	C	51	0
animals	birds	Petroicidae	Petroica rosea	rose robin	C	12	0

animals	birds	Petroicidae	Eopsaltria australis	eastern yellow robin		C		14	0
animals	birds	Petroicidae	Tregellasia capito	pale-yellow robin		C		1	0
animals	birds	Phalacrocoracidae	Phalacrocorax sulcirostris	little black cormorant		C		1	0
animals	birds	Phalacrocoracidae	Microcarbo melanoleucos	little pied cormorant		C		1	0
animals	birds	Phasianidae	Coturnix ypsilophora	brown quail		C		1	0
animals	birds	Pittidae	Pitta versicolor	noisy pitta		C		4	0
animals	birds	Podargidae	Podargus ocellatus plumiferus	plumed frogmouth		V		3	0
animals	birds	Podargidae	Podargus strigoides	tawny frogmouth		C		1	0
animals	birds	Podicipedidae	Tachybaptus novaehollandiae	Australasian grebe		C		1	0
animals	birds	Psittacidae	Trichoglossus haematodus moluc	rainbow lorikeet		C		5	0
animals	birds	Psittacidae	Alisterus scapularis	Australian king-parrot		C		2	0
animals	birds	Psittacidae	Glossopsitta pusilla	little lorikeet		C		1	0
animals	birds	Psittacidae	Platycercus adscitus	pale-headed rosella		C		3	0
animals	birds	Psittacidae	Trichoglossus chlorolepidotus	scaly-breasted lorikeet		C		1	0
animals	birds	Psophodidae	Psophodes olivaceus	eastern whipbird		C		33	0
animals	birds	Ptilonorhynchidae	Ailuroedus crassirostris	green catbird		C		3	0
animals	birds	Ptilonorhynchidae	Ptilonorhynchus violaceus	satin bowerbird		C		6	0
animals	birds	Rallidae	Gallinula tenebrosa	dusky moorhen		C		2	0
animals	birds	Rallidae	Porphyrio porphyrio	purple swamphen		C		2	0
animals	birds	Rallidae	Gallirallus philippensis	buff-banded rail		C		3	0
animals	birds	Rhipiduridae	Rhipidura leucophrys	willie wagtail		C		2	0
animals	birds	Rhipiduridae	Rhipidura rufifrons	rufous fantail		SL		4	0
animals	birds	Rhipiduridae	Rhipidura albiscapa	grey fantail		C		30	0
animals	birds	Strigidae	Ninox boobook	southern boobook		C		8	0
animals	birds	Threskiornithidae	Platalea flavipes	yellow-billed spoonbill		C		1	0
animals	birds	Threskiornithidae	Platalea regia	royal spoonbill		C		1	0
animals	birds	Timaliidae	Zosterops lateralis	silvereye		C		27	0
animals	birds	Turdidae	Zoothera heinei	russet-tailed thrush		C		5	0
animals	birds	Turnicidae	Turnix melanogaster	black-breasted button-quail		V	V	2	0
animals	birds	Tytonidae	Tyto tenebricosa tenebricosa	sooty owl		C		2	0
animals	birds	Tytonidae	Tyto javanica	eastern barn owl		C		2	0
animals	birds	Tytonidae	Tyto sp.					1	0
animals	insects	Nymphalidae	Danaus petilia	lesser wanderer				1	0
animals	insects	Nymphalidae	Tirumala hamata hamata	blue tiger				1	0
animals	insects	Nymphalidae	Danaus plexippus plexippus	monarch				1	0
animals	insects	Papilionidae	Cressida cressida cressida	greasy swallowtail				1	0
animals	insects	Papilionidae	Graphium sarpedon choredon	blue triangle				1	0
animals	mammals	Canidae	Vulpes vulpes	red fox	Y			2	0

animals	mammals	Canidae	Canis lupus familiaris	dog	Y			2	0
animals	mammals	Dasyuridae	Antechinus sp.					1	0
animals	mammals	Dasyuridae	Antechinus subtropicus			C		4	0
animals	mammals	Dasyuridae	Antechinus flavipes flavipes	yellow-footed antechinus (south-east Queens		C		17	0
animals	mammals	Leporidae	Lepus europaeus	European brown hare	Y			6	0
animals	mammals	Macropodidae	Macropus giganteus	eastern grey kangaroo		C		1	0
animals	mammals	Macropodidae	Macropus rufogriseus	red-necked wallaby		C		2	0
animals	mammals	Macropodidae	Wallabia bicolor	swamp wallaby		C		7	0
animals	mammals	Miniopteridae	Miniopterus schreibersii oceanens	eastern bent-wing bat		C		4	0
animals	mammals	Miniopteridae	Miniopterus australis	little bent-wing bat		C		15	0
animals	mammals	Molossidae	Mormopterus ridei	eastern free-tailed bat		C		4	0
animals	mammals	Molossidae	Tadarida australis	white-striped freetail bat		C		6	0
animals	mammals	Molossidae	Mormopterus norfolkensis	east coast freetail bat		C		3	0
animals	mammals	Molossidae	Mormopterus lumsdenae	northern free-tailed bat		C		3	0
animals	mammals	Muridae	Melomys cervinipes	fawn-footed melomys		C		6	0
animals	mammals	Muridae	Hydromys chrysogaster	water rat		C		2	0
animals	mammals	Muridae	Rattus fuscipes	bush rat		C		25	0
animals	mammals	Muridae	Melomys sp.					3	0
animals	mammals	Muridae	Rattus sp.					9	0
animals	mammals	Ornithorhynchidae	Ornithorhynchus anatinus	platypus		SL		2	0
animals	mammals	Peramelidae	Isoodon macrourus	northern brown bandicoot		C		11	0
animals	mammals	Petauridae	Petaurus norfolcensis	squirrel glider		C		5	0
animals	mammals	Petauridae	Petaurus breviceps	sugar glider		C		4	0
animals	mammals	Phalangeridae	Trichosurus vulpecula	common brushtail possum		C		1	0
animals	mammals	Phalangeridae	Trichosurus caninus	short-eared possum		C		6	0
animals	mammals	Phascolarctidae	Phascolarctos cinereus	koala		SL	V	1	0
animals	mammals	Phascolarctidae	Phascolarctos cinereus (southeast	koala (southeast Queensland bioregion)		V	V	6	0
animals	mammals	Potoroidae	Aepyprymnus rufescens	rufous bettong		C		1	0
animals	mammals	Pseudocheiridae	Pseudocheirus peregrinus	common ringtail possum		C		5	0
animals	mammals	Pteropodidae	Pteropus scapulatus	little red flying-fox		C		1	0
animals	mammals	Rhinolophidae	Rhinolophus megaphyllus	eastern horseshoe-bat		C		4	0
animals	mammals	Tachyglossidae	Tachyglossus aculeatus	short-beaked echidna		SL		8	0
animals	mammals	Vespertilionidae	Vespadelus darlingtoni	large forest bat		C		1	0
animals	mammals	Vespertilionidae	Chalinolobus nigrogriseus	hoary wattled bat		C		1	0
animals	mammals	Vespertilionidae	Vespadelus pumilus	eastern forest bat		C		9	0
animals	mammals	Vespertilionidae	Scotorepens greyii	little broad-nosed bat		C		1	0
animals	mammals	Vespertilionidae	Chalinolobus gouldii	Gould's wattled bat		C		6	0
animals	mammals	Vespertilionidae	Scotorepens orion	south-eastern broad-nosed bat		C		2	0

animals	mammals	Vespertilionidae	Nyctophilus bifax	northern long-eared bat	C		9	0
animals	mammals	Vespertilionidae	Scotorepens sp.				2	0
animals	mammals	Vespertilionidae	Myotis macropus	large-footed myotis	C		2	0
animals	mammals	Vespertilionidae	Nyctophilus gouldi	Gould's long-eared bat	C		4	0
animals	ray-finned fishe	Percichthyidae	Maccullochella mariensis	Mary River cod		E	4	4
animals	reptiles	Agamidae	Pogona barbata	bearded dragon	C		1	0
animals	reptiles	Agamidae	Intellagama lesueurii	eastern water dragon	C		64	0
animals	reptiles	Boidae	Morelia spilota	carpet python	C		1	0
animals	reptiles	Chelidae	Elusor macrurus	Mary River turtle	E	E	5	0
animals	reptiles	Chelidae	Emydura macquarii macquarii	Murray turtle	C		1	0
animals	reptiles	Colubridae	Dendrelaphis punctulatus	green tree snake	C		4	0
animals	reptiles	Elapidae	Cryptophis nigrescens	eastern small-eyed snake	C		1	0
animals	reptiles	Elapidae	Demansia psammophis	yellow-faced whipsnake	C		1	0
animals	reptiles	Elapidae	Cacophis krefftii	dwarf crowned snake	C		1	0
animals	reptiles	Elapidae	Pseudechis porphyriacus	red-bellied black snake	C		1	0
animals	reptiles	Scincidae	Eulamprus quoyii	eastern water skink	C		1	0
animals	reptiles	Scincidae	Lampropholis adonis		C		2	0
animals	reptiles	Scincidae	Lampropholis amicula		C		6	1
animals	reptiles	Scincidae	Lampropholis couperi		C		1	0
animals	reptiles	Scincidae	Karma murrayi	Murray's skink	C		1	0
animals	reptiles	Scincidae	Lampropholis guichenoti		C		3	0
animals	reptiles	Scincidae	Cyclodomorphus gerrardii	pink-tongued lizard	C		3	0
animals	reptiles	Scincidae	Cryptoblepharus pulcher pulcher	elegant snake-eyed skink	C		2	1
animals	reptiles	Scincidae	Lampropholis delicata		C		3	1
animals	uncertain	Indeterminate	Indeterminate	Unknown or Code Pending	C		4	0
fungi	club fungi	Basidiomycota	Cyathus gracilis		C		1	1
fungi	club fungi	Basidiomycota	Fomitopsis feei		C		1	1
fungi	club fungi	Basidiomycota	Phellinus		C		1	1
fungi	club fungi	Basidiomycota	Hexagonia		C		1	1
fungi	club fungi	Basidiomycota	Poria		C		1	1
fungi	club fungi	Dictyonemataceae	Dictyonema irpicinum		C		1	1
fungi	sac fungi	Agyriaceae	Trapelia		C		6	6
fungi	sac fungi	Caliciaceae	Nadvornikia hawaiiensis		C		1	1
fungi	sac fungi	Cladiaceae	Cladia aggregata		C		1	1
fungi	sac fungi	Coccocarpiaceae	Coccocarpia erythroxyli		C		1	1
fungi	sac fungi	Coccocarpiaceae	Coccocarpia adnata		C		1	1
fungi	sac fungi	Coccocarpiaceae	Coccocarpia smaragdina		C		1	1
fungi	sac fungi	Coccocarpiaceae	Coccocarpia		C		1	1

fungi	sac fungi	Collemataceae	Leptogium coralloideum		C	1	1
fungi	sac fungi	Collemataceae	Leptogium phyllocarpum		C	2	2
fungi	sac fungi	Collemataceae	Leptogium austroamericanum		C	1	1
fungi	sac fungi	Graphidaceae	Glyphis cicatricosa		C	1	1
fungi	sac fungi	Graphidaceae	Graphis		C	1	1
fungi	sac fungi	Haematommaceae	Haematomma persoonii		C	1	1
fungi	sac fungi	Icmadophilaceae	Dibaeis absoluta		C	1	1
fungi	sac fungi	Lecanoraceae	Lecanora pseudistera		C	2	2
fungi	sac fungi	Lecanoraceae	Lecanora helva		C	1	1
fungi	sac fungi	Lobariaceae	Sticta brevipes		C	2	2
fungi	sac fungi	Lobariaceae	Sticta diversa		C	2	2
fungi	sac fungi	Pannariaceae	Leproloma		C	1	1
fungi	sac fungi	Pannariaceae	Pannaria tavaresii		C	1	1
fungi	sac fungi	Pannariaceae	Erioderma sorediatum		C	1	1
fungi	sac fungi	Parmeliaceae	Parmotrema austrosinense		C	1	1
fungi	sac fungi	Parmeliaceae	Xanthoparmelia filsonii		C	1	1
fungi	sac fungi	Parmeliaceae	Xanthoparmelia calida		C	1	1
fungi	sac fungi	Parmeliaceae	Parmelia erumpens		C	1	1
fungi	sac fungi	Pertusariaceae	Pertusaria thiospoda		C	1	1
fungi	sac fungi	Pertusariaceae	Ochrolechia		C	1	1
fungi	sac fungi	Pertusariaceae	Pertusaria xanthoplaca		C	1	1
fungi	sac fungi	Physciaceae	Hyperphyscia adglutinata		C	1	1
fungi	sac fungi	Physciaceae	Heterodermia microphylla		C	1	1
fungi	sac fungi	Physciaceae	Buellia demutans		C	1	1
fungi	sac fungi	Physciaceae	Dirinaria applanata		C	3	3
fungi	sac fungi	Physciaceae	Heterodermia japonica		C	1	1
fungi	sac fungi	Physciaceae	Physcia jackii		C	1	1
fungi	sac fungi	Physciaceae	Buellia		C	2	2
fungi	sac fungi	Physciaceae	Heterodermia		C	1	1
fungi	sac fungi	Teloschistaceae	Caloplaca		C	1	1
fungi	sac fungi	Usneaceae	Usnea pectinata		C	1	1
plants	conifers	Podocarpaceae	Podocarpus elatus	she pine	C	1	0
plants	ferns	Adiantaceae	Pellaea paradoxa	heart fern	C	1	1
plants	ferns	Adiantaceae	Adiantum formosum		C	2	0
plants	ferns	Adiantaceae	Adiantum diaphanum		C	2	0
plants	ferns	Blechnaceae	Doodia aspera	prickly rasp fern	C	1	0
plants	ferns	Blechnaceae	Doodia caudata		C	1	1
plants	ferns	Dicksoniaceae	Calochlaena dubia		C	1	0

plants	ferns	Dryopteridaceae	Lastreopsis acuminata	shiny shield fern		C	1	0
plants	ferns	Dryopteridaceae	Lastreopsis microsora			C	1	0
plants	ferns	Polypodiaceae	Platycerium bifurcatum			C	1	0
plants	ferns	Thelypteridaceae	Christella dentata	creek fern		C	2	0
plants	higher dicots	Acanthaceae	Brunoniella spiciflora			C	1	1
plants	higher dicots	Acanthaceae	Pseuderanthemum variabile	pastel flower		C	2	0
plants	higher dicots	Anacardiaceae	Mangifera indica	mango	Y		1	0
plants	higher dicots	Anacardiaceae	Rhodosphaera rhodanthema	tulip satinwood		C	1	0
plants	higher dicots	Apocynaceae	Parsonsia straminea	monkey rope		C	3	0
plants	higher dicots	Apocynaceae	Melodinus australis	southern melodinus		C	1	0
plants	higher dicots	Apocynaceae	Secamone elliptica			C	1	0
plants	higher dicots	Apocynaceae	Tabernaemontana pandacaqui	banana bush		C	4	0
plants	higher dicots	Apocynaceae	Alyxia ruscifolia			C	1	0
plants	higher dicots	Araliaceae	Polyscias elegans	celery wood		C	1	0
plants	higher dicots	Asteraceae	Baccharis halimifolia	groundsel bush	Y		1	0
plants	higher dicots	Asteraceae	Praxelis clematidea		Y		1	1
plants	higher dicots	Asteraceae	Bidens pilosa		Y		1	0
plants	higher dicots	Asteraceae	Ageratum houstonianum	blue billygoat weed	Y		1	0
plants	higher dicots	Bignoniaceae	Pandorea pandorana	wonga vine		C	1	0
plants	higher dicots	Bignoniaceae	Pandorea jasminoides			C	1	0
plants	higher dicots	Bignoniaceae	Jacaranda mimosifolia	jacaranda	Y		1	0
plants	higher dicots	Bignoniaceae	Dolichandra unguis-cati	cat's claw creeper	Y		2	0
plants	higher dicots	Byttneriaceae	Commersonia bartramia	brown kurrajong		C	1	0
plants	higher dicots	Caesalpiniaceae	Caesalpinia subtropica	corky pricklevine		C	1	0
plants	higher dicots	Caesalpiniaceae	Caesalpinia scortechinii	large prickle vine		C	1	0
plants	higher dicots	Capparaceae	Capparis arborea	brush caper berry		C	4	0
plants	higher dicots	Capparaceae	Capparis sarmentosa	scrambling caper		C	1	0
plants	higher dicots	Casuarinaceae	Casuarina cunninghamiana subsp.	cunninghamiana		C	1	1
plants	higher dicots	Celastraceae	Hedraianthera porphyropetala	hedrianthera		C	1	0
plants	higher dicots	Celastraceae	Elaeodendron melanocarpum			C	1	0
plants	higher dicots	Celastraceae	Siphonodon australis	ivorywood		C	1	0
plants	higher dicots	Celastraceae	Celastrus subspicata	large-leaved staffvine		C	1	0
plants	higher dicots	Celastraceae	Hippocratea barbata	knotvine		C	2	0
plants	higher dicots	Celastraceae	Denhamia celastroides	broad-leaved boxwood		C	1	0
plants	higher dicots	Cunoniaceae	Pseudoweinmannia lachnocarpa	rose marara		C	1	0
plants	higher dicots	Elaeagnaceae	Elaeagnus triflora			C	1	0
plants	higher dicots	Elaeocarpaceae	Elaeocarpus kirtonii	silver quandong		C	1	1
plants	higher dicots	Elaeocarpaceae	Elaeocarpus grandis	blue quandong		C	1	0

plants	higher dicots	Elaeocarpaceae	Elaeocarpus obovatus	blueberry ash		C	1	0
plants	higher dicots	Ericaceae	Trochocarpa laurina	tree heath		C	1	0
plants	higher dicots	Euphorbiaceae	Mallotus philippensis	red kamala		C	4	0
plants	higher dicots	Euphorbiaceae	Mallotus claoxyloides	green kamala		C	4	0
plants	higher dicots	Euphorbiaceae	Euphorbia ophthalmica		Y		1	1
plants	higher dicots	Euphorbiaceae	Homalanthus nutans			C	1	0
plants	higher dicots	Euphorbiaceae	Croton stigmatosus	white croton		C	1	0
plants	higher dicots	Euphorbiaceae	Baloghia inophylla	scrub bloodwood		C	2	0
plants	higher dicots	Euphorbiaceae	Alchornea ilicifolia	native holly		C	3	0
plants	higher dicots	Fabaceae	Callerya megasperma	native wisteria		C	1	0
plants	higher dicots	Fabaceae	Desmodium nemorosum			C	1	1
plants	higher dicots	Fabaceae	Aeschynomene falcata		Y		1	1
plants	higher dicots	Fabaceae	Austrosteenisia blackii	bloodvine		C	2	0
plants	higher dicots	Fabaceae	Castanospermum australe	black bean		C	2	0
plants	higher dicots	Flacourtiaceae	Scolopia braunii	flintwood		C	1	0
plants	higher dicots	Flacourtiaceae	Xylosma terrae-reginae	xylosma		C	2	0
plants	higher dicots	Haloragaceae	Gonocarpus teucrioides			C	1	1
plants	higher dicots	Lamiaceae	Vitex lignum-vitae			C	1	0
plants	higher dicots	Lamiaceae	Callicarpa pedunculata	velvet leaf		C	1	0
plants	higher dicots	Lamiaceae	Plectranthus graveolens	flea bush		C	1	1
plants	higher dicots	Lamiaceae	Clerodendrum floribundum			C	1	0
plants	higher dicots	Loranthaceae	Amyema quandang var. bancroftii	broad-leaved grey mistletoe		C	1	0
plants	higher dicots	Malvaceae	Hibiscus heterophyllus			C	1	0
plants	higher dicots	Malvaceae	Sida cordifolia		Y		1	0
plants	higher dicots	Meliaceae	Dysoxylum mollissimum subsp. mi	miva mahogany		C	1	0
plants	higher dicots	Meliaceae	Turraea pubescens	native honeysuckle		C	2	0
plants	higher dicots	Meliaceae	Melia azedarach	white cedar		C	1	0
plants	higher dicots	Meliaceae	Toona ciliata	red cedar		C	1	0
plants	higher dicots	Meliaceae	Owenia venosa	crow's apple		C	1	0
plants	higher dicots	Mimosaceae	Acacia oshanesii			C	1	0
plants	higher dicots	Mimosaceae	Acacia maidenii	Maiden's wattle		C	1	0
plants	higher dicots	Mimosaceae	Acacia longissima			C	1	0
plants	higher dicots	Mimosaceae	Acacia aulacocarpa			C	2	0
plants	higher dicots	Mimosaceae	Acacia melanoxylon	blackwood		C	1	0
plants	higher dicots	Mimosaceae	Acacia leiocalyx subsp. leiocalyx			C	1	1
plants	higher dicots	Moraceae	Ficus fraseri	white sandpaper fig		C	1	0
plants	higher dicots	Moraceae	Ficus obliqua			C	1	1
plants	higher dicots	Moraceae	Ficus coronata	creek sandpaper fig		C	2	0

plants	higher dicots	Moraceae	Streblus brunonianus	whalebone tree		C	3	0
plants	higher dicots	Moraceae	Maclura cochinchinensis	cockspur thorn		C	3	0
plants	higher dicots	Moraceae	Trophis scandens subsp. scandens			C	3	0
plants	higher dicots	Myrsinaceae	Myrsine variabilis			C	2	0
plants	higher dicots	Myrsinaceae	Embelia australiana	embelia		C	2	0
plants	higher dicots	Myrtaceae	Eucalyptus microcorys			C	1	0
plants	higher dicots	Myrtaceae	Eucalyptus propinqua	small-fruited grey gum		C	1	0
plants	higher dicots	Myrtaceae	Lophostemon suaveolens	swamp box		C	2	0
plants	higher dicots	Myrtaceae	Rhodomyrtus psidioides	native guava		C	2	0
plants	higher dicots	Myrtaceae	Waterhousea floribunda	weeping lilly pilly		C	2	0
plants	higher dicots	Myrtaceae	Eucalyptus tereticornis			C	2	0
plants	higher dicots	Myrtaceae	Syncarpia glomulifera subsp. glomulifera			C	1	0
plants	higher dicots	Myrtaceae	Rhodamnia rubescens			C	1	0
plants	higher dicots	Myrtaceae	Corymbia intermedia	pink bloodwood		C	2	0
plants	higher dicots	Myrtaceae	Eucalyptus grandis	flooded gum		C	1	0
plants	higher dicots	Myrtaceae	Syzygium australe	scrub cherry		C	1	0
plants	higher dicots	Myrtaceae	Eucalyptus crebra	narrow-leaved red ironbark		C	1	0
plants	higher dicots	Myrtaceae	Gossia bidwillii			C	2	0
plants	higher dicots	Myrtaceae	Backhousia myrtifolia	carrol		C	1	0
plants	higher dicots	Myrtaceae	Lophostemon confertus	brush box		C	1	0
plants	higher dicots	Ochnaceae	Ochna serrulata	ochna	Y		2	0
plants	higher dicots	Oleaceae	Jasminum didymum			C	1	0
plants	higher dicots	Oleaceae	Jasminum simplicifolium				1	0
plants	higher dicots	Oleaceae	Olea paniculata			C	1	0
plants	higher dicots	Oleaceae	Ligustrum sinense	small-leaved privet	Y		1	0
plants	higher dicots	Passifloraceae	Passiflora edulis		Y		1	0
plants	higher dicots	Passifloraceae	Passiflora subpeltata	white passion flower	Y		2	0
plants	higher dicots	Passifloraceae	Passiflora suberosa	corky passion flower	Y		2	0
plants	higher dicots	Petiveriaceae	Rivina humilis		Y		2	0
plants	higher dicots	Phyllanthaceae	Bridelia leichhardtii			C	1	0
plants	higher dicots	Phyllanthaceae	Glochidion ferdinandi var. ferdinandi			C	1	0
plants	higher dicots	Phyllanthaceae	Cleistanthus cunninghamii	omega		C	2	0
plants	higher dicots	Phyllanthaceae	Breynia oblongifolia			C	3	0
plants	higher dicots	Phyllanthaceae	Sauropus albiflorus	snowbush		C	1	1
plants	higher dicots	Pittosporaceae	Pittosporum revolutum	yellow pittosporum		C	3	0
plants	higher dicots	Pittosporaceae	Pittosporum viscidum	black-fruited thornbush		C	1	0
plants	higher dicots	Pittosporaceae	Hymenosporum flavum	native frangipani		C	1	0
plants	higher dicots	Pittosporaceae	Pittosporum undulatum	sweet pittosporum		C	1	0

plants	higher dicots	Pittosporaceae	Pittosporum spinescens			C		1	0
plants	higher dicots	Plantaginaceae	Bacopa caroliniana		Y			1	1
plants	higher dicots	Polygonaceae	Persicaria praetermissa			C		1	1
plants	higher dicots	Polygonaceae	Persicaria hydropiper	water pepper		C		1	1
plants	higher dicots	Polygonaceae	Persicaria lapathifolia	pale knotweed		C		1	1
plants	higher dicots	Proteaceae	Floydia praealta	ball nut		V	V	1	0
plants	higher dicots	Proteaceae	Grevillea robusta			C		1	0
plants	higher dicots	Proteaceae	Grevillea hilliana			C		1	0
plants	higher dicots	Proteaceae	Stenocarpus sinuatus	wheel of fire		C		1	0
plants	higher dicots	Proteaceae	Macadamia integrifolia	macadamia nut		V	V	1	1
plants	higher dicots	Putranjivaceae	Drypetes deplanchei	grey boxwood		C		1	0
plants	higher dicots	Rhamnaceae	Alphitonia excelsa	soap tree		C		3	0
plants	higher dicots	Rosaceae	Rubus moluccanus			C		1	0
plants	higher dicots	Rosaceae	Rubus rosifolius			C		1	0
plants	higher dicots	Rubiaceae	Cyclophyllum coprosmoides			C		2	0
plants	higher dicots	Rubiaceae	Atractocarpus chartaceus			C		2	0
plants	higher dicots	Rubiaceae	Psychotria loniceroides	hairy psychotria		C		1	0
plants	higher dicots	Rubiaceae	Hodgkinsonia ovatiflora	golden ash		C		1	0
plants	higher dicots	Rubiaceae	Psychotria daphnoides			C		1	0
plants	higher dicots	Rubiaceae	Morinda jasminoides	morinda		C		2	0
plants	higher dicots	Rubiaceae	Psydrax odorata			C		1	0
plants	higher dicots	Rutaceae	Acronychia pauciflora	soft acronychia		C		4	2
plants	higher dicots	Rutaceae	Flindersia schottiana	bumpy ash		C		1	0
plants	higher dicots	Rutaceae	Flindersia xanthoxyla	yellow-wood		C		2	0
plants	higher dicots	Rutaceae	Medicosma cunninghamii	pinkheart		C		1	0
plants	higher dicots	Rutaceae	Bouchardatia neurococca	union nut		C		1	0
plants	higher dicots	Rutaceae	Citrus australis			C		1	0
plants	higher dicots	Rutaceae	Zieria verrucosa			V	V	1	1
plants	higher dicots	Rutaceae	Acronychia pubescens	hairy acronychia		C		1	1
plants	higher dicots	Rutaceae	Pentaceras australe	bastard crow's ash		C		1	0
plants	higher dicots	Rutaceae	Melicope micrococca	white evodia		C		2	0
plants	higher dicots	Rutaceae	Micromelum minutum	clusterberry		C		1	0
plants	higher dicots	Rutaceae	Acronychia laevis	glossy acronychia		C		2	0
plants	higher dicots	Rutaceae	Flindersia australis	crow's ash		C		2	0
plants	higher dicots	Sapindaceae	Harpullia hillii			C		1	0
plants	higher dicots	Sapindaceae	Guioa semiglauca	guioa		C		1	0
plants	higher dicots	Sapindaceae	Jagera pseudorhus			C		3	0
plants	higher dicots	Sapindaceae	Arytera divaricata	coogera		C		3	0

plants	higher dicots	Sapindaceae	Atalaya multiflora	broad-leaved whitewood		C	1	0
plants	higher dicots	Sapindaceae	Cupaniopsis serrata	smooth tuckeroo		C	3	0
plants	higher dicots	Sapindaceae	Alectryon subdentatus			C	1	0
plants	higher dicots	Sapindaceae	Elattostachys nervosa	green tamarind		C	3	0
plants	higher dicots	Sapindaceae	Cupaniopsis parvifolia	small-leaved tuckeroo		C	2	0
plants	higher dicots	Sapindaceae	Mischocarpus australis	red pear-fruit		C	1	0
plants	higher dicots	Sapindaceae	Cardiospermum halicacabum		Y		1	0
plants	higher dicots	Sapindaceae	Cupaniopsis anacardioides	tuckeroo		C	1	0
plants	higher dicots	Sapindaceae	Arytera foveolata	pitted coogera		C	2	0
plants	higher dicots	Sapindaceae	Arytera distylis	twin-leaved coogera		C	1	0
plants	higher dicots	Sapindaceae	Toechima tenax	pitted-leaf steelwood		C	2	0
plants	higher dicots	Sapotaceae	Planchonella pubescens			C	1	0
plants	higher dicots	Sapotaceae	Planchonella pohlmaniana			C	1	0
plants	higher dicots	Sapotaceae	Niemeyera antiloga	brown pearwood		C	1	0
plants	higher dicots	Simaroubaceae	Ailanthus triphysa	white siris		C	1	0
plants	higher dicots	Solanaceae	Solanum mauritianum	wild tobacco	Y		2	0
plants	higher dicots	Solanaceae	Solanum stelligerum	devil's needles		C	1	1
plants	higher dicots	Solanaceae	Solanum seaforthianum	Brazilian nightshade	Y		2	0
plants	higher dicots	Sterculiaceae	Argyrodendron trifoliolatum	booyong		C	1	0
plants	higher dicots	Thymelaeaceae	Pimelea latifolia			C	1	0
plants	higher dicots	Ulmaceae	Celtis paniculata	native celtis		C	1	0
plants	higher dicots	Ulmaceae	Aphananthe philippinensis			C	4	0
plants	higher dicots	Urticaceae	Dendrocnide photinophylla	shiny-leaved stinging tree		C	2	0
plants	higher dicots	Verbenaceae	Lantana camara	lantana	Y		4	0
plants	higher dicots	Violaceae	Viola hederacea			C	1	0
plants	higher dicots	Vitaceae	Cissus hypoglauca			C	1	0
plants	higher dicots	Vitaceae	Cissus antarctica			C	1	0
plants	higher dicots	Vitaceae	Clematicissus opaca			C	2	0
plants	liverworts	Frullaniaceae	Frullania monocera			C	2	2
plants	lower dicots	Annonaceae	Polyalthia nitidissima	polyalthia		C	1	0
plants	lower dicots	Annonaceae	Melodorum leichhardtii			C	2	0
plants	lower dicots	Aristolochiaceae	Aristolochia elegans	calico-flower	Y		1	1
plants	lower dicots	Eupomatiaceae	Eupomatia laurina	bolwarra		C	1	0
plants	lower dicots	Eupomatiaceae	Eupomatia bennettii	small bolwarra		C	1	0
plants	lower dicots	Lauraceae	Cryptocarya laevigata			C	1	0
plants	lower dicots	Lauraceae	Beilschmiedia elliptica	grey walnut		C	1	0
plants	lower dicots	Lauraceae	Cryptocarya glaucescens			C	1	0
plants	lower dicots	Lauraceae	Cryptocarya macdonaldii	McDonald's laurel		C	1	0

plants	lower dicots	Lauraceae	Neolitsea australiensis	green bolly gum		C	1	0
plants	lower dicots	Lauraceae	Cryptocarya sclerophylla	totempole		C	3	0
plants	lower dicots	Lauraceae	Cryptocarya triplinervis			C	2	0
plants	lower dicots	Lauraceae	Endiandra muelleri subsp. muelleri			C	1	0
plants	lower dicots	Lauraceae	Endiandra compressa			C	1	0
plants	lower dicots	Lauraceae	Cryptocarya obovata	pepperberry		C	1	0
plants	lower dicots	Lauraceae	Cinnamomum camphora	camphor laurel	Y		2	0
plants	lower dicots	Lauraceae	Neolitsea dealbata	white bolly gum		C	1	0
plants	lower dicots	Lauraceae	Endiandra discolor	domatia tree		C	1	0
plants	lower dicots	Lauraceae	Cinnamomum oliveri	Oliver's sassafras		C	1	0
plants	lower dicots	Lauraceae	Litsea reticulata			C	1	0
plants	lower dicots	Menispermaceae	Pleogyne australis	wiry grape		C	3	0
plants	lower dicots	Menispermaceae	Stephania japonica			C	1	0
plants	lower dicots	Menispermaceae	Sarcopetalum harveyanum	pearl vine		C	2	0
plants	lower dicots	Monimiaceae	Wilkiea macrophylla	large-leaved wilkiea		C	4	0
plants	lower dicots	Ranunculaceae	Clematis glycinoides			C	2	0
plants	monocots	Araceae	Pothos longipes			C	1	0
plants	monocots	Araceae	Gymnostachys anceps	settler's flax		C	2	0
plants	monocots	Araceae	Alocasia brisbanensis			C	1	0
plants	monocots	Arecaceae	Archontophoenix cunninghamiana	piccabeen palm		C	1	0
plants	monocots	Arecaceae	Calamus muelleri	lawyer vine		C	2	0
plants	monocots	Asparagaceae	Asparagus plumosus	feathered asparagus fern	Y		1	0
plants	monocots	Commelinaceae	Aneilema acuminatum			C	1	0
plants	monocots	Commelinaceae	Pollia macrophylla			C	1	0
plants	monocots	Cyperaceae	Lepidosperma laterale			C	1	0
plants	monocots	Cyperaceae	Cyperus dietrichiae var. dietrichiae			C	1	1
plants	monocots	Cyperaceae	Cyperus tetraphyllus			C	1	0
plants	monocots	Cyperaceae	Cyperus tenuiculmis			C	1	1
plants	monocots	Cyperaceae	Cyperus cyperoides			C	1	1
plants	monocots	Cyperaceae	Cyperus trinervis			C	1	1
plants	monocots	Cyperaceae	Cyperus bowmannii			C	1	1
plants	monocots	Cyperaceae	Carex horsfieldii			C	1	0
plants	monocots	Cyperaceae	Cyperus enervis			C	1	1
plants	monocots	Cyperaceae	Cyperus laevis			C	1	1
plants	monocots	Cyperaceae	Carex maculata			C	1	0
plants	monocots	Flagellariaceae	Flagellaria indica	whip vine		C	4	0
plants	monocots	Hemerocallidaceae	Dianella caerulea var. caerulea			C	1	1
plants	monocots	Hemerocallidaceae	Dianella longifolia var. longifolia			C	1	1

plants	monocots	Hemerocallidaceae	Dianella caerulea			C	1	0
plants	monocots	Hemerocallidaceae	Geitonoplesium cymosum	scrambling lily		C	2	0
plants	monocots	Hemerocallidaceae	Dianella brevipedunculata			C	1	1
plants	monocots	Hydrocharitaceae	Vallisneria nana			C	1	1
plants	monocots	Juncaceae	Juncus usitatus			C	1	1
plants	monocots	Laxmanniaceae	Cordyline rubra	red-fruited palm lily		C	2	0
plants	monocots	Laxmanniaceae	Lomandra hystrix			C	1	0
plants	monocots	Laxmanniaceae	Lomandra longifolia			C	1	0
plants	monocots	Laxmanniaceae	Eustrephus latifolius	wombat berry		C	2	0
plants	monocots	Laxmanniaceae	Lomandra laxa	broad-leaved matrush		C	1	1
plants	monocots	Laxmanniaceae	Cordyline petiolaris	large-leaved palm lily		C	1	0
plants	monocots	Orchidaceae	Dipodium			C	1	1
plants	monocots	Orchidaceae	Pterostylis sp. (Gundiah W.W.Abell AQ72188)			NT	1	0
plants	monocots	Poaceae	Ottochloa gracillima	pademelon grass		C	2	0
plants	monocots	Poaceae	Sporobolus laxus			C	1	1
plants	monocots	Poaceae	Themeda triandra	kangaroo grass		C	1	0
plants	monocots	Poaceae	Ottochloa nodosa			C	1	0
plants	monocots	Poaceae	Sporobolus africanus	Parramatta grass	Y		1	1
plants	monocots	Poaceae	Sporobolus elongatus			C	1	1
plants	monocots	Poaceae	Sporobolus natalensis		Y		1	1
plants	monocots	Poaceae	Sporobolus pyramidalis		Y		2	2
plants	monocots	Poaceae	Megathyrsus maximus		Y		2	0
plants	monocots	Poaceae	Imperata cylindrica	blady grass		C	1	0
plants	monocots	Potamogetonaceae	Stuckenia pectinata			C	1	1
plants	monocots	Ripogonaceae	Ripogonum album	white supplejack		C	1	0
plants	monocots	Ripogonaceae	Ripogonum brevifolium	small-leaved supplejack		C	2	0
plants	monocots	Smilacaceae	Smilax australis	barbed-wire vine		C	4	0
plants	monocots	Zingiberaceae	Alpinia caerulea	wild ginger		C	1	0
plants	monocots	Zingiberaceae	Alpinia arundelliana			C	1	0
plants	uncertain	Indet.	Indet.			C	17	2

Search Crit Species List for a Specified Point

Species:	All
Type:	All
Status:	All
Records:	Confirmed
Date:	Since 1980
Latitude:	-26.2576
Longitude:	152.7083
Distance:	8
Email:	kylie.meldrum@smec.com
Date submitted:	Friday 05 Jun 2015 16:23:16
Date extracted:	Friday 05 Jun 2015 16:30:02

The number of records retrieved = 501

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Description of the 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). The second number located after the / indicates the number of specimen records for the taxon.

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Sighting Re	Specimen Records
animals	amphibians	Bufonidae	Rhinella marina	cane toad	Y			7	0
animals	amphibians	Hylidae	Litoria fallax	eastern sedgefrog		C		20	0
animals	amphibians	Hylidae	Litoria lesueuri sensu lato	stony creek frog		C		16	0
animals	amphibians	Hylidae	Litoria gracilenta	graceful treefrog		C		8	0
animals	amphibians	Hylidae	Litoria wilcoxii	eastern stony creek frog		C		3	0
animals	amphibians	Hylidae	Litoria caerulea	common green treefrog		C		1	0
animals	amphibians	Hylidae	Litoria peronii	emerald spotted treefrog		C		1	0
animals	amphibians	Hylidae	Litoria sp.					1	0
animals	amphibians	Limnodynastidae	Limnodynastes peronii	striped marshfrog		C		6	0
animals	amphibians	Limnodynastidae	Adelotus brevis	tusked frog		V		5	0
animals	amphibians	Myobatrachidae	Mixophyes fasciolatus	great barred frog		C		6	0
animals	amphibians	Myobatrachidae	Mixophyes iteratus	giant barred frog		E	E	4	0
animals	birds	Acanthizidae	Gerygone mouki	brown gerygone		C		3	0
animals	birds	Acanthizidae	Gerygone albogularis	white-throated gerygone		C		1	0
animals	birds	Acanthizidae	Acanthiza lineata	striated thornbill		C		3	0
animals	birds	Acanthizidae	Acanthiza pusilla	brown thornbill		C		8	0
animals	birds	Acanthizidae	Sericornis magnirostra	large-billed scrubwren		C		6	0
animals	birds	Acanthizidae	Sericornis frontalis	white-browed scrubwren		C		6	0
animals	birds	Accipitridae	Accipiter cirrocephalus	collared sparrowhawk		C		1	0
animals	birds	Aegothelidae	Aegotheles cristatus	Australian owlet-nightjar		C		4	0
animals	birds	Anatidae	Chenonetta jubata	Australian wood duck		C		1	0
animals	birds	Anatidae	Dendrocygna eytoni	plumed whistling-duck		C		1	0
animals	birds	Anatidae	Anas superciliosa	Pacific black duck		C		3	0
animals	birds	Anatidae	Aythya australis	hardhead		C		2	0
animals	birds	Anseranatidae	Anseranas semipalmata	magpie goose		C		2	0
animals	birds	Ardeidae	Ardea intermedia	intermediate egret		C		1	0
animals	birds	Ardeidae	Ardea modesta	eastern great egret		SL		1	0
animals	birds	Artamidae	Cracticus nigrogularis	pied butcherbird		C		2	0
animals	birds	Artamidae	Artamus cyanopterus	dusky woodswallow		C		1	0

animals	birds	Artamidae	Strepera graculina	pied currawong	C	4	0
animals	birds	Artamidae	Cracticus tibicen	Australian magpie	C	9	0
animals	birds	Artamidae	Cracticus torquatus	grey butcherbird	C	3	0
animals	birds	Cacatuidae	Eolophus roseicapillus	galah	C	1	0
animals	birds	Cacatuidae	Cacatua galerita	sulphur-crested cockatoo	C	1	0
animals	birds	Cacatuidae	Calyptorhynchus funereus	yellow-tailed black-cockatoo	C	3	0
animals	birds	Campephagidae	Lalage leucomela	varied triller	C	2	0
animals	birds	Campephagidae	Coracina novaehollandiae	black-faced cuckoo-shrike	C	4	0
animals	birds	Charadriidae	Vanellus miles novaehollandiae	masked lapwing (southern subspecies)	C	1	0
animals	birds	Climacteridae	Cormobates leucophaea metastas	white-throated treecreeper (southern)	C	8	0
animals	birds	Columbidae	Geopelia striata	peaceful dove	C	3	0
animals	birds	Columbidae	Chalcophaps indica	emerald dove	C	1	0
animals	birds	Columbidae	Geopelia humeralis	bar-shouldered dove	C	1	0
animals	birds	Columbidae	Leucosarcia picata	wonga pigeon	C	2	0
animals	birds	Columbidae	Ptilinopus magnificus	wompoo fruit-dove	C	1	0
animals	birds	Corvidae	Corvus orru	Torresian crow	C	7	0
animals	birds	Cuculidae	Chalcites lucidus	shining bronze-cuckoo	C	4	0
animals	birds	Cuculidae	Centropus phasianinus	pheasant coucal	C	1	1
animals	birds	Cuculidae	Cacomantis flabelliformis	fan-tailed cuckoo	C	1	0
animals	birds	Dicruridae	Dicrurus bracteatus	spangled drongo	C	1	0
animals	birds	Estrildidae	Neochmia temporalis	red-browed finch	C	4	0
animals	birds	Estrildidae	Taeniopygia bichenovii	double-barred finch	C	1	0
animals	birds	Halcyonidae	Dacelo novaeguineae	laughing kookaburra	C	3	0
animals	birds	Hirundinidae	Hirundo neoxena	welcome swallow	C	2	0
animals	birds	Hirundinidae	Petrochelidon ariel	fairy martin	C	1	0
animals	birds	Maluridae	Malurus melanocephalus	red-backed fairy-wren	C	1	0
animals	birds	Maluridae	Malurus lamberti	variegated fairy-wren	C	2	0
animals	birds	Megaluridae	Megalurus timoriensis	tawny grassbird	C	1	0
animals	birds	Megapodiidae	Alectura lathami	Australian brush-turkey	C	1	0
animals	birds	Meliphagidae	Acanthorhynchus tenuirostris	eastern spinebill	C	2	0
animals	birds	Meliphagidae	Melithreptus albogularis	white-throated honeyeater	C	8	0
animals	birds	Meliphagidae	Philemon citreogularis	little friarbird	C	1	0
animals	birds	Meliphagidae	Melithreptus lunatus	white-naped honeyeater	C	10	0
animals	birds	Meliphagidae	Philemon corniculatus	noisy friarbird	C	1	0
animals	birds	Meliphagidae	Myzomela sanguinolenta	scarlet honeyeater	C	9	0
animals	birds	Meliphagidae	Lichmera indistincta	brown honeyeater	C	1	0
animals	birds	Meliphagidae	Caligavis chrysops	yellow-faced honeyeater	C	17	0
animals	birds	Meliphagidae	Meliphaga lewinii	Lewin's honeyeater	C	16	0

animals	birds	Meropidae	Merops ornatus	rainbow bee-eater	SL		5	0
animals	birds	Monarchidae	Carterornis leucotis	white-eared monarch	C		2	0
animals	birds	Monarchidae	Myiagra rubecula	leaden flycatcher	C		1	0
animals	birds	Nectariniidae	Dicaeum hirundinaceum	mistletoebird	C		4	0
animals	birds	Neosittidae	Daphoenositta chrysoptera	varied sittella	C		3	0
animals	birds	Oriolidae	Sphecotheres vieilloti	Australasian figbird	C		3	0
animals	birds	Oriolidae	Oriolus sagittatus	olive-backed oriole	C		1	0
animals	birds	Orthonychidae	Orthonyx temminckii	Australian logrunner	C		2	0
animals	birds	Pachycephalidae	Pachycephala pectoralis	golden whistler	C		8	0
animals	birds	Pachycephalidae	Pachycephala rufiventris	rufous whistler	C		4	0
animals	birds	Pachycephalidae	Colluricincla megarhyncha	little shrike-thrush	C		5	0
animals	birds	Pachycephalidae	Colluricincla harmonica	grey shrike-thrush	C		5	0
animals	birds	Pardalotidae	Pardalotus striatus	striated pardalote	C		6	0
animals	birds	Pardalotidae	Pardalotus punctatus	spotted pardalote	C		20	0
animals	birds	Petroicidae	Petroica rosea	rose robin	C		4	0
animals	birds	Petroicidae	Eopsaltria australis	eastern yellow robin	C		7	0
animals	birds	Phalacrocoracidae	Phalacrocorax sulcirostris	little black cormorant	C		1	0
animals	birds	Phalacrocoracidae	Microcarbo melanoleucos	little pied cormorant	C		1	0
animals	birds	Pittidae	Pitta versicolor	noisy pitta	C		1	0
animals	birds	Podicipedidae	Tachybaptus novaehollandiae	Australasian grebe	C		1	0
animals	birds	Psittacidae	Trichoglossus chlorolepidotus	scaly-breasted lorikeet	C		2	0
animals	birds	Psittacidae	Trichoglossus haematodus molucc	rainbow lorikeet	C		4	0
animals	birds	Psittacidae	Platycercus adscitus	pale-headed rosella	C		2	0
animals	birds	Psophodidae	Psophodes olivaceus	eastern whipbird	C		8	0
animals	birds	Ptilonorhynchidae	Ailuroedus crassirostris	green catbird	C		1	0
animals	birds	Ptilonorhynchidae	Ptilonorhynchus violaceus	satin bowerbird	C		2	0
animals	birds	Rallidae	Porphyrio porphyrio	purple swamphen	C		3	0
animals	birds	Rhipiduridae	Rhipidura leucophrys	willie wagtail	C		1	0
animals	birds	Rhipiduridae	Rhipidura rufifrons	rufous fantail	SL		4	0
animals	birds	Rhipiduridae	Rhipidura albiscapa	grey fantail	C		14	0
animals	birds	Scolopacidae	Gallinago hardwickii	Latham's snipe	SL		1	0
animals	birds	Strigidae	Ninox boobook	southern boobook	C		1	0
animals	birds	Threskiornithidae	Platalea regia	royal spoonbill	C		1	0
animals	birds	Threskiornithidae	Platalea flavipes	yellow-billed spoonbill	C		1	0
animals	birds	Timaliidae	Zosterops lateralis	silvereye	C		13	0
animals	birds	Turnicidae	Turnix melanogaster	black-breasted button-quail	V	V	3	0
animals	birds	Tytonidae	Tyto javanica	eastern barn owl	C		3	0
animals	mammals	Dasyuridae	Antechinus subtropicus		C		1	0

animals	mammals	Dasyuridae	Antechinus flavipes flavipes	yellow-footed antechinus (south-east Queens	C		7	0
animals	mammals	Macropodidae	Macropus giganteus	eastern grey kangaroo	C		1	0
animals	mammals	Miniopteridae	Miniopterus australis	little bent-wing bat	C		5	0
animals	mammals	Molossidae	Tadarida australis	white-striped freetail bat	C		2	0
animals	mammals	Muridae	Melomys cervinipes	fawn-footed melomys	C		1	0
animals	mammals	Muridae	Hydromys chrysogaster	water rat	C		1	0
animals	mammals	Muridae	Rattus sp.				4	0
animals	mammals	Muridae	Melomys sp.				1	0
animals	mammals	Muridae	Rattus fuscipes	bush rat	C		15	0
animals	mammals	Ornithorhynchidae	Ornithorhynchus anatinus	platypus	SL		1	0
animals	mammals	Peramelidae	Isoodon macrourus	northern brown bandicoot	C		5	0
animals	mammals	Petauridae	Petaurus norfolcensis	squirrel glider	C		1	0
animals	mammals	Petauridae	Petaurus breviceps	sugar glider	C		2	0
animals	mammals	Phascolarctidae	Phascolarctos cinereus (southeast	koala (southeast Queensland bioregion)	V	V	6	0
animals	mammals	Pteropodidae	Pteropus scapulatus	little red flying-fox	C		1	0
animals	mammals	Rhinolophidae	Rhinolophus megaphyllus	eastern horseshoe-bat	C		1	0
animals	mammals	Tachyglossidae	Tachyglossus aculeatus	short-beaked echidna	SL		3	0
animals	mammals	Vespertilionidae	Scotorepens orion	south-eastern broad-nosed bat	C		1	0
animals	mammals	Vespertilionidae	Chalinolobus morio	chocolate wattled bat	C		1	0
animals	mammals	Vespertilionidae	Vespadelus pumilus	eastern forest bat	C		2	0
animals	mammals	Vespertilionidae	Chalinolobus nigrogriseus	hoary wattled bat	C		3	0
animals	ray-finned fishes	Eleotridae	Hypseleotris sp.				1	0
animals	ray-finned fishes	Percichthyidae	Maccullochella mariensis	Mary River cod		E	4	4
animals	reptiles	Agamidae	Intellagama lesueurii	eastern water dragon	C		11	0
animals	reptiles	Elapidae	Oxyuranus scutellatus	coastal taipan	C		1	0
animals	reptiles	Scincidae	Concinnia brachysoma	northern bar-sided sknik	C		1	0
animals	reptiles	Scincidae	Cryptoblepharus pulcher pulcher	elegant snake-eyed skink	C		2	1
animals	uncertain	Indeterminate	Indeterminate	Unknown or Code Pending	C		3	0
fungi	club fungi	Basidiomycota	Punctularia strigosozonata		C		1	1
fungi	club fungi	Basidiomycota	Russula reddellii		C		1	1
fungi	club fungi	Basidiomycota	Macrolepiota		C		1	1
fungi	club fungi	Basidiomycota	Armillaria		C		1	1
fungi	club fungi	Basidiomycota	Phellinus		C		1	1
fungi	sac fungi	Agyriaceae	Trapelia		C		6	6
fungi	sac fungi	Caliciaceae	Nadvornikia hawaiiensis		C		1	1
fungi	sac fungi	Coccocarpiaceae	Coccocarpia smaragdina		C		1	1
fungi	sac fungi	Graphidaceae	Glyphis cicatricosa		C		1	1
fungi	sac fungi	Graphidaceae	Graphis		C		1	1

fungi	sac fungi	Haematommaceae	Haematomma persoonii			C	1	1
fungi	sac fungi	Lecanoraceae	Lecanora helva			C	1	1
fungi	sac fungi	Lecanoraceae	Lecanora pseudistera			C	2	2
fungi	sac fungi	Pannariaceae	Leproloma			C	1	1
fungi	sac fungi	Pannariaceae	Pannaria tavaresii			C	1	1
fungi	sac fungi	Parmeliaceae	Parmotrema austrosinense			C	1	1
fungi	sac fungi	Parmeliaceae	Xanthoparmelia filsonii			C	1	1
fungi	sac fungi	Pertusariaceae	Pertusaria xanthoplaca			C	1	1
fungi	sac fungi	Pertusariaceae	Ochrolechia			C	1	1
fungi	sac fungi	Pertusariaceae	Pertusaria thiospoda			C	1	1
fungi	sac fungi	Physciaceae	Hyperphyscia adglutinata			C	1	1
fungi	sac fungi	Physciaceae	Dirinaria applanata			C	3	3
fungi	sac fungi	Physciaceae	Buellia demutans			C	1	1
fungi	sac fungi	Physciaceae	Physcia jackii			C	1	1
fungi	sac fungi	Physciaceae	Buellia			C	2	2
fungi	sac fungi	Teloschistaceae	Caloplaca			C	1	1
plants	conifers	Araucariaceae	Araucaria cunninghamii	hoop pine		C	1	0
plants	conifers	Podocarpaceae	Podocarpus elatus	she pine		C	1	0
plants	ferns	Adiantaceae	Adiantum formosum			C	2	0
plants	ferns	Adiantaceae	Adiantum diaphanum			C	5	0
plants	ferns	Adiantaceae	Adiantum hispidulum			C	1	0
plants	ferns	Adiantaceae	Adiantum silvaticum			C	1	0
plants	ferns	Adiantaceae	Cheilanthes sieberi			C	3	0
plants	ferns	Adiantaceae	Adiantum aethiopicum			C	2	0
plants	ferns	Blechnaceae	Doodia aspera	prickly rasp fern		C	3	0
plants	ferns	Blechnaceae	Doodia caudata			C	1	0
plants	ferns	Thelypteridaceae	Christella dentata	creek fern		C	1	0
plants	ferns	Thelypteridaceae	Christella hispidula			C	1	1
plants	higher dicots	Acanthaceae	Ruellia simplex		Y		2	2
plants	higher dicots	Acanthaceae	Pseuderanthemum variabile	pastel flower		C	3	0
plants	higher dicots	Anacardiaceae	Rhodosphaera rhodanthema	tulip satinwood		C	1	0
plants	higher dicots	Anacardiaceae	Schinus terebinthifolius		Y		3	2
plants	higher dicots	Anacardiaceae	Mangifera indica	mango	Y		1	0
plants	higher dicots	Apiaceae	Centella asiatica			C	1	0
plants	higher dicots	Apocynaceae	Carissa ovata	currantbush		C	4	0
plants	higher dicots	Apocynaceae	Alyxia ruscifolia			C	5	0
plants	higher dicots	Apocynaceae	Marsdenia lloydii			C	1	0
plants	higher dicots	Apocynaceae	Secamone elliptica			C	2	0

plants	higher dicots	Apocynaceae	Parsonsia straminea	monkey rope		C	4	0
plants	higher dicots	Apocynaceae	Tabernaemontana pandacaqui	banana bush		C	6	0
plants	higher dicots	Apocynaceae	Melodinus australis	southern melodinus		C	1	0
plants	higher dicots	Araliaceae	Astrotricha latifolia			C	1	0
plants	higher dicots	Araliaceae	Polyscias elegans	celery wood		C	5	0
plants	higher dicots	Asteraceae	Bidens pilosa		Y		1	0
plants	higher dicots	Asteraceae	Cirsium vulgare	spear thistle	Y		1	0
plants	higher dicots	Asteraceae	Conyza				1	0
plants	higher dicots	Asteraceae	Soliva sessilis		Y		1	1
plants	higher dicots	Asteraceae	Picris conyzoides			V	1	1
plants	higher dicots	Asteraceae	Emilia sonchifolia		Y		1	0
plants	higher dicots	Asteraceae	Praxelis clematidea		Y		2	2
plants	higher dicots	Asteraceae	Ageratum houstonianum	blue billygoat weed	Y		6	1
plants	higher dicots	Asteraceae	Baccharis halimifolia	groundsel bush	Y		3	0
plants	higher dicots	Asteraceae	Cyanthillium cinereum			C	1	0
plants	higher dicots	Asteraceae	Tithonia diversifolia	Japanese sunflower	Y		1	1
plants	higher dicots	Asteraceae	Sigesbeckia orientalis	Indian weed		C	3	0
plants	higher dicots	Asteraceae	Ozothamnus diosmifolius	white dogwood		C	1	0
plants	higher dicots	Bignoniaceae	Pandorea jasminoides			C	1	0
plants	higher dicots	Bignoniaceae	Pandorea pandorana	wonga vine		C	3	0
plants	higher dicots	Bignoniaceae	Jacaranda mimosifolia	jacaranda	Y		1	0
plants	higher dicots	Bignoniaceae	Dolichandra unguis-cati	cat's claw creeper	Y		16	11
plants	higher dicots	Boraginaceae	Ehretia acuminata			C	1	0
plants	higher dicots	Brassicaceae	Sinapis alba	white mustard	Y		1	1
plants	higher dicots	Brassicaceae	Lepidium bonariense	Argentine peppercress	Y		2	2
plants	higher dicots	Byttneriaceae	Commersonia dasyphylla			C	1	1
plants	higher dicots	Byttneriaceae	Commersonia bartramia	brown kurrajong		C	1	0
plants	higher dicots	Caesalpiniaceae	Caesalpinia decapetala	wait-a-while	Y		1	1
plants	higher dicots	Caesalpiniaceae	Senna pendula var. glabrata	Easter cassia	Y		2	2
plants	higher dicots	Caesalpiniaceae	Caesalpinia scortechinii	large prickle vine		C	1	0
plants	higher dicots	Caesalpiniaceae	Caesalpinia subtropica	corky pricklevine		C	1	0
plants	higher dicots	Campanulaceae	Lobelia purpurascens	white root		C	2	0
plants	higher dicots	Capparaceae	Capparis arborea	brush caper berry		C	5	0
plants	higher dicots	Capparaceae	Capparis sarmentosa	scrambling caper		C	3	0
plants	higher dicots	Casuarinaceae	Allocasuarina torulosa			C	2	0
plants	higher dicots	Celastraceae	Celastrus subspicata	large-leaved staffvine		C	1	0
plants	higher dicots	Celastraceae	Hippocratea barbata	knotvine		C	2	0
plants	higher dicots	Celastraceae	Maytenus bilocularis			C	3	0

plants	higher dicots	Celastraceae	Siphonodon australis	ivorywood		C	2	0
plants	higher dicots	Celastraceae	Denhamia celastroides	broad-leaved boxwood		C	1	0
plants	higher dicots	Celastraceae	Elaeodendron melanocarpum			C	1	0
plants	higher dicots	Chenopodiaceae	Dysphania glomulifera subsp. glomulifera			C	1	1
plants	higher dicots	Cucurbitaceae	Diplocyclos palmatus			C	1	0
plants	higher dicots	Ebenaceae	Diospyros fasciculosa	grey ebony		C	1	0
plants	higher dicots	Ebenaceae	Diospyros australis	black plum		C	1	0
plants	higher dicots	Ebenaceae	Diospyros geminata	scaly ebony		C	1	0
plants	higher dicots	Elaeocarpaceae	Elaeocarpus obovatus	blueberry ash		C	1	0
plants	higher dicots	Elaeocarpaceae	Elaeocarpus grandis	blue quandong		C	1	0
plants	higher dicots	Ericaceae	Acrotriche aggregata	red cluster heath		C	1	0
plants	higher dicots	Ericaceae	Leucopogon juniperinus	prickly heath		C	3	0
plants	higher dicots	Ericaceae	Monotoca scoparia	prickly broom heath		C	1	0
plants	higher dicots	Erythroxylaceae	Erythroxylum australe	cocaine tree		C	1	0
plants	higher dicots	Euphorbiaceae	Acalypha nemorum	hairy acalypha		C	1	0
plants	higher dicots	Euphorbiaceae	Croton insularis	Queensland cascarilla		C	1	0
plants	higher dicots	Euphorbiaceae	Baloghia inophylla	scrub bloodwood		C	1	0
plants	higher dicots	Euphorbiaceae	Claoxylon australe	brittlewood		C	1	0
plants	higher dicots	Euphorbiaceae	Croton stigmatosus	white croton		C	1	0
plants	higher dicots	Euphorbiaceae	Alchornea ilicifolia	native holly		C	6	0
plants	higher dicots	Euphorbiaceae	Euphorbia ophthalmica		Y		1	1
plants	higher dicots	Euphorbiaceae	Mallotus claoxyloides	green kamala		C	5	0
plants	higher dicots	Euphorbiaceae	Mallotus philippensis	red kamala		C	7	0
plants	higher dicots	Euphorbiaceae	Tragia novae-hollandiae	stinging-vine		C	1	0
plants	higher dicots	Euphorbiaceae	Homalanthus stillingiifolius			C	2	0
plants	higher dicots	Fabaceae	Derris involuta	native derris		C	2	0
plants	higher dicots	Fabaceae	Hovea acutifolia			C	2	0
plants	higher dicots	Fabaceae	Vigna vexillata var. youngiana			C	1	1
plants	higher dicots	Fabaceae	Castanospermum australe	black bean		C	2	0
plants	higher dicots	Fabaceae	Crotalaria lunata		Y		1	1
plants	higher dicots	Fabaceae	Medicago lupulina	black medic	Y		1	1
plants	higher dicots	Fabaceae	Jacksonia scoparia			C	2	0
plants	higher dicots	Fabaceae	Desmodium tortuosum	Florida beggar-weed	Y		1	1
plants	higher dicots	Fabaceae	Podolobium scandens			C	1	1
plants	higher dicots	Fabaceae	Flemingia parviflora	flemingia		C	1	0
plants	higher dicots	Fabaceae	Hardenbergia violacea			C	3	0
plants	higher dicots	Fabaceae	Erythrina crista-galli		Y		2	2
plants	higher dicots	Fabaceae	Podolobium ilicifolium			C	1	0

plants	higher dicots	Fabaceae	Austrosteenisia blackii	bloodvine		C	3	0
plants	higher dicots	Flacourtiaceae	Casearia multinervosa	casearia		C	1	0
plants	higher dicots	Flacourtiaceae	Scolopia braunii	flintwood		C	1	0
plants	higher dicots	Flacourtiaceae	Xylosma terrae-reginae	xylosma		C	3	0
plants	higher dicots	Gentianaceae	Centaurium tenuiflorum		Y		1	1
plants	higher dicots	Goodeniaceae	Goodenia rotundifolia			C	1	0
plants	higher dicots	Lamiaceae	Vitex acuminata			C	1	0
plants	higher dicots	Lamiaceae	Vitex lignum-vitae			C	2	0
plants	higher dicots	Lamiaceae	Mentha satureioides	native pennyroyal		C	1	1
plants	higher dicots	Lamiaceae	Callicarpa pedunculata	velvet leaf		C	1	0
plants	higher dicots	Lamiaceae	Clerodendrum floribundum			C	3	0
plants	higher dicots	Lamiaceae	Clerodendrum tomentosum			C	3	0
plants	higher dicots	Loranthaceae	Dendrophthoe glabrescens			C	1	1
plants	higher dicots	Loranthaceae	Amyema quandang var. bancroftii	broad-leaved grey mistletoe		C	1	0
plants	higher dicots	Malvaceae	Hibiscus heterophyllus			C	3	0
plants	higher dicots	Malvaceae	Gossypium barbadense		Y		1	1
plants	higher dicots	Malvaceae	Sida cordifolia		Y		3	1
plants	higher dicots	Meliaceae	Owenia venosa	crow's apple		C	2	0
plants	higher dicots	Meliaceae	Turraea pubescens	native honeysuckle		C	2	0
plants	higher dicots	Meliaceae	Melia azedarach	white cedar		C	2	0
plants	higher dicots	Mimosaceae	Acacia aulacocarpa			C	6	0
plants	higher dicots	Mimosaceae	Acacia longissima			C	2	0
plants	higher dicots	Mimosaceae	Acacia complanata	flatstem wattle		C	3	0
plants	higher dicots	Mimosaceae	Acacia melanoxylon	blackwood		C	2	0
plants	higher dicots	Mimosaceae	Acacia leiocalyx subsp. leiocalyx			C	2	1
plants	higher dicots	Mimosaceae	Acacia leiocalyx			C	1	0
plants	higher dicots	Mimosaceae	Acacia fimbriata	Brisbane golden wattle		C	4	1
plants	higher dicots	Mimosaceae	Acacia oshanesii			C	2	0
plants	higher dicots	Mimosaceae	Acacia bakeri	marblewood		C	3	0
plants	higher dicots	Mimosaceae	Acacia maidenii	Maiden's wattle		C	2	0
plants	higher dicots	Moraceae	Trophis scandens subsp. scandens			C	7	0
plants	higher dicots	Moraceae	Maclura cochinchinensis	cockspur thorn		C	4	0
plants	higher dicots	Moraceae	Streblus brunonianus	whalebone tree		C	5	0
plants	higher dicots	Moraceae	Ficus obliqua			C	1	1
plants	higher dicots	Moraceae	Ficus coronata	creek sandpaper fig		C	4	0
plants	higher dicots	Myrsinaceae	Myrsine variabilis			C	4	0
plants	higher dicots	Myrsinaceae	Embelia australiana	embelia		C	3	0
plants	higher dicots	Myrtaceae	Rhodamnia rubescens			C	1	0

plants	higher dicots	Myrtaceae	Eucalyptus cloeziana	Gympie messmate		C	2	1
plants	higher dicots	Myrtaceae	Eucalyptus moluccana	gum-topped box		C	3	0
plants	higher dicots	Myrtaceae	Eucalyptus propinqua	small-fruited grey gum		C	4	0
plants	higher dicots	Myrtaceae	Homoranthus virgatus	twiggy homoranthus		C	1	0
plants	higher dicots	Myrtaceae	Backhousia myrtifolia	carrol		C	2	0
plants	higher dicots	Myrtaceae	Eucalyptus acmenoides			C	3	0
plants	higher dicots	Myrtaceae	Eucalyptus microcorys			C	1	0
plants	higher dicots	Myrtaceae	Lophostemon confertus	brush box		C	4	0
plants	higher dicots	Myrtaceae	Lophostemon suaveolens	swamp box		C	4	0
plants	higher dicots	Myrtaceae	Rhodomyrtus psidioides	native guava		C	3	0
plants	higher dicots	Myrtaceae	Waterhousea floribunda	weeping lilly pilly		C	2	0
plants	higher dicots	Myrtaceae	Eucalyptus tereticornis			C	5	0
plants	higher dicots	Myrtaceae	Melaleuca styphelioides			C	1	0
plants	higher dicots	Myrtaceae	Pilidiostigma rhytispermum			C	2	0
plants	higher dicots	Myrtaceae	Rhodamnia dumicola	rib-fruited malletwood		C	1	0
plants	higher dicots	Myrtaceae	Melaleuca salicina			C	3	0
plants	higher dicots	Myrtaceae	Eucalyptus grandis	flooded gum		C	1	0
plants	higher dicots	Myrtaceae	Eucalyptus crebra	narrow-leaved red ironbark		C	3	0
plants	higher dicots	Myrtaceae	Gossia bidwillii			C	3	0
plants	higher dicots	Myrtaceae	Eugenia uniflora	Brazilian cherry tree	Y		1	1
plants	higher dicots	Myrtaceae	Gossia hillii			C	1	0
plants	higher dicots	Myrtaceae	Angophora leiocarpa	rusty gum		C	1	0
plants	higher dicots	Myrtaceae	Corymbia citriodora	spotted gum		C	2	0
plants	higher dicots	Myrtaceae	Corymbia intermedia	pink bloodwood		C	2	0
plants	higher dicots	Ochnaceae	Ochna serrulata	ochna	Y		4	0
plants	higher dicots	Oleaceae	Jasminum didymum			C	1	0
plants	higher dicots	Oleaceae	Ligustrum sinense	small-leaved privet	Y		4	0
plants	higher dicots	Oleaceae	Jasminum simplicifolium				2	0
plants	higher dicots	Oleaceae	Olea paniculata			C	1	0
plants	higher dicots	Oleaceae	Notelaea longifolia			C	2	0
plants	higher dicots	Onagraceae	Ludwigia octovalvis	willow primrose		C	1	0
plants	higher dicots	Oxalidaceae	Oxalis corniculata		Y		2	0
plants	higher dicots	Passifloraceae	Passiflora edulis		Y		2	0
plants	higher dicots	Passifloraceae	Passiflora subpeltata	white passion flower	Y		2	0
plants	higher dicots	Passifloraceae	Passiflora suberosa	corky passion flower	Y		4	0
plants	higher dicots	Petiveriaceae	Rivina humilis		Y		4	0
plants	higher dicots	Phyllanthaceae	Poranthera microphylla	small poranthera		C	1	0
plants	higher dicots	Phyllanthaceae	Breynia oblongifolia			C	4	0

plants	higher dicots	Phyllanthaceae	Phyllanthus microcladus			C		1	0
plants	higher dicots	Phyllanthaceae	Bridelia leichhardtii			C		1	0
plants	higher dicots	Phyllanthaceae	Bridelia exaltata			C		2	0
plants	higher dicots	Phyllanthaceae	Cleistanthus cunninghamii	omega		C		2	0
plants	higher dicots	Phyllanthaceae	Glochidion ferdinandi var. ferdinandi			C		1	0
plants	higher dicots	Phytolaccaceae	Phytolacca octandra	inkweed	Y			1	0
plants	higher dicots	Picrodendraceae	Petalostigma triloculare	forest quinine		C		3	0
plants	higher dicots	Pittosporaceae	Pittosporum viscidum	black-fruited thornbush		C		1	0
plants	higher dicots	Pittosporaceae	Pittosporum revolutum	yellow pittosporum		C		6	0
plants	higher dicots	Pittosporaceae	Auranticarpa rhombifolia			C		2	0
plants	higher dicots	Plantaginaceae	Bacopa monnieri			C		1	1
plants	higher dicots	Plantaginaceae	Mecardonia procumbens		Y			1	1
plants	higher dicots	Plantaginaceae	Plantago major	greater plantain	Y			1	1
plants	higher dicots	Polygonaceae	Persicaria hydropiper	water pepper		C		2	1
plants	higher dicots	Polygonaceae	Persicaria praetermissa			C		1	1
plants	higher dicots	Proteaceae	Floydia praealta	ball nut		V	V	1	0
plants	higher dicots	Proteaceae	Grevillea robusta			C		3	0
plants	higher dicots	Proteaceae	Grevillea hilliana			C		1	0
plants	higher dicots	Proteaceae	Macadamia integrifolia	macadamia nut		V	V	1	1
plants	higher dicots	Putranjivaceae	Drypetes deplanchei	grey boxwood		C		5	0
plants	higher dicots	Rhamnaceae	Alphitonia excelsa	soap tree		C		7	0
plants	higher dicots	Rubiaceae	Psychotria loniceroides	hairy psychotria		C		1	0
plants	higher dicots	Rubiaceae	Psychotria daphnoides			C		2	0
plants	higher dicots	Rubiaceae	Morinda jasminoides	morinda		C		4	0
plants	higher dicots	Rubiaceae	Psydrax odorata			C		3	0
plants	higher dicots	Rubiaceae	Atractocarpus chartaceus			C		3	0
plants	higher dicots	Rubiaceae	Cyclophyllum coprosmoides			C		4	0
plants	higher dicots	Rubiaceae	Pavetta australiensis			C		3	0
plants	higher dicots	Rutaceae	Flindersia bennettiana	Bennett's ash		C		1	0
plants	higher dicots	Rutaceae	Acronychia oblongifolia	common acronychia		C		1	0
plants	higher dicots	Rutaceae	Zieria smithii			C		2	0
plants	higher dicots	Rutaceae	Acronychia imperforata	beach acronychia		C		1	0
plants	higher dicots	Rutaceae	Flindersia xanthoxyla	yellow-wood		C		2	0
plants	higher dicots	Rutaceae	Flindersia schottiana	bumpy ash		C		2	0
plants	higher dicots	Rutaceae	Acronychia pauciflora	soft acronychia		C		3	0
plants	higher dicots	Rutaceae	Flindersia australis	crow's ash		C		4	0
plants	higher dicots	Rutaceae	Pentaceras australe	bastard crow's ash		C		1	0
plants	higher dicots	Rutaceae	Melicope micrococca	white evodia		C		4	0

plants	higher dicots	Rutaceae	Murraya paniculata			C	1	0
plants	higher dicots	Rutaceae	Acronychia laevis	glossy acronychia		C	2	0
plants	higher dicots	Rutaceae	Citrus australis			C	1	0
plants	higher dicots	Salicaceae	Salix babylonica	weeping willow	Y		2	2
plants	higher dicots	Santalaceae	Exocarpos latifolius			C	1	0
plants	higher dicots	Santalaceae	Exocarpos cupressiformis	native cherry		C	1	0
plants	higher dicots	Sapindaceae	Cupaniopsis anacardioides	tuckeroo		C	1	0
plants	higher dicots	Sapindaceae	Cardiospermum grandiflorum	heart seed vine	Y		2	2
plants	higher dicots	Sapindaceae	Toechima tenax	pitted-leaf steelwood		C	2	0
plants	higher dicots	Sapindaceae	Arytera distylis	twin-leaved coogera		C	1	0
plants	higher dicots	Sapindaceae	Guioa acutifolia	northern guioa		C	1	0
plants	higher dicots	Sapindaceae	Guioa semiglauca	guioa		C	1	0
plants	higher dicots	Sapindaceae	Harpullia hillii			C	1	0
plants	higher dicots	Sapindaceae	Arytera foveolata	pitted coogera		C	2	0
plants	higher dicots	Sapindaceae	Harpullia pendula			C	1	0
plants	higher dicots	Sapindaceae	Jagera pseudorhus			C	4	0
plants	higher dicots	Sapindaceae	Arytera divaricata	coogera		C	2	0
plants	higher dicots	Sapindaceae	Atalaya multiflora	broad-leaved whitewood		C	1	0
plants	higher dicots	Sapindaceae	Dodonaea triquetra	large-leaved hop bush		C	1	0
plants	higher dicots	Sapindaceae	Arytera microphylla			C	1	0
plants	higher dicots	Sapindaceae	Cupaniopsis serrata	smooth tuckeroo		C	4	0
plants	higher dicots	Sapindaceae	Alectryon subcinereus			C	1	0
plants	higher dicots	Sapindaceae	Alectryon subdentatus			C	1	0
plants	higher dicots	Sapindaceae	Dodonaea triangularis			C	1	0
plants	higher dicots	Sapindaceae	Elattostachys nervosa	green tamarind		C	3	0
plants	higher dicots	Sapindaceae	Cupaniopsis parvifolia	small-leaved tuckeroo		C	5	0
plants	higher dicots	Sapindaceae	Mischocarpus anodontus	veiny pearfruit		C	1	0
plants	higher dicots	Sapindaceae	Mischocarpus australis	red pear-fruit		C	2	0
plants	higher dicots	Sapindaceae	Mischocarpus pyriformis			C	1	0
plants	higher dicots	Sapindaceae	Cardiospermum halicacabum		Y		1	0
plants	higher dicots	Sapotaceae	Planchonella pubescens			C	1	0
plants	higher dicots	Sapotaceae	Niemeyera antiloga	brown pearwood		C	1	0
plants	higher dicots	Sapotaceae	Planchonella cotinifolia			C	1	0
plants	higher dicots	Sapotaceae	Planchonella pohlmaniana			C	1	0
plants	higher dicots	Scrophulariaceae	Myoporum acuminatum	coastal boobialla		C	1	0
plants	higher dicots	Simaroubaceae	Ailanthus triphysa	white siris		C	1	0
plants	higher dicots	Solanaceae	Solanum seaforthianum	Brazilian nightshade	Y		4	0
plants	higher dicots	Solanaceae	Duboisia myoporoides			C	1	0

plants	higher dicots	Solanaceae	Solanum corifolium	straggling nightshade		C	2	0
plants	higher dicots	Solanaceae	Solanum densevestitum			C	2	0
plants	higher dicots	Solanaceae	Solanum mauritianum	wild tobacco	Y		4	0
plants	higher dicots	Sterculiaceae	Argyrodendron trifoliolatum	booyong		C	1	0
plants	higher dicots	Sterculiaceae	Brachychiton discolor			C	1	0
plants	higher dicots	Thymelaeaceae	Wikstroemia indica	tie bush		C	1	0
plants	higher dicots	Tropaeolaceae	Tropaeolum majus	garden nasturtium	Y		1	1
plants	higher dicots	Ulmaceae	Trema tomentosa var. aspera			C	3	0
plants	higher dicots	Ulmaceae	Aphananthe philippinensis			C	6	0
plants	higher dicots	Ulmaceae	Celtis sinensis	Chinese elm	Y		3	1
plants	higher dicots	Ulmaceae	Celtis paniculata	native celtis		C	1	0
plants	higher dicots	Urticaceae	Dendrocnide photinophylla	shiny-leaved stinging tree		C	1	0
plants	higher dicots	Verbenaceae	Lantana camara	lantana	Y		6	0
plants	higher dicots	Verbenaceae	Verbena rigida		Y		1	1
plants	higher dicots	Violaceae	Viola hederacea			C	1	0
plants	higher dicots	Vitaceae	Clematicissus opaca			C	4	0
plants	higher dicots	Vitaceae	Cayratia clematidea	slender grape		C	1	0
plants	higher dicots	Vitaceae	Cissus antarctica			C	3	0
plants	liverworts	Frullaniaceae	Frullania monocera			C	2	2
plants	lower dicots	Annonaceae	Melodorum leichhardtii			C	2	0
plants	lower dicots	Annonaceae	Polyalthia nitidissima	polyalthia		C	2	0
plants	lower dicots	Eupomatiaceae	Eupomatia bennettii	small bolwarra		C	1	0
plants	lower dicots	Lauraceae	Cassytha pubescens	downy devil's twine		C	1	0
plants	lower dicots	Lauraceae	Endiandra discolor	domatia tree		C	2	0
plants	lower dicots	Lauraceae	Neolitsea dealbata	white bolly gum		C	1	0
plants	lower dicots	Lauraceae	Cinnamomum camphora	camphor laurel	Y		4	1
plants	lower dicots	Lauraceae	Cryptocarya obovata	pepperberry		C	1	0
plants	lower dicots	Lauraceae	Cryptocarya laevigata			C	2	0
plants	lower dicots	Lauraceae	Cryptocarya macdonaldii	McDonald's laurel		C	1	0
plants	lower dicots	Lauraceae	Cryptocarya sclerophylla	totempole		C	4	0
plants	lower dicots	Lauraceae	Cryptocarya triplinervis			C	2	0
plants	lower dicots	Lauraceae	Beilschmiedia obtusifolia	hard bolly gum		C	1	0
plants	lower dicots	Lauraceae	Endiandra muelleri subsp. muelleri			C	1	0
plants	lower dicots	Menispermaceae	Pleogyne australis	wiry grape		C	5	0
plants	lower dicots	Menispermaceae	Stephania japonica			C	2	0
plants	lower dicots	Menispermaceae	Sarcopetalum harveyanum	pearl vine		C	2	0
plants	lower dicots	Monimiaceae	Wilkiea macrophylla	large-leaved wilkiea		C	4	0
plants	lower dicots	Ranunculaceae	Clematis glycinoides			C	4	0

plants	monocots	Amaryllidaceae	Zephyranthes candida		Y		1	1
plants	monocots	Araceae	Alocasia brisbanensis			C	1	0
plants	monocots	Araceae	Gymnostachys anceps	settler's flax		C	3	0
plants	monocots	Arecaceae	Calamus muelleri	lawyer vine		C	2	0
plants	monocots	Asparagaceae	Asparagus macowanii		Y		1	1
plants	monocots	Asparagaceae	Asparagus plumosus	feathered asparagus fern	Y		3	0
plants	monocots	Asparagaceae	Asparagus racemosus	native asparagus		C	1	1
plants	monocots	Cyperaceae	Gahnia aspera			C	3	0
plants	monocots	Cyperaceae	Cyperus trinervis			C	1	1
plants	monocots	Cyperaceae	Cyperus involucratus		Y		1	1
plants	monocots	Cyperaceae	Cyperus polystachyos			C	1	0
plants	monocots	Cyperaceae	Lepidosperma laterale			C	2	0
plants	monocots	Cyperaceae	Schoenoplectus subulatus			C	1	1
plants	monocots	Dioscoreaceae	Dioscorea transversa	native yam		C	2	0
plants	monocots	Flagellariaceae	Flagellaria indica	whip vine		C	5	0
plants	monocots	Hemerocallidaceae	Dianella caerulea			C	2	0
plants	monocots	Hemerocallidaceae	Geitonoplesium cymosum	scrambling lily		C	5	0
plants	monocots	Hydrocharitaceae	Vallisneria annua			C	1	1
plants	monocots	Juncaceae	Juncus usitatus			C	1	1
plants	monocots	Juncaginaceae	Triglochin procera			C	1	0
plants	monocots	Laxmanniaceae	Cordyline rubra	red-fruited palm lily		C	4	0
plants	monocots	Laxmanniaceae	Cordyline petiolaris	large-leaved palm lily		C	1	0
plants	monocots	Laxmanniaceae	Thysanotus tuberosus			C	1	0
plants	monocots	Laxmanniaceae	Lomandra laxa	broad-leaved matrush		C	1	1
plants	monocots	Laxmanniaceae	Eustrephus latifolius	wombat berry		C	4	0
plants	monocots	Laxmanniaceae	Lomandra hystrix			C	2	0
plants	monocots	Laxmanniaceae	Lomandra longifolia			C	3	0
plants	monocots	Orchidaceae	Genoplesium pumilum	green midge orchid		C	1	0
plants	monocots	Orchidaceae	Dipodium			C	1	1
plants	monocots	Poaceae	Sporobolus pyramidalis		Y		5	5
plants	monocots	Poaceae	Sporobolus natalensis		Y		1	1
plants	monocots	Poaceae	Dichanthium annulatum	sheda grass	Y		1	1
plants	monocots	Poaceae	Sporobolus elongatus			C	1	1
plants	monocots	Poaceae	Sporobolus africanus	Parramatta grass	Y		1	1
plants	monocots	Poaceae	Ottochloa gracillima	pademelon grass		C	3	0
plants	monocots	Poaceae	Paspalidium distans	shotgrass		C	2	2
plants	monocots	Poaceae	Megathyrsus maximus		Y		3	0
plants	monocots	Poaceae	Sacciolepis indica	Indian cupscale grass		C	1	0

plants	monocots	Poaceae	Imperata cylindrica	blady grass		C	2	0
plants	monocots	Poaceae	Oplismenus aemulus	creeping shade grass		C	2	0
plants	monocots	Poaceae	Entolasia stricta	wiry panic		C	1	0
plants	monocots	Poaceae	Themeda triandra	kangaroo grass		C	3	0
plants	monocots	Poaceae	Paspalum notatum	bahia grass	Y		1	1
plants	monocots	Poaceae	Ottochloa nodosa			C	1	0
plants	monocots	Poaceae	Chloris gayana	rhodes grass	Y		1	0
plants	monocots	Potamogetonaceae	Lepilaena			C	1	1
plants	monocots	Potamogetonaceae	Stuckenia pectinata			C	1	1
plants	monocots	Potamogetonaceae	Potamogeton perfoliatus	perfoliate pondweed		C	1	1
plants	monocots	Ripogonaceae	Ripogonum album	white supplejack		C	2	0
plants	monocots	Ripogonaceae	Ripogonum brevifolium	small-leaved supplejack		C	2	0
plants	monocots	Smilacaceae	Smilax australis	barbed-wire vine		C	7	0
plants	monocots	Xanthorrhoeaceae	Xanthorrhoea johnsonii			C	2	0
plants	uncertain	Indet.	Indet.			C	7	0
protists	red algae	Rhodophyceae	Caloglossa leprieurii var. angustata			C	1	1

Australian Government

Department of the Environment

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: 10/06/15 14:29:57

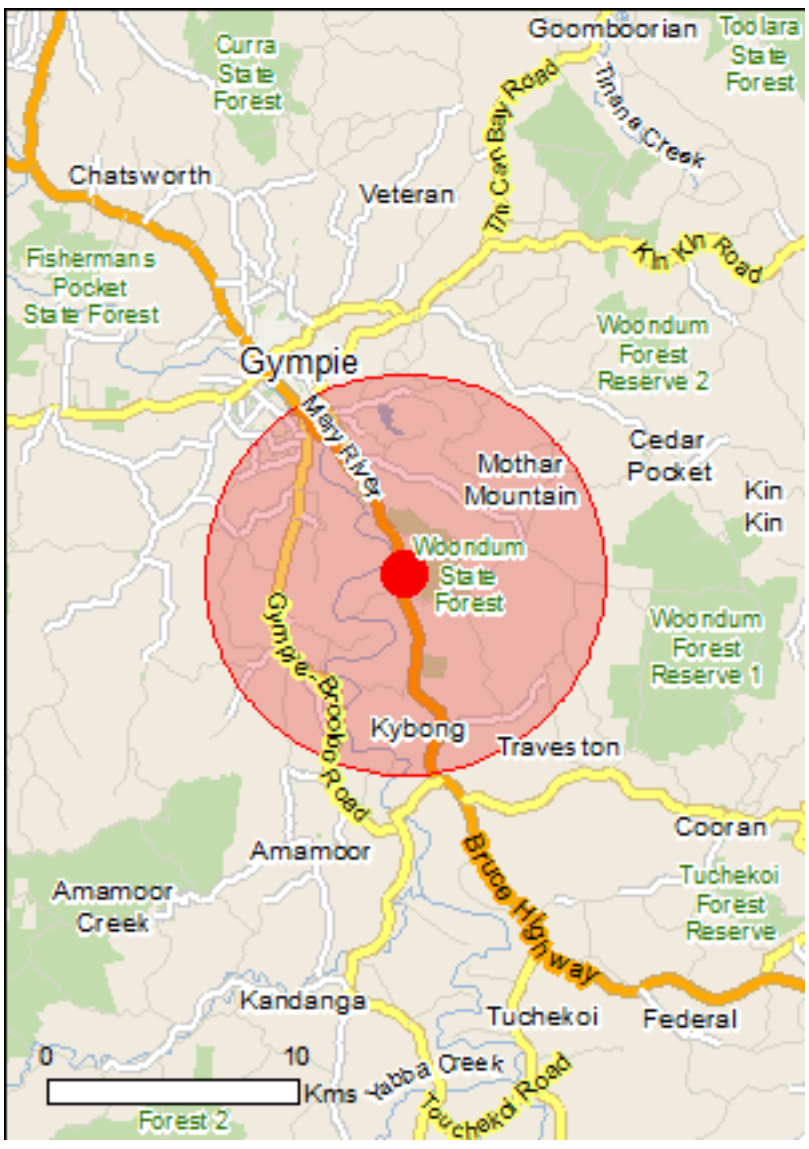
Summary

Details

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat

Acknowledgements



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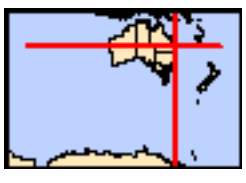

Summary

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.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	42
Listed Migratory Species:	13

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/index.html

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

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	15
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

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

State and Territory Reserves:	1
Regional Forest Agreements:	None
Invasive Species:	35
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar) [Resource Information]

Name	Proximity
Great sandy strait	Upstream from Ramsar

Listed Threatened Ecological Communities [Resource Information]

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

Name	Status	Type of Presence
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Endangered	Foraging, feeding or related behaviour may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area
Cyclopsitta diophthalma coxeni Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat may occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat likely to occur within area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
Lathamus discolor Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
Poephila cincta cincta Black-throated Finch (southern) [64447]	Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat known to occur within area

Name	Status	Type of Presence
Fish		
Maccullochella mariensis Mary River Cod [83806]	Endangered	Species or species habitat known to occur within area
Neoceratodus forsteri Australian Lungfish, Queensland Lungfish [67620]	Vulnerable	Species or species habitat known to occur within area
Frogs		
Mixophyes iteratus Giant Barred Frog, Southern Barred Frog [1944]	Endangered	Species or species habitat known to occur within area
Insects		
Phyllodes imperialis smithersi Pink Underwing Moth [86084]	Endangered	Species or species habitat may occur within area
Mammals		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to occur within area
Dasyurus hallucatus Northern Quoll [331]	Endangered	Species or species habitat may occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Plants		
Archidendron lovelliae Bacon Wood, Tulip Siris [13451]	Vulnerable	Species or species habitat likely to occur within area
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area
Baloghia marmorata Marbled Balogia, Jointed Baloghia [8463]	Vulnerable	Species or species habitat may occur within area
Bosistoa selwynii Heart-leaved Bosistoa [13702]	Vulnerable	Species or species habitat likely to occur within area
Bosistoa transversa Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area
Cryptocarya foetida Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat likely to occur within area
Floydia praealta Ball Nut, Possum Nut, Big Nut, Beefwood [15762]	Vulnerable	Species or species habitat likely to occur within area
Fontainea rostrata [24039]	Vulnerable	Species or species habitat likely to occur within area

Name	Status	Type of Presence
Lepidium peregrinum		
Wandering Pepper-cress [14035]	Endangered	Species or species habitat may occur within area
Macadamia integrifolia		
Macadamia Nut, Queensland Nut, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat likely to occur within area
Macadamia ternifolia		
Small-fruited Queensland Nut, Gympie Nut [7214]	Vulnerable	Species or species habitat likely to occur within area
Phaius australis		
Lesser Swamp-orchid [5872]	Endangered	Species or species habitat likely to occur within area
Phebalium distans		
Mt Berryman Phebalium [81869]	Critically Endangered	Species or species habitat may occur within area
Sophora fraseri		
[8836]	Vulnerable	Species or species habitat likely to occur within area
Streblus pendulinus		
Siah's Backbone, Sia's Backbone, Isaac Wood [21618]	Endangered	Species or species habitat likely to occur within area
Thesium australe		
Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
Triunia robusta		
[14747]	Endangered	Species or species habitat likely to occur within area
Xanthostemon oppositifolius		
Penda, Southern Penda, Luya's Hardwood [8738]	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
Delma torquata		
Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Egernia rugosa		
Yakka Skink [1420]	Vulnerable	Species or species habitat may occur within area
Elseya albagula		
Southern Snapping Turtle, White-throated Snapping Turtle [81648]	Critically Endangered	Species or species habitat likely to occur within area
Elusor macrurus		
Mary River Turtle, Mary River Tortoise [64389]	Endangered	Species or species habitat known to occur within area
Furina dunmalli		
Dunmall's Snake [59254]	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
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		

Name	Threatened	Type of Presence
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat known to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Ardea alba Great Egret, White Egret [59541]		Species or species habitat known to occur within area
Ardea ibis Cattle Egret [59542]		Breeding likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Pandion cristatus Eastern Osprey [82411]		Species or species habitat likely to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species [Resource Information]

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

Name	Threatened	Type of Presence
Birds		
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Ardea ibis Cattle Egret [59542]		Breeding likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

Extra Information

State and Territory Reserves [Resource Information]

Name	State
Lacebark	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

Name	Status	Type of Presence
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
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
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		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 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

Name	Status	Type of Presence
		habitat likely to occur within area
Plants		
Annona glabra Pond Apple, Pond-apple Tree, Alligator Apple, Bullock's Heart, Cherimoya, Monkey Apple, Bobwood, Corkwood [6311]		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
Asparagus africanus Climbing Asparagus, Climbing Asparagus Fern [66907]		Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. rotundata Bitou Bush [16332]		Species or species habitat likely to occur within area
Dolichandra unguis-cati Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		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
Parthenium hysterophorus Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]		Species or species habitat likely to occur within area
Protasparagus plumosus Climbing Asparagus-fern, Ferny Asparagus [11747]		Species or species habitat likely to occur within area
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Senecio madagascariensis Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area

Caveat

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

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

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

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

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

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

-26.25757 152.70832

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:

-Department of Environment, Climate Change and Water, New South Wales
-Department of Sustainability and Environment, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment and Natural Resources, South Australia
-Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts
-Environmental and Resource Management, Queensland
-Department of Environment and Conservation, Western Australia
-Department of the Environment, Climate Change, Energy and Water
-Birds Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-SA 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, Atherton and Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
-State Forests of NSW
-Geoscience Australia
-CSIRO
-Other groups and individuals

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

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

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Australian Government

Department of the Environment

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: 10/06/15 14:29:27

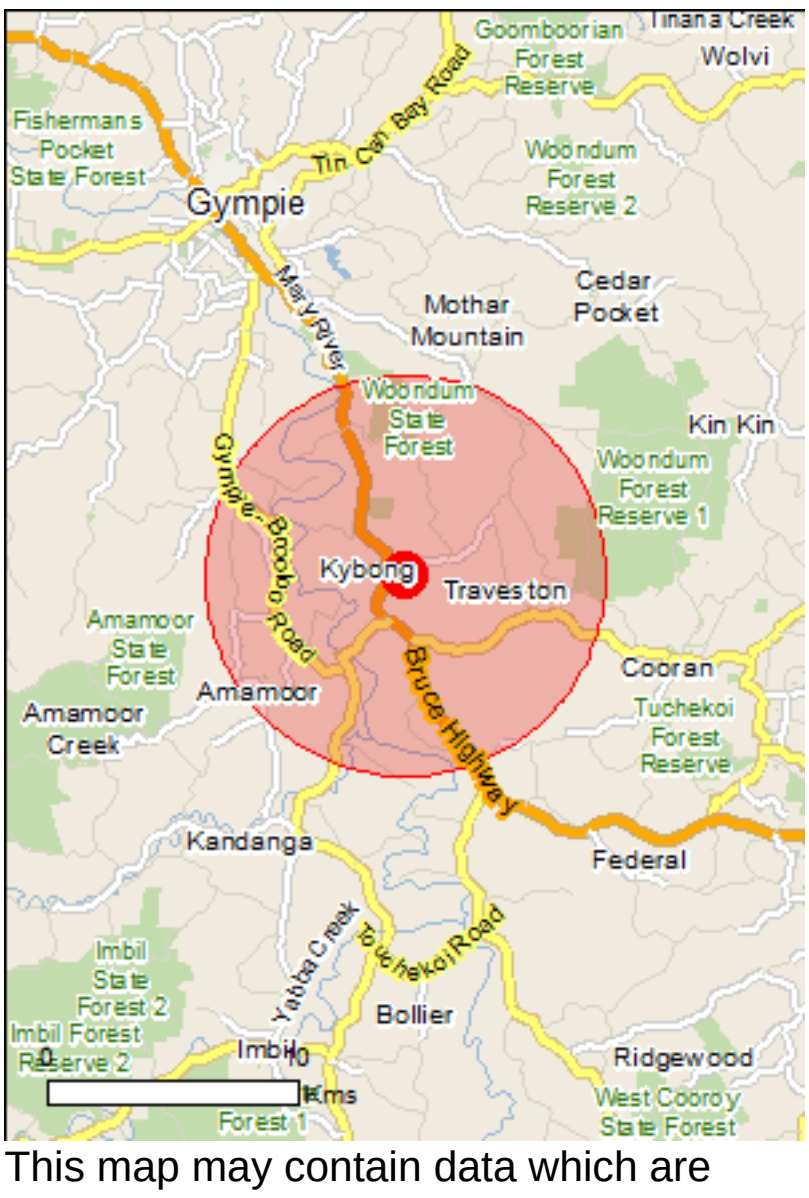
Summary

Details

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat

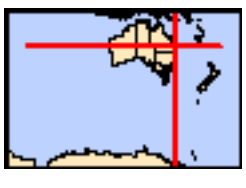
Acknowledgements



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

Coordinates

Buffer: 8.0Km



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.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	40
Listed Migratory Species:	13

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/index.html

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

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	15
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

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

State and Territory Reserves:	3
Regional Forest Agreements:	None
Invasive Species:	36
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar) [Resource Information]

Name	Proximity
Great sandy strait	Upstream from Ramsar

Listed Threatened Ecological Communities [Resource Information]

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

Name	Status	Type of Presence
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area

Listed Threatened Species [Resource Information]

Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Endangered	Foraging, feeding or related behaviour may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area
Cyclopsitta diophthalma coxeni Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat may occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat likely to occur within area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
Lathamus discolor Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
Poephila cincta cincta Black-throated Finch (southern) [64447]	Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species

Name	Status	Type of Presence
		habitat known to occur within area
Fish		
Maccullochella mariensis Mary River Cod [83806]	Endangered	Species or species habitat known to occur within area
Neoceratodus forsteri Australian Lungfish, Queensland Lungfish [67620]	Vulnerable	Species or species habitat known to occur within area
Frogs		
Mixophyes iteratus Giant Barred Frog, Southern Barred Frog [1944]	Endangered	Species or species habitat known to occur within area
Insects		
Phyllodes imperialis smithersi Pink Underwing Moth [86084]	Endangered	Species or species habitat may occur within area
Mammals		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to occur within area
Dasyurus hallucatus Northern Quoll [331]	Endangered	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Plants		
Archidendron lovelliae Bacon Wood, Tulip Siris [13451]	Vulnerable	Species or species habitat likely to occur within area
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area
Bosistoa selwynii Heart-leaved Bosistoa [13702]	Vulnerable	Species or species habitat likely to occur within area
Bosistoa transversa Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area
Cryptocarya foetida Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat likely to occur within area
Floydia praealta Ball Nut, Possum Nut, Big Nut, Beefwood [15762]	Vulnerable	Species or species habitat likely to occur within area
Fontainea rostrata [24039]	Vulnerable	Species or species habitat likely to occur within area
Lepidium peregrinum Wandering Pepper-cress [14035]	Endangered	Species or species habitat may occur within area

Name	Status	Type of Presence
[Macadamia integrifolia](#) Macadamia Nut, Queensland Nut, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat likely to occur within area
[Macadamia ternifolia](#) Small-fruited Queensland Nut, Gympie Nut [7214]	Vulnerable	Species or species habitat likely to occur within area
[Phaius australis](#) Lesser Swamp-orchid [5872]	Endangered	Species or species habitat likely to occur within area
[Phebalium distans](#) Mt Berryman Phebalium [81869]	Critically Endangered	Species or species habitat may occur within area
[Sophora fraseri](#) [8836]	Vulnerable	Species or species habitat likely to occur within area
[Streblus pendulinus](#) Siah's Backbone, Sia's Backbone, Isaac Wood [21618]	Endangered	Species or species habitat likely to occur within area
[Thesium australe](#) Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
[Triunia robusta](#) [14747]	Endangered	Species or species habitat likely to occur within area
[Xanthostemon oppositifolius](#) Penda, Southern Penda, Luya's Hardwood [8738]	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
[Delma torquata](#) Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
[Egernia rugosa](#) Yakka Skink [1420]	Vulnerable	Species or species habitat may occur within area
[Elseya albagula](#) Southern Snapping Turtle, White-throated Snapping Turtle [81648]	Critically Endangered	Species or species habitat likely to occur within area
[Elusor macrurus](#) Mary River Turtle, Mary River Tortoise [64389]	Endangered	Species or species habitat known to occur within area
[Furina dunmalli](#) Dunmall's Snake [59254]	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
Migratory Marine Birds		
[Apus pacificus](#) Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
[Haliaeetus leucogaster](#) White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Hirundapus caudacutus		
White-throated Needletail [682]		Species or species habitat known to occur within area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus		
Spectacled Monarch [610]		Species or species habitat known to occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat known to occur within area
Ardea ibis		
Cattle Egret [59542]		Breeding likely to occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Pandion cristatus		
Eastern Osprey [82411]		Species or species habitat may occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species [Resource Information]

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

Name	Threatened	Type of Presence
Birds		
Anseranas semipalmata		
Magpie Goose [978]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat known to occur within area
Ardea ibis		
Cattle Egret [59542]		Breeding likely to occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species

Name	Threatened	Type of Presence
		habitat may occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat may occur within area

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Lacebark	QLD
Wongai	QLD
Woondum	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
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species

Name	Status	Type of Presence
		habitat likely to occur within area
Anas platyrhynchos Mallard [974]		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
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		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 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		

Name	Status	Type of Presence
Annona glabra Pond Apple, Pond-apple Tree, Alligator Apple, Bullock's Heart, Cherimoya, Monkey Apple, Bobwood, Corkwood [6311]		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
Asparagus africanus Climbing Asparagus, Climbing Asparagus Fern [66907]		Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. rotundata Bitou Bush [16332]		Species or species habitat likely to occur within area
Dolichandra unguis-cati Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		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
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
Parthenium hysterophorus Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]		Species or species habitat likely to occur within area
Protasparagus plumosus Climbing Asparagus-fern, Ferny Asparagus [11747]		Species or species habitat likely to occur within area
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Senecio madagascariensis Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur

Name	Status	Type of Presence within area

Caveat

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

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

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

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

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

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

-26.30895 152.72731

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:

-Department of Environment, Climate Change and Water, New South Wales
-Department of Sustainability and Environment, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment and Natural Resources, South Australia
-Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts
-Environmental and Resource Management, Queensland
-Department of Environment and Conservation, Western Australia
-Department of the Environment, Climate Change, Energy and Water
-Birds Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-SA 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, Atherton and Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
-State Forests of NSW
-Geoscience Australia
-CSIRO
-Other groups and individuals

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

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

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APPENDIX B: EVNT SURVEY REPORT (SMEC, 2014)

Flora Survey Report

Bruce Highway Upgrade

Cooroy to Curra – Section C

November 2014

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The report supersedes all previous draft or interim reports, whether written or presented orally, before the date of this report. This report has not and will not be updated for events or transactions occurring after the date of the report or any other matters which might have a material effect on its contents or which come to light after the date of the report. SMEC is not obliged to inform you of any such event, transaction or matter nor to update the report for anything that occurs, or of which SMEC becomes aware, after the date of this report.

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1. INTRODUCTION

1.1. Background

The Bruce Highway provides the principal corridor linking coastal Queensland cities and towns with Brisbane and interstate capitals, and represents a major component of the national land transport network in Queensland. The Bruce Highway services the long distance transport movements between the port facilities and major industrial areas as well as other major economic regions, both within and external to Queensland.

The section of the Bruce Highway between Cooroy to Curra serves as part of the national highway and an important link in the freight network for the state and local region. This section from Cooroy to Curra is generally comprised of a two-lane, two-way road in rolling and hilly terrain. At present, major deficiencies exist in the current highway such as at-grade intersections, direct property accesses onto the highway and limited safe overtaking opportunities. As a result, the existing highway suffers from significant safety risks, flood inundation and capacity constraints.

It has historically been one of Queensland's busiest and highest risk highways with disproportionally high crash rates and regular impact from flooding. It is identified as a High Priority 1 project in the Queensland Government's Bruce Highway Action Plan (2012). The Bruce Highway Upgrade (Cooroy to Curra) project was initiated with endorsement by state and federal governments, in order to address these issues and is being delivered by the Department of Transport and Main Roads (TMR).

The Bruce Highway Upgrade (Cooroy to Curra) project has been divided into four designated sections for construction purposes:

- Section A: Cooroy southern interchange to Sankeys Road;
- Section B: Sankeys Road to Traveston Road;
- Section C: Traveston Road to Keefton Road (Refer to **Figure 1**); and
- Section D Keefton Road to Curra, including the Gympie bypass.

Construction of Section B was completed in December 2012 and construction of Section A is currently underway and is expected to be completed late in 2016 and work on Section D Preliminary Evaluation stage has been initiated.

Section C has been divided into two components – North (Woondum to Keefton Road) and Mainline (Traveston Road to Keefton Road).

The aim of this project is to upgrade this section of the Bruce Highway to provide a safer and more reliable road network, which will in turn provide significant benefit to the State and local community.

1.2. Project Objectives

The performance objective for the project is to provide a safer and more efficient Bruce Highway that caters for increased travel demands within the Gympie Region and for the coastal population between Brisbane and Cairns. Providing this safer and more efficient Bruce Highway is to be done in a manner that is acceptable to the community and minimises any environmental impacts.

TMR has developed a number of overarching project objectives for the upgrade of the Bruce Highway which address existing constraints on the highway and contribute to whole of government priorities. These are outlined below:

- Provide a roadway of sufficient standard, capacity and flexibility to meet future road user requirements;
- Improve safety along the corridor for all roads users with provision of a national highway that complies with contemporary operational and design standards;

- Provide an efficient roadway that enhances road network function;
- Provide appropriate connectivity (free flowing) that in particular meets the needs of broader regional freight movements ;
- Minimise disruption through closures and delay by adhering to acceptable flood immunity standards to enhance network resilience;
- Enhance the amenity and liveability of local communities and adjacent land users through design and amelioration treatments and the removal of unwanted traffic intrusions into local urban areas;
- Encourage the use of alternate transport modes;
- Provide enhanced local connectivity and accessibility to support social inclusion within the local community;
- Provide improved capacity and efficiency of the road freight network to contribute to Queensland's continued economic growth (prosperity) in south east Queensland;
- Mitigate and/or manage any negative environmental impacts along the motorway corridor.

1.3. Scope

This report documents the findings of ecological surveys conducted by SMEC in October 2014 targeting the following aspects within the current project footprint:

- Endangered, Vulnerable, Near-threatened and Threatened (EVNT) Flora species
- Animal Breeding places
- Weeds

TMR also requested investigation of the potential offset values present in Lot 1382 M371313, to address the revocation of a portion of Traveston State Forest as a result of the project. Verification of mapped regional ecosystems adjacent to Six Mile Creek was also undertaken.

Figure 1 – Locality

2. SURVEY METHODOLOGY

2.1. Desktop Analysis

A desktop review was undertaken of Local, State and Federal Government planning instruments and databases to assist in determining the ecological attributes within the Study Area. The review included the following databases, maps and reports:

- Aerial photography imagery (API);
- Department of Natural Resources and Mines (DNRM) Regulated Vegetation Management Mapping under the *Vegetation Management Act 1999*;
- State Assessment Referral Agency (SARA) mapping;
- Department of Environment and Heritage Protection (EHP) Wildlife Online database to determine the records of EVNT and Special Least Concern species under the *NC Act 1992;*
- Department of Environment (Cmth) Protected Matters Search Tool to determine species listed as Matters of National Environmental Significance (MNES) under the *EPBC Act 1999* that are predicted to occur in the study area;
- EHP Areas of Ecological Significance Mapping;
- EHP Protected Plants Flora Survey Trigger map;
- Bruce Highway Upgrade (Cooroy to Curra) Section C - Review of Environmental Factors (Jacobs SKM, 2014).

2.2. Field Survey

The flora survey targeted Endangered, Vulnerable and Near Threatened (EVNT) flora species, protected under the *Nature Conservation Act 1992* and threatened species listed under the *Environment Protection and Biodiversity Conservation Act 1999*. The approach used was developed to ensure compliance with the requirements of Flora Survey Guidelines – Protected Plants (DEHP, 2014).

The flora survey was undertaken by Dr David Sharpe from 16th-23rd October 2014. David Sharpe has 20 years' experience as an ecologist and meets the following requirements stipulated in the Guidelines:

- Professional qualification or formal training in plant identification and the taxonomy of Queensland flora; and
- A minimum of five years' experience in undertaking surveys for EVNT species.

David Sharpe's CV is included in **Appendix A**.

The timed meander survey method (Cropper, 1993 and Goff et al., 1982) was used to identify and locate EVNT plants within the corridor.

The preferred timed meander method detailed in Section 4.1.1 of the Guidelines was applied:

1. The corridor was broken up into 17 different sections, based mainly on roads and waterways that intersect the corridor.
2. A starting point and time was recorded within each section of the corridor.
3. The habitat was traversed in a random manner so as to maximise the coverage of habitat and the encounter rate of different species. Each new flora species was recorded and GPS coordinates recorded if any significant species were recorded. The identities of the plant species observed was recorded and specimens were collected for any species not able to be identified in the field.
4. The time was recorded approximately every 5 minutes.

5. The search was continued until no new species were recorded for 30 minutes, or until the entire section of the corridor was traversed.

General vegetation structure surveys were undertaken along the corridor to describe the floristic and structural attributes. The following attributes were recorded:

- The floristic composition of each vegetative strata.
- The height and percent (crown) cover of each strata.
- The diameter-at-breast-height of canopy trees (minimum, maximum, mean).

Further, the following ecological attributes were recorded during the meander surveys across the corridor:

- Locations of significant flora and Special Least Concern, such as Johnson's Grass Tree (*Xanthorrhoea johnsonii*) were GPS recorded
- Locations of specific habitat features, such as hollow-bearing trees, nest sites, termitaria and hollow logs were GPS recorded
- Watercourse and wetland potential habitats for EVNT and special least concern fauna species were noted
- Signs of fauna activity were recorded opportunistically, including Koala scats and scratches, feeding signs, diggings and bird and frog calls. Koala scats locations were GPS recorded.

3. RESULTS

3.1. Threatened Flora

A search of the Wildlife Online database returned a total of six (6) EVNT flora species recorded within 8km of the Corridor (refer **Appendix B**). Further, the EPBC Act Protected Matters Report, indicated that 15 EPBC listed flora species are predicted to occur in the area, based on bioclimatic modelling. The detection or likelihood of these species occurring within the Site, as well as additional species identified within the wider corridor (BAAM, 2014), is detailed in Table 3.1.

400 flora species were recorded within the proposed road corridor during the survey. A species list for each section of the Corridor is detailed in **Appendix C** and an overall species list is provided in **Appendix D**.

The flora surveys undertaken as outlined in Section 2 identified 1 EVNT species within the corridor; Macadamia Nut (*Macadamia integrifolia),* listed as Vulnerable under the NC Act and EPBC Act, was recorded as a planted specimen on Lot 2 RP165151. Another *Macadamia tetraphylla* and *Macadamia integrifolia* were located on the same property approximately 20m west of the eastern batter. All specimens had been planted as part of a landscape supply business. Refer to **Figure 2 – Map 5 of 6** for locations.

3.2. Special Least Concern Plants

A number of Special Least Concern Plants under Schedule 3A of the *Nature Conservation (Wildlife Management) Regulation 2006* were recorded within the Corridor (**Figure 2**), including:

- Johnson's Grass Trees (*Xanthorrhoea johnsonii)*
- Flame Trees *(Brachychiton acerifolius)*
- Lace Bark *(Brachychiton discolor)*
- Qld Bottle Tree *(Brachychiton rupestris)*
- Kurrajong *(Brachychiton populneus)*
- Rough Maiden-hair Ferns (*Adiantum hispidulum*)
- Common Maidenhair Fern (*Adiantum aethiopicum*)
- Small Rasp Fern *(Doodia caudata*)
- Australian Bluebell (*Wahlenbergia gracilis*)
- Water Ribbons (*Triglochin procera*)
- Water Lilly (*Nymphaea caerulea*)
- Giant Boat-Lip Orchid (*Cymbidium madidum*)
- Staghorn (*Platycerium superbum*)
- Water Snowflake (*Nymphoides indica*)
- Australian bluebell (*Wahlenbergia stricta)*

Under the new Protected Plants Legislative Framework, the clearing of Special Least Concern Plants is exempt unless clearing is for harvesting and trade.

3.3. Other Significant Flora

A number of mature fig trees were recorded within the Corridor (**Figure 2**). While no legislative level of protection applies to these species, they provide significant foraging habitat for many fauna species and are recognised for their habitat value.

Table 3.1: NCA and EPBC listed flora species and their likelihood of occurrence

Scientific Name	Q	A	Habitat	Likelihood of Occurrence within Corridor	# Record*
Arthraxon hispidus Hairy-joint Grass	V	V	Edges of rainforest and in wet eucalypt forest, often near creeks or swamps, around freshwater springs on coastal foreshore dunes, in shaded small gullies, on creek banks, and on sandy alluvium in creek beds in open forests	Possible. Suitable habitat in rainforest, wet eucalypt forest, along creeks and seeps. While not located despite targeted searching, it dies down over winter, making it difficult to detect outside warmer months.	-
Baloghia marmorata Marbled Marmorata	V	V	Subtropical rainforest/notophyll vine forest and wet sclerophyll forest with rainforest understorey on basalt derived soils	Not Likely. Suitable habitat in rainforest, wet eucalypt forest and along waterways, but not on basalt. Not located despite targeted searching.	-
Bosistoa transversa Three-leaved Bosistoa		V	Subtropical rainforest, wet Eucalypt forest and dry Eucalypt forest up to 300 m elevation	Possible. Suitable habitat present in RE 12.11.10 and analogous vegetation. However, not located despite targeted searching.	-
Choricarpia subargentea Giant Ironwood	NT		Subtropical rainforest/notophyll vine forest	Possible. Suitable habitat present in RE 12.11.10 and analogous vegetation. Recorded at 1 location (BAAM 2014) near the Study Area. However, not located despite targeted searching.	1
Cryptocarya foteida Stinking Cryptocarya	V	V	Littoral Rainforest on sandy or basalt soils near coast	Not Likely. No suitable habitat present.	-
Floydia praealta Ball Nut	V	V	Riparian margins in coastal scrub and subtropical rainforests; generally on basaltic soils	Possible. Suitable habitat present in RE 12.3.1 and 12.11.10, but basalt soils not present. 1 record within 8km of the Corridor. However, not located despite targeted searching.	1
Fontainea rostrata		V	Notophyll vine forest on soil derived from metamorphic rock in the Gympie district, Teddington Weir and Mt Theebine, Qld	Possible. Suitable habitat present in RE 12.11.10 and analogous vegetation. However, not located despite targeted searching.	-

Scientific Name	Q	A	Habitat	Likelihood of Occurrence within Corridor	# Record*
Macadamia integrifolia Macadamia Nut	V	V	Rainforest and rainforest edges on ridges, hill slopes, scree slopes and foot slopes, gullies, benches and terrace plains on well-drained, high nutrient soils	Definite. Located within the corridor (planted specimen). Suitable habitat also present in the corridor (RE 12.3.1 & 12.11.10 regrowth).	7
Macadamia ternifolia Gympie Nut	V	V	Lowland warm complex notophyll vine forest and Araucarian notophyll vine forest on basic and intermediate volcanic soils and alluvia in the Blackall Range, Gympie/Kin Kin and Nambour/Buderim	Possible. Suitable habitat present in RE 12.3.1 and 12.11.10. 1 record within 8km of the Corridor. However, not located despite targeted searching.	1
Marsdenia coronata	V		Eucalypt forest; possibly open grassland among rocks	Likely within RE 12.11.3. Located approximately 100m from the corridor (BAAM, 2014) However, not located within the corridor despite targeted searching.	1
Phaius australis Lesser Swamp-orchid	E	E	Coastal habitats on edges of swamps, occasionally further inland; typical habitat swamp sclerophyll forest (dominated by Paperbark) with rainforest elements; also recorded in wallum sedgeland, rainforest and closed forest. Soils generally sandy and damp, but not flooded for extended periods	Unlikely. No suitable habitat.	-
Phebalium distans Mt Berryman Phebalium	E	CE	Semi-evergreen vine thicket on red volcanic soils.	Unlikely. No suitable habitat. No red volcanic soil present.	-
Picris conyzoides Fleabane Hawkweed	V		Rainforest margins and roadside	Not likely due to grazing land use. 2 records within 8km of the Corridor. However, not located despite targeted searching.	2
Sophora fraseri	V	V	Moist habitats, often in hilly terrain at altitudes from 60–660 m on shallow soils along rainforest margins in eucalypt forests or in large canopy gaps in closed forest communities.	Possible. Suitable habitat present in RE 12.3.1 and 12.11.10 and analogous vegetation. No records within 40km of Study Area (Jacobs SKM, 2014) and not located despite targeted searching.	-

Scientific Name	Q	A	Habitat	Likelihood of Occurrence within Corridor	# Record*
Streblus pendulinus	C	E	Rainforest, gallery forest and drier, more seasonal rainforest , along watercourses	Possible. Suitable habitat present in RE 12.3.1. No records within 8km of Study Area and not located despite targeted searching.	-
Thesium austral Australe Toadflax	V	V	Grasslands and grassy woodland; root parasite, most commonly of Kangaroo Grass (*Themeda triandra*).	Unlikely. Some native grass species, including Kangaroo Grass, are present, but in low abundance. No records within 8km of Study Area and not located despite targeted searching.	-
Triunia robusta	E	E	Simple and complex notophyll vine forest communities at 20-200m above sea level. The soils are variable, from clayey sand, loamy sand or loam, usually derived from basalt and rhyolitic rocks. Also recorded on moderate to steep slopes, alluvial terraces and along drainage lines.	Possible. Suitable habitat present in 12.11.10 and analogous vegetation, but not on volcanic rocks. No records within 8km of Study Area and not located despite targeted searching.	-
Xanthostemon oppositifolius Southern Penda	V	V	Various types of vine forest with Hoop Pine (*Araucaria cunninghamii* var. *cunninghamii*) emergents, or in transitional rainforest with rainforest species restricted to a developing understorey or mid-storey, along watercourses, on sandy clays derived from sedimentary rocks	Possible. Suitable habitat present in RE 12.11.10 and analogous vegetation. No records within 8km of Study Area and not located despite targeted searching.	-
Zieria verrucosa	V	V	Semi-evergreen vine thicket or eucalypt open forest or woodland communities with a shrubby vine thicket understorey on gently inclined hillslopes at elevations between 360 and 500 m asl	Unlikely. No suitable habitat present; elevation too low. 1 record within 8km of Study Area.	1

Note: E= Endangered; V = Vulnerable; NT = Near Threatened CE = Critically Endangered

* Records within 8km of the corridor

3.4. Weeds

The following declared plant species under the *Land Protection (Pest and Stock Route Management) Act 2002* are regarded as having the potential to occur within 10km of the project site (DoE, 2014):

- Bitou Bush (*Chrysanthemoides monilifera)* – Class 1
- Salvinia (*Salvinia molesta*) – Class 1
- Cabomba (*Cabomba caroliniana*) – Class 2
- Fireweed (*Senecio madagascariensis*) – Class 2
- Lantana (*Lantana camara*) – Class 2
- Hymenachne (*Hymenahne amplexicaulis*) – Class 2
- Parthenium (*Parthenium hysterophorus*) – Class 2
- Pond Apple (Annona glabra) – Class 2
- Water Hyacinth (*Eichhornia crassipes*) – Class 2
- Cat's Claw Vine (*Dolichandra unguis-cati*) – Class 3
- Climbing Asparagus (*Asparagus africanus*) – Class 3
- Climbing Asparagus-fern (*Asparagus plumosus*) – Class 3
- Madeira Vine (*Anredera cordifolia*) – Class 3

Under the *Land Protection (Pest and Stock Route Management) Act 2002*, landholders must attempt to keep their land free of Class 2 declared pest plants. Four Declared Class 2 pest plants were identified within the corridor during this survey. Groundsel was the most prevalent with 23 records within the Corridor, most of which were single specimens.

Eleven Declared Class 3 pest plants were recorded within the corridor. Major infestations of Cat's Claw Creeper (*Macfadyena unguis-cati*), Lantana (*Lantana camara)* and Chinese Celtis (*Celtis sinensis)* occurred along several waterways and gullies within the Corridor. Landholders are not required to control a Class 3 declared pest plant on their land unless a pest control notice is issued by a local government.

The following weed species were identified within the proposed road corridor:

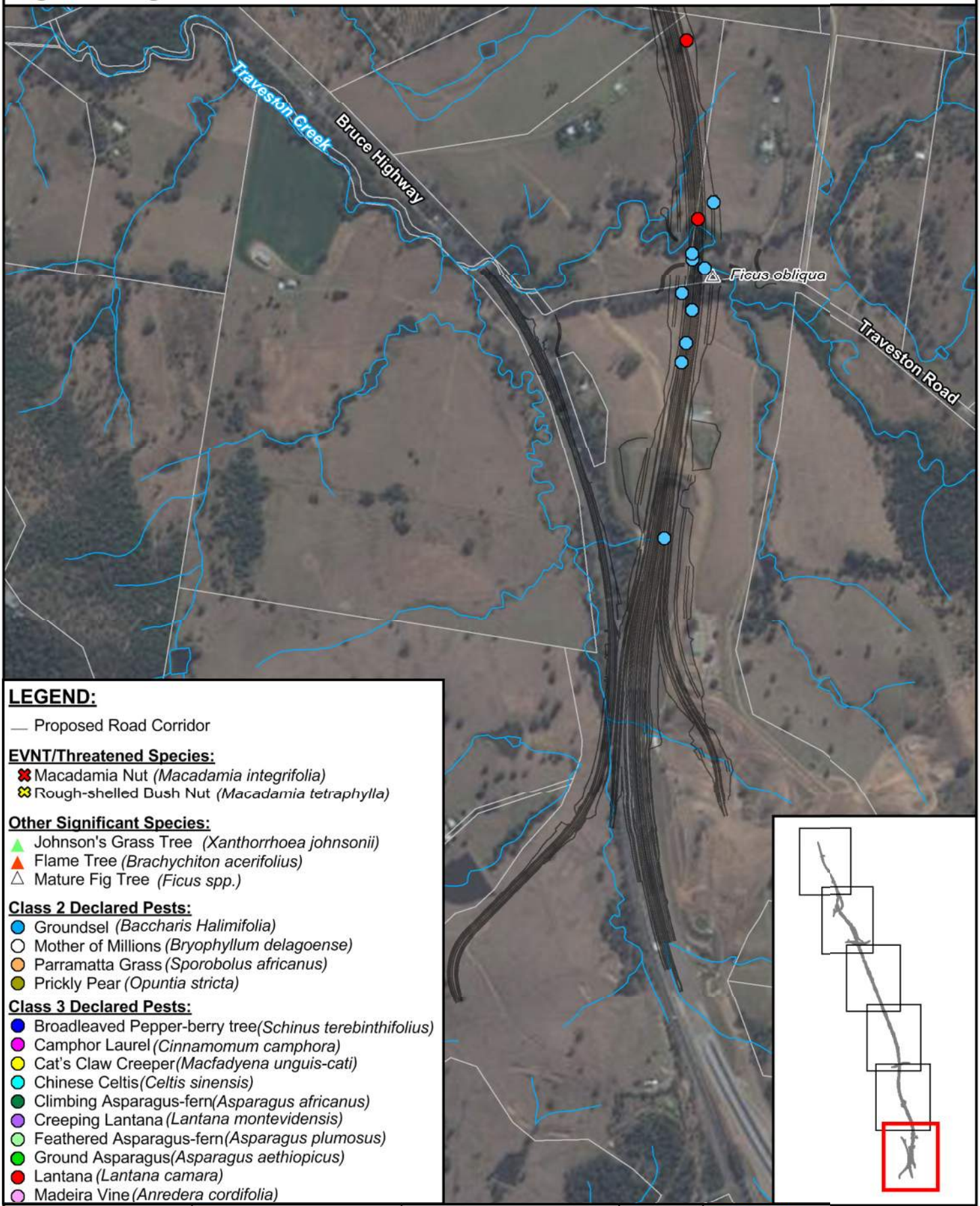
- Groundsel (*Baccharis Halimifolia*) – Class 2
- Mother of Millions (*Bryophyllum delagoense syn. B. tubiflorum, Kalanchoe delagoensi)* – Class 2
- Parramatta Grass (*Sporobolus africanus*) – Class 2
- Prickly Pear (*Opuntia stricta)* – Class 2
- Broadleaved Pepper-berry tree (*Schinus terebinthifolius*) – Class 3
- Camphor Laurel (*Cinnamomum camphora*) – Class 3
- Cat's Claw Creeper (*Macfadyena unguis-cati*) – Class 3
- Chinese Celtis (*Celtis sinensis*) – Class 3
- Climbing Asparagus-fern (*Asparagus africanus*) – Class 3
- Creeping Lantana (*Lantana montevidensis*) – Class 3
- Feathered Asparagus-fern (*Asparagus plumosus)* – Class 3
- Ground Asparagus *(Asparagus aethiopicus)* – Class 3
- Lantana (*Lantana camara)* – Class 3
- Madeira Vine (*Anredera cordifolia*) – Class 3
- Small-leaved Privet (*Ligustrum sinense*) – Class 3
- Ochna (*Ochna serrulata*)

- Winter Senna (*Senna pendula*)
- Giant Devil's Fig (*Solanum chrysotrichum*)
- Scotch Thistle (*Onopordum acanthium*)
- Balloon Cotton Bush (*Gomphocarpus physocarpus*)
- Corky Passionfruit (*Passiflora suberosa*)
- Blue Billy Goat Weed (*Ageratum houstonianum*)
- Farmer's Friend (*Bidens pilosa*)
- Rhodes Grass (*Chloris gayana*)
- Castor Oil Plant (*Ricinus communis*)
- Mother-in-law's Tongue (*Sansevieria trifasciata)*
- Orange Jasmine (*Murraya paniculata*)
- Flax-leaf Fleabane (*Conyza bonariensis*)
- Wild Tobacco (*Solanum mauritianum*)
- Pigeon Grass (*Setaria sphacelata*)
- Dandelion (*Taraxacum officinale*)
- Potato Vine (*Solanum seaforthianum*)
- Devil's Fig (*Solanum torvum*)
- Slender Celery (*Cyclospermum leptophyllum*)
- Black Nightshade (*Solanum nigrum*)
- Paddy's Lucerne (*Sida rhombifolia*)
- Leucaena (*Leucaena leucocephala*)
- Fruit Salad Plant (*Monstera deliciosa*)
- Saffron Thistle (*Carthamus lanatus*)
- Crows foot grass (*Eleusine indica*)
- Purpletop (*Verbena bonariensis*)
- Moth Vine (*Araujia sericifera*)
- Wandering Jew (*Tradescantia fluminensis*)

Refer to **Figure 2**, showing locations of weed incursions within the Corridor.

Figure 2: Significant Flora and Pest Plants

Map 1 of 6



LEGEND:

— Proposed Road Corridor

EVNT/Threatened Species:

- Macadamia Nut *(Macadamia integrifolia)*
- Rough-shelled Bush Nut *(Macadamia tetraphylla)*

Other Significant Species:

- Johnson's Grass Tree *(Xanthorrhoea johnsonii)*
- Flame Tree *(Brachychiton acerifolius)*
- Mature Fig Tree *(Ficus spp.)*

Class 2 Declared Pests:

- Groundsel *(Baccharis Halimifolia)*
- Mother of Millions *(Bryophyllum delagoense)*
- Parramatta Grass *(Sporobolus africanus)*
- Prickly Pear *(Opuntia stricta)*

Class 3 Declared Pests:

- Broadleaved Pepper-berry tree *(Schinus terebinthifolius)*
- Camphor Laurel *(Cinnamomum camphora)*
- Cat's Claw Creeper *(Macfadyena unguis-cati)*
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- Lantana *(Lantana camara)*
- Madeira Vine *(Anredera cordifolia)*

FIGURE Flora
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STATUS FINAL
DATE 06/11/2014
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Figure 2: Significant Flora and Pest Plants

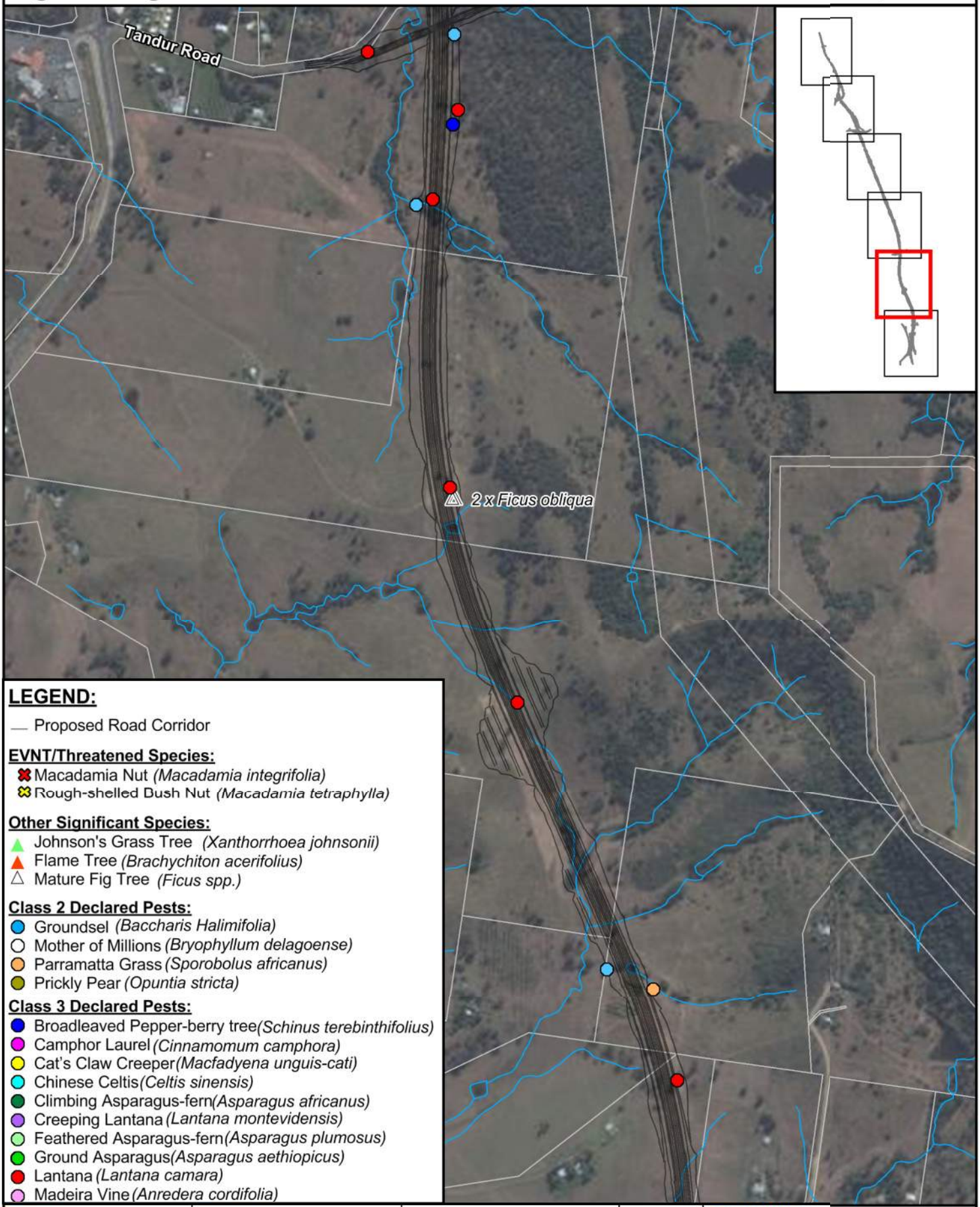

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Figure 2: Significant Flora and Pest Plants

Map 3 of 6

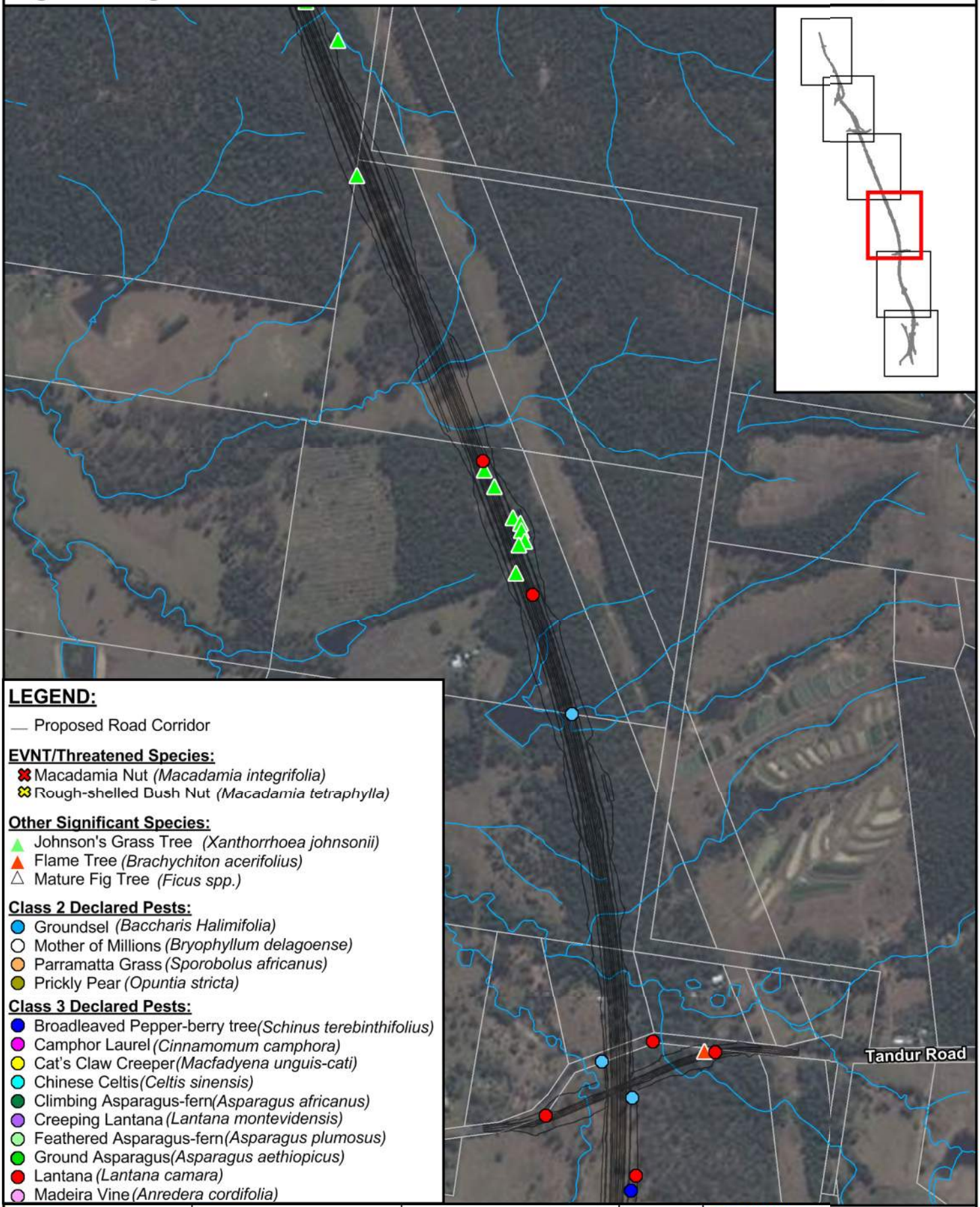

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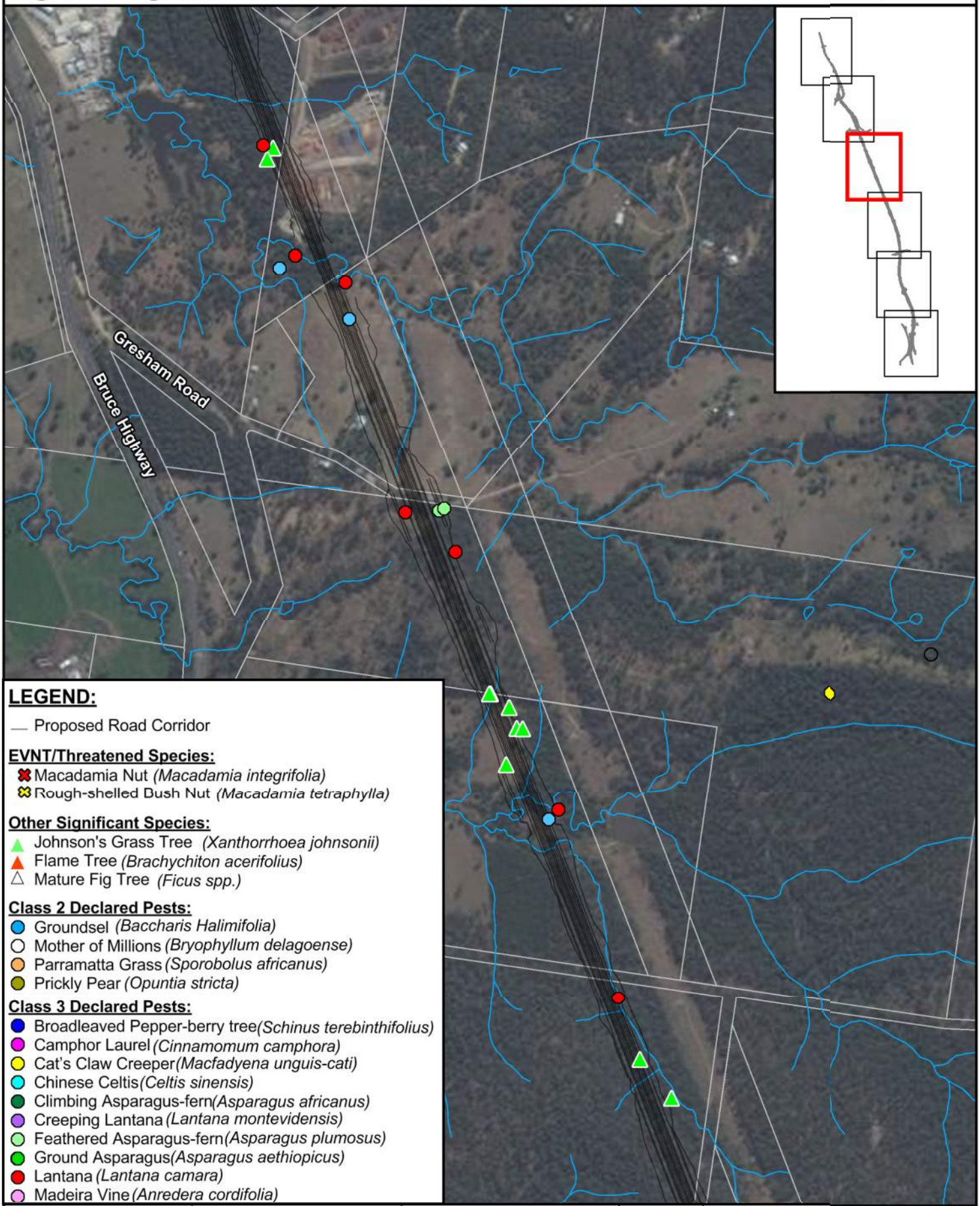
Figure 2: Significant Flora and Pest Plants

Map 4 of 6



LEGEND:

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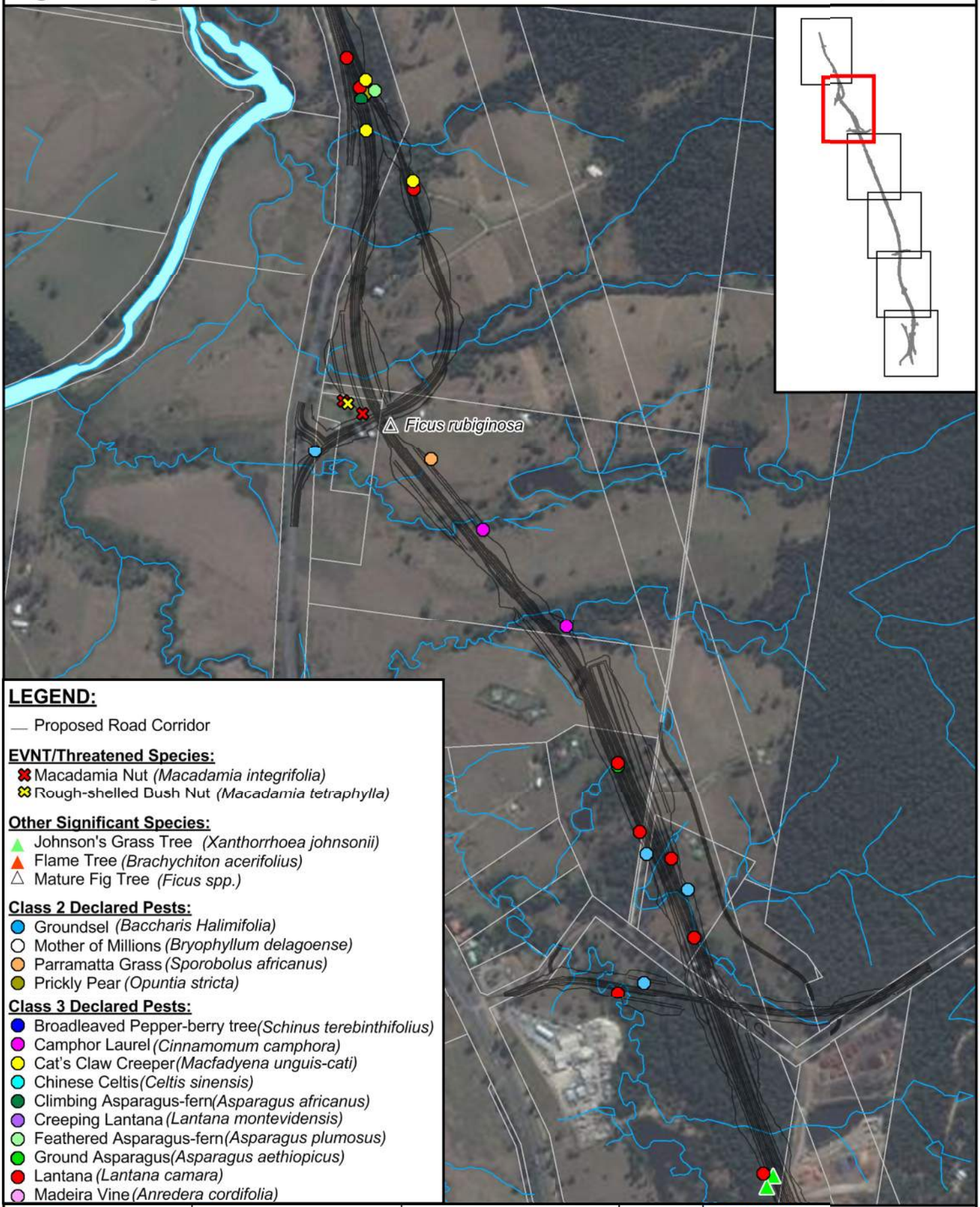
Figure 2: Significant Flora and Pest Plants

Map 5 of 6



LEGEND:

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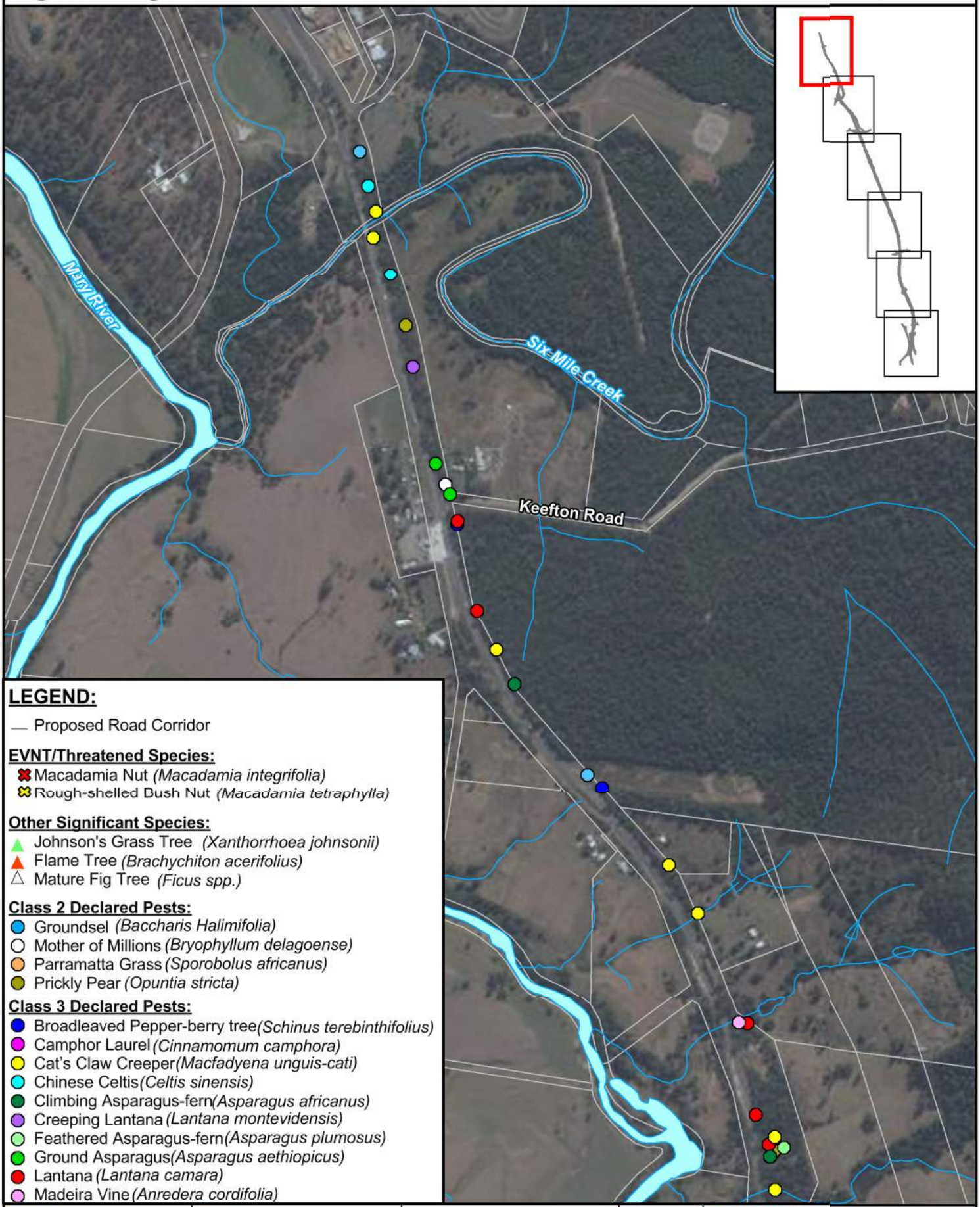
Figure 2: Significant Flora and Pest Plants

Map 6 of 6



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3.5. Significant Fauna, Habitat Values and Animal Breeding Places

3.5.1. Threatened, Migratory and Special Least Concern Fauna

A search of the Qld Wildlife Online database recorded 9 Endangered, Vulnerable or Near Threatened (EVNT) fauna species and 11 Special Least Concern species under the *Nature Conservation Act 1992* within 8 km of the Site (**Appendix B**). Further, 18 threatened and 12 migratory species under the *Environment Protection and Biodiversity Conservation Act 1999* are likely to occur within the study area, based on bioclimatic modelling (**Appendix B**).

The following threatened, migratory or Special Least Concern species were recorded within the Corridor:

- Koala (*Phascolarctos cinereus*) – Vulnerable (NC Act & EPBC Act)
  - Koala scats were observed where a high density of primary Koala food trees occurred around Kybong Creek (north of Tandur Road) and along the waterway within the Austral Masonry property south of Woondum Road
- Cicadabird (*Coracina tenuirostris*) – Migratory (EPBC Act), Special Least Concern (NC Act)
  - Forested areas over the majority of the corridor
- Satin Flycatcher (*Myiagra cyanoleuca*) – Migratory (EPBC Act), Special Least Concern (NC Act
  - Forested areas over the majority of the corridor
- Short-beaked Echidna (*Tachyglossus aculeatus*) – Special Least Concern (NC Act)
  - Diggings observed in Traveston State Forest

Further, a property owner reported Platypus (*Ornithorhynchus anatinus,* Special Least Concern - NC Act) sightings within a dammed section of Kybong Creek. At the time of the survey the creek upstream of the dam was dry, however this constituted potential habitat for the Platypus.

Potential habitat for threatened and Special Least Concern species within the corridor is listed in Table 3.2.

Table 3.2: Potential habitat for NCA and EPBC listed fauna species within the Corridor

Species	Q	A	Comments
Tusked Frog *Adelotus brevis*	V		Highly suitable habitat along Kybong Creek, records in locality.
Giant Barred Frog *Mixophyes iteratus*	E	E	Potential habitat along Kybong Creek, records in locality.
Mary River Turtle *Elusor macrurus*		E	Potential habitat along Kybong Creek , records in locality.
Elf Skink *Eroticoscincus graciloides*	V		Potential habitat along Kybong Creek and in rainforest gullies but no locality records.
Grey Goshawk *Accipiter novaehollandiae*	NT		Foraging habitat within the majority of the Corridor. Records in the locality.
Square-tailed Kite *Lophoictinia isura*	V		Potential foraging habitat, prey primarily on nestling birds.
Plumed Frogmouth *Podargus ocellatus plumiferus*	V		Potential habitat within riparian rainforest, particularly Kybong Creek. Records in Locality.
Migratory forest birds Rufous Fantail *Rhipidura rufifrons* Satin Flycatcher	SL	M	Satin Flycatcher and Cicadabird were recorded within most forested areas within the corridor, others species with locality records and highly likely to occur.

Species	Q	A	Comments
Myiagra cyanoleuca Spectacled Monarch *Symposiarchus trivirgatus* Black-faced Monarch *Monarcha melanopsis* Cicadabird *Coracina tenuirostris*			
Platypus *Ornithorhynchus anatinus*	SL		Landowner reported platypus in dam within Kybong Creek bed. Potential habitat along Kybong Creek and Six Mile Creek
Short-beaked Echidna	SL		Potential habitat widespread throughout the corridor. Diggings observed within Traveston State Forest. Likely to occur
Phascolarctos cinereus Koala	V	V	Koala scats were observed where a high density of primary Koala food trees occurred around Kybong Creek (north of Tandur Road) and along the waterway within the Austral Masonry property south of Woondum Road. Six Mile Creek is also likely to be a movement corridor.
Pteropus poliocephalus Grey-headed Flying-fox		V	Potential foraging habitat throughout the forested areas within the corridor, records in Locality.

Despite records within the wider Study Area (BAAM, 2014) and adjacent potential offset sites (SMEC, 2014, **Figure 3-Map 4 of 6**), no Black-breasted Button Quail feeding platelets were observed during surveys of the proposed road corridor. Further, vegetation in the corridor did not contain enough continuous dense understorey to provide habitat for this species.

A full list of fauna species recorded within the Corridor is provided in **Appendix E**.

3.5.2. Animal Breeding Places

Under Section 332 (1) of the *Nature Conservation (Wildlife Management) Regulation 2006*, a person must not, without a reasonable excuse, tamper with an animal breeding place that is being used by a protected animal to incubate or rear offspring. A protected animal includes a native animal that is listed as threatened, near threatened or least concern wildlife.

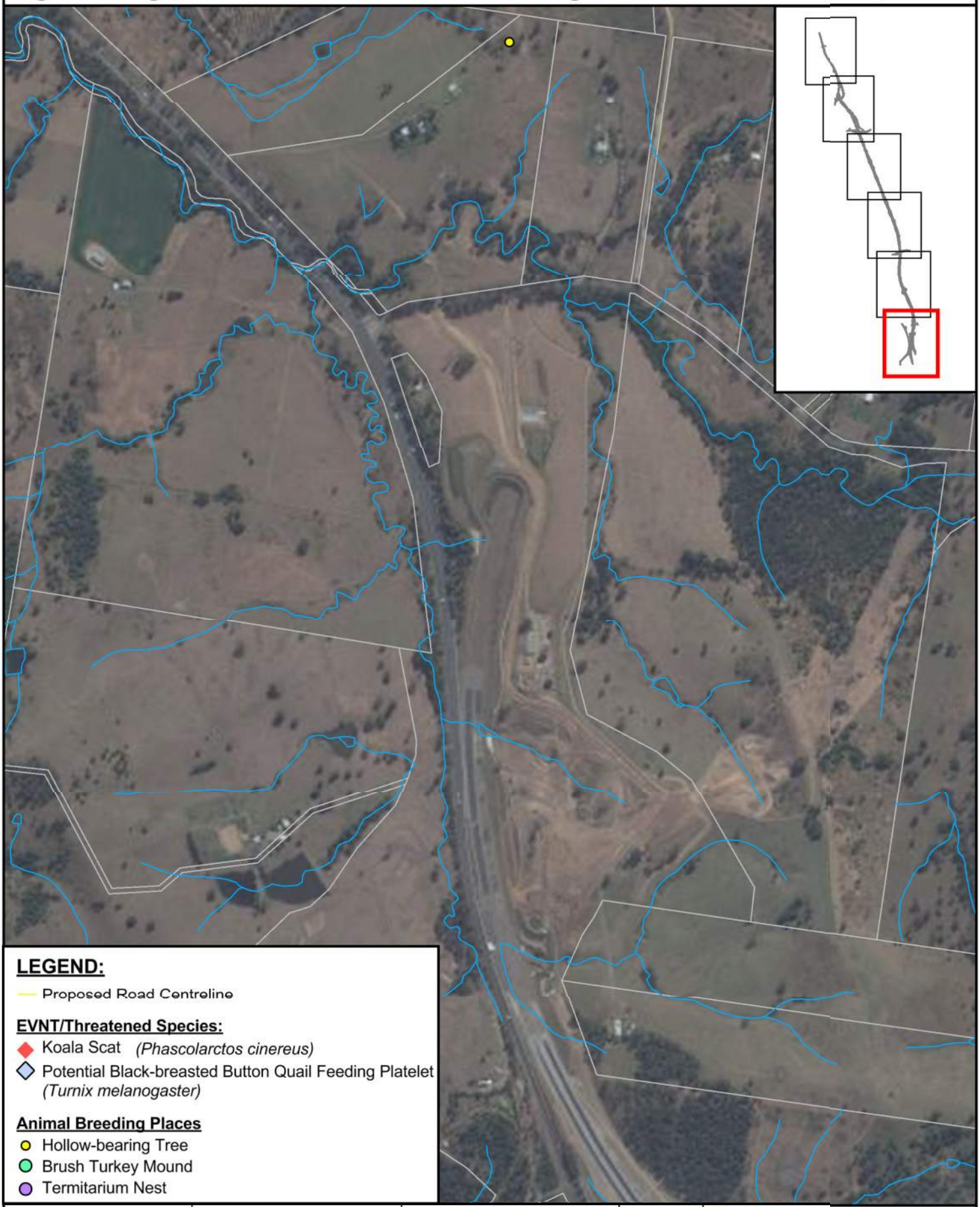
121 hollow-bearing trees (HBT's) were recorded within the proposed road corridor, most of which were recorded at the following locations:

- Between Tandur Road and Traveston State Forest
- Within the Austral Masonry property north to Woondum Road
- Lot 1 on RP35055 and the adjacent road corridor
- The existing Bruce Highway road corridor between Keefton Road and Six Mile Creek (**Figure 3**)

As the principle focus of the survey was EVNT plants, only those HBTs observed during the random meander through the corridor have been currently accounted for. Additional survey for hollow bearing trees will be required prior to earthworks.

Figure 3: Significant Fauna and Animal Breeding Places

Map 1 of 6



LEGEND:

Proposed Road Centreline

EVNT/Threatened Species:

- Koala Scat *(Phascolarctos cinereus)*
- Potential Black-breasted Button Quail Feeding Platelet *(Turnix melanogaster)*

Animal Breeding Places

- Hollow-bearing Tree
- Brush Turkey Mound
- Termitarium Nest

FIGURE Fauna	PROJECT NO. 30031298	0 200 400m	CONSULTANT SMEC Australia
CREATED BY AM11482	PROJECT TITLE Cooroy to Curra - Section C	Scale: 1:10,000 @ A4	SMEC Local People. Global Experience.
REVISION 0		N	
STATUS FINAL	COORDINATE SYSTEM GDA 1994 MGA Zone 56		CLIENT Department of Transport & Main Roads
DATE 06/11/2014	SOURCE The State of Queensland (DEHP), Copyright 2014, Microsoft Bing 2014		Queensland Government
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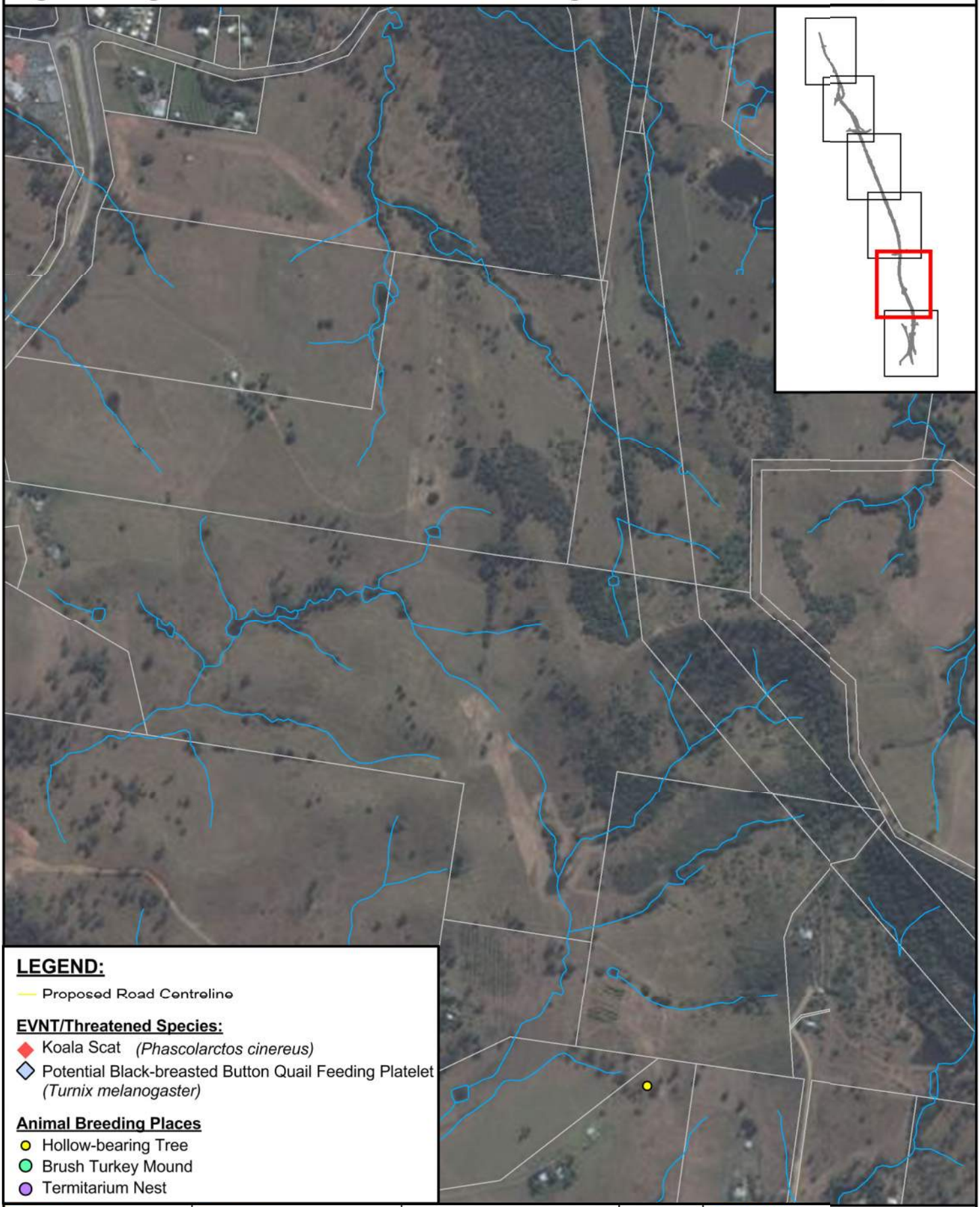
Figure 3: Significant Fauna and Animal Breeding Places

Map 2 of 6



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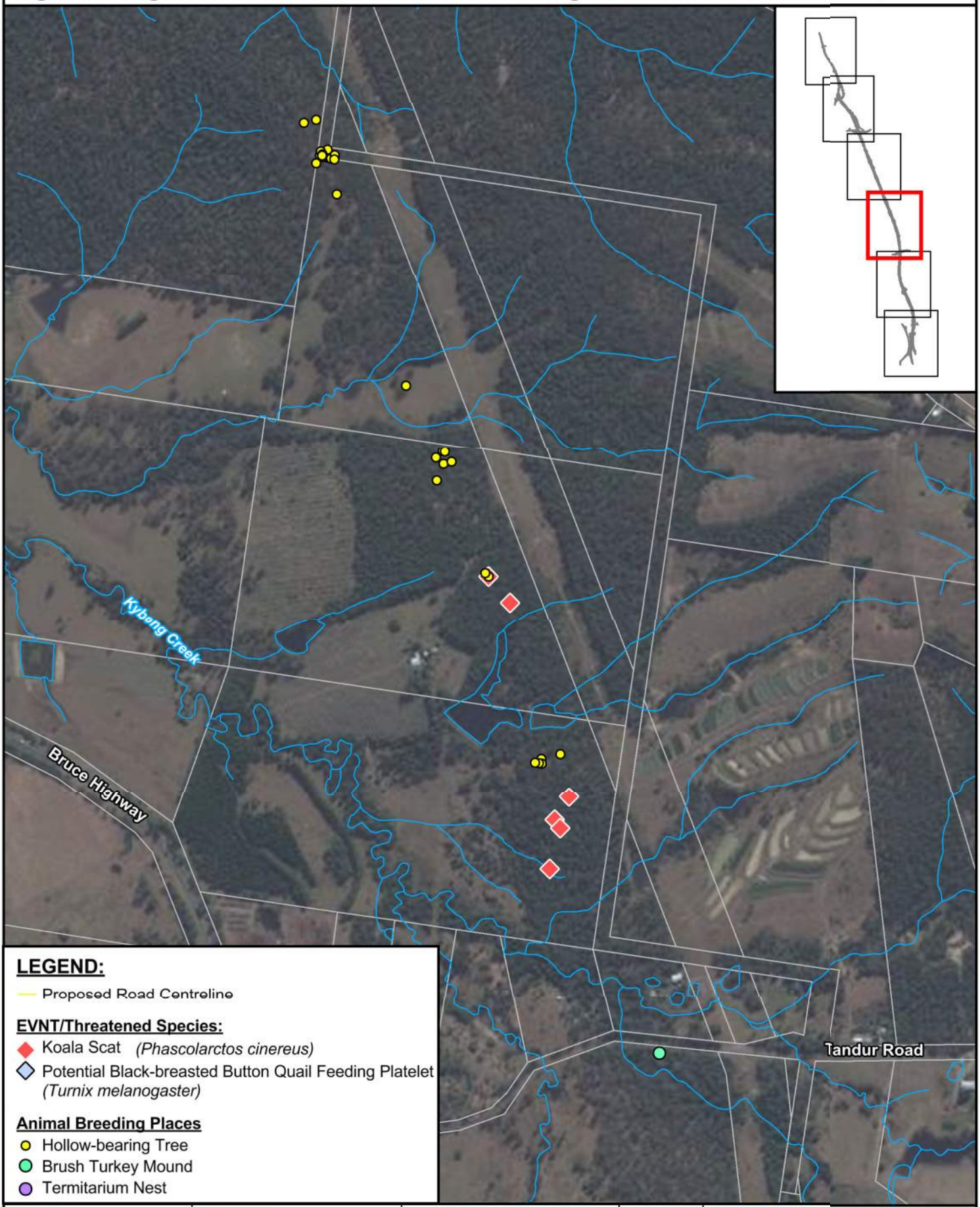
- Termitarium Nest

FIGURE Fauna	PROJECT NO. 30031298	0 200 400m Scale: 1:10,000 @ A4	CONSULTANT SMEC Australia
CREATED BY AM11482	PROJECT TITLE Cooroy to Curra - Section C	N	SMEC Local People. Global Experience.
REVISION 0			
STATUS FINAL	COORDINATE SYSTEM GDA 1994 MGA Zone 56		CLIENT Department of Transport & Main Roads
DATE 06/11/2014	SOURCE The State of Queensland (DEHP), Copyright 2014, Microsoft Bing 2014		Queensland Government
ISSUED FOR INFORMATION	PATH A:\C2C\C2C Flora Survey Mapping.wor		

Figure 3: Significant Fauna and Animal Breeding Places

Map 3 of 6



LEGEND:

Proposed Road Centreline

EVNT/Threatened Species:

- Koala Scat *(Phascolarctos cinereus)*
- Potential Black-breasted Button Quail Feeding Platelet *(Turnix melanogaster)*

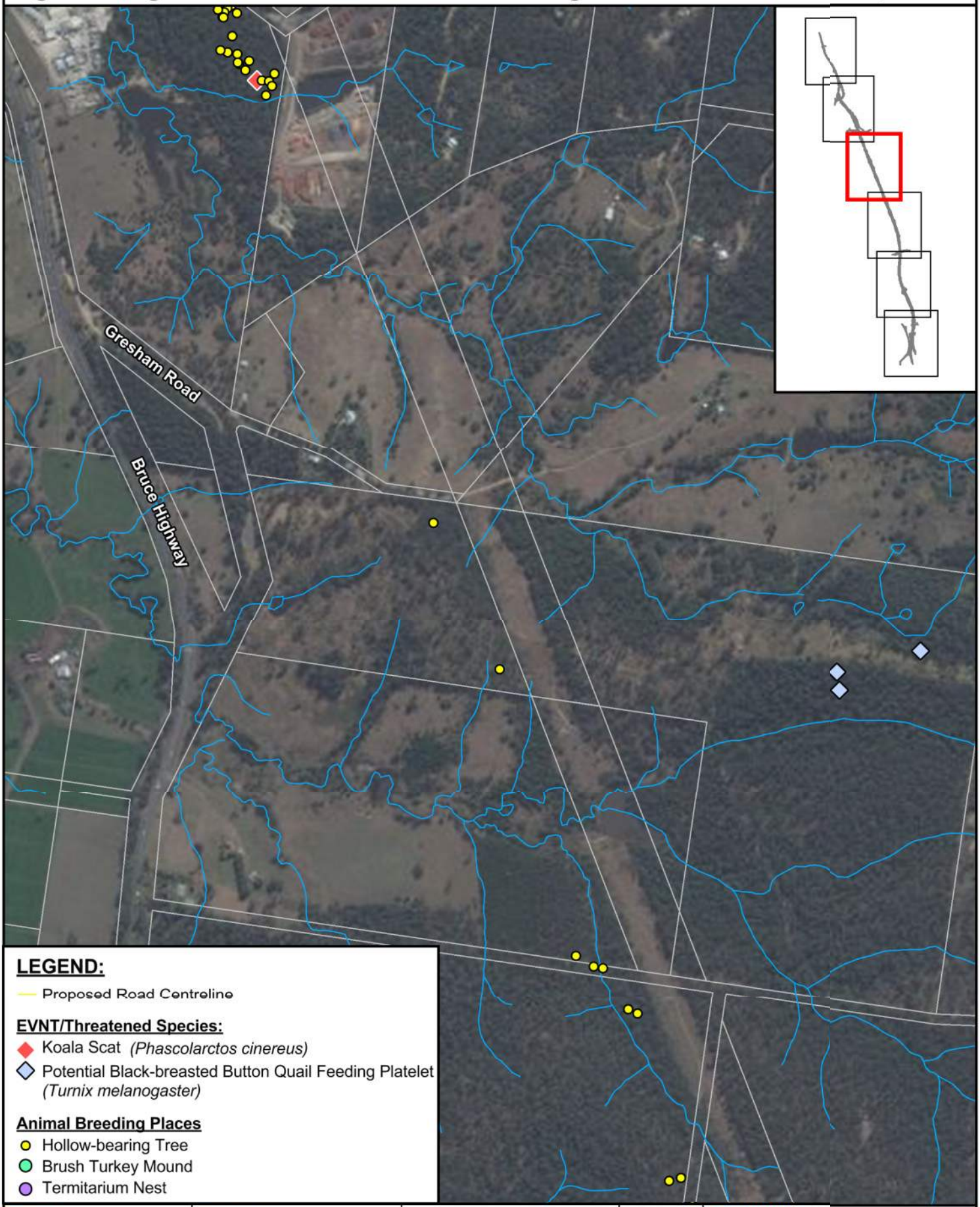
Animal Breeding Places

- Hollow-bearing Tree
- Brush Turkey Mound
- Termitarium Nest

FIGURE Fauna	PROJECT NO. 30031298	0 200 400m	N	CONSULTANT SMEC Australia
CREATED BY AM11482	PROJECT TITLE Cooroy to Curra - Section C	Scale: 1:10,000 @ A4		SMEC Local People. Global Experience.
REVISION 0				
STATUS FINAL	COORDINATE SYSTEM GDA 1994 MGA Zone 56			CLIENT Department of Transport & Main Roads
DATE 06/11/2014	SOURCE The State of Queensland (DEHP), Copyright 2014, Microsoft Bing 2014			Queensland Government
ISSUED FOR INFORMATION	PATH A:\C2C\C2C Flora Survey Mapping.wor			

Figure 3: Significant Fauna and Animal Breeding Places

Map 4 of 6



LEGEND:

Proposed Road Centreline

EVNT/Threatened Species:

- Koala Scat *(Phascolarctos cinereus)*
- Potential Black-breasted Button Quail Feeding Platelet *(Turnix melanogaster)*

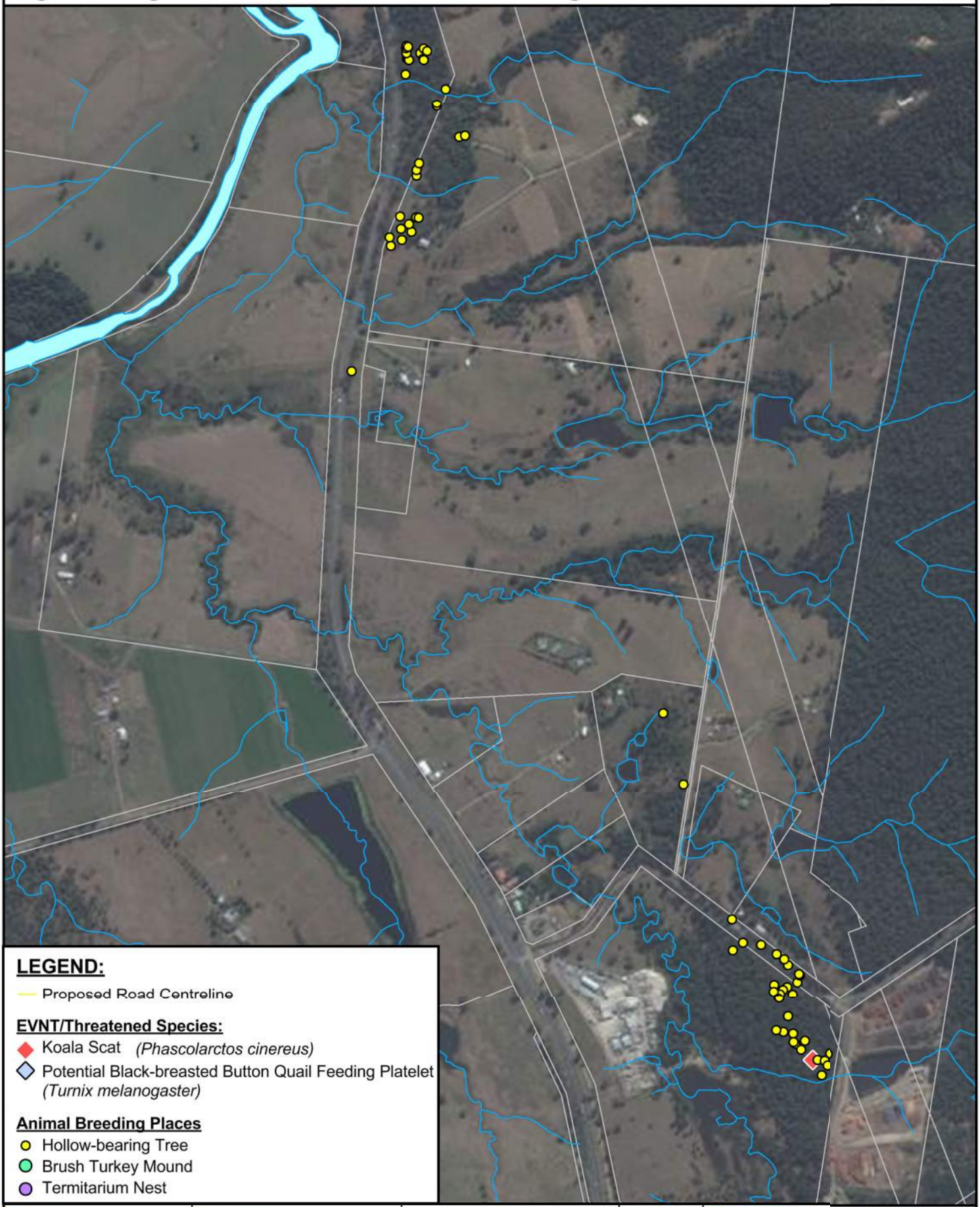
Animal Breeding Places

- Hollow-bearing Tree
- Brush Turkey Mound
- Termitarium Nest

FIGURE Fauna	PROJECT NO. 30031298	0 200 400m	N	CONSULTANT SMEC Australia
CREATED BY AM11482	PROJECT TITLE Cooroy to Curra - Section C	Scale: 1:10,000 @ A4		SMEC Local People. Global Experience.
REVISION 0				
STATUS FINAL	COORDINATE SYSTEM GDA 1994 MGA Zone 56			CLIENT Department of Transport & Main Roads
DATE 06/11/2014	SOURCE The State of Queensland (DEHP), Copyright 2014, Microsoft Bing 2014			Queensland Government
ISSUED FOR INFORMATION	PATH A:\C2C\C2C Flora Survey Mapping.wor			

Figure 3: Significant Fauna and Animal Breeding Places

Map 5 of 6



LEGEND:

Proposed Road Centreline

EVNT/Threatened Species:

- Koala Scat *(Phascolarctos cinereus)*
- Potential Black-breasted Button Quail Feeding Platelet *(Turnix melanogaster)*

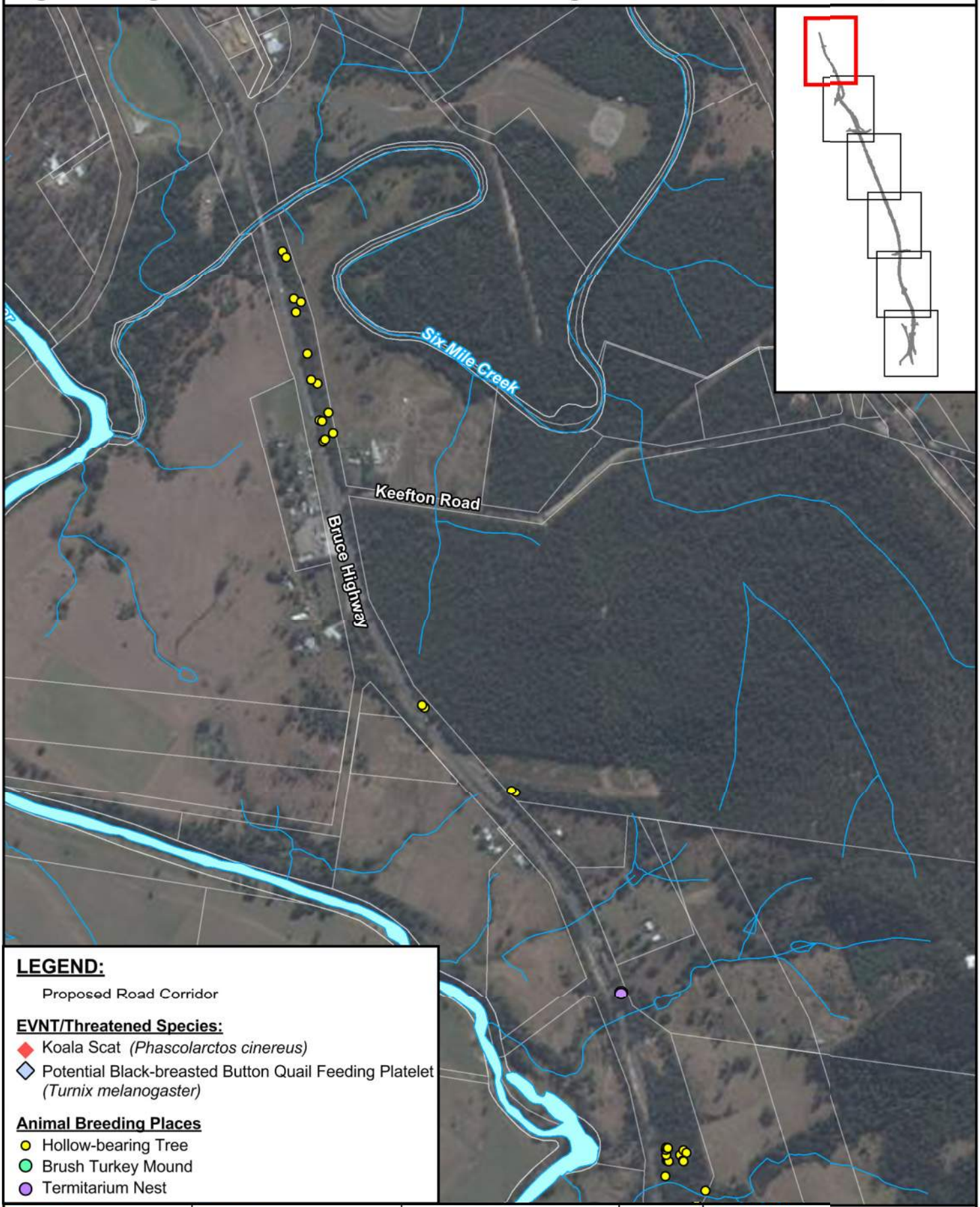
Animal Breeding Places

- Hollow-bearing Tree
- Brush Turkey Mound
- Termitarium Nest

FIGURE Fauna	PROJECT NO. 30031298	0 200 400m Scale: 1:10,000 @ A4	CONSULTANT SMEC Australia
CREATED BY AM11482	PROJECT TITLE Cooroy to Curra - Section C	N	
REVISION 0			
STATUS FINAL	COORDINATE SYSTEM GDA 1994 MGA Zone 56		CLIENT Department of Transport & Main Roads
DATE 06/11/2014	SOURCE The State of Queensland (DEHP), Copyright 2014, Microsoft Bing 2014		Queensland Government
ISSUED FOR INFORMATION	PATH A:\C2C\C2C Flora Survey Mapping.wor		

Figure 3: Significant Fauna and Animal Breeding Places

Map 6 of 6



LEGEND:

Proposed Road Corridor

EVNT/Threatened Species:

- Koala Scat *(Phascolarctos cinereus)*
- Potential Black-breasted Button Quail Feeding Platelet *(Turnix melanogaster)*

Animal Breeding Places

- Hollow-bearing Tree
- Brush Turkey Mound
- Termitarium Nest

FIGURE Fauna	PROJECT NO. 30031298	0 200 400m Scale: 1:10,000 @ A4	CONSULTANT SMEC Australia
CREATED BY AM11482	PROJECT TITLE Cooroy to Curra - Section C	N	
REVISION 0			
STATUS FINAL	COORDINATE SYSTEM GDA 1994 MGA Zone 56	Copyright SMEC Australia Pty Ltd. All Rights Reserved.	CLIENT Department of Transport & Main Roads
DATE 06/11/2014	SOURCE The State of Queensland (DEHP), Copyright 2014, Microsoft Bing 2014		Queensland Government
ISSUED FOR INFORMATION	PATH A:\C2C\C2C Flora Survey Mapping.wor		

4. REFERENCES

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Department of Environment and Heritage Protection. (2014). Flora Survey Guidelines – Protected Plants. Nature Conservation Act 1992.

Department of Environment and Heritage Protection. 2014. Wildlife Online WildNet database.

Goff, F.G., Dawson, G.A. and Rochow, J.J. (1982) Site examination for threatened and endangered plant species. Environmental Management 6: 307-316.

Jacobs SKM (2014). Bruce Highway Upgrade (Cooroy to Curra) Section C (Traveston Road to Keefto Road) – Review of Environmental Factors

APPENDIX A CV

Dr David Sharpe
Senior Ecologist

Years of Industry Experience

- 20 Years

Qualifications and Memberships

- BAppSci (Hons 1), PhD

Key Skills and Competencies

- Fauna surveys and habitat assessment
- Flora surveys
- Impact assessment
- Threatened species management
- Radio-tracking studies
- Home-range analysis
- Population viability analysis
- Mark-recapture analysis (survival and population size estimation)
- Hollow-bearing tree assessment
- Statistical analysis

Professional History

David has extensive experience in fauna and flora surveys, threatened species management, application of relevant legislation and approvals process and demonstrates his highly developed ecological field and analytical techniques and their application to large scale infrastructure and planning projects.
Bringing highly developed ecological skills developed on the projects below and detailed understanding of current legislation, will allow him to provide detailed, practical and relevant written and verbal advice. These projects also demonstrate his ability to work within multi-disciplinary teams.
David has undertaken two thesis topics covering "Ecology of the Squirrel Glider in Subtropical Australia" as well as "Foraging Ecology of the Squirrel Glider". His specific skills in ecological studies has seen his involvement in conducting various species impact statements, ecological studies, population viability analysis, assessment of development impacts and fauna studies.

Relevant Project Experience

Mapping and quantifying marine vegetation for the Moreton Bay Rail Link
Client: Thiess
Duties: map community boundaries (mangroves, salt marsh, swamp oak), quantify the cover abundance of individual species, assess mangrove seedling density and take representative photographs. These data were captured on ipads/smartphones and uploaded in real time via the 3G network.

Targeted Survey for Hairy Joint Grass (*Arthraxon hispidus*)
Client: Ballina Shire Council
Duties: Targeted survey for Hairy Joint Grass along the proposed route of the Hutley Drive Southern Extension. This included Identification of target species, mapping of target species habitat areas and associated reporting.

ENVT Plant Survey Tallegandra Rd, Holmview
Client: Storey and Castle Planning
Duties: Survey in accordance with the *Qld Flora Survey Guidelines - Protected Plants* of a proposed 50 lot subdivision site. This included Identification of target species, mapping of target species habitat areas and associated reporting.

Flora Constraint Review for ASEAN Fibre Optic Cable Installation, Qld
Principal Botanist for this project. The investigation area extended from Mt Surprise to Normanton (Approx. 350 km) passing through a number of conservation reserves and other areas of conservation significance. Primary tasks were the identification and mapping of habitat areas for a range of threatened species, provision of preliminary advice on management of the identified species, field investigation of a number of river crossings and preparation of a detailed options paper.

Species Impact Statement for the endangered Swamp Orchid, Phaius australis, Yamba, NSW
Client: A. Fletcher & Associates
Duties: Regional flora surveys for the target species, habitat assessment, reporting.

Koala Management Plan for the proposed Moreton Bay Rail Link

Client: TMR

Duties: Koala field assessment, assessment of habitat quality, review local status and threats, impact assessment and mitigation, conservation planning, reporting, clearing protocols.

Environmental Management Plan for the proposed Moreton Bay Rail Link.

Client: TMR

Duties: Animal breeding places assessment, assessment of habitat quality, review local status and threats, develop clearing protocols, impact mitigation, conservation planning, reporting.

Saltmarsh Rehabilitation Plan, Micalo Island, NSW

Client: 14th Floor Agencies.

Duties: Collection of baseline data including flora survey, calculation of offset requirement based on loss of marine vegetation at site of development proposal, mapping areas of marine communities are receiving site, determining pipe locations,.

Flora and Fauna Management Plan, Tuckean Swamp Catchment, NSW

Client: NSW National Parks and Wildlife Service.

Duties: Field surveys, mapping, reporting, management planning.

Aquatic Bird and "Acid" Frog Survey of 18 Mile Swamp, North Stradbroke Island,

Client: Redland Shire Council

Duties: Field surveys.

Flora and fauna surveys for a proposed prawn farm redevelopment, Yamba

Cilent: John Mercer Consulting

Duties: field surveys with a specific focus on aquatic and migratory birds, habitat mapping, reporting, impact assessment.

Species Impact Statement for residential development at Emerald Beach, NSW.

Client: Pridel Investments

Duties: Project management, field surveys, GIS analysis, reporting, develop management plans, liason with State agencies.

Species Impact Statement for the Proposed Hutley Drive Extension, Lennox Head, NSW.

Client: Ballina Shire Council

Duties: field survey, impact assessment, reporting, provision of ecological advice.

Fauna survey and assessment of the proposed Freshwater Creek bridge, Mango Hill, Qld

Client: TMR

Duties: targeted field surveys, mapping fauna habitats, impact assessment and mitigation, reporting.

Regional survey for Wallum Froglet *Crinia tinnula*; Coffs Harbour area, NSW

Client: Centre for Coastal Management, Southern Cross University

Duties: Field survey.

Fauna surveys of Evans Head Air Weapons Range, Bundjalung National Park, NSW.

Client: Ministry of Defence

Duties: General fauna surveys, targeted survey for Ground Parrots and Wallum Frogs.

Conservation of the Growling Grass Frog in the Ballarat West Urban Growth Area, Ballarat Vic

Client: Ballarat City Council

Duties: habitat assessment, conservation management plan for the Growling Grass Frog, EPBC referral, Native Vegetation Precinct Plan.

Caboolture West Planning Study
Client: Moreton Bay Regional Council
Duties: Koala surveys, priority species habitat assessment, ecological values mapping, corridor design, identify offset opportunities, reporting.

Squirrel Glider Conservation Action Plan, Cabbage Tree Creek catchment, Brisbane.
Client: Brisbane City Council
Duties: habitat assessment, GIS modelling, project management, management planning, reporting.

Wallum Froglet monitoring in relation to urban development, Cobaki, NSW
Cilent: :Leda Developments
Duties: Develop monitoring program, monitoring surveys.

Mt Gravatt-Capalaba Rd upgrade
Client: TMR
Duties: Koala habitat mapping, animal breeding places assessment, flora survey, clearing protocols, impact mitigation, reporting.

Koala Management Plan for proposed residential development, Lismore, NSW
Client: PropertyLink and JolPol.
Duties: SPOT assessment survey, tree identification and mapping, reporting and preparation of Koala MP.

APPENDIX B DESKTOP SEARCHES

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Defined Area
Species: All
Type: All
Status: All
Records: Confirmed
Date: Since 1980
Latitude: 26.407083 to 26.157534
Longitude: 152.6178 to 152.8147
Email: ashley.marsden@smec.com
Date submitted: Friday 07 Nov 2014 17:17:41
Date extracted: Friday 07 Nov 2014 17:20:03

The number of records retrieved = 841

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Bufonidae	*Rhinella marina*	cane toad	Y			92
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		5
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		3
animals	amphibians	Hylidae	*Litoria tyleri*	southern laughing treefrog		C		1
animals	amphibians	Hylidae	*Litoria peronii*	emerald spotted treefrog		C		26
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		4
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		10/3
animals	amphibians	Hylidae	*Litoria sp.*					12
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		150
animals	amphibians	Hylidae	*Litoria lesueuri sensu lato*	stony creek frog		C		131
animals	amphibians	Hylidae	*Litoria pearsoniana*	cascade treefrog		V		5
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		6
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		41
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		63
animals	amphibians	Limnodynastidae	*Adelotus brevis*	tusked frog		V		54/1
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		55
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		3
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		2
animals	amphibians	Myobatrachidae	*Mixophyes iteratus*	giant barred frog		E	E	9
animals	amphibians	Myobatrachidae	*Crinia parinsignifera*	beeping froglet		C		6
animals	amphibians	Myobatrachidae	*Mixophyes fasciolatus*	great barred frog		C		65
animals	birds	Acanthizidae	*Sericornis citreogularis*	yellow-throated scrubwren		C		1
animals	birds	Acanthizidae	*Sericornis magnirostra*	large-billed scrubwren		C		10
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		29
animals	birds	Acanthizidae	*Gerygone albogularis*	white-throated gerygone		C		3
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		29
animals	birds	Acanthizidae	*Acanthiza lineata*	striated thornbill		C		11
animals	birds	Acanthizidae	*Gerygone mouki*	brown gerygone		C		22
animals	birds	Accipitridae	*Accipiter novaehollandiae*	grey goshawk		NT		3
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		1
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		SL		1
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		1
animals	birds	Accipitridae	*Hieraaetus morphnoides*	little eagle		C		2
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		2
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		2
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		14
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		2
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		5
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		1
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		1
animals	birds	Anatidae	*Aythya australis*	hardhead		C		2
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		2
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		1
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		1
animals	birds	Ardeidae	*Ardea modesta*	eastern great egret		SL		1
animals	birds	Ardeidae	*Ardea ibis*	cattle egret		SL		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Artamidae	*Artamus cyanopterus*	dusky woodswallow		C		3
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		3
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		2
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		5
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		8
animals	birds	Artamidae	*Cracticus tibicen*	Australian magpie		C		14
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		1
animals	birds	Cacatuidae	*Calyptorhynchus funereus*	yellow-tailed black-cockatoo		C		7
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		3
animals	birds	Cacatuidae	*Eolophus roseicapillus*	galah		C		1
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		1
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		1
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		7
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		12
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		2
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		18
animals	birds	Climacteridae	*Cormobates leucophaea*	white-throated treecreeper		C		1
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		4
animals	birds	Columbidae	*Columba leucomela*	white-headed pigeon		C		3
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		1
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		3
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		6
animals	birds	Columbidae	*Leucosarcia picata*	wonga pigeon		C		5
animals	birds	Columbidae	*Ptilinopus magnificus*	wompoo fruit-dove		C		4
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		6
animals	birds	Columbidae	*Lopholaimus antarcticus*	topknot pigeon		C		2
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		20
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		3/1
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		6
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		14
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		2
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		9
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		4
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		1
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		2
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		8
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		3
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		1
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		4
animals	birds	Laridae	*Onychoprion fuscata*	sooty tern		C		1/1
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		4
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		2
animals	birds	Megaluridae	*Megalurus timoriensis*	tawny grassbird		C		1
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		3
animals	birds	Meliphagidae	*Caligavis chrysops*	yellow-faced honeyeater		C		21

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		12
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		1
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		23
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		2
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		2
animals	birds	Meliphagidae	*Acanthorhynchus tenuirostris*	eastern spinebill		C		10
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		64
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		4
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		24
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		SL		19
animals	birds	Monarchidae	*Symposiarchus trivirgatus*	spectacled monarch		SL		6
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		5
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		1
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		2
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		2
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		10
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		3
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		1
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		13
animals	birds	Orthonychidae	*Orthonyx temminckii*	Australian logrunner		C		4
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		14
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		6
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		36
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		16
animals	birds	Pachycephalidae	*Falcunculus frontatus*	crested shrike-tit		C		1
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		53
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		10
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		13
animals	birds	Petroicidae	*Tregellasia capito*	pale-yellow robin		C		2
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		19
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		3
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		1
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		1
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		5
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		2
animals	birds	Podargidae	*Podargus ocellatus plumiferus*	plumed frogmouth		V		3
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		1
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		4
animals	birds	Psittacidae	*Glossopsitta pusilla*	little lorikeet		C		2
animals	birds	Psittacidae	*Platycercus elegans*	crimson rosella		C		1
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		5
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		9
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		4
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		35
animals	birds	Ptilonorhynchidae	*Ailuroedus crassirostris*	green catbird		C		3
animals	birds	Ptilonorhynchidae	*Ptilonorhynchus violaceus*	satin bowerbird		C		6

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		3
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		3
animals	birds	Rallidae	*Porphyrio porphyrio*	purple swamphen		C		3
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		6
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		2
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		34
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		1
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		9
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		1
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		1
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		1
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		30
animals	birds	Turdidae	*Zoothera heinei*	russet-tailed thrush		C		6/1
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	4
animals	birds	Turnicidae	*Turnix varius*	painted button-quail		C		1
animals	birds	Tytonidae	*Tyto tenebricosa tenebricosa*	sooty owl		NT		2
animals	birds	Tytonidae	*Tyto javanica*	eastern barn owl		C		3
animals	birds	Tytonidae	*Tyto sp.*					1
animals	insects	Nymphalidae	*Tirumala hamata hamata*	blue tiger				1
animals	insects	Nymphalidae	*Danaus chrysippus petilia*	lesser wanderer				1
animals	insects	Nymphalidae	*Danaus plexippus plexippus*	monarch				1
animals	insects	Papilionidae	*Cressida cressida cressida*	greasy swallowtail				1
animals	insects	Papilionidae	*Graphium sarpedon choredon*	blue triangle				1
animals	mammals	Canidae	*Canis lupus familiaris*	dog	Y			3
animals	mammals	Canidae	*Vulpes vulpes*	red fox	Y			2
animals	mammals	Dasyuridae	*Antechinus subtropicus*			C		4
animals	mammals	Dasyuridae	*Antechinus sp.*					1
animals	mammals	Dasyuridae	*Planigale maculata*	common planigale		C		1
animals	mammals	Dasyuridae	*Antechinus flavipes flavipes*	yellow-footed antechinus (south-east Queensland)		C		18
animals	mammals	Leporidae	*Lepus europaeus*	European brown hare	Y			6
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		2
animals	mammals	Macropodidae	*Macropus rufogriseus*	red-necked wallaby		C		2
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		8
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		1
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		5
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		23
animals	mammals	Miniopteridae	*Miniopterus sp.*					1
animals	mammals	Molossidae	*Mormopterus sp.*					2
animals	mammals	Molossidae	*Mormopterus norfolkensis*	east coast freetail bat		C		3
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		3
animals	mammals	Molossidae	*Tadarida australis*	white-striped freetail bat		C		7
animals	mammals	Molossidae	*Mormopterus ridei*	eastern free-tailed bat		C		5
animals	mammals	Muridae	*Rattus fuscipes*	bush rat		C		26
animals	mammals	Muridae	*Melomys sp.*					4
animals	mammals	Muridae	*Rattus sp.*					9

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		3
animals	mammals	Muridae	*Melomys cervinipes*	fawn-footed melomys		C		7
animals	mammals	Ornithorhynchidae	*Ornithorhynchus anatinus*	platypus		SL		3
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		1
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		11
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		5
animals	mammals	Petauridae	*Petaurus australis australis*	yellow-bellied glider (southern subspecies)		C		1
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		4
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		1
animals	mammals	Phalangeridae	*Trichosurus caninus*	short-eared possum		C		10
animals	mammals	Phascolarctidae	*Phascolarctos cinereus (southeast Queensland bioregion)*	koala (southeast Queensland bioregion)		V	V	9
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		SL	V	2
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		1
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		6
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		C		1
animals	mammals	Pteropodidae	*Pteropus sp.*					1
animals	mammals	Pteropodidae	*Pteropus scapulatus*	little red flying-fox		C		12
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		59
animals	mammals	Pteropodidae	*Pteropus poliocephalus*	grey-headed flying-fox		C	V	67
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		4
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		9
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		1
animals	mammals	Vespertilionidae	*Nyctophilus gouldi*	Gould's long-eared bat		C		4
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		2
animals	mammals	Vespertilionidae	*Nyctophilus sp.*					2
animals	mammals	Vespertilionidae	*Scotorepens sp.*					2
animals	mammals	Vespertilionidae	*Nyctophilus bifax*	northern long-eared bat		C		9
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		3
animals	mammals	Vespertilionidae	*Vespadelus darlingtoni*	large forest bat		C		1
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		8
animals	mammals	Vespertilionidae	*Scotorepens orion*	south-eastern broad-nosed bat		C		2
animals	mammals	Vespertilionidae	*Scotorepens greyii*	little broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus pumilus*	eastern forest bat		C		11
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				5
animals	ray-finned fishes	Eleotridae	*Hypseleotris sp.*					1
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia duboulayi*	crimsonspotted rainbowfish				1
animals	ray-finned fishes	Percichthyidae	*Maccullochella mariensis*	Mary River cod			E	4/4
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		1
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		85
animals	reptiles	Boidae	*Morelia sp.*					1
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		3
animals	reptiles	Chelidae	*Emydura macquarii macquarii*	Murray turtle		C		1
animals	reptiles	Chelidae	*Elusor macrurus*	Mary River turtle		E	E	5
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		6

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animals	reptiles	Elapidae	*Pseudechis porphyriacus*	red-bellied black snake		C		1
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whip snake		C		2
animals	reptiles	Elapidae	*Cryptophis nigrescens*	eastern small-eyed snake		C		2
animals	reptiles	Elapidae	*Oxyuranus scutellatus*	coastal taipan		C		1
animals	reptiles	Elapidae	*Cacophis krefftii*	dwarf crowned snake		C		1
animals	reptiles	Gekkonidae	*Hemidactylus frenatus*	house gecko	Y			1
animals	reptiles	Scincidae	*Anomalopus verreauxii*			C		1
animals	reptiles	Scincidae	*Lampropholis delicata*			C		7/1
animals	reptiles	Scincidae	*Lampropholis guichenoti*			C		3
animals	reptiles	Scincidae	*Cyclodomorphus gerrardii*	pink-tongued lizard		C		3
animals	reptiles	Scincidae	*Lampropholis amicula*			C		6/1
animals	reptiles	Scincidae	*Concinnia brachysoma*	northern bar-sided sknik		C		1
animals	reptiles	Scincidae	*Lampropholis adonis*			C		3
animals	reptiles	Scincidae	*Karma murrayi*	Murray's skink		C		1
animals	reptiles	Scincidae	*Eulamprus quoyii*	eastern water skink		C		1
animals	reptiles	Scincidae	*Lampropholis couperi*			C		1
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		3/1
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		2
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending		C		4
fungi	club fungi	Basidiomycota	*Poria*			C		1/1
fungi	club fungi	Basidiomycota	*Hexagonia*			C		1/1
fungi	club fungi	Basidiomycota	*Phellinus*			C		1/1
fungi	club fungi	Basidiomycota	*Armillaria*			C		1/1
fungi	club fungi	Basidiomycota	*Macrolepiota*			C		1/1
fungi	club fungi	Basidiomycota	*Fomitopsis feei*			C		1/1
fungi	club fungi	Basidiomycota	*Punctularia strigosozonata*			C		1/1
fungi	club fungi	Basidiomycota	*Cyathus gracilis*			C		1/1
fungi	club fungi	Basidiomycota	*Russula reddellii*			C		1/1
fungi	club fungi	Dictyonemataceae	*Dictyonema moorei*			C		1/1
fungi	club fungi	Dictyonemataceae	*Dictyonema irpicinum*			C		1/1
fungi	sac fungi	Agyriaceae	*Trapelia*			C		6/6
fungi	sac fungi	Brigantiaeaceae	*Brigantiaea phaeomma*			C		1/1
fungi	sac fungi	Caliciaceae	*Nadvornikia hawaiiensis*			C		2/2
fungi	sac fungi	Chiodectonaceae	*Chiodecton sublaevigatum*			C		1/1
fungi	sac fungi	Chrysothricaceae	*Chrysothrix candelaris*			C		1/1
fungi	sac fungi	Cladiaceae	*Cladia aggregata*			C		1/1
fungi	sac fungi	Coccocarpiaceae	*Coccocarpia palmicola*			C		3/3
fungi	sac fungi	Coccocarpiaceae	*Coccocarpia smaragdina*			C		1/1
fungi	sac fungi	Coccocarpiaceae	*Coccocarpia erythroxyli*			C		1/1
fungi	sac fungi	Coccocarpiaceae	*Coccocarpia*			C		1/1
fungi	sac fungi	Coccocarpiaceae	*Coccocarpia adnata*			C		1/1
fungi	sac fungi	Collemataceae	*Leptogium austroamericanum*			C		1/1
fungi	sac fungi	Collemataceae	*Leptogium phyllocarpum*			C		4/4
fungi	sac fungi	Collemataceae	*Leptogium biloculare*			C		1/1
fungi	sac fungi	Collemataceae	*Leptogium coralloideum*			C		3/3
fungi	sac fungi	Graphidaceae	*Glyphis cicatricosa*			C		1/1

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fungi	sac fungi	Graphidaceae	*Hemithecium aphanes*			C		1/1
fungi	sac fungi	Graphidaceae	*Graphis*			C		1/1
fungi	sac fungi	Haematommaceae	*Haematomma persoonii*			C		1/1
fungi	sac fungi	Icmadophilaceae	*Dibaeis absoluta*			C		1/1
fungi	sac fungi	Lecanoraceae	*Lecanora helva*			C		1/1
fungi	sac fungi	Lecanoraceae	*Lecanora pseudistera*			C		2/2
fungi	sac fungi	Lobariaceae	*Sticta diversa*			C		2/2
fungi	sac fungi	Lobariaceae	*Sticta brevipes*			C		2/2
fungi	sac fungi	Pannariaceae	*Erioderma sorediatum*			C		1/1
fungi	sac fungi	Pannariaceae	*Pannaria lurida*			C		1/1
fungi	sac fungi	Pannariaceae	*Pannaria tavaresii*			C		1/1
fungi	sac fungi	Pannariaceae	*Leproloma*			C		1/1
fungi	sac fungi	Pannariaceae	*Pannaria ramosii*			C		1/1
fungi	sac fungi	Pannariaceae	*Pannaria dissecta*			C		1/1
fungi	sac fungi	Pannariaceae	*Pannaria aenea*			C		1/1
fungi	sac fungi	Parmeliaceae	*Xanthoparmelia thamnoides*			C		1/1
fungi	sac fungi	Parmeliaceae	*Parmotrema austrosinense*			C		1/1
fungi	sac fungi	Parmeliaceae	*Parmelinopsis horrescens*			C		1/1
fungi	sac fungi	Parmeliaceae	*Xanthoparmelia filsonii*			C		1/1
fungi	sac fungi	Parmeliaceae	*Parmotrema reticulatum*			C		1/1
fungi	sac fungi	Parmeliaceae	*Xanthoparmelia calida*			C		1/1
fungi	sac fungi	Parmeliaceae	*Parmotrema subrugatum*			C		2/2
fungi	sac fungi	Parmeliaceae	*Parmelinopsis minarum*			C		1/1
fungi	sac fungi	Parmeliaceae	*Parmotrema tinctorum*			C		1/1
fungi	sac fungi	Parmeliaceae	*Parmelia erumpens*			C		1/1
fungi	sac fungi	Pertusariaceae	*Pertusaria*			C		1/1
fungi	sac fungi	Pertusariaceae	*Ochrolechia*			C		1/1
fungi	sac fungi	Pertusariaceae	*Pertusaria thiospoda*			C		1/1
fungi	sac fungi	Pertusariaceae	*Pertusaria subventosa var. hypothamnolica*			C		1/1
fungi	sac fungi	Pertusariaceae	*Pertusaria xanthoplaca*			C		2/2
fungi	sac fungi	Pertusariaceae	*Pertusaria hypoxantha*			C		1/1
fungi	sac fungi	Phyllopsoraceae	*Phyllopsora*			C		2/2
fungi	sac fungi	Physciaceae	*Buellia*			C		2/2
fungi	sac fungi	Physciaceae	*Pyxine sorediata*			C		2/2
fungi	sac fungi	Physciaceae	*Heterodermia*			C		5/5
fungi	sac fungi	Physciaceae	*Rinodina*			C		1/1
fungi	sac fungi	Physciaceae	*Physcia jackii*			C		1/1
fungi	sac fungi	Physciaceae	*Buellia demutans*			C		1/1
fungi	sac fungi	Physciaceae	*Hyperphyscia adglutinata*			C		1/1
fungi	sac fungi	Physciaceae	*Heterodermia microphylla*			C		1/1
fungi	sac fungi	Physciaceae	*Heterodermia japonica*			C		1/1
fungi	sac fungi	Physciaceae	*Dirinaria applanata*			C		4/4
fungi	sac fungi	Physciaceae	*Buellia homophylia*			C		1/1
fungi	sac fungi	Physciaceae	*Rinodina thiomela*			C		1/1
fungi	sac fungi	Physciaceae	*Pyxine microspora*			C		2/2
fungi	sac fungi	Porpidiaceae	*Porpidia albocaerulescens*			C		2/2

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fungi	sac fungi	Ramalinaceae	*Ramalina peruviana*			C		1/1
fungi	sac fungi	Ramalinaceae	*Ramalina inflata subsp. perpusilla*			C		1/1
fungi	sac fungi	Strigulaceae	*Strigula*			C		1/1
fungi	sac fungi	Teloschistaceae	*Caloplaca*			C		1/1
fungi	sac fungi	Usneaceae	*Usnea inermis*			C		1/1
fungi	sac fungi	Usneaceae	*Usnea roseola*			C		1/1
fungi	sac fungi	Usneaceae	*Usnea pectinata*			C		1/1
fungi	sac fungi	Usneaceae	*Usnea bismolliuscula*			C		3/3
fungi	sac fungi	Usneaceae	*Usnea hossei*			C		1/1
fungi	sac fungi	Usneaceae	*Usnea baileyi*			C		1/1
plants	conifers	Araucariaceae	*Araucaria bidwillii*	bunya pine		C		1
plants	conifers	Araucariaceae	*Araucaria cunninghamii*	hoop pine		C		2
plants	conifers	Podocarpaceae	*Podocarpus elatus*	she pine		C		2
plants	ferns	Adiantaceae	*Adiantum hispidulum*			C		1
plants	ferns	Adiantaceae	*Adiantum aethiopicum*			C		2
plants	ferns	Adiantaceae	*Cheilanthes sieberi*			C		4
plants	ferns	Adiantaceae	*Adiantum silvaticum*			C		1
plants	ferns	Adiantaceae	*Pellaea falcata*			C		1
plants	ferns	Adiantaceae	*Adiantum diaphanum*			C		7
plants	ferns	Adiantaceae	*Adiantum formosum*			C		3
plants	ferns	Adiantaceae	*Pellaea paradoxa*	heart fern		C		2/1
plants	ferns	Aspleniaceae	*Asplenium australasicum*			C		1
plants	ferns	Blechnaceae	*Doodia caudata*			C		2/1
plants	ferns	Blechnaceae	*Doodia aspera*	prickly rasp fern		C		7
plants	ferns	Dicksoniaceae	*Calochlaena dubia*			C		1
plants	ferns	Dryopteridaceae	*Lastreopsis microsora*			C		2
plants	ferns	Dryopteridaceae	*Lastreopsis acuminata*	shiny shield fern		C		1
plants	ferns	Nephrolepidaceae	*Arthropteris tenella*	climbing fern		C		1
plants	ferns	Polypodiaceae	*Platycerium bifurcatum*			C		1
plants	ferns	Polypodiaceae	*Pyrrosia confluens*			C		1
plants	ferns	Thelypteridaceae	*Christella dentata*	creek fern		C		3
plants	ferns	Thelypteridaceae	*Christella hispidula*			C		1/1
plants	ferns	Thelypteridaceae	*Cyclosorus interruptus*			C		1/1
plants	higher dicots	Acanthaceae	*Brunoniella spiciflora*			C		1/1
plants	higher dicots	Acanthaceae	*Pseuderanthemum variabile*	pastel flower		C		5
plants	higher dicots	Acanthaceae	*Thunbergia alata*	black-eyed Susan	Y			1/1
plants	higher dicots	Acanthaceae	*Ruellia simplex*		Y			2/2
plants	higher dicots	Acanthaceae	*Harnieria hygrophiloides*	white karambal		C		2/1
plants	higher dicots	Anacardiaceae	*Mangifera indica*	mango	Y			1
plants	higher dicots	Anacardiaceae	*Schinus terebinthifolius*		Y			5/4
plants	higher dicots	Anacardiaceae	*Euroschinus falcatus*			C		2
plants	higher dicots	Anacardiaceae	*Rhodosphaera rhodanthema*	tulip satinwood		C		4
plants	higher dicots	Apiaceae	*Centella asiatica*			C		1
plants	higher dicots	Apocynaceae	*Carissa ovata*	currantbush		C		6
plants	higher dicots	Apocynaceae	*Alyxia ruscifolia*			C		7
plants	higher dicots	Apocynaceae	*Marsdenia lloydii*			C		1

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plants	higher dicots	Apocynaceae	*Marsdenia coronata*	slender milkvine		V		1/1
plants	higher dicots	Apocynaceae	*Secamone elliptica*			C		3
plants	higher dicots	Apocynaceae	*Tabernaemontana pandacaqui*	banana bush		C		9
plants	higher dicots	Apocynaceae	*Parsonsia straminea*	monkey rope		C		7
plants	higher dicots	Apocynaceae	*Melodinus australis*	southern melodinus		C		2
plants	higher dicots	Araliaceae	*Polyscias elegans*	celery wood		C		7
plants	higher dicots	Araliaceae	*Astrotricha latifolia*			C		2
plants	higher dicots	Araliaceae	*Hydrocotyle acutiloba*			C		1/1
plants	higher dicots	Asteraceae	*Ozothamnus diosmifolius*	white dogwood		C		2
plants	higher dicots	Asteraceae	*Sigesbeckia orientalis*	Indian weed		C		3
plants	higher dicots	Asteraceae	*Tithonia diversifolia*	Japanese sunflower	Y			1/1
plants	higher dicots	Asteraceae	*Cyanthillium cinereum*			C		1
plants	higher dicots	Asteraceae	*Baccharis halimifolia*	groundsel bush	Y			4
plants	higher dicots	Asteraceae	*Ageratum houstonianum*	blue billygoat weed	Y			8/1
plants	higher dicots	Asteraceae	*Praxelis clematidea*		Y			2/2
plants	higher dicots	Asteraceae	*Emilia sonchifolia*		Y			1
plants	higher dicots	Asteraceae	*Picris conyzoides*			V		2/2
plants	higher dicots	Asteraceae	*Soliva sessilis*		Y			1/1
plants	higher dicots	Asteraceae	*Cirsium vulgare*	spear thistle	Y			1
plants	higher dicots	Asteraceae	*Aster subulatus*	wild aster	Y			1/1
plants	higher dicots	Asteraceae	*Tagetes minuta*	stinking roger	Y			1
plants	higher dicots	Asteraceae	*Bidens pilosa*		Y			1
plants	higher dicots	Asteraceae	*Conyza*					1
plants	higher dicots	Asteraceae	*Dimorphotheca ecklonis*		Y			1/1
plants	higher dicots	Bignoniaceae	*Pandorea pandorana*	wonga vine		C		6
plants	higher dicots	Bignoniaceae	*Pandorea jasminoides*			C		3
plants	higher dicots	Bignoniaceae	*Jacaranda mimosifolia*	jacaranda	Y			1
plants	higher dicots	Bignoniaceae	*Dolichandra unguis-cati*	cat's claw creeper	Y			24/19
plants	higher dicots	Boraginaceae	*Ehretia acuminata*			C		1
plants	higher dicots	Brassicaceae	*Lepidium bonariense*	Argentine peppercress	Y			2/2
plants	higher dicots	Brassicaceae	*Raphanus raphanistrum*	wild radish	Y			1/1
plants	higher dicots	Brassicaceae	*Rorippa nasturtium-aquaticum*	watercress	Y			1/1
plants	higher dicots	Brassicaceae	*Sinapis alba*	white mustard	Y			1/1
plants	higher dicots	Brassicaceae	*Rorippa palustris*	marsh cress	Y			1/1
plants	higher dicots	Byttneriaceae	*Commersonia dasyphylla*			C		1/1
plants	higher dicots	Byttneriaceae	*Commersonia bartramia*	brown kurrajong		C		3
plants	higher dicots	Caesalpiniaceae	*Senna pendula var. glabrata*	Easter cassia	Y			4/4
plants	higher dicots	Caesalpiniaceae	*Caesalpinia decapetala*	wait-a-while	Y			1/1
plants	higher dicots	Caesalpiniaceae	*Caesalpinia subtropica*	corky pricklevine		C		1
plants	higher dicots	Caesalpiniaceae	*Caesalpinia scortechinii*	large prickle vine		C		3
plants	higher dicots	Caesalpiniaceae	*Caesalpinia nitens*			C		1/1
plants	higher dicots	Campanulaceae	*Lobelia purpurascens*	white root		C		2
plants	higher dicots	Capparaceae	*Capparis arborea*	brush caper berry		C		7
plants	higher dicots	Capparaceae	*Capparis sarmentosa*	scrambling caper		C		4
plants	higher dicots	Caryophyllaceae	*Drymaria cordata subsp. cordata*		Y			1/1
plants	higher dicots	Casuarinaceae	*Allocasuarina torulosa*			C		2

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plants	higher dicots	Casuarinaceae	*Casuarina cunninghamiana subsp. cunninghamiana*			C		1/1
plants	higher dicots	Celastraceae	*Hedraianthera porphyropetala*	hedrianthera		C		1
plants	higher dicots	Celastraceae	*Elaeodendron melanocarpum*			C		1
plants	higher dicots	Celastraceae	*Denhamia celastroides*	broad-leaved boxwood		C		3
plants	higher dicots	Celastraceae	*Siphonodon australis*	ivorywood		C		3
plants	higher dicots	Celastraceae	*Maytenus bilocularis*			C		3
plants	higher dicots	Celastraceae	*Hippocratea barbata*	knotvine		C		2
plants	higher dicots	Celastraceae	*Celastrus subspicata*	large-leaved staffvine		C		1
plants	higher dicots	Chenopodiaceae	*Dysphania glomulifera subsp. glomulifera*			C		1/1
plants	higher dicots	Convolvulaceae	*Ipomoea indica*	blue morning-glory	Y			1/1
plants	higher dicots	Convolvulaceae	*Ipomoea plebeia*	bellvine		C		1/1
plants	higher dicots	Crassulaceae	*Bryophyllum delagoense*		Y			1/1
plants	higher dicots	Crassulaceae	*Crassula sarmentosa*		Y			1/1
plants	higher dicots	Cucurbitaceae	*Diplocyclos palmatus*			C		3
plants	higher dicots	Cunoniaceae	*Pseudoweinmannia lachnocarpa*	rose marara		C		2
plants	higher dicots	Ebenaceae	*Diospyros geminata*	scaly ebony		C		1
plants	higher dicots	Ebenaceae	*Diospyros australis*	black plum		C		1
plants	higher dicots	Ebenaceae	*Diospyros fasciculosa*	grey ebony		C		3
plants	higher dicots	Ebenaceae	*Diospyros pentamera*	myrtle ebony		C		1
plants	higher dicots	Elaeagnaceae	*Elaeagnus triflora*			C		1
plants	higher dicots	Elaeocarpaceae	*Elaeocarpus kirtonii*	silver quandong		C		1/1
plants	higher dicots	Elaeocarpaceae	*Elaeocarpus grandis*	blue quandong		C		1
plants	higher dicots	Elaeocarpaceae	*Elaeocarpus obovatus*	blueberry ash		C		2
plants	higher dicots	Ericaceae	*Acrotriche aggregata*	red cluster heath		C		3/2
plants	higher dicots	Ericaceae	*Trochocarpa laurina*	tree heath		C		1
plants	higher dicots	Ericaceae	*Monotoca scoparia*	prickly broom heath		C		2/1
plants	higher dicots	Ericaceae	*Leucopogon juniperinus*	prickly heath		C		4
plants	higher dicots	Erythroxylaceae	*Erythroxylum australe*	cocaine tree		C		1
plants	higher dicots	Euphorbiaceae	*Croton insularis*	Queensland cascarilla		C		2
plants	higher dicots	Euphorbiaceae	*Mallotus discolor*	white kamala		C		2
plants	higher dicots	Euphorbiaceae	*Baloghia inophylla*	scrub bloodwood		C		3
plants	higher dicots	Euphorbiaceae	*Claoxylon australe*	brittlewood		C		1
plants	higher dicots	Euphorbiaceae	*Croton stigmatosus*	white croton		C		1
plants	higher dicots	Euphorbiaceae	*Homalanthus nutans*			C		1
plants	higher dicots	Euphorbiaceae	*Alchornea ilicifolia*	native holly		C		10
plants	higher dicots	Euphorbiaceae	*Croton acronychioides*	thick-leaved croton		C		1
plants	higher dicots	Euphorbiaceae	*Euphorbia ophthalmica*		Y			1/1
plants	higher dicots	Euphorbiaceae	*Mallotus claoxyloides*	green kamala		C		7
plants	higher dicots	Euphorbiaceae	*Mallotus philippensis*	red kamala		C		11/1
plants	higher dicots	Euphorbiaceae	*Tragia novae-hollandiae*	stinging-vine		C		2/1
plants	higher dicots	Euphorbiaceae	*Homalanthus stillingiifolius*			C		2
plants	higher dicots	Euphorbiaceae	*Acalypha nemorum*	hairy acalypha		C		1
plants	higher dicots	Fabaceae	*Castanospermum australe*	black bean		C		3
plants	higher dicots	Fabaceae	*Podolobium scandens*			C		1/1
plants	higher dicots	Fabaceae	*Podolobium ilicifolium*			C		1
plants	higher dicots	Fabaceae	*Erythrina crista-galli*		Y			2/2

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plants	higher dicots	Fabaceae	*Hardenbergia violacea*			C		3
plants	higher dicots	Fabaceae	*Platylobium formosum*	flat pea		C		1/1
plants	higher dicots	Fabaceae	*Flemingia parviflora*	flemingia		C		1
plants	higher dicots	Fabaceae	*Aeschynomene falcata*		Y			1/1
plants	higher dicots	Fabaceae	*Austrosteenisia blackii*	bloodvine		C		5
plants	higher dicots	Fabaceae	*Desmodium uncinatum*		Y			1/1
plants	higher dicots	Fabaceae	*Desmodium tortuosum*	Florida beggar-weed	Y			1/1
plants	higher dicots	Fabaceae	*Desmodium nemorosum*			C		1/1
plants	higher dicots	Fabaceae	*Callerya megasperma*	native wisteria		C		2/1
plants	higher dicots	Fabaceae	*Jacksonia scoparia*			C		3
plants	higher dicots	Fabaceae	*Melilotus indicus*	hexham scent	Y			1/1
plants	higher dicots	Fabaceae	*Vigna vexillata var. youngiana*			C		1/1
plants	higher dicots	Fabaceae	*Podolobium aciculiferum*			C		1
plants	higher dicots	Fabaceae	*Derris involuta*	native derris		C		2
plants	higher dicots	Fabaceae	*Hovea acutifolia*			C		2
plants	higher dicots	Fabaceae	*Pultenaea retusa*			C		1/1
plants	higher dicots	Fabaceae	*Crotalaria lunata*		Y			1/1
plants	higher dicots	Fabaceae	*Medicago lupulina*	black medic	Y			1/1
plants	higher dicots	Flacourtiaceae	*Scolopia braunii*	flintwood		C		2
plants	higher dicots	Flacourtiaceae	*Xylosma terrae-reginae*	xylosma		C		3
plants	higher dicots	Flacourtiaceae	*Casearia multinervosa*	casearia		C		2
plants	higher dicots	Gentianaceae	*Centaurium tenuiflorum*		Y			1/1
plants	higher dicots	Goodeniaceae	*Goodenia rotundifolia*			C		2
plants	higher dicots	Haloragaceae	*Gonocarpus humilis*			C		1/1
plants	higher dicots	Haloragaceae	*Gonocarpus teucrioides*			C		1/1
plants	higher dicots	Lamiaceae	*Clerodendrum floribundum*			C		3
plants	higher dicots	Lamiaceae	*Plectranthus graveolens*	flea bush		C		1/1
plants	higher dicots	Lamiaceae	*Clerodendrum tomentosum*			C		4
plants	higher dicots	Lamiaceae	*Callicarpa pedunculata*	velvet leaf		C		2
plants	higher dicots	Lamiaceae	*Gmelina leichhardtii*	white beech		C		1
plants	higher dicots	Lamiaceae	*Mentha satureioides*	native pennyroyal		C		1/1
plants	higher dicots	Lamiaceae	*Vitex lignum-vitae*			C		5
plants	higher dicots	Lamiaceae	*Vitex acuminata*			C		2
plants	higher dicots	Lamiaceae	*Vitex melicopea*			C		1/1
plants	higher dicots	Loranthaceae	*Amyema quandang var. bancroftii*	broad-leaved grey mistletoe		C		1
plants	higher dicots	Loranthaceae	*Dendrophthoe glabrescens*			C		1/1
plants	higher dicots	Lythraceae	*Cuphea carthagenensis*		Y			1/1
plants	higher dicots	Malvaceae	*Hibiscus heterophyllus*			C		5
plants	higher dicots	Malvaceae	*Gossypium barbadense*		Y			2/2
plants	higher dicots	Malvaceae	*Sida rhombifolia*		Y			1
plants	higher dicots	Malvaceae	*Sida cordifolia*		Y			3/1
plants	higher dicots	Meliaceae	*Owenia venosa*	crow's apple		C		2
plants	higher dicots	Meliaceae	*Toona ciliata*	red cedar		C		2
plants	higher dicots	Meliaceae	*Melia azedarach*	white cedar		C		5
plants	higher dicots	Meliaceae	*Turraea pubescens*	native honeysuckle		C		2
plants	higher dicots	Meliaceae	*Synoum glandulosum*			C		1

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plants	higher dicots	Meliaceae	*Anthocarapa nitidula*	incense cedar		C		1
plants	higher dicots	Meliaceae	*Dysoxylum mollissimum subsp. molle*	miva mahogany		C		1
plants	higher dicots	Mimosaceae	*Pararchidendron pruinosum*			C		1
plants	higher dicots	Mimosaceae	*Acacia bakeri*	marblewood		C		3
plants	higher dicots	Mimosaceae	*Acacia maidenii*	Maiden's wattle		C		2
plants	higher dicots	Mimosaceae	*Albizia lebbeck*	Indian siris		C		1/1
plants	higher dicots	Mimosaceae	*Acacia fimbriata*	Brisbane golden wattle		C		5/1
plants	higher dicots	Mimosaceae	*Acacia leiocalyx*			C		1
plants	higher dicots	Mimosaceae	*Acacia oshanesii*			C		4
plants	higher dicots	Mimosaceae	*Acacia complanata*	flatstem wattle		C		3
plants	higher dicots	Mimosaceae	*Acacia longissima*			C		2
plants	higher dicots	Mimosaceae	*Leucaena leucocephala subsp. glabrata*		Y			1/1
plants	higher dicots	Mimosaceae	*Acacia leiocalyx subsp. leiocalyx*			C		3/1
plants	higher dicots	Mimosaceae	*Leucaena leucocephala subsp. leucocephala*		Y			1/1
plants	higher dicots	Mimosaceae	*Acacia melanoxylon*	blackwood		C		2
plants	higher dicots	Mimosaceae	*Acacia aulacocarpa*			C		8
plants	higher dicots	Moraceae	*Ficus fraseri*	white sandpaper fig		C		2
plants	higher dicots	Moraceae	*Ficus obliqua*			C		1/1
plants	higher dicots	Moraceae	*Ficus coronata*	creek sandpaper fig		C		5
plants	higher dicots	Moraceae	*Streblus brunonianus*	whalebone tree		C		7
plants	higher dicots	Moraceae	*Maclura cochinchinensis*	cockspur thorn		C		7
plants	higher dicots	Moraceae	*Ficus macrophylla forma macrophylla*	Moreton Bay fig		C		2
plants	higher dicots	Moraceae	*Trophis scandens subsp. scandens*			C		8
plants	higher dicots	Myrsinaceae	*Embelia australiana*	embelia		C		5
plants	higher dicots	Myrsinaceae	*Myrsine variabilis*			C		6
plants	higher dicots	Myrtaceae	*Pilidiostigma glabrum*	plum myrtle		C		1
plants	higher dicots	Myrtaceae	*Lophostemon suaveolens*	swamp box		C		5
plants	higher dicots	Myrtaceae	*Rhodomyrtus psidioides*	native guava		C		4
plants	higher dicots	Myrtaceae	*Waterhousea floribunda*	weeping lilly pilly		C		3
plants	higher dicots	Myrtaceae	*Choricarpia subargentea*	giant ironwood		C		1
plants	higher dicots	Myrtaceae	*Eucalyptus tereticornis*			C		5
plants	higher dicots	Myrtaceae	*Melaleuca styphelioides*			C		2/1
plants	higher dicots	Myrtaceae	*Pilidiostigma rhytispermum*			C		3
plants	higher dicots	Myrtaceae	*Leptospermum polygalifolium*	tantoon		C		1/1
plants	higher dicots	Myrtaceae	*Eucalyptus fibrosa subsp. fibrosa*			C		1/1
plants	higher dicots	Myrtaceae	*Syncarpia glomulifera subsp. glomulifera*			C		2
plants	higher dicots	Myrtaceae	*Eucalyptus tereticornis subsp. tereticornis*			C		1/1
plants	higher dicots	Myrtaceae	*Gossia hillii*			C		2
plants	higher dicots	Myrtaceae	*Lophostemon confertus*	brush box		C		7
plants	higher dicots	Myrtaceae	*Eucalyptus microcorys*			C		3
plants	higher dicots	Myrtaceae	*Eucalyptus acmenoides*			C		4
plants	higher dicots	Myrtaceae	*Backhousia myrtifolia*	carrol		C		6/2
plants	higher dicots	Myrtaceae	*Backhousia citriodora*	lemon ironwood		C		1/1
plants	higher dicots	Myrtaceae	*Homoranthus virgatus*	twiggy homoranthus		C		1
plants	higher dicots	Myrtaceae	*Eucalyptus propinqua*	small-fruited grey gum		C		7
plants	higher dicots	Myrtaceae	*Eucalyptus moluccana*	gum-topped box		C		4

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plants	higher dicots	Myrtaceae	*Eucalyptus cloeziana*	Gympie messmate		C		3/1
plants	higher dicots	Myrtaceae	*Rhodamnia rubescens*			C		2
plants	higher dicots	Myrtaceae	*Corymbia intermedia*	pink bloodwood		C		3
plants	higher dicots	Myrtaceae	*Corymbia citriodora*	spotted gum		C		3
plants	higher dicots	Myrtaceae	*Angophora leiocarpa*	rusty gum		C		1
plants	higher dicots	Myrtaceae	*Rhodamnia dumicola*	rib-fruited malletwood		C		2
plants	higher dicots	Myrtaceae	*Rhodamnia argentea*	white myrtle		C		1
plants	higher dicots	Myrtaceae	*Melaleuca salicina*			C		5
plants	higher dicots	Myrtaceae	*Eucalyptus grandis*	flooded gum		C		2
plants	higher dicots	Myrtaceae	*Decaspermum humile*	silky myrtle		C		2
plants	higher dicots	Myrtaceae	*Syzygium australe*	scrub cherry		C		1
plants	higher dicots	Myrtaceae	*Psidium guineense*	cherry guava	Y			1/1
plants	higher dicots	Myrtaceae	*Gossia acmenoides*			C		1
plants	higher dicots	Myrtaceae	*Eucalyptus crebra*	narrow-leaved red ironbark		C		5
plants	higher dicots	Myrtaceae	*Gossia bidwillii*			C		4
plants	higher dicots	Myrtaceae	*Eugenia uniflora*	Brazilian cherry tree	Y			1/1
plants	higher dicots	Ochnaceae	*Ochna serrulata*	ochna	Y			6
plants	higher dicots	Oleaceae	*Ligustrum lucidum*	large-leaved privet	Y			2/2
plants	higher dicots	Oleaceae	*Jasminum simplicifolium*					3
plants	higher dicots	Oleaceae	*Olea paniculata*			C		1
plants	higher dicots	Oleaceae	*Jasminum didymum*			C		3
plants	higher dicots	Oleaceae	*Ligustrum sinense*	small-leaved privet	Y			4
plants	higher dicots	Oleaceae	*Notelaea longifolia*			C		3
plants	higher dicots	Onagraceae	*Ludwigia octovalvis*	willow primrose		C		1
plants	higher dicots	Oxalidaceae	*Oxalis corniculata*		Y			2
plants	higher dicots	Passifloraceae	*Passiflora suberosa*	corky passion flower	Y			6
plants	higher dicots	Passifloraceae	*Passiflora subpeltata*	white passion flower	Y			4
plants	higher dicots	Passifloraceae	*Passiflora foetida*		Y			1/1
plants	higher dicots	Passifloraceae	*Passiflora edulis*		Y			2
plants	higher dicots	Petiveriaceae	*Rivina humilis*		Y			7/1
plants	higher dicots	Phyllanthaceae	*Bridelia exaltata*			C		4/1
plants	higher dicots	Phyllanthaceae	*Sauropus albiflorus*	snowbush		C		1/1
plants	higher dicots	Phyllanthaceae	*Breynia oblongifolia*			C		6
plants	higher dicots	Phyllanthaceae	*Bridelia leichhardtii*			C		1
plants	higher dicots	Phyllanthaceae	*Phyllanthus microcladus*			C		1
plants	higher dicots	Phyllanthaceae	*Poranthera microphylla*	small poranthera		C		1
plants	higher dicots	Phyllanthaceae	*Glochidion ferdinandi var. ferdinandi*			C		2
plants	higher dicots	Phyllanthaceae	*Cleistanthus cunninghamii*	omega		C		4
plants	higher dicots	Phytolaccaceae	*Phytolacca octandra*	inkweed	Y			1
plants	higher dicots	Picrodendraceae	*Petalostigma triloculare*	forest quinine		C		3
plants	higher dicots	Picrodendraceae	*Dissiliaria baloghioides*	hauer		C		1
plants	higher dicots	Pittosporaceae	*Pittosporum viscidum*	black-fruited thornbush		C		3
plants	higher dicots	Pittosporaceae	*Auranticarpa rhombifolia*			C		3
plants	higher dicots	Pittosporaceae	*Pittosporum spinescens*			C		2
plants	higher dicots	Pittosporaceae	*Pittosporum undulatum*	sweet pittosporum		C		1
plants	higher dicots	Pittosporaceae	*Pittosporum revolutum*	yellow pittosporum		C		8

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plants	higher dicots	Pittosporaceae	*Hymenosporum flavum*	native frangipani		C		1
plants	higher dicots	Plantaginaceae	*Mecardonia procumbens*		Y			1/1
plants	higher dicots	Plantaginaceae	*Bacopa caroliniana*		Y			1/1
plants	higher dicots	Plantaginaceae	*Plantago major*	greater plantain	Y			1/1
plants	higher dicots	Plantaginaceae	*Bacopa monnieri*			C		1/1
plants	higher dicots	Polygalaceae	*Comesperma hispidulum*			C		1/1
plants	higher dicots	Polygalaceae	*Polygala virgata*		Y			1/1
plants	higher dicots	Polygonaceae	*Persicaria praetermissa*			C		1/1
plants	higher dicots	Polygonaceae	*Persicaria hydropiper*	water pepper		C		3/2
plants	higher dicots	Polygonaceae	*Persicaria lapathifolia*	pale knotweed		C		1/1
plants	higher dicots	Proteaceae	*Macadamia integrifolia*	macadamia nut		V	V	7/7
plants	higher dicots	Proteaceae	*Stenocarpus sinuatus*	wheel of fire		C		3
plants	higher dicots	Proteaceae	*Macadamia ternifolia*	bopple nut		V	V	1/1
plants	higher dicots	Proteaceae	*Grevillea hilliana*			C		1
plants	higher dicots	Proteaceae	*Grevillea robusta*			C		4
plants	higher dicots	Proteaceae	*Floydia praealta*	ball nut		V	V	1
plants	higher dicots	Putranjivaceae	*Drypetes deplanchei*	grey boxwood		C		6
plants	higher dicots	Rhamnaceae	*Alphitonia excelsa*	soap tree		C		9
plants	higher dicots	Rosaceae	*Rubus moluccanus*			C		1
plants	higher dicots	Rosaceae	*Rubus rosifolius*			C		1
plants	higher dicots	Rosaceae	*Rubus parvifolius*	pink-flowered native raspberry		C		1/1
plants	higher dicots	Rosaceae	*Rhaphiolepis indica*	Indian hawthorn	Y			1/1
plants	higher dicots	Rubiaceae	*Pavetta australiensis var. australiensis*			C		1/1
plants	higher dicots	Rubiaceae	*Psydrax odorata*			C		4
plants	higher dicots	Rubiaceae	*Morinda canthoides*			C		1
plants	higher dicots	Rubiaceae	*Morinda jasminoides*	morinda		C		6
plants	higher dicots	Rubiaceae	*Psydrax lamprophylla*			C		1
plants	higher dicots	Rubiaceae	*Cyclophyllum coprosmoides*			C		6
plants	higher dicots	Rubiaceae	*Psychotria daphnoides*			C		4
plants	higher dicots	Rubiaceae	*Everistia vacciniifolia*			C		1
plants	higher dicots	Rubiaceae	*Hodgkinsonia ovatiflora*	golden ash		C		1
plants	higher dicots	Rubiaceae	*Psychotria loniceroides*	hairy psychotria		C		3
plants	higher dicots	Rubiaceae	*Atractocarpus chartaceus*			C		5
plants	higher dicots	Rubiaceae	*Pavetta australiensis*			C		4
plants	higher dicots	Rutaceae	*Micromelum minutum*	clusterberry		C		1
plants	higher dicots	Rutaceae	*Bouchardatia neurococca*	union nut		C		1
plants	higher dicots	Rutaceae	*Acronychia oblongifolia*	common acronychia		C		1
plants	higher dicots	Rutaceae	*Zieria smithii*			C		2
plants	higher dicots	Rutaceae	*Citrus australis*			C		2
plants	higher dicots	Rutaceae	*Zieria verrucosa*			V	V	1/1
plants	higher dicots	Rutaceae	*Acronychia laevis*	glossy acronychia		C		4
plants	higher dicots	Rutaceae	*Murraya paniculata*			C		2
plants	higher dicots	Rutaceae	*Melicope micrococca*	white evodia		C		4
plants	higher dicots	Rutaceae	*Pentaceras australe*	bastard crow's ash		C		3/1
plants	higher dicots	Rutaceae	*Acronychia pubescens*	hairy acronychia		C		1/1
plants	higher dicots	Rutaceae	*Flindersia australis*	crow's ash		C		6/1

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plants	higher dicots	Rutaceae	*Flindersia bennettii*			C		1/1
plants	higher dicots	Rutaceae	*Acronychia pauciflora*	soft acronychia		C		7/2
plants	higher dicots	Rutaceae	*Acronychia wilcoxiana*	silver aspen		C		1
plants	higher dicots	Rutaceae	*Flindersia schottiana*	bumpy ash		C		4/1
plants	higher dicots	Rutaceae	*Flindersia xanthoxyla*	yellow-wood		C		2
plants	higher dicots	Rutaceae	*Acronychia imperforata*	beach acronychia		C		1
plants	higher dicots	Rutaceae	*Flindersia bennettiana*	Bennett's ash		C		2
plants	higher dicots	Rutaceae	*Medicosma cunninghamii*	pinkheart		C		3/1
plants	higher dicots	Salicaceae	*Salix babylonica*	weeping willow	Y			2/2
plants	higher dicots	Santalaceae	*Exocarpos latifolius*			C		2
plants	higher dicots	Santalaceae	*Exocarpos cupressiformis*	native cherry		C		1
plants	higher dicots	Sapindaceae	*Guioa acutifolia*	northern guioa		C		2
plants	higher dicots	Sapindaceae	*Guioa semiglauca*	guioa		C		2
plants	higher dicots	Sapindaceae	*Harpullia hillii*			C		2
plants	higher dicots	Sapindaceae	*Arytera foveolata*	pitted coogera		C		3
plants	higher dicots	Sapindaceae	*Harpullia pendula*			C		2
plants	higher dicots	Sapindaceae	*Jagera pseudorhus*			C		8
plants	higher dicots	Sapindaceae	*Arytera divaricata*	coogera		C		5
plants	higher dicots	Sapindaceae	*Atalaya multiflora*	broad-leaved whitewood		C		1
plants	higher dicots	Sapindaceae	*Dodonaea triquetra*	large-leaved hop bush		C		2
plants	higher dicots	Sapindaceae	*Arytera microphylla*			C		1
plants	higher dicots	Sapindaceae	*Cupaniopsis serrata*	smooth tuckeroo		C		7
plants	higher dicots	Sapindaceae	*Alectryon subcinereus*			C		1
plants	higher dicots	Sapindaceae	*Alectryon subdentatus*			C		2
plants	higher dicots	Sapindaceae	*Dodonaea triangularis*			C		1
plants	higher dicots	Sapindaceae	*Elattostachys nervosa*	green tamarind		C		5
plants	higher dicots	Sapindaceae	*Cupaniopsis parvifolia*	small-leaved tuckeroo		C		7
plants	higher dicots	Sapindaceae	*Mischocarpus anodontus*	veiny pearfruit		C		2
plants	higher dicots	Sapindaceae	*Mischocarpus australis*	red pear-fruit		C		2
plants	higher dicots	Sapindaceae	*Mischocarpus pyriformis*			C		2
plants	higher dicots	Sapindaceae	*Cardiospermum halicacabum*		Y			1
plants	higher dicots	Sapindaceae	*Cupaniopsis anacardioides*	tuckeroo		C		2
plants	higher dicots	Sapindaceae	*Cardiospermum grandiflorum*	heart seed vine	Y			2/2
plants	higher dicots	Sapindaceae	*Toechima tenax*	pitted-leaf steelwood		C		3
plants	higher dicots	Sapindaceae	*Arytera distylis*	twin-leaved coogera		C		3
plants	higher dicots	Sapotaceae	*Planchonella pohlmaniana*			C		3
plants	higher dicots	Sapotaceae	*Planchonella cotinifolia*			C		2
plants	higher dicots	Sapotaceae	*Pouteria queenslandica*			C		1
plants	higher dicots	Sapotaceae	*Planchonella pubescens*			C		2
plants	higher dicots	Sapotaceae	*Planchonella australis*			C		1
plants	higher dicots	Sapotaceae	*Niemeyera antiloga*	brown pearwood		C		1
plants	higher dicots	Scrophulariaceae	*Myoporum acuminatum*	coastal boobialla		C		1
plants	higher dicots	Simaroubaceae	*Ailanthus triphysa*	white siris		C		1
plants	higher dicots	Solanaceae	*Solanum corifolium*	straggling nightshade		C		3
plants	higher dicots	Solanaceae	*Solanum torvum*	devil's fig	Y			1
plants	higher dicots	Solanaceae	*Solanum nodiflorum*		Y			1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	higher dicots	Solanaceae	*Solanum densevestitum*			C		2
plants	higher dicots	Solanaceae	*Solanum mauritianum*	wild tobacco	Y			7/1
plants	higher dicots	Solanaceae	*Solanum seaforthianum*	Brazilian nightshade	Y			5
plants	higher dicots	Solanaceae	*Solanum stelligerum*	devil's needles		C		1/1
plants	higher dicots	Solanaceae	*Duboisia myoporoides*			C		2/1
plants	higher dicots	Sparrmanniaceae	*Triumfetta rhomboidea*	chinese burr	Y			1/1
plants	higher dicots	Sterculiaceae	*Sterculia quadrifida*	peanut tree		C		1
plants	higher dicots	Sterculiaceae	*Brachychiton discolor*			C		2
plants	higher dicots	Sterculiaceae	*Argyrodendron trifoliolatum*	booyong		C		3
plants	higher dicots	Thymelaeaceae	*Pimelea latifolia*			C		1
plants	higher dicots	Thymelaeaceae	*Wikstroemia indica*	tie bush		C		1
plants	higher dicots	Tropaeolaceae	*Tropaeolum majus*	garden nasturtium	Y			1/1
plants	higher dicots	Ulmaceae	*Trema tomentosa var. aspera*			C		4
plants	higher dicots	Ulmaceae	*Aphananthe philippinensis*			C		10/1
plants	higher dicots	Ulmaceae	*Celtis sinensis*	Chinese elm	Y			4/2
plants	higher dicots	Ulmaceae	*Celtis paniculata*	native celtis		C		1
plants	higher dicots	Urticaceae	*Dendrocnide photinophylla*	shiny-leaved stinging tree		C		3
plants	higher dicots	Verbenaceae	*Lantana camara*	lantana	Y			11/1
plants	higher dicots	Verbenaceae	*Verbena rigida*		Y			1/1
plants	higher dicots	Violaceae	*Viola perreniformis*			C		1/1
plants	higher dicots	Violaceae	*Viola hederacea*			C		3
plants	higher dicots	Vitaceae	*Cayratia clematidea*	slender grape		C		2
plants	higher dicots	Vitaceae	*Cissus hypoglauca*			C		1
plants	higher dicots	Vitaceae	*Clematicissus opaca*			C		5
plants	higher dicots	Vitaceae	*Cissus antarctica*			C		6
plants	liverworts	Frullaniaceae	*Frullania monocera*			C		2/2
plants	liverworts	Geocalycaceae	*Chiloscyphus semiteres*			C		1/1
plants	liverworts	Geocalycaceae	*Heteroscyphus fissistipus*			C		2/2
plants	liverworts	Geocalycaceae	*Chiloscyphus*			C		1/1
plants	lower dicots	Annonaceae	*Melodorum leichhardtii*			C		4
plants	lower dicots	Annonaceae	*Polyalthia nitidissima*	polyalthia		C		4
plants	lower dicots	Aristolochiaceae	*Aristolochia elegans*	calico-flower	Y			1/1
plants	lower dicots	Atherospermataceae	*Daphnandra apatela*			C		1/1
plants	lower dicots	Eupomatiaceae	*Eupomatia laurina*	bolwarra		C		1
plants	lower dicots	Eupomatiaceae	*Eupomatia bennettii*	small bolwarra		C		2
plants	lower dicots	Lauraceae	*Endiandra muelleri subsp. muelleri*			C		1
plants	lower dicots	Lauraceae	*Beilschmiedia obtusifolia*	hard bolly gum		C		1
plants	lower dicots	Lauraceae	*Cryptocarya triplinervis*			C		5
plants	lower dicots	Lauraceae	*Cryptocarya sclerophylla*	totempole		C		6
plants	lower dicots	Lauraceae	*Cryptocarya glaucescens*			C		1
plants	lower dicots	Lauraceae	*Cryptocarya macdonaldii*	McDonald's laurel		C		2
plants	lower dicots	Lauraceae	*Neolitsea australiensis*	green bolly gum		C		1
plants	lower dicots	Lauraceae	*Beilschmiedia elliptica*	grey walnut		C		1
plants	lower dicots	Lauraceae	*Cryptocarya laevigata*			C		3
plants	lower dicots	Lauraceae	*Endiandra compressa*			C		1
plants	lower dicots	Lauraceae	*Cryptocarya obovata*	pepperberry		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	lower dicots	Lauraceae	*Cinnamomum camphora*	camphor laurel	Y			8/3
plants	lower dicots	Lauraceae	*Litsea reticulata*			C		2
plants	lower dicots	Lauraceae	*Cassytha pubescens*	downy devil's twine		C		1
plants	lower dicots	Lauraceae	*Cinnamomum oliveri*	Oliver's sassafras		C		1
plants	lower dicots	Lauraceae	*Endiandra discolor*	domatia tree		C		2
plants	lower dicots	Lauraceae	*Neolitsea dealbata*	white bolly gum		C		2
plants	lower dicots	Menispermaceae	*Legnephora moorei*			C		1
plants	lower dicots	Menispermaceae	*Pleogyne australis*	wiry grape		C		7
plants	lower dicots	Menispermaceae	*Stephania japonica*			C		3
plants	lower dicots	Menispermaceae	*Sarcopetalum harveyanum*	pearl vine		C		3
plants	lower dicots	Monimiaceae	*Wilkiea macrophylla*	large-leaved wilkiea		C		6
plants	lower dicots	Ranunculaceae	*Clematis glycinoides*			C		5
plants	monocots	Amaryllidaceae	*Zephyranthes candida*		Y			1/1
plants	monocots	Araceae	*Alocasia brisbanensis*			C		2
plants	monocots	Araceae	*Gymnostachys anceps*	settler's flax		C		5
plants	monocots	Araceae	*Pothos longipes*			C		1
plants	monocots	Arecaceae	*Calamus muelleri*	lawyer vine		C		4
plants	monocots	Arecaceae	*Archontophoenix cunninghamiana*	piccabeen palm		C		1
plants	monocots	Asparagaceae	*Asparagus plumosus*	feathered asparagus fern	Y			5
plants	monocots	Asparagaceae	*Asparagus macowanii*		Y			1/1
plants	monocots	Asparagaceae	*Asparagus racemosus*	native asparagus		C		1/1
plants	monocots	Asparagaceae	*Asparagus officinalis*	asparagus	Y			1/1
plants	monocots	Asparagaceae	*Asparagus aethiopicus cv. Sprengeri*	basket asparagus fern	Y			1/1
plants	monocots	Asphodelaceae	*Aloe parvibracteata*		Y			1/1
plants	monocots	Commelinaceae	*Pollia macrophylla*			C		1
plants	monocots	Commelinaceae	*Aneilema acuminatum*			C		1
plants	monocots	Cyperaceae	*Cyperus tenuiculmis*			C		1/1
plants	monocots	Cyperaceae	*Tetraria capillaris*			C		1/1
plants	monocots	Cyperaceae	*Cyperus involucratus*		Y			1/1
plants	monocots	Cyperaceae	*Cyperus polystachyos*			C		1
plants	monocots	Cyperaceae	*Cyperus tetraphyllus*			C		1
plants	monocots	Cyperaceae	*Lepidosperma laterale*			C		3
plants	monocots	Cyperaceae	*Schoenoplectus subulatus*			C		1/1
plants	monocots	Cyperaceae	*Bolboschoenus fluviatilis*			C		1/1
plants	monocots	Cyperaceae	*Schoenoplectus tabernaemontani*			C		1/1
plants	monocots	Cyperaceae	*Cyperus dietrichiae var. dietrichiae*			C		1/1
plants	monocots	Cyperaceae	*Cyperus eragrostis*		Y			1/1
plants	monocots	Cyperaceae	*Cyperus cyperoides*			C		1/1
plants	monocots	Cyperaceae	*Cyperus trinervis*			C		1/1
plants	monocots	Cyperaceae	*Cyperus bowmannii*			C		1/1
plants	monocots	Cyperaceae	*Carex horsfieldii*			C		1
plants	monocots	Cyperaceae	*Cyperus enervis*			C		1/1
plants	monocots	Cyperaceae	*Carex appressa*			C		1/1
plants	monocots	Cyperaceae	*Carex maculata*			C		1
plants	monocots	Cyperaceae	*Cyperus laevis*			C		1/1
plants	monocots	Cyperaceae	*Gahnia aspera*			C		3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	monocots	Dioscoreaceae	*Dioscorea transversa*	native yam		C		3
plants	monocots	Flagellariaceae	*Flagellaria indica*	whip vine		C		6
plants	monocots	Hemerocallidaceae	*Dianella caerulea var. caerulea*			C		1/1
plants	monocots	Hemerocallidaceae	*Dianella longifolia var. longifolia*			C		1/1
plants	monocots	Hemerocallidaceae	*Dianella brevipedunculata*			C		1/1
plants	monocots	Hemerocallidaceae	*Dianella caerulea*			C		3
plants	monocots	Hemerocallidaceae	*Geitonoplesium cymosum*	scrambling lily		C		8
plants	monocots	Hydrocharitaceae	*Vallisneria annua*			C		1/1
plants	monocots	Hydrocharitaceae	*Vallisneria nana*			C		1/1
plants	monocots	Juncaceae	*Juncus prismatocarpus*	branching rush		C		1/1
plants	monocots	Juncaceae	*Juncus usitatus*			C		2/2
plants	monocots	Juncaginaceae	*Triglochin procera*			C		1
plants	monocots	Laxmanniaceae	*Lomandra hystrix*			C		2
plants	monocots	Laxmanniaceae	*Lomandra longifolia*			C		5
plants	monocots	Laxmanniaceae	*Cordyline petiolaris*	large-leaved palm lily		C		3
plants	monocots	Laxmanniaceae	*Thysanotus tuberosus*			C		1
plants	monocots	Laxmanniaceae	*Eustrephus latifolius*	wombat berry		C		4
plants	monocots	Laxmanniaceae	*Cordyline rubra*	red-fruited palm lily		C		7
plants	monocots	Laxmanniaceae	*Lomandra laxa*	broad-leaved matrush		C		1/1
plants	monocots	Orchidaceae	*Plectorrhiza tridentata*	tangle orchid		C		1
plants	monocots	Orchidaceae	*Dipodium*			C		1/1
plants	monocots	Orchidaceae	*Pterostylis nutans*			C		1/1
plants	monocots	Orchidaceae	*Genoplesium pumilum*	green midge orchid		C		1
plants	monocots	Orchidaceae	*Dendrobium speciosum*			C		1
plants	monocots	Orchidaceae	*Dendrobium tetragonum*	tree spider orchid		C		1
plants	monocots	Orchidaceae	*Pterostylis sp. (Gundiah W.W.Abell AQ72188)*			NT		1
plants	monocots	Orchidaceae	*Dendrobium monophyllum*			C		1
plants	monocots	Orchidaceae	*Pterostylis russellii*			C		1/1
plants	monocots	Poaceae	*Dichanthium annulatum*	sheda grass	Y			1/1
plants	monocots	Poaceae	*Sporobolus natalensis*		Y			1/1
plants	monocots	Poaceae	*Sporobolus pyramidalis*		Y			7/7
plants	monocots	Poaceae	*Echinochloa telmatophila*	swamp barnyard grass		C		1/1
plants	monocots	Poaceae	*Cynodon nlemfuensis var. nlemfuensis*		Y			1/1
plants	monocots	Poaceae	*Eragrostis*			C		1
plants	monocots	Poaceae	*Chloris gayana*	rhodes grass	Y			3/1
plants	monocots	Poaceae	*Ottochloa nodosa*			C		2
plants	monocots	Poaceae	*Paspalum notatum*	bahia grass	Y			1/1
plants	monocots	Poaceae	*Sporobolus laxus*			C		1/1
plants	monocots	Poaceae	*Themeda triandra*	kangaroo grass		C		4
plants	monocots	Poaceae	*Entolasia stricta*	wiry panic		C		2
plants	monocots	Poaceae	*Echinopogon ovatus*			C		1/1
plants	monocots	Poaceae	*Oplismenus aemulus*	creeping shade grass		C		3
plants	monocots	Poaceae	*Sacciolepis indica*	Indian cupscale grass		C		1
plants	monocots	Poaceae	*Urochloa decumbens*		Y			1/1
plants	monocots	Poaceae	*Imperata cylindrica*	blady grass		C		3
plants	monocots	Poaceae	*Megathyrsus maximus*		Y			4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	monocots	Poaceae	*Paspalidium distans*	shotgrass		C		2/2
plants	monocots	Poaceae	*Ottochloa gracillima*	pademelon grass		C		4
plants	monocots	Poaceae	*Sporobolus africanus*	Parramatta grass	Y			2/2
plants	monocots	Poaceae	*Sporobolus elongatus*			C		1/1
plants	monocots	Pontederiaceae	*Pontederia cordata*		Y			1/1
plants	monocots	Potamogetonaceae	*Potamogeton perfoliatus*	perfoliate pondweed		C		1/1
plants	monocots	Potamogetonaceae	*Lepilaena*			C		1/1
plants	monocots	Potamogetonaceae	*Stuckenia pectinata*			C		1/1
plants	monocots	Ripogonaceae	*Ripogonum album*	white supplejack		C		3
plants	monocots	Ripogonaceae	*Ripogonum brevifolium*	small-leaved supplejack		C		3
plants	monocots	Smilacaceae	*Smilax australis*	barbed-wire vine		C		11
plants	monocots	Xanthorrhoeaceae	*Xanthorrhoea johnsonii*			C		2
plants	monocots	Zingiberaceae	*Alpinia caerulea*	wild ginger		C		2
plants	monocots	Zingiberaceae	*Alpinia arundelliana*			C		1
plants	uncertain	Indet.	*Indet.*			C		23/2
protists	red algae	Rhodophyceae	*Caloglossa leprieurii var. angustata*			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.

Australian Government

Department of the Environment

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: 04/11/14 16:44:36

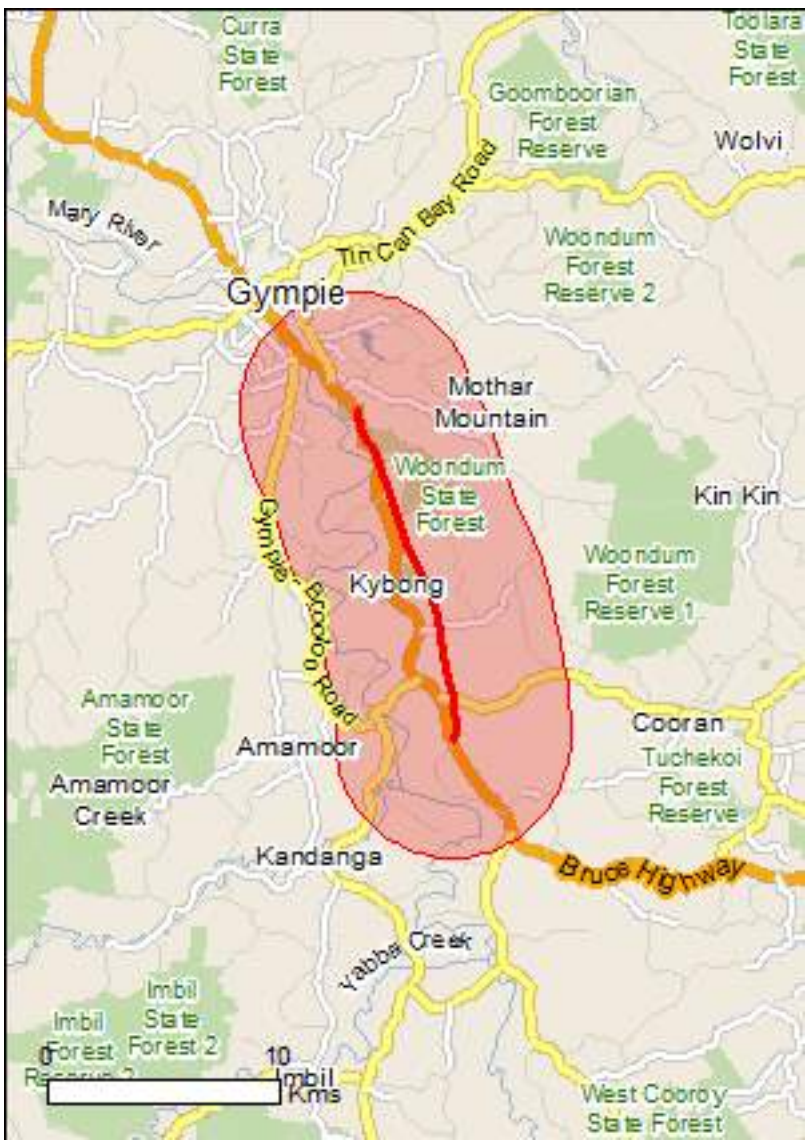
Summary

Details

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat

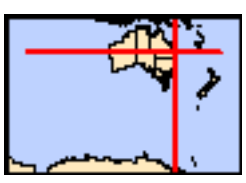
Acknowledgements



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

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.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Areas:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	37
Listed Migratory Species:	12

Other Matters Protected by the EPBC Act

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

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place and the heritage values of a place on the Register of the National Estate.

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.

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

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	15
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine	None

Extra Information

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

Place on the RNE:	2
State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	36
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (RAMSAR) [Resource Information]

Name	Proximity
Great sandy strait	Upstream from Ramsar

Listed Threatened Ecological Communities [Resource Information]

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

Name	Status	Type of Presence
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area

Listed Threatened Species [Resource Information]

Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Endangered	Foraging, feeding or related behaviour may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area
Cyclopsitta diophthalma coxeni Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat may occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat may occur within area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
Lathamus discolor Swift Parrot [744]	Endangered	Species or species

Name	Status	Type of Presence
		habitat likely to occur within area
[Poephila cincta cincta](#)		
Black-throated Finch (southern) [64447]	Endangered	Species or species habitat may occur within area
[Rostratula australis](#)		
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
[Turnix melanogaster](#)		
Black-breasted Button-quail [923]	Vulnerable	Species or species habitat known to occur within area
Fish		
[Maccullochella mariensis](#)		
Mary River Cod [83806]	Endangered	Species or species habitat known to occur within area
[Neoceratodus forsteri](#)		
Australian Lungfish, Queensland Lungfish [67620]	Vulnerable	Species or species habitat known to occur within area
Frogs		
[Mixophyes iteratus](#)		
Giant Barred Frog, Southern Barred Frog [1944]	Endangered	Species or species habitat known to occur within area
Insects		
[Phyllodes imperialis smithersi](#)		
Pink Underwing Moth [86084]	Endangered	Species or species habitat may occur within area
Mammals		
[Chalinolobus dwyeri](#)		
Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to occur within area
[Dasyurus hallucatus](#)		
Northern Quoll [331]	Endangered	Species or species habitat may occur within area
[Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)](#)		
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
[Pteropus poliocephalus](#)		
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Plants		
[Arthraxon hispidus](#)		
Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area
[Baloghia marmorata](#)		
Marbled Balogia, Jointed Baloghia [8463]	Vulnerable	Species or species habitat may occur within area
[Bosistoa selwynii](#)		
Heart-leaved Bosistoa [13702]	Vulnerable	Species or species habitat likely to occur within area
[Bosistoa transversa](#)		
Three-leaved Bosistoa [16091]	Vulnerable	Species or species habitat likely to occur within area
[Cryptocarya foetida](#)		
Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat likely to occur within area

Name	Status	Type of Presence
Floydia praealta Ball Nut, Possum Nut, Big Nut, Beefwood [15762]	Vulnerable	Species or species habitat likely to occur within area
Fontainea rostrata [24039]	Vulnerable	Species or species habitat likely to occur within area
Macadamia ternifolia Small-fruited Queensland Nut, Gympie Nut [7214]	Vulnerable	Species or species habitat likely to occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat likely to occur within area
Phebalium distans Mt Berryman Phebalium [81869]	Critically Endangered	Species or species habitat may occur within area
Sophora fraseri [8836]	Vulnerable	Species or species habitat likely to occur within area
Streblus pendulinus Siah's Backbone, Sia's Backbone, Isaac Wood [21618]	Endangered	Species or species habitat likely to occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
Triunia robusta [14747]	Endangered	Species or species habitat likely to occur within area
Xanthostemon oppositifolius Penda, Southern Penda, Luya's Hardwood [8738]	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
Delma torquata Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Egernia rugosa Yakka Skink [1420]	Vulnerable	Species or species habitat may occur within area
Elusor macrurus Mary River Turtle, Mary River Tortoise [64389]	Endangered	Species or species habitat known to occur within area
Furina dunmalli Dunmall's Snake [59254]	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
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Hirundapus caudacutus		
White-throated Needletail [682]		Species or species habitat known to occur within area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus		
Spectacled Monarch [610]		Species or species habitat known to occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat known to occur within area
Ardea ibis		
Cattle Egret [59542]		Breeding likely to occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
Anseranas semipalmata		
Magpie Goose [978]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat known to occur within area
Ardea ibis		
Cattle Egret [59542]		Breeding likely to occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species

Name	Threatened	Type of Presence
		habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

Extra Information

Places on the RNE [Resource Information]

Note that not all Indigenous sites may be listed.

Name	State	Status
Historic		
Andrew Fishers Cottage	QLD	Registered
Scottish Gympie Goldmine	QLD	Registered

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
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species

Name	Status	Type of Presence
		habitat likely to occur within area
[Anas platyrhynchos](#) Mallard [974]		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
Frogs		
[Rhinella marina](#) Cane Toad [83218]		Species or species habitat likely to occur within area
Mammals		
[Bos taurus](#) Domestic Cattle [16]		Species or species habitat likely to occur within area
[Canis lupus familiaris](#) Domestic Dog [82654]		Species or species habitat likely to occur within area
[Felis catus](#) Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
[Feral deer](#) Feral deer species in Australia [85733]		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 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		

Name	Status	Type of Presence
Annona glabra Pond Apple, Pond-apple Tree, Alligator Apple, Bullock's Heart, Cherimoya, Monkey Apple, Bobwood, Corkwood [6311]		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
Asparagus africanus Climbing Asparagus, Climbing Asparagus Fern [66907]		Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. rotundata Bitou Bush [16332]		Species or species habitat likely to occur within area
Dolichandra unguis-cati Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		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
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
Parthenium hysterophorus Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]		Species or species habitat likely to occur within area
Protasparagus plumosus Climbing Asparagus-fern, Ferny Asparagus [11747]		Species or species habitat likely to occur within area
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Senecio madagascariensis Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur

Coordinates

-26.229394 152.697036,-26.236169 152.69901,-26.240173 152.700898,-26.243252 152.703559,-26.245946 152.70519,-26.254029 152.708022,-26.269578 152.713601,-26.277505 152.717034,-26.29051 152.724416,-26.300995 152.728107,-26.308458 152.729051,-26.319614 152.731969,-26.329538 152.734372,-26.341999 152.735145,-26.344807 152.734158

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 Heritage and Register of National Estate properties, Wetlands of International 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.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

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.

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:

-Department of Environment, Climate Change and Water, New South Wales
-Department of Sustainability and Environment, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment and Natural Resources, South Australia
-Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts
-Environmental and Resource Management, Queensland
-Department of Environment and Conservation, Western Australia
-Department of the Environment, Climate Change, Energy and Water
-Birds Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-SA 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, Atherton and Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
-State Forests of NSW
-Geoscience Australia
-CSIRO
-Other groups and individuals

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

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

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APPENDIX C FLORA SURVEY RESULTS

Tracks 1 and 2 (not timed)

Time	Family	Species Name	Common Name	Q
	Araucariaceae	*Araucaria cunninghamii*	Hoop Pine	
	Capparaceae	*Capparis arborea*	Brush Capper Berry	
	Rutaceae	*Flindersia australis*	Australian Teak	
	Poaceae	*Pennisetum alopecuroides*	Swamp Foxtail	
	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
	Myrtaceae	*Eucalyptus robusta*	Swamp Mahogany	
	Sapindaceae	*Cupaniopsis parviflora*	Small-leaved Tuckeroo	
	Verbenaceae	*Lantana camara*	Lantana	*3
	Solanaceae	*Solanum mauritianum*	Bush Tobacco	*
	Rutaceae	*Citrus x limon*	Bush Lemon	*
	Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
	Asteraceae	*Bidens pilosa*	Farmers Friend	*
	Asteraceae	*Ageratum houstonianum*	Blue Billygoat Weed	*
	Poaceae	*Themeda triandra*	Kangaroo Grass	
	Mimosaceae	*Acacia disparrima*	Hickory Wattle	
	Mimosaceae	*Acacia fimbriata*	Fringed Wattle	
	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	Asteraceae	*Baccharis halimifolia*	Groundsel Bush	*2
	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	Loranthaceae	*Amyema conspicua* ssp. *conspicua*		
	Moraceae	*Ficus macrophylla*	Moreton Bay Fig	
	Ulmaceae	*Celtis sinensis*	Chinese Elm	*3
	Rutaceae	*Flindersia schottiana*	Bumpy Ash	
	Typhaceae	*Typha* spp.	Bullrush	
	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	Onagraceae	*Ludwigia peploides* ssp. *montevidensis*	Water Primrose	

Track 3 - 18/10/2014

Time	Family	Species Name	Common Name	Q
9:25	Laxmanniaceae	*Lomandra multiflora*	Many-flowered Mat-rush	
	Hemerocallidaceae	*Dianella longifolia*	Pale Flax-lily	
	Lobeliaceae	*Lobelia purpurescens*	White Root	
	Fabaceae	*Acacia falcata*	Sickle Wattle	
	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	Fabacae	*Glycine cyrtoloba*	-	

	Mimosaceae	*Acacia maidenii*	Maiden's Wattle	
	Capparaceae	*Capparis arborea*	Brush Caper Berry	
	Visaceae	*Notothixos incanus*	Mistletoe	
	Myrtaceae	*Lophostemon confertus*	Brushbox	
	Phyllanthaceae	*Glochidion ferdinandi*	Cheesetree	
9:54	Asteraceae	*Baccharis halimifolia*	Groundsel Bush	*2
	Rubiaceae	*Psychotria daphnoides*	Smooth Psychotria	
	Myrtaceae	*Gossia inophloia*	Thready-bark Myrtle	
	Rutaceae	*Flindersia collita*	Leopard Ash	
10:05	Flindersiaceae	*Flindersia australis*	Crow's Ash	
	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	Asteraceae	*Onopordum acanthium*	Scotch Thistle	*
	Poaceae	*Digitaria didactyla*	Blue Couch	
	Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
	Poaceae	*Pennisetum alopecuroides*	Swamp Foxtail	
	Thymelaeaceae	*Wikstroemia indica*	Wikstomea	
	Cyperaceae	*Gahnia aspera*	Rough saw-sedge	
10:12	Anacardiaceae	*Schinus terebinthifolius*	Broad-leaved Pepper tree	*3
	Rutaceae	*Citrus australis*	Native Lime	
	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	Pittosporaceae	*Pittosporum revolutum*	yellow pittosporum	
	Sapindaceae	*Cupaniopsis parviflora*	Green-leaved Tamarind	
	Rhamnaceae	*Alphitona excelsa*	Red Ash	
	Cyperaceae	*Juncus spp.*	Common Rush	
	Solanaceae	*Solanum mauritianum*	Bush Tobacco	*
	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	Araucariaceae	*Araucaria cunninghamii*	Hoop Pine	
	Poaceae	*Paspalum* sp.		
	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
	Dennstaedtiaceae	*Pteridium esculentum*	Bracken Fern	
10:20	Asteraceae	*Taraxacum officinale*	Dandelion	*
	Verbenaceae	*Lantana camara*	Lantana	*3
	Bignoniaceae	*Pandorea pandorana*	Wonga Vine	
	Sapindaceae	*Guoia semiglauca*	Guioa	
	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	Lamiaceae	*Clerodendrum floribundum*	Smooth Clerodendrum	
	Dioscoreaceae	*Dioscorea transversa*	Native Yam	
	Adiantaceae	*Adiantum hispidulum*	Rough Maiden Hair Fern Fern	SL
	Moraceae	*Ficus coronata*	Creek Sandpaper Fig	
	Adiantaceae	*Adiantum aethiopicum*	Common Maidenhair	SL

			Fern	
	Philesiaceae	*Eustrephus latifolius*	Wombat Berry	
	Philesiaceae	*Geitonoplesium cymosum*	Scambling Lily	
	Arecaceae	*Phoenix roebelenii*	Pygmy Date Palm	*
	Vitaceae	*Cissus antarctica*	Kangaroo Vine	
	Poaceae	*Oplismenus aemulus*	Basket Grass	
	Phyllanthaceae	*Breynia oblongifolia*	Coffee Bush	
	Blechnaceae	*Doodia aspera*	Prickly Rasp Fern	
10:29	Rubiaceae	*Rubus moluccanus*	Native Raspberry	
	Oxalidaceae	*Oxalis chnoodes*	Oxalis	
	Hemerocallidaceae	*Dianella caeurlea*	Blue Flax-lily	
	Araliaceae	*Polychlis elegans*	Celery wood	
	Smilacaceae	*Smilax glyciphylla*	Native Sarsparilla	
	Apocynacaeae	*Alyxia ruscifolia*	Prickly Alaxyia	
	Myrtaceae	*Eucalyptus propinqua*	Small-fruited Grey Gum	
	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	Asteraceae	*Bidens pilosa*	Farmer's Friend	*
	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
	Loranthaceae	*Amyema conspicua* ssp. *conspicua*		
	Celastraceae	*Celastrus subspicatus*	Large-leaved Staff Vine	
	Meliaceae	*Aglaia brownii*	Browns Aglia	
	Myrtaceae	*Gossia inophloia*	Thready-bark Myrtle	
	Rutaceae	*Flindersia collita*	Leopard Ash	
11:16	Fabaceae	*Jacksonia scoparia*	Dogwood	
	Verbenaceae	*Verbena bonariensis*	Purple Top	*
11:31	Myrtaceae	*Melaleuca styphelioides*	Prickly-leaved Paperbark	
	Sapindaceae	*Jagera pseudorhus*	Foambark Tree	
	Ulmaceae	*Trema tomentosa var. aspera*		
	Fabaceae	*Derris involuta*	Derris	
	Smilacaceae	*Smilax australis*	barbed-wire vine	
	Polypodiaceae	*Platycerium superbum*	Staghorn Fern	SL
	Loranthaceae	*Amymea pendula*	Mistletoe	
	Malvaceae	*Brachychiton acerifolius*	Flame Tree	SL
	Solanaceae	*Solanum jasminoides*	Potato Vine	*
	Elaeocarpaceae	*Elaeocarpus obovatus*	Blueberry ash	
	Rubiaceae	*Morinda jasminoides*	Sweet Morinda	
	Poaceae	*Melinis minutifolia*	Molasses Grass	
	Lomandraceae	*Lomandra hystrix*	Mat-rush	
	Myrtaceae	*Syzygium smithii*	Lillypilly satinash	
12:10	Polygonaceae	*Persicaria spp.*		

Track 4 - 18/10/2014

Time	Family	Species Name	Common Name	Q
12:40	Myrtaceae	*Lophostemon suaveolens*	Swamp box	
	Verbenaceae	*Verbena bonariensis*	Purple Top	*
	Mimosaceae	*Acacia disparrima*	Hickory Wattle	
	Verbenaceae	*Lantana camara*	Lantana	*3
	Mimosaceae	*Acacia maidenii*	Maiden's Wattle	
	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	Menispermaceae	*Stephania japonica*	Snake Vine	
	Mimosaceae	*Acacia concurrens*	Hickory Wattle	
	Passifloraceae	*Passiflora subpeltata*	White Passionfruit	*
	Poaceae	*Imperata cylindrica*	Blady Grass	
	Poaceae	*Themada trianda*	Kangaroo Grass	
	Phyllanthaceae	*Glochidion ferdinandi*	Cheesetree	
	Myrtaceae	*Eucalyptus grandis*	Flooded Gum	
	Poaceae	*Chloris gayana*	Rhodes Grass	*
	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	Phyllanthaceae	*Breynia oblongifolia*	Coffee Bush	
	Proteaceae	*Grevillea robusta*	Silky Oak	
	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
	Solanaceae	*Solanum nigrum*	Black Nightshade	*
	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	Myrtaceae	*Melaleuca stypheloides*	Prickly-leaved Paperbark	
	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	Poaceae	*Bambusea* spp.	Bamboo	*
	Lamiaceae	*Clerodendrum floribundum*	Smooth Clerodendrum	
	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
	Myrtaceae	*Eucalyptus microcorys*	Tallowood	
	Apiaceae	*Cyclospermum leptophyllum*	Slender Celery	*
	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	Sapindaceae	*Guoia semiglauca*	Guioa	
	Araliaceae	*Polychlis elegans*	Celery wood	
	Hemerocallidaceae	*Dianella caeurlea*	Blue flax-lily	
	Smilacaceae	*Smilax australis*	Barbed-wire vine	
	Asteraceae	*Taraxacum officinale*	Dandelion	*
	Asteraceae	*Ageratum houstonianum*	Blue Billygoat Weed	*
	Myrtaceae	*Syncarpia glomulifera*	Turpentine	
	Rutaceae	*Acronychia laevis*	Hard Aspen	
	Laxmanniaceae	*Lomandra hystrix*	Mat-rush	
	Oxalidaceae	*Oxalis chnoodes*	Oxalis	

	Amaryllidaceae	*Hippeastrum spp.*		
	Davalliaceae	*Nephrolepis cordifolia*	Fishbone Fern	
	Asparagaceae	*Yucca spp.*	Yucca	
	Cyperaceae	*Juncus* spp.	Common Rush	
	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	Vitaceae	*Cissus antarctica*	Kangaroo Vine	
	Arecaceae	*Archontophoenix cunninghamiana*	Bangalow Palm	
	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	Oleaceae	*Ligustrum lucidum*	Broad-leaved Privet	*3
	Moraceae	*Ficus coronata*	Creek Sandpaper Fig	
	Sapindaceae	*Cupaniopsis parviflora*	Small-leaved Tuckeroo	
	Rutaceae	*Murraya paniculata*	Orange Jasmine	*
	Cannabaceae	*Aphananthe philippensis*	Native Elm	
	Euphorbiaceae	*Mallotus polyadenos*	Green Kamala	
	Lauraceae	*Endiandra sieberi*	Corkwood	
	Myrtaceae	*Gossia punctata*	-	
	Bignoniaceae	*Pandorea pandorana*	Wonga Vine	
	Blechnaceae	*Doodia aspera*	Prickly Rasp Fern	
	Commelinaceae	*Tradescantia fluminensis*	Wandering Jew	*
	Hemerocallidaceae	*Geitonoplesium cymosum*	Scrambling Lily	
	Capparaceae	*Capparis arborea*	Brush Caper Berry	
	Adiantaceae	*Adiantum hispidulum*	Rough maidenhair	SL
	Liliaceae	*Crinum pedunculatum*	Swamp Lily	
	Apocynacaeae	*Alyxia ruscifolia*	Prickly Alaxyia	
	Sapindaceae	*Jagera pseudorhus*	Foambark Tree	
	Poaceae	*Oplismenus aemulus*	Basket Grass	
	Dioscoreaceae	*Dioscorea transversa*	Native Yam	
	Rubiaceae	*Morinda jasminoides*	Sweet Morinda	
	Casuarinaceae	*Allocasuarina torulosa*	Forest Oak	
	Laxmanniaceae	*Lomandra multiflora*	Many-flowered Mat-rush	
	Myrtaceae	*Eucalyptus propinqua*	Small-fruited Grey Gum	
	Fabaceae	*Desmodium rhytidophyllum*		
	Malvaceae	*Brachychiton acerifolius*	Flame Tree	SL
	Pittosporaceae	*Pittosporum rubigosum*	Hairy Pittosporum	
	Lobeliaceae	*Lobelia purpurescens*	White Root	
	Rubiaceae	*Pomax umbellata*	-	
	Myrsinaceae	*Rapanea variabilis*	Muttonwood	
	Acanthaceae	*Pseuderanthemum variabile*	Pastel Flower	
	Lauraceae	*Cryptocarya triplinervis* var. *pubens*	Hairy Three Veined Cryptocarya	

	Malvaceae	*Abutilon oxycarpum* var. *oxycarpum*	Lantern Bush	
	Convolvulaceae	*Polymeria calycina*		
	Dennstaedtiaceae	*Pteridium esculentum*	Bracken Fern	
	Fabaceae	*Glycine cyrtoloba*	-	
	Goodineaceae	*Goodenia rotundifolia*	Star Goodenia	
	Myrtaceae	*Rhodamnia rubescens*	Brush Turpentine	
	Solanaceae	*Solanum jasminoides*	Potato Vine	*
	Hemerocallidaceae	*Dianella revoluta*	Blueberry Flax-lily	
	Aizoaceae	*Tetragonia tetragonioides*	New Zealand Spinach	
	Violaceae	*Viola hederacae*	Native violet	
	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	Cyperaceae	*Gahnia sieberiana*	Red-fruited Saw Sedge	
	Philydraceae	*Philydrum lanuginosum*	Frogsmouth	
	Cyperaceae	*Cyperus* sp.		
	Menyanthacaeae	*Nymphoides indica*	Water Snowflake	SL
	Nymphaeaceae	*Nymphaea caerulea*	Water Lily	
	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	Rutaceae	*Citrus australis*	Native Lime	
	Aspleniaceae	*Asplenium australasicum*	Birds Nest Fern	
	Lauraceae	*Cinnamomum oliveri*	Olivers Sassafrass	
	Moraceae	*Trophis scandens*	Burny Vine	
	Myrtaceae	*Baeckea virgata*	Baeckea	
	Laxmanniaceae	*Lomandra confertifolia*	Mat-Rush	
	Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*
1:16	Euphorbiaceae	*Mallotus claoxyloides*	Green Kamala	

Track 5 - 18/10/2014

Time	Family	Species Name	Common Name	Q
15:20	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	Pittosporaceae	*Hymenosporum flavum*	Native Frangipani	
	Myrtaceae	*Syzygium floribundum*	Weeping Lilly Pilly	
	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	Myrtaceae	*Lophostemon suaveolens*	Swamp box	
	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	Laxmanniaceae	*Lomandra hystrix*	Mat-rush	
	Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*
	Asteraceae	*Bidens pilosa*	Farmer's Friend	*
	Poaceae	*Pennisetum clandestinum*	Kikuyu Grass	*
	Apiaceae	*Cyclospermum leptophyllum*	Slender Celery	*
	Asteraceae	*Ageratum houstonianum*	Blue Billygoat Weed	*

	Vitaceae	*Cissus antarctica*	Kangaroo Vine	
	Apocynacaeae	*Parsonsia straminea*	Monkey Rope	
	Mimosaceae	*Acacia disparrima*	Hickory Wattle	
	Hemerocallidaceae	*Geitonoplesium cymosum*	Scrambling Lily	
	Poaceae	*Imperata cylindrica*	Blady Grass	
	Oxalidaceae	*Oxalis chnoodes*	Oxalis	
	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
	Sapindaceae	*Guoia semiglauca*	Guioa	
	Dennstaedtiaceae	*Pteridium esculentum*	Bracken Fern	
	Verbenaceae	*Verbena bonariensis*	Purple Top	*
	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
	Apocynaceae	*Araujia sericifera*	Moth Vine	*
15:26	Asteraceae	*Baccharis halimifolia*	Groundsel Bush	*2
	Solanaceae	*Solanum mauritianum*	Bush Tobacco	*
	Hemerocallidaceae	*Dianella caeurlea*	Blue flax-lily	
	Poaceae	*Setaria sphacelata*	Pigeon Grass	*
	Mimosaceae	*Acacia maidenii*	Maiden's Wattle	
	Menispermaceae	*Stephania japonica*	Snake Vine	
	Solanaceae	*Solanum jasminoides*	Potato Vine	*
	Myoporaceae	*Eremophila dablis*	White Apple	
15:30	Ochnaceae	*Ochna serrulata*	Ochna	*
	Verbenaceae	*Lantana camara*	Lantana	*3
	Poaceae	*Oplismenus aemulus*	Basket Grass	
	Asteraceae	*Cirsium vulgare*	Spear Thistle	*
	Caryophyllaceae	*Stellaria media*	Chickweed	*
	Rubiaceae	*Rubus moluccanus*	Native Raspberry	
	Thymelaeaceae	*Pimelea linifolia* ssp. *linifolia*	Slender Riceflower	
	Solanaceae	*Solanum nigrum*	Black Nightshade	*
	Dicksoniaceae	*Calochlaena dubia*	Soft Bracken	SL
	Moraceae	*Ficus coronata*	Creek Sandpaper Fig	
	Euphorbiaceae	*Alchornea ilicifolia*	Native Holly	
	Adiantaceae	*Adiantum hispidulum*	Rough Maiden Hair Fern	SL
	Caesalpiniaceae	*Senna pendula*	Easter Cassia	*
	Convolvulaceae	*Dichondra repens*	Kidney Weed	
	Cyperaceae	*Juncus* spp.	Common Rush	
	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	Bignoniaceae	*Pandorea pandorana*	Wonga Vine	
	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	Phyllanthaceae	*Breynia oblongifolia*	Coffee Bush	
	Poaceae	*Themeda triandra*	Kangaroo Grass	

	Poaceae	*Dichanthium sericium*	Queensland Bluegrass	
	Passifloraceae	*Passiflora subpeltata*	White Passionfruit	*
16:07	Moraceae	*Ficus obliqua*	Small-fruited Fig	
	Sapindaceae	*Cupaniopsis serrata*		
16:08	Fabaceae	*Desmodium uncinatum*	Silver leaf Desmodium	*

Track 6 - 18/10/2014

Time	Family	Species Name	Common Name	Q
16:21	Asteraceae	*Baccharis halimifolia*	Groundsel	*2
	Geraniaceae	*Erodium cicutarium*	Crows foot	
	Solanaceae	*Solanum mauritianum*	Bush Tobacco	*
	Apiaceae	*Cyclospermum leptophyllum*	Slender Celery	*
	Poaceae	*Cynodon dactylon*	Couch	*
	Verbenaceae	*Verbena bonariensis*	Purple Top	*
16:23	Poaceae	*Paspalum* sp.		
	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
16:25	Philesiaceae	*Eustrephus latifolius*	Wombat berry	
	Hemerocallidaceae	*Dianella longifolia*	Pale Flax-lily	
	Poaceae	*Melinis repens*	Red Natal Grass	*
	Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
	Caesalpiniaceae	*Senna pendula*	Easter Cassia	*
	Mimosaceae	*Acacia fimbriata*	Fringed Wattle	
	Euphorbiaceae	*Ricinus communis*	Castor Oil Plant	*
	Asteraceae	*Ageratum houstonianum*	Blue Billygoat Weed	*
	Asteraceae	*Tagetes minuta*	Stinking Roger	*
	Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*
	Solanaceae	*Solanum nigrum*	Black Nightshade	*
	Mimosaceae	*Acacia disparrima*	Hickory Wattle	
	Asteraceae	*Onopordum acanthium*	Scotch Thistle	*
	Fabaceae	*Kennedia rubicunda*	Red Kennedy Pea	
	Mimosaceae	*Leucaena leucocephala*	Leucaena	*
	Solanaceae	*Solanum torvum*	Giant Devil's Fig	*
	Dennstaedtiaceae	*Pteridium esculentum*	Bracken Fern	
	Poaceae	*Setaria sphacelata*	Pigeon Grass	*
	Asteraceae	*Bractyantha bracteata*	Golden Everlasting	
	Asteraceae	*Senecio madagascariensis*	Fireweed	*2
17:02	Fabaceae	*Trifolium repens* var. *repens*	White Clover	*

Track 7 - 19/10/2014

Time	Family	Species Name	Common Name	Q
9:26	Hemerocallidaceae	*Dianella revoluta*	Blue Flax-Lily	
9:29	Verbanaceae	*Lantana camara*	Lantana	*3

	Poaceae	*Imperata cylindrica*	Blady Grass	
	Poaceae	*Themeda triandra*	Kangaroo Grass	
	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	Asteraceae	*Bidens pilosa*	Farmers Friend	*
	Asteraceae	*Onopordum acanthium*	Scotch Thistle	*
	Aizoaceae	*Tetragonia tetragonioides*	New Zealand Spinach	
	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
	Caryophyllaceae	*Stellaria media*	Chickweed	*
	Asteraceae	*Ageratum houstonianum*	Blue Billygoat Weed	*
	Philesiaceae	*Eustrephus latifolius*	Wombat Berry	
	Mimosaceae	*Acacia concurrens*	Hickory Wattle	
	Rhamnaceae	*Alphitonia excelsa*	Red Ash	
	Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
	Asteraceae	*Chrysocephalum apiculatum*	Yellow Button	
	Malvaceae	*Malva parviflora*	Small-flowered Mallow	*
	Ericaceae	*Leucopogon juniperinus*	Prickly Beard-heath	
	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	Mimosaceae	*Acacia disparrima*	Hickory Wattle	
	Myrtaceae	*Eucalyptus acmenoides*	White Mahogany	
	Sapindaceae	*Cupaniopsis parviflora*	Small-leaved Tuckeroo	
	Myrtaceae	*Eucalyptus propinqua*	Small-fruited Grey Gum	
	Araliaceae	*Polychlis elegans*	Celery wood	
	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
	Vitaceae	*Clematcissus opaca*	Pepper Vine	
	Capparaceae	*Capparis arborea*	Brush Caper Berry	
9:47	Asparagaceae	*Asparagus plumosus*	Feathered Asparagus Fern	*3
	Myrtaceae	*Lophostemon confertus*	Brushbox	
	Sapindaceae	*Jagera pseudorhus*	Foambark	
	Dilleniaceae	*Hibbertia linearis*		
	Apocynacaeae	*Alyxia ruscifolia*	Prickly Alaxyia	
	Mimosaceae	*Acacia maidenii*	Maiden's Wattle	
9:56	Myrtaceae	*Lophostemon suaveolens*	Swamp Box	
	Myrtaceae	*Angophora floribunda*		
	Casuarinaceae	*Allocasuarina littoralis*	Black Sheoak	
	Hemerocallidaceae	*Dianella caeurlea*	Blue flax-lily	
10:22	Fabaceae	*Jacksonia scoparia*	Dogwood	
	Rutaceae	*Zieria minutifolia*	Twiggy Zieria	
	Poaceae	*Oplismenus aemulus*	Basket Grass	
	Goodeniaceae	*Goodenia rotundifolia*		
	Smilacaceae	*Smilax australis*	Barbed-wire vine	

	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	Flindersiaceae	*Flindersia australis*	Crow's Ash	
10:38	Myrtaceae	*Angpohora leiocarpa*	Smooth Barked Apple	
	Fabaceae	*Hardenbergia violacea*	Purple Coral Pea	
	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	Laxmanniaceae	*Lomandra multiflora*	Many-flowered Mat-rush	
	Fabaceae	*Acacia leiocalyx*	Black Wattle	
	Protaeceae	*Persoonia sericea*	Silky Geebung	
10:49	Xanthorrhoeaceae	*Xanthorrhoea johnsonii*	Johnson's Grass Tree	SL
	Byttneriaceae	*Commersonia bartramia*	Brown Kurrajong	
	Verbenaceae	*Verbena bonariensis*	Purple Top	*
	Phyllanthaceae	*Glochidion ferdinandi*	Cheesetree	
	Cyperaceae	*Juncus* sp.		
	Oxalidaceae	*Oxalis chnoodes*	Oxalis	
11:04	Goodeniaceae	*Velleia paradoxa*		
11:07	Solanaceae	*Solanum mauritianum*	Bush Tobacco	*
11:11	Laxmanniaceae	*Thysanotus spp.*	Fringe Lily	
	Campanulaceae	*Wahlenbergia gracilis*	Sprawling bluebell	SL
	Convolvulaceae	*Dichondra repens*	Kidneyweed	
	Asteraceae	*Taraxacum officinale*	Dandelion	*
	Rutaceae	*Acronychia laevis*	Glossy Acronychia	
	Apocynaceae	*Tubernaemontana pandacqui*	Windmill Bush	
11:15	Dennstaedtiaceae	*Pteridium esculentum*	Bracken Fern	
	Campanulaceae	*Wahlenbergia stricta*		SL
	Thymelaeaceae	*Pimelea linifolia*	Slender Rice-flower	
	Convolvulaceae	*Convolvulus erubescens*	Bindweed	
	Pteridaceae	*Cheilanthes sieberi*	Mulga Fern	
	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
11:20	Casuarinaceae	*Allocasuarina torulosa*	Forest Oak	
	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	Ulmaceae	*Celtis sinensis*	Chinese Elm	*3
	Fabaceae	*Derris involuta*	Derris	
	Solanaceae	*Solanum nigrum*	Black Nightshade	*
	Rubiaceae	*Psychotria daphnoides*	Smooth Psychotria	
11:25	Euphorbiaceae	*Alchornea ilicifolia*	Native Holly	
	Myrtaceae	*Tristaniopsis lurina*	Water Gum	
	Menispermaceae	*Stephania japonica*	Snake Vine	
	Dicksoniaceae	*Calochlaena dubia*	Soft Bracken	SL
	Cyperaceae	*Gahnia aspera*	Saw-sedge	
	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	Phyllanthaceae	*Breynia oblongifolia*	Coffee Bush	

	Adiantaceae	*Adiantum aethiopicum*	Common Maidenhair Fern	SL
	Adiantaceae	*Adiantum hispidulum*	Rough Maiden Hair Fern	SL
	Apocynacaeae	*Parsonsia straminea*	Monkey Rope	
	Myrtaceae	*Baeckea virgata*	Baekea	
	Rutaceae	*Acronychia oblongifolia*	Common Acronychia	
	Cyperaceae	*Carex appressa*	Tall Sedge	
	Moraceae	*Ficus coronata*	Creek Sandpaper Fig	
	Pittosporaceae	*Hymenosporum flavum*	Native Frangipani	
	Fabaceae	*Desmodium uncinatum*	Silver-leaf Desmodium	*
	Myrtaceae	*Syzygium smithii*	Lillypilly satinash	
	Poaceae	*Dichelachne crinita*	Plume Grass	
	Lauraceae	*Cryptocarya trilinervis* var. *puoens*	Hairy Three-veined Laurel	
	Laminaceae	*Vitex melicopea*	Northern Vitex	
11:38	Asteraceae	*Baccharis halimifolia*	Groundsel Bush	*2
	Myrtaceae	*Melaleuca styphyloides*	Prickly-leaved Tea-tree	
	Myrtaceae	*Backhousia myrtifolia*	Grey Myrtle	
	Mimosaceae	*Acacia irrorata*	Green Wattle	
	Nymphaeaceae	*Nymphaea caerula*		
	Proteaceae	*Persoonia sericea*		
	Myrtaceae	*Syzygium smithii*	Lilly Pilly	
	Lauraceae	*Cryptocarya bidwillii*	Yellow Laurel	
	Euphorbiaceae	*Mallotus claoxyloides*	Green Kamala	
	Ericaceae	*Monotoca scoparia*		
	Vitaceae	*Clematicissus poaca*	Small-leaved Water Vine	
	Ericaceae	*Leucopogon juniperina*		
11:41	Moraceae	*Ficus superba*	Strangler Fig	
	Myrtaceae	*Rhodomyrtus psidioides*	Native Guava	
	Lobeliaceae	*Lobelia alata*	Angled Lobelia	
	Myrtaceae	*Deaspermum humile*	Silky Myrtle	
11:47	Pinaceae	*Pinus elliottii*	Slash Pine	
	Myrtaceae	*Eucalyptus cloeziana*	Gympie Messmate	
11:58	Stylidiaceae	*Stylidium spp.*		
	Primulaceae	*Anagallis arvensis*	Scarlett Pimpernel	*
	Oleaceae	*Notelaea johnsonii*	Veinless Mock-olive	
	Cyperaceae	*Fimbristylis dichotoma*		
	Laxmanniaceae	*Laxmannia* sp.		
12:02	Loranthaceae	*Amyema conspicua*		

Track 8 - 19/10/2014

Time	Family	Species Name	Common Name	Q
13:32	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	Myrtaceae	*Eucalyptus acmenoides*	White Mahogany	
	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
	Verbenaceae	*Lantana camara*	Lantana	*3
	Mimosaceae	*Acacia disparrima*	Hickory Wattle	
	Mimosaceae	*Acacia leiocalyx*	Black Wattle	
	Myrtaceae	*Lophostemon suaveolens*	Swamp Box	
	Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
	Fabaceae	*Medicago polymorpha*	Burr Medic	
	Asteraceae	*Ageratum houstonianum*	Blue Billygoat Weed	*
	Fabaceae	*Kennedia rubicunda*	Red Kennedy Pea	
	Verbenaceae	*Verbena bonariensis*	Purple Top	*
	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	Poaceae	*Chloris gayana*	Rhodes Grass	*
	Poaceae	*Imperata cylindrica*	Blady Grass	
	Apocynaceae	*Parsonsia straminea*	Monkey Rope	
	Sapindaceae	*Jagera pseudorhus*	Foambark Tree	
	Mimosaceae	*Acacia complanata*	Flatstem Wattle	
	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	Laxmanniaceae	*Lomandra confertifolia*	Mat-rush	
	Fabaceae	*Hovea acutifolia*	Hovea	
	Solanaceae	*Solanum nigrum*	Black Nightshade	*
	Asteraceae	*Bidens pilosa*	Farmers Friend	*
	Fabaceae	*Leucaena leucocephala*	Leucanea	*
	Poaceae	*Setaria sphacelata*	Pigeon Grass	*
	Asteraceae	*Cirsium vulgare*	Spear Thistle	*
	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
	Mimosaceae	*Acacia falcata*	Sickle Wattle	
13:47	Asteraceae	*Baccharis halimifolia*	Groundsel	*2
	Asteraceae	*Taraxacum officinale*	Dandelion	*
	Apiaceae	*Cyclospermum leptophyllum*	Slender Celery	*
	Menispermaceae	*Stephania japonica*	Snake Vine	
	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
13:51	Caesalpiniaceae	*Senna pendula* var. *glabrata*	Winter Senna	*
	Sapindaceae	*Guioa semiglauca*	Guoia	
	Sapindaceae	*Cupaniopsis parviflora*	Small-leaved Tuckeroo	
	Moraceae	*Ficus coronata*	Creek Sandpaper Fig	

	Myrsinaceae	*Myrsine variabilis*	Muttonwood	
	Elaeocarpaceae	*Elaeocarpus obovatus*	Blueberry ash	
	Laxmanniaceae	*Lomandra hystrix*		
	Adiantaceae	*Adiantum hispidulum*	Rough Maiden Hair Fern	SL
	Nephrolepidaceae	*Nephrolepis cordifolia*	Fishbone Fern	
	Rhamnaceae	*Alphitonia excelsa*	Soap Tree	
	Phyllanthaceae	*Breynia oblongifolia*	Coffee Bush	
	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	Hemerocallidaceae	*Geitonoplesium cymosum*	Scrambling Lily	
	Rubiaceae	*Psychotria daphnoides*	Smooth Psychotria	
	Oxalidaceae	*Oxalis chnoodes*	Oxalis	
	Pittosporaceae	*Pittosporum revolutum*	yellow pittosporum	
	Mimosaceae	*Acacia maidenii*	Maiden's Wattle	
	Cyperaceae	*Juncus* sp.	Common Rush	
	Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*
	Ulmaceae	*Aphananthe philippinensis*	Rough-leaved Elm	
	Passifloraceae	*Passiflora subpeltata*	White Passionfruit	*
	Dennstaedtiaceae	*Pteridium esculentum*	Bracken Fern	
	Solanaceae	*Solanum mauritianum*	Bush Tobacco	*
	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	Fabaceae	*Glycine spp.*	Glycine	
	Thymelaeaceae	*Pimelea neo-anglica*	Poison Pimelea	
	Campanulaceae	*Wahlenbergia gracilis*	Sprawling bluebell	SL
	Convolvulaceae	*Dichondra repens*	Kidneyweed	
14:08	Fabaceae	*Trifolium repens* var. *repens*	White Clover	*

Track 9 - Monday 20/10/2014 10am

Time	#	Family	Scientific Name	Common name	Status
10:05	1	Myrtaceae	*Eucalyptus acmenoides*	White Mahogany	
	2	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	3	Myrtaceae	*Lophostemon confertus*	Brushbox	
	4	Myrtaceae	*Angophora leiocarpa*	Smooth Barked Apple	
	5	Poaceae	*Panicum simile*	Two-colour Panic	
10:10	6	Goodeniaceae	*Goodenia rotundifolia*		
	7	Fabaceae	*Desmodium rhytidophyllum*	Hairly Trefoil	
	8	Hemerocallidaceae	*Dianella longifolia*	Pale Flax-lily	
	9	Ericaceae	*Leucopogon juniperinus*	Prickly Beard-heath	
	10	Hemerocallidaceae	*Dianella revoluta*	Blue Flax-Lily	
10:16	11	Poaceae	*Entolasia stricta*	Wiry Panic	
	12	Mimosoideae	*Acacia disparrima*	Brush Ironbark Wattle	
	13	Fabaceae	*Rhynchosia minima*	Ryncho	
	14	Fabaceae	*Glycine microphylla*	Small-leaf Glycine	
10:22	15	Poaceae	*Imperata cylindrica*	Blady Grass	
	16	Laxmanniaceae	*Lomandra multiflora*	Many-flowered Mat-rush	
	17	Myrtaceae	*Eucalyptus propinqua*	Small-fruited Grey Gum	
	18	Laxmanniaceae	*Lomandra confertifolia*	Mat-rush	
10:30	19	Sapindaceae	*Jagera pseudorhus*	Foam bark Tree	
	20	Fabaceae	*Hardenbergia violacea*	Purple Coral Pea	
	21	Campanulaceae	*Lobelia purpurascens*	White Root	
	22	Poaceae	*Themeda triandra*	Kangaroo Grass	
	23	Myrtaceae	*Lophostemon suaveolens*	Swamp Box	
	24	Apocynacaeae	*Parsonsia straminea*	Monkey Rope	
	25	Proteaceae	*Persoonia sericea*	Silky Geebung	
10:45	26	Mimosoideae	*Acacia maidenii*	Maiden's Wattle	
	27	Verbenaceae	*Lantana camara*	Lantana	*3
	28	Apocynacaeae	*Alyxia ruscifolia*	Prickly Alyxia	
	29	Hemerocallidaceae	*Dianella caerulea*	blue flax-lily	
	30	Laxmanniaceae	*Eustrephus latifolius*	Wombat berry	
	31	Myrtaceae	*Corymbia torelliana*	Cadaghi	*
	32	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
11:01	33	Mimosoideae	*Acacia leiocalyx*	Black Wattle	
	34	Fabaceae	*Jacksonia scoparia*	Dogwood	
	35	Mimosoideae	*Acacia falcata*	Hickory Wattle	
	36	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	37	Ericaceae	*Monotoca scoparia*	Prickly Broom Heath	
	38	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	39	Phyllanthaceae	*Glochidion ferdinandi*	Cheese Tree	

	40	Xanthorrhoeaceae	*Xanthorrhoea johnsonii*	Johnson's Grass Tree	
	41	Caesalpiniaceae	*Senna pendula*	Easter Cassia	*
	42	Rhamnaceae	*Alphitonia excelsa*	Red Ash	
	43	Juncaceae	*Juncus sp.*	Common Rush	
11:09	44	Asteraceae	*Cirsium vulgare*	Spear Thistle	*
	45	Cyperaceae	*Carex appressa*	Tall Sedge	
	46	Cyperaceae	*Cyperus* sp.		
	47	Araliaceae	*Polyscias elegans*	Celery Wood	
	48	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	49	Phyllanthaceae	*Breynia oblongifolia*	Coffee Bush	
	50	Myrtaceae	*Melaleuca viminalis*	Weeping Bottlebrush	
	51	Mimosoideae	*Acacia leiocalyx*	Black Wattle	
	52	Verbenaceae	*Lantana camara*	Lantana	*3
	53	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	54	Apocynaceae	*Parsonsia straminea*	Monkey Vine	
	55	Casuarinaceae	*Allocasuarina littoralis*	Black Sheoak	
	56	Asteraceae	*Baccharis halimifolia*	Groundsel	*2
	57	Laxmanniaceae	*Lomandra hystrix*	Mat-Rush	
	58	Capparaceae	*Capparis arborea*	Brush Caper Berry	
	59	Casuarinaceae	*Allocasuarina torulosa*	Forest Oak	
	60	Scrophulariaceae	*Eremophila debilis*	Winter Apple	
	61	Adiantaceae	*Adiantum hispidulum*	Rough Maiden Hair Fern	
	62	Blechnaceae	*Doodia aspera*	Doodia Fern	
	63	Rubiaceae	*Cyclophyllum coprosmoides*	Coast Canthium	
	64	Sapindaceae	*Cupaniopsis parvifolia*	Green-leaved Tamarind	
11:20	65	Moraceae	*Ficus coronata*	Creek Sandpaper Fig	
	66	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
	67	Adiantaceae	*Cheilanthes sieberi*	Mulga Fern	
	68	Convolvulaceae	*Dichondra repens*	Kidney Weed	
11:32	69	Rutaceae	*Geijera salicifolia*	Broad-leafed Scrub Wilga	
	70	Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
	71	Mimosoideae	*Acacia irrorata*	Green Wattle	
	72	Primulaceae	*Anagallis arvensis var. arvensis*	Scarlet pimpernel	
11:45	73	Asteraceae	*Ageratum houstonianum*	Blue Billygoat Weed	*
	74	Poaceae	*Dichelachne crinita*	Plume Grass	
	75	Poaceae	*Cymbopogon refractus*	Barbed Wire Grass	

Track 10 - Monday 20/10/2014 1pm

Time		Family	Scientific Name	Common name	Q
13:00	1	Myrtaceae	*Eucalyptus acmenoides*	White Mahogany	

	2	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	3	Myrtaceae	*Lophostemon confertus*	Brushbox	
	4	Myrtaceae	*Angophora leiocarpa*	Smooth Barked Apple	
	5	Poaceae	*Imperata cylindrica*	Blady Grass	
	6	Laxmanniaceae	*Lomandra confertifolia*	Mat-rush	
	7	Mimosoideae	*Acacia maidenii*	Maiden's Wattle	
	8	Poaceae	*Themeda triandra*	Kangaroo Grass	
	9	Poaceae	*Panicum simile*	Two-colour Panic	
13:12	10	Goodeniaceae	*Goodenia rotundifolia*		
	11	Campanulaceae	*Lobelia purpurascens*	White Root	
	12	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
	13	Myrtaceae	*Lophostemon suaveolens*	Swamp Box	
	14	Hemerocallidaceae	*Dianella revoluta*	Blue Flax-Lily	
13:19	15	Ericaceae	*Leucopogon juniperinus*	Prickly Beard-heath	
	16	Proteaceae	*Persoonia sericea*	Silky Geebung	
	17	Mimosoideae	*Acacia disparrima*	Brush Ironbark Wattle	
	18	Verbenaceae	*Lantana camara*	Lantana	*3
	19	Apocynacaeae	*Alyxia ruscifolia*	Prickly Alyxia	
	20	Thymelaeaceae	*Pimelea neo-anglica*	Poison Pimelea	
13:27	21	Capparaceae	*Capparis arborea*	Brush Caper Berry	
	22	Apocynacaeae	*Parsonsia straminea*	Monkey Rope	
	23	Dennstaedtiaceae	*Pteridium esculentum*	Bracken fern	
	24	Phyllanthaceae	*Glochidion ferdinandi*	Cheese Tree	
	25	Protaeceae	*Banksia integrifolia*	Coast Banksia	
13:34	26	Laxmanniaceae	*Eustrephus latifolius*	Wombat berry	
	27	Casuarinaceae	*Allocasuarina littoralis*	Black Sheoak	
	28	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	29	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*
	30	Rutaceae	*Flindersia australis*	Australian Teak	
	31	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
13:42	32	Dicksoniaceae	*Calochlaena dubia*	Soft Bracken	
	33	Apocynacaeae	*Marsdenia lloydii*	Corky Marsdenia	
	34	Rubiaceae	*Morinda jasminoides*	Sweet Morinda	
	35	Lauraceae	*Cryptocarya triplinervis* var. *pubens*	Hairy Three-veined Cryptocarya	
	36	Poaceae	*Oplismenus aemulus*	Basket Grass	
	37	Sapindaceae	*Cupaniopsis parvifolia*	Green-leaved Tamarind	
	38	Lauraceae	*Cryptocarya glaucescens*	Jackwood	
	39	Rutaceae	*Clausena brevistyla*	Native Wampi	
	40	Oxiladaceae	*Oxalis chnoodes*	Oxalis	
	41	Capparaceae	*Capparis arborea*	Brush Caper Berry	

	42	Rosaceae	*Rubus moluccanus*	Native Raspberry	
13:49	43	Convolvulaceae	*Dichondra repens*	Kidney Weed	
	44	Myrtaceae	*Syncarpia glomulifera*	Turpentine	
	45	Mimosoideae	*Acacia longissima*	Long-leaf Wattle	
	46	Laxmanniaceae	*Lomandra multiflora*	Many-flowered Mat-rush	
	47	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	48	Asteraceae	*Taraxacum officinale*	Dandelion	*
13:57	49	Campanulaceae	*Lobelia alata*	Angled Lobelia	
	50	Juncaceae	*Juncus* sp.	Common Rush	
	51	Philydraceae	*Philydrum lanuginosum*	Frogsmouth	
	52	Cyperaceae	*Carex appressa*	Tall Sedge	
14:07	53	Poaceae	*Cynodon dactylon*	Couch	
	54	Casuarinaceae	*Allocasuarina torulosa*	Forest Oak	
	55	Hemerocallidaceae	*Dianella caerulea*	blue flax-lily	
	56	Sapindaceae	*Jagera pseudorhus*	Foam bark Tree	
14:13	57	Sapindaceae	*Guioa semiglauca*	Guioa	
	58	Rutaceae	*Citrus* x *taitensis*	Bush Lemon	*
	59	Myrtaceae	*Eucalyptus microcorys*	Tallowwood	
	60	Bignoniaceae	*Pandorea pandorana*	Wonga Vine	
14:22	61	Ericaceae	*Monotoca scoparia*	Prickly Broom Heath	
	62	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
	63	Dennstaedtiaceae	*Pteridium esculentum*	Bracken fern	
	64	Blechnaceae	*Doodia aspera*	Prickly Rasp Fern	
14:29	65	Rubiaceae	*Psychotria loniceroides*	Hairy Psychotria	
	66	Rubiaceae	*Psychotria daphnoides* var *daphnoides*	Smooth Psychotria	
	67	Acanthaceae	*Pseuderanthemum variabile*	Pastel Flower	
	68	Lamiaceae	*Vitex melicopea*	Nortern Vitex	
	69	Myrtaceae	*Baeckea virgata*	Baeckea	
14:37	70	Onagraceae	*Ludwigia peploides*	Water Primrose	
	71	Myrtaceae	*Leptospermum polygalifolium* subsp. *cismontanum*	Tantoon	
	72	Myrsinaceae	*Myrsine variabilis*	Muttonwood	
	73	Vitaceae	*Cissus antarctica*	Kangaroo Vine	
14:48	74	Sterculiaceae	*Brachychiton acerifolius*	Flame Tree	
	75	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	76	Hemerocallidaceae	*Geitonoplesium cymosum*	Scrambling Lily	
	77	Rhamnaceae	*Alphitonia excelsa*	Red Ash	
15:07	78	Fabaceae	*Castanospermum australe*	Black Bean	
	79	Scrophulariaceae	*Eremophila debilis*	Winter Apple	
	80	Myrtaceae	*Rhodamnia rubescens*	Scrub Turpentine	

15:18	81	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
15:25	82	Rutaceae	*Zieria minutiflora*	Twiggy Zieria	
	83	Myrtaceae	*Melaleuca viminalis*	Weeping Bottlebrush	
	84	Oleaceae	*Notelaea longifolia*form *glabra*	Large-leaved Mock Olive	
15:34	85	Campanulaceae	*Wahlenbergia gracilis*	Australian Bluebell	
	86	Podolobium	*Podolobium ilicifolium*	Prickly Shaggy Pea	

Track 11 - Tuesday 21/10/2014 9am

Time		Family	Scientific Name	Common name	Q
9:45	1	Myrtaceae	*Syncarpia glomulifera*	Turpentine	
	2	Passifloraceae	*Passiflora subpeltata*	White Passion Flower	*
	3	Mimosoideae	*Acacia fimbriata*	Fringed Wattle	
	4	Smilacaceae	*Smilax australis*	Smilax	
	5	Mimosoideae	*Acacia disparrima*	Brush Ironbark Wattle	
	6	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
	7	Myrtaceae	*Eucalyptus acmenoides*	White Mahogany	
	8	Hemerocallidaceae	*Dianella caerulea*	blue flax-lily	
	9	Laxmanniaceae	*Lomandra confertifolia*	Mat-rush	
	10	Laxmanniaceae	*Eustrephus latifolius*	Wombat berry	
	11	Mimosoideae	*Acacia complanata*	Flat-stemmed Wattle	
	12	Verbanaceae	*Lantana camara*	Lantana	*3
	13	Poaceae	*Themeda triandra*	Kangaroo Grass	
	14	Poaceae	*Imperata cylindrica*	Blady Grass	
	15	Aizoacea	*Tetragonia tetragonioides*	New Zealand Spinach	
	16	Asteraceae	*Bidens pilosa*	Farmer's Friend	*
	17	Fabaceae	*Abrus precatorius*	Crab's-Eye Creeper	
	18	Myrtaceae	*Lophostemon confertus*	Brushbox	
	19	Myrtaceae	*Eucalyptus propinqua*	Small-fruited Grey Gum	
	20	Capparaceae	*Capparis arborea*	Brush Caper Berry	
	21	Mimosoideae	*Acacia concurrens*	Curracabah	
	22	Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
	23	Ericaceae	*Acrotriche aggregata*	Tall Groundberry	
	24	Moraceae	*Ficus fraseri*	Sandpaper Fig	
	25	Menispermaceae	*Stephania japonica*	Snake Vine	
	26	Fabaceae	*Desmodium rhytidophyllum*	Hairly Trefoil	
	27	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	28	Sapindaceae	*Cupaniopsis parvifolia*	Green-leaved Tamarind	
	29	Poaceae	*Entolasia stricta*	Wiry Panic	
	30	Ericaceae	*Monotoca scoparia*	Prickly Broom Heath	
	31	Ochnaceae	*Ochna serrulata*	Mickey Mouse Plant	*

	32	Laxmanniaceae	*Lomandra multiflora*	Many-flowered Mat-rush	
	33	Myrsinaceae	*Myrsine variabilis*	Muttonwood	
	34	Apocynaceae	*Secamone elliptica*	Corky Milk Vine	
	35	Vitaceae	*Clematicissus opaca*	Pepper Vine	
	36	Fabaceae	*Glycine microphylla*	Small-leaf Glycine	
	37	Asparagaceae	*Asparagus aethiopicus*	Basket Asparagus	*3
	38	Rhamnaceae	*Alphitonia excelsa*	Red Ash	
	39	Hemerocallidaceae	*Dianella revoluta*	Blue Flax-Lily	
	40	Sapindaceae	*Jagera pseudorhus*	Foam bark Tree	
	41	Fabaceae	*Podolobium ilicifolium*	Prickly Shaggy Pea	
	42	Orchidaceae	*Cymbidium madidium*	Giant Boat-Lip Orchid	
	43	Casuarinaceae	*Allocasuarina torulosa*	Forest Oak	
	44	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	45	Picrodendraceae	*Petalostigma triloculare*	Long-leaved Bitter Bark	
	46	Oxiladaceae	*Oxalis chnoodes*	Oxalis	
	47	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	48	Myrtaceae	*Syzygium hemilamprum* subsp. *hemilamprum*	Broad-leaved Lilly Pilly	
	49	Caesalpinioideae	*Senna pendula*	Easter Cassia	*
	50	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	51	Blechnaceae	*Blechnum cartiligineum*	Soft water fern	
	52	Campanulaceae	*Lobelia purpurascens*	White Root	
	53	Myrtaceae	*Eucalyptus resinifera*	Red Mahogany	
	54	Rutaceae	*Murraya paniculata*	Orange Jasmine	*
	55	Myrtaceae	*Baeckea virgata*	Baeckea	
	56	Casuarinaceae	*Allocasuarina littoralis*	Black Sheoak	
	57	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	58	Dicksoniaceae	*Calochlaena dubia*	Soft Bracken	
	59	Campanulaceae	*Lobelia alata*	Angled Lobelia	
	60	Laxmanniaceae	*Lomandra hystrix*	Mat-Rush	
	61	Malvaceae	*Hibiscus heterophyllus*	Rosella	
	62	Dennstaedtiaceae	*Pteridium esculentum*	Bracken fern	
	63	Asteraceae	*Cirsium vulgare*	Spear Thistle	*
	64	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
	65	Convolvulaceae	*Dichondra repens*	Kidney Weed	
	66	Euphorbiaceae	*Alchornea ilicifolia*	Native Holly	
	67	Sapindaceae	*Guioa semiglauca*	Guioa	
	68	Mimosoideae	*Acacia maidenii*	Maiden's Wattle	
	69	Sapindaceae	*Diploglottis australis*	Native Tamarind	
	70	Dioscoreaceae	*Dioscorea transversa*	Native Yam	
	71	Polypodiaceae	*Platycerium superbum*	Staghorn	

	72	Solanaceae	*Solanum mauritianum*	Wild Tobacco	*
	73	Poaceae	*Setaria sphacelata*	Pigeon Grass	*
	74	Moraceae	*Ficus coronata*	Creek Sandpaper Fig	
	75	Mimosoideae	*Acacia leiocalyx*	Black Wattle	
	76	Asteraceae	*Ageratum houstonianum*	Blue Billy Goat Weed	*
	77	Mimosoideae	*Acacia melanoxylon*	Blackwood	
	78	Sapindaceae	*Dodonaea triquetra*	Large-leaf Hop-bush	
	79	Solanaceae	*Solanum seaforthianum*	Potato Vine	*
	80	Myrtaceae	*Syzygium smithii*	Lilly Pilly	
	81	Solanaceae	*Solanum torvum*	Devil's Fig	*
	82	Apiaceae	*Cyclospermum leptophyllum*	Slender Celery	*
	83	Oxalidaceae	*Oxalis exilis*		
	84	Adiantaceae	*Adiantum hispidulum*	Rough Maiden Hair Fern	
	85	Cyperaceae	*Carex appressa*	Tall Sedge	
	86	Solanaceae	*Solanum nigrum*	Black Nightshade	*
	87	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	88	Blechnaceae	*Doodia aspera*	Prickly Rasp Fern	
	89	Phyllanthaceae	*Breynia oblongifolia*	Coffee Bush	
	90	Mimosoideae	*Acacia oshanesii*	Corkwood Wattle	
	91	Ulmaceae	*Trema tomentosa* var. *aspera*	Poison Peach	
	92	Rubiaceae	*Psychotria daphnoides* var *daphnoides*	Smooth Psychotria	
	93	Myrtaceae	*Rhodomyrtus psidioides*	Native Guava	
	94	Rubiaceae	*Cyclophyllum coprosmoides*	Coast Canthium	
	95	Myrtaceae	*Corymbia torelliana*	Cadaghi	*
	96	Myrtaceae	*Melaleuca styphelioides*	Prickly-leaved Tea Tree	
	97	Myrtaceae	*Rhodamnia rubescens*	Scrub Turpentine	
	98	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	99	Myrtaceae	*Syzygium francisii*	Giant Water Gum	
	100	Arecaceae	*Archontophoenix cunninghamiana*	Bangalow Palm	
	101	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	102	Myrtaceae	*Syzygium floribundum*	Weeping Lilly Pilly	
	103	Apocynaceae	*Tabernaemontana pandacaqui*	Windmill Bush	
	104	Apocynacaeae	*Parsonsia straminea*	Monkey Rope	
	105	Asparagaceae	*Asparagus plumosus*	Feathered Asparagus Fern	*3
	106	Pittosporaceae	*Pittosporum revolutum*	Wild Yellow Jasmine	
	107	Nymphaeaceae	*Nymphaea caerulea*	Water Lilly	
	108	Juncaceae	*Juncus* sp.	Common Rush	
	109	Juncaginaceae	*Triglochin procera*	Water Ribbons	
	110	Loranthaceae	*Amyema conspicua* ssp. *conspicua*		

	111	Mimosoideae	*Acacia falcata*	Hickory Wattle	
	112	Poaceae	*Cynodon dactylon*	Couch	
	113	Malvaceae	*Abutilon oxycarpum* var. *oxycarpum*	Lantern Bush	
	114	Cyperaceae	*Lepidosperma laterale*		
	115	Dilleniaceae	*Hibbertia linearis*		
	116	Adiantaceae	*Cheilanthes sieberi*	Mulga Fern	
	117	Thymelaeaceae	*Pimelea linifolia* ssp. *linifolia*	Slender Riceflower	
	118	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
	119	Rutaceae	*Zieria minutiflora*	Twiggy Zieria	
	120	Cyperaceae	*Gahnia aspera*	Rough Saw-sedge	
	121	Rutaceae	*Flindersia australis*	Australian Teak	
	122	Myrtaceae	*Eucalyptus fibrosa*	Red Ironbark	
	123	Pittosporaceae	*Billardiera scandens*	Snot Berry	
	124	Fabaceae	*Kennedia rubicunda*	Dusky Coral Pea	
	125	Fabaceae	*Daviesia ulicifolia*	Gorse Bitter Pea	
	126	Celastraceae	*Denhamia bilocularis*	Orangebark	
	127	Solanaceae	*Solanum gympiense*		
	128	Polygonaceae	*Persicaria decipiens*	Slender Knotweed	

Track 12- Tuesday 21/10/2014 3pm

Time		Family	Scientific Name	Common name	Q
15:17	1	Myrtaceae	*Eucalyptus crebra*	Narrow-leaved Ironbark	
	2	Rutaceae	*Citrus* x *latifolia*	Tahitian Lime	*
	3	Anacardiaceae	*Mangifera indica*	Mango	*
	4	Fabaceae	*Abrus precatorius* ssp. *africanus*	Gidee Gidee	*
	5	Sapindaceae	*Jagera pseudorhus*	Foam bark Tree	
	6	Myrtaceae	*Eucalyptus acmenoides*	White Mahogany	
	7	Dracaenaceae	*Dracaena* sp.	Dragon Tree	*
	8	Agavaceae	*Agave attenuata*	Agave	*
	9	Myrtaceae	*Melaleuca viminalis*	Weeping Bottlebrush	
	10	Solanaceae	*Solanum nigrum*	Black Nightshade	*
	11	Myrtaceae	*Leptospermum petersonii*	Lemon-scented Tea Tree	
	12	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	13	Rubiaceae	*Gardenia* sp.	Gardenia	*
	14	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	15	Protaceae	*Grevillea banksii*	Red Silky Oak	
	16	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	17	Myrtaceae	*Lophostemon suaveolens*	Swamp Box	
	18	Mimosaceae	*Leucaena leucocephala*	Leucaena	*
	19	Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*

	20	Asteraceae	*Ageratum houstonianum*	Blue Billy Goat Weed	*
	21	Asparagaceae	*Asparagus aethiopicus*	Basket Asparagus	*3
	22	Myrtaceae	*Syncarpia glomulifera*	Turpentine	
	23	Araceae	*Monstera deliciosa*	Fruit Salad Plant	*
	24	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	25	Lamiaceae	*Vitex melicopea*	Nortern Vitex	
	26	Solanaceae	*Solanum seaforthianum*	Potato Vine	*
	27	Smilacaceae	*Smilax australis*	Smilax	
15:29	28	Menispermaceae	*Stephania japonica*	Snake Vine	
	29	Myrtaceae	*Eucalyptus cloeziana*	Gympie Messmate	
	30	Mimosoideae	*Acacia fimbriata*	Fringed Wattle	
	31	Thymelaeceae	*Wikstroemia indica*	Tie Bush	
	32	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
	33	Myrtaceae	*Corymbia tessellaris*	Moreton Bay Ash	
	34	Verbenaceae	*Lantana camara*	Lantana	*3
	35	Mimosoideae	*Acacia complanata*	Flat-stemmed Wattle	
	36	Elaeocarpaceae	*Elaeocarpus reticulatus*	Blueberry Ash	
	37	Mimosoideae	*Acacia disparrima*	Brush Ironbark Wattle	
	38	Laxmanniaceae	*Lomandra confertifolia*	Mat-rush	
15:52	39	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	40	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	41	Phyllanthaceae	*Glochidion ferdinandi*	Cheese Tree	
	42	Sapindaceae	*Cupaniopsis parvifolia*	Green-leaved Tamarind	
	43	Poaceae	*Imperata cylindrica*	Blady Grass	
	44	Cyperaceae	*Carex appressa*	Tall Sedge	
	45	Poaceae	*Paspalum distichum*	Water Couch	
	46	Rhamnaceae	*Alphitonia excelsa*	Red Ash	
	47	Asteraceae	*Carthamus lanatus*	Saffron Thistle	*
	48	Ulmaceae	*Trema tomentosa* var. *aspera*	Poison Peach	
	49	Araliaceae	*Polyscias elegans*	Celery wood	
	50	Dennstaedtiaceae	*Pteridium esculentum*	Bracken fern	
	51	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
	52	Poaceae	*Themeda triandra*	Kangaroo Grass	
	53	Myrtaceae	*Melaleuca salicina*	Willow leaved Bottlebrush	
	54	Nymphaeaceae	*Nymphaea caerulea*	Water Lilly	
	55	Philydraceae	*Philydrum lanuginosum*	Frogsmouth	
	56	Mimosoideae	*Acacia maidenii*	Maiden's Wattle	
	57	Juncaginaceae	*Triglochin procera*	Water Ribbons	
	58	Myrtaceae	*Melaleuca styphelioides*	Prickly-leaved Tea Tree	
	59	Asteraceae	*Baccharis Halimifolia*	Groundsel	*2
	60	Myrtaceae	*Baeckea virgata*	Baeckea	

	61	Juncaceae	*Juncus* sp.	Common Rush	
15:59	62	Poaceae	*Setaria sphacelata*	Pigeon Grass	*
	63	Cyperaceae	*Eleocharis dulcis*	Spike Rush	
	64	Mimosoideae	*Acacia oshanesii*	Corkwood Wattle	
	65	Mimosoideae	*Acacia leiocalyx*	Black Wattle	
	66	Hemerocallidaceae	*Dianella longifolia*	Pale Flax-lily	
	67	Rutaceae	*Murraya paniculata*	Orange Jasmine	*
	68	Asparagaceae	*Asparagus plumosus*	Feathered Asparagus Fern	*3
	69	Asteraceae	*Bidens pilosa*	Farmer's Friend	*
	70	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	71	Campanulaceae	*Lobelia purpurascens*	White Root	
	72	Fabaceae	*Desmodium rhytidophyllum*	Hairly Trefoil	
16:11	73	Poaceae	*Chloris gayana*	Rhodes Grass	*
	74	Verbenaceae	*Verbena bonariensis*	Purpletop	*
	75	Elaeocarpaceae	*Elaeocarpus obovatus*	Hard Quandong	
	76	Hemerocallidaceae	*Dianella revoluta*	Blue Flax-Lily	
	77	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
	78	Mimosoideae	*Acacia concurrens*	Curracabah	
	79	Pinaceae	*Pinus ponderosa*	Ponderosa Pine	*
	80	Solanaceae	*Solanum mauritianum*	Wild Tobacco	*
	81	Apocynaceae	*Araujia sericifera*	Moth Vine	*
	82	Pinaceae	*Pinus elliottii*	Slash Pine	*
16:20	83	Asteraceae	*Xerochrysum bracteatum*	Golden Everlasting	
	84	Asteraceae	*Onopordum acanthium*	Scotch Thistle	*
	85	Malvaceae	*Malva parviflora*	Small-flowered Mallow	*
	86	Araucariaceae	*Araucaria cunninghamii*	Hoop Pine	
	87	Viscaceae	*Notothixos incanus*		
	88	Laxmanniaceae	*Cordyline rubra*	Red-fruited Palm Lily	
	89	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	90	Malvaceae	*Abutilon grandifolium*		*
	91	Sapindaceae	*Guioa semiglauca*	Guioa	
16:27	92	Myrtaceae	*Eucalyptus grandis*	Flooded Gum	
	93	Moraceae	*Ficus coronata*	Creek Sandpaper Fig	
	94	Hemerocallidaceae	*Geitonoplesium cymosum*	Scrambling Lily	
	95	Bignoniaceae	*Pandorea pandorana*	Wonga Vine	
	96	Laminaceae	*Gmelina leichhardtii*	White Beech	
	97	Apocynaceae	*Secamone elliptica*	Corky Milk Vine	
	98	Laxmanniaceae	*Eustrephus latifolius*	Wombat berry	
	99	Protaceae	*Grevillea robusta*	Silky Oak	
	100	Celastraceae	*Siphonodon australis*	Ivorywood	
	101	Pittosporaceae	*Pittosporum undulatum*	Mock Orange	

16:35	102	Apocynacaeae	*Alyxia ruscifolia*	Prickly Alyxia	
	103	Oleaceae	*Ligustrum sinense*	Small-leaved Privet	*3
	104	Laxmanniaceae	*Lomandra hystrix*	Mat-Rush	
	105	Capparaceae	*Capparis arborea*	Brush Caper Berry	
	106	Phyllanthaceae	*Breynia oblongifolia*	Coffee Bush	
	107	Caesalpinioideae	*Senna floribunda*		*
	108	Oxalidaceae	*Oxalis exilis*		
16:44	109	Hemerocallidaceae	*Dianella caerulea*	blue flax-lily	
	110	Ulmaceae	*Aphananthe philippinensis*	Rough-leaved elm	
	111	Vitaceae	*Cissus antarctica*	Kangaroo Vine	
16:51	112	Rutaceae	*Flindersia australis*	Australian Teak	
	113	Myrtaceae	*Lophostemon confertus*	Brushbox	
	114	Asteraceae	*Carduus nutans* ssp. *nutans*	Nodding Thistle	*
16:59	115	Blechnaceae	*Doodia aspera*	Prickly Rasp Fern	
	116	Rosaceae	*Rubus moluccanus*	Queensland Raspberry	
17:07	117	Cyperaceae	*Gahnia aspera*	Rough Saw-sedge	
	118	Rubiaceae	*Morinda jasminoides*	Sweet Morinda	
17:16	119	Poaceae	*Cynodon dactylon*	Couch	

Track 13- Wednesday 22/10/2014
8:30am

Time		Family	Scientific Name	Common name	Q
9:00	1	Pinaceae	*Pinus ponderosa*	Ponderosa Pine	*
	2	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	3	Asteraceae	*Cirsium vulgare*	Spear Thistle	*
	4	Poaceae	*Megathyrsus maximus var maximus*	Guinea Grass	*
	5	Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
	6	Phyllanthaceae	*Glochidion ferdinandi*	Cheese Tree	
	7	Fabaceae	*Kennedia rubicunda*	Dusky Coral Pea	
	8	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	9	Anacardiaceae	*Schinus terebinthifolius*	Broad-leaved Pepper Tree	*3
	10	Myrtaceae	*Lophostemon suaveolens*	Swamp Box	
	11	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	12	Bignoniaceae	*Macfadyena unguis-cati*	Cat's Claw Creeper	*3
	13	Loranthaceae	*Amyema pendula*		
	14	Mimosoideae	*Acacia disparrima*	Brush Ironbark Wattle	
	15	Asteraceae	*Ageratum houstonianum*	Blue Billy Goat Weed	*
	16	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
	17	Rutaceae	*Citrus x taitensis*	Bush Lemon	*
	18	Dennstaedtiaceae	*Pteridium esculentum*	Bracken fern	
	19	Verbenaceae	*Verbena bonariensis*	Purpletop	*

9:08	20	Apocynacaeae	*Parsonsia straminea*	Monkey Rope	
	21	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	22	Poaceae	*Imperata cylindrica*	Blady Grass	
	23	Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*
	24	Fabaceae	*Medicago polymorpha*	Burr Medic	*
	25	Mimosoideae	*Acacia maidenii*	Maiden's Wattle	
	26	Smilacaceae	*Smilax australis*	Smilax	
	27	Pinaceae	*Pinus elliottii*	Slash Pine	*
	28	Solanaceae	*Solanum chrysotrichum*	Giant Devil's Fig	*
9:15	29	Mimosoideae	*Acacia leiocalyx*	Black Wattle	
	30	Polygonaceae	*Rumex crispus*	Curled Dock	*
	31	Verbenaceae	*Verbena litoralis*		*
	32	Poaceae	*Themeda triandra*	Kangaroo Grass	
	33	Hemerocallidaceae	*Dianella longifolia*	Pale Flax-lily	
	34	Fabaceae	*Macroptilium atropurpureum*	Siratro	*
	35	Solanaceae	*Solanum mauritianum*	Wild Tobacco	*
	36	Verbenaceae	*Lantana camara*	Lantana	*3
	37	Schizaeaceae	*Lygodium japonicum*	Japanese Climbing Fern	*
	38	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	39	Poaceae	*Dichelachne crinita*	Plume Grass	
	40	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	41	Protaceae	*Grevillea robusta*	Silky Oak	
	42	Passifloraceae	*Passiflora subpeltata*	White Passion Flower	*
	43	Asteraceae	*Baccharis halimifolia*	Groundsel	*2
	44	Oleaceae	*Ligustrum sinense*	Small-leaved Privet	*3
	45	Moraceae	*Ficus coronata*	Creek Sandpaper Fig	
	46	Lauraceae	*Cryptocarya triplinervis* var. *triplinervis*	Three-veined Laurel	
	47	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	48	Myrtaceae	*Syzygium hemilamprum* ssp. *hemilamprum*	Broad-leaved Lilly Pilly	
	49	Blechnaceae	*Doodia caudata*	Small Rasp Fern	
	50	Lauraceae	*Cryptocarya bidwillii*	Yellow Laurel	
	51	Myrtaceae	*Syzygium floribundum*	Weeping Lilly Pilly	
9:36	52	Adiantaceae	*Adiantum hispidulum*	Rough Maiden Hair Fern	
	53	Menispermaceae	*Stephania japonica*	Snake Vine	
	54	Vitaceae	*Cissus antarctica*	Kangaroo Vine	
	55	Pittosporaceae	*Pittosporum undulatum*	Mock Orange	
	56	Moraceae	*Streblus brunonianus*	Whale Bone	
	57	Laxmanniaceae	*Lomandra hystrix*	Mat-Rush	
	58	Ulmaceae	*Aphananthe philippinensis*	Rough-leaved elm	
	59	Pittosporaceae	*Pittosporum revolutum*	Wild Yellow Jasmine	

	60	Rutaceae	*Murraya paniculata*	Orange Jasmine	*
	61	Lauraceae	*Neolitsea dealbata*	White Bolly Gum	
	62	Cyperaceae	*Carex appressa*	Tall Sedge	
	63	Solanaceae	*Solanum nigrum*	Black Nightshade	*
	64	Cyperaceae	*Cyperus* sp.		
	65	Rubiaceae	*Morinda jasminoides*	Sweet Morinda	
10:09	66	Ochnaceae	*Ochna serrulata*	Mickey Mouse Plant	*
	67	Poaceae	*Chloris gayana*	Rhodes Grass	*
	68	Sapindaceae	*Cupaniopsis anacardioides*	Tuckeroo	
	69	Myrtaceae	*Corymbia torelliana*	Cadaghi	*
	70	Euphorbiaceae	*Ricinus communis*	Castor Oil Plant	*
	71	Fabaceae	*Crotalaria grahamiana*	Rattlepod	
	72	Rhamnaceae	*Alphitonia excelsa*	Red Ash	
	73	Cactaceae	*Opuntia stricta*	Prickly Pear	*2
	74	Poaceae	*Panicum maximum*	Green Panic	*
	75	Araliaceae	*Polyscias elegans*	Celery wood	
10:17	76	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
	77	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
	78	Mimosoideae	*Acacia falcata*	Hickory Wattle	
	79	Myrtaceae	*Angophora florbunda*	Rough-barked Apple	
	80	Phytolaccaceae	*Phytolacca octandra*	Inkweed	*
	81	Arecaceae	*Syagrus romanzoffiana*	Cocos Palm	*
	82	Myrtaceae	*Angophora subvelutina*	Broad-leaved Apple	
	83	Scrophulariaceae	*Eremophila debilis*	Winter Apple	
	84	Apocynacaeae	*Alyxia ruscifolia*	Prickly Alyxia	
	85	Solanaceae	*Solanum seaforthianum*	Potato Vine	*
	86	Lauraceae	*Endiandra muelleri* ssp. *muelleri*	Green-leaved Rose Walnut	
10:29	87	Ericaceae	*Acrotriche aggregata*	Tall Groundberry	
	88	Picrodendraceae	*Petalostigma pubescens*	Native Quince	
	89	Myrtaceae	*Melaleuca viminalis*	Weeping Bottlebrush	
	90	Capparaceae	*Capparis arborea*	Brush Caper Berry	
	91	Agavaceae	*Yucca aloifolia*	Yucca	*
	92	Mimosoideae	*Acacia podalyriifolia*	Queensland Silver Wattle	
	93	Crassulaceae	*Bryophyllum delagoense*	Mother of Millions	*2
10:39	94	Campanulaceae	*Wahlenbergia gracilis*	Australian Bluebell	

Track 14- Wednesday 22/10/2014
Woondum State Forest

Time	#	Family	Scientific Name	Common name	Q
12:00	1	Poaceae	*Themeda triandra*	Kangaroo Grass	
	2	Mimosoideae	*Acacia disparrima*	Brush Ironbark Wattle	

	3	Mimosoideae	*Acacia leiocalyx*	Black Wattle	
	4	Myrtaceae	*Corymbia tessellaris*	Moreton Bay Ash	
	5	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	6	Verbenaceae	*Lantana camara*	Lantana	*3
	7	Poaceae	*Chloris gayana*	Rhodes Grass	*
	8	Poaceae	*Eleusine indica*	Crowsfoot Grass	*
	9	Poaceae	*Panicum maximum*	Green Panic	*
	10	Fabaceae	*Medicago polymorpha*	Burr Medic	*
	11	Myrtaceae	*Corymbia torelliana*	Cadaghi	*
	12	Asparagaceae	*Asparagus aethiopicus*	Basket Asparagus	*3
	13	Thymelaeaceae	*Pimelea neo-anglica*	Poison Pimelea	
	14	Rhamnaceae	*Alphitonia excelsa*	Red Ash	
	15	Myrtaceae	*Baeckea virgata*	Baeckea	
	16	Mimosoideae	*Acacia melanoxylon*	Blackwood	
	17	Myrtaceae	*Angophora subvelutina*	Broad-leaved Apple	
	18	Myrtaceae	*Lophostemon suaveolens*	Swamp Box	
	19	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
	20	Arecaceae	*Syagrus romanzoffiana*	Cocos Palm	*
	21	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
	22	Fabaceae	*Kennedia rubicunda*	Dusky Coral Pea	
	23	Apocynaceae	*Araujia sericifera*	Moth Vine	*
	24	Myrtaceae	*Lophostemon confertus*	Brushbox	
	25	Anacardiaceae	*Schinus terebinthifolius*	Broad-leaved Pepper Tree	*3
	26	Hemerocallidaceae	*Dianella caerulea*	blue flax-lily	
12:09	27	Apocynacaeae	*Parsonsia straminea*	Monkey Rope	
	28	Solanaceae	*Solanum seaforthianum*	Potato Vine	*
	29	Poaceae	*Setaria sphacelata*	Pigeon Grass	*
	30	Verbenaceae	*Verbena bonariensis*	Purpletop	*
	31	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	32	Solanaceae	*Solanum mauritianum*	Wild Tobacco	*
	33	Fabaceae	*Hovea acutifolia*	Hovea	
	34	Moraceae	*Trophis scandens*	Burny Vine	
	35	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	36	Sapindaceae	*Jagera pseudorhus*	Foam bark Tree	
	37	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	38	Apocynacaeae	*Alyxia ruscifolia*	Prickly Alyxia	
	39	Verbenaceae	*Verbena litoralis*		*
	40	Meliaceae	*Melia azedarach*	White Cedar	
12:18	41	Hemerocallidaceae	*Geitonoplesium cymosum*	Scrambling Lily	
	42	Rutaceae	*Melicope hayesii*	Small-leaved Doughwood	
	43	Boraginaceae	*Ehretia acuminata*	Koda	

	44	Rubiaceae	*Psydrax odorata*	Shiny-leaved Canthium	
	45	Lamiaceae	*Clerodendrum floribundum*	Smooth Clerodendrum	
	46	Rubiaceae	*Psychotria daphnoides*	Smooth Psychotria	
	47	Rubiaceae	*Everistia vacciniifolia*		
	48	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	49	Laxmanniaceae	*Lomandra confertifolia*	Mat-rush	
	50	Capparaceae	*Capparis aborea*	Brush Caper Berry	
	51	Araliaceae	*Polyscias elegans*	Celery wood	
	52	Sapindaceae	*Cupaniopsis parvifolia*	Green-leaved Tamarind	
	53	Phyllanthaceae	*Glochidion ferdinandi*	Cheese Tree	
	54	Bignoniaceae	*Macfadyena unguis-cati*	Cat's Claw Creeper	*3
12:22	55	Smilacaceae	*Smilax australis*	Smilax	
	56	Lauraceae	*Cryptocarya triplinervis* var. *triplinervis*	Brown Laurel	
	57	Ulmaceae	*Aphananthe philippinensis*	Rough-leaved elm	
	58	Rubiaceae	*Psychotria simmondsiana*	Small Psychotria	
	59	Asteraceae	*Ageratum houstonianum*	Blue Billy Goat Weed	*
	60	Laxmanniaceae	*Eustrephus latifolius*	Wombat berry	
12:37	61	Pittosporaceae	*Pittosporum revolutum*	Wild Yellow Jasmine	
	62	Rutaceae	*Murraya paniculata*	Orange Jasmine	*
	63	Caesalpinioideae	*Senna pendula*	Easter Cassia	*
	64	Menispermaceae	*Stephania japonica*	Snake Vine	
	65	Asparagaceae	*Asparagus plumosus*	Feathered Asparagus Fern	*3
12:48	66	Myrtaceae	*Eucalyptus propinqua*	Small-fruited Grey Gum	
	67	Mimosoideae	*Acacia complanata*	Flat-stemmed Wattle	
	68	Loranthaceae	*Amyema pendula*		
	69	Malvaceae	*Hibiscus heterophyllus*	Rosella	
12:55	70	Sapindaceae	*Dodonaea triquetra*	Large-leaf Hop-bush	
	71	Bignoniaceae	*Pandorea pandorana*	Wonga Vine	
	72	Myrsinaceae	*Myrsine variabilis*		
	73	Fabaceae	*Macroptilium atropurpureum*	Siratro	*

Track 15 - Wednesday 22/10/2014
South from Woondum State Forest for 900m

Time	#	Family	Scientific Name	Common name	Q
14:00	1	Bignoniaceae	*Macfadyena unguis-cati*	Cat's Claw Creeper	*3
	2	Mimosoideae	*Acacia disparrima*	Brush Ironbark Wattle	
	3	Mimosoideae	*Acacia melanoxylon*	Blackwood	
	4	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	5	Poaceae	*Imperata cylindrica*	Blady Grass	
	6	Pittosporaceae	*Pittosporum revolutum*	Wild Yellow Jasmine	

	7	Verbenaceae	*Lantana camara*	Lantana	*3
	8	Rutaceae	*Flindersia australis*	Australian Teak	
	9	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	10	Mimosaceae	*Leucaena leucocephala*	Leucaena	*
	11	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	12	Fabaceae	*Macroptilium atropurpureum*	Siratro	*
	13	Asteraceae	*Ageratum houstonianum*	Blue Billy Goat Weed	*
	14	Cyperaceae	*Carex appressa*	Tall Sedge	
	15	Juncaceae	*Juncus* sp.	Common Rush	
	16	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
	17	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
14:15	18	Rutaceae	*Zieria minutiflora*	Twiggy Zieria	
	19	Hemerocallidaceae	*Dianella caerulea*	blue flax-lily	
	20	Rhamnaceae	*Alphitonia excelsa*	Red Ash	
	21	Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*
	22	Oleaceae	*Notelaea longifolia*form *glabra*	Large-leaved Mock Olive	
	23	Malvaceae	*Hibiscus heterophyllus*	Rosella	
	24	Myrtaceae	*Angophora leiocarpa*	Smooth Barked Apple	
14:24	25	Myrtaceae	*Corymbia torelliana*	Cadaghi	*
	26	Viscaceae	*Notothixos incanus*		
	27	Cyperaceae	*Lepidosperma laterale*		
	28	Capparaceae	*Capparis aborea*	Brush Caper Berry	
	29	Protaceae	*Grevillea robusta*	Silky Oak	
	30	Myrtaceae	*Melaleuca viminalis*	Weeping Bottlebrush	
	31	Rutaceae	*Flindersia australis*	Australian Teak	
	32	Cyperaceae	*Gahnia aspera*	Rough Saw-sedge	
14:37	33	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	34	Myrtaceae	*Melaleuca citrinus*	Crimson Bottlebrush	
	35	Mimosoideae	*Acacia fimbriata*	Fringed Wattle	
	36	Protaceae	*Banksia* sp. *(cultivar)*		
	37	Sapindaceae	*Dodonaea triquetra*	Large-leaf Hop-bush	
	38	Myrtaceae	*Leptospermum petersonii*	Lemon-scented Tea Tree	
	39	Myrtaceae	*Melaleuca leucadendra*	Weeping Paperbark	
14:49	40	Myrtaceae	*Syncarpia glomulifera*	Turpentine	
	41	Agavaceae	*Yucca aloifolia*	Yucca	*
	42	Cactaceae	*Hylocereus undatus*	Night-blooming Cactus	*
	43	Sterculiaceae	*Brachychiton discolor*	Lace Bark	
14:57	44	Araucariaceae	*Araucaria cunninghamii*	Hoop Pine	
	45	Casuarinaceae	*Allocasuarina littoralis*	Black Sheoak	
	46	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	

15:06	47	Myrtaceae	*Corymbia citriodora*	Lemon-scented Gum	
	48	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	49	Pittosporaceae	*Pittosporum revolutum*	Wild Yellow Jasmine	
	50	Rutaceae	*Zieria smithii*	Sandfly Zieria	
	51	Smilacaceae	*Smilax australis*	Smilax	
	52	Myrtaceae	*Eucalyptus dura*	Smooth-branched Ironbark	
	53	Euphorbiaceae	*Alchornea ilicifolia*	Native Holly	
	54	Sapindaceae	*Jagera pseudorhus*	Foam bark Tree	
	55	Myrtaceae	*Melaleuca quinquenervia*	Broad-leaved Paperbark	
	56	Asteraceae	*Cirsium vulgare*	Spear Thistle	*
	57	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
	58	Laxmanniaceae	*Cordyline rubra*	Red-fruited Palm Lily	
	59	Myrsinaceae	*Myrsine variabilis*	Muttonwood	
	60	Fabaceae	*Hovea acutifolia*	Hovea	
	61	Fabaceae	*Medicago polymorpha*	Burr Medic	*
15:15	62	Verbenaceae	*Verbena bonariensis*	Purpletop	*
	63	Meliaceae	*Melia azedarach*	White Cedar	
	64	Myrtaceae	*Melaleuca bracteata*	Black Tea-tree	
	65	Arecaceae	*Phoenix canariensis*	Date Palm	*
	66	Bignoniaceae	*Jacaranda mimosifolia*	Jacaranda	*
	67	Sambucaceae	*Sambucus australasica*	Native Elderberry	
15:24	68	Poaceae	*Cynodon dactylon*	Couch	
	69	Mimosoideae	*Acacia podalyriifolia*	Queensland Silver Wattle	
	70	Mimosoideae	*Acacia falcata*	Hickory Wattle	
	71	Phyllanthaceae	*Breynia oblongifolia*	Coffee Bush	
	72	Loranthaceae	*Amyema pendula*		
	73	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
15:31	74	Caesalpinioideae	*Senna pendula*	Easter Cassia	*
	75	Lauraceae	*Cryptocarya triplinervis* var. *triplinervis*	Brown Laurel	
	76	Fabaceae	*Derris involuta*	Derris	
	77	Pittosporaceae	*Pittosporum undulatum*	Mock Orange	
	78	Basellaceae	*Anredera cordifolia*	Maderira Vine	*3
	79	Solanaceae	*Solanum seaforthianum*	Potato Vine	*
	80	Bignoniaceae	*Pandorea pandorana*	Wonga Vine	
15:39	81	Ochnaceae	*Ochna serrulata*	Mickey Mouse Plant	*
	82	Anacardiaceae	*Mangifera indica*	Mango	*
	83	Moraceae	*Streblus brunonianus*	Whale Bone	
	84	Moraceae	*Ficus coronata*	Creek Sandpaper Fig	
	85	Myrtaceae	*Lophostemon suaveolens*	Swamp Box	
	86	Casuarinaceae	*Casuarina cunninghamiana*	River Oak	

15:46	87	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	88	Fabaceae	*Jacksonia scoparia*	Dogwood	
	89	Mimosoideae	*Acacia concurrens*	Curracabah	
	90	Poaceae	*Themeda triandra*	Kangaroo Grass	
15:53	91	Myrtaceae	*Lophostemon confertus*	Brushbox	
	92	Elaeocarpaceae	*Elaeocarpus obovatus*	Hard Quandong	
	93	Apocynacaeae	*Alyxia ruscifolia*	Prickly Alyxia	
	94	Araliaceae	*Polyscias elegans*	Celery wood	
	95	Petiveriaceae	*Rivina humilis*	Coral Berry	*
16:01	96	Vitaceae	*Cissus antarctica*	Kangaroo Vine	
	97	Laxmanniaceae	*Lomandra confertifolia*	Mat-rush	
	98	Poaceae	*Entolasia stricta*	Wiry Panic	
	99	Commelinaceae	*Tradescantia fluminensis*	Wandering Jew	*
16:13	100	Sapotaceae	*Planchonella australis*	Black Apple	
	101	Sapindaceae	*Mischocarpus australis*	Red Pear-fruit	
	102	Apocynacaeae	*Parsonsia plaesiophylla*	Veiny Silkpod	
	103	Boraginaceae	*Ehretia membranifolia*	Peach Bush	
	104	Laminaceae	*Clerodendrum floribundum*	Smooth Clerodendrum	
	105	Convolvulaceae	*Polymeria calycina*		

Track 16 - Wednesday 22/10/2014
4:30pm

Time	#	Family	Scientific Name	Common name	Q
16:30	1	Myrtaceae	*Melaleuca viminalis*	Weeping Bottlebrush	
	2	Pinaceae	*Pinus ponderosa*	Ponderosa Pine	*
	3	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	4	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	5	Sapindaceae	*Cupaniopsis parvifolia*	Green-leaved Tamarind	
	6	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	7	Verbenaceae	*Lantana camara*	Lantana	*3
	8	Mimosoideae	*Acacia disparrima*	Brush Ironbark Wattle	
	9	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
	10	Myrsinaceae	*Myrsine variabilis*		
16:35	11	Cyperaceae	*Carex appressa*	Tall Sedge	
	12	Elaeocarpaceae	*Elaeocarpus obovatus*	Hard Quandong	
	13	Poaceae	*Imperata cylindrica*	Blady Grass	
	14	Myrtaceae	*Angophora subvelutina*	Broad-leaved Apple	
	15	Meliaceae	*Melia azedarach*	White Cedar	
	16	Solanaceae	*Solanum seaforthianum*	Potato Vine	*
	17	Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*
	18	Asteraceae	*Bidens pilosa*	Farmer's Friend	*

	19	Asteraceae	*Cirsium vulgare*	Spear Thistle	*
	20	Asteraceae	*Ageratum houstonianum*	Blue Billy Goat Weed	*
	21	Apocynacaeae	*Parsonsia straminea*	Monkey Rope	
	22	Mimosoideae	*Acacia maidenii*	Maiden's Wattle	
	23	Oleaceae	*Notelaea microcarpa*	Small-fruited Mock Olive	
	24	Pittosporaceae	*Bursaria spinosa*	Blackthorn	
	25	Solanaceae	*Solanum nigrum*	Black Nightshade	*
16:47	26	Passifloraceae	*Passiflora subpeltata*	White Passion Flower	*
	27	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
	28	Polygonaceae	*Rumex crispus*	Curled Dock	*
	29	Poaceae	*Avena fatua*	Wild Oats	*
	30	Asteraceae	*Carduus nutans* ssp. *nutans*	Nodding Thistle	*
	31	Rutaceae	*Citrus sinensis*	Orange	*
	32	Myrtaceae	*Lophostemon confertus*	Brushbox	
	33	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	34	Asteraceae	*Baccharis halimifolia*	Groundsel	*2
	35	Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
	36	Poaceae	*Paspalum orbiculare*	Ditch Millet	
16:53	37	Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
	38	Apiaceae	*Cyclospermum leptophyllum*	Slender Celery	*
	39	Polygonaceae	*Persicaria decipiens*	Slender Knotweed	
	40	Juncaceae	*Juncus* sp.	Common Rush	
	41	Poaceae	*Paspalum distichum*	Water Couch	
	42	Nymphaeaceae	*Nymphaea caerulea*	Water Lilly	
	43	Menyacnthaceae	*Nymphoides indica*	Water Snowflake	
	44	Polygonaceae	*Rumex conglomeratus*	Clustered Dock	*
	45	Myrtaceae	*Syzygium floribundum*	Weeping Lilly Pilly	
	46	Bignoniaceae	*Jacaranda mimosifolia*	Jacaranda	*
	47	Poaceae	*Bambusa* spp.	Bamboo	*
	48	Rutaceae	*Citrus limon*	Lemon	*
	49	Myrtaceae	*Psidium guajava*	Guava	
	50	Lauraceae	*Persea americana*	Avocado	
	51	Lythraceae	*Punica granatum*	Pomegranate	*
	52	Araucariaceae	*Araucaria heterophylla*	Norfolk Island Pine	*
	53	Pittosporaceae	*Hymenosporum flavum*	Native Frangipani	
	54	Araceae	*Monstera deliciosa*	Fruit Salad Plant	*
	55	Vitaceae	*Vitis vinifera*	Grape-vine	*
	56	Myrtaceae	*Melaleuca viridiflora*	Broad-leaved Tea Tree	
	57	Myrtaceae	*Corymbia torelliana*	Cadaghi	*
	58	Apiaceae	*Petroselinum crispum*	Parsley	*
	59	Convolvulaceae	*Ipomoea batatas*	Sweet Potato	*

	60	Solanaceae	*Solanum lycopersicum*	Tomato	*
	61	Moraceae	*Morus nigra*	Mulberry	*
16:59	62	Proteaceae	*Macadamia integrifolia*	Macadamia Nut	V (A,Q)^
	63	Rosaceae	*Rosa* sp.	Rose	*
	64	Bignoniaceae	*Pandorea pandorana*	Wonga Vine	
	65	Araliaceae	*Schefflera arboricola*	Dwarf Umbrella Tree	*
	66	Cupressaceae	*Cupressus* sp.	Cypress Pine	*
	67	Picrodendraceae	*Petalostigma pubescens*	Native Quince	
17:22	68	Podocarpaceae	*Podocarpus elatus*	Plum Pine	
	69	Sterculiaceae	*Brachychiton rupestris*	Qld Bottle Tree	
	70	Myrtaceae	*Corymbia ficifolia*	Red Floweing Gum	*
	71	Mytraceae	*Eucalyptus robusta*	Swamp Mahogany	
	72	Phytolaccaceae	*Phytolacca octandra*	Inkweed	*
	73	Poaceae	*Eleusine indica*	Crows foot grass	*
	74	Myrtaceae	*Corymbia citriodora*	Lemon-scented Gum	
	75	Myrtaceae	*Eucalyptus bancroftii*	Orange Gum	
	76	Myrtaceae	*Melaleuca leucadendra*	Weeping Paperbark	
17:27	77	Araucariaceae	*Araucaria bidwillii*	Bunya Pine	
	78	Myrtaceae	*Eucalyptus crebra*	Narrow-leaved Ironbark	
17:31	79	Protaeceae	*Banksia integrifolia*	Coast Banksia	
	80	Araucariaceae	*Agathis robusta*	Kauri	
	81	Sterculiaceae	*Brachychiton acerifolius*	Flame Tree	
17:39	82	Cyperaceae	*Gahnia aspera*	Rough Saw-sedge	
	83	Nyctagainaceae	*Bougainvillea glabra*	Bougainvillea	*

Track 17 - Thursday 23/10/2014

Time	#	Family	Scientific Name	Common name	Q
9:41	1	Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
	2	Ulmaceae	*Celtis sinensis*	Chinese Celtis	*3
	3	Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
	4	Myrtaceae	*Lophostemon suaveolens*	Swamp Box	
	5	Araliaceae	*Polyscias elegans*	Celery wood	
	6	Moraceae	*Trophis scandens*	Burny Vine	
	7	Mimosoideae	*Acacia disparrima*	Brush Ironbark Wattle	
	8	Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
	9	Hemerocallidaceae	*Geitonoplesium cymosum*	Scrambling Lily	
	10	Sapindaceae	*Jagera pseudorhus*	Foam bark Tree	
	11	Smilacaceae	*Smilax australis*	Smilax	
	12	Vitaceae	*Clematicissus opaca*	Small-leaved Water Vine	
	13	Moraceae	*Streblus brunonianus*	Whale Bone	

	14	Ulmaceae	*Aphananthe philippinensis*	Rough-leaved elm	
	15	Laxmanniaceae	*Lomandra confertifolia*	Mat-rush	
	16	Solanaceae	*Solanum seaforthianum*	Potato Vine	*
	17	Hemerocallidaceae	*Dianella caerulea*	Blue Flax-lily	
	18	Lauraceae	*Cryptocarya triplinervis* var. *triplinervis*	Brown Laurel	
	19	Verbenaceae	*Lantana camara*	Lantana	*3
	20	Asteraceae	*Ageratum houstonianum*	Blue Billy Goat Weed	*
	21	Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
	22	Menispermaceae	*Stephania japonica*	Snake Vine	
	23	Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*
	24	Mimosoideae	*Acacia maidenii*	Maiden's Wattle	
	25	Adiantaceae	*Adiantum hispidulum*	Rough Maiden Hair Fern	
	26	Rutaceae	*Murraya paniculata*	Orange Jasmine	*
	27	Lauraceae	*Cryptocarya macdonaldii*	Cooloola Laurel	
	28	Sapindaceae	*Arytera divaricata*	Coogera	
	29	Oleaceae	*Notelaea johnsonii*	Veinless Mock-olive	
	30	Rutaceae	*Clausena brevistyla*	Native Wampi	
	31	Vitaceae	*Cissus antarctica*	Kangaroo Vine	
	32	Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
9:49	33	Rubiaceae	*Psydrax odorata*	Shiny-leaved Canthium	
	34	Lauraceae	*Cryptocarya bidwillii*	Yellow Laurel	
	35	Protaceae	*Grevillea robusta*	Silky Oak	
	36	Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
	37	Poaceae	*Imperata cylindrica*	Blady Grass	
	38	Phyllanthaceae	*Glochidion ferdinandi*	Cheese Tree	
	39	Bignoniaceae	*Macfadyena unguis-cati*	Cat's Claw Creeper	*3
	40	Pittosporaceae	*Pittosporum revolutum*	Wild Yellow Jasmine	
	41	Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
	42	Sapindaceae	*Harpullia hillii*	Blunt-leaved Tulip	
	43	Sapindaceae	*Cupaniopsis parvifolia*	Green-leaved Tamarind	
	44	Burseraceae	*Canarium australianum*	Mango Bark	
	45	Caesalpinioideae	*Senna pendula*	Easter Cassia	*
	46	Ochnaceae	*Ochna serrulata*	Mickey Mouse Plant	*
10:01	47	Euphorbiaceae	*Alchornea ilicifolia*	Native Holly	
	48	Bignoniaceae	*Pandorea pandorana*	Wonga Vine	
	49	Meliaceae	*Aglaia brownii*	Browns Aglaia	
	50	Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
	51	Myrtaceae	*Eucalyptus propinqua*	Small-fruited Grey Gum	
	52	Myrtaceae	*Melaleuca styphelioides*	Prickly-leaved Tea Tree	
	53	Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	

10:09	54	Cactaceae	*Opuntia stricta*	Prickly Pear	*2
	55	Myrsinaceae	*Myrsine variabilis*		
	56	Rhamnaceae	*Alphitonia excelsa*	Red Ash	
	57	Asparagaceae	*Asparagus africanus*	Climbing Asparagus Fern	*3
	58	Capparaceae	*Capparis aborea*	Brush Caper Berry	
	59	Dracaenaceae	*Sansevieria trifasciata*	Mother-in-law's Tongue	*
	60	Nephrolepidaceae	*Nephrolepis cordifolia*	Fishbone Fern	
	61	Lauraceae	*Cryptocarya microneura*	Murrogun	
	62	Acanthaceae	*Hypoestes phyllostachya*	Polka Dot Plant	*
	63	Rubiaceae	*Cyclophyllum coprosmoides*	Coast Canthium	
10:21	64	Poaceae	*Oplismenus aemulus*	Basket Grass	
	65	Arecaceae	*Syagrus romanzoffiana*	Cocos Palm	*
	66	Liliaceae	*Aloe barbadensis*	Aloe Vera	*
	67	Myrtaceae	*Eucalyptus crebra*	Narrow-leaved Ironbark	
	68	Sapindaceae	*Cupaniopsis serrata*	Serrated Tuckeroo	
	69	Laxmanniaceae	*Cordyline rubra*	Red-fruited Palm Lily	
	70	Rutaceae	*Citrus australis*	Native Lime	
10:30	71	Laminaceae	*Clerodendrum floribundum*	Smooth Clerodendrum	
	72	Capparaceae	*Capparis sarmentosa*		
	73	Apocynacaeae	*Parsonsia straminea*	Monkey Rope	
	74	Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
10:39	75	Solanaceae	*Solanum nigrum*	Black Nightshade	*
	76	Myrtaceae	*Lophostemon confertus*	Brushbox	
	77	Sterculiaceae	*Brachychiton populneus*	Kurrajong	
	78	Asteraceae	*Cirsium vulgare*	Spear Thistle	*
	79	Cyperaceae	*Carex appressa*	Tall Sedge	
	80	Poaceae	*Panicum simile*	Two-colour Panic	
	81	Laxmanniaceae	*Lomandra multiflora*	Many-flowered Mat-rush	
10:47	82	Apocynacaeae	*Alyxia ruscifolia*	Prickly Alyxia	
	83	Pittosporaceae	*Pittosporum undulatum*	Mock Orange	
	84	Asteraceae	*Bidens pilosa*	Farmer's Friend	*
	85	Hemerocallidaceae	*Dianella revoluta*	Blue Flax-Lily	
	86	Malvaceae	*Abutilon grandifolium*		*
	87	Sapindaceae	*Diploglottis australis*	Native Tamarind	
	88	Pittosporaceae	*Bursaria spinosa*	Blackthorn	
10:56	89	Convolvulaceae	*Dichondra repens*	Kidney Weed	
	90	Araucariaceae	*Araucaria cunninghamii*	Hoop Pine	
	91	Surianaceae	*Guilfoylia monostylis*	Guilfoylia	
	92	Anacardiaceae	*Schinus terebinthifolius*	Broad-leaved Pepper Tree	*3
	93	Rutaceae	*Flindersia schottiana*	Cudgerie	
	94	Mimosoideae	*Acacia longissima*	Long-leaf Wattle	

11:04	95	Rutaceae	*Flindersia australis*	Australian Teak	
	96	Mimosoideae	*Acacia melanoxylon*	Blackwood	
	97	Asteraceae	*Carduus nutans* ssp. *nutans*	Nodding Thistle	*
	98	Viscaceae	*Notothixos incanus*		
11:09	99	Loranthaceae	*Amyema conspicua* ssp. *conspicua*		
	100	Phyllanthaceae	*Phyllanthus subcrenulatus*	Phyllanthus	
	101	Meliaceae	*Melia azedarach*	White Cedar	
	102	Myrtaceae	*Syzygium floribundum*	Weeping Lilly Pilly	
11:16	103	Poaceae	*Cynodon dactylon*	Couch	*
	104	Poaceae	*Sporobolus africanus*	Parramatta Grass	*2
	105	Sambucaceae	*Sambucus australasica*	Native Elderberry	
11:23	106	Moraceae	*Ficus rubiginosa*	Rusty Fig	
	107	Nyctagainaceae	*Bougainvillea glabra*	Bougainvillea	*
	108	Cannaceae	*Canna x generalis*	Canna Lily	*
11:30	109	Apiaceae	*Cyclospermum leptophyllum*	Slender Celery	*
	110	Myrtaceae	*Angophora subvelutina*	Broad-leaved Apple	
	111	Malvaceae	*Pavonia hastata*		*
11:39	112	Campanulaceae	*Lobelia purpurascens*	White Root	
	113	Juncaceae	*Juncus* sp.	Common Rush	
	114	Campanulaceae	*Wahlenbergia gracilis*	Australian Bluebell	
11:45	115	Poaceae	*Themeda triandra*	Kangaroo Grass	

APPENDIX D FLORA SPECIES CUMULATIVE LIST

Family	Species Name	Common Name	Status
Acanthaceae	*Hypoestes phyllostachya*	Polka Dot Plant	*
Acanthaceae	*Pseuderanthemum variabile*	Pastel Flower	
Adiantaceae	*Adiantum aethiopicum*	Common Maidenhair Fern	SL
Adiantaceae	*Adiantum hispidulum*	Rough Maiden Hair Fern	SL
Agavaceae	*Agave attenuata*	Agave	*
Agavaceae	*Yucca aloifolia*	Yucca	*
Aizoaceae	*Tetragonia tetragonioides*	New Zealand Spinach	
Amaryllidaceae	*Hippeastrum spp.*		
Anacardiaceae	*Mangifera indica*	Mango	*
Anacardiaceae	*Schinus terebinthifolius*	Broad-leaved Pepper tree	*3
Apiaceae	*Cyclospermum leptophyllum*	Slender Celery	*
Apiaceae	*Petroselinum crispum*	Parsley	*
Apocynacaeae	*Alyxia ruscifolia*	Prickly Alaxyia	
Apocynacaeae	*Marsdenia lloydii*	Corky Marsdenia	
Apocynacaeae	*Parsonsia plaesiophylla*	Veiny Silkpod	
Apocynacaeae	*Parsonsia straminea*	Monkey Rope	
Apocynaceae	*Araujia sericifera*	Moth Vine	*
Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*
Apocynaceae	*Secamone elliptica*	Corky Milk Vine	
Apocynaceae	*Tabernaemontana pandacaqui*	Windmill Bush	
Araceae	*Monstera deliciosa*	Fruit Salad Plant	*
Araliaceae	*Polyscias elegans*	Celery Wood	
Araliaceae	*Schefflera arboricola*	Dwarf Umbrella Tree	*
Araucariaceae	*Agathis robusta*	Kauri	
Araucariaceae	*Araucaria bidwillii*	Bunya Pine	
Araucariaceae	*Araucaria cunninghamii*	Hoop Pine	
Araucariaceae	*Araucaria heterophylla*	Norfolk Island Pine	*
Arecaceae	*Archontophoenix cunninghamiana*	Bangalow Palm	
Arecaceae	*Phoenix canariensis*	Date Palm	*
Arecaceae	*Phoenix roebelenii*	Pygmy Date Palm	*
Arecaceae	*Syagrus romanzoffiana*	Cocos Palm	*
Asparagaceae	*Asparagus aethiopicus*	Basket Asparagus	*3
Asparagaceae	*Asparagus africanus*	Climbing Asparagus Fern	*3
Asparagaceae	*Asparagus plumosus*	Feathered Asparagus Fern	*3
Asparagaceae	*Yucca spp.*	Yucca	
Aspleniaceae	*Asplenium australasicum*	Birds Nest Fern	
Asteraceae	*Ageratum houstonianum*	Blue Billygoat Weed	*
Asteraceae	*Baccharis halimifolia*	Groundsel Bush	*2
Asteraceae	*Bidens pilosa*	Farmers Friend	*
Asteraceae	*Bractyantha bracteata*	Golden Everlasting	

Family	Species Name	Common Name	Status
Asteraceae	*Carduus nutans* ssp. *nutans*	Nodding Thistle	*
Asteraceae	*Carthamus lanatus*	Saffron Thistle	*
Asteraceae	*Chrysocephalum apiculatum*	Yellow Button	
Asteraceae	*Cirsium vulgare*	Spear Thistle	*
Asteraceae	*Conyza bonariensis*	Flaxleaf Fleabane	*
Asteraceae	*Onopordum acanthium*	Scotch Thistle	*
Asteraceae	*Senecio madagascariensis*	Fireweed	*2
Asteraceae	*Tagetes minuta*	Stinking Roger	*
Asteraceae	*Taraxacum officinale*	Dandelion	*
Asteraceae	*Xerochrysum bracteatum*	Golden Everlasting	
Basellaceae	*Anredera cordifolia*	Maderira Vine	*3
Bignoniaceae	*Jacaranda mimosifolia*	Jacaranda	*
Bignoniaceae	*Macfadyena unguis-cati*	Cat's Claw Creeper	*3
Bignoniaceae	*Pandorea pandorana*	Wonga Vine	
Blechnaceae	*Blechnum cartiligineum*	Soft water fern	
Blechnaceae	*Doodia aspera*	Prickly Rasp Fern	
Blechnaceae	*Doodia caudata*	Small Rasp Fern	
Boraginaceae	*Ehretia acuminata*	Koda	
Boraginaceae	*Ehretia membranifolia*	Peach Bush	
Burseraceae	*Canarium australianum*	Mango Bark	
Byttneriaceae	*Commersonia bartramia*	Brown Kurrajong	
Cactaceae	*Hylocereus undatus*	Night-blooming Cactus	*
Cactaceae	*Opuntia stricta*	Prickly Pear	*2
Caesalpiniaceae	*Senna pendula* var. *glabrata*	Winter Senna	*
Caesalpinioideae	*Senna floribunda*		*
Campanulaceae	*Lobelia purpurascens*	White Root	
Campanulaceae	*Wahlenbergia gracilis*	Sprawling bluebell	SL
Campanulaceae	*Wahlenbergia stricta*		SL
Cannabaceae	*Aphananthe philippensis*	Native Elm	
Cannaceae	*Canna x generalis*	Canna Lily	*
Capparaceae	*Capparis arborea*	Brush Capper Berry	
Capparaceae	*Capparis sarmentosa*		
Caryophyllaceae	*Stellaria media*	Chickweed	*
Casuarinaceae	*Allocasuarina littoralis*	Black Sheoak	
Casuarinaceae	*Allocasuarina torulosa*	Forest Oak	
Casuarinaceae	*Casuarina cunninghamiana*	River Oak	
Celastraceae	*Celastrus subspicatus*	Large-leaved Staff Vine	
Celastraceae	*Denhamia bilocularis*	Orangebark	
Celastraceae	*Siphonodon australis*	Ivorywood	
Commelinaceae	*Tradescantia fluminensis*	Wandering Jew	*

Family	Species Name	Common Name	Status
Convolvulaceae	*Ipomoea batatas*	Sweet Potato	*
Convolvulaceae	*Polymeria calycina*		
Convolvulaceae	*Convolvulus erubescens*	Bindweed	
Convolvulaceae	*Dichondra repens*	Kidney Weed	
Crassulaceae	*Bryophyllum delagoense*	Mother of Millions	*2
Cupressaceae	*Cupressus* sp.	Cypress Pine	*
Cyperaceae	*Cyperus* sp.		
Cyperaceae	*Fimbristylis dichotoma*		
Cyperaceae	*Gahnia aspera*	Rough saw-sedge	
Cyperaceae	*Gahnia sieberiana*	Red-fruited Saw Sedge	
Cyperaceae	*Juncus spp.*	Common Rush	
Cyperaceae	*Carex appressa*	Tall Sedge	
Cyperaceae	*Eleocharis dulcis*	Spike Rush	
Cyperaceae	*Lepidosperma laterale*		
Davalliaceae	*Nephrolepis cordifolia*	Fishbone Fern	
Dennstaedtiaceae	*Pteridium esculentum*	Bracken Fern	
Dicksoniaceae	*Calochlaena dubia*	Soft Bracken	SL
Dilleniaceae	*Hibbertia linearis*		
Dioscoreaceae	*Dioscorea transversa*	Native Yam	
Dracaenaceae	*Sansevieria trifasciata*	Mother-in-law's Tongue	*
Dracaenaceae	*Dracaena* sp.	Dragon Tree	*
Elaeocarpaceae	*Elaeocarpus obovatus*	Blueberry ash	
Elaeocarpaceae	*Elaeocarpus reticulatus*	Blueberry Ash	
Ericaceae	*Acrotriche aggregata*	Tall Groundberry	
Ericaceae	*Leucopogon juniperinus*	Prickly Beard-heath	
Ericaceae	*Monotoca scoparia*		
Euphorbiaceae	*Alchornea ilicifolia*	Native Holly	
Euphorbiaceae	*Mallotus claoxyloides*	Green Kamala	
Euphorbiaceae	*Mallotus philippensis*	Red Kamala	
Euphorbiaceae	*Mallotus polyadenos*	Green Kamala	
Euphorbiaceae	*Ricinus communis*	Castor Oil Plant	*
Fabacae	*Glycine cyrtoloba*	-	
Fabaceae	*Abrus precatorius* ssp. *africanus*	Gidee Gidee	*
Fabaceae	*Acacia falcata*	Sickle Wattle	
Fabaceae	*Acacia leiocalyx*	Black Wattle	
Fabaceae	*Castanospermum australe*	Black Bean	
Fabaceae	*Crotalaria grahamiana*	Rattlepod	
Fabaceae	*Daviesia ulicifolia*	Gorse Bitter Pea	
Fabaceae	*Derris involuta*	Derris	
Fabaceae	*Desmodium rhytidophyllum*		

Family	Species Name	Common Name	Status
Fabaceae	*Desmodium uncinatum*	Silver leaf Desmodium	*
Fabaceae	*Glycine microphylla*	Small-leaf Glycine	
Fabaceae	*Hardenbergia violacea*	Purple Coral Pea	
Fabaceae	*Hovea acutifolia*	Hovea	
Fabaceae	*Jacksonia scoparia*	Dogwood	
Fabaceae	*Kennedia rubicunda*	Red Kennedy Pea	
Fabaceae	*Macroptilium atropurpureum*	Siratro	*
Fabaceae	*Medicago polymorpha*	Burr Medic	
Fabaceae	*Rhynchosia minima*	Ryncho	
Fabaceae	*Trifolium repens* var. *repens*	White Clover	*
Geraniaceae	*Erodium cicutarium*	Crows foot	
Goodeniaceae	*Velleia paradoxa*		
Goodineaceae	*Goodenia rotundifolia*	Star Goodenia	
Hemerocallidaceae	*Dianella caerulea*	blue flax-lily	
Hemerocallidaceae	*Dianella longifolia*	Pale Flax-lily	
Hemerocallidaceae	*Dianella revoluta*	Blueberry Flax-lily	
Juncaceae	*Juncus sp.*	Common Rush	
Juncaginaceae	*Triglochin procera*	Water Ribbons	
Lamiaceae	*Clerodendrum floribundum*	Smooth Clerodendrum	
Lamiaceae	*Vitex melicopea*	Nortern Vitex	
Laminaceae	*Clerodendrum floribundum*	Smooth Clerodendrum	
Laminaceae	*Gmelina leichhardtii*	White Beech	
Laminaceae	*Vitex melicopea*	Northern Vitex	
Lauraceae	*Cinnamomum camphora*	Camphor Laurel	*3
Lauraceae	*Cinnamomum oliveri*	Olivers Sassafrass	
Lauraceae	*Cryptocarya bidwillii*	Yellow Laurel	
Lauraceae	*Cryptocarya glaucescens*	Jackwood	
Lauraceae	*Cryptocarya macdonaldii*	Cooloola Laurel	
Lauraceae	*Cryptocarya microneura*	Murrogun	
Lauraceae	*Cryptocarya triplinervis* var. *pubens*	Hairy Three Veined Cryptocarya	
Lauraceae	*Cryptocarya triplinervis* var. *triplinervis*	Three-veined Laurel	
Lauraceae	*Endiandra muelleri* ssp. *muelleri*	Green-leaved Rose Walnut	
Lauraceae	*Endiandra sieberi*	Corkwood	
Lauraceae	*Neolitsea dealbata*	White Bolly Gum	
Lauraceae	*Persea americana*	Avocado	
Laxmanniaceae	*Cordyline rubra*	Red-fruited Palm Lily	
Laxmanniaceae	*Laxmannia* sp.		
Laxmanniaceae	*Lomandra confertifolia*	Mat-Rush	
Laxmanniaceae	*Lomandra longifolia*	Spiny-Head Mat-Rush	
Laxmanniaceae	*Lomandra multiflora*	Many-flowered Mat-rush	

Family	Species Name	Common Name	Status
Laxmanniaceae	*Thysanotus spp.*	Fringe Lily	
Liliaceae	*Crinum pedunculatum*	Swamp Lily	
Liliaceae	*Aloe barbadensis*	Aloe Vera	*
Lobeliaceae	*Lobelia alata*	Angled Lobelia	
Lobeliaceae	*Lobelia purpurescens*	White Root	
Lomandraceae	*Lomandra hystrix*	Mat-rush	
Loranthaceae	*Amyema conspicua* ssp. *conspicua*		
Loranthaceae	*Amymea pendula*	Mistletoe	
Lythraceae	*Punica granatum*	Pomegranate	*
Malvaceae	*Abutilon grandifolium*		*
Malvaceae	*Abutilon oxycarpum* var. *oxycarpum*	Lantern Bush	
Malvaceae	*Brachychiton acerifolius*	Flame Tree	SL
Malvaceae	*Hibiscus heterophyllus*	Rosella	
Malvaceae	*Malva parviflora*	Small-flowered Mallow	*
Malvaceae	*Pavonia hastata*		*
Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*
Meliaceae	*Aglaia brownii*	Browns Aglia	
Meliaceae	*Melia azedarach*	White Cedar	
Menispermaceae	*Stephania japonica*	Snake Vine	
Menyanthacaeae	*Nymphoides indica*	Water Snowflake	SL
Mimosaceae	*Acacia complanata*	Flatstem Wattle	
Mimosaceae	*Acacia concurrens*	Hickory Wattle	
Mimosaceae	*Acacia disparrima*	Hickory Wattle	
Mimosaceae	*Acacia fimbriata*	Fringed Wattle	
Mimosaceae	*Acacia irrorata*	Green Wattle	
Mimosaceae	*Acacia maidenii*	Maiden's Wattle	
Mimosaceae	*Leucaena leucocephala*	Leucaena	*
Mimosoideae	*Acacia longissima*	Long-leaf Wattle	
Mimosoideae	*Acacia melanoxylon*	Blackwood	
Mimosoideae	*Acacia oshanesii*	Corkwood Wattle	
Mimosoideae	*Acacia podalyriifolia*	Queensland Silver Wattle	
Moraceae	*Ficus coronata*	Creek Sandpaper Fig	
Moraceae	*Ficus fraseri*	Sandpaper Fig	
Moraceae	*Ficus macrophylla*	Moreton Bay Fig	
Moraceae	*Ficus obliqua*	Small-fruited Fig	
Moraceae	*Ficus rubiginosa*	Rusty Fig	
Moraceae	*Ficus superba*	Strangler Fig	
Moraceae	*Maclura cochinchinensis*	Cockspur Thorn	
Moraceae	*Morus nigra*	Mulberry	*
Moraceae	*Streblus brunonianus*	Whale Bone	

Family	Species Name	Common Name	Status
Moraceae	*Trophis scandens*	Burny Vine	
Myoporaceae	*Eremophila dablis*	White Apple	
Myrsinaceae	*Myrsine variabilis*	Muttonwood	
Myrsinaceae	*Rapanea variabilis*	Muttonwood	
Myrtaceae	*Angophora floribunda*		
Myrtaceae	*Angophora subvelutina*	Broad-leaved Apple	
Myrtaceae	*Angpohora leiocarpa*	Smooth Barked Apple	
Myrtaceae	*Backhousia myrtifolia*	Grey Myrtle	
Myrtaceae	*Baeckea virgata*	Baeckea	
Myrtaceae	*Corymbia ficifolia*	Red Floweing Gum	*
Myrtaceae	*Corymbia intermedia*	Pink Bloodwood	
Myrtaceae	*Corymbia torelliana*	Cadaghi	*
Myrtaceae	*Deaspermum humile*	Silky Myrtle	
Myrtaceae	*Eucalyptus acmenoides*	White Mahogany	
Myrtaceae	*Eucalyptus bancroftii*	Orange Gum	
Myrtaceae	*Eucalyptus cloeziana*	Gympie Messmate	
Myrtaceae	*Eucalyptus crebra*	Narrow-leaved Ironbark	
Myrtaceae	*Eucalyptus dura*	Smooth-branched Ironbark	
Myrtaceae	*Eucalyptus fibrosa*	Red Ironbark	
Myrtaceae	*Eucalyptus grandis*	Flooded Gum	
Myrtaceae	*Eucalyptus microcorys*	Tallowood	
Myrtaceae	*Eucalyptus propinqua*	Small-fruited Grey Gum	
Myrtaceae	*Eucalyptus resinifera*	Red Mahogany	
Myrtaceae	*Eucalyptus robusta*	Swamp Mahogany	
Myrtaceae	*Eucalyptus siderophloia*	Grey Ironbark	
Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum	
Myrtaceae	*Gossia inophloia*	Thready-bark Myrtle	
Myrtaceae	*Gossia punctata*	-	
Myrtaceae	*Leptospermum petersonii*	Lemon-scented Tea Tree	
Myrtaceae	*Leptospermum polygalifolium* subsp. *cismontanum*	Tantoon	
Myrtaceae	*Lophostemon confertus*	Brushbox	
Myrtaceae	*Lophostemon suaveolens*	Swamp box	
Myrtaceae	*Melaleuca bracteata*	Black Tea-tree	
Myrtaceae	*Melaleuca citrinus*	Crimson Bottlebrush	
Myrtaceae	*Melaleuca leucadendra*	Weeping Paperbark	
Myrtaceae	*Melaleuca quinquenervia*	Broad-leaved Paperbark	
Myrtaceae	*Melaleuca salicina*	Willow leaved Bottlebrush	
Myrtaceae	*Melaleuca salignus*	White Bottlebrush	
Myrtaceae	*Melaleuca styphyloides*	Prickly-leaved Tea-tree	

Family	Species Name	Common Name	Status
Myrtaceae	*Melaleuca viridiflora*	Broad-leaved Tea Tree	
Myrtaceae	*Psidium guajava*	Guava	
Myrtaceae	*Rhodamnia rubescens*	Brush Turpentine	
Myrtaceae	*Rhodomyrtus psidioides*	Native Guava	
Myrtaceae	*Syncarpia glomulifera*	Turpentine	
Myrtaceae	*Syzygium floribundum*	Weeping Lilly Pilly	
Myrtaceae	*Syzygium francisii*	Giant Water Gum	
Myrtaceae	*Syzygium smithii*	Lillypilly satinash	
Myrtaceae	*Tristaniopsis lurina*	Water Gum	
Myrtaceae	*Angophora leiocarpa*	Smooth Barked Apple	
Myrtaceae	*Corymbia citriodora*	Lemon-scented Gum	
Myrtaceae	*Corymbia tessellaris*	Moreton Bay Ash	
Myrtaceae	*Melaleuca viminalis*	Weeping Bottlebrush	
Myrtaceae	*Syzygium hemilamprum* ssp. *hemilamprum*	Broad-leaved Lilly Pilly	
Nyctagainaceae	*Bougainvillea glabra*	Bougainvillea	*
Nymphaeaceae	*Nymphaea caerulea*	Water Lily	
Ochnaceae	*Ochna serrulata*	Ochna	*
Oleaceae	*Ligustrum lucidum*	Broad-leaved Privet	*3
Oleaceae	*Ligustrum sinense*	Small-leaved Privet	*3
Oleaceae	*Notelaea johnsonii*	Veinless Mock-olive	
Oleaceae	*Notelaea longifolia*form *glabra*	Large-leaved Mock Olive	
Oleaceae	*Notelaea microcarpa*	Small-fruited Mock Olive	
Onagraceae	*Ludwigia peploides* ssp. *montevidensis*	Water Primrose	
Orchidaceae	*Cymbidium madidium*	Giant Boat-Lip Orchid	
Oxalidaceae	*Oxalis chnoodes*	Oxalis	
Oxalidaceae	*Oxalis exilis*		
Passifloraceae	*Passiflora suberosa*	Corky Passionfruit	*
Passifloraceae	*Passiflora subpeltata*	White Passionfruit	*
Petiveriaceae	*Rivina humilis*	Coral Berry	*
Philesiaceae	*Eustrephus latifolius*	Wombat Berry	
Philesiaceae	*Geitonoplesium cymosum*	Scambling Lily	
Philydraceae	*Philydrum lanuginosum*	Frogsmouth	
Phyllanthaceae	*Breynia oblongifolia*	Coffee Bush	
Phyllanthaceae	*Glochidion ferdinandi*	Cheesetree	
Phyllanthaceae	*Phyllanthus subcrenulatus*	Phyllanthus	
Phytolaccaceae	*Phytolacca octandra*	Inkweed	*
Picrodendraceae	*Petalostigma pubescens*	Native Quince	
Picrodendraceae	*Petalostigma triloculare*	Long-leaved Bitter Bark	
Pinaceae	*Pinus elliottii*	Slash Pine	
Pinaceae	*Pinus ponderosa*	Ponderosa Pine	*

Family	Species Name	Common Name	Status
Pittosporaceae	*Billardiera scandens*	Snot Berry	
Pittosporaceae	*Bursaria spinosa*	Blackthorn	
Pittosporaceae	*Hymenosporum flavum*	Native Frangipani	
Pittosporaceae	*Pittosporum revolutum*	yellow pittosporum	
Pittosporaceae	*Pittosporum rubigosum*	Hairy Pittosporum	
Pittosporaceae	*Pittosporum undulatum*	Mock Orange	
Poaceae	*Avena fatua*	Wild Oats	*
Poaceae	*Bambusea* spp.	Bamboo	*
Poaceae	*Chloris gayana*	Rhodes Grass	*
Poaceae	*Cymbopogon refractus*	Barbed Wire Grass	
Poaceae	*Cynodon dactylon*	Couch	*
Poaceae	*Dichanthium sericium*	Queensland Bluegrass	
Poaceae	*Dichelachne crinita*	Plume Grass	
Poaceae	*Digitaria didactyla*	Blue Couch	
Poaceae	*Eleusine indica*	Crowsfoot Grass	*
Poaceae	*Entolasia stricta*	Wiry Panic	
Poaceae	*Imperata cylindrica*	Blady Grass	
Poaceae	*Megathyrsus maximus var maximus*	Guinea Grass	*
Poaceae	*Melinis minutifolia*	Molasses Grass	
Poaceae	*Melinis repens*	Red Natal Grass	*
Poaceae	*Oplismenus aemulus*	Basket Grass	
Poaceae	*Panicum maximum*	Green Panic	*
Poaceae	*Panicum simile*	Two-colour Panic	
Poaceae	*Paspalum distichum*	Water Couch	
Poaceae	*Paspalum orbiculare*	Ditch Millet	
Poaceae	*Paspalum* sp.		
Poaceae	*Pennisetum alopecuroides*	Swamp Foxtail	
Poaceae	*Pennisetum clandestinum*	Kikuyu Grass	*
Poaceae	*Setaria sphacelata*	Pigeon Grass	*
Poaceae	*Sporobolus africanus*	Parramatta Grass	*2
Poaceae	*Themeda triandra*	Kangaroo Grass	
Podocarpaceae	*Podocarpus elatus*	Plum Pine	
Podolobium	*Podolobium ilicifolium*	Prickly Shaggy Pea	
Polygonaceae	*Persicaria decipiens*	Slender Knotweed	
Polygonaceae	*Persicaria spp.*		
Polygonaceae	*Rumex conglomeratus*	Clustered Dock	*
Polygonaceae	*Rumex crispus*	Curled Dock	*
Polypodiaceae	*Platycerium superbum*	Staghorn Fern	SL
Primulaceae	*Anagallis arvensis var. arvensis*	Scarlet pimpernel	*
Protaceae	*Banksia* sp. *(cultivar)*		

Family	Species Name	Common Name	Status
Protaceae	*Grevillea banksii*	Red Silky Oak	
Protaeceae	*Banksia integrifolia*	Coast Banksia	
Protaeceae	*Persoonia sericea*	Silky Geebung	
Proteaceae	*Grevillea robusta*	Silky Oak	
Proteaceae	*Macadamia integrifolia*	Macadamia Nut	V (A,Q)^
Pteridaceae	*Cheilanthes sieberi*	Mulga Fern	
Rhamnaceae	*Alphitonia excelsa*	Red Ash	
Rosaceae	*Rosa* sp.	Rose	*
Rubiaceae	*Cyclophyllum coprosmoides*	Coast Canthium	
Rubiaceae	*Everistia vacciniifolia*		
Rubiaceae	*Gardenia* sp.	Gardenia	*
Rubiaceae	*Morinda jasminoides*	Sweet Morinda	
Rubiaceae	*Pomax umbellata*	-	
Rubiaceae	*Psychotria simmondsiana*	Small Psychotria	
Rubiaceae	*Psydrax odorata*	Shiny-leaved Canthium	
Rubiaceae	*Morinda jasminoides*	Sweet Morinda	
Rubiaceae	*Psychotria daphnoides* var *daphnoides*	Smooth Psychotria	
Rubiaceae	*Psychotria loniceroides*	Hairy Psychotria	
Rubiaceae	*Rubus moluccanus*	Native Raspberry	
Rutaceae	*Acronychia laevis*	Hard Aspen	
Rutaceae	*Acronychia oblongifolia*	Common Acronychia	
Rutaceae	*Citrus australis*	Native Lime	
Rutaceae	*Citrus sinensis*	Orange	*
Rutaceae	*Citrus* x *latifolia*	Tahitian Lime	*
Rutaceae	*Citrus x limon*	Bush Lemon	*
Rutaceae	*Citrus* x *taitensis*	Bush Lemon	*
Rutaceae	*Clausena brevistyla*	Native Wampi	
Rutaceae	*Flindersia australis*	Australian Teak	
Rutaceae	*Flindersia collita*	Leopard Ash	
Rutaceae	*Flindersia schottiana*	Bumpy Ash	
Rutaceae	*Geijera salicifolia*	Broad-leafed Scrub Wilga	
Rutaceae	*Melicope hayesii*	Small-leaved Doughwood	
Rutaceae	*Murraya paniculata*	Orange Jasmine	*
Rutaceae	*Zieria minutifolia*	Twiggy Zieria	
Rutaceae	*Zieria smithii*	Sandfly Zieria	
Sambucaceae	*Sambucus australasica*	Native Elderberry	
Sapindaceae	*Arytera divaricata*	Coogera	
Sapindaceae	*Cupaniopsis parviflora*	Small-leaved Tuckeroo	
Sapindaceae	*Cupaniopsis anacardioides*	Tuckeroo	
Sapindaceae	*Cupaniopsis serrata*		

Family	Species Name	Common Name	Status
Sapindaceae	*Diploglottis australis*	Native Tamarind	
Sapindaceae	*Dodonaea triquetra*	Large-leaf Hop-bush	
Sapindaceae	*Guioa semiglauca*	Guoia	
Sapindaceae	*Harpullia hillii*	Blunt-leaved Tulip	
Sapindaceae	*Jagera pseudorhus*	Foambark Tree	
Sapindaceae	*Mischocarpus australis*	Red Pear-fruit	
Sapotaceae	*Planchonella australis*	Black Apple	
Schizaeaceae	*Lygodium japonicum*	Japanese Climbing Fern	*
Scrophulariaceae	*Eremophila debilis*	Winter Apple	
Smilacaceae	*Smilax australis*	barbed-wire vine	
Smilacaceae	*Smilax glyciphylla*	Native Sarsparilla	
Solanaceae	*Solanum chrysotrichum*	Giant Devil's Fig	*
Solanaceae	*Solanum gympiense*		
Solanaceae	*Solanum jasminoides*	Potato Vine	*
Solanaceae	*Solanum lycopersicum*	Tomato	*
Solanaceae	*Solanum mauritianum*	Bush Tobacco	*
Solanaceae	*Solanum nigrum*	Black Nightshade	*
Solanaceae	*Solanum seaforthianum*	Potato Vine	*
Solanaceae	*Solanum torvum*	Giant Devil's Fig	*
Sterculiaceae	*Brachychiton discolor*	Lace Bark	
Sterculiaceae	*Brachychiton populneus*	Kurrajong	
Sterculiaceae	*Brachychiton rupestris*	Qld Bottle Tree	
Stylidiaceae	*Stylidium spp.*		
Surianaceae	*Guilfoylia monostylis*	Guilfoylia	
Thymelaeaceae	*Pimelea linifolia* ssp. *linifolia*	Slender Riceflower	
Thymelaeaceae	*Pimelea neo-anglica*	Poison Pimelea	
Thymelaeceae	*Wikstroemia indica*	Tie Bush	
Typhaceae	*Typha* spp.	Bullrush	
Ulmaceae	*Aphananthe philippinensis*	Rough-leaved Elm	
Ulmaceae	*Celtis sinensis*	Chinese Elm	*3
Ulmaceae	*Trema tomentosa* var. *aspera*	Poison Peach	
Verbenaceae	*Lantana camara*	Lantana	*3
Verbenaceae	*Verbena bonariensis*	Purple Top	*
Verbenaceae	*Verbena litoralis*		*
Violaceae	*Viola hederacae*	Native violet	
Visaceae	*Notothixos incanus*	Mistletoe	
Vitaceae	*Cissus antarctica*	Kangaroo Vine	
Vitaceae	*Clematcissus opaca*	Pepper Vine	
Vitaceae	*Vitis vinifera*	Grape-vine	*
Xanthorrhoeaceae	*Xanthorrhoea johnsonii*	Johnson's Grass Tree	SL

APPENDIX E FAUNA SPECIES LIST

Family	Species Name	Common Name	Status		Tracks																
			Q	A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Camaenidae	*Sphaerospira fraseri*	Fraser's Land Snail																			X
Hylidae	*Litoria fallax*	Eastern Dwarf Tree Frog												X	X					X	X
Hylidae	*Litoria peronii*	Emerald Spotted Treefrog						X													
Hylidae	*Litoria dentata*	Bleating Tree Frog										X									
Acanthizidae	*Gerygone olivacea*	White-throated Gerygone				X															X
Acanthizidae	*Sericornis frontalis*	White-browed Scrubwren											X		X						
Accipitridae	*Elanus axillaris*	Black Shouldered Kite																		X	
Alcedinidae	*Ceyx azureus*	Azure Kingfisher												X							
Anatidae	*Anas superciliosa*	Pacific Black Duck						X								X					X
Anatidae	*Chenonetta jubata*	Australian Wood Duck																	X	X	X
Ardeidae	*Ardea pacifica*	White-necked Heron			X		X		X		X					X					
Artamidae	*Cracticus nigrogularis*	Pied Butcherbird			X						X					X					X
Artamidae	*Cracticus tibicen*	Magpie			X							X		X		X					X
Artamidae	*Cracticus torquatus*	Grey butcherbird													X						
Artamidae	*Strepera graculina*	Pied Currawong							X												
Cacatuidae	*Cacatua tenuirostris*	Corella																			
Cacatuidae	*Eolophus roseicapilla*	Galah																			
Campephagidae	*Coracina novaehollandiae*	Black-faced Cuckoo-shrike					X	X	X				X	X	X		X			X	X
Campephagidae	*Coracina tenuirostris*	Cicadabird	SL	Mi			X	X			X		X	X	X	X	X				
Campephagidae	*Lalage leucomela*	Varied triller			X												X				
Cinclosomatidae	*Psophodes olivaceus*	Whipbird			X																X
Climacteridae	*Cormobates leucophaea*	White-throated Treecreeper			X		X								X						
Columbidae	*Geopelia humeralis*	Bar-shouldered Dove			X						X			X		X					X

Family	Species Name	Common Name	Status		Tracks																
			Q	A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Columbidae	*Geopelia placida*	Peaceful Dove			X		X	X						X	X						X
Columbidae	*Macropygia amboinensis*	Brown Cuckoo-dove			X							X			X	X					
Columbidae	*Ocyphaps lophotes*	Crested Pigeon				X										X				X	
Coraciidae	*Eurystomus orientalis*	Dollarbird			X														X		
Corvidae	*Corvus orru*	Torresian Crow			X				X	X	X		X		X	X	X		X		X
Cuculidae	*Cacomantis flabelliformis*	Fan-tailed Cuckoo					X	X						X	X						
Cuculidae	*Cacomantis variolosus*	Brush-cuckoo					X						X		X						X
Cuculidae	*Centropus phasianinus*	Pheasant Coucal					X														
Cuculidae	*Chrysococcyx basalis*	Horsefield Bronze-cuckoo			X		X														
Cuculidae	*Eudynamys scolopacea*	Common Koel							X						X				X		
Dicaeidae	*Dicaeum hirundinaceum*	Mistletoebird									X	X			X				X		X
Dicruridae	*Dicrurus bracteatus*	Spangled Drongo																			X
Estrildidae	*Lonchura castaneothorax*	Chestnut-breasted mannikin																		X	
Estrildidae	*Neochmia temporalis*	Red-browed Finch									X				X						
Estrildidae	*Taeniopygia bichenovii*	Double-barred Finch			X										X						
Halcyonidae	*Todiramphus macleayii*	Forest Kingfisher													X						X
Halcyonidae	*Dacelo novaeguineae*	Laughing Kookaburra									X										X
Hirundinidae	*Petrochelidon nigricans*	Tree Martin			X																

Family	Species Name	Common Name	Status		Tracks																
			Q	A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Hirundinidae	*Hirundo neoxena*	Welcome Swallow							X					X					X		X
Jacanidae	*Irediparra gallinacea*	Comb-crested jacana																			
Locustellidae	*Megalurus timoriensis*	Tawny Grassbird			X																
Maluridae	*M. melanocephalus*	Red-backed Wren				X									X		X				
Maluridae	*Malurus lamberti*	Variegated Fairy-wren														X					
Megapodiidae	*Alectura lathami*	Australian brush-turkey												X							
Meliphagidae	*Entomyzon cyanotis*	Blue-faced Honeyeater										X				X			X	X	X
Meliphagidae	*Lichenostomus fuscus*	Fuscous Honeyeater						X													
Meliphagidae	*Lichmera indistincta*	Brown Honeyeater					X				X										X
Meliphagidae	*Meliphaga lewinii*	Lewin's Honeyeater			X		X							X			X		X		X
Meliphagidae	*Melithreptus albogularis*	White-throated Honeyeater												X							
Meliphagidae	*Myzomela sanguinolenta*	Scarlet Honeyeater					X														
Meliphagidae	*Philemon corniculatus*	Noisy Friarbird					X						X		X						X
Meliphagidae	*Lichenostomus chrysops*	Yellow-faced Honeyeater																			
Meliphagidae	*Manorina melanocephala*	Noisy Miner							X		X		X	X	X	X	X		X	X	X
Meropidae	*Merops ornatus*	Rainbow Bee-eater										X									
Monarchidae	*Myiagra cyanoleuca*	Satin Flycatcher	SL	Mi			X	X					X	X	X	X	X	X	X		
Monarchidae	*Myiagra inquieta*	Restless Flycatcher					X														
Monarchidae	*Myiagra rubecula*	Leaden's Flycatcher					X								X						
Oriolidae	*Oriolus sagittatus*	olive-backed oriole													X						
Oriolidae	*Sphecotheres viridis*	Fig bird									X					X	X		X		X
Pachycephalidae	*Colluricincla harmonica*	Grey Shrike-thrush			X		X				X		X	X	X						

Family	Species Name	Common Name	Status		Tracks															
			Q	A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Pachycephalidae	*Pachycephala pectoralis*	Golden Whistler					X											X		X	
Pachycephalidae	*Pachycephala rufiventris*	Rufous Whistler			X		X	X			X		X		X						X
Pardalotidae	*Pardalotus striatus*	Striated Pardalote									X	X			X		X				
Pardalotidae	*Acanthiza reguloides*	Buff-rumped Thornbill			X														X		
Petroicidae	*Eopsaltria australis*	Eastern Yellow Robin			X		X	X	X		X			X	X						X
Phasianidae	*Coturnix ypsilophora*	Brown Quail				X				X	X										
Psittaculidae	*Platycercus adscitus*	Pale-headed Rosella			X															X	
Psittaculidae	*Trichoglossus chlorolepidotus*	Scaly-breasted Lorikeet				X									X				X		
Psittaculidae	*Trichoglossus haematodus*	Rainbow Lorikeet							X						X		X				X
Rallidae	*Fulica atra*	Eurasian coot																		X	
Rallidae	*Porphyrio porphyrio*	Purple Swamphen														X					
Rhipiduridae	*Rhipidura albiscapa*	Grey Fantail			X		X	X			X		X		X						
Rhipiduridae	*Rhipidura leucophrys*	Willie Wagtail									X			X	X						
Threskiornithidae	*Platalea regia*	Royal Spoonbill														X					
Threskiornithidae	*Threskiornis aethiopicus*	Sacred Ibis							X							X					
Agamidae	*Intellagama lesueurii*	Eastern Water Dragon					X		X					X					X		X
Agamidae	*Pogona barbata*	Bearded dragon																			X
Scincidae	*Cryptoblepharus virgatus sensu lato*	Fence Skink																			X
Varanidae	*Varanus varius*	Lace Monitor						X						X							X
Ornithorhynchidae	*Ornithorhynchus anatinus*	Platypus	SL					X^													
Tachyglossidae	*Tachyglossus aculeatus*	Short-beaked Echidna	SL										X								
Phascolarctidae	*Phascolarctos*	Koala	V	V				X*						X*	X*						

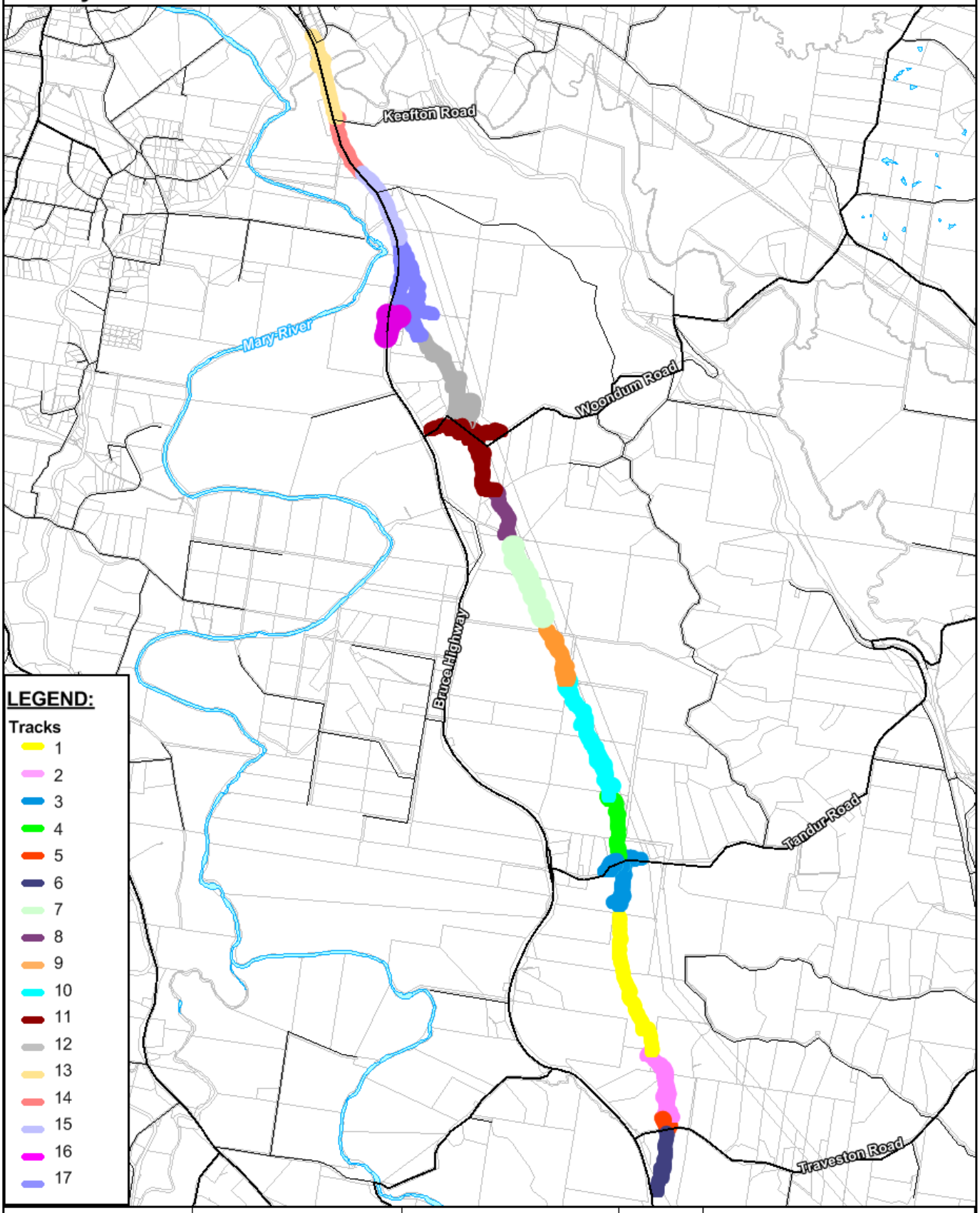
Family	Species Name	Common Name	Status		Tracks																
			Q	A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	cinereus																				
Macropodidae	*Macropus rufogriseus*	Red-necked Wallaby				X					X										X
Macropodidae	*Macropus robustus*	Common Wallaroo																		X	
Macropodidae	*Macropus giganteus*	Eastern Grey Kangaroo						X								X				X	

^ reports from property owner

* Scats present

APPENDIX F SURVEY TRACKS MAP

Survey Tracks



LEGEND:

Tracks

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

FIGURE Tracks
CREATED BY AM11482
REVISION 0
STATUS FINAL
DATE 06/11/2014
ISSUED FOR INFORMATION

PROJECT NO.
30031298
PROJECT TITLE
Cooroy to Curra - Section C

0 1 2km
Scale: 1:50,000 @ A4

N

CONSULTANT SMEC Australia
SMEC
Local People. Global Experience.

COORDINATE SYSTEM GDA 1994 MGA Zone 56
SOURCE The State of Queensland (DEHP), Copyright 2014, Microsoft Bing 2014
PATH A:\C2C\C2C Flora Survey Mapping.wor

CLIENT Department of Transport & Main Roads
Queensland Government

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1	14/10/14	A Marsden	J Alexander	R Brazier

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APPENDIX C: KOALA AND GREY-HEADED FLYING-FOX ADDITIONAL FAUNA SURVEY, SMEC 2015

Koala and Grey-headed Flying-fox Additional Fauna Survey (SMEC, 2015)

Introduction

SMEC was engaged to undertake additional fauna survey, consisting of habitat assessments, to inform the preparation of the preliminary documentation for the management of impacts to the koala and grey-headed flying-fox.

Methodology

A desktop assessment and gap analysis was first undertaken to identify the existing research and results, survey locations and determine a suitable survey effort to achieve maximum benefits while capturing any data gaps.

A field investigation was then conducted by SMEC between 30th March and 2nd April, 2015 to collate additional information for koala and grey-headed flying-fox, and assess suitable habitat present for both species within the Project Area. To identify koala activity levels, the investigation utilised the koala spot assessment technique (KSAT) (Phillips and Callaghan, 2011) as it was considered to be the most effective method of capturing presence/absence information on small populations. As such, KSATs were conducted at intervals of approximately 200m where appropriate, noting that some were further apart due to lack of suitable habitat and prioritisation of sites. A total of 21 KSATs were conducted along the Project Area. Where two adjacent KSATs had detected 3 or more trees with scats each, line transects were conducted between the two KSATs to search for direct observations of koalas. Two line transects were therefore undertaken between Kybong Creek and Traveston State Forest.

Throughout the survey, trees were searched for grey-headed flying-fox individuals while also searching for koalas. Species within each KSAT were recorded through the datasheets, indicating where suitable species for grey-headed flying-fox occur along the corridor.

Mapping of the findings and updates to the existing habitat maps were subsequently completed.

Results

The field investigation did not record any direct observations of koalas or grey-headed flying-fox.

Scats were detected within six (6) of the 21 KSATs conducted, as displayed in Table 1 below. In accordance with the calculations outlined by Phillips and Callaghan (2011), all of these results indicate low level koala activity. As such, the Project Area is expected to support a relatively small population of individuals.

KSAT no.	Number of trees with scats	RE description
1	0	12.3.11
2	4	12.3.11
3	4	12.11.3/12.11.14
4	0	none
5	0	border of 12.11.3
6	0	none
7	0	none
8	0	none
9	0	12.11.3
10	1	12.3.11
11	1	12.11.3
12	0	none
13	0	12.11.3
14	0	none
15	0	12.11.3/12.11.14
16	0	12.11.3/12.11.14
17	3	12.11.3/12.11.14
18	0	12.11.3
19	1	12.3.11
20	0	12.11.3
21	0	none

Suitable vegetation for both koala habitat and grey-headed flying-fox foraging was identified across the Project Area. A variety of Eucalypt species and related genera were recorded, including high densities of the primary koala food tree *Eucalyptus tereticornis* (Forest Red Gum), with lower densities of *Eucalyptus microcorys* (Tallowwood) which is also recognised as a primary koala food tree. Additionally, winter and spring flowering eucalypts which provide significant foraging habitat for grey-headed flying-fox, such as *Eucalyptus siderophloia* (Northern Grey Ironbark) and *Eucalyptus acmenoides* (White Mahogany) were recorded.

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
1	1	*Eucalyptus tereticornis*	18	40		30/03/2015
1	2	*Lophostemon suaveolens*	8	40		30/03/2015
1	3	*Lophostemon suaveolens*	12	30		30/03/2015
1	4	*Lophostemon suaveolens*	10	25		30/03/2015
1	5	*Eucalyptus tereticornis*	15	30		30/03/2015
1	6	*Corymbia intermedia*	14	25		30/03/2015
1	7	*Lophostemon suaveolens*	9	25		30/03/2015
1	8	*Eucalyptus tereticornis*	25	45		30/03/2015
1	9	*Lophostemon suaveolens*	10	20		30/03/2015
1	10	*Corymbia intermedia*	25	50		30/03/2015
1	11	*Eucalyptus siderophloia*	15	20		30/03/2015
1	12	*Corymbia intermedia*	16	30		30/03/2015
1	13	*Corymbia intermedia*	23	60		30/03/2015
1	14	*Corymbia intermedia*	22	40		30/03/2015
1	15	*Lophostemon suaveolens*	10	25		30/03/2015
1	16	*Lophostemon suaveolens*	10	25		30/03/2015
1	17	*Lophostemon suaveolens*	9	15		30/03/2015
1	18	*Lophostemon suaveolens*	8	20		30/03/2015
1	19	*Lophostemon suaveolens*	12	20		30/03/2015
1	20	*Eucalyptus tereticornis*	22	35		30/03/2015
1	21	*Lophostemon suaveolens*	10	30		30/03/2015
1	22	*Eucalyptus tereticornis*	20	40		30/03/2015
1	23	*Corymbia intermedia*	16	20		30/03/2015
1	24	*Lophostemon suaveolens*	8	25		30/03/2015
1	25	*Lophostemon suaveolens*	8	15		30/03/2015
1	26	*Lophostemon suaveolens*	6	10		30/03/2015
1	27	*Lophostemon suaveolens*	9	30		30/03/2015
1	28	*Lophostemon suaveolens*	10	25		30/03/2015
1	29	*Corymbia intermedia*	9	15		30/03/2015
1	30	*Corymbia intermedia*	28	65		30/03/2015
2	1	*Eucalyptus tereticornis*	26	45	Y	30/03/2015
2	2	*Lophostemon suaveolens*	12	20		30/03/2015
2	3	*Corymbia intermedia*	13	35		30/03/2015
2	4	*Lophostemon confertus*	15	20		30/03/2015
2	5	*Lophostemon confertus*	14	16		30/03/2015
2	6	*Lophostemon confertus*	13	20		30/03/2015
2	7	*Lophostemon suaveolens*	12	30		30/03/2015
2	8	*Lophostemon confertus*	15	20		30/03/2015
2	9	*Lophostemon suaveolens*	14	30		30/03/2015
2	10	*Lophostemon suaveolens*	9	30		30/03/2015
2	11	*Lophostemon suaveolens*	12	35		30/03/2015
2	12	*Corymbia intermedia*	16	30		30/03/2015
2	13	*Lophostemon suaveolens*	14	30		30/03/2015
2	14	*Eucalyptus tereticornis*	23	50		30/03/2015
2	15	*Corymbia intermedia*	15	25		30/03/2015
2	16	*Eucalyptus tereticornis*	18	40	Y	30/03/2015
2	17	*Corymbia intermedia*	17	35		30/03/2015
2	18	*Corymbia intermedia*	25	50		30/03/2015
2	19	*Corymbia intermedia*	17	40		30/03/2015
2	20	*Eucalyptus siderophloia*	14	25	Y	30/03/2015
2	21	*Corymbia intermedia*	18	45	Y	30/03/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
2	22	*Lophostemon suaveolens*	8	25		30/03/2015
2	23	*Corymbia intermedia*	18	55		30/03/2015
2	24	*Eucalyptus siderophloia*	18	35		30/03/2015
2	25	*Corymbia intermedia*	22	65		30/03/2015
2	26	*Eucalyptus siderophloia*	24	45		30/03/2015
2	27	*Lophostemon suaveolens*	11	25		30/03/2015
2	28	*Corymbia intermedia*	16	30		30/03/2015
2	29	*Lophostemon suaveolens*	7	15		30/03/2015
2	30	*Corymbia intermedia*	26	17		30/03/2015
3	1	*Corymbia intermedia*	17	25		30/03/2015
3	2	*Eucalyptus propinqua*	19	65		30/03/2015
3	3	*Corymbia intermedia*	9	25		30/03/2015
3	4	*Corymbia intermedia*	10	25		30/03/2015
3	5	*Corymbia intermedia*	16	30		30/03/2015
3	6	*Eucalyptus siderophloia*	18	35		30/03/2015
3	7	*Corymbia intermedia*	12	25		30/03/2015
3	8	*Eucalyptus propinqua*	14	30		30/03/2015
3	9	*Corymbia intermedia*	17	50		30/03/2015
3	10	*Eucalyptus siderophloia*	8	20		30/03/2015
3	11	*Eucalyptus propinqua*	17	45		30/03/2015
3	12	*Eucalyptus tereticornis*	15	45		30/03/2015
3	13	*Eucalyptus propinqua*	25	80		30/03/2015
3	14	*Corymbia intermedia*	16	40		30/03/2015
3	15	*Corymbia intermedia*	15	30		30/03/2015
3	16	*Eucalyptus propinqua*	8	25		30/03/2015
3	17	*Eucalyptus propinqua*	20	50		30/03/2015
3	18	*Eucalyptus microcorys*	23	80	Y	30/03/2015
3	19	*Corymbia intermedia*	18	45		30/03/2015
3	20	*Eucalyptus propinqua*	26	50		30/03/2015
3	21	*Corymbia intermedia*	17	30		30/03/2015
3	22	*Eucalyptus propinqua*	18	30		30/03/2015
3	23	*Eucalyptus propinqua*	22	50		30/03/2015
3	24	*Eucalyptus propinqua*	26	70		30/03/2015
3	25	*Eucalyptus propinqua*	27	50		30/03/2015
3	26	*Eucalyptus propinqua*	25	60	Y	30/03/2015
3	27	*Eucalyptus propinqua*	18	45	Y	30/03/2015
3	28	*Eucalyptus propinqua*	18	35	Y	30/03/2015
3	29	*Corymbia intermedia*	20	50		30/03/2015
3	30	*Eucalyptus siderophloia*	19	30		30/03/2015
4	1	*Lophostemon suaveolens*	7	30		30/03/2015
4	2	*Eucalyptus tereticornis*	26	70		30/03/2015
4	3	*Lophostemon suaveolens*	7	20		30/03/2015
4	4	*Corymbia intermedia*	18	45		30/03/2015
4	5	*Corymbia intermedia*	22	85		30/03/2015
4	6	*Eucalyptus tereticornis*	14	25		30/03/2015
4	7	*Eucalyptus tereticornis*	18	40		30/03/2015
4	8	*Lophostemon suaveolens*	12	30		30/03/2015
4	9	*Corymbia intermedia*	18	75		30/03/2015
4	10	*Eucalyptus tereticornis*	24	55		30/03/2015
4	11	*Eucalyptus tereticornis*	25	55		30/03/2015
4	12	*Eucalyptus tereticornis*	20	35		30/03/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
4	13	*Lophostemon suaveolens*	6	15		30/03/2015
4	14	*Eucalyptus tereticornis*	25	40		30/03/2015
4	15	*Lophostemon suaveolens*	8	30		30/03/2015
4	16	*Eucalyptus tereticornis*	25	35		30/03/2015
4	17	*Eucalyptus tereticornis*	25	45		30/03/2015
4	18	*Corymbia intermedia*	22	30		30/03/2015
4	19	*Eucalyptus tereticornis*	12	20		30/03/2015
4	20	*Corymbia intermedia*	16	35		30/03/2015
4	21	*Lophostemon suaveolens*	6	25		30/03/2015
4	22	*Corymbia intermedia*	12	25		30/03/2015
4	23	*Corymbia intermedia*	12	20		30/03/2015
4	24	*Corymbia intermedia*	15	40		30/03/2015
4	25	*Eucalyptus tereticornis*	20	30		30/03/2015
4	26	*Corymbia intermedia*	14	25		30/03/2015
4	27	*Eucalyptus tereticornis*	20	60		30/03/2015
4	28	*Corymbia intermedia*	12	35		30/03/2015
4	29	*Eucalyptus crebra*	12	20		30/03/2015
4	30	*Eucalyptus tereticornis*	26	60		30/03/2015
5	1	*Corymbia intermedia*	9	30		30/03/2015
5	2	*Eucalyptus propinqua*	16	55		30/03/2015
5	3	*Eucalyptus tereticornis*	16	30		30/03/2015
5	4	*Eucalyptus tereticornis*	20	45		30/03/2015
5	5	*Eucalyptus tereticornis*	20	55		30/03/2015
5	6	*Eucalyptus siderophloia*	9	30		30/03/2015
5	7	*Eucalyptus tereticornis*	16	40		30/03/2015
5	8	*Eucalyptus tereticornis*	24	55		30/03/2015
5	9	*Eucalyptus tereticornis*	24	60		30/03/2015
5	10	*Corymbia intermedia*	10	30		30/03/2015
5	11	*Eucalyptus tereticornis*	24	60		30/03/2015
5	12	*Lophostemon suaveolens*	9	20		30/03/2015
5	13	*Lophostemon suaveolens*	9	20		30/03/2015
5	14	*Lophostemon suaveolens*	8	15		30/03/2015
5	15	*Eucalyptus tereticornis*	20	40		30/03/2015
5	16	*Eucalyptus tereticornis*	16	40		30/03/2015
5	17	*Corymbia intermedia*	16	35		30/03/2015
5	18	*Eucalyptus tereticornis*	22	60		30/03/2015
5	19	*Lophostemon suaveolens*	6	20		30/03/2015
5	20	*Lophostemon suaveolens*	6	15		30/03/2015
5	21	*Eucalyptus tereticornis*	18	55		30/03/2015
5	22	*Eucalyptus tereticornis*	17	30		30/03/2015
5	23	*Eucalyptus siderophloia*	17	45		30/03/2015
5	24	*Eucalyptus siderophloia*	15	40		30/03/2015
5	25	*Eucalyptus siderophloia*	12	25		30/03/2015
5	26	*Corymbia intermedia*	16	45		30/03/2015
5	27	*Eucalyptus siderophloia*	15	35		30/03/2015
5	28	*Melaleuca salignus*	9	25		30/03/2015
5	29	*Eucalyptus tereticornis*	9	20		30/03/2015
5	30	*Eucalyptus tereticornis*	18	35		30/03/2015
6	1	*Lophostemon confertus*	15	35		31/03/2015
6	2	*Eucalyptus propinqua*	16	35		31/03/2015
6	3	*Eucalyptus tereticornis*	18	45		31/03/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
6	4	*Eucalyptus tereticornis*	20	50		31/03/2015
6	5	*Lophostemon confertus*	17	40		31/03/2015
6	6	*Eucalyptus propinqua*	7	25		31/03/2015
6	7	*Corymbia intermedia*	10	30		31/03/2015
6	8	*Eucalyptus propinqua*	15	25		31/03/2015
6	9	*Lophostemon confertus*	8	15		31/03/2015
6	10	*Lophostemon confertus*	9	20		31/03/2015
6	11	*Lophostemon confertus*	10	25		31/03/2015
6	12	*Eucalyptus propinqua*	18	40		31/03/2015
6	13	*Lophostemon confertus*	8	20		31/03/2015
6	14	*Lophostemon confertus*	12	35		31/03/2015
6	15	*Eucalyptus propinqua*	22	45		31/03/2015
6	16	*Eucalyptus siderophloia*	15	25		31/03/2015
6	17	*Lophostemon confertus*	18	40		31/03/2015
6	18	*Lophostemon confertus*	15	30		31/03/2015
6	19	*Lophostemon confertus*	14	25		31/03/2015
6	20	*Eucalyptus propinqua*	27	50		31/03/2015
6	21	*Lophostemon confertus*	8	20		31/03/2015
6	22	*Lophostemon confertus*	17	30		31/03/2015
6	23	*Eucalyptus propinqua*	24	45		31/03/2015
6	24	*Lophostemon confertus*	14	50		31/03/2015
6	25	*Eucalyptus siderophloia*	15	30		31/03/2015
6	26	*Lophostemon confertus*	9	30		31/03/2015
6	27	*Corymbia intermedia*	8	25		31/03/2015
6	28	*Lophostemon confertus*	9	25		31/03/2015
6	29	*Lophostemon confertus*	10	30		31/03/2015
6	30	*Corymbia intermedia*	10	30		31/03/2015
7	1	*Eucalyptus grandis*	24	45		31/03/2015
7	2	*Eucalyptus grandis*	25	60		31/03/2015
7	3	*Eucalyptus propinqua*	22	45		31/03/2015
7	4	*Eucalyptus grandis*	28	100		31/03/2015
7	5	*Eucalyptus grandis*	18	35		31/03/2015
7	6	*Eucalyptus grandis*	25	60		31/03/2015
7	7	*Eucalyptus grandis*	16	55		31/03/2015
7	8	*Eucalyptus grandis*	28	95		31/03/2015
7	9	*Eucalyptus grandis*	14	45		31/03/2015
7	10	*Eucalyptus tereticornis*	22	35		31/03/2015
7	11	*Eucalyptus tereticornis*	23	70		31/03/2015
7	12	*Eucalyptus grandis*	18	60		31/03/2015
7	13	*Eucalyptus propinqua*	24	60		31/03/2015
7	14	*Melaleuca salignus*	9	20		31/03/2015
7	15	*Melaleuca salignus*	8	25		31/03/2015
7	16	*Lophostemon confertus*	8	20		31/03/2015
7	17	*Lophostemon confertus*	15	45		31/03/2015
7	18	*Lophostemon confertus*	12	30		31/03/2015
7	19	*Eucalyptus tereticornis*	24	45		31/03/2015
7	20	*Eucalyptus grandis*	24	40		31/03/2015
7	21	*Eucalyptus tereticornis*	27	85		31/03/2015
7	22	*Eucalyptus tereticornis*	22	40		31/03/2015
7	23	*Eucalyptus grandis*	15	25		31/03/2015
7	24	*Eucalyptus grandis*	26	75		31/03/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
7	25	*Eucalyptus siderophloia*	18	40		31/03/2015
7	26	*Eucalyptus siderophloia*	12	20		31/03/2015
7	27	*Eucalyptus siderophloia*	14	25		31/03/2015
7	28	*Eucalyptus siderophloia*	15	30		31/03/2015
7	29	*Eucalyptus siderophloia*	24	110		31/03/2015
7	30	*Eucalyptus grandis*	26	100		31/03/2015
8	1	*Eucalyptus tereticornis*	12	35		31/03/2015
8	2	*Eucalyptus tereticornis*	12	30		31/03/2015
8	3	*Eucalyptus tereticornis*	9	20		31/03/2015
8	4	*Eucalyptus tereticornis*	12	30		31/03/2015
8	5	*Eucalyptus tereticornis*	16	35		31/03/2015
8	6	*Eucalyptus tereticornis*	15	30		31/03/2015
8	7	*Eucalyptus tereticornis*	18	40		31/03/2015
8	8	*Eucalyptus tereticornis*	7	15		31/03/2015
8	9	*Eucalyptus tereticornis*	9	20		31/03/2015
8	10	*Eucalyptus tereticornis*	8	20		31/03/2015
8	11	*Eucalyptus tereticornis*	8	15		31/03/2015
8	12	*Eucalyptus tereticornis*	15	30		31/03/2015
8	13	*Eucalyptus tereticornis*	15	25		31/03/2015
8	14	*Eucalyptus siderophloia*	8	20		31/03/2015
8	15	*Eucalyptus tereticornis*	17	20		31/03/2015
8	16	*Eucalyptus tereticornis*	12	25		31/03/2015
8	17	*Eucalyptus tereticornis*	9	15		31/03/2015
8	18	*Eucalyptus siderophloia*	25	50		31/03/2015
8	19	*Eucalyptus tereticornis*	8	20		31/03/2015
8	20	*Eucalyptus tereticornis*	6	12		31/03/2015
8	21	*Eucalyptus siderophloia*	18	30		31/03/2015
8	22	*Eucalyptus tereticornis*	8	15		31/03/2015
8	23	*Eucalyptus siderophloia*	15	25		31/03/2015
8	24	*Eucalyptus tereticornis*	10	20		31/03/2015
8	25	*Eucalyptus siderophloia*	15	25		31/03/2015
8	26	*Eucalyptus siderophloia*	12	20		31/03/2015
8	27	*Eucalyptus tereticornis*	12	20		31/03/2015
8	28	*Eucalyptus tereticornis*	18	30		31/03/2015
8	29	*Eucalyptus tereticornis*	18	35		31/03/2015
8	30	*Eucalyptus tereticornis*	20	40		31/03/2015
9	1	*Eucalyptus acmenoides*	20	40		31/03/2015
9	2	*Corymbia intermedia*	17	30		31/03/2015
9	3	*Corymbia intermedia*	17	35		31/03/2015
9	4	*Eucalyptus acmenoides*	20	45		31/03/2015
9	5	*Corymbia intermedia*	20	30		31/03/2015
9	6	*Eucalyptus acmenoides*	14	20		31/03/2015
9	7	*Eucalyptus acmenoides*	17	40		31/03/2015
9	8	*Eucalyptus acmenoides*	15	30		31/03/2015
9	9	*Corymbia intermedia*	15	20		31/03/2015
9	10	*Eucalyptus acmenoides*	18	45		31/03/2015
9	11	*Eucalyptus siderophloia*	12	15		31/03/2015
9	12	*Eucalyptus acmenoides*	15	40		31/03/2015
9	13	*Eucalyptus acmenoides*	14	20		31/03/2015
9	14	*Eucalyptus acmenoides*	15	40		31/03/2015
9	15	*Eucalyptus propinqua*	18	45		31/03/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
9	16	*Eucalyptus propinqua*	14	20		31/03/2015
9	17	*Eucalyptus acmenoides*	15	35		31/03/2015
9	18	*Eucalyptus acmenoides*	17	30		31/03/2015
9	19	*Corymbia intermedia*	14	20		31/03/2015
9	20	*Eucalyptus acmenoides*	22	50		31/03/2015
9	21	*Eucalyptus acmenoides*	18	35		31/03/2015
9	22	*Eucalyptus acmenoides*	18	40		31/03/2015
9	23	*Eucalyptus acmenoides*	18	40		31/03/2015
9	24	*Eucalyptus acmenoides*	15	20		31/03/2015
9	25	*Eucalyptus acmenoides*	21	40		31/03/2015
9	26	*Corymbia intermedia*	16	30		31/03/2015
9	27	*Eucalyptus siderophloia*	18	25		31/03/2015
9	28	*Eucalyptus acmenoides*	20	55		31/03/2015
9	29	*Eucalyptus siderophloia*	11	15		31/03/2015
9	30	*Corymbia intermedia*	16	25		31/03/2015
10	1	*Eucalyptus acmenoides*	18	60		31/03/2015
10	2	*Corymbia intermedia*	16	25		31/03/2015
10	3	*Corymbia intermedia*	22	75		31/03/2015
10	4	*Lophostemon confertus*	19	40		31/03/2015
10	5	*Corymbia intermedia*	19	30		31/03/2015
10	6	*Syncarpia glomulifera*	20	55		31/03/2015
10	7	*Corymbia intermedia*	24	45		31/03/2015
10	8	*Corymbia intermedia*	22	30		31/03/2015
10	9	*Eucalyptus acmenoides*	24	40		31/03/2015
10	10	*Syncarpia glomulifera*	18	40		31/03/2015
10	11	*Eucalyptus acmenoides*	18	35		31/03/2015
10	12	*Corymbia intermedia*	17	30		31/03/2015
10	13	*Syncarpia glomulifera*	20	70		31/03/2015
10	14	*Syncarpia glomulifera*	23	70		31/03/2015
10	15	*Corymbia intermedia*	20	45		31/03/2015
10	16	*Syncarpia glomulifera*	18	35		31/03/2015
10	17	*Syncarpia glomulifera*	20	50		31/03/2015
10	18	*Corymbia intermedia*	25	45		31/03/2015
10	19	*Syncarpia glomulifera*	20	50	Y	31/03/2015
10	20	*Eucalyptus microcorys*	25	50		31/03/2015
10	21	*Syncarpia glomulifera*	16	30		31/03/2015
10	22	*Syncarpia glomulifera*	20	55		31/03/2015
10	23	*Corymbia intermedia*	18	20		31/03/2015
10	24	*Eucalyptus microcorys*	22	40		31/03/2015
10	25	*Eucalyptus propinqua*	18	30		31/03/2015
10	26	*Syncarpia glomulifera*	18	40		31/03/2015
10	27	*Eucalyptus acmenoides*	16	30		31/03/2015
10	28	*Eucalyptus siderophloia*	18	25		31/03/2015
10	29	*Corymbia intermedia*	17	20		31/03/2015
10	30	*Eucalyptus acmenoides*	22	45		31/03/2015
11	1	*Eucalyptus propinqua*	16	35		31/03/2015
11	2	*Eucalyptus propinqua*	17	20		31/03/2015
11	3	*Eucalyptus acmenoides*	16	25		31/03/2015
11	4	*Eucalyptus siderophloia*	25	40		31/03/2015
11	5	*Eucalyptus acmenoides*	18	30		31/03/2015
11	6	*Eucalyptus acmenoides*	16	30		31/03/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
11	7	*Eucalyptus acmenoides*	15	30		31/03/2015
11	8	*Eucalyptus acmenoides*	14	20		31/03/2015
11	9	*Eucalyptus propinqua*	18	30		31/03/2015
11	10	*Eucalyptus acmenoides*	20	40		31/03/2015
11	11	*Corymbia intermedia*	18	40	Y	31/03/2015
11	12	*Eucalyptus acmenoides*	12	25		31/03/2015
11	13	*Eucalyptus acmenoides*	19	40		31/03/2015
11	14	*Eucalyptus acmenoides*	15	25		31/03/2015
11	15	*Eucalyptus acmenoides*	19	35		31/03/2015
11	16	*Eucalyptus acmenoides*	16	30		31/03/2015
11	17	*Eucalyptus acmenoides*	13	30		31/03/2015
11	18	*Eucalyptus acmenoides*	17	45		31/03/2015
11	19	*Eucalyptus acmenoides*	12	25		31/03/2015
11	20	*Eucalyptus acmenoides*	18	35		31/03/2015
11	21	*Eucalyptus acmenoides*	15	35		31/03/2015
11	22	*Eucalyptus acmenoides*	18	30		31/03/2015
11	23	*Eucalyptus acmenoides*	18	30		31/03/2015
11	24	*Eucalyptus acmenoides*	18	40		31/03/2015
11	25	*Eucalyptus acmenoides*	14	20		31/03/2015
11	26	*Eucalyptus acmenoides*	15	30		31/03/2015
11	27	*Eucalyptus propinqua*	25	50		31/03/2015
11	28	*Eucalyptus acmenoides*	24	55		31/03/2015
11	29	*Eucalyptus acmenoides*	25	60		31/03/2015
11	30	*Eucalyptus acmenoides*	24	35		31/03/2015
12	1	*Eucalyptus microcorys*	18	50		31/03/2015
12	2	*Eucalyptus microcorys*	16	35		31/03/2015
12	3	*Eucalyptus microcorys*	28	120		31/03/2015
12	4	*Eucalyptus microcorys*	25	75		31/03/2015
12	5	*Eucalyptus propinqua*	18	40		31/03/2015
12	6	*Eucalyptus propinqua*	12	40		31/03/2015
12	7	*Eucalyptus microcorys*	15	25		31/03/2015
12	8	*Corymbia intermedia*	18	40		31/03/2015
12	9	*Syncarpia glomulifera*	16	35		31/03/2015
12	10	*Syncarpia glomulifera*	18	50		31/03/2015
12	11	*Eucalyptus propinqua*	6	35		31/03/2015
12	12	*Corymbia intermedia*	18	40		31/03/2015
12	13	*Eucalyptus propinqua*	15	30		31/03/2015
12	14	*Syncarpia glomulifera*	6	15		31/03/2015
12	15	*Eucalyptus resinifera*	22	75		31/03/2015
12	16	*Corymbia intermedia*	15	30		31/03/2015
12	17	*Corymbia intermedia*	15	20		31/03/2015
12	18	*Eucalyptus resinifera*	18	40		31/03/2015
12	19	*Corymbia intermedia*	15	30		31/03/2015
12	20	*Eucalyptus chloryzema*	10	20		31/03/2015
12	21	*Corymbia intermedia*	18	45		31/03/2015
12	22	*Corymbia intermedia*	14	25		31/03/2015
12	23	*Corymbia intermedia*	15	30		31/03/2015
12	24	*Eucalyptus resinifera*	13	25		31/03/2015
12	25	*Eucalyptus propinqua*	18	30		31/03/2015
12	26	*Eucalyptus propinqua*	16	30		31/03/2015
12	27	*Corymbia intermedia*	18	45		31/03/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
12	28	*Lophostemon suaveolens*	8	20		31/03/2015
12	29	*Eucalyptus resinifera*	20	35		31/03/2015
12	30	*Corymbia intermedia*	14	20		31/03/2015
13	1	*Eucalyptus acmenoides*	12	25		1/04/2015
13	2	*Eucalyptus acmenoides*	15	30		1/04/2015
13	3	*Corymbia intermedia*	17	40		1/04/2015
13	4	*Corymbia intermedia*	18	20		1/04/2015
13	5	*Eucalyptus acmenoides*	15	35		1/04/2015
13	6	*Corymbia intermedia*	15	30		1/04/2015
13	7	*Eucalyptus acmenoides*	17	40		1/04/2015
13	8	*Eucalyptus acmenoides*	9	20		1/04/2015
13	9	*Eucalyptus acmenoides*	10	15		1/04/2015
13	10	*Eucalyptus acmenoides*	10	30		1/04/2015
13	11	*Corymbia intermedia*	16	30		1/04/2015
13	12	*Eucalyptus propinqua*	12	20		1/04/2015
13	13	*Corymbia intermedia*	17	40		1/04/2015
13	14	*Corymbia intermedia*	14	35		1/04/2015
13	15	*Eucalyptus acmenoides*	16	30		1/04/2015
13	16	*Eucalyptus acmenoides*	15	30		1/04/2015
13	17	*Eucalyptus acmenoides*	18	50		1/04/2015
13	18	*Eucalyptus acmenoides*	18	45		1/04/2015
13	19	*Eucalyptus acmenoides*	17	40		1/04/2015
13	20	*Corymbia intermedia*	16	45		1/04/2015
13	21	*Eucalyptus acmenoides*	8	15		1/04/2015
13	22	*Corymbia intermedia*	18	40		1/04/2015
13	23	*Eucalyptus acmenoides*	15	30		1/04/2015
13	24	*Eucalyptus acmenoides*	16	35		1/04/2015
13	25	*Eucalyptus siderophloia*	9	15		1/04/2015
13	26	*Lophostemon suaveolens*	8	25		1/04/2015
13	27	*Eucalyptus acmenoides*	14	25		1/04/2015
13	28	*Eucalyptus acmenoides*	17	40		1/04/2015
13	29	*Eucalyptus acmenoides*	13	25		1/04/2015
13	30	*Eucalyptus acmenoides*	12	20		1/04/2015
14	1	*Eucalyptus tereticornis*	28	90		1/04/2015
14	2	*Lophostemon suaveolens*	8	20		1/04/2015
14	3	*Eucalyptus tereticornis*	12	20		1/04/2015
14	4	*Lophostemon suaveolens*	6	12		1/04/2015
14	5	*Eucalyptus tereticornis*	10	20		1/04/2015
14	6	*Lophostemon suaveolens*	6	12		1/04/2015
14	7	*Lophostemon suaveolens*	9	20		1/04/2015
14	8	*Eucalyptus tereticornis*	15	30		1/04/2015
14	9	*Lophostemon suaveolens*	8	20		1/04/2015
14	10	*Eucalyptus tereticornis*	7	12		1/04/2015
14	11	*Lophostemon suaveolens*	7	12		1/04/2015
14	12	*Eucalyptus tereticornis*	8	10		1/04/2015
14	13	*Lophostemon suaveolens*	7	15		1/04/2015
14	14	*Eucalyptus tereticornis*	15	25		1/04/2015
14	15	*Lophostemon suaveolens*	7	15		1/04/2015
14	16	*Melaleuca salignus*	8	25		1/04/2015
14	17	*Melaleuca salignus*	7	20		1/04/2015
14	18	*Lophostemon confertus*	8	25		1/04/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
14	19	*Lophostemon confertus*	8	30		1/04/2015
14	20	*Lophostemon confertus*	10	25		1/04/2015
14	21	*Eucalyptus resinifera*	8	20		1/04/2015
14	22	*Eucalyptus resinifera*	9	25		1/04/2015
14	23	*Eucalyptus resinifera*	9	20		1/04/2015
14	24	*Corymbia intermedia*	10	20		1/04/2015
14	25	*Eucalyptus resinifera*	8	20		1/04/2015
14	26	*Eucalyptus siderophloia*	8	15		1/04/2015
14	27	*Corymbia intermedia*	12	30		1/04/2015
14	28	*Corymbia intermedia*	15	25		1/04/2015
14	29	*Lophostemon suaveolens*	8	15		1/04/2015
14	30	*Lophostemon confertus*	12	25		1/04/2015
15	1	*Eucalyptus acmenoides*	26	75		1/04/2015
15	2	*Eucalyptus acmenoides*	27	70		1/04/2015
15	3	*Lophostemon confertus*	8	30		1/04/2015
15	4	*Corymbia intermedia*	10	15		1/04/2015
15	5	*Eucalyptus acmenoides*	25	60		1/04/2015
15	6	*Lophostemon confertus*	15	45		1/04/2015
15	7	*Angophora leiocarpa*	12	25		1/04/2015
15	8	*Lophostemon confertus*	16	30		1/04/2015
15	9	*Eucalyptus acmenoides*	25	45		1/04/2015
15	10	*Lophostemon confertus*	14	35		1/04/2015
15	11	*Eucalyptus acmenoides*	26	50		1/04/2015
15	12	*Eucalyptus acmenoides*	26	60		1/04/2015
15	13	*Corymbia intermedia*	28	55		1/04/2015
15	14	*Lophostemon confertus*	16	55		1/04/2015
15	15	*Lophostemon confertus*	18	50		1/04/2015
15	16	*Syncarpia glomulifera*	8	25		1/04/2015
15	17	*Lophostemon suaveolens*	12	12		1/04/2015
15	18	*Melaleuca salignus*	17	40		1/04/2015
15	19	*Lophostemon suaveolens*	12	35		1/04/2015
15	20	*Melaleuca salignus*	9	20		1/04/2015
15	21	*Lophostemon confertus*	9	35		1/04/2015
15	22	*Eucalyptus acmenoides*	25	40		1/04/2015
15	23	*Corymbia intermedia*	24	45		1/04/2015
15	24	*Eucalyptus acmenoides*	22	40		1/04/2015
15	25	*Eucalyptus acmenoides*	20	35		1/04/2015
15	26	*Eucalyptus acmenoides*	9	25		1/04/2015
15	27	*Syncarpia glomulifera*	10	35		1/04/2015
15	28	*Corymbia intermedia*	26	55		1/04/2015
15	29	*Lophostemon suaveolens*	10	20		1/04/2015
15	30	*Eucalyptus propinqua*	26	35		1/04/2015
16	1	*Eucalyptus acmenoides*	21	50		1/04/2015
16	2	*Lophostemon confertus*	8	20		1/04/2015
16	3	*Eucalyptus acmenoides*	6	15		1/04/2015
16	4	*Eucalyptus acmenoides*	7	18		1/04/2015
16	5	*Eucalyptus siderophloia*	10	20		1/04/2015
16	6	*Lophostemon confertus*	9	15		1/04/2015
16	7	*Eucalyptus acmenoides*	18	45		1/04/2015
16	8	*Eucalyptus propinqua*	17	35		1/04/2015
16	9	*Eucalyptus acmenoides*	12	20		1/04/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
16	10	*Lophostemon confertus*	8	15		1/04/2015
16	11	*Corymbia intermedia*	10	25		1/04/2015
16	12	*Eucalyptus propinqua*	20	45		1/04/2015
16	13	*Angophora leiocarpa*	12	25		1/04/2015
16	14	*Eucalyptus acmenoides*	7	15		1/04/2015
16	15	*Eucalyptus pilularis*	13	25		1/04/2015
16	16	*Eucalyptus propinqua*	20	45		1/04/2015
16	17	*Angophora leiocarpa*	7	15		1/04/2015
16	18	*Eucalyptus siderophloia*	11	20		1/04/2015
16	19	*Angophora leiocarpa*	10	20		1/04/2015
16	20	*Eucalyptus acmenoides*	23	50		1/04/2015
16	21	*Eucalyptus acmenoides*	19	45		1/04/2015
16	22	*Eucalyptus acmenoides*	17	35		1/04/2015
16	23	*Eucalyptus acmenoides*	16	35		1/04/2015
16	24	*Eucalyptus acmenoides*	17	45		1/04/2015
16	25	*Eucalyptus propinqua*	24	40		1/04/2015
16	26	*Eucalyptus siderophloia*	26	40		1/04/2015
16	27	*Eucalyptus acmenoides*	14	25		1/04/2015
16	28	*Eucalyptus acmenoides*	20	55		1/04/2015
16	29	*Eucalyptus propinqua*	17	30		1/04/2015
16	30	*Eucalyptus acmenoides*	18	40		1/04/2015
17	1	*Eucalyptus microcorys*	22	50		1/04/2015
17	2	*Lophostemon confertus*	18	30		1/04/2015
17	3	*Corymbia intermedia*	17	25		1/04/2015
17	4	*Lophostemon confertus*	15	30		1/04/2015
17	5	*Corymbia intermedia*	17	40		1/04/2015
17	6	*Eucalyptus microcorys*	14	25		1/04/2015
17	7	*Lophostemon confertus*	14	20		1/04/2015
17	8	*Corymbia intermedia*	12	20		1/04/2015
17	9	*Eucalyptus siderophloia*	15	30		1/04/2015
17	10	*Corymbia intermedia*	22	50		1/04/2015
17	11	*Eucalyptus acmenoides*	16	30		1/04/2015
17	12	*Corymbia intermedia*	24	110		1/04/2015
17	13	*Eucalyptus microcorys*	27	100	Y	1/04/2015
17	14	*Corymbia intermedia*	22	40		1/04/2015
17	15	*Eucalyptus microcorys*	25	50		1/04/2015
17	16	*Eucalyptus acmenoides*	15	35		1/04/2015
17	17	*Eucalyptus acmenoides*	16	45		1/04/2015
17	18	*Eucalyptus acmenoides*	16	30	Y	1/04/2015
17	19	*Eucalyptus microcorys*	19	45		1/04/2015
17	20	*Corymbia intermedia*	20	35		1/04/2015
17	21	*Eucalyptus acmenoides*	18	40		1/04/2015
17	22	*Syncarpia glomulifera*	10	25	Y	1/04/2015
17	23	*Eucalyptus microcorys*	16	30		1/04/2015
17	24	*Eucalyptus acmenoides*	17	35		1/04/2015
17	25	*Corymbia intermedia*	16	30		1/04/2015
17	26	*Eucalyptus acmenoides*	14	25		1/04/2015
17	27	*Eucalyptus microcorys*	24	80		1/04/2015
17	28	*Corymbia intermedia*	16	30		1/04/2015
17	29	*Eucalyptus acmenoides*	18	40		1/04/2015
17	30	*Corymbia intermedia*	17	30		1/04/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
18	1	*Eucalyptus siderophloia*	22	40		2/04/2015
18	2	*Eucalyptus siderophloia*	24	45		2/04/2015
18	3	*Corymbia intermedia*	10	20		2/04/2015
18	4	*Lophostemon suaveolens*	15	35		2/04/2015
18	5	*Lophostemon suaveolens*	14	30		2/04/2015
18	6	*Corymbia intermedia*	18	25		2/04/2015
18	7	*Lophostemon suaveolens*	8	15		2/04/2015
18	8	*Lophostemon suaveolens*	9	20		2/04/2015
18	9	*Corymbia intermedia*	18	50		2/04/2015
18	10	*Syncarpia glomulifera*	15	50		2/04/2015
18	11	*Lophostemon suaveolens*	16	20		2/04/2015
18	12	*Eucalyptus siderophloia*	22	50		2/04/2015
18	13	*Lophostemon suaveolens*	15	30		2/04/2015
18	14	*Corymbia intermedia*	20	40		2/04/2015
18	15	*Eucalyptus resinifera*	14	25		2/04/2015
18	16	*Corymbia intermedia*	16	35		2/04/2015
18	17	*Lophostemon suaveolens*	8	20		2/04/2015
18	18	*Lophostemon suaveolens*	10	25		2/04/2015
18	19	*Corymbia intermedia*	18	40		2/04/2015
18	20	*Lophostemon suaveolens*	7	25		2/04/2015
18	21	*Melaleuca salignus*	6	15		2/04/2015
18	22	*Lophostemon suaveolens*	11	35		2/04/2015
18	23	*Melaleuca salignus*	6	15		2/04/2015
18	24	*Lophostemon suaveolens*	10	20		2/04/2015
18	25	*Lophostemon suaveolens*	10	25		2/04/2015
18	26	*Melaleuca salignus*	9	40		2/04/2015
18	27	*Lophostemon suaveolens*	18	15		2/04/2015
18	28	*Corymbia intermedia*	16	35		2/04/2015
18	29	*Corymbia intermedia*	15	35		2/04/2015
18	30	*Eucalyptus acmenoides*	7	20		2/04/2015
19	1	*Eucalyptus propinqua*	18	55		2/04/2015
19	2	*Lophostemon confertus*	11	15		2/04/2015
19	3	*Lophostemon confertus*	15	15		2/04/2015
19	4	*Corymbia intermedia*	16	20		2/04/2015
19	5	*Corymbia intermedia*	18	45		2/04/2015
19	6	*Corymbia intermedia*	18	30		2/04/2015
19	7	*Eucalyptus siderophloia*	9	20		2/04/2015
19	8	*Corymbia intermedia*	18	40		2/04/2015
19	9	*Eucalyptus propinqua*	24	40		2/04/2015
19	10	*Eucalyptus siderophloia*	16	15		2/04/2015
19	11	*Lophostemon confertus*	9	15		2/04/2015
19	12	*Melaleuca salignus*	7	15		2/04/2015
19	13	*Corymbia intermedia*	20	40		2/04/2015
19	14	*Eucalyptus propinqua*	28	60		2/04/2015
19	15	*Eucalyptus propinqua*	18	30		2/04/2015
19	16	*Corymbia intermedia*	17	25		2/04/2015
19	17	*Syncarpia glomulifera*	8	20		2/04/2015
19	18	*Corymbia intermedia*	16	40		2/04/2015
19	19	*Syncarpia glomulifera*	15	25		2/04/2015
19	20	*Corymbia intermedia*	16	25		2/04/2015
19	21	*Corymbia intermedia*	18	15		2/04/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
19	22	*Corymbia intermedia*	17	30		2/04/2015
19	23	*Corymbia intermedia*	13	20		2/04/2015
19	24	*Eucalyptus siderophloia*	18	30		2/04/2015
19	25	*Lophostemon confertus*	10	20		2/04/2015
19	26	*Corymbia intermedia*	22	45		2/04/2015
19	27	*Lophostemon confertus*	12	20		2/04/2015
19	28	*Eucalyptus propinqua*	20	45	Y	2/04/2015
19	29	*Corymbia intermedia*	15	45		2/04/2015
19	30	*Eucalyptus propinqua*	23	50		2/04/2015
20	1	*Eucalyptus acmenoides*	24	75		2/04/2015
20	2	*Lophostemon suaveolens*	22	50		2/04/2015
20	3	*Corymbia intermedia*	18	35		2/04/2015
20	4	*Syncarpia glomulifera*	16	50		2/04/2015
20	5	*Lophostemon suaveolens*	8	25		2/04/2015
20	6	*Lophostemon suaveolens*	9	30		2/04/2015
20	7	*Eucalyptus acmenoides*	10	30		2/04/2015
20	8	*Corymbia intermedia*	18	65		2/04/2015
20	9	*Lophostemon confertus*	17	45		2/04/2015
20	10	*Lophostemon confertus*	6	15		2/04/2015
20	11	*Corymbia intermedia*	25	65		2/04/2015
20	12	*Lophostemon confertus*	16	30		2/04/2015
20	13	*Eucalyptus acmenoides*	22	80		2/04/2015
20	14	*Corymbia intermedia*	20	75		2/04/2015
20	15	*Eucalyptus acmenoides*	20	60		2/04/2015
20	16	*Lophostemon confertus*	15	60		2/04/2015
20	17	*Eucalyptus resinifera*	17	40		2/04/2015
20	18	*Lophostemon confertus*	15	35		2/04/2015
20	19	*Lophostemon suaveolens*	10	30		2/04/2015
20	20	*Lophostemon suaveolens*	10	20		2/04/2015
20	21	*Lophostemon suaveolens*	14	30		2/04/2015
20	22	*Corymbia intermedia*	18	40		2/04/2015
20	23	*Eucalyptus resinifera*	8	20		2/04/2015
20	24	*Eucalyptus propinqua*	27	85		2/04/2015
20	25	*Lophostemon suaveolens*	15	30		2/04/2015
20	26	*Lophostemon suaveolens*	16	30		2/04/2015
20	27	*Eucalyptus acmenoides*	24	40		2/04/2015
20	28	*Eucalyptus acmenoides*	22	50		2/04/2015
20	29	*Lophostemon suaveolens*	9	25		2/04/2015
20	30	*Lophostemon suaveolens*	8	30		2/04/2015
21	1	*Eucalyptus tereticornis*	16	35		2/04/2015
21	2	*Eucalyptus tereticornis*	15	30		2/04/2015
21	3	*Corymbia intermedia*	18	55		2/04/2015
21	4	*Eucalyptus tereticornis*	18	45		2/04/2015
21	5	*Eucalyptus tereticornis*	8	15		2/04/2015
21	6	*Eucalyptus tereticornis*	10	30		2/04/2015
21	7	*Corymbia intermedia*	25	90		2/04/2015
21	8	*Eucalyptus tereticornis*	27	60		2/04/2015
21	9	*Eucalyptus tereticornis*	18	45		2/04/2015
21	10	*Corymbia intermedia*	22	80		2/04/2015
21	11	*Eucalyptus tereticornis*	10	25		2/04/2015
21	12	*Eucalyptus tereticornis*	18	45		2/04/2015

KSAT no.	Tree no.	Species	Ht(m)	DBH(cm)	Scats (Y/N)	Date
21	13	*Eucalyptus tereticornis*	25	80		2/04/2015
21	14	*Eucalyptus siderophloia*	8	30		2/04/2015
21	15	*Eucalyptus tereticornis*	10	35		2/04/2015
21	16	*Eucalyptus tereticornis*	22	65		2/04/2015
21	17	*Eucalyptus tereticornis*	20	80		2/04/2015
21	18	*Eucalyptus tereticornis*	24	110		2/04/2015
21	19	*Eucalyptus tereticornis*	23	65		2/04/2015
21	20	*Eucalyptus tereticornis*	16	35		2/04/2015
21	21	*Eucalyptus tereticornis*	24	65		2/04/2015
21	22	*Eucalyptus tereticornis*	8	25		2/04/2015
21	23	*Eucalyptus tereticornis*	16	75		2/04/2015
21	24	*Eucalyptus tereticornis*	9	25		2/04/2015
21	25	*Eucalyptus tereticornis*	26	110		2/04/2015
21	26	*Lophostemon suaveolens*	8	20		2/04/2015
21	27	*Lophostemon suaveolens*	6	20		2/04/2015
21	28	*Eucalyptus tereticornis*	26	90		2/04/2015
21	29	*Eucalyptus tereticornis*	24	80		2/04/2015
21	30	*Corymbia intermedia*	14	15		2/04/2015

Line Transect Results

Transect 1	Waypoint	Time	Easting	Northing	Date	Distance
Start	WP548	2:15pm	472789	7091120	30/03/2015	300m
End	WP550	2:50pm	472825	7090808		

Transect 2	Waypoint	Time	Easting	Northing	Date	Distance
Start	WP83	11:00am	472668	7091578	2/04/2015	200m
End	WP84	11:31am	472730	7091385		then rain

nil Koalas