EPBC Referral Notice

Appendix F5

Notification of
REFERRAL DECISION – not controlled action

LANDSBOROUGH TO NAMBOUR RAIL UPGRADE, EPBC 2008/4151

This decision is made under Section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Proposed action

person named in the referral	Queensland Rail
proposed action	The action is to upgrade a 22 km section of the North Coast Rail Line between Landsborough and Nambour, on the Sunshine Coast, South East Queensland as described in the referral documentation received on 2 April 2008 and in additional information of 9 May 2008 and 26 May 2008.

Referral decision: Not a controlled action

status of proposed action	The proposed action is not a controlled action.

Person authorised to make decision

Name and position	Cathy Skippington Assistant Secretary Environment Assessment Branch
signature	
date of decision	10 June 2008

Referral of proposed action

Project title	Landsborough to Nambour Rail Upgrade

1 Contacts

1.1	Referring party	Person, agent or agency who is making the referral
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	Organisation	Arup
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1.2	Responsible party	Person responsible for or who will carry out the proposed action. If same as 1.1, write 'as above'
	Name	Lawrence Hannah
	Title	Director (Rail Network & Strategy)
	Organisation	Rail, Ports & Freight Division, Queensland Transport
	Postal address	GPO Box 1549, BRISBANE Q 4001
	Telephone	(07) 3306 7433
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1.3	Proponent	Person responsible for preparing assessment documentation, if approval is required. If same as 1.2, write 'as above'
	Name	As above
	Title	
	Organisation	
	Postal address	
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	Email	

2 Summary of proposed action

2.1 **Short description**
Use 2 or 3 sentences to uniquely identify the proposed action and its location.

An upgrade of a 22km section of the North Coast Rail Line is proposed between Landsborough and Nambour, to the north of Brisbane, in South East Queensland. This section of the railway was constructed in the late nineteenth century and will not withstand the pressure of the additional future services required as the SEQ region continues to grow, nor meet the requirements of additional rail freight volumes on the main coastal rail link to North Queensland. The upgrade will incorporate track duplication, alignment improvements, station upgrades and road realignments to deliver a more reliable and efficient service to commuters, long distance travellers and freight providers.

2.2 **Latitude and longitude**
If area less than 5 hectares, provide the location as a single pair of latitude and longitude references.

If area greater than 5 hectares, provide bounding location points.

Do not use AMG coordinates.

	Latitude			Longitude		
location point	degrees	minutes	seconds	degrees	minutes	seconds
NW corner	26°	37'	26.30"	152°	57'	1.41"
NE corner	26°	37'	26.30"	152°	58'	15.78"
SE corner	26°	48'	24.91"	152°	58'	15.78"
SW corner	26°	48'	24.91"	152°	57'	1.41"

This area forms a rectangle around the rail upgrade corridor and is known as the Project Area. It does not reflect the land directly affected by rail upgrade (this is known as 'the corridor').

2.3 **Locality**
Provide a brief physical description of the project location (proximity to major towns etc).

The Project Area extends for approximately 22km between Landsborough (70km north of Brisbane) and Nambour (90km north of Brisbane). The existing rail corridor travels through the townships of Mooloolah, Eudlo, Palmwoods and Woombye. It incorporates the local government area of the new Sunshine Coast Regional Council (previously within the Caloundra and Maroochy Council areas). The corridor affected by the rail upgrade follows the existing alignment of the rail way for a large proportion of its length, but deviates up to approximately 600m to the west in some locations in favour of a straighter and less steep alignment.

Attachment 1 shows the location of the Project Area.

2.4 **Size of the development footprint or work area (hectares)**

The preferred route is approximately 18km long, and is generally 60m wide, with some variations including an increase to 150m at two locations to accommodate additional earthworks requirements where there is steep terrain and an increase to approximately 90m at four locations where additional earthworks are required to address terrain, flooding or river crossing issues. The total area affected by the rail upgrade is approximately 160.32 hectares. The corridor width is based on the engineering design undertaken for the route identification process. During the preliminary design stage it is anticipated that the earthworks requirements and width of the preferred route will be further refined.

2.5 **Street address of the site**

A list of properties affected by the rail upgrade appears in Attachment 2.

2.6 **Lot description**
Describe the lot numbers and title description, if known.

A list of properties affected by the rail upgrade appears in Attachment 2.

2.7 **Local Government Area and Council contact (if known)**

Sunshine Coast Regional Council

2.8	**Project life** Specify the estimated start date of construction/operation and the operational life of the project.	The exact start date of construction is not yet known. However, it is anticipated that the Landsborough to Nambour Rail Project will be completed and operational in 2026. The land acquisition process to secure the rail corridor will begin 2009.

2.9	**Alternatives** Does the proposed action include alternatives?	X	No
			Yes, complete section 3.2
2.10	**State assessment** Is the action subject to a state or territory environmental impact assessment?		No
		X	Yes, complete Section 3.5
2.11	**Component of larger action** Is the proposed action a component of a larger action?	X	No
			Yes, complete Section 3.6

3 Detailed project description

3.1 Description of proposal

The upgrade of the North Coast Rail Line (NCL) between Landsborough to Nambour is defined as the "Landsborough to Nambour Rail Project". It will include construction of a double track railway, which will have provision to accommodate up to two additional tracks in the future (post 2026), if required. Queensland Transport (QT) has issued the following design standards for the upgrade:

- a high speed alignment (i.e. 160km / hr desirable speed with a minimum speed of 80km / hr minimum in constrained areas)
- design for two tracks, allow corridor for four tracks plus access roads for maintenance and emergency services at formation level
- maximum grade 1 in 100 in both directions
- grade separated road crossings
- stations on straights
- flood immunity for new railway suitable for a 100 year Average Recurrence Interval (ARI)
- Queensland Rail Standard Track Formation Corridor Widths
- Queensland Rail Standard Clearances for Proposed Structures

The preferred route is approximately 18km long, and is generally 60m wide, with some variations including an increase to 150m at two locations to accommodate additional earthworks requirements where there is steep terrain and an increase to approximately 90m at four locations where additional earthworks are required to address terrain, flooding or river crossing issues. The total area affected by the rail upgrade is approximately 160 hectares. The corridor width is based on the engineering design undertaken for the route identification process. During the preliminary design stage it is anticipated that the earthworks requirements and width of the preferred route will be further refined.

QT has elected to undertake the environmental assessments and land acquisition process based on a four track scenario (being the worst case scenario) so as to attach some certainty to future possible rail requirements for regional planning and adjoining land use purposes, and the environment. However, it is the intention of QT to initially construct only two tracks because it is not certain at this stage when, or if, the need for additional tracks will arise.

The proposed rail upgrade will include the following activities:

- Private property resumption
- Revocation of areas within National Parks (Dularcha National Park and Eudlo Creek National Park)
- Road realignment
- Relocation of public utilities
- Vegetation clearance
- Rail track duplication
- Installation of new rail infrastructure
- Realignment of some waterways
- Bridge duplication and construction of new bridges
- Culvert extensions and construction of new culverts
- Construction of retaining walls
- Construction of two tunnels
- Upgrading and realignment of signalling and power
- Construction of grade separated crossings
- Construction of new railway stations (replacing existing stations at Mooloolah, Eudlo, Palmwoods and Woombye), including car parks and station accesses, as well as an upgrade of the existing Nambour Station (additional platform/s, car parking and access).

3.2 Alternative locations, time frames or activities that form part of the referred action

Detailed desk-top research and field studies have been undertaken to determine the preferred alignment for the upgraded rail corridor. Several options were devised for the railway upgrade and assessed accordingly. The preferred

alignment that is the subject of this referral was designed by amalgamating information about the ecological, economic, social and engineering constraints for a pre-defined study area. It is considered that there is no suitable alternative location for the rail upgrade.

Similarly, the project has already undergone a preliminary design phase to identify requirements for construction of the rail upgrade. Whilst some minor adjustments may be made during the detailed design phase, the methods of construction will largely remain the same. The project is a key project within the South East Queensland Infrastructure Plan and Program 2007 – 2026 (SEQIPP 07), however actual construction will be subject to relative priorities within the overall SEQIPP program, which may alter this timeframe.

3.3 Previously considered alternatives and the 'do nothing' case

Detailed desk-top research and field studies have been undertaken to determine the preferred alignment for the upgraded rail corridor. Several options were devised for the railway upgrade and assessed accordingly. The study also considered the option of upgrading the existing corridor. The *Landsborough to Nambour Rail Corridor Study – Route Identification Report* (March 2008) is presented in Attachment 4. The preferred alignment that is the subject of this referral was designed by amalgamating information about the ecological, economic, social and engineering constraints for a pre-defined study area. It is considered that there is no suitable alternative location for the rail upgrade. The information gathered over the course of the route identification study from desktop research and field survey indicates that any of the alignment options considered would have resulted in a referral to DEWR under the EPBC Act 1999. This is due to the fact that all options had to cross over areas of habitat for species listed under the EPBC Act 1999.

The 'do nothing' alternative is not feasible in this instance because of the predicted growth population in the SEQ region and particularly on the Sunshine Coast, which will put additional pressure on passenger transport links between the Sunshine Coast region and Brisbane, and increase intra-region travel demand. Maximising public transport usage is key to managing overall transport demand and transport infrastructure capacity. This section of railway is also a key constraint on the ability to operate more rail freight services to the north, and improve trip times and reliability to better compete with road based freight. Rail duplication and re-alignment to reduce rail trip times and improve freight train efficiencies is critical to attracting more passengers and freight to rail, and reduce road congestion and the adverse externalities associated with road usage.

3.4 Context, planning framework and state/local government requirements

Planning Framework

The *South East Queensland (SEQ) Regional Plan* provides a framework for managing the rapid growth, associated change, land use and development through a series of strategic directions and regional policies. The development of an integrated transport system throughout SEQ is identified as a 'desired regional outcome' in the plan. In support of the SEQ Regional Plan, the SEQIPP 07 was released by the Queensland Government to outline infrastructure priorities. SEQIPP 07 identifies the upgrade of the Landsborough to Nambour section of the North Coast Rail Line in the Infrastructure Priorities and Projects, with completion anticipated by 2026. Further the North Coast Rail Line is recognised as a strategic public transport corridor for the region in the *TransLink Network Plan for South East Queensland 2007*.

Legislation

From a legislative perspective the project will trigger assessment under the following federal and state legislation:

- Environment Protection and Biodiversity Conservation Act, 1999 (Commonwealth)
- The Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth)
- The Australian Heritage Council Act 2003 (Commonwealth)
- The Native Title (Queensland) Act 2003
- State Development and Public Works Act 1971 (Queensland)
- Nature Conservation Act 1992 (Queensland)
- Vegetation Management Act 1999 (Queensland)
- Environmental Protection Act 1994 (Queensland)
- Aboriginal Cultural Heritage Act 2003 (Queensland)

3.5 Environmental impact assessments under Commonwealth, state or territory legislation

The route identification phase of this study is complete. This has included community consultation, detailed ecological investigations, identification and assessment of various options and refinements to route location based on information

collected. The Initial Advice Statement is available via the Department of Infrastructure and Planning website: www.infrastructure.qld.gov.au/major_projects/nambour_rail.shtm. The project has been declared a 'significant project for which an Environmental Impact Statement (EIS) is required' pursuant to s26(1)(a) of the *State Development and Public Works Organisation Act 1971* (SDPWO Act). This is a result of the following considerations:

- *S27 (c) the project's potential effect on relevant infrastructure;*
- *S27 (e) the potential environmental effects of the project;*
- *S27 (h) the strategic significance of the project to the locality, region or the State.*

As part of the *Landsborough to Nambour Rail Corridor Study – Route Identification Report* (Attachment 4) some community consultation was undertaken with the following aims:

- To encourage those affected by the Study to take an active interest in engagement
- To provide opportunities for the community to input into the option identification and evaluation process
- To increase knowledge within the community about the Study and EIS process

The consultation process disseminated information through a variety of means, including: information hotline, website, enquiry email address, newsletter, community values survey, print advertising, fact sheets, information sessions and community displays. An analysis of the Community Values and Transport Survey is in Appendix A of Attachment 4. It is anticipated that Community Focus Groups will be held in Mooloolah, Palmwoods and Nambour in May 2008 to help determine acceptable solutions to the design of grade-separated crossings and train stabling in these constrained areas.

3.6 A staged development or component of a larger project

The North Coast Rail Line stretches over 1,660km between Brisbane and Cairns. It faces operational pressures between Landsborough and Nambour due to the types of rail traffic it carries, capacity constraints of a single line and substandard horizontal and vertical alignments leading to slow travel times. Whilst the Landsborough to Nambour rail way is part of a rail network (i.e. North Coast Rail Line), the upgrade will occur independently and does not rely on the upgrade of further sections of the rail. It will be subject to separate assessments and approvals processes that are unrelated to projects on other sections of the railway.

4 Affected environment

4.1 Matters of national environmental significance

4.1 (a) World Heritage Properties

There are no World Heritage properties within or immediately adjacent to the Project Area.

4.1 (b) National Heritage Places

The nearest National Heritage Place to the Project Area is the Glass House Mountains, which are approximately 10km south-west of Landsborough. The proposed upgrade corridor will not impact on the Glass House Mountains.

4.1 (c) Wetlands of International Significance (Ramsar)

There are no Ramsar Wetlands within or immediately adjacent to the Project Area. The Project Area is located approximately 15km inland of Moreton Bay (which is recognised as a Ramsar area) and Pumicestone Passage (which is recognised as an important wetland).

4.1 (d) Listed threatened species and ecological communities

The EPBC Protected Matter Report (Attachment 5) suggests that there are 28 threatened species utilising the areas within or immediately adjacent to the Project Area. There are no threatened ecological communities within the Project Area. This is made up of 14 fauna species and 14 plant species, as discussed in the tables below. Attachment 6 indicates records of significant species located during recent field surveys.

Table 1: Threatened Flora Species

Species	Status	Likelihood of occurrence
Baloghia marmorata (Marbled Baloghia), *Bosistoa selwynii* (Heart-leaved Bosistoa), *Bosistoa transversa* (Three-leaved Bosistoa), *Bulbophyllum globuliforme* (Miniature Moss-orchid), *Cryptocarya foetida* (Stinking Laurel), *Macadamia ternifolia* (Small-fruited Queensland Nut), *Romnalda strobilacea*, *Syzygium hodgkinsoniae* (Smooth-bark Rose Apple) and *Taeniophyllum muelleri* (Minute Orchid).	V	This species was not noted during field survey, but may be present within areas of RE12.3.1 (riparian rainforest). The RE12.3.1 is located in the north of Dularcha National Park, South Mooloolah River, Mooloolah River and a tributary of Paynter Creek. With the exception of the Dularcha National Park habitat, all these areas are represented by a narrow band of riparian vegetation that is unlikely to support species that are sensitive to disturbance. The total amount of clearing of RE12.3.1 in these four areas is 1.95 ha and the cleared areas will be subject to culvert or bridge crossings over the waterway.
Floydia praealta Ball Nut	V	This species has previously been recorded in the Project Area (Herbrecs 2008) in areas of RE12.3.1 (riparian rainforest). The RE12.3.1 is located in the north of Dularcha National Park, South Mooloolah River, Mooloolah River and a tributary of Paynter Creek. With the exception of the Dularcha National Park habitat, all these areas are represented by a narrow band of riparian vegetation that is unlikely to support species that are sensitive to disturbance. The total amount of clearing of RE12.3.1 in these four areas is 1.95 ha and the cleared areas will be subject to culvert or bridge crossings over the waterway.
Eucalyptus conglomerate Swamp Stringybark	E	The habitat for this species was not located in the study area and its occurrence is very unlikely.
Graptophyllum reticulatum (Veiny Graptophyllum), *Phaius australis* (Lesser Swamp-Orchid) and *Triunia robusta*	E	This species was not noted during field survey, but may be present within areas of RE12.3.1 (riparian rainforest). The RE12.3.1 is located in the north of Dularcha National Park, South Mooloolah River, Mooloolah River and a tributary of Paynter Creek. With the exception of the Dularcha National Park habitat, all these areas are represented by a narrow band of riparian vegetation that is unlikely to support species that are sensitive to disturbance. The total amount of clearing of RE12.3.1 in these four areas is 1.95 ha and the cleared areas will be subject to culvert or bridge crossings over the waterway.

Table 2: Threatened Fauna Species

Species	Status	Likelihood of occurrence
Cyclopsitta diophthalma coxeni Coxen's Fig Parrot	E	Critically endangered species which is highly unlikely to occur in the study area. The species favours rainforest and coastal scrub habitats. While suitable habitat is present and the species cannot be completely disregarded, its scarcity suggests it is unlikely to occur.
Erythrotriochis radiatus Red Goshawk	V	A wide ranging and highly mobile species generally observed over eucalypt habitats. Extremely rare in south-east Queensland. No suitable habitat present.
Rostratula australis Australian Painted Snipe	V	Occurs in swamps and wetlands. No suitable habitat present.
Turnix melanogaster Black-breasted Button-quail	V	Typically located in dry rainforests and vine thickets although some populations are known to occur in coastal heath around Fraser Island and nearby mainland. No suitable habitat for this species is present.
Litoria olongburensis Wallum Sedge Frog	V	Inhabits wallum habitats with acidic water. Particularly associated with permanent water with reed beds. No suitable habitat present.

Species	Status	Likelihood of occurrence
Mixophyes iteratus Giant Barred Frog	E	This species has been identified from 6 locations within the Project Area: 4 points along the Mooloolah River, 1 point along Addlington Creek (Landsborough) and 1 point within Eudlo Creek National Park. This species is the main subject of this referral.
Phyllodes imperialis	E	This species is known from Nambour south. It's larvae relies on the vine *Carronia multisepalea,* which is only located in old growth, lower montane rainforest. There is no undisturbed old growth rainforest within the study area. The *Carronia multisepalea* vine was not noted during field surveys.
Chalinolobus dwyeri Large-eared Pied Bat	V	No confirmed local records of this uncommon species. Inhabits mesic vegetation. Not expected to occur within the study area.
Dasyurus maculatus Spot-tailed Quoll	E	No confirmed local records. Typically only located in very large tracts of remnant forests where pressures from introduced predators are less. The species is unlikely to occur in the highly fragmented local area.
Potorous tridactylus Long-nosed Potoroo	V	Species generally occurs in large tracts of vegetation with a dense understorey including wet sclerophyll forests, dry sclerophyll and heathlands. The species is unlikely to occur as suitable habitat within the study area is fragmented.
Pteropus poliocephalus Grey-headed Flying Fox	V	This species was recorded in the northern section of Dularcha National Park (Landsborough). It is likely that these individuals had travelled from the known flying-fox camp 3km to the north near the Nambour Landfill.
Nannoperca oxleyana Oxleyan Pygmy Perch	E	This species has previously been recorded near the project area in Mellum Creek, Bluegum Creek and their tributaries. These streams are located immediately south of Landsborough in the Pumicestone catchment, with the upper reaches of Mellum Creek traversing the southern extent of the project area. The nearest known record of these species is located approximately 5km from the project area boundary. Surveys conducted for this EIS, did not record this species.
Pseudomugil mellis Honey Blue-Eye	V	This species has previously been recorded near the project area in Mellum Creek, Bluegum Creek and their tributaries. These streams are located immediately south of Landsborough in the Pumicestone catchment, with the upper reaches of Mellum Creek traversing the southern extent of the project area. The nearest known record of these species is located approximately 5km from the project area boundary. Surveys conducted for this EIS, did not record this species.
Coeranoscincus reticulatus Three-toed Snake-tooth Skink	V	Generally inhabits subtropical rainforests or coastal lowland sites. Most records are from areas of large intact forest. Habitats within the study area are considered to be too small and isolated to support this species.

4.1 (e) Listed migratory species

The EPBC Protected Matters Report (Attachment 5) suggests that there are 14 migratory species utilising areas within or immediately adjacent to the Project Area. Field surveys in September 2007 and February 2008 located eight migratory species utilising the area within the vicinity of the Project Area: Black-faced Monarch (*Monarcha melanopsis*), Spectacled Monarch (*Monarcha trivirgatus*), White-breasted Sea Eagle (*Haliaeetus leucogaster*), Rufous Fantail (*Rhipidura rufifrons*), White-throated Needletail (*Hirundapus caudacutus*), Rainbow Bee-eater (*Merops ornatus*), Great Egret (*Ardea alba*) and Cattle Egret (*Ardea ibis*).

Attachment 6 shows the location of the records of these migratory species.

4.1 (f) Nuclear actions

There are no nuclear actions proposed or impacted upon by the Landsborough to Nambour rail corridor upgrade.

4.1 (g) Commonwealth marine areas

There are no Commonwealth Marine Areas within or immediately adjacent to the Project Area. The Project Area is approximately 15 – 20km inland from the coast line.

4.2 Important or unique aspects of the environment, if relevant

4.2 (a) Soil and vegetation characteristics

The dominant geology within the southern half of the Project Area is Landsborough Sandstone, which is a lithofeldspathic labile and quartzose, siltstone, shale, minor coal, with a ferruginous oolite marker. Within the northern half of the Project Area the dominant geology is Nambour Formation, which is a Quartzose sandstone, siltstone, shale, conglomerate coal. The geology along waterways is Tertiary / Quaternary Alluvium, which is comprised of clay, silt, gravel, flood plain deposits. This coincides with Landzones 12, 9-10 and 3 respectively. The land zone is a simplified geology/substrate-landform classification for Queensland.

Land zones are used by the Queensland Herbarium to help identify the various remnant vegetation communities within the state. Mapping by the Queensland Herbarium recognises remnant vegetation communities (known as 'regional ecosystems') based on the bioregion, land zone and dominant canopy species. The majority of the remaining vegetation within the Project Area is of good quality and as such it has been mapped as remnant regional ecosystem by the Queensland Herbarium and afforded protection under the *Vegetation Management Act 1999* (VMA 1999). The VMA 1999 recognises three classes of vegetation (Endangered, Of Concern and Not of Concern) and adjusts the level of protection for each one accordingly. The Project Area is dominated by Not of Concern remnant vegetation. This vegetation is concentrated along creek lines, ridge lines and within protected areas. These are areas that have not yet been affected by clearing or urban development.

A map showing the location and type of RE's within the Project Area is shown in Attachment 7. There are a total of 17 regional ecosystems within the Project Area. With the dominant RE's being Not of Concern RE12.9-10.14 (Blackbutt (*Eucalyptus pilularis*) tall open forest on sedimentary rocks) and Not of Concern RE12.9-10.17 (Open forest complex often with Queensland White Mahogany (*Eucalyptus acmenoides*), Grey Gum (*E. major*), Grey Ironbark (*E. siderophloia*) ± Spotted Gum (*Corymbia citriodora*) on sedimentary rocks). There are two Endangered RE's affected by the rail corridor. The most common one is RE12.3.1 (Gallery rainforest (notophyll vine forest) on alluvial plains) and there is one small area of RE12.5.3 (Tindale's Stringybark (*Eucalyptus tindaliae*) and/or Scribbly Gum (*E. racemosa*) open forest on remnant Tertiary surfaces).

4.2 (b) Water flows, including rivers, creeks and impoundments

Numerous rivers, creeks and minor drainage lines are traversed by the proposed rail upgrade. They are within the major catchment areas of the Mooloolah River and Maroochy River. The Pumicestone Passage catchment is just to the south of the start of the rail realignment project and there are no drainage lines that flow from the Project Area to Pumicestone Passage. Some of the creeks and drainage lines in the south of the site (including Addlington Creek, South Mooloolah River and Mooloolah River) are within the catchment area of Ewen Maddock Dam. These waterways are also traversed by the existing rail corridor. This dam is listed within the SEQ Regional Water Supply Strategy for potential recommissioning as a Medium-term project (2010–2020).

The drainage system of the Project Area is shown in the various attachments (i.e. Attachment 1, Attachment 6). Some of these waterways represent habitat for significant species or vegetation communities. Some of the major rivers and creeks include (from south to north):

- Addlington Creek
- South Mooloolah River
- Mooloolah River
- Eudlo Creek
- Paynter Creek
- Petrie Creek
- Coes Creek
- Whalleys Creek

4.2 (c) Outstanding natural features, including caves

There are no outstanding natural features within the Project Area.

4.2 (d) Gradient

The Project Area is a distinctive topographic mix of high, steep undulating land and lower floodplain areas. The Blackall Range runs parallel to the Project Area to the west. There are several east-west running ridges bisecting the study area at a number of points, most noticeably between Landsborough and Mooloolah, and between Mooloolah and Eudlo. The topography of each section of the rail alignment is discussed briefly below:

- Landsborough to Mooloolah – the topography is generally flat from Landsborough, before rising to an east-west ridge line where the rail will pass under in a new tunnel. Existing slopes are steep to approximately 1v in 3h.
- Mooloolah to Eudlo – the area close to Mooloolah is undulating, with an east-west trending ridge to the south, a relatively level area around the town and rising to another east-west ridge where the rail will pass under in a new tunnel. The central plain is crossed by a number of drainage lines.
- Eudlo to Palmwoods – around Eudlo the topography is dominated by level alluvial plains, before rising to the north towards a west to east trending ridge. This ridge is a significant feature in the landscape.
- Palmwoods to Woombye – this section is dominated by an alluvial plain associated with Paynter Creek.
- Woombye to Nambour – the flat low-lying areas generally continue into Nambour.

4.2 (e) Buildings or other infrastructure

The table below describes the buildings and infrastructure that may be affected by the corridor.

Table 3: Buildings and Infrastructure of note

Feature	Description
Property	The majority of the land affected will be private residential and rural. There are some impact points of note due to current land use or cultural value: • Landsborough Primary School (oval) • Landsborough Recreation Reserve • Mooloolah Railway Shelter • Martin Rungert Park • Timber Colonial (original homestead), Neil Road • Railway workers cottages, Palmwoods • Palmwoods Station • Kolora Park, Palmwoods • Palmwoods Bowls Club • Woombye Station • Woombye Sports Fields (Soccer Club) • Nambour Station
Roads	All state and local controlled roads that are affected by the rail upgrade would be realigned. Major roads that are within the proposed corridor and potentially subject to realignment or crossings are: • Gympie Street North (grade separation) • Bray Road / Mooloolah Connection Road, Mooloolah (grade separation) • Neil Road, Mooloolah (overpass) • Logwoods Road and Eaglewood Road, Eudlo (underpass) • Highlands Road and Eudlo School Road, Eudlo (overpass) • Leeons Road, Eudlo (grade separation) • Palmwoods School Road and Paskins Road, Palmwoods (overpass) • Railway Street and Spackman Lane, Palmwoods • Taintons Road, Woombye • Blackall Range Road, Nambour (overpass) • Arundell Avenue, Nambour (underpass)

Feature	Description
Bridges & Culverts	Details of existing bridges & culverts in the Landsborough to Nambour section of North Coast Rail Line are summarised as follows: • South Mooloolah River (bridge) • Mooloolah River (bridge) • Acrobat Creek (bridge) • Eudlo Creek (bridge) • Unknown creek, Palmwoods (bridge) • Paynter Creek (bridge) • Addlington Creek (culvert) • Petrie Creek (culvert) • Coes Creek (culvert) • Whalleys Creek (culvert)
Tunnels	The current rail alignment incorporates two tunnels; one under Rose Road (Landsborough) and the other under The Pinch Lane (Mooloolah). The design of the preferred alignment is such that two new double-track tunnels will be required at both these locations.
Utilities	The following services exist within or traverse sections of the proposed rail corridor: • Proposed APT Allgas Gas Pipeline – Mooloolah • Aquagen Water Trunk Main Pipeline - Mooloolah • Overhead transmission line (132kV) and towers – Eudlo • Overhead cables (33kV) - Eudlo • Rising sewer main – Landsborough to Woombye • Sewer pumping station (136) – Mooloolah & Woombye • Telstra metropolitan main cable (optical fibre and copper) – Mooloolah to Nambour • ReefNet optic fibre cable along the existing rail corridor and QR Limited's own optic fibre cable and signalling cables.
Railway Infrastructure	The following infrastructure is located along the existing North Coast Rail Line corridor between Landsborough and Nambour: • Existing North Coast Rail Line • Open level crossings at Gympie Street North (Landsborough), Mooloolah Connection Road / Brays Road (Mooloolah) and Palmwoods rail station car park • Rail bridges over road are located at Neill Road, Eudlo Road, Eudlo School Road, Woombye-Palmwoods Road, Woombye Road, Arundel Avenue and Price Street • Road bridges over rail are located at Mooloolah-Eudlo Road, Blackall Range Road and National Park Road • Pedestrian crossing points at Mooloolah (waiting shed), Palmwoods and Woombye • Landsborough station, Mooloolah Station, Eudlo Station, Palmwoods Station, Woombye Station and Nambour Station.

4.2 (f) Marine areas

There are no marine areas within the Project Area.

4.2 (g) Kinds of fauna

A total of 158 terrestrial vertebrate species were recorded from the area, including 15 amphibians, 10 reptiles, 109 birds and 24 mammals. Fifteen species of butterfly were opportunistically reported and 12 species of fish. The table below lists species of conservation significance (under *Nature Conservation Act, 1992* and *EPBC Act 1999*) located within the or adjacent to the Project Area.

Table 4: Significant species recorded within the Project Area

Species	Status	
	NCA	EPBC
Amphibians		
Adelotus brevis (Tusked Frog)	V	
Crinia tinnula (Wallum Froglet)	V	
Mixophyes iteratus (Giant Barred Frog)	E	E
Reptiles		
Eroticoscincus graciloides (Elf Skink)	R	
Birds		
Accipiter novaehollandiae (Grey Goshawk)	R	
Lophoictinia isura (Square-tailed Kite)	R	
Rallus pectoralis (Lewin's Rail)	R	
Calyptorhynchus lathami (Glossy Black Cockatoo)	V	
Ninox strenua (Powerful Owl)	V	
Tyto tenebricosa (Sooty Owl)	R	
Mammals		
Phascolarctus cinerus (Koala)	V	
Pteropus poliocephalus (Grey-headed Flying Fox)		V
Butterflies		
Ornithoptera richmondii (Richmond Birdwing)	V	

4.2 (h) Current state of the environment

Generally, the environment is in good condition between Landsborough and Nambour. It could be said that the southern half of the Project Area is in a more natural state than the northern half (Palmwoods to Nambour). The land use in the northern half of the Project Area is more intensive and urbanised.

Geology & Erosion

Some areas have been identified as potential land slip areas. These are generally the very steep parts of the Project Area. Erosion prone areas are concentrated around creeks and drainage lines. Some areas of erosion were noted during field investigations. These were generally in association with creek crossings and livestock farms where livestock accessed the waterways.

Water Quality

The water quality on the major creek lines was reasonably good with some creeks having elevated turbidity, nitrogen and phosphorus. The creeks most likely to be affected by poor water quality were those close to towns, e.g. Petrie Creek and Paynter Creek. It should be noted that significant rain fell during surveys, causing creeks to swell and potentially influencing turbidity readings.

Vegetation

The Project Area is located in the Southeast Queensland Bioregion, which is one of the most species rich bioregions in Australia containing centres of endemism i.e. species that are geographically or behaviourally unique, and a wide range of habitat types. All remnant vegetation in the bioregion is considered to be of high ecological value, at a minimum, on a local scale. It is generally of good quality with minimal disturbance and high habitat diversity. There are many areas that have state significance and are protected by the *Nature Conservation Act 1992* or *Vegetation Management Act 1999*. Furthermore, some of these areas support species of State importance (under the *Nature Conservation (Wildlife) Regulation 2006*) and National importance (under the *Environment Protection and Biodiversity Conservation Act 1999*). The majority of remnant vegetation is distributed from Palmwoods south to Landsborough. North of Palmwoods the land use intensifies and vegetation is largely restricted to creek lines, with the remaining area being pasture or urban development.

Weeds & Feral Animals

Weed invasion and signs of feral animals were generally restricted to areas showing signs of disturbance, areas nearest to residential developments and small clumps of remnant vegetation.

4.2 (i) Commonwealth Heritage Places and places on the Register of the National Estate

There are no Commonwealth Heritage Places within the Project Area. The following places on the Register of the National Estate are within the project area:

- Registered Place: North Coast Railway National Parks, North Coast Railway Line, Nambour, QLD, Australia (Dularcha National Park and Eudlo Creek National Park)
- Registered Place: Indigenous Place, Landsborough, QLD, Australia
- Indicative Place: Pedestrian Rail Crossing Bridge and Waiting Shed, Bray Rd, Mooloolah, QLD, Australia
- Indicative Place: Palmwoods to Buderim Tramway Route, Brecon Crescent, Buderim, QLD, Australia

4.2 (j) Known Indigenous heritage values

The Register of National Estate (RNE) identified one known place of Indigenous significance within the Project Area. The Aboriginal and Torres Straight Islander Cultural Heritage Register identified several sites and places of Indigenous significance within the Project Area. The Project Area currently is within an area over which no registered native title claims exist. However, in the past, two previous claims were over the area and these will give direction on the Aboriginal Parties with whom consultation will be required. It is understood that a recent application has been filed with the National Native Title Tribunal (Gubbi Gubbi People #3).

4.2 (k) Other important or unique values of the environment

There are two National Parks within the Project Area, Dularcha National Park and Eudlo National Park. Both these parks have a connection to the history of the railway in that they were declared to protect the scenic amenity of the railway for travellers. The parks have a relatively intact vegetation community and support a diversity of fauna.

4.2 (l) Tenure of the action area (eg freehold, leasehold)

The majority of the land in the proposed corridor is freehold land in private tenure. There are some sections of the proposed realignment that make use of the existing rail, which is crown land sub-leased by QT to QR Limited. There are also two National Parks and several areas of open space owned by local governments. Tenure is shown in Attachment 8.

4.2 (m) Existing land uses

The development pattern in the area arises from the history of settlement, which was founded on timber felling and primary production. The opening of the railway in the late 1800's, and provision of railway stations at settlements along the line improved access to markets and provided opportunities for the development of local industries related to these rural activities. Although both the railway and rural industries have much less economic significance for the towns today, they remain an integral part of the identity of the area.

Land use in the Project Area is characterised by residential development clustered around economic and community service centres in each of the towns, ranging from a shop and a school in Eudlo to a major shopping precinct in Nambour. There are some industrial properties around Nambour. The density of residential development disperses on the town fringes into a rural landscape, which comprises mostly small rural holdings. Dominant rural activities include fruit farming, dairy and horse studs.

4.2 (n) Proposed land uses

The SEQ Regional Plan is a document that guides the growth of south-east Queensland. Local government planning schemes must be amended to reflect the land use intentions of the SEQ Regional Plan, hence it is a high-level planning instrument for the region. The SEQ Regional Plan seeks to reinforce the existing pattern of development, and particularly to protect the rural landscape from urban encroachment. Within the study area, the township areas and some adjacent rural residential and rural lands are included in the Urban Footprint. The exception to this is Eudlo which is highly constrained physically. In principle land included in the Urban Footprint can be developed for urban purposes, although parts of it may be constrained by physical, environmental, cultural or other factors. Nambour is identified in the SEQ Regional Plan as being a Major Activity Centre and Commercial / General Economic Centre providing the local area with services and a major centre of employment. The areas between and around the townships are included in the Regional Landscape and Rural Production Area. These areas are generally to be retained for rural activities and urban development in these areas is unlikely to be approved.

5 Nature and extent of likely impacts

5.1 Likely impacts on matters of national environmental significance (NES)

5.1 (a) Likely impact on the world heritage values of a declared World Heritage property

There are no World Heritage properties within the vicinity of the proposed rail upgrade and no impacts on world heritage values are anticipated.

5.1 (b) Likely impact on the heritage values of a listed National Heritage place

The Glasshouse Mountains are the nearest National Heritage place to the Project Area. They are approximately 10 – 12km south-west of the Project Area and no impacts on the heritage values are anticipated.

5.1 (c) Likely impact on the ecological character of a declared Ramsar wetland

The Project Area is located approximately 15km inland of Moreton Bay (which is recognised as a Ramsar area). Drainage lines to the south of the Project Area are part of the Pumicestone Passage catchment, which drains directly into Moreton Bay, however, the creek lines that will be affected by the proposed rail upgrade are within the Mooloolah and Maroochy catchments. There is no impact anticipated on Ramsar wetlands.

5.1 (d) Likely impact on the members of a listed threatened species or ecological community, or their habitat

There are four listed threatened species that have been recorded or are likely within the Project Area. The potential for impacts and significance of those impacts is discussed in the table below.

Table 5: Impacts on threatened species

Species	Status	Potential Impacts	Significance
Pteropus poliocephalus Grey-headed Flying Fox	V	This species was recorded in the northern section of Dularcha National Park (Landsborough). It is likely that these individuals had travelled from the known flying-fox camp 3km to the north near the Nambour Landfill to access the blossom and fruit resources of the National Park. The species are known to fly up to 50km in a night in search of foraging resources. No flying-fox camps have been recorded in the Project Area or along the proposed alignment and the species is highly mobile, so as not to be impacted by the fragmentation caused by the rail upgrade. The impact of the rail upgrade is likely to be primarily a loss of fruiting trees particularly within rainforest fragments. The total area of rainforest to be cleared by the rail upgrade is 1.95 ha. A secondary impact may be potential electrocution on overhead powerlines. However, overhead power lines are already in place along the existing corridor.	The proposed action is not anticipated to have a significant impact on the species because: • there will be no impacts on flying-fox camps or roost sites; • impact will be restricted to a short-term, small reduction in fruit and blossoming resources; • foraging resources are abundant in the local area and the area of impact is small (1.95 ha); and • offsets (required under VMA 1999) for clearing of riparian rainforest will mitigate the impact on foraging resources in the long-term.

Species	Status	Potential Impacts	Significance
Nannoperca oxleyana Oxleyan Pygmy Perch and *Pseudomugil mellis* Honey Blue-Eye	E V	This species has previously been recorded near the Project Area in Mellum Creek, Bluegum Creek and their tributaries. These streams are located immediately south of Landsborough in the Pumicestone catchment, with the upper reaches of Mellum Creek traversing the southern extent of the project area. The nearest known record of these species is located approximately 5km from the project area boundary. Surveys conducted for this project, did not record this species. Field surveys revealed that watercourses exhibiting the range of physiochemical conditions known to support Oxleyan Pygmy Perch were restricted as a result of elevated conductivities. Waterbodies within the drainages of Ewen Maddock Dam, Eudlo Creek and Paynter Creek recorded suitable physiochemical conditions. Various stream sections along minor drainages of Ewen Maddock Dam were represented by lentic and low flowing waters fringed with dense emergent macrophytes amongst stands of *Melaleuca sp*. Such environments represent potential habitat for Oxleyan Pygmy Perch. Significant populations of this species are not likely to occur within the project area, although it is still possible that Oxleyan Pygmy Perch could be transient visitors to watercourses linked to Ewen Maddock Dam. Due to limited dissolved oxygen concentrations and slightly alkaline pH values no sites were found to exhibit the physiochemical parameters within the tolerance range of Honey Blue-eye. Potential impacts on Oxleyan Pygmy Perch arising from the rail upgrade relate primarily to impacts at crossing points upon the minor drainage lines in the south of Dularcha National Park. Addlington Creek and the drainage lines in the north of Dularcha National Park do not support the appropriate wallum habitat. The drainage lines in Dularcha National Park are currently piped under the railway and the amount of available wallum habitat is very limited and isolated. Due to the wider corridor width required for the upgraded railway the construction of the culverts will result in the permanent removal of a small amount of potential habitat for the species. The new crossing points will be fish-friendly culverts, which allow the continued passage of fish. This will be an improvement to the current situation that is unlikely to encourage fish movement. The Oxleyan Pygmy Perch is also particularly sensitive to salinity, pH and dissolved oxygen levels. Hence, eutrophication and subsequent drops in dissolved oxygen and increases in pH could lead to impacts on the species. This situation is only likely to arise during construction. Construction will be managed by an Environmental Management Plan, to reduce the chance of contamination occurring.	The proposed action is not anticipated to have a significant impact on the species because: • it is believed that the population in the Project Area is transient, if indeed present at all; • the existing habitat is small and isolated as a result of the existing railway and the proposed upgrade represents an expansion of the existing alignment; and • the culvert proposed for the upgrade is a more fish-friendly design than the existing one.

Species	Status	Potential Impacts	Significance
Mixophyes iteratus Giant Barred Frog	E	This species has been identified from six locations within the Project Area: two points along the Mooloolah River, two points along the South Mooloolah River, one point along Addlington Creek (Landsborough) and one point within Eudlo Creek National Park. The proposed rail corridor will impact upon Addlington Creek, South Mooloolah River and Mooloolah River. The record of *M. iteratus* at Addlington Creek is associated with aquatic surveys (September 2007) that located tadpoles of the species in advanced stages of development. The size of the tadpoles indicates that they were the progeny from summer 2006/7. Subsequent searches in February 2008 failed to locate any adult frogs and vegetation assessments indicate the degraded nature of the creek would be sub-standard habitat for the species. Despite these findings, the presence of tadpoles indicates a breeding population exists at Addlington Creek. In two instances (on the South Mooloolah River and Mooloolah River) the current location of the alignment directly coincides with records of *M. iteratus* from the recent field surveys. There is evidence that the species utilizes a large area of these rivers because the field surveys led to observations on both the eastern and western sides of the current alignment. Some areas of the South Mooloolah and Mooloolah Rivers have been cleared and suffer weed invasion, but there are significant stretches of riparian rainforest that provides adequate habitat for the species. It is likely that the proposed rail upgrade will impact on *M. iteratus* through the crossing and dissection of known habitat areas. The Giant Barred Frog is particularly sensitive to disturbance, relying on the canopy cover of rainforest habitats to regulate the growth of ground cover such that the species is able to move freely around the forest floor. There is also evidence that the species rarely moves more than 20m from the waters edge. Hence, an appropriate management methodology would be to retain 30m buffers along each side of the waterway. Key threats listed in the National Recovery Plan for Stream Frogs of SEQ 2001 – 2005 are: clearing, chytrid fungus, changes in water flow regimes, degradation of water quality, feral animals, domestic stock, weed invasion and disturbance to riparian vegetation. Potential impacts arising from the crossing of the waterways where there are known *M. iteratus* populations are: • loss of habitat quality downstream due to increased sediment loads and pollution from construction; • introduction of pathogens (such as chytrid fungus) on the construction equipment; • fragmentation of populations through the loss of traditional dispersal / movement routes;	It is not anticipated that the impact of the proposed rail corridor will be deleterious to the population of *M. iteratus* in the Project Area. However, the proposed action may have a significant impact on the species because: • it may reduce the area of occupancy of the species in the short-term, which may be long enough to have an impact on recruitment to the population; • it may modify, destroy, remove, isolate or decrease the quality of habitat to the extent that the species is likely to decline; • it may fragment an existing population into two populations; • it may disrupt the breeding cycle of the population; • it may result in invasive species becoming established; and • it may interfere with the recovery of the species. Impact mitigation strategies will be incorporated into the design and environmental management of the proposal to reduce impacts on the species to an acceptable level.

Species	Status	Potential Impacts	Significance
		• reduction of habitat quality i.e. weed invasion and increased light penetration, particularly along new edges created by crossings; • decreased bank stability (important for oviposition) resulting from increased water velocities due to loss of riparian vegetation and increased impervious surfaces; and • increased predation and competition as exotic species utilise the created vegetation gaps to access previously inaccessible habitats. This species is the main subject of this referral.	

5.1 (e) Likely impact on the members of a listed migratory species or their habitat

Field surveys in September 2007 and February 2008 located eight migratory species utilising the area within the vicinity of the Project Area. The potential for impacts and significance of those impacts is discussed in the table below:

Table 6: Impacts of migratory species

Species	Status	Description	Potential impacts
Monarcha melanopsis Black-faced Monarch	M	The Black-faced Monarch is found along the coast of eastern Australia, becoming less common further south. Resident in the north of its range, but is a summer breeding migrant to coastal south-eastern Australia, arriving in September and returning northwards in March. It may also migrate to Papua New Guinea in autumn and winter. The Black-faced Monarch is found in rainforests, eucalypt woodlands, coastal scrub and damp gullies. It may be found in more open woodland when migrating. The Black-faced Monarch builds a deep cup nest of casuarina needles, bark, roots, moss and spider web in the fork of a tree, about 3 m to 6 m above the ground.	The species was located on the vegetated ridge line between Mooloolah and Eudlo. The existing rail also dissects this area. As it is highly mobile, the dissection of the vegetation will not have a significant impact on the species.
Monarcha trivirgatus Spectacled Monarch	M	The Spectacled Monarch has similar distribution and movement patterns to the Black-faced Monarch. It prefers thick understorey in rainforests, wet gullies and waterside vegetation, as well as mangroves.	The species was located to the west of Eudlo Creek National Park. The existing rail also dissects this area. As it is highly mobile, the dissection of the vegetation will not have a significant impact on the species.
Haliaeetus leucogaster White-breasted Sea Eagle	M	White-bellied Sea-Eagles are a common sight in coastal and near coastal areas of Australia. In addition to Australia, the species is found in New Guinea, Indonesia, China, south-east Asia and India. White-bellied Sea-Eagles are normally seen perched high in a tree, or soaring over waterways and adjacent land. Birds form permanent pairs that inhabit territories throughout the year. The White-bellied Sea-Eagle feeds mainly off aquatic animals, such as fish, turtles and sea snakes, but it takes birds and mammals as well.	This species was located flying over Paynter Creek, Woombye. It was located within close proximity to the existing rail. As it is highly mobile, the dissection of the vegetation will not have a significant impact on the species.

Species	Status	Potential Impacts	Significance
Rhipidura rufifrons Rufous Fantail	M	The Rufous Fantail is found in northern and eastern coastal Australia, being more common in the north. During migration, it may be found in more open habitats or urban areas. Strongly migratory in the south of its range, it moves northwards in winter, and virtually disappears from Victoria and New South Wales at this time. The Rufous Fantail is found in rainforest, dense wet forests, swamp woodlands and mangroves, preferring deep shade, and is often seen close to the ground. The Rufous Fantail builds a small compact cup nest, of fine grasses bound with spider webs, that is suspended from a tree fork about 5 m from the ground.	This species was found in 12 locations within or adjacent to the Project Area. All sightings were associated with dense riparian vegetation and several were adjacent to the existing rail. As it is highly mobile, the dissection of the vegetation will not have a significant impact on the species.
Hirundapus caudacutus White-throated Needletail	M	White-throated Needletails often occur in large numbers over eastern and northern Australia. They are aerial birds and for a time it was commonly believed that they did not land while in Australia. It has now been observed that birds will roost in trees. Birds arrive in Australia from their breeding grounds in the northern hemisphere in about October each year and leave somewhere between May and August.	This species was located 0.5km east of the existing rail near Dularcha National Park. The proposed rail upgrade follows the existing alignment in this area. As the species is aerial, the upgrade will have no impact.
Merops ornatus Rainbow Bee-eater	M	The Rainbow Bee-eater is found throughout mainland Australia, as well as eastern Indonesia, New Guinea and, rarely, the Solomon Islands. The Rainbow Bee-eater is most often found in open forests, woodlands and shrublands, and cleared areas, usually near water. It will be found on farmland with remnant vegetation and in orchards and vineyards. It will use disturbed sites such as quarries, cuttings and mines to build its nesting tunnels. The birds select a suitable nesting site in a sandy bank and dig a long tunnel (average length: 89.4 cm) leading to a nesting chamber, which is often lined with grasses.	This species was found in two locations in Dularcha National Park. One location is directly adjacent to the existing rail at a creek crossing. Nesting was not observed, but is possible. The proposed upgrade follows the existing alignment in this area. It is not anticipated that the upgrade will have a significant impact.
Ardea alba Great Egret	M	Great Egrets occur throughout most of the world. They are common throughout Australia, with the exception of the arid areas. Great Egrets prefer shallow water, particularly when flowing, but may be seen on any watered area, including damp grasslands. Great Egrets can be seen alone or in small flocks, often with other egret species, and roost at night in groups.	This species was located within parkland on Petrie Creek, Nambour. The proposed upgrade follows the existing alignment in this area. As the species is vagile, the upgrade will have no impact.
Ardea ibis Cattle Egret	M	Originally found in Africa, Europe and Asia, the Cattle Egret is now found on nearly every continent, with birds in Australia originating from Asia. The Cattle Egret is found in grasslands, woodlands and wetlands, and is not common in arid areas. It also uses pastures and croplands, especially where drainage is poor. Will also forage at garbage dumps, and is often seen with cattle and other stock.	This species was found at Kolora Park, Palmwoods. This section of the proposed alignment is currently being amended to conserve the large pond and associated parklands. It is not anticipated that the upgrade will have a significant impact.

5.1 (f) Likely impact on the environment in part of the Commonwealth marine area

The proposed rail upgrade is not being undertaken in a Commonwealth marine area and is at least 20km from the nearest Commonwealth marine area. There will be no impact on any Commonwealth marine area as a result of the proposed rail upgrade.

5.2 Likely impacts for nuclear actions, actions affecting Commonwealth land or actions taken by the Commonwealth

The proposed rail upgrade is not a nuclear action, it is not being undertaken by the Commonwealth and it is not being undertaken on Commonwealth land.

6 Measures to avoid or reduce impacts

The route selection process for the Landsborough to Nambour Rail Corridor Study was a multi-criteria analysis utilising available spatial data, field survey and information gained from the community and government consultation process. This information was utilised to select an alignment with the least impact on significant values. In all cases, areas of significant environmental value were avoided where possible. It was not possible to avoid impacts to riverine habitat in some instances because the rail alignment must cross the creeks / waterways at some point and in many situations the point of crossing is constrained to a particular location due to topographical and hydrological issues. In these situations it is necessary to develop an appropriate design and mitigation strategies to reduce negative impacts.

The Environmental Impact Statement (EIS) and subsequent public consultation will inform the development of a detailed Environmental Management Plan (EMP). The EMP will address the mitigation of environmental impacts such as:

- Air Quality Management
- Stormwater and Water Quality Management
- Sediment and Erosion Control
- Noise Management
- Waste Management
- Landscape Management
- Vegetation, Weed & Rehabilitation Management
- Fauna Management

The EMP will also identify areas requiring specialist management due to particularly sensitive environmental values. The EMP will list measurable environmental objectives for these areas and detail mitigation strategies necessary to maintain environmental values. The specialist mitigation measures to address the potential impacts on threatened fauna (*Mixophyes iteratus*, Giant Barred Frog) are described below:

Vegetation Management (including threatened flora)

Pre-construction

1. Minimise vegetation loss through route alignment - during the route selection process, the amount of remnant vegetation removed was a key determinant included in the evaluation criteria. The proposed alignment scored highly for minimising the loss of remnant vegetation.
2. Minimise vegetation loss through design - the preferred route is generally 60m wide, with some variations including an increase to 150m at two locations to accommodate additional earthworks requirements where there is steep terrain and an increase to approximately 90m at four locations where additional earthworks are required to address terrain, flooding or river crossing issues. The detailed design has not yet been finalised, hence there may be minor adjustments to the footprint of the proposed rail corridor. However, a key driving factor in the detailed design process will be to minimise vegetation loss, especially in key areas such as the National Parks, waterways and recognised wildlife corridors. Construction options being considered are tunnelling, bridging, cut and cover construction (allowing vegetation to be reinstated) and the use of retaining walls.
3. Prevent destruction of significant populations of threatened flora – Field surveys to date have been within a broader area around the proposed route (i.e. Project Area). Therefore, whilst an assessment has been made to ascertain what species are likely to be impacted by the alignment, a definitive list of species inhabiting the footprint of the alignment is not yet available. In order to mitigate impacts on threatened plants within the

footprint of the proposed alignment, a field survey of the alignment will be undertaken by suitably qualified botanist prior to construction. In the event that a threatened plant is located a Threatened Flora Management Plan that is specific to the site will be prepared.

4. Implementation of Threatened Flora Management Plan (if applicable) - certain aspects of the Threatened Flora Management Plan may need to be implemented prior to construction. For example, translocation, seed collection, propagation or rehabilitation programs.

Construction

1. Vegetation clearing techniques are to minimise unnecessary loss – the construction zone will be accurately surveyed and clearly marked with barricade fencing. There will be no clearing, storage of material or machinery / personnel access outside of the construction zone. Vegetation clearing will not result in vegetation being felled towards areas for retention.
2. Management of threatened plants - a botanist will conduct a pre-clearing survey immediately prior to construction and identify any significant species with flagging tape and barricade fencing installed around the affected area. The plants will be dealt with as outlined in the Threatened Flora Management Plan.
3. Effectiveness of EMP – all construction personnel will undertake a site induction, which includes highlighting treatment of environmentally significant features.

Post-construction

1. Rehabilitation – areas impacted by construction, but not required for the operation of the future railway will be rehabilitated to reduce the long-term loss of remnant vegetation. Details of rehabilitation will be incorporated into the Vegetation Management Plan for the project.
2. Offsets – areas of remnant vegetation lost to the railway upgrade must be offset in accordance with the Policy for Vegetation Management Offsets (September 2007) under the *Vegetation Management Act 1999*. This includes all areas of endangered and of concern remnant vegetation and some areas of not of concern vegetation along waterways or within essential habitat areas.

Fauna Management (including threatened fauna)

Pre-construction

1. Minimise habitat loss through route alignment - during the route selection process, the amount of essential habitat and vegetation within wildlife corridors removed was a key determinant included in the evaluation criteria. The proposed alignment scored highly for minimising the loss of habitat and wildlife corridors.
2. Minimise habitat loss through design - the preferred route is generally 60m wide, with some variations including an increase to 150m at two locations to accommodate additional earthworks requirements where there is steep terrain and an increase to approximately 90m at four locations where additional earthworks are required to address terrain, flooding or river crossing issues. The detailed design has not yet been finalised, hence there may be minor adjustments to the footprint of the proposed rail corridor. However, a key driving factor in the detailed design process will be to minimise habitat loss, especially in key areas such as the National Parks, waterways and recognised wildlife corridors. Construction options being considered are tunnelling, bridging, cut and cover construction (allowing vegetation to be reinstated) and the use of retaining walls.
3. Prevent destruction of significant populations of threatened fauna – Field surveys to date have been within a broader area around the proposed route (i.e. Project Area). Therefore, whilst an assessment has been made to ascertain what species are likely to be impacted by the alignment, a definitive list of species inhabiting (i.e. nesting, denning, roosting) the footprint of the alignment is not yet available. In order to mitigate impacts on threatened fauna within the footprint of the proposed alignment, a field survey of the alignment will be undertaken by suitably qualified ecologist prior to construction. In the event that a nest / den / roost of a threatened animal is located a Threatened Fauna Management Plan that is specific to the site will be prepared.
4. Implementation of Threatened Fauna Management Plan (if applicable) - certain aspects of the Threatened Fauna Management Plan may need to be implemented prior to construction. For example, relocation or habitat rehabilitation programs.

Construction

1. Vegetation clearing techniques are to minimise unnecessary loss – the construction zone will be accurately surveyed and clearly marked with barricade fencing. There will be no clearing, storage of material or machinery / personnel access outside of the construction zone. Vegetation clearing will not result in vegetation being felled towards areas for retention.

2. Habitat enhancement – hollow logs, large rocks / boulders etc will be retained for habitat enhancement within rehabilitation and offset areas.
3. Management of fauna – a spotter-catcher will conduct a pre-clearing survey immediately prior to construction and identify the location of nests / dens of any fauna species with flagging tape. These areas must be buffered by 10m and retained until the fauna has moved on of its own volition, or been appropriately relocated. A spotter-catcher will be present to direct the clearing at all times. The significant fauna will be dealt with as outlined in the Threatened Fauna Management Plan (as applicable).
4. Effectiveness of EMP – all construction personnel will undertake a site induction, which includes highlighting treatment of environmentally significant features.

Post-construction

1. Rehabilitation – areas impacted by construction, but not required for the operation of the future railway will be rehabilitated to reduce the long-term loss of remnant vegetation. Details of rehabilitation will be incorporated into the Vegetation Management Plan for the project.
2. Offsets – areas of remnant vegetation lost to the railway upgrade must be offset in accordance with the Policy for Vegetation Management Offsets (September 2007) under the *Vegetation Management Act 1999*. This includes all areas of endangered and of concern remnant vegetation and some areas of not of concern vegetation along waterways or within essential habitat areas.

Species Specific Management for Giant Barred-Frog (*Mixophyes iteratus*)

Pre-construction

1. Habitat identification – a targeted survey was undertaken in February 2008 with the specific aim of identifying waterways within the Project Area where *Mixophyes iteratus* were present. The survey was successful in locating the species within four waterways: Addlington Creek, South Mooloolah River, Mooloolah River and Eudlo Creek (within the National Park).
2. Minimise habitat loss through route alignment - during the route selection process, the amount of essential habitat removed was a key determinant included in the evaluation criteria. The proposed alignment avoided the known habitat of *M. iteratus* where possible, for example the area of Eudlo Creek National Park has been avoided. It was difficult to avoid areas such as Addlington Creek, South Mooloolah River and Mooloolah River because these waterways traverse the Project Area from west to east and locations for crossing points are limited by difficult terrain, which dictates the places where crossings are possible. Further optimisation of crossing locations may occur during the preliminary design phase of the project.
3. Minimise habitat loss through design - the estimated average width of the rail corridor (including construction requirements) on the approach to waterway crossings is 60m, however, in sensitive areas different construction methods may be utilised to minimise the overall footprint of the proposed corridor. There are three waterways where the rail crossing has the potential to significantly impact the resident *M. iteratus* population. In these locations, the rail will be suspended over the waterway on a span bridge structure. Experts have concurred (Hines and Hero, 2008, pers. comm.) that the ultimate design for a span bridge, designed with the continued movement of *M. iteratus* as a key determinant, is to have the footings of the bridge set back 25m with a bridge height that allows retention of rainforest understorey at the site. It would also be beneficial to separate the tracks to allow light penetration between tracks. This design aims to minimise the disturbance to the riparian habitat that is essential to the survival of the species. As *M. iteratus* is a ground-dwelling frog, the condition of the understorey is essential to their survival. Footings within the river channel will be avoided, where possible, to prevent disruption to the flows within the waterway. Maintaining natural flow is important in terms of retaining suitable spawning sites and habitat for tadpoles. Experts will continue to be involved in the design process.
4. Development of Threatened Fauna Management Plan – a Threatened Fauna Management Plan focussing on the treatment of sites where *M. iteratus* has been confirmed will be undertaken and distributed to construction contractors.

Construction

1. Construction time – research has indicated that the species does not have significantly different winter and summer activity areas, remaining in the riparian zone (generally within 20m) all year round. Despite being active throughout most of the year, the species does have a specific breeding period between September and April with peak breeding occurring in the summer months (Dec – Feb). Ultimately, construction (especially ground disturbing earthworks) will be kept outside the peak breeding season to minimise disturbance during this time.

2. Management of Giant Barred-Frog – immediately prior to construction a spotter-catcher will conduct a survey of the area to ascertain frog activity levels. The survey will need to include searches under logs and disturbance to dense leaf litter where the frogs are likely to seek shelter. Any frogs found within the construction zone will be relocated to suitable habitat nearby.
3. Sediment and erosion control – prior to construction all sediment and erosion control measures will be in place to prevent sedimentation of the waterway. This will be part of the EMP.
4. Soft construction methods – the design of the bridge, with footings setback from the riparian zone and outside of the waterway itself, allows for the use of less destructive construction methods. For example, some riparian vegetation can be retained under the span bridge and temporary dams or redirection of the waterway will not be necessary.

Post-construction

1. Rehabilitation – areas impacted by construction, but not required for the operation of the future railway will be rehabilitated to reduce the long-term loss of riparian habitat. In terms of the riparian zone disturbed by the bridge, this will include the area underneath the bridge. It is important to maintain the riparian shrub layer under the bridge, so that the species can continue to utilise and move through the area. Details of rehabilitation will be incorporated into the Vegetation Management Plan for the project.
2. Offsets – areas of essential habitat lost to the railway upgrade must be offset in accordance with the Policy for Vegetation Management Offsets (September 2007) under the *Vegetation Management Act 1999*. This includes all areas of endangered and of concern remnant vegetation where *M. iteratus* is located.
3. Ongoing weed management – research shows that *M. iteratus* is particularly sensitive to weed invasion. Once the canopy is removed from the riparian zone and disturbance is introduced in the form of a bridge, the river banks will be more susceptible to weed invasion. It will be essential for weed to be managed in the areas underneath and adjacent to the bridges.
4. Retention of leaf-litter – the frogs rely on deep leaf-litter, debris and hollow logs for shelter and aestivation therefore it is important to retain this habitat element. The bridge will result in a reduction of leaf litter and debris falling to the forest floor. Hence, habitat enhancement in the form of mulching with leaf-litter and enrichment with logs and other large debris may need to be conducted if the amount of leaf-litter generated by the understorey is inadequate. This mitigation strategy may only be implemented at the Maroochy River crossing, where the area of riparian habitat impacted is greater. However, the priority will be to reduce the area of riparian habitat impacted.

7 Conclusion on the likelihood of significant impacts

Do you THINK your proposed action is likely to have significant impacts?

	No, complete section 7.1
X	Yes, complete Section 7.2

7.1 Proposed action is NOT LIKELY to have significant impacts

Key reasons

7.2 Proposed action is LIKELY to have significant impacts

	Matters likely to be impacted
	sections 12 and 15A (World Heritage)
	sections 15B and 15C (National Heritage places)
	sections 16 and 17B (Wetlands of international importance)
X	sections 18 and 18A (Listed threatened species and communities)
	sections 20 and 20A (Listed migratory species)
	sections 21 and 22A (Protection of the environment from nuclear actions)
	sections 23 and 24A (Marine environment)
	sections 26 and 27A (Protection of the environment from actions involving Commonwealth land)
	section 28 (Protection of the environment from Commonwealth actions)

Key reasons

The mitigation measures outlined in Section 6 for *Mixophyes iteratus* have been developed to minimise impacts as far as possible. The most important mitigation measure is the design and construction of the bridge to allow the continued movement of the species, maintain essential understorey structure (as far as possible) and limit interruption to breeding areas. Every effort has been made to retain important habitat characteristics under the bridge, but it cannot conclusively be stated that the rail upgrade will not have a significant impact on the species as outlined in the Significant Impact Guidelines for the following reasons:

1. At this stage in the process, the detailed design of the bridge is incomplete and the feasibility of constructing a bridge with footings placed 25m from the waters edge and at a sufficient height to enable retention of understorey is unknown.
2. It is known that the frogs rely on a relatively sparse, rainforest understorey and deep leaf-litter, which have all been addressed in the mitigation strategies for bridge construction. However, there have been no studies or direct observations of how the species reacts to bridges and if they will continue to utilise the site or not.

In accordance with the 'precautionary principle', it cannot be said conclusively that the proposed action will not have a significant impact on a species listed under the EPBC Act 1999.

8 Assessment approach under the EPBC Act

	Level of assessment
X	Bilateral Agreement applies
	Accredited assessment
	Assessment on referral information
	Preliminary information
	Public Environment Report
X	Environmental Impact Statement
	Commission of Inquiry
	No comment/Not sure

Key reasons

The project has been declared a 'significant project for which an Environmental Impact Statement (EIS) is required' pursuant to s26(1)(a) of the *State Development and Public Works Organisation Act 1971* (SDPWO Act). This is a result of the following considerations:

- *S27 (c) the project's potential effect on relevant infrastructure;*
- *S27 (e) the potential environmental effects of the project;*
- *S27 (h) the strategic significance of the project to the locality, region or the State.*

It is also understood that there is a Bilateral Agreement in place between the Australian Government and State of the Queensland, which accredits certain Queensland environmental assessment processes, including the process under s26 of the SDPWO Act.

9 Environmental history of the responsible party

		Yes	No
9.1	Does the party taking the action have a satisfactory record of responsible environmental management. • If No, provide details	X	
9.2	Is the party taking the action subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources? • If Yes, provide details		X
9.3	For an action for which a person has applied for a permit under the EPBC Act, is the person making the application subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources? • If Yes, provide details		X
9.4	If the party taking the action is a corporation, will the action be taken in accordance with the corporation's environmental policy and planning framework? • If Yes, provide details of environmental policy and planning framework Queensland Transport is a department within the State Government. They are subject to the various policies, planning framework and legislation set out in Section 2.7 of the *Landsborough to Nambour Rail Corridor Study – Route Identification Report* (Attachment 4). The Environmental Transport Portfolio Environmental Policy appears in Attachment 9.	X	

10 Information sources and attachments

10.1 References

See Table 7 below

10.2 Reliability of information

Table 7: References and reliability

Source	Date	Reliability	Uncertainties
Landsborough to Nambour Rail Corridor Study – Route Identification Report Prepared by Arup for Queensland Transport	March 2008	This report has been prepared based on technical input from experts in a variety of disciplines, including: terrestrial ecologists (BAAM), aquatic ecologists (BMT WBM Pty Ltd) , environmental scientists (Arup), archaeologists (Archaeo), economists (SGS), planners (Arup), engineers (Arup), hydrologists (Arup) etc. Consultation with government stakeholders and the community has also been undertaken to inform the preparation of this document.	The corridor identified in this referral is based on a preliminary design. More detailed design will now be carried which may lead to minor changes.
Nambour to Landsborough Rail Corridor – Terrestrial Vertebrate Assessment Prepared by Biodiversity Assessment and Management (BAAM)	March 2008	This report was based on two episodes of sampling (Winter 2007 and Summer 2008) encompassing the seasonal variation expected in the Project Area. Survey effort was concentrated within the Project Area. Survey methods included: box traps, pitfall traps, diurnal terrestrial searches, diurnal bird censuses, nocturnal searches, harp trapping, bat call detection and opportunistic recording. Habitat assessments were conducted to ascertain suitability of habitat for significant species that were not detected during surveys, but were expected based on pre-survey database searches. All surveys were conducted by fauna specialists with extensive knowledge and experience. The author of the referral was present during some of these surveys and has an ecological background.	It is not possible to detect all fauna species present during field survey. This is due to the rare and cryptic nature of some species, especially significant species. To minimise the chance of falsely stating that a significant species is not present in the area, habitat assessments were undertaken within the Project Area.

Source	Date	Reliability	Uncertainties
Landsborough to Nambour Rail Corridor: Aquatic Surveys Preliminary Report and Update Prepared by BMT WBM Pty Ltd	October 2007 February 2008	This report was based on two episodes of sampling (Winter 2007 and Summer 2008) encompassing the seasonal variation expected in the Project Area. Survey effort was concentrated within the Project Area. Survey methods included: gill nets, fyke netting, seine netting, baited box trapping and opportunistic recording. Habitat assessments were conducted to ascertain suitability of habitat for significant species that were not detected during surveys, but were expected based on pre-survey database searches. All surveys were conducted by aquatic specialists with extensive knowledge and experience. The author of the referral was present during some of these surveys and has an ecological background.	It is not possible to detect all fauna species present during field survey. This is due to the rare and cryptic nature of some species, especially significant species. To minimise the chance of falsely stating that a significant species is not present in the area, habitat assessments were undertaken within the Project Area.
National Recovery Plan for Stream Frogs of South-east Queensland 2001 – 2005 Prepared by Harry Hines, Queensland Threatened Frogs Recovery Team, QPWS	2002	This document was prepared by Harry Hines, Queensland Threatened Frogs Recovery Team, QPWS. He has extensive field knowledge of the species and is a respected herpetologist within SEQ.	The plan itself is now expired (i.e. 2001 – 2005), however, the information within it is believed to be accurate for current situations.
Harry Hines (pers. comm.) QPWS	7 March 2008	Harry Hines heads the Queensland Threatened Frogs Recovery Team and has particular interest in *Mixopyhes iteratus*, having written the species' profile on the EPBC website and the Stream Frogs of SEQ Recovery Plan.	There has been no research on the use of bridge underpasses for the species.
Dr Jean-Marc Hero (pers. comm.), Associate Professor, Griffith University	March 2008	Dr John Marc Hero is a herpetologist at Griffith University. He has undertaken extensive work on *Mixophyes* species.	There has been no research on the use of bridge underpasses for the species.
Australian Museum and Birds Australia Bird Finder database http://www.birdsinbackyards.net/	March 2008	*Birds in Backyards* is a research, education and conservation program focusing on the birds that live where people live. It is run by the Australian Museum and Birds Australia.	It is unknown how often the information is updated, but from information about recent surveys and member news it appears to be updated regularly.

10.3 Attachments

You must attach	figures, maps or aerial photographs showing the project locality (section 2)	X
	figures, maps or aerial photographs showing the location of the project in respect to any matters of national environmental significance or important features of the environments (section 4)	X
If relevant, attach	copies of any state or local government approvals and consent conditions (section 3.4)	N/A
	copies of any completed assessments to meet state or local government approvals and outcomes of public consultations, if available (section 3.5)	X
	copies of any flora and fauna investigations and surveys (section 4)	X
	technical reports relevant to the assessment of impacts on protected matters and that support the arguments and conclusions in the referral (section 4 and 5)	X
	report(s) on any public consultations undertaken, including with Indigenous Stakeholders (section 4)	X

List of Attachments

1. Project Area (map)
2. List of affected properties
3. Footprint of proposed corridor (map)
4. Landsborough and Nambour - Route Identification Study
5. EPBC Act search report
6. Records of significant fauna (map)
7. Regional Ecosystems (RE) (map)
8. Tenure (map)
9. Transport Portfolio Environmental Policy

11 Signatures and declarations

Project title

11.1 **Party who prepared the referral**

I declare that the information contained in this form is, to my knowledge, true and not misleading. I request that the person named in 11.3 below (if any) be designated as the proponent for the action.

Signature 

Date 2/4/08

Full name Melody Stoneham

11.2 **Party who is responsible for action**

I declare that the information contained in this form is, to my knowledge, true and not misleading.

Signature 

Date 2/4/08

Full name Lawrence Hannah

11.3 **Proponent (complete only if different from 11.2)**

I, being the person nominated in Section 1.3 of this referral form as the nominated proponent (or agent acting on behalf of), agree to be designated as the proponent for the action described above if it is decided that the action requires approval under Part 9 of the EPBC Act.

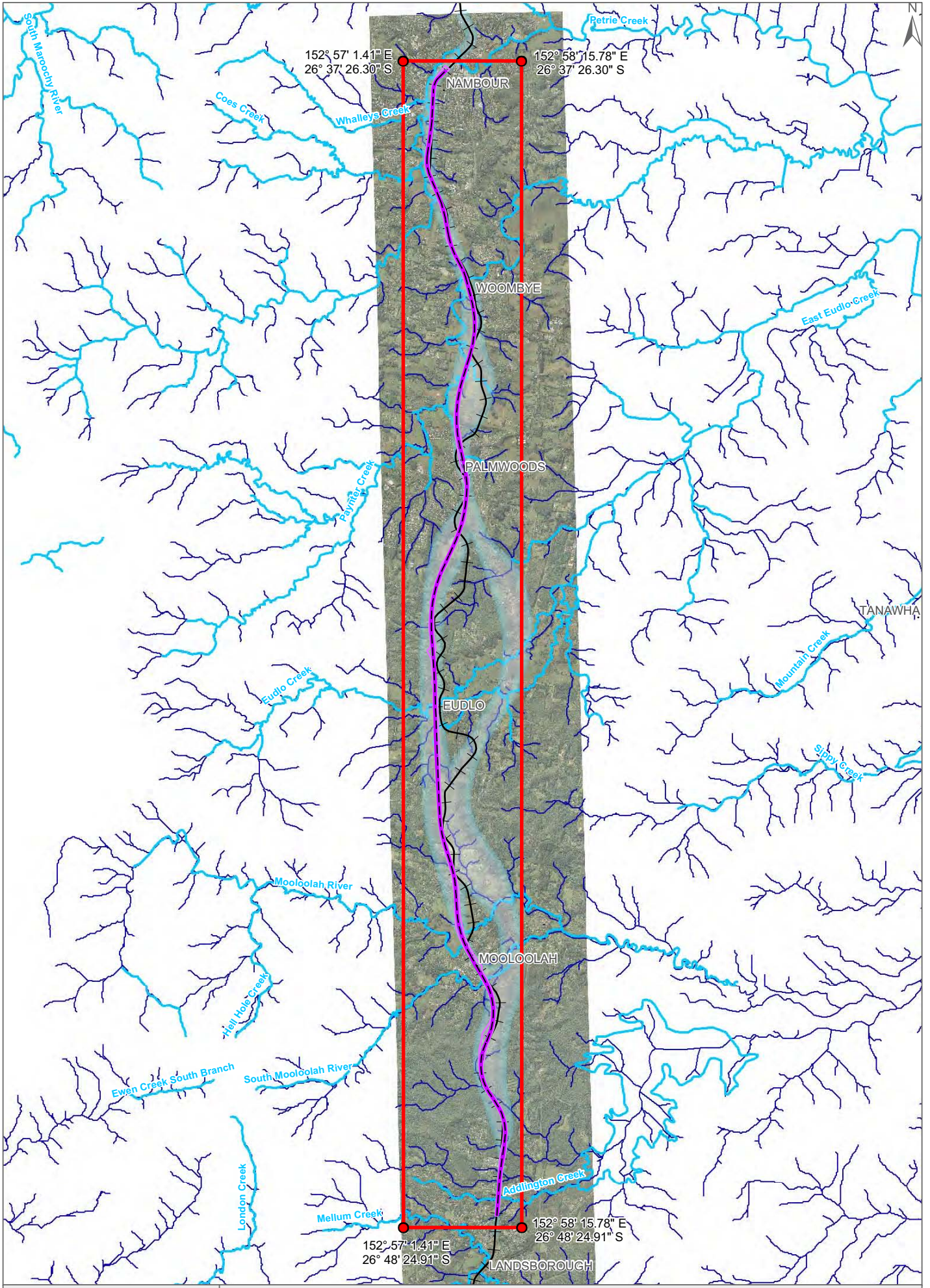
Signature N/A

Date

Full Name

If the referring party is a small business (fewer than 20 employees), estimate the time, in hours and minutes, to complete this form (include your time reading the instructions, working on the questions and obtaining the information and time spent by all employees in collecting and providing this information).

Hours	Minutes



Landsborough to Nambour Rail Upgrade

Attachment 1
Project Area

- Proposed Route
- Preferred Route Earthworks Area
- Existing Rail Line
- Creeks
- Drainage Lines
- Project Search Area

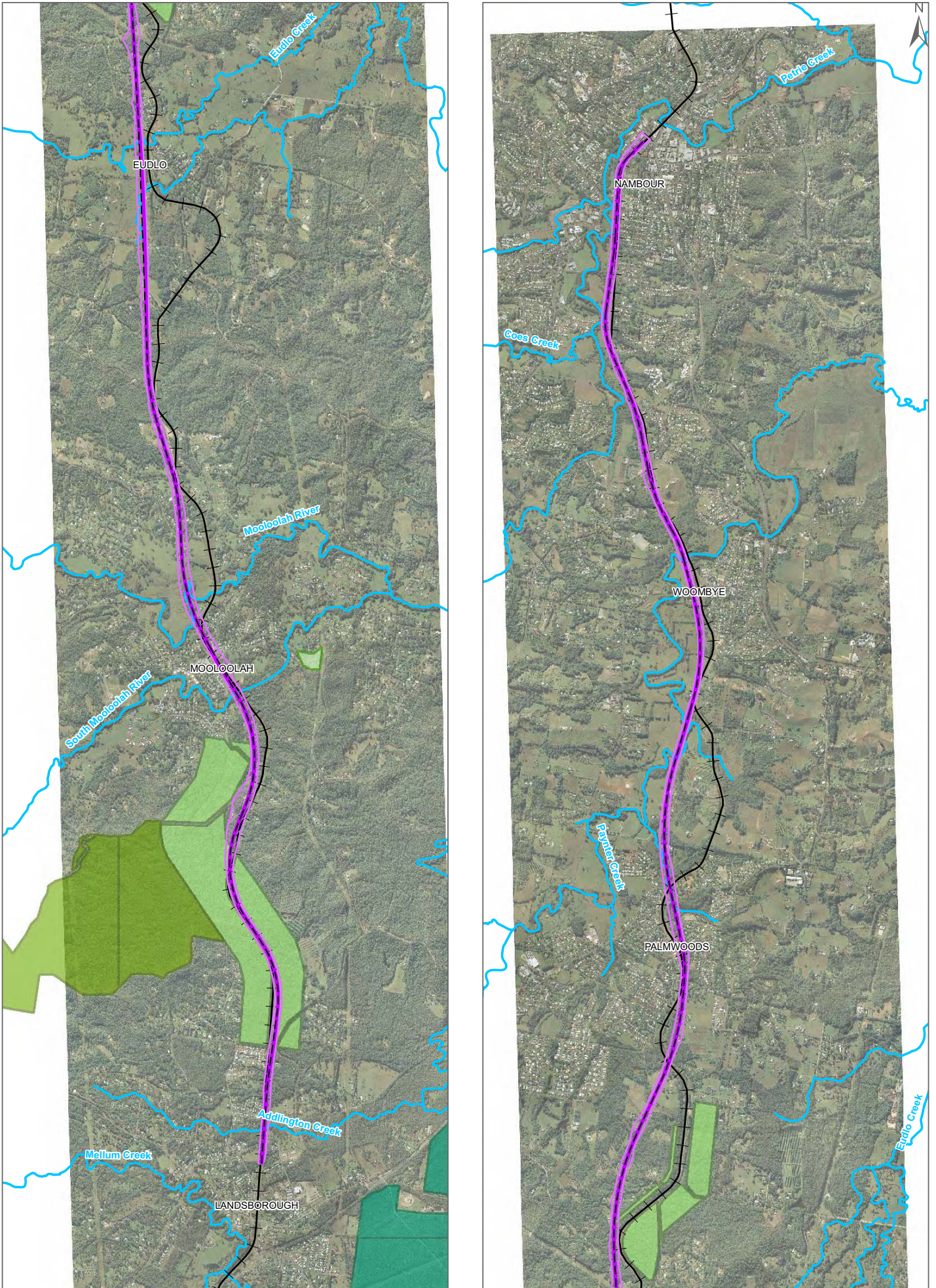
0 0.5 1 1.5 2 Km

ATTACHMENT 2
LIST OF AFFECTED PROPERTIES

LOT ON PLAN	PROPERTY LOCATION
9SP110903	Off Price LA NAMBOUR QLD 4560
3SP181277	67 Arundell Av, NAMBOUR, QLD 4560
1RP48601	58 Arundell Ave NAMBOUR QLD 4560
3RP56701	52 Arundell Ave, NAMBOUR, QLD 4560
5RP907803	Arundell Ave, NAMBOUR, QLD 4560
2RP848373	211 Old Palmwoods Rd PALMWOODS QLD 4555
3RP56760	58 Spackman Lane PALMWOODS QLD 4555
1RP223607	60 Spackman Lane PALMWOODS QLD 4555
1RP190651	72 Jubilee Dr PALMWOODS QLD 4555
2RP190651	32 Jubilee Dr PALMWOODS QLD 4555
2RP215960	42 Spackman Lane PALMWOODS QLD 4555
2RP849374	41 Spackman Lane PALMWOODS QLD 4555
3RP849374	35 Spackman Lane PALMWOODS QLD 4555
4RP849374	Spackman Lane PALMWOODS QLD 4555
1SP157051	50 Spackman Lane PALMWOODS QLD 4555
2SP157051	54 Spackman Lane PALMWOODS QLD 4555
1RP142843	285-295 Woombye-Palmwoods Rd PALMWOODS QLD 4555
368CP893394	Kolora Park, 284-304 Woombye-Palmwoods Rd WOOMBYE QLD 4559
421CP893394	1-9 Nicklin Rd PALMWOODS QLD 4555
2RP28214	Laidlaw Rd WOOMBYE QLD 4559
1RP209705	15 Laidlaw Rd WOOMBYE QLD 4559
2RP209705	26 Blackall Range Rd WOOMBYE QLD 4559
4SP181278	67 Arundell Ave, NAMBOUR, QLD 4560
2SP108810	2 McKenzie Rd WOOMBYE QLD 4559
1RP908527	71-83 Blackall Range Rd WOOMBYE QLD 4559
6SP111724	25 Blackall Range Rd WOOMBYE QLD 4559
5SP111724	31 Blackall Range Rd WOOMBYE QLD 4559
1CG233	42 Old Palmwoods Rd WEST WOOMBYE QLD 4559
16SP159202	87 Blackall Range Rd WOOMBYE QLD 4559
16SP159202	87 Blackall Range Rd WOOMBYE QLD 4559
1RP193239	29 Back Woombye Rd WOOMBYE QLD 4559
1RP149059	25 Back Woombye Rd WOOMBYE QLD 4559
543CG3620	145 Taintons Rd WOOMBYE QLD 4559
751CG3940	Res Back Woombye Rd WOOMBYE QLD 4559
437CG1973	24 Back Woombye Rd WOOMBYE QLD 4559
2SP145590	33 Back Woombye Rd WOOMBYE QLD 4559
3SP145590	Back Woombye Rd WOOMBYE QLD 4559
6SP156942	165 Old Palmwoods Rd WEST WOOMBYE QLD 4559
2RP79967	852 Eudlo Rd PALMWOODS QLD 4555
1CG1328	62-74 Chevallum Rd PALMWOODS QLD 4555
12P4456	8-10 Chevallum Rd PALMWOODS QLD 4555
11P4456	4 Chevallum Rd PALMWOODS QLD 4555
2RP231014	832 Eudlo Rd PALMWOODS QLD 4555
3RP231014	808 Eudlo Rd PALMWOODS QLD 4555
4SP110908	110 Paskins Rd PALMWOODS QLD 4555
5SP110908	112 Paskins Rd PALMWOODS QLD 4555
8SP141477	27 Toby Ct PALMWOODS QLD 4555
7SP134323	29 Toby Ct PALMWOODS QLD 4555
2RP845294	37 Leeons Rd PALMWOODS QLD 4555
12SP161836	86 Paskins Rd PALMWOODS QLD 4555
19RP28182	31 Eudlo School Rd EUDLO QLD 4554
18RP28182	21 Eudlo School Rd EUDLO QLD 4554
17RP28182	5-11 Beech Lane EUDLO QLD 4554
11RP28182	19 Eudlo School Rd EUDLO QLD 4554
10RP28182	17 Eudlo School Rd EUDLO QLD 4554

LOT ON PLAN	PROPERTY LOCATION
9RP28182	1 Ash Lane EUDLO QLD 4554
7RP43971	8 Eudlo School Rd EUDLO QLD 4554
1RP28258	22 Eudlo School Rd EUDLO QLD 4554
20RP28182	63 Eudlo School Rd EUDLO QLD 4554
765SP120414	2 Eudlo School Rd EUDLO QLD 4554
3CP906107	69 Eudlo School Rd EUDLO QLD 4554
3RP893091	270 Paskins Rd EUDLO QLD 4554
1RP893091	256 Paskins Rd EUDLO QLD 4554
111NPW552	Eudlo Creek National Park Paskins Rd PALMWOODS QLD 4555
3SP115725	24 Leeons Rd PALMWOODS QLD 4555
4SP115725	36 Leeons Rd PALMWOODS QLD 4555
2RP817180	54 Leeons Rd PALMWOODS QLD 4555
3RP40323	85 Highlands Rd EUDLO QLD 4554
2RP911740	24 Highlands Rd EUDLO QLD 4554
4RP911740	40 Logwoods Rd EUDLO QLD 4554
3RP911740	20 Logwoods Rd EUDLO QLD 4554
1RP28091	27 Logwoods Rd EUDLO QLD 4554
177CG4718	70 The Pinch Lane Mooloolah
2SP194478	64 Cogdens Rd EUDLO QLD 4554
3SP194478	62 Cogdens Rd EUDLO QLD 4554
419CG1740	93 The Pinch Lane, MOOLOOLAH VALLEY
301M332061	15 Tunnel Ridge Road, LANDSBOROUGH
710M332060	Gympie St Nth, LANDSBOROUGH
711CG6392	Gympie St Nth LANDSBOROUGH
68RP45367	22 Gympie St Nth, LANDSBOROUGH
67RP45367	24 Gympie St Nth LANDSBOROUGH
63RP45367	2 Tytherleigh Ave, LANDSBOROUGH
453CG2136	Tunnel Ridge RD MOOLOOLAH VALLEY
454CG2136	Tunnel Ridge RD LANDSBOROUGH
20RP881327	69 Rose Rd LANDSBOROUGH
21RP881327	Rose Rd LANDSBOROUGH
258CP819422	73 Tunnel Ridge Rd LANDSBOROUGH
5RP163950	87 Neill Rd MOOLOOLAH VALLEY
340CG1481	Paget St MOOLOOLAH VALLEY
453CG2136	Tunnel Ridge Rd MOOLOOLAH VALLEY
7RP881340	56 Rose Rd MOOLOOLAH VALLEY
8RP881340	62 Rose Rd MOOLOOLAH VALLEY
1RP218403	53 Paget St MOOLOOLAH VALLEY
5RP802616	55 Paget St MOOLOOLAH VALLEY
2RP188265	61 Paget St MOOLOOLAH VALLEY
2RP181003	154 Neill Rd MOOLOOLAH VALLEY
7RP179376	128 Neill Rd MOOLOOLAH VALLEY
3RP204815	138 Neill Rd MOOLOOLAH VALLEY
2RP204815	140 Neill Rd MOOLOOLAH VALLEY
4RP204815	150 Neill Rd MOOLOOLAH VALLEY
3RP179034	108 Neill Rd MOOLOOLAH VALLEY
11RP181021	114 Neill Rd MOOLOOLAH VALLEY
4RP181021	116 Neill Rd MOOLOOLAH VALLEY
5RP179034	120 Neill Rd MOOLOOLAH VALLEY
6RP179376	124 Neill Rd MOOLOOLAH VALLEY
2RP49230	Neill Rd MOOLOOLAH VALLEY
2RP224806	176 Neill Rd MOOLOOLAH VALLEY
8RP811418	136 Neill Rd MOOLOOLAH VALLEY
9RP811418	134 Neill Rd MOOLOOLAH VALLEY
26RP160218	8 Karanne Drive MOOLOOLAH VALLEY

LOT ON PLAN	PROPERTY LOCATION
29RP160218	5 Karanne Drive MOOLOOLAH VALLEY
30RP160218	4 Karanne Drive MOOLOOLAH VALLEY
31RP160218	3 Karanne Drive MOOLOOLAH VALLEY
4RP224807	7A Karanne Drive MOOLOOLAH VALLEY
27RP849366	6A Karanne Drive MOOLOOLAH VALLEY
28RP849366	6 Karanne Drive MOOLOOLAH VALLEY
36SP159377	2 Karanne Drive MOOLOOLAH VALLEY
19RP146374	43 Neill Rd MOOLOOLAH VALLEY
1SP119729	Mooloolah Rd MOOLOOLAH VALLEY
30RP179025	64 Paget St MOOLOOLAH VALLEY
999CG6008	Myla Rd LANDSBOROUGH
4RP172897	846 Eudlo Rd PALMWOODS QLD 4555
3RP817180	234 Paskins Rd PALMWOODS QLD 4555
693CG2097	47 Price Street Nambour
2RP81009	49 Price Street Nambour
1RP92814	53 Price Street Nambour
3RP62838	35 Price Street Nambour
4CG2097	Price Street Nambour
2RP94471	23-29 Price St Nambour
1RP62838	23-29 Price St Nambour
4SP115741	66 Price Street Nambour
0BUP12479	55 Price St, NAMBOUR, QLD 4560
3BUP12479	3/55 Price St, NAMBOUR, QLD 4560
2BUP12479	2/55 Price Street NAMBOUR
1BUP12479	1/55 Price St NAMBOUR QLD 4560
2SP173065	51 Price Street Nambour
30SP181277	Arundell Avenue, Nambour Q 4560
40SP181278	Arundell Avenue, Nambour Q 4560
2RP62838	33 Price Street Nambour
26USL31180	Old Palmwoods Road, Woombye Q 4559
3RP4326	4 Railway Street, Palmwoods Q 4555
1RP216194	108 Paskins Road, Palmwoods Q 4555
21SP205408	Paskins Rd
22SP205408	Paskins Rd
8RP28182	Ash Lane Eudlo Q 4554
1CG1466	Paget Street Mooloolah Valley
25RP160218	9 Karanne Drive, Mooloolah Valley Q 4553
455CG2348	Cribb St LANDSBOROUGH
0BUP12479	55 Price St, NAMBOUR, QLD 4560



Landsborough to Nambour Rail Upgrade
Attachment 3
Footprint of Proposed Rail Corridor

- Proposed Route
- Preferred Route Earthworks Area
- Existing Rail Line
- Creeks
- Conservation Park
- Forest Reserves
- National Park
- State Forests

0 0.2 0.4 0.6 0.8 1 Km

ATTACHMENT 4
ROUTE IDENTIFICATION STUDY

ATTACHMENT 5
EPBC SEARCH RESULTS

Australian Government
Department of the Environment, Water, Heritage and the Arts

Protected Matters Search Tool

You are here: Environment Home > EPBC Act > Search

4 March 2008 11:46

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.

You may wish to print this report for reference before moving to other pages or websites.

The Australian Natural Resources Atlas at http://www.environment.gov.au/atlas may provide further environmental information relevant to your selected area. Information about the EPBC Act including significance guidelines, forms and application process details can be found at http://www.environment.gov.au/epbc/assessmentsapprovals/index.html

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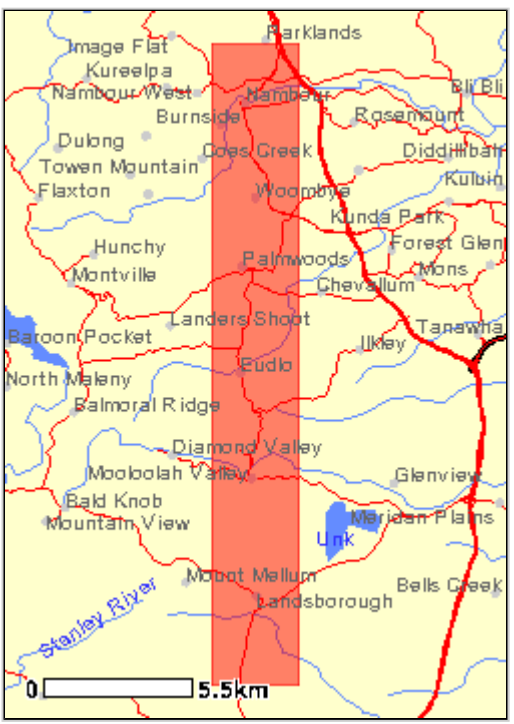
Search Type: Area

Buffer: 0 km

Coordinates: -26.6043,152.9476, -26.8423,152.9476, -26.8423,152.9802, -26.604,152.9802



This map may contain data which are
© Commonwealth of Australia
(Geoscience Australia)
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Report Contents:

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 - see http://www.environment.gov.au/epbc/assessmentsapprovals/guidelines/index.html.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Significance: (Ramsar Sites)	1
Commonwealth Marine Areas:	None
Threatened Ecological Communities:	None
Threatened Species:	28
Migratory Species:	16

Other Matters Protected by the EPBC Act

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

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

Please note that the current dataset on Commonwealth land is not complete. Further information on Commonwealth land would need to be obtained from relevant sources including Commonwealth agencies, local agencies, and land tenure maps.

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. Information on EPBC Act permit requirements and application forms can be found at http://www.environment.gov.au/epbc/permits/index.html.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Places on the RNE:	3
Listed Marine Species:	14
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves:	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:	4
Other Commonwealth Reserves:	None
Regional Forest Agreements:	1

Details

Matters of National Environmental Significance

Wetlands of International Significance [Dataset Information]
(Ramsar Sites)

MORETON BAY	Within 10 km of Ramsar site

Threatened Species [Dataset Information]	Status	Type of Presence
Birds		
*Cyclopsitta diophthalma coxeni** Coxen's Fig-Parrot	Endangered	Species or species habitat likely to occur within area
Erythrotriorchis radiatus * Red Goshawk	Vulnerable	Species or species habitat likely to occur within area
Rostratula australis * Australian Painted Snipe	Vulnerable	Species or species habitat may occur within area
Turnix melanogaster * Black-breasted Button-quail	Vulnerable	Species or species habitat likely to occur within area
Frogs		
Litoria olongburensis * Wallum Sedge Frog	Vulnerable	Species or species habitat likely to occur within area
Mixophyes iteratus * Southern Barred Frog, Giant Barred Frog	Endangered	Species or species habitat likely to occur within area
Insects		
*Phyllodes imperialis (southern subsp. - ANIC 3333)** a moth	Endangered	Species or species habitat likely to occur within area
Mammals		
Chalinolobus dwyeri * Large-eared Pied Bat, Large Pied Bat	Vulnerable	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)	Endangered	Species or species habitat may occur within area
*Potorous tridactylus tridactylus** Long-nosed Potoroo (SE mainland)	Vulnerable	Species or species habitat may occur within area
Pteropus poliocephalus * Grey-headed Flying-fox	Vulnerable	Roosting known to occur within area
Ray-finned fishes		
Nannoperca oxleyana * Oxleyan Pygmy Perch	Endangered	Species or species habitat likely to occur within area

Pseudomugil mellis * Honey Blue-eye	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
Coeranoscincus reticulatus * Three-toed Snake-tooth Skink	Vulnerable	Species or species habitat may occur within area
Plants		
Baloghia marmorata * Marbled Balogia, Jointed Baloghia	Vulnerable	Species or species habitat may occur within area
Bosistoa selwynii * Heart-leaved Bosistoa	Vulnerable	Species or species habitat likely to occur within area
Bosistoa transversa * Three-leaved Bosistoa	Vulnerable	Species or species habitat likely to occur within area
Bulbophyllum globuliforme * Miniature Moss-orchid	Vulnerable	Species or species habitat likely to occur within area
Cryptocarya foetida * Stinking Cryptocarya, Stinking Laurel	Vulnerable	Species or species habitat likely to occur within area
Eucalyptus conglomerata * Swamp Stringybark	Endangered	Species or species habitat likely to occur within area
Floydia praealta * Ball Nut, Possum Nut, Big Nut, Beefwood	Vulnerable	Species or species habitat likely to occur within area
Graptophyllum reticulatum * Veiny Graptophyllum	Endangered	Species or species habitat likely to occur within area
Macadamia ternifolia * Small-fruited Queensland Nut	Vulnerable	Species or species habitat likely to occur within area
Phaius australis * Lesser Swamp-orchid	Endangered	Species or species habitat likely to occur within area
Romnalda strobilacea *	Vulnerable	Species or species habitat likely to occur within area
Syzygium hodgkinsoniae * Smooth-bark Rose Apple, Red Lilly Pilly	Vulnerable	Species or species habitat likely to occur within area
Taeniophyllum muelleri * Minute Orchid, Ribbon-root Orchid	Vulnerable	Species or species habitat likely to occur within area
Triunia robusta *	Endangered	Species or species habitat likely to occur within area
Migratory Species [Dataset Information]	Status	Type of Presence
Migratory Terrestrial Species		
Birds		
*Cyclopsitta diophthalma coxeni** Coxen's Fig-Parrot	Migratory	Species or species habitat likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle	Migratory	Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail	Migratory	Species or species habitat may occur within area
Merops ornatus * Rainbow Bee-eater	Migratory	Species or species habitat may occur within area
Monarcha melanopsis	Migratory	Breeding may occur within area

Black-faced Monarch		
Monarcha trivirgatus Spectacled Monarch	Migratory	Breeding likely to occur within area
Myiagra cyanoleuca Satin Flycatcher	Migratory	Breeding likely to occur within area
Rhipidura rufifrons Rufous Fantail	Migratory	Breeding may occur within area
Migratory Wetland Species		
Birds		
Ardea alba Great Egret, White Egret	Migratory	Species or species habitat may occur within area
Ardea ibis Cattle Egret	Migratory	Breeding likely to occur within area
Gallinago hardwickii ***** Latham's Snipe, Japanese Snipe	Migratory	Species or species habitat may occur within area
Nettapus coromandelianus albipennis Australian Cotton Pygmy-goose	Migratory	Species or species habitat may occur within area
Rostratula benghalensis s. lat. Painted Snipe	Migratory	Species or species habitat may occur within area
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift	Migratory	Species or species habitat may occur within area
Ardea alba Great Egret, White Egret	Migratory	Species or species habitat may occur within area
Ardea ibis Cattle Egret	Migratory	Breeding likely to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species [Dataset Information]	Status	Type of Presence
Birds		
Anseranas semipalmata Magpie Goose	Listed - overfly marine area	Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift	Listed - overfly marine area	Species or species habitat may occur within area
Ardea alba Great Egret, White Egret	Listed - overfly marine area	Species or species habitat may occur within area
Ardea ibis Cattle Egret	Listed - overfly marine area	Breeding likely to occur within area
Gallinago hardwickii ***** Latham's Snipe, Japanese Snipe	Listed - overfly marine	Species or species habitat may occur within area

	area	
Haliaeetus leucogaster White-bellied Sea-Eagle	Listed	Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail	Listed - overfly marine area	Species or species habitat may occur within area
Merops ornatus ***** Rainbow Bee-eater	Listed - overfly marine area	Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch	Listed - overfly marine area	Breeding may occur within area
Monarcha trivirgatus Spectacled Monarch	Listed - overfly marine area	Breeding likely to occur within area
Myiagra cyanoleuca Satin Flycatcher	Listed - overfly marine area	Breeding likely to occur within area
Nettapus coromandelianus albipennis Australian Cotton Pygmy-goose	Listed - overfly marine area	Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail	Listed - overfly marine area	Breeding may occur within area
Rostratula benghalensis s. lat. Painted Snipe	Listed - overfly marine area	Species or species habitat may occur within area

Places on the RNE [Dataset Information]
Note that not all Indigenous sites may be listed.

Historic

Nurses Quarters (former) Nambour Hospital QLD

Indigenous

Landsborough Grinding Grooves QLD

Natural

North Coast Railway National Parks QLD

Extra Information

State and Territory Reserves [Dataset Information]

Dularcha National Park, QLD

Eudlo Creek National Park, QLD

Ferntree Creek National Park, QLD

Mooloolah (Marie Higgs) Conservation Park, QLD

Regional Forest Agreements [Dataset Information]
Note that all RFA areas including those still under consideration have been included.

South East Queensland RFA, Queensland

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 migratory and marine provisions of the Act have been mapped.

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.

Acknowledgments

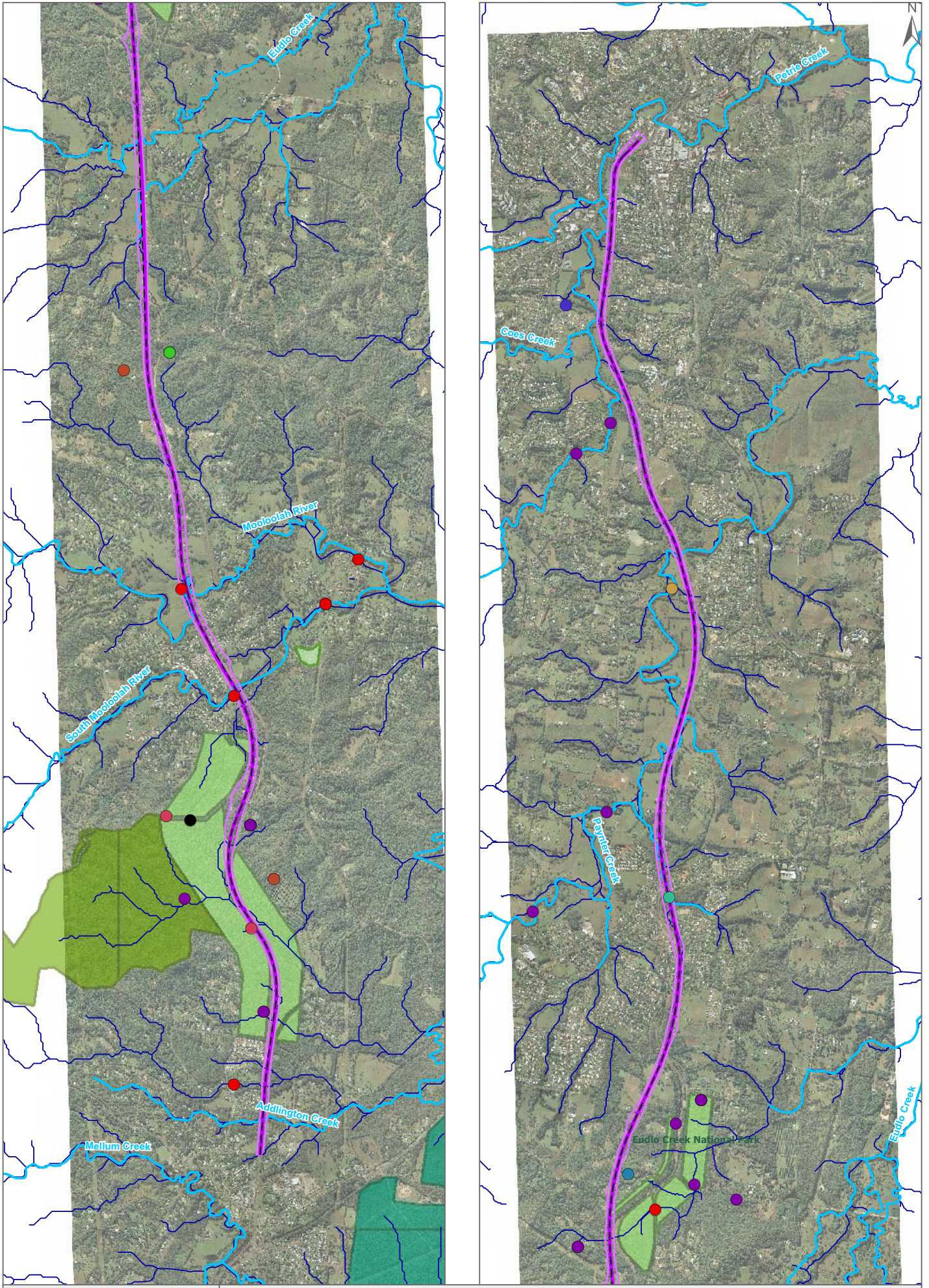
This database has been compiled from a range of data sources. The Department acknowledges the following custodians who have contributed valuable data and advice:

- New South Wales National Parks and Wildlife Service
- Department of Sustainability and Environment, Victoria
- Department of Primary Industries, Water and Environment, Tasmania
- Department of Environment and Heritage, South Australia Planning SA
- Parks and Wildlife Commission of the Northern Territory
- Environmental Protection Agency, Queensland
- Birds Australia
- Australian Bird and Bat Banding Scheme
- Australian National Wildlife Collection
- Natural history museums of Australia
- 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
- Other groups and individuals

ANUCliM Version 1.8, Centre for Resource and Environmental Studies, Australian National University was used extensively for the production of draft maps of species distribution. Environment Australia is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Last updated:

Department of the Environment, Water, Heritage and the Arts
GPO Box 787 Canberra ACT 2601 Australia
Telephone: +61 (0)2 6274 1111



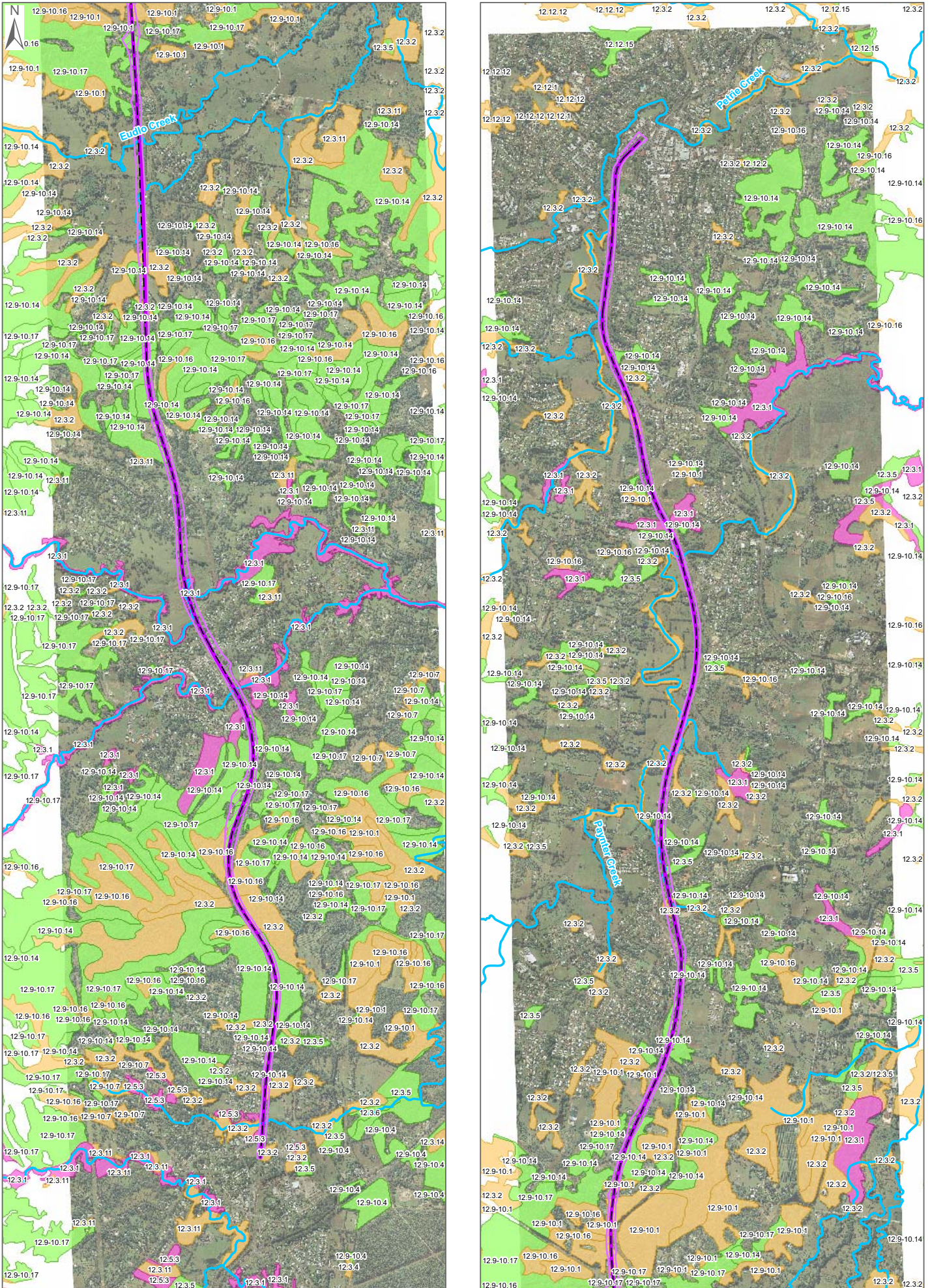
Landsborough to Nambour Rail Upgrade
Attachment 6
Records of Significant Fauna (EPBC)

- Proposed Route
- Creeks
- Drainage Lines
- Conservation Park
- Forest Reserves
- National Park
- State Forests

Migratory Birds:
- Black-faced Monarch
- Cattle Egret
- Great Egret
- Rainbow Bee-eater
- Rufous Fantail
- Spectacled Monarch
- White-bellied Sea-Eagle
- White-throated Needletail

Threatened Species:
- Giant Barred Frog
- Grey-headed Flying-fox

0 0.2 0.4 0.6 0.8 1 Km



Landsborough to Nambour Rail Upgrade
Attachment 7
EPA Regional Ecosystems

Proposed Route

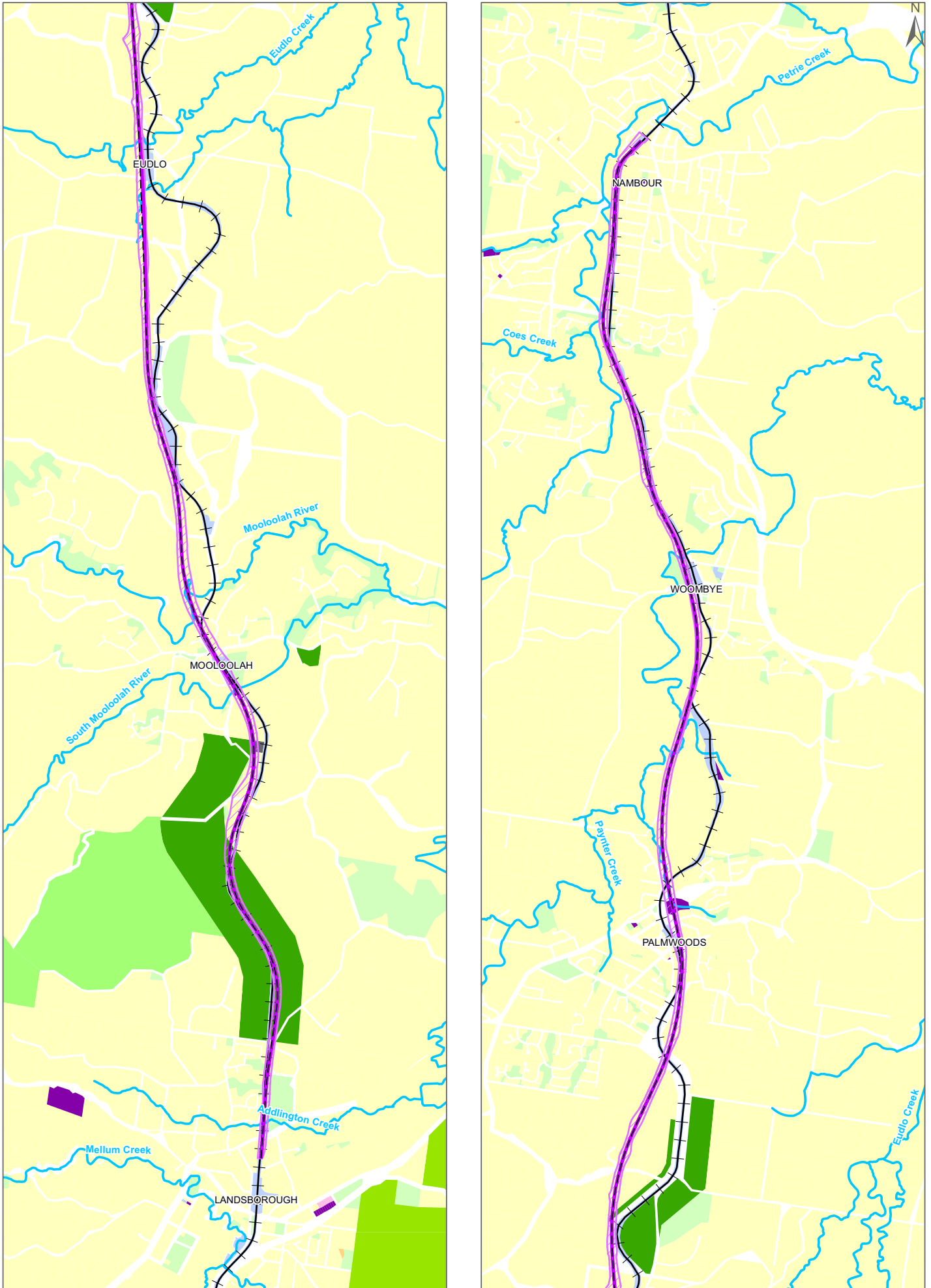
Preferred Route Earthworks Area

Creeks

Regional Ecosystem Status:

- Endangered
- Of Concern
- Not of Concern

0 0.2 0.4 0.6 0.8 1 Km



Landsborough to Nambour Rail Upgrade

Attachment 8 Land Tenure

Proposed Route
Preferred Route Earthworks Area
Existing Rail Line
Creeks

Tenure
Action Pending
Freehold
Forest Reserve

Housing Land
Lands Lease
National Park
Reserve

Railway
State Forest
State Land

0 0.2 0.4 0.6 0.8 1 Km

ATTACHMENT 9
TRANSPORT PORTFOLIO ENVIRONMENTAL POLICY

Portfolio Environmental Policy

Queensland Government

Copies of this document are available from:

Strategic Policy Team
Land Transport and Safety Division
Floor 2, Transport House
230 Brunswick Street
Fortitude Valley Q 4006

or visit the Queensland Transport website at
www.transport.qld.gov.au/environment
ISBN 7345 2521 4

Contents

Minister's foreword

The Queensland Government is committed to creating an ecologically sustainable Queensland by providing for the needs of present generations without compromising the ability of future generations to meet their own needs.

Transport portfolio partners - Queensland Transport, Department of Main Roads, Queensland Rail (QR) and the Queensland port authorities and corporations - are contributing to this key objective by facilitating continual improvement towards ecologically sustainable transport. This is being achieved through establishing and managing transport infrastructure, services, and systems in accordance with ecologically sustainable development principles.

The transport system helps improve community wealth through productivity, trade, and mobility. However, the transport system can also have negative impacts on people, their health and safety, the economy, and natural and urban environments.

This policy provides a portfolio-wide direction for continuing towards a more ecologically sustainable transport system and aligns with other key whole of government environment initiatives.

The Portfolio Environmental Policy reflects the excellent work achieved by the transport portfolio in managing the impacts on the environment and seeks to influence the development of transport-environment policy at all government levels.

Four objectives have been established to guide portfolio partners in the management of the negative impacts associated with the transport system:

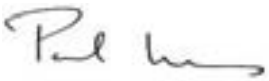
1. manage key environmental impacts

2. provide leadership towards ecologically sustainable transport

3. build effective relationships with portfolio partners, the community, and allied transport industries

4. improve planning and decision-making processes.

A portfolio-wide commitment to managing the negative impacts of Queensland's transport system is a vital element of the Transport Portfolio Environmental Framework. This initiative is bringing together all transport portfolio partners and stakeholders in Queensland to assess and make recommendations for improved environmental performance. Recommendations will be expressed in the key actions of the Portfolio Environmental Action Plan, the companion document to this policy.



PAUL LUCAS MP

Minister for Transport and Main Roads

Background

The Minister for Transport and Main Roads endorsed the Transport Portfolio Environmental Framework (TPEF) initiative to ensure sustained improvements in the environmental performance of Queensland's transport system.

The framework provides a process for bringing together Queensland's transport portfolio partners and stakeholders. The aim of the framework is to foster improved information exchange and understanding, agency and stakeholder cooperation and involvement, and environmental performance reporting. The minister endorsed the development of key products to achieve these outcomes - a Portfolio Environmental Policy and accompanying Portfolio Environmental Action Plan, and a Portfolio Environmental Report.

Key outcomes of the TPEF are:

- demonstrated reduced impacts from transport on the quality of the environment
- increased awareness of environmental issues by those involved in transport management (public and private sectors)
- demonstrated compliance with whole-of-government commitments by portfolio partners
- a minimal impact transport system consistent with the principles of ecologically sustainable development.

Portfolio policy statement

The Queensland Government is committed to achieving ecologically sustainable development. Consistent with the principles of ecologically sustainable development, the transport portfolio is committed to continuous improvement in the environmental performance of the transport system, with the long-term goal of a more ecologically sustainable transport system.

In continually improving the ecological sustainability of the transport system, commitment is needed from the transport portfolio partners in the management of key environmental impacts. These include:

- greenhouse emissions
- automotive fuel use
- noxious vehicle emissions
- spills of oil and other dangerous materials threatening aquatic and land-based natural systems and amenities
- impacts on sensitive land, habitat, flora, and fauna
- pest and vegetation management
- waste management of materials used in the state's transport system
- social amenity
- cultural heritage impacts.

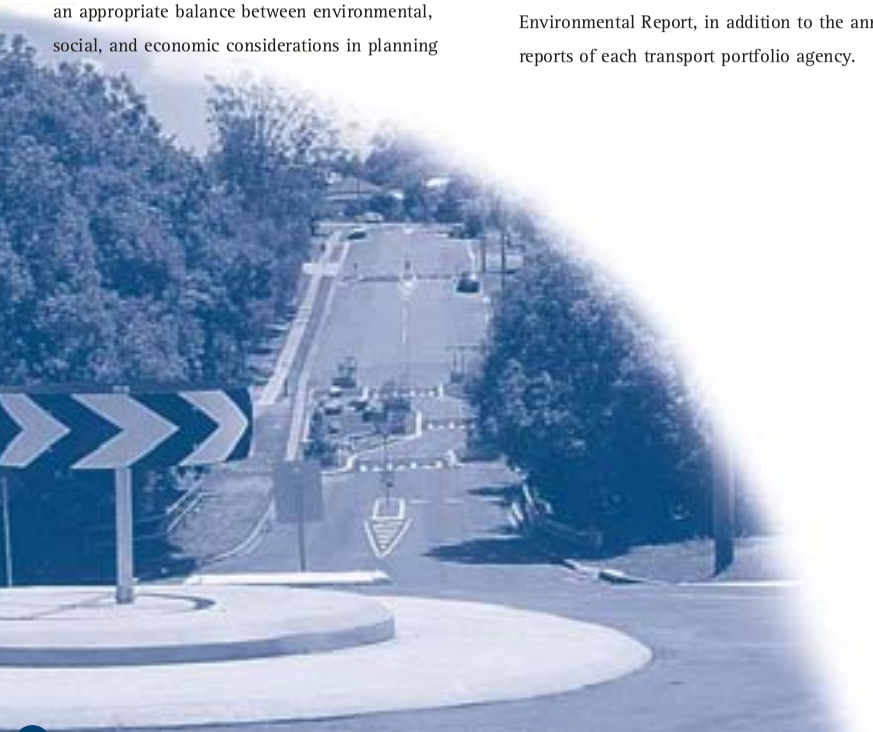
The transport portfolio is also committed to providing leadership towards ecologically sustainable transport. Continuous improvement in the environmental performance of the state's transport system is to be achieved through enhanced leadership, better relationships, cultural change, and informed decision-making.

The transport portfolio will continue to build effective relationships with portfolio partners, the community, and allied transport industries in order to explore needs, analyse options, determine agreed priorities, and shape objectives. Allied transport industries and the community will be encouraged to partner with the transport portfolio, and contribute towards the state government's high-level environmental commitments, initiatives, and legal imperatives.

The transport portfolio is committed to providing better environmental outcomes from the transport system through improved planning and decision-making processes. This will be achieved by ensuring an appropriate balance between environmental, social, and economic considerations in planning and decision-making processes. A consistent and collaborative approach to environmental management across the portfolio will continue to be adopted.

Each transport portfolio agency will contribute to the development of a Portfolio Environment Action Plan, which will be used to guide portfolio partners in collectively improving the environmental performance of the state's transport system.

Environmental performance will be measured and evaluated and trends identified to gauge the portfolio's progress towards achieving an ecologically sustainable transport system. This performance information will be reported in the Portfolio Environmental Report, in addition to the annual reports of each transport portfolio agency.



Purpose

The purpose of the Portfolio Environmental Policy is to provide a statement of environmental intent. The environmental policy outlines the overall direction for continually improving the ecological sustainability of the transport system, through continuous improvement in environmental performance.

Applicability

The environmental policy is relevant to all transport portfolio agency employees, including contractors and other agents engaged in project work. The environmental policy also seeks to influence and guide the environmental focus of portfolio stakeholders.

The transport portfolio

The transport portfolio consists of two government departments, Queensland Transport and the Department of Main Roads, and eight government owned corporations (QR, and seven port authorities). The portfolio also encompasses a wide range of stakeholders including various transport and environment-related community and special interest groups and allied transport industries.

The primary role of the portfolio is to collaboratively promote, plan, coordinate, regulate, and facilitate the provision of transport services and infrastructure. The portfolio undertakes this role while striving to incorporate:

- safe mobility for all
- valuing the environment
- a system that links people, goods, and services
- economic and industry development
- efficient freight transport.

Strategic context

The development of the Portfolio Environmental Policy has been shaped by a range of international, commonwealth, state, and regional policies, strategies, treaties, and conventions.

These include:

- Organisation for Economic Cooperation and Development (OECD) Environmentally Sustainable Transport project
- International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)
- Commonwealth of Australia Agreement on National Greenhouse Strategy
- Australia's National Strategy for Ecologically Sustainable Development
- National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances
- Queensland Greenhouse Strategy.

The Portfolio Environmental Policy also contributes to several Queensland Government priorities, namely:

1. community engagement and better quality of life:
   - By mitigating the environmental impacts of the transport system, the Portfolio Environmental Policy will provide a healthier living, working and recreational environment, and therefore better quality of life for the community.
   - The environmental policy also supports the government's commitment to community engagement by building effective relationships with allied transport industries and community groups.

Objectives

2. valuing the environment:

- The main focus of the Portfolio Environmental Policy is to achieve an environmentally sustainable transport system, which supports an efficient and effective transport system, and offers environmental protection.

The environmental policy reflects the directions in state government policies and programs. It also incorporates portfolio partners' strategies and plans, and the input provided by stakeholders and staff during its preparation. In particular, it also incorporates the principles for improving environmental performance developed by portfolio partners and key stakeholders (see Appendix 1).

Four objectives have been identified to guide portfolio partners in achieving continuous improvements in the environmental performance of the state's transport system. The four objectives are:

1. manage key environmental impacts
2. provide leadership towards ecologically sustainable transport
3. build effective relationships with portfolio partners, the community, and allied transport industries
4. improve planning and decision-making processes.

Under each objective, transport portfolio partners and key stakeholders have developed a number of strategies.

Objective 1: Manage key environmental impacts

Strategies:

1. Minimise air quality impacts associated with the transport system.
2. Reduce growth in the rates of greenhouse gas emissions from the transport system.
3. Minimise water quality impacts associated with the transport system.
4. Ensure transport system activities do not contribute to unacceptable loss of biodiversity or impact on critical ecological processes.
5. Minimise adverse impacts on social amenity and community wellbeing, resulting from transport system activities.
6. Identify and protect culturally significant sites and artifacts.
7. Improve efficiency of resource use and reduce the amount of waste generated by the transport portfolio.

Objective 2: Provide leadership towards ecologically sustainable transport

Strategies:

1. Demonstrate an active leadership role in transport system environmental performance.
2. Advocate a community cultural change towards an ecologically sustainable transport system.
3. Promote and support the development of a corporate culture within the transport portfolio and beyond that strives for continuous improvement in the transport system's environmental performance.
4. Enhance the effectiveness and efficiency of environmental performance monitoring and evaluation activities across the transport portfolio.
5. Promote informed decision-making to improve the environmental performance of the transport system.
6. Ensure transport portfolio-wide commitments to agreed environmental outcomes are reflected and integrated in individual agency strategic plans and corporate processes.
7. Pursue funding to provide for transport-related projects and programs, which provide positive environmental outcomes.
8. Develop and implement strategies, which will prepare the transport system for the predicted impacts of climate change.

Objective 3: Build effective relationships with portfolio partners, the community and allied transport industries

Strategies:

1. Establish an operating culture within the transport portfolio and beyond, which recognises the benefits and reinforces the importance of effective relationships and partnerships with stakeholders.
2. Consolidate and further develop relationships with transport portfolio partners and stakeholders to improve the environmental performance of the transport system.

Objective 4: Improve planning and decision-making processes

Strategies:

1. Achieve enhanced transport system environmental performance through improved integrated transport and land use planning.
2. Ensure the environmental costs and benefits of transport-related projects and programs are fully considered and addressed as part of an integrated planning system.
3. Improve environmental monitoring, evaluation, and reporting techniques across the transport portfolio.

Appendix 1
Principles

The Portfolio Environmental Action Plan

The Portfolio Environmental Action Plan, the companion document to the environmental policy, outlines key actions for portfolio partners to implement in order to achieve the objectives and strategies outlined in this document. These actions, and their associated performance indicators, will provide the foundation for evaluating the environmental performance of the portfolio. This information will then be reported in the Portfolio Environmental Report. The key actions will be reviewed regularly and amended as required.

Consultation

All transport portfolio partners and key stakeholders, including allied industries, the community and special interest groups within the portfolio have been involved in the development of this Portfolio Environmental Policy.

Evaluation

The effectiveness of the environmental policy will be evaluated regularly by the Transport Portfolio Environmental Framework Steering Committee and reported within the Portfolio Environmental Report. This evaluation will be a tool for guiding future Government policy and strategic decision-making.

During 2000/2001, transport portfolio partners and key stakeholders identified the core principles for improving the transport system's environmental performance. The principles necessary for government to work with the community on environmental issues were also identified. These principles shape the foundation for policy commitments and form the basis for development of the Portfolio Environmental Policy.

Principles for improving environmental performance

- Whole of portfolio integration, coordination, and cooperation on environmental issues.
- Ecologically sustainable development concepts and practices to be progressed and improvements monitored regularly.
- Optimise the integration of transport, land, and waterway use planning, incorporating environmental considerations.
- Staff to consider the economic, environmental, and social costs and benefits of all decisions.
- The environmental performance and impact of transport modal activities to be assessed, reported, and acted on to ensure optimal outcomes.
- Programs and services to be adequately resourced, planned, designed, operated, and completed in a way which reflects environmental policy and management practices.
- Wherever possible, 'best practice' approaches are to be used to improve environmental performance.
- Roles and responsibilities to be clearly outlined and communicated to ensure corporate and legislative environmental requirements are addressed.
- Action to be taken to minimise adverse environmental impacts of the transport system and achievements acknowledged.

Principles for government working with the community

- Stakeholders to be aware of the ecological sustainability of current practices, and the need to adopt alternative, more socially, economically and ecologically sustainable options.
- Mechanisms for transparent, responsive, and more effective relationships with stakeholders and the community to be developed.

Queensland Government

DETAILED SITE SPECIES LISTS

Methodology

- Methodology is in accordance with Environmental Protection Agency (2005) *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland.* Version 3.1. Updated September 2005. Queensland Herbarium, Brisbane,
- Heights are in metres,
- Cover is based on projected crown cover (not projected foliage cover, unless specified),
- * denotes naturalised species (weed),
- DBH, where recorded, stands for Diameter at Breast Height (diameter of tree trunk in cm, taken approximately 1.3m above ground level),
- Level of site detail is either Medium or High, unless otherwise specified,
- Sites of High level of detail are equivalent to EPA Tertiary sites, but are equivalent to EPA Secondary sites if the following additional information is recorded:
    - all ground layer species and not just dominants,
    - stem counts of trees and shrubs (stem counts were not used in this study because they were not needed to confirm RE mapping, or for identifying EVR species),
    - physical aspects of the site such as surface soil, geology and aspect,
    - disturbance such as fire, logging and erosion,
- Sites of High level of detail are 50m long x 10m wide,
- Sites of Medium level of detail are not strictly defined in area, but are approximately circular, with a radius of approximately 20m,
- Datum for site locations is AGD66, so as to be referenced using a Refidex Street Directory (Gregorys 2007).

Floristic Data

Site 1
Location: E496379
(AGD66) N7037577
Refidex map ref.: 96 F8
Level of detail (Detailed/Medium): Medium
Date: 7/3/08
Locality description: Dularcha NP. Southern tip of eucalypt forest next to existing railway lines, as comparison for rainforest creek vegetation in site 2.

Stratum	**Av. Top Height**	**Height Range** m	**Total Cover %**	**Indiv. Cover %**	**Key Species**
Tree 1					*Corymbia gummifera* *Eucalyptus resinifera* *Lophostemon suaveolens*
Tree 2					
Tree 3					
Shrub 1					Various scrub species due to nearby creekline
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm the RE mapping in this location. No cryptic EVR species were expected, and no conspicuous EVR species were found.

Site 2
Location: E496367
(AGD66) N7037638
Refidex map ref.: 96 F8
Level of detail (Detailed/Medium): High
Date: 7/3/08
Locality description: Riverine rainforest on creek in Dularcha NP

Stratum	**Av. Top Height**	**Height Range** m	**Total Cover %**	**Indiv. Cover %**	**Key Species**
Tree 1	~25		20		*Eucalyptus grandis* *Eucalyptus microcorys*
Tree 2	~17	15-20	95		*Archontophoenix cunninghamiana* *Glochidion sumatranum* *Lophostemon confertus*
Tree 3	10		10		Probably *Mallotus mollissimus*
Shrub 1	3	1.5-5	40		*Cordyline petiolaris* *Alphitonia excelsa* (uncommon) *Melodorum leichhardtii* *Livistona australis* *Ficus coronata* *Hibiscus heterophyllus* *Tabernaemontana pandacaqui* *Syzygium australe* *Platycerium* sp. (fronds entirely unbranched) *Calamus muelleri* *Trochocarpa laurina* *Cissus hypoglauca*
Shrub 2					
Ground dominant	0.2	0.1-0.5	30		Fern *Geitonoplesium cymosum* *Piper nova-hollandiae* *Rubus parvifolius* Rubiaceae *Wilkiea macrophylla* Possibly *Lepiderema indica* (Rare under NC Act 1992)
Litter			20		
Bare			50		
Rock					
Other ground species <1%each					
Offsite					*Corymbia gummifera* **Lantana camara*

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest) and not RE12.9-10.16 (hoop pine scrub) as mapped. No EVR species were found as result of targeted survey.

Site 3
Location: E496346
(AGD66) N7037659
Refidex map ref.: 96 F8
Level of detail (Detailed/Medium): Medium
Date: 7/3/08
Locality description: Creek junction just upstream of riverine rainforest in Dularcha NP

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~25		~30		*Eucalyptus microcorys* (a couple of trees, both with approx. dbh 1m)
Tree 2	15-20		~40		*Archontophoenix cunninghamiana* *Flagellaria indica* Probably *Wilkiea macrophylla*
Tree 3					
Shrub 1					*Sloanea australis* subsp. *australis* Euphorbiaceae (possibly *Glochidion* sp.)
Shrub 2					
Ground dominant					Probably *Lastreopsis* sp.
Litter					
Bare					
Rock					
Other ground species <1%each					*Dioscorea transversa* Probably *Microsorum* sp. Probably *Lindsaea brachypoda*
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest) and not RE12.9-10.16 (hoop pine scrub) as mapped. No EVR species were found as result of targeted survey.

Site 4
Location: E496344
(AGD66) N7037694
Refidex map ref.: 96 F8
Level of detail (Detailed/Medium): Medium
Date: 7/3/08
Locality description: Creek through eucalypt forest in Dularcha NP. Eastern branch of creek, north of junction at site 3, and closer to railway line.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~25m		~70		*Syncarpia glomulifera* *Corymbia gummifera* *Corymbia resinifera* *Lophostemon confertus* (one is old growth)
Tree 2					
Tree 3					
Shrub 1					Mainly juveniles of T1 stratum spp. *Cordyline petiolaris*
Shrub 2					
Ground dominant					Ferns (dominated probably by *Lastreopsis* sp.) Sedges (including *Gahnia* sp.)
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest) and not RE12.9-10.16 (hoop pine scrub) as mapped. No EVR species were found as result of targeted survey.

Site 5
Location: E496253
(AGD66) N7037713
Refidex map ref.: 96 F8
Level of detail (Detailed/Medium): Medium
Date: 7/3/08
Locality description: Palm forest in Dularcha NP. GPS location recorded on track adjacent to west because of heavy canopy cover. Add 30m to easting for approximate site location.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~17	15-20	95		*Archontophoenix cunninghamiana*
Tree 2					
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					Forest floor is dominated by spent palm fronds.
Bare					
Rock					
Other ground species <1%each					*Archontophoenix cunninghamiana* (mostly seedlings)
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest) and not RE12.9-10.16 (hoop pine scrub) as mapped. No EVR species were found as result of targeted survey. Palm forest continues for approximately 200m north.

Site 6
Location: E496467
(AGD66) N7035430
Refidex map ref.: 96 F15
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Addlington Creek

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~25		~75		*Eucalyptus pilularis* *Corymbia gummifera* *Lophostemon confertus* **Cinnamomum camphora* *Eucalyptus tereticornis*
Tree 2					**Cinnamomum camphora* *Archontophoenix cunninghamiana*
Tree 3					
Shrub 1					**Schefflera actinophylla*
Shrub 2					
Ground dominant					*Paspalum* sp.
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest). No EVR species were found as result of targeted survey. Understorey highly disturbed – unlikely habitat for EVR species.

Site 7
Location: E496410
(AGD66) N7035810
Refidex map ref.: 96 F14
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Tributary of Addlington Creek, crossing near Myla Road.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~20		50		*Eucalyptus grandis* *Corymbia gummifera*
Tree 2		10-15	95		*Archontophoenix cunninghamiana* *Glochidion sumatranum* *Cissus antarctica*
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					**Lantana camara* (at edges of remnant)

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest). No EVR species were found as result of targeted survey. Highly overgrown with *Cissus antarctica* – habitat is probably unsuitable for most EVR species due to competition for space and light.

Site 8
Location: E496476
(AGD66) N7038300
Refidex map ref.: 96 F4
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Rose Road at western end, and entrance to Dularcha NP.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~20		~60		*Eucalyptus major* (and/or *E.propinqua*) *Corymbia gummifera* (and possibly *C.intermedia*) *Lophostemon confertus* *Eucalyptus acmenoides* *Eucalyptus carnea* *Eucalyptus siderophloia*
Tree 2					
Tree 3					
Shrub 1					*Acacia disparrima* *Alphitonia excelsa* *Allocasuarina torulosa*
Shrub 2					
Ground dominant					*Themeda triandra* *Imperata cylindrica*
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm the RE is RE12.9-10.17d. No EVR species were found.

Site 9
Location: E496084
(AGD66) N7038097
Refidex map ref.: 96 E4
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Dularcha NP 200m past park gate at western end of Rose Road. Site is on saddle, directly above old tram tunnel.

Stratum	**Av. Top Height**	**Height Range** m	**Total Cover %**	**Indiv. Cover %**	**Key Species**
Tree 1		18-28	~60		*Eucalyptus major* (and/or *E.propinqua*) *Corymbia gummifera* (and possibly *C.intermedia*) *Lophostemon confertus* *Eucalyptus carnea* *Eucalyptus microcorys*
Tree 2					
Tree 3					
Shrub 1		#1-18	~40		#complex and continuous height range of lower stratum with tree species from T1 stratum, plus: *Acacia disparrima* *Alphitonia excelsa* **Lantana camara*
Shrub 2					
Ground dominant					*Themeda triandra* *Desmodium rhytidophyllum* *Monotoca scoparia* *Pandorea pandorana* *Lobelia purpurascens*
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.9-10.17d. No EVR species were found.

Site 10
Location: E496440
(AGD66) N7039220
Refidex map ref.: 96 F1
Level of detail (Detailed/Medium): High
Date: 10/3/08
Locality description: South Mooloolah River, across break in Paget Street.

Stratum	**Av. Top Height**	**Height Range** m	**Total Cover %**	**Indiv. Cover %**	**Key Species**
Tree 1		15-20	~20		*Eucalyptus grandis*
Tree 2		10-15	~75		*Waterhousea floribunda* **Cinnamomum camphora* *Lophostemon confertus*
Tree 3					
Shrub 1			~20		*Neolitsea dealbata* *Ficus coronata* *Lomandra longifolia* (and possibly *L.hystrix*)
Shrub 2					
Ground dominant			~40		Lower terrace: *Adiantum hispidulum* *Commelina* sp. *Cissus antarctica* *Oplismenus aemulus* **Ardisia crenata* **Ageratina adenophora* *Alpinia caerulea* Upper terrace has the additional species: *Rubus parvifolius* *Mallotus philippensis* *Cordyline petiolaris*
Litter					
Bare			~60		
Rock					
Other ground species <1%each					
Offsite					Weed infested edges consist mainly of: **Lantana camara* **Desmodium uncinatum*

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest). No EVR species were found as result of targeted survey. Even spacing of understorey species, and their uniformity of species (low diversity and even species distribution) suggests this site has been subject to rehabilitation planting in the past.

Site 11
Location: E496195
(AGD66) N7040110
Refidex map ref.: 86 E17
Level of detail (Detailed/Medium): High
Date: 10/3/08
Locality description: Mooloolah River, immediately north of Mooloolah, on Neill Road.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~20	15-25	90	80 10	*Waterhousea floribunda* *Archontophoenix cunninghamiana*
Tree 2	~7	6-8			*Waterhousea floribunda*
Tree 3					
Shrub 1	~2	1-3	15		*Neolitsea dealbata* *Aphananthe philippinensis* *Alocasia macrorhiza* *Ficus coronata* *Ficus obliqua* *Cordyline petiolaris*
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					*Rubus parvifolius* *Cissus antarctica* **Ageratum houstonianum* (uncommon) *Pothos longipes* *Lomandra longifolia* *Adiantum hispidulum* **Ardisia crenata* *Castanospermum australe* *Archontophoenix cunninghamiana* *Oplismenus aemulus* Possibly *Dendrocnide photinophylla* *Pseuderanthemum variabile* **Ageratina adenophora* **Lantana camara* (uncommon) **Hypoestes phyllostachya*
Offsite					**Cinnamomum camphora* on upper banks

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest). No EVR species were found as result of targeted survey. This site appeared to be in good condition due to intact upper stratum, low impact of weeds, and limited bank erosion.

Site 12
Location: E495870
(AGD66) N7042320
Refidex map ref.: 86 D8
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: The Pinch Lane

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1					On the ridge line: *Eucalyptus major* (and/or *E.propinqua)* *Eucalyptus acmenoides* *Eucalyptus siderophloia* *Corymbia* gummifera (and possibly *C.intermedia)* Over the rail tunnel: *Eucalyptus pilularis*
Tree 2					
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.9-10.17d, except for the area above the rail tunnel, which is RE12.9-10.14. No EVR species were found.

Site 13
Location: E495900
(AGD66) N7043030
Refidex map ref.: 86 D5
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Cogden and Logwoods Road area

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1					Fragmented patches dominated by: *Eucalyptus pilularis* *Eucalyptus microcorys* Also with: *Syncarpia glomulifera*
Tree 2					
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the REs here are RE12.3.2 and RE12.9-10.14. No cryptic EVR species were expected, and no conspicuous EVR species were found.

Site 14
Location: E495650
(AGD66) N7043900
Refidex map ref.: 86 C2
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Eudlo, western side of railway station

Stratum	**Av. Top Height**	**Height Range** m	**Total Cover %**	**Indiv. Cover %**	**Key Species**
Tree 1					Artificial plantation of rainforest species – see notes.
Tree 2					
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: This was a plantation of mixed rainforest species (artificial planting), and no EVR species were searched for. Sign at fenced area: “Eudlo and Ilkley Landcare Group Inc. PO Box 122 Eudlo 4554” and “In conjunction with Qld Rail”. A community walking track is installed at this location entitled “Federation Walk”.

Site 15
Location: E495650
(AGD66) N7044050
Refidex map ref.: 86 C1
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Eudlo Creek at Eudlo

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~20		95		*Castanospermum australe* *Eucalyptus tereticornis* *Waterhousea floribunda* **Cinnamomum camphora* *Macaranga tanarius* *Ficus* sp. *Acmena* sp. *Syzygium* sp. *Elaeocarpus grandis* *Tristaniopsis laurina* Numerous other species which appear to have been planted in past rehabilitation including: *Syzygium* spp.
Tree 2					
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					*Lomandra longifolia*
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest). No EVR species were found as result of targeted survey. The site appears as if it may once have been highly disturbed non-remnant in places, which has been rehabilitated in conjunction with the rainforest plantation area sampled at site 14 (adjacent). This is indicated by the species composition, which is slightly different from other waterways nearby.

Site 16
Location: E495790
(AGD66) N7045260
Refidex map ref.: 76 C16
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Eudlo Creek NP, on eastern side of railway, opposite Cardinal Court

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1					*Eucalyptus grandis* *Eucalyptus microcorys* *Syncarpia glomulifera* *Corymbia gummifera*
Tree 2					*Lophostemon confertus* *Allocasuarina littoralis* *Archontophoenix cunninghamiana* *Elaeocarpus reticulatus*
Tree 3					
Shrub 1					*Glochidion ferdinandi* Ferns (various) *Polyscias elegans* *Hibiscus heterophyllus*
Shrub 2					
Ground dominant					*Dianella* sp. Others
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					Small patch of swamp nearby with *Melaleuca quinquenervia*

Notes: Dominant species and structure confirm that the RE here is a variant of RE12.9-10.1, where flooded gum (*E.grandis*) dominates. No cryptic EVR species were expected, and no conspicuous EVR species were found.

Site 17
Location: E495980
(AGD66) N7048680
Refidex map ref.: 76 D3
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Wetland immediately north of Palmwoods, opposite Dana Court.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Wetland element 1: Open water					*Nymphaea* sp.and/or *Nymphoides* sp.
Wetland element 2: Sedgeland					*Cyperus* sp. (probably *C.exaltatus)*
Wetland element 3: low open woodland					*Melaleuca quinquenervia*
Offsite					*Glochidion sumatranum* **Senna glabra* var. *pendula*

Notes: Dominant species and structure confirm that the RE here is RE12.3.5 (*Melaleuca quinquenervia*), but there is also RE12.3.8 (sedge swamp) and some open water. No cryptic EVR species were expected, and no conspicuous EVR species were found.

Site 18
Location: E496100
(AGD66) N7049370
Refidex map ref.: 66 D20
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Spackman Lane, north of Palmwoods

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~25		~80		*Eucalyptus grandis*
Tree 2	~10		~60		*Archontophoenix cunninghamiana*
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					*Eucalyptus pilularis* Possibly *Pennantia cunninghamii*

Notes: Dominant species and structure confirm that the RE here is RE12.3.1. No cryptic EVR species were expected, and no conspicuous EVR species were found. Note that the remnant is toward the northern end of the lane. The isolated "beech" tree identified from public consultation is in a separate location, halfway along the lane in a disturbed area (probably brown beech, *Pennantia cunninghamii*).

Site 19
Location: E496070
(AGD66) N7051080
Refidex map ref.: 66 D13
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Paynter Creek, on Back Woombye Road

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1					*Eucalyptus grandis* **Cinnamomum camphora* *Ficus* sp.
Tree 2					*Cissus antarctica* *Flagellaria indica*
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.2, but there is also RE12.3.1 along this creek. No cryptic EVR species were expected, and no conspicuous EVR species were found. It is possible that EVR species exist elsewhere along the creek.

Site 20
Location: E495575
(AGD66) N7045260
Refidex map ref.: 76 B16
Level of detail (Detailed/Medium): High
Date: 11/3/08
Locality description: Tributary of Eudlo Ck at end of public section of Paskins Road.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1		25-30	#		*Eucalyptus grandis*
Tree 2		20-25	#		*Archontophoenix cunninghamiana* *Eucalyptus microcorys* *Syncarpia glomulifera* *Melaleuca quinquenervia*
Tree 3		15-20	#		*Lophostemon confertus*
Shrub 1					*Glochidion sumatranum* *Ficus coronata* **Schefflera actinophylla* *Polyscias elegans* *Acmena* sp. **Lantana camara* *Tristaniopsis laurina* *Neolitsea dealbata* Vines: *Melodorum leichhardtii* *Piper nova-hollandiae* *Flagellaria indica* **Passiflora suberosa*
Shrub 2					
Ground dominant			~30		**Ageratina adenophora* *Archontophoenix cunninghamiana* *Gahnia aspera* *Cyperus* sp. *Adiantum hispidulum* *Geitonoplesium cymosum* *Oplismenus aemulus* *Rubus parvifolius* *Smilax australis* **Spathodea campanulata* Fern
Litter					
Bare			~70		Frequent water movement keeps most of the ground bare.
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1, but it is unmapped due to scale limitations. No EVR species were found as result of targeted survey. #Combined cover of three tree layers is approximately 90%.

Site 21
Location: E495660
(AGD66) N7045910
Refidex map ref.: 76 C14
Level of detail (Detailed/Medium): High
Date: 11/3/08
Locality description: Payne property off Paskins Road

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1		25-30	~75	~50 ~20 ~5	*Eucalyptus microcorys* (av. dbh 40-50cm) *Lophostemon confertus* *Corymbia gummifera*
Tree 2		10-20			*Eucalyptus microcorys*
Tree 3					
Shrub 1					*Polyscias elegans* *#Macadamia tetraphylla* **Cinnamomum camphora* *Alphitonia excelsa* **Syagrus romanzoffiana* (syn. *Arecastrum*) *Acacia disparrima* *Acacia irrorata* *Acmena* sp. *Glochidion ferdinandi* *Flagellaria indica*
Shrub 2					
Ground dominant		Up to 0.3	~60		*Digitaria* sp. *Smilax australis* **Passiflora suberosa* **Ipomoea cairica* Probably *Pteridium esculentum* *Dianella* sp. (probably *D.caerulea*) *Lomandra multiflora* *Geitonoplesium cymosum* *Melodorum leichhardtii* *Lobelia purpurascens*
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure partly confirm that the REs here are RE12.9-10.1 and RE12.9-10.17d. Blackbutt was also present, indicating the possible presence of RE12.9-10.14. The mapped boundary between the two REs is inaccurate due to scale limitations, and is diffuse. No EVR species were found as a result of targeted survey. *#Macadamia tetraphylla* individual juvenile almost certainly originated from the adjacent orchard on the property.

DETAILED SITE SPECIES LISTS

Methodology

- Methodology is in accordance with Environmental Protection Agency (2005) *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland.* Version 3.1. Updated September 2005. Queensland Herbarium, Brisbane,
- Heights are in metres,
- Cover is based on projected crown cover (not projected foliage cover, unless specified),
- * denotes naturalised species (weed),
- DBH, where recorded, stands for Diameter at Breast Height (diameter of tree trunk in cm, taken approximately 1.3m above ground level),
- Level of site detail is either Medium or High, unless otherwise specified,
- Sites of High level of detail are equivalent to EPA Tertiary sites, but are equivalent to EPA Secondary sites if the following additional information is recorded:
    - all ground layer species and not just dominants,
    - stem counts of trees and shrubs (stem counts were not used in this study because they were not needed to confirm RE mapping, or for identifying EVR species),
    - physical aspects of the site such as surface soil, geology and aspect,
    - disturbance such as fire, logging and erosion,
- Sites of High level of detail are 50m long x 10m wide,
- Sites of Medium level of detail are not strictly defined in area, but are approximately circular, with a radius of approximately 20m,
- Datum for site locations is AGD66, so as to be referenced using a Refidex Street Directory (Gregorys 2007).

Floristic Data

Site 1
Location: E496379
(AGD66) N7037577
Refidex map ref.: 96 F8
Level of detail (Detailed/Medium): Medium
Date: 7/3/08
Locality description: Dularcha NP. Southern tip of eucalypt forest next to existing railway lines, as comparison for rainforest creek vegetation in site 2.

Stratum	**Av. Top Height**	**Height Range** m	**Total Cover %**	**Indiv. Cover %**	**Key Species**
Tree 1					*Corymbia gummifera* *Eucalyptus resinifera* *Lophostemon suaveolens*
Tree 2					
Tree 3					
Shrub 1					Various scrub species due to nearby creekline
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm the RE mapping in this location. No cryptic EVR species were expected, and no conspicuous EVR species were found.

Site 2
Location: E496367
(AGD66) N7037638
Refidex map ref.: 96 F8
Level of detail (Detailed/Medium): High
Date: 7/3/08
Locality description: Riverine rainforest on creek in Dularcha NP

Stratum	**Av. Top Height**	**Height Range** m	**Total Cover %**	**Indiv. Cover %**	**Key Species**
Tree 1	~25		20		*Eucalyptus grandis* *Eucalyptus microcorys*
Tree 2	~17	15-20	95		*Archontophoenix cunninghamiana* *Glochidion sumatranum* *Lophostemon confertus*
Tree 3	10		10		Probably *Mallotus mollissimus*
Shrub 1	3	1.5-5	40		*Cordyline petiolaris* *Alphitonia excelsa* (uncommon) *Melodorum leichhardtii* *Livistona australis* *Ficus coronata* *Hibiscus heterophyllus* *Tabernaemontana pandacaqui* *Syzygium australe* *Platycerium* sp. (fronds entirely unbranched) *Calamus muelleri* *Trochocarpa laurina* *Cissus hypoglauca*
Shrub 2					
Ground dominant	0.2	0.1-0.5	30		Fern *Geitonoplesium cymosum* *Piper nova-hollandiae* *Rubus parvifolius* Rubiaceae *Wilkiea macrophylla* Possibly *Lepiderema indica* (Rare under NC Act 1992)
Litter			20		
Bare			50		
Rock					
Other ground species <1%each					
Offsite					*Corymbia gummifera* **Lantana camara*

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest) and not RE12.9-10.16 (hoop pine scrub) as mapped. No EVR species were found as result of targeted survey.

Site 3
Location: E496346
(AGD66) N7037659
Refidex map ref.: 96 F8
Level of detail (Detailed/Medium): Medium
Date: 7/3/08
Locality description: Creek junction just upstream of riverine rainforest in Dularcha NP

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~25		~30		*Eucalyptus microcorys* (a couple of trees, both with approx. dbh 1m)
Tree 2	15-20		~40		*Archontophoenix cunninghamiana* *Flagellaria indica* Probably *Wilkiea macrophylla*
Tree 3					
Shrub 1					*Sloanea australis* subsp. *australis* Euphorbiaceae (possibly *Glochidion* sp.)
Shrub 2					
Ground dominant					Probably *Lastreopsis* sp.
Litter					
Bare					
Rock					
Other ground species <1%each					*Dioscorea transversa* Probably *Microsorum* sp. Probably *Lindsaea brachypoda*
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest) and not RE12.9-10.16 (hoop pine scrub) as mapped. No EVR species were found as result of targeted survey.

Site 4
Location: E496344
(AGD66) N7037694
Refidex map ref.: 96 F8
Level of detail (Detailed/Medium): Medium
Date: 7/3/08
Locality description: Creek through eucalypt forest in Dularcha NP. Eastern branch of creek, north of junction at site 3, and closer to railway line.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~25m		~70		*Syncarpia glomulifera* *Corymbia gummifera* *Corymbia resinifera* *Lophostemon confertus* (one is old growth)
Tree 2					
Tree 3					
Shrub 1					Mainly juveniles of T1 stratum spp. *Cordyline petiolaris*
Shrub 2					
Ground dominant					Ferns (dominated probably by *Lastreopsis* sp.) Sedges (including *Gahnia* sp.)
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest) and not RE12.9-10.16 (hoop pine scrub) as mapped. No EVR species were found as result of targeted survey.

Site 5
Location: E496253
(AGD66) N7037713
Refidex map ref.: 96 F8
Level of detail (Detailed/Medium): Medium
Date: 7/3/08
Locality description: Palm forest in Dularcha NP. GPS location recorded on track adjacent to west because of heavy canopy cover. Add 30m to easting for approximate site location.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~17	15-20	95		*Archontophoenix cunninghamiana*
Tree 2					
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					Forest floor is dominated by spent palm fronds.
Bare					
Rock					
Other ground species <1%each					*Archontophoenix cunninghamiana* (mostly seedlings)
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest) and not RE12.9-10.16 (hoop pine scrub) as mapped. No EVR species were found as result of targeted survey. Palm forest continues for approximately 200m north.

Site 6
Location: E496467
(AGD66) N7035430
Refidex map ref.: 96 F15
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Addlington Creek

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~25		~75		*Eucalyptus pilularis* *Corymbia gummifera* *Lophostemon confertus* **Cinnamomum camphora* *Eucalyptus tereticornis*
Tree 2					**Cinnamomum camphora* *Archontophoenix cunninghamiana*
Tree 3					
Shrub 1					**Schefflera actinophylla*
Shrub 2					
Ground dominant					*Paspalum* sp.
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest). No EVR species were found as result of targeted survey. Understorey highly disturbed – unlikely habitat for EVR species.

Site 7
Location: E496410
(AGD66) N7035810
Refidex map ref.: 96 F14
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Tributary of Addlington Creek, crossing near Myla Road.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~20		50		*Eucalyptus grandis* *Corymbia gummifera*
Tree 2		10-15	95		*Archontophoenix cunninghamiana* *Glochidion sumatranum* *Cissus antarctica*
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					**Lantana camara* (at edges of remnant)

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest). No EVR species were found as result of targeted survey. Highly overgrown with *Cissus antarctica* – habitat is probably unsuitable for most EVR species due to competition for space and light.

Site 8
Location: E496476
(AGD66) N7038300
Refidex map ref.: 96 F4
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Rose Road at western end, and entrance to Dularcha NP.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~20		~60		*Eucalyptus major* (and/or *E.propinqua*) *Corymbia gummifera* (and possibly *C.intermedia*) *Lophostemon confertus* *Eucalyptus acmenoides* *Eucalyptus carnea* *Eucalyptus siderophloia*
Tree 2					
Tree 3					
Shrub 1					*Acacia disparrima* *Alphitonia excelsa* *Allocasuarina torulosa*
Shrub 2					
Ground dominant					*Themeda triandra* *Imperata cylindrica*
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm the RE is RE12.9-10.17d. No EVR species were found.

Site 9
Location: E496084
(AGD66) N7038097
Refidex map ref.: 96 E4
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Dularcha NP 200m past park gate at western end of Rose Road. Site is on saddle, directly above old tram tunnel.

Stratum	**Av. Top Height**	**Height Range** m	**Total Cover %**	**Indiv. Cover %**	**Key Species**
Tree 1		18-28	~60		*Eucalyptus major* (and/or *E.propinqua*) *Corymbia gummifera* (and possibly *C.intermedia*) *Lophostemon confertus* *Eucalyptus carnea* *Eucalyptus microcorys*
Tree 2					
Tree 3					
Shrub 1		#1-18	~40		#complex and continuous height range of lower stratum with tree species from T1 stratum, plus: *Acacia disparrima* *Alphitonia excelsa* **Lantana camara*
Shrub 2					
Ground dominant					*Themeda triandra* *Desmodium rhytidophyllum* *Monotoca scoparia* *Pandorea pandorana* *Lobelia purpurascens*
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.9-10.17d. No EVR species were found.

Site 10
Location: E496440
(AGD66) N7039220
Refidex map ref.: 96 F1
Level of detail (Detailed/Medium): High
Date: 10/3/08
Locality description: South Mooloolah River, across break in Paget Street.

Stratum	**Av. Top Height**	**Height Range** m	**Total Cover %**	**Indiv. Cover %**	**Key Species**
Tree 1		15-20	~20		*Eucalyptus grandis*
Tree 2		10-15	~75		*Waterhousea floribunda* **Cinnamomum camphora* *Lophostemon confertus*
Tree 3					
Shrub 1			~20		*Neolitsea dealbata* *Ficus coronata* *Lomandra longifolia* (and possibly *L.hystrix*)
Shrub 2					
Ground dominant			~40		Lower terrace: *Adiantum hispidulum* *Commelina* sp. *Cissus antarctica* *Oplismenus aemulus* **Ardisia crenata* **Ageratina adenophora* *Alpinia caerulea* Upper terrace has the additional species: *Rubus parvifolius* *Mallotus philippensis* *Cordyline petiolaris*
Litter					
Bare			~60		
Rock					
Other ground species <1%each					
Offsite					Weed infested edges consist mainly of: **Lantana camara* **Desmodium uncinatum*

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest). No EVR species were found as result of targeted survey. Even spacing of understorey species, and their uniformity of species (low diversity and even species distribution) suggests this site has been subject to rehabilitation planting in the past.

Site 11
Location: E496195
(AGD66) N7040110
Refidex map ref.: 86 E17
Level of detail (Detailed/Medium): High
Date: 10/3/08
Locality description: Mooloolah River, immediately north of Mooloolah, on Neill Road.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~20	15-25	90	80 10	*Waterhousea floribunda* *Archontophoenix cunninghamiana*
Tree 2	~7	6-8			*Waterhousea floribunda*
Tree 3					
Shrub 1	~2	1-3	15		*Neolitsea dealbata* *Aphananthe philippinensis* *Alocasia macrorhiza* *Ficus coronata* *Ficus obliqua* *Cordyline petiolaris*
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					*Rubus parvifolius* *Cissus antarctica* **Ageratum houstonianum* (uncommon) *Pothos longipes* *Lomandra longifolia* *Adiantum hispidulum* **Ardisia crenata* *Castanospermum australe* *Archontophoenix cunninghamiana* *Oplismenus aemulus* Possibly *Dendrocnide photinophylla* *Pseuderanthemum variabile* **Ageratina adenophora* **Lantana camara* (uncommon) **Hypoestes phyllostachya*
Offsite					**Cinnamomum camphora* on upper banks

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest). No EVR species were found as result of targeted survey. This site appeared to be in good condition due to intact upper stratum, low impact of weeds, and limited bank erosion.

Site 12
Location: E495870
(AGD66) N7042320
Refidex map ref.: 86 D8
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: The Pinch Lane

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1					On the ridge line: *Eucalyptus major* (and/or *E.propinqua)* *Eucalyptus acmenoides* *Eucalyptus siderophloia* *Corymbia* gummifera (and possibly *C.intermedia)* Over the rail tunnel: *Eucalyptus pilularis*
Tree 2					
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.9-10.17d, except for the area above the rail tunnel, which is RE12.9-10.14. No EVR species were found.

Site 13
Location: E495900
(AGD66) N7043030
Refidex map ref.: 86 D5
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Cogden and Logwoods Road area

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1					Fragmented patches dominated by: *Eucalyptus pilularis* *Eucalyptus microcorys* Also with: *Syncarpia glomulifera*
Tree 2					
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the REs here are RE12.3.2 and RE12.9-10.14. No cryptic EVR species were expected, and no conspicuous EVR species were found.

Site 14
Location: E495650
(AGD66) N7043900
Refidex map ref.: 86 C2
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Eudlo, western side of railway station

Stratum	**Av. Top Height**	**Height Range** m	**Total Cover %**	**Indiv. Cover %**	**Key Species**
Tree 1					Artificial plantation of rainforest species – see notes.
Tree 2					
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: This was a plantation of mixed rainforest species (artificial planting), and no EVR species were searched for. Sign at fenced area: “Eudlo and Ilkley Landcare Group Inc. PO Box 122 Eudlo 4554” and “In conjunction with Qld Rail”. A community walking track is installed at this location entitled “Federation Walk”.

Site 15
Location: E495650
(AGD66) N7044050
Refidex map ref.: 86 C1
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Eudlo Creek at Eudlo

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~20		95		*Castanospermum australe* *Eucalyptus tereticornis* *Waterhousea floribunda* **Cinnamomum camphora* *Macaranga tanarius* *Ficus* sp. *Acmena* sp. *Syzygium* sp. *Elaeocarpus grandis* *Tristaniopsis laurina* Numerous other species which appear to have been planted in past rehabilitation including: *Syzygium* spp.
Tree 2					
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					*Lomandra longifolia*
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1 (riverine rainforest). No EVR species were found as result of targeted survey. The site appears as if it may once have been highly disturbed non-remnant in places, which has been rehabilitated in conjunction with the rainforest plantation area sampled at site 14 (adjacent). This is indicated by the species composition, which is slightly different from other waterways nearby.

Site 16
Location: E495790
(AGD66) N7045260
Refidex map ref.: 76 C16
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Eudlo Creek NP, on eastern side of railway, opposite Cardinal Court

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1					*Eucalyptus grandis* *Eucalyptus microcorys* *Syncarpia glomulifera* *Corymbia gummifera*
Tree 2					*Lophostemon confertus* *Allocasuarina littoralis* *Archontophoenix cunninghamiana* *Elaeocarpus reticulatus*
Tree 3					
Shrub 1					*Glochidion ferdinandi* Ferns (various) *Polyscias elegans* *Hibiscus heterophyllus*
Shrub 2					
Ground dominant					*Dianella* sp. Others
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					Small patch of swamp nearby with *Melaleuca quinquenervia*

Notes: Dominant species and structure confirm that the RE here is a variant of RE12.9-10.1, where flooded gum (*E.grandis*) dominates. No cryptic EVR species were expected, and no conspicuous EVR species were found.

Site 17
Location: E495980
(AGD66) N7048680
Refidex map ref.: 76 D3
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Wetland immediately north of Palmwoods, opposite Dana Court.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Wetland element 1: Open water					*Nymphaea* sp.and/or *Nymphoides* sp.
Wetland element 2: Sedgeland					*Cyperus* sp. (probably *C.exaltatus)*
Wetland element 3: low open woodland					*Melaleuca quinquenervia*
Offsite					*Glochidion sumatranum* **Senna glabra* var. *pendula*

Notes: Dominant species and structure confirm that the RE here is RE12.3.5 (*Melaleuca quinquenervia*), but there is also RE12.3.8 (sedge swamp) and some open water. No cryptic EVR species were expected, and no conspicuous EVR species were found.

Site 18
Location: E496100
(AGD66) N7049370
Refidex map ref.: 66 D20
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Spackman Lane, north of Palmwoods

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1	~25		~80		*Eucalyptus grandis*
Tree 2	~10		~60		*Archontophoenix cunninghamiana*
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					*Eucalyptus pilularis* Possibly *Pennantia cunninghamii*

Notes: Dominant species and structure confirm that the RE here is RE12.3.1. No cryptic EVR species were expected, and no conspicuous EVR species were found. Note that the remnant is toward the northern end of the lane. The isolated "beech" tree identified from public consultation is in a separate location, halfway along the lane in a disturbed area (probably brown beech, *Pennantia cunninghamii*).

Site 19
Location: E496070
(AGD66) N7051080
Refidex map ref.: 66 D13
Level of detail (Detailed/Medium): Medium
Date: 10/3/08
Locality description: Paynter Creek, on Back Woombye Road

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1					*Eucalyptus grandis* **Cinnamomum camphora* *Ficus* sp.
Tree 2					*Cissus antarctica* *Flagellaria indica*
Tree 3					
Shrub 1					
Shrub 2					
Ground dominant					
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.2, but there is also RE12.3.1 along this creek. No cryptic EVR species were expected, and no conspicuous EVR species were found. It is possible that EVR species exist elsewhere along the creek.

Site 20
Location: E495575
(AGD66) N7045260
Refidex map ref.: 76 B16
Level of detail (Detailed/Medium): High
Date: 11/3/08
Locality description: Tributary of Eudlo Ck at end of public section of Paskins Road.

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1		25-30	#		*Eucalyptus grandis*
Tree 2		20-25	#		*Archontophoenix cunninghamiana* *Eucalyptus microcorys* *Syncarpia glomulifera* *Melaleuca quinquenervia*
Tree 3		15-20	#		*Lophostemon confertus*
Shrub 1					*Glochidion sumatranum* *Ficus coronata* **Schefflera actinophylla* *Polyscias elegans* *Acmena* sp. **Lantana camara* *Tristaniopsis laurina* *Neolitsea dealbata* Vines: *Melodorum leichhardtii* *Piper nova-hollandiae* *Flagellaria indica* **Passiflora suberosa*
Shrub 2					
Ground dominant			~30		**Ageratina adenophora* *Archontophoenix cunninghamiana* *Gahnia aspera* *Cyperus* sp. *Adiantum hispidulum* *Geitonoplesium cymosum* *Oplismenus aemulus* *Rubus parvifolius* *Smilax australis* **Spathodea campanulata* Fern
Litter					
Bare			~70		Frequent water movement keeps most of the ground bare.
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure confirm that the RE here is RE12.3.1, but it is unmapped due to scale limitations. No EVR species were found as result of targeted survey. #Combined cover of three tree layers is approximately 90%.

Site 21
Location: E495660
(AGD66) N7045910
Refidex map ref.: 76 C14
Level of detail (Detailed/Medium): High
Date: 11/3/08
Locality description: Payne property off Paskins Road

Stratum	Av. Top Height	Height Range m	Total Cover %	Indiv. Cover %	Key Species
Tree 1		25-30	~75	~50 ~20 ~5	*Eucalyptus microcorys* (av. dbh 40-50cm) *Lophostemon confertus* *Corymbia gummifera*
Tree 2		10-20			*Eucalyptus microcorys*
Tree 3					
Shrub 1					*Polyscias elegans* *#Macadamia tetraphylla* **Cinnamomum camphora* *Alphitonia excelsa* **Syagrus romanzoffiana* (syn. *Arecastrum*) *Acacia disparrima* *Acacia irrorata* *Acmena* sp. *Glochidion ferdinandi* *Flagellaria indica*
Shrub 2					
Ground dominant		Up to 0.3	~60		*Digitaria* sp. *Smilax australis* **Passiflora suberosa* **Ipomoea cairica* Probably *Pteridium esculentum* *Dianella* sp. (probably *D.caerulea*) *Lomandra multiflora* *Geitonoplesium cymosum* *Melodorum leichhardtii* *Lobelia purpurascens*
Litter					
Bare					
Rock					
Other ground species <1%each					
Offsite					

Notes: Dominant species and structure partly confirm that the REs here are RE12.9-10.1 and RE12.9-10.17d. Blackbutt was also present, indicating the possible presence of RE12.9-10.14. The mapped boundary between the two REs is inaccurate due to scale limitations, and is diffuse. No EVR species were found as a result of targeted survey. *#Macadamia tetraphylla* individual juvenile almost certainly originated from the adjacent orchard on the property.

QUEENSLAND MUSEUM DATABASE

CLASS ***Species***	**LOCALITY**	**LAT**	**LONG**
AMBHIBIAN			
Adelotus brevis	**Amamoor Ck**	**26.24**	**152.36**
Limnodynastes ornatus	Amamoor Ck	26.24	152.36
Mixophyes fasciolatus	Gympie, Cedar Grove Campsite	26.21	152.35
Litoria fallax	Big Yabba Ck, Conondale Ra	26.29	152.37
Litoria wilcoxii	Amamoor Ck	26.24	152.36
REPTILES			
Carlia foliorum	Borumba Dam	26.31	152.35
Carlia pectoralis	Amamoor Ck, via Gympie	26.22	152.37
Carlia pectoralis	Borumba Dam area, nr Conondale Ra	26.31	152.35
Carlia pectoralis	Borumba Dam	26.31	152.35
Eulamprus murrayi	Amamoor Ck, via Gympie	26.22	152.37
Lampropholis adonis	Borumba Dam area, nr Conondale Ra	26.31	152.35
Lampropholis delicata	Mt Kandanga	26.27	152.35
BIRDS			
Malurus melanocephalus	Little Yabba Ck, Conondale Range	26.31	152.36
MAMMALS			
Perameles nasuta	Imbil SF, Yabba Ck	26.31	152.37
Aepyprymnus rufescens	Yabba Ck, Kenilworth	26.29	152.37
Melomys cervinipes	Cold Creek Rd, Brookfield	26.26	152.37
Melomys cervinipes	Imbil SF	26.28	152.37
Rattus lutreolus	Yabba Ck area, Imbil SF, Kenilworth	26.29	152.37
Rattus lutreolus	Imbil SF, Yabba Ck	26.31	152.35

Queensland Government
Environmental Protection Agency
Queensland Parks and Wildlife Service

WildNet

Latitude: 26.5708 to 26.8594
Longitude: 152.8975 to 153.0278
Date extracted: Thursday 30 Aug 2007 13:46:02
The number of records retrieved = 512

CLASS						
Class	***Scientific Name***	**Common Name**	**I**	**Q**	**A**	**Records**
INSECTS						
	Euschemon rafflesia rafflesia	regent skipper				1
	Lampides boeticus	long-tailed pea-blue				2
	Paralucia aurifer	bright copper				1
	Candalides erinus erinus	small dusky-blue				2
	Erysichton lineata lineata	hairy line-blue				1
	Zizina labradus labradus	common grass-blue				11
	Candalides heathi heathi	rayed blue				1
	Candalides absimilis	common pencilled-blue				5
	Catochrysops panormus platissa	pale pea-blue				3
	Tisiphone abeona					1
	Hypocysta metirius	brown ringlet				19
	Vanessa kershawi	Australian painted lady				17
	Euploea core corinna	common crow				46
	Melanitis leda bankia	common evening-brown				90
	Junonia villida calybe	meadow argus				15
	Mynes geoffroyi guerini	jezebel nymph				3
	Hypolimnas bolina nerina	varied eggfly				21
	Doleschallia bisaltide australis	leafwing				1
	Polyura sempronius sempronius	tailed emperor				22
	Phaedyma shepherdi shepherdi	white-banded plane				3
	Acraea andromacha andromacha	glasswing				34
	Euploea tulliolus tulliolus	purple crow				1
	Tisiphone abeona rawnsleyi	varied sword-grass brown				5
	Danaus plexippus plexippus	monarch				146
	Hypocysta adiante adiante	orange ringlet				1
	Danaus chrysippus petilia	lesser wanderer				10
	Ypthima arctous arctous	dusky knight				2
	Tirumala hamata hamata	blue tiger				30
	Danaus affinis affinis	marsh tiger				2
	Cupha prosope prosope	bordered rustic				1
	Papilio aegeus					1
	Ornithoptera richmondia	**Richmond birdwing**		**V**		**13**
	Cressida cressida cressida	greasy swallowtail				3
	Papilio demoleus sthenelus	chequered swallowtail				1
	Graphium sarpedon choredon	blue triangle				77
	Graphium eurypylus lycaon	pale-blue triangle				7
	Papilio aegeus aegeus	orchard swallowtail				43
	Papilio anactus	dingy swallowtail				5

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Latitude: 26.5708 to 26.8594
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Date extracted: Thursday 30 Aug 2007 13:46:02
The number of records retrieved = 512

CLASS Class	*Scientific Name*	Common Name	I	Q	A	Records
	Eurema herla	pink grass-yellow				1
	Eurema smilax	small grass-yellow				23
	Delias aganippe	red-spotted jezebel				1
	Delias nysa nysa	yellow-spotted jezebel				2
	Delias argenthona argenthona	scarlet jezebel				9
	Catopsilia pyranthe crokera	white migrant				4
	Eurema brigitta australis	no-brand grass-yellow				1
	Catopsilia pomona pomona	lemon migrant				96
	Belenois java teutonia	caper white				10
	Eurema hecabe phoebus	large grass-yellow				51
	Elodina angulipennis	southern pearl-white				3
	Appias paulina ego	yellow albatross				2
	Elodina parthia	striated pearl-white				1
	Delias nigrina	black jezebel				53
	Pieris rapae	cabbage white				52
AMPHIBIANS						
	Bufo marinus	cane toad	Y			86
	Litoria nasuta	striped rocketfrog		C		13
	Litoria tyleri	southern laughing treefrog		C		17
	Litoria dentata	bleating treefrog		C		3
	Litoria peronii	emerald spotted treefrog		C		11
	Litoria rubella	ruddy treefrog		C		4
	Litoria caerulea	common green treefrog		C		28
	Litoria wilcoxii			C		5
	Litoria freycineti	**wallum rocketfrog**		**V**		**3**
	Litoria fallax	eastern sedgefrog		C		41
	Litoria gracilenta	graceful treefrog		C		17
	Litoria latopalmata	broad palmed rocketfrog		C		11
	Litoria brevipalmata	green thighed frog		R		1
	Cyclorana alboguttata	greenstripe frog		C		1
	Litoria olongburensis	**wallum sedgefrog**		**V**	**V**	**4**
	Mixophyes sp.					1
	Uperoleia sp.					1
	Crinia tinnula	**wallum froglet**		**V**		**27**
	Adelotus brevis	**tusked frog**		**V**		**19**
	Assa darlingtoni	pouched frog		R		1
	Crinia signifera	clicking froglet		C		1
	Mixophyes iteratus	**giant barred frog**		**E**	**E**	**2**
	Pseudophryne raveni	copper backed broodfrog		C		22

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CLASS					
Class ***Scientific Name***	**Common Name**	**I**	**Q**	**A**	**Records**
Rheobatrachus silus	**southern gastric brooding frog**		**E**	**EX**	**1**
Uperoleia laevigata	eastern gungan		C		1
Crinia parinsignifera	beeping froglet		C		3
Limnodynastes ornatus	ornate burrowing frog		C		1
Limnodynastes peronii	striped marshfrog		C		27
Mixophyes fasciolatus	great barred frog		C		8
Limnodynastes tasmaniensis	spotted grassfrog		C		1
Limnodynastes terraereginae	scarlet sided pobblebonk		C		10
REPTILES					
Pogona barbata	bearded dragon		C		30
Amphibolurus nobbi			C		4
Chlamydosaurus kingii	frilled lizard		C		1
Physignathus lesueurii	eastern water dragon		C		65
Diporiphora australis			C		5
Morelia spilota	carpet python		C		31
Elseya latisternum	saw-shelled turtle		C		1
Chelodina longicollis	eastern snake-necked turtle		C		3
Emydura macquarii krefftii	Krefft's river turtle		C		1
Boiga irregularis	brown tree snake		C		8
Tropidonophis mairii	freshwater snake		C		13
Dendrelaphis punctulata	common tree snake		C		15
Cacophis krefftii	dwarf crowned snake		C		2
Hemiaspis signata	black-bellied swamp snake		C		6
Cacophis harriettae	white-crowned snake		C		4
Demansia psammophis	yellow-faced whip snake		C		13
Demansia vestigiata	black whip snake		C		1
Pseudonaja textilis	eastern brown snake		C		3
Vermicella annulata	bandy-bandy		C		5
Cacophis squamulosus	golden crowned snake		C		1
Tropidechis carinatus	rough-scaled snake		C		1
Acanthophis antarcticus	**common death adder**		**R**		**1**
Pseudechis porphyriacus	red-bellied black snake		C		5
Rhinoplocephalus boschmai	Carpentaria whip snake		C		4
Rhinoplocephalus nigrescens	eastern small-eyed snake		C		7
Oedura robusta	robust velvet gecko		C		3
Oedura rhombifer	zig-zag gecko		C		1
Lialis burtonis	Burton's legless lizard		C		10
Pygopus lepidopodus	common scaly-foot		C		6
Carlia vivax			C		1

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	Carlia foliorum			C		4
	Ctenotus arcanus			C		4
	Eulamprus quoyii	eastern water skink		C		1
	Eulamprus tenuis			C		1
	Eulamprus martini			C		2
	Eulamprus murrayi			C		1
	Saproscincus rosei			**R**		**1**
	Tiliqua scincoides	eastern blue-tongued lizard		C		12
	Lampropholis adonis			C		1
	Lampropholis amicula			C		3
	Lampropholis couperi			C		3
	Anomalopus verreauxii			C		4
	Lampropholis delicata			C		15
	Calyptotis scutirostrum			C		1
	Lampropholis guichenoti			C		1
	Cryptoblepharus virgatus			C		27
	Cyclodomorphus gerrardii	pink-tongued lizard		C		11
	Eroticoscincus graciloides			**R**		**9**
	Ramphotyphlops silvia			**R**		**1**
	Ramphotyphlops nigrescens			C		1
	Varanus varius	lace monitor		C		32
BIRDS						
	Aquila audax	wedge-tailed eagle		C		66
	Circus approximans	swamp harrier		C		15
	Accipiter fasciatus	brown goshawk		C		79
	Erythrotriorchis radiatus	**red goshawk**		**E**	**V**	**2**
	Accipiter novaehollandiae	**grey goshawk**		**R**		**71**
	Accipiter cirrhocephalus	collared sparrowhawk		C		23
	Hieraaetus morphnoides	little eagle		C		17
	Haliaeetus leucogaster	white-bellied sea-eagle		C		89
	Haliastur sphenurus	whistling kite		C		214
	Aviceda subcristata	Pacific baza		C		227
	Lophoictinia isura	**square-tailed kite**		**R**		**8**
	Pandion haliaetus	osprey		C		20
	Haliastur indus	brahminy kite		C		49
	Circus assimilis	spotted harrier		C		3
	Elanus axillaris	black-shouldered kite		C		73
	Aegotheles cristatus	Australian owlet-nightjar		C		41
	Mirafra javanica	singing bushlark		C		4

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	Alcedo azurea	azure kingfisher		C		117
	Anas castanea	chestnut teal		C		5
	Malacorhynchus membranaceus	pink-eared duck		C		5
	Nettapus coromandelianus	**cotton pygmy-goose**		**R**		**40**
	Dendrocygna arcuata	wandering whistling-duck		C		108
	Dendrocygna eytoni	plumed whistling-duck		C		27
	Anas platyrhynchos	mallard	Y			17
	Cygnus atratus	black swan		C		296
	Anas rhynchotis	Australasian shoveler		C		9
	Aythya australis	hardhead		C		247
	Chenonetta jubata	Australian wood duck		C		273
	Anas superciliosa	Pacific black duck		C		785
	Biziura lobata	musk duck		C		12
	Anas gracilis	grey teal		C		156
	Anhinga melanogaster	darter		C		222
	Anseranas semipalmata	magpie goose		C		122
	Apus pacificus	fork-tailed swift		C		5
	Hirundapus caudacutus	white-throated needletail		C		172
	Ardea alba	great egret		C		192
	Ardea pacifica	white-necked heron		C		92
	Egretta garzetta	little egret		C		85
	Ixobrychus minutus	little bittern		C		1
	Nycticorax caledonicus	nankeen night heron		C		31
	Egretta novaehollandiae	white-faced heron		C		487
	Ixobrychus flavicollis	black bittern		C		7
	Butorides striatus	striated heron		C		3
	Ardea intermedia	intermediate egret		C		149
	Ardea ibis	cattle egret		C		604
	Artamus minor	little woodswallow		C		6
	Gymnorhina tibicen	Australian magpie		C		1248
	Artamus cyanopterus	dusky woodswallow		C		12
	Artamus leucorynchus	white-breasted woodswallow		C		171
	Cracticus nigrogularis	pied butcherbird		C		782
	Strepera graculina graculina	pied currawong		C		5
	Artamus superciliosus	white-browed woodswallow		C		6
	Cracticus torquatus	grey butcherbird		C		933
	Strepera graculina	pied currawong		C		798
	Artamus cinereus	black-faced woodswallow		C		1
	Artamus personatus	masked woodswallow		C		3
	Burhinus grallarius	bush stone-curlew		C		4

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	Cacatua galerita	sulphur-crested cockatoo		C		233
	Cacatua leadbeateri	**Major Mitchell's cockatoo**		**V**		**2**
	Cacatua roseicapilla	galah		C		465
	Calyptorhynchus banksii	red-tailed black-cockatoo		C		7
	Calyptorhynchus funereus	yellow-tailed black-cockatoo		C		452
	Calyptorhynchus lathami	**glossy black-cockatoo**		**V**		**10**
	Nymphicus hollandicus	cockatiel		C		2
	Cacatua sanguinea	little corella		C		9
	Lalage sueurii	white-winged triller		C		13
	Coracina novaehollandiae	black-faced cuckoo-shrike		C		767
	Coracina tenuirostris	cicadabird		C		251
	Coracina maxima	ground cuckoo-shrike		C		1
	Coracina lineata	barred cuckoo-shrike		C		29
	Lalage leucomela	varied triller		C		157
	Coracina papuensis	white-bellied cuckoo-shrike		C		26
	Eurostopodus mystacalis	white-throated nightjar		C		25
	Dromaius novaehollandiae	emu		C		2
	Centropus phasianinus	pheasant coucal		C		510
	Vanellus tricolor	banded lapwing		C		4
	Elseyornis melanops	black-fronted dotterel		C		90
	Erythrogonys cinctus	red-kneed dotterel		C		42
	Charadrius leschenaultii	greater sand plover		C		1
	Vanellus miles novaehollandiae	masked lapwing		C		531
	Ephippiorhynchus asiaticus	**black-necked stork**		**R**		**16**
	Psophodes olivaceus	eastern whipbird		C		980
	Cinclosoma punctatum	spotted quail-thrush		C		1
	Climacteris affinis	white-browed treecreeper		C		1
	Climacteris picumnus	brown treecreeper		C		1
	Climacteris erythrops	**red-browed treecreeper**		**R**		**1**
	Cormobates leucophaeus	white-throated treecreeper		C		6
	Columba livia	rock dove	Y			47
	Columba leucomela	white-headed pigeon		C		329
	Phaps chalcoptera	common bronzewing		C		6
	Chalcophaps indica	emerald dove		C		169
	Lopholaimus antarcticus	topknot pigeon		C		156
	Leucosarcia melanoleuca	wonga pigeon		C		1
	Streptopelia chinensis	spotted turtle-dove	Y			310
	Macropygia amboinensis	brown cuckoo-dove		C		330
	Ptilinopus magnificus	wompoo fruit-dove		C		51
	Ptilinopus superbus	superb fruit-dove		C		4

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	Geopelia humeralis	bar-shouldered dove		C		814
	Ptilinopus regina	rose-crowned fruit-dove		C		66
	Ocyphaps lophotes	crested pigeon		C		585
	Geopelia striata	peaceful dove		C		427
	Phaps elegans	brush bronzewing		C		1
	Eurystomus orientalis	dollarbird		C		200
	Corvus coronoides	Australian raven		C		2
	Corvus bennetti	little crow		C		1
	Corvus orru	Torresian crow		C		1260
	Cuculus pallidus	pallid cuckoo		C		17
	Chrysococcyx lucidus	shining bronze-cuckoo		C		213
	Cacomantis variolosus	brush cuckoo		C		97
	Cacomantis flabelliformis	fan-tailed cuckoo		C		331
	Scythrops novaehollandiae	channel-billed cuckoo		C		199
	Chrysococcyx minutillus	little bronze-cuckoo		C		5
	Eudynamys scolopacea	common koel		C		399
	Chrysococcyx basalis	Horsfield's bronze-cuckoo		C		31
	Cuculus saturatus	oriental cuckoo		C		4
	Dicaeum hirundinaceum	mistletoebird		C		244
	Myiagra inquieta	restless flycatcher		C		120
	Myiagra cyanoleuca	satin flycatcher		C		9
	Grallina cyanoleuca	magpie-lark		C		762
	Rhipidura rufifrons	rufous fantail		C		213
	Rhipidura leucophrys	willie wagtail		C		2
	Dicrurus bracteatus	spangled drongo		C		2
	Rhipidura leucophrys	willie wagtail		C		656
	Rhipidura fuliginosa	grey fantail		C		846
	Monarcha trivirgatus	spectacled monarch		C		122
	Monarcha melanopsis	black-faced monarch		C		71
	Dicrurus bracteatus	spangled drongo		C		506
	Monarcha leucotis	white-eared monarch		C		13
	Myiagra rubecula	leaden flycatcher		C		183
	Falco berigora	brown falcon		C		13
	Falco subniger	black falcon		C		1
	Falco peregrinus	peregrine falcon		C		5
	Falco longipennis	Australian hobby		C		15
	Falco cenchroides	nankeen kestrel		C		20
	Fregata ariel	lesser frigatebird		C		2
	Grus rubicunda	brolga		C		1
	Dacelo leachii	blue-winged kookaburra		C		1

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	Todiramphus chloris	collared kingfisher		C		2
	Todiramphus sanctus	sacred kingfisher		C		154
	Dacelo novaeguineae	laughing kookaburra		C		1159
	Todiramphus macleayii	forest kingfisher		C		431
	Hirundo nigricans	tree martin		C		110
	Cheramoeca leucosternus	white-backed swallow		C		4
	Hirundo neoxena	welcome swallow		C		995
	Hirundo ariel	fairy martin		C		102
	Irediparra gallinacea	comb-crested jacana		C		252
	Sterna caspia	Caspian tern		C		1
	Sterna hirundo	common tern		C		1
	Chlidonias leucopterus	white-winged black tern		C		29
	Chlidonias hybridus	whiskered tern		C		38
	Sterna bergii	crested tern		C		1
	Malurus cyaneus	superb fairy-wren		C		13
	Malurus melanocephalus	red-backed fairy-wren		C		390
	Malurus lamberti	variegated fairy-wren		C		338
	Stipiturus malachurus	southern emu-wren		V		2
	Alectura lathami	Australian brush-turkey		C		235
	Myzomela obscura	dusky honeyeater		C		61
	Meliphaga lewinii	Lewin's honeyeater		C		1233
	Phylidonyris nigra	white-cheeked honeyeater		C		98
	Lichmera indistincta	brown honeyeater		C		601
	Melithreptus gularis	black-chinned honeyeater		R		1
	Philemon corniculatus	noisy friarbird		C		550
	Acanthorhynchus tenuirostris	eastern spinebill		C		38
	Melithreptus brevirostris	brown-headed honeyeater		C		2
	Plectorhyncha lanceolata	striped honeyeater		C		11
	Melithreptus albogularis	white-throated honeyeater		C		433
	Lichenostomus virescens	singing honeyeater		C		1
	Anthochaera chrysoptera	little wattlebird		C		247
	Philemon citreogularis	little friarbird		C		35
	Myzomela sanguinolenta	scarlet honeyeater		C		680
	Manorina melanocephala	noisy miner		C		956
	Lichenostomus melanops	yellow-tufted honeyeater		C		1
	Lichenostomus leucotis	white-eared honeyeater		C		4
	Lichenostomus chrysops	yellow-faced honeyeater		C		111
	Melithreptus lunatus	white-naped honeyeater		C		8
	Manorina melanophrys	bell miner		C		6
	Lichenostomus fuscus	fuscous honeyeater		C		1

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	Entomyzon cyanotis	blue-faced honeyeater		C		306
	Menura alberti	**Albert's lyrebird**		**R**		**1**
	Merops ornatus	rainbow bee-eater		C		328
	Anthus novaeseelandiae	Richard's pipit		C		42
	Zoothera heinei	russet-tailed thrush		C		2
	Zoothera lunulata	Bassian thrush		C		1
	Daphoenositta chrysoptera	varied sittella		C		54
	Oriolus sagittatus	olive-backed oriole		C		385
	Sphecotheres viridis	figbird		C		896
	Orthonyx temminckii	logrunner		C		4
	Ardeotis australis	Australian bustard		C		2
	Falcunculus frontatus	crested shrike-tit		C		22
	Colluricincla harmonica	grey shrike-thrush		C		557
	Pachycephala pectoralis	golden whistler		C		627
	Colluricincla megarhyncha	little shrike-thrush		C		272
	Pachycephala rufiventris	rufous whistler		C		428
	Ptiloris paradiseus	paradise riflebird		C		1
	Smicrornis brevirostris	weebill		C		4
	Acanthiza lineata	striated thornbill		C		101
	Gerygone olivacea	white-throated gerygone		C		313
	Pardalotus striatus	striated pardalote		C		698
	Sericornis magnirostris	large-billed scrubwren		C		105
	Acanthiza chrysorrhoa	yellow-rumped thornbill		C		2
	Sericornis frontalis	white-browed scrubwren		C		484
	Pardalotus punctatus	spotted pardalote		C		124
	Acanthiza reguloides	buff-rumped thornbill		C		2
	Gerygone levigaster	mangrove gerygone		C		1
	Acanthiza pusilla	brown thornbill		C		708
	Pardalotus sp.					1
	Sericornis citreogularis	yellow-throated scrubwren		C		2
	Acanthiza nana	yellow thornbill		C		5
	Gerygone mouki	brown gerygone		C		79
	Neochmia modesta	plum-headed finch		C		1
	Stagonopleura guttata	diamond firetail		C		1
	Lonchura castaneothorax	chestnut-breasted mannikin		C		100
	Taeniopygia bichenovii	double-barred finch		C		122
	Neochmia temporalis	red-browed finch		C		459
	Passer domesticus	house sparrow	Y			24
	Lonchura punctulata	nutmeg mannikin	Y			12
	Pelecanus conspicillatus	Australian pelican		C		136

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	Petroica rosea	rose robin		C		123
	Petroica multicolor	scarlet robin		C		1
	Eopsaltria australis	eastern yellow robin		C		505
	Tregellasia capito	pale-yellow robin		C		40
	Microeca fascinans	jacky winter		C		46
	Petroica phoenicea	flame robin		C		1
	Phalacrocorax carbo	great cormorant		C		182
	Phalacrocorax sulcirostris	little black cormorant		C		392
	Phalacrocorax melanoleucos	little pied cormorant		C		499
	Phalacrocorax varius	pied cormorant		C		31
	Coturnix pectoralis	stubble quail		C		7
	Coturnix ypsilophora	brown quail		C		70
	Pavo cristatus	Indian peafowl	Y			2
	Pitta versicolor	noisy pitta		C		47
	Podargus strigoides	tawny frogmouth		C		125
	Podargus ocellatus plumiferus	**plumed frogmouth**		**V**		**4**
	Podiceps cristatus	great crested grebe		C		16
	Poliocephalus poliocephalus	hoary-headed grebe		C		1
	Tachybaptus novaehollandiae	Australasian grebe		C		389
	Pomatostomus temporalis	grey-crowned babbler		C		7
	Platycercus elegans	crimson rosella		C		11
	Alisterus scapularis	Australian king-parrot		C		369
	Glossopsitta pusilla	little lorikeet		C		13
	Platycercus eximius	eastern rosella		C		8
	Platycercus adscitus	pale-headed rosella		C		731
	Pezoporus wallicus wallicus	**ground parrot**		**V**		**3**
	Cyclopsitta diophthalma coxeni	**Coxen's fig-parrot**		**E**	**E**	**1**
	Trichoglossus haematodus	rainbow lorikeet		C		1269
	Platycercus adscitus palliceps	pale-headed rosella		C		16
	Trichoglossus chlorolepidotus	scaly-breasted lorikeet		C		408
	Aprosmictus erythropterus	red-winged parrot		C		3
	Ailuroedus crassirostris	green catbird		C		141
	Sericulus chrysocephalus	regent bowerbird		C		42
	Ptilonorhynchus violaceus	satin bowerbird		C		19
	Fulica atra	Eurasian coot		C		278
	Gallirallus philippensis	buff-banded rail		C		62
	Amaurornis olivaceus	bush-hen		C		23
	Porzana pusilla	Baillon's crake		C		18
	Rallus pectoralis	**Lewin's rail**		**R**		**8**
	Gallinula tenebrosa	dusky moorhen		C		449

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	Porphyrio porphyrio	purple swamphen		C		400
	Porzana tabuensis	spotless crake		C		2
	Himantopus himantopus	black-winged stilt		C		126
	Tringa nebularia	common greenshank		C		8
	Actitis hypoleucos	common sandpiper		C		1
	Calidris acuminata	sharp-tailed sandpiper		C		36
	Tringa stagnatilis	marsh sandpiper		C		20
	Gallinago hardwickii	Latham's snipe		C		44
	Calidris ferruginea	curlew sandpiper		C		1
	Ninox strenua	**powerful owl**		**V**		**18**
	Ninox connivens	barking owl		C		12
	Ninox novaeseelandiae	southern boobook		C		117
	Sturnus vulgaris	common starling	Y			16
	Acridotheres tristis	common myna	Y			7
	Morus serrator	Australasian gannet		C		1
	Sula dactylatra	masked booby		C		1
	Megalurus gramineus	little grassbird		C		3
	Megalurus timoriensis	tawny grassbird		C		63
	Cisticola exilis	golden-headed cisticola		C		208
	Cincloramphus cruralis	brown songlark		C		2
	Acrocephalus stentoreus	clamorous reed-warbler		C		69
	Cincloramphus mathewsi	rufous songlark		C		6
	Platalea regia	royal spoonbill		C		161
	Threskiornis molucca	Australian white ibis		C		324
	Threskiornis spinicollis	straw-necked ibis		C		327
	Plegadis falcinellus	glossy ibis		C		12
	Platalea flavipes	yellow-billed spoonbill		C		99
	Turnix varia	painted button-quail		C		2
	Turnix velox	little button-quail		C		1
	Tyto alba	barn owl		C		2
	Tyto tenebricosa	sooty owl		R		2
	Tyto novaehollandiae novaehollandiae	masked owl		C		2
	Zosterops lateralis	silvereye		C		473
MAMMALS						
	Acrobates pygmaeus	feathertail glider		C		4
	Vulpes vulpes	red fox	Y			17
	Canis lupus dingo	dingo				2
	Dasyurus hallucatus	**northern quoll**		**C**	**E**	**1**
	Antechinus subtropicus			C		4

Queensland Government
Environmental Protection Agency
Queensland Parks and Wildlife Service

WildNet

Latitude: 26.5708 to 26.8594
Longitude: 152.8975 to 153.0278
Date extracted: Thursday 30 Aug 2007 13:46:02
The number of records retrieved = 512

CLASS						
Class	***Scientific Name***	**Common Name**	**I**	**Q**	**A**	**Records**
	Phascogale tapoatafa	brush-tailed phascogale		C		1
	Antechinus flavipes	yellow-footed antechinus		C		22
	Sminthopsis murina	common dunnart		C		8
	Planigale maculata	common planigale		C		4
	Felis catus	cat	Y			8
	Lepus capensis	brown hare	Y			8
	Oryctolagus cuniculus	rabbit	Y			1
	Wallabia bicolor	swamp wallaby		C		38
	Thylogale thetis	red-necked pademelon		C		1
	Macropus parryi	whiptail wallaby		C		3
	Macropus giganteus	eastern grey kangaroo		C		35
	Macropus rufogriseus	red-necked wallaby		C		2
	Mormopterus beccarii	Beccari's freetail bat		C		1
	Mormopterus norfolkensis	east coast freetail bat		C		2
	Mormopterus sp. 2	eastern freetail bat		C		1
	Tadarida australis	white-striped freetail bat		C		12
	Mus musculus	house mouse	Y			16
	Hydromys chrysogaster	water rat		C		9
	Melomys cervinipes	fawn-footed melomys		C		16
	Rattus lutreolus	swamp rat		C		8
	Xeromys myoides	**false water-rat**		**V**	**V**	**3**
	Rattus tunneyi	pale field-rat		C		5
	Melomys burtoni	grassland melomys		C		5
	Rattus rattus	black rat	Y			6
	Rattus fuscipes	bush rat		C		45
	Ornithorhynchus anatinus	platypus		C		13
	Isoodon macrourus	northern brown bandicoot		C		28
	Perameles nasuta	long-nosed bandicoot		C		14
	Petaurus breviceps	sugar glider		C		11
	Petaurus norfolcensis	squirrel glider		C		4
	Trichosurus caninus	short-eared possum		C		52
	Trichosurus vulpecula	common brushtail possum		C		26
	Phascolarctos cinereus	**koala (SE Qld Bioregion)**		**V**		**76**
	Aepyprymnus rufescens	rufous bettong		C		2
	Potorous tridactylus tridactylus	**long-nosed potoroo**		**V**	**V**	**2**
	Petauroides volans	greater glider		C		3
	Pseudocheirus peregrinus	common ringtail possum		C		19
	Pteropus alecto	black flying-fox		C		3
	Pteropus scapulatus	little red flying-fox		C		5
	Syconycteris australis	eastern blossom bat		C		3

Queensland Government
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Date extracted: Thursday 30 Aug 2007 13:46:02
The number of records retrieved = 512

CLASS						
Class	***Scientific Name***	**Common Name**	**I**	**Q**	**A**	**Records**
	Pteropus poliocephalus	**grey-headed flying-fox**		**C**	**V**	**15**
	Rhinolophus megaphyllus	eastern horseshoe-bat		C		1
	Sus scrofa	pig	Y			3
	Tachyglossus aculeatus	short-beaked echidna		C		37
	Myotis macropus	large-footed myotis		C		3
	Nyctophilus sp.					2
	Scotorepens orion	south-eastern broad-nosed bat		C		1
	Chalinolobus morio	chocolate wattled bat		C		1
	Nyctophilus gouldi	Gould's long-eared bat		C		5
	Scotorepens greyii	little broad-nosed bat		C		1
	Vespadelus pumilus	eastern forest bat		C		4
	Chalinolobus gouldii	Gould's wattled bat		C		4
	Miniopterus australis	little bent-wing bat		C		5
	Nyctophilus bifax bifax	northern long-eared bat		C		8
	Chalinolobus nigrogriseus	hoary wattled bat		C		2
	Miniopterus schreibersii	eastern bent-wing bat		C		5

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 Presumed Extinct (PE), Endangered (E), Vulnerable (V), Rare (R), Common (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).

DISCLAIMER

As the EPA is still in a process of collating and vetting data, it is possible the information given is not complete. The information provided should only be used for the project for which it was requested and it should be appropriately acknowledged as being derived from Wildlife Online when it is used.
The State of Queensland does not invite reliance upon, nor accept responsibility for this information. Persons should satisfy themselves through independent means as to the accuracy and completeness of this information.

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

BIRDS AUSTRALIA ATLAS

Common Name	*Scientific Name*	Breeding	Counts	No. Records (EVR only)
Australian Brush-turkey	*Alectura lathami*			
Brown Quail	*Coturnix ypsilophora*			
Magpie Goose	*Anseranas semipalmata*			
Plumed Whistling-Duck	*Dendrocygna eytoni*			
Wandering Whistling-Duck	*Dendrocygna arcuata*			
Black Swan	*Cygnus atratus*			
Australian Wood Duck	*Chenonetta jubata*			
Mallard	*Anas platyrhynchos*			
Pacific Black Duck	*Anas superciliosa*			
Grey Teal	*Anas gracilis*			
Hardhead	*Aythya australis*			
Australasian Grebe	*Tachybaptus novaehollandiae*			
Great Crested Grebe	*Podiceps cristatus*			
Darter	*Anhinga melanogaster*			
Little Pied Cormorant	*Phalacrocorax melanoleucos*			
Pied Cormorant	*Phalacrocorax varius*			
Little Black Cormorant	*Phalacrocorax sulcirostris*			
Great Cormorant	*Phalacrocorax carbo*			
Australian Pelican	*Pelecanus conspicillatus*			
White-faced Heron	*Egretta novaehollandiae*			
Little Egret	*Egretta garzetta*			
White-necked Heron	*Ardea pacifica*			
Great Egret	*Ardea alba*		1	
Intermediate Egret	*Ardea intermedia*			
Cattle Egret	*Ardea ibis*			
Nankeen Night Heron	*Nycticorax caledonicus*			
Australian White Ibis	*Threskiornis molucca*			
Straw-necked Ibis	*Threskiornis spinicollis*			
Royal Spoonbill	*Platelea regia*			
Yellow-billed Spoonbill	*Platelea flavipes*			
Black-necked Stork	***Ephippiorhynchus asiaticus***			**2**
Black-shouldered Kite	*Elanus notatus*			
Whistling Kite	*Haliastur sphenurus*			
Brahminy Kite	*Haliastur indus*		1	
White-bellied Sea-Eagle	*Haliaeetus leucogaster*			
Swamp Harrier	*Circus approximans*			
Brown Goshawk	*Accipiter fasciatus*			
Grey Goshawk	***Accipiter novaehollandiae***			**9**
Collared Sparrowhawk	*Accipiter cirrhocephalus*			
Wedge-tailed Eagle	*Aquila audax*			
Little Eagle	*Hieraaetus morphnoides*			
Brown Falcon	*Falco berigora*			
Australian Hobby	*Falco longipennis*			
Peregrine Falcon	*Falco peregrinus*			
Buff-banded Rail	*Gallirallus philippensis*			
Lewin's Rail	***Rallus pectoralis***			**1**
Baillon's Crake	*Porzana pusilla*			
Purple Swamphen	*Porphyrio porphyrio*			
Dusky Moorhen	*Gallinula tenebrosa*			
Eurasian Coot	*Fulica atra*			
Latham's Snipe	*Gallinago hardwickii*			
Comb-crested Jacana	*Irediparra gallinacea*			
Black-winged Stilt	*Himantopus himantopus*			
Black-fronted Dotterel	*Elseyornis melanops*			

BIRDS AUSTRALIA ATLAS

Common Name	*Scientific Name*	Breeding	Counts	No. Records (EVR only)
Banded Lapwing	*Vanellus tricolor*		2	
Masked Lapwing	*Vanellus miles*			
Caspian Tern	*Sterna caspia*			
Common Tern	*Sterna hirundo*			
Whiskered Tern	*Chlidonias hybridus*			
White-winged Black Tern	*Chlidonias leucopterus*		2	
Rock Dove	*Columba livia*			
White-headed Pigeon	*Columba leucomela*			
Spotted Turtle-Dove	*Streptopelia chinensis*			
Brown Cuckoo-Dove	*Macropygia amboinensis*			
Emerald Dove	*Chalcophaps indica*			
Common Bronzewing	*Phaps chalcoptera*		1	
Crested Pigeon	*Ocyphaps lophotes*			
Peaceful Dove	*Geopelia striata*		2	
Bar-shouldered Dove	*Geopelia humeralis*			
Wompoo Fruit-Dove	*Ptilinopus magnificus*			
Rose-crowned Fruit-Dove	*Ptilinopus regina*			
Topknot Pigeon	*Lopholaimus antarcticus*			
Red-tailed Black-Cockatoo	*Calyptorhynchus banksii*		2	
Glossy Black-Cockatoo	***Calyptorhynchus lathami***			**3**
Yellow-tailed Black-Cockatoo	*Calyptorhynchus funereus*			
Galah	*Cacatua roseicapilla*			
Long-billed Corella	*Cacatua tenuirostris*		40	
Little Corella	*Cacatua sanguinea*			
Major Mitchell's Cockatoo	*Cacatua leadbeateri*			
Sulphur-crested Cockatoo	*Cacatua galerita*			
Rainbow Lorikeet	*Trichoglossus haematodus*			
Scaly-breasted Lorikeet	*Trichoglossus chlorolepidotus*			
Musk Lorikeet	*Glossopsitta concinna*			
Little Lorikeet	*Glossopsitta pusilla*			
Australian King-Parrot	*Alisterus scapularis*			
Crimson Rosella	*Platycercus elegans*			
Eastern Rosella	*Platycercus eximius*			
Pale-headed Rosella	*Platycercus adscitus*			
Pallid Cuckoo	*Cuculus pallidus*			
Brush Cuckoo	*Cacomantis variolosus*			
Fan-tailed Cuckoo	*Cacomantis flabelliformis*			
Horsfield's Bronze-Cuckoo	*Chrysococcyx basalis*		1	
Shining Bronze-Cuckoo	*Chrysococcyx lucidus*			
Little Bronze-Cuckoo	*Chrysococcyx minutillus*			
Common Koel	*Eudynamis scolopacea*			
Channel-billed Cuckoo	*Scythrops novaehollandiae*			
Pheasant Coucal	*Centropus phasianinus*			
Powerful Owl	***Ninox strenua***			**3**
Barking Owl	*Ninox connivens*			
Southern Boobook	*Ninox novaeseelandiae*			
Masked Owl	*Tyto novaehollandiae*		2	
Tawny Frogmouth	*Podargus strigoides*			
White-throated Nightjar	*Eurostopodus mystacalis*			
White-throated Needletail	*Hirundapus caudacutus*			
Fork-tailed Swift	*Apus pacificus*			
Azure Kingfisher	*Ceyx azurea*			
Laughing Kookaburra	*Dacelo novaeguineae*			
Forest Kingfisher	*Todiramphus macleayii*			

BIRDS AUSTRALIA ATLAS

Common Name	*Scientific Name*	Breeding	Counts	No. Records (EVR only)
Sacred Kingfisher	*Todiramphus sanctus*			
Rainbow Bee-eater	*Merops ornatus*			
Dollarbird	*Eurystomus orientalis*			
Noisy Pitta	*Pitta versicolor*		1	
White-throated Treecreeper	*Corombates leucophaeus*			
Superb Fairy-wren	*Malurus cyaneus*			
Variegated Fairy-wren	*Malurus lamberti*			
Red-backed Fairy-wren	*Malurus melanocephalus*			
Spotted Pardalote	*Pardalotus punctatus*			
Striated Pardalote	*Pardalotus striatus*			
White-browed Scrubwren	*Sericornis frontalis*			
Large-billed Scrubwren	*Sericornis magnirostris*			
Brown Gerygone	*Gerygone mouki*			
White-throated Gerygone	*Gerygone olivacea*			
Brown Thornbill	*Acanthiza pusilla*			
Yellow Thornbill	*Acanthiza nana*			
Striated Thornbill	*Acanthiza lineata*			
Little Wattlebird	*Anthochaera chrysoptera*			
Noisy Friarbird	*Philemon corniculatus*			
Little Friarbird	*Philemon citreogularis*			
Blue-faced Honeyeater	*Entomyzon cyanotis*			
Noisy Miner	*Manorina melanocephala*			
Lewin's Honeyeater	*Meliphaga lewinii*			
Yellow-faced Honeyeater	*Lichenostomus chrysops*		15	
White-eared Honeyeater	*Lichenostomus leucotis*			
Brown-headed Honeyeater	*Melithreptus brevirostris*			
White-throated Honeyeater	*Melithreptus albogularis*			
White-naped Honeyeater	*Melithreptus lunatus*			
Brown Honeyeater	*Lichmera indistincta*			
White-cheeked Honeyeater	*Phylidonyris nigra*			
Eastern Spinebill	*Acanthorhynchus tenuirostris*			
Dusky Honeyeater	*Myzomela obscura*			
Scarlet Honeyeater	*Myzomela sanguinolenta*			
Jacky Winter	*Microeca leucophaea*			
Rose Robin	*Petroica rosea*			
Pale-yellow Robin	*Tregellasia capito*		1	
Eastern Yellow Robin	*Eopsaltria australis*			
Western Yellow Robin	*Eopsaltria griseogularis*			
Eastern Whipbird	*Psophodes olivaceus*			
Varied Sittella	*Daphoenositta chrysoptera*		2	
Crested Shrike-tit	*Falcunculus frontatus*			
Golden Whistler	*Pachycephala pectoralis*			
Rufous Whistler	*Pachycephala rufiventris*			
Little Shrike-thrush	*Colluricincla megarhyncha*			
Grey Shrike-thrush	*Colluricincla harmonica*			
Black-faced Monarch	*Monarcha melanopsis*			
Spectacled Monarch	*Monarcha trivirgatus*		1	
Leaden Flycatcher	*Myiagra rubecula*			
Satin Flycatcher	*Myiagra cyanoleuca*			
Restless Flycatcher	*Myiagra inquieta*			
Magpie-Lark	*Grallina cyanoleuca*			
Rufous Fantail	*Rhipidura rufifrons*		1	
Grey Fantail	*Rhipidura fuliginosa*			
Willie Wagtail	*Rhipidura leucophrys*			

BIRDS AUSTRALIA ATLAS

Common Name	*Scientific Name*	Breeding	Counts	No. Records (EVR only)
Spangled Drongo	*Dicrurus hottentottus*			
Black-faced Cuckoo-Shrike	*Coracina novaehollandiae*			
Barred Cuckoo-Shrike	*Coracina lineata*			
White-bellied Cuckoo-Shrike	*Coracina papuensis*			
Cicadabird	*Coracina tenuirostris*			
Varied Triller	*Lalage leucomela*			
Olive-backed Oriole	*Oriolus sagittatus*			
Figbird	*Sphecotheres viridis*			
White-breasted Woodswallow	*Artamus leucorynchus*			
Masked Woodswallow	*Artamus personatus*		19	
White-browed Woodswallow	*Artamus superciliosus*			
Dusky Woodswallow	*Artamus cyanopterus*			
Grey Butcherbird	*Cracticus torquatus*			
Pied Butcherbird	*Cracticus nigrogularis*			
Australian Magpie	*Gymnorhina tibicen*			
Pied Currawong	*Strepera graculina*			
Little Crow	*Corvus bennetti*			
Torresian Crow	*Corvus orru*			
Green Catbird	*Ailuroedus crassirostris*			
Regent Bowerbird	*Sericulus chrysocephalus*			
Satin Bowerbird	*Ptilonorhynchus violaceus*			
Richard's Pipit	*Anthus novaeseelandiae*			
Double-barred Finch	*Taeniopygia bichenovii*			
Red-browed Finch	*Neochmia temporalis*		4	
Chestnut-breasted Mannikin	*Lonchura castaneothorax*			
Mistletoebird	*Dicaeum hirundinaceum*			
White-backed Swallow	*Cheramoeca leucosternum*			
Welcome Swallow	*Hirundo neoxena*			
Tree Martin	*Hirundo nigricans*			
Fairy Martin	*Hirundo ariel*			
Clamorous Reed-Warbler	*Acrocephalus stentoreus*			
Tawny Grassbird	*Megalurus timoriensis*			
Little Grassbird	*Megalurus gramineus*		1	
Golden-headed Cisticola	*Cisticola exilis*			
Silvereye	*Zosterops lateralis*			
Common Myna	*Acridotheres tristis*		5	
Little Wattlebird	*Anthochaera lunulata*		1	

Australian Government
Department of the Environment and Water Resources

Protected Matters Search Tool

You are here: Environment Home > EPBC Act > Search

30 July 2007 15:56

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.

You may wish to print this report for reference before moving to other pages or websites.

The Australian Natural Resources Atlas at http://www.environment.gov.au/atlas may provide further environmental information relevant to your selected area. Information about the EPBC Act including significance guidelines, forms and application process details can be found at http://www.environment.gov.au/epbc/assessmentsapprovals/index.html

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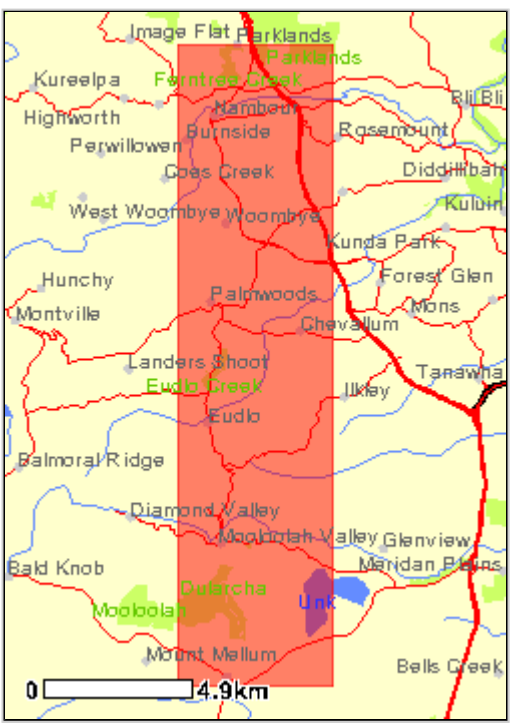
Search Type: Area

Buffer: 0 km

Coordinates: -26.60298,152.94842, -26.81212,152.94842, -26.81212,152.99884, -26.6029,152.99884



This map may contain data which are
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Report Contents:

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 - see http://www.environment.gov.au/epbc/assessmentsapprovals/guidelines/index.html.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Significance: (Ramsar Sites)	1
Commonwealth Marine Areas:	None
Threatened Ecological Communities:	None
Threatened Species:	24
Migratory Species:	16

Other Matters Protected by the EPBC Act

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

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

Please note that the current dataset on Commonwealth land is not complete. Further information on Commonwealth land would need to be obtained from relevant sources including Commonwealth agencies, local agencies, and land tenure maps.

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. Information on EPBC Act permit requirements and application forms can be found at http://www.environment.gov.au/epbc/permits/index.html.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Places on the RNE:	2
Listed Marine Species:	14
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves:	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:	4
Other Commonwealth Reserves:	None
Regional Forest Agreements:	1

Details

Matters of National Environmental Significance

Wetlands of International Significance [Dataset Information]
(Ramsar Sites)

MORETON BAY	Within 10 km of Ramsar site

Threatened Species [Dataset Information]	Status	Type of Presence
Birds		
*Cyclopsitta diophthalma coxeni** Coxen's Fig-Parrot	Endangered	Species or species habitat likely to occur within area
Erythrotriorchis radiatus * Red Goshawk	Vulnerable	Species or species habitat likely to occur within area
Rostratula australis * Australian Painted Snipe	Vulnerable	Species or species habitat may occur within area
Turnix melanogaster * Black-breasted Button-quail	Vulnerable	Species or species habitat likely to occur within area
Frogs		
Mixophyes iteratus * Southern Barred Frog, Giant Barred Frog	Endangered	Species or species habitat likely to occur within area
Insects		
*Phyllodes imperialis (southern subsp. - ANIC 3333)** a moth	Endangered	Species or species habitat likely to occur within area
Mammals		
Chalinolobus dwyeri * Large-eared Pied Bat, Large Pied Bat	Vulnerable	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)	Endangered	Species or species habitat may occur within area
*Potorous tridactylus tridactylus** Long-nosed Potoroo (SE mainland)	Vulnerable	Species or species habitat may occur within area
Pteropus poliocephalus * Grey-headed Flying-fox	Vulnerable	Roosting known to occur within area
Ray-finned fishes		

Nannoperca oxleyana * Oxleyan Pygmy Perch	Endangered	Species or species habitat likely to occur within area
Pseudomugil mellis * Honey Blue-eye	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
Coeranoscincus reticulatus * Three-toed Snake-tooth Skink	Vulnerable	Species or species habitat may occur within area
Plants		
Bulbophyllum globuliforme * Miniature Moss-orchid	Vulnerable	Species or species habitat likely to occur within area
Cryptocarya foetida * Stinking Cryptocarya, Stinking Laurel	Vulnerable	Species or species habitat likely to occur within area
Eucalyptus conglomerata * Swamp Stringybark	Endangered	Species or species habitat likely to occur within area
Floydia praealta * Ball Nut, Possum Nut, Big Nut, Beefwood	Vulnerable	Species or species habitat likely to occur within area
Graptophyllum reticulatum * Veiny Graptophyllum	Endangered	Species or species habitat likely to occur within area
Macadamia ternifolia * Small-fruited Queensland Nut	Vulnerable	Species or species habitat likely to occur within area
Phaius australis * Lesser Swamp-orchid	Endangered	Species or species habitat likely to occur within area
Plectranthus torrenticola *	Endangered	Species or species habitat likely to occur within area
Romnalda strobilacea *	Vulnerable	Species or species habitat likely to occur within area
Syzygium hodgkinsoniae * Smooth-bark Rose Apple, Red Lilly Pilly	Vulnerable	Species or species habitat likely to occur within area
Triunia robusta *	Endangered	Species or species habitat likely to occur within area
Migratory Species [Dataset Information]	Status	Type of Presence
Migratory Terrestrial Species		
Birds		
*Cyclopsitta diophthalma coxeni** Coxen's Fig-Parrot	Migratory	Species or species habitat likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle	Migratory	Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail	Migratory	Species or species habitat may occur within area
Merops ornatus * Rainbow Bee-eater	Migratory	Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch	Migratory	Breeding may occur within area
Monarcha trivirgatus Spectacled Monarch	Migratory	Breeding likely to occur within area
Myiagra cyanoleuca	Migratory	Breeding likely to occur within area

Satin Flycatcher		
Rhipidura rufifrons Rufous Fantail	Migratory	Breeding may occur within area

Migratory Wetland Species

Birds

Ardea alba Great Egret, White Egret	Migratory	Species or species habitat may occur within area
Ardea ibis Cattle Egret	Migratory	Breeding likely to occur within area
Gallinago hardwickii ***** Latham's Snipe, Japanese Snipe	Migratory	Species or species habitat may occur within area
Nettapus coromandelianus albipennis Australian Cotton Pygmy-goose	Migratory	Species or species habitat may occur within area
Rostratula benghalensis s. lat. Painted Snipe	Migratory	Species or species habitat may occur within area

Migratory Marine Birds

Apus pacificus Fork-tailed Swift	Migratory	Species or species habitat may occur within area
Ardea alba Great Egret, White Egret	Migratory	Species or species habitat may occur within area
Ardea ibis Cattle Egret	Migratory	Breeding likely to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species [Dataset Information]	Status	Type of Presence
Birds		
Anseranas semipalmata Magpie Goose	Listed - overfly marine area	Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift	Listed - overfly marine area	Species or species habitat may occur within area
Ardea alba Great Egret, White Egret	Listed - overfly marine area	Species or species habitat may occur within area
Ardea ibis Cattle Egret	Listed - overfly marine area	Breeding likely to occur within area
Gallinago hardwickii ***** Latham's Snipe, Japanese Snipe	Listed - overfly marine area	Species or species habitat may occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle	Listed	Species or species habitat likely to occur within area
Hirundapus caudacutus	Listed -	Species or species habitat may occur

White-throated Needletail	overfly marine area	within area
Merops ornatus * Rainbow Bee-eater	Listed - overfly marine area	Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch	Listed - overfly marine area	Breeding may occur within area
Monarcha trivirgatus Spectacled Monarch	Listed - overfly marine area	Breeding likely to occur within area
Myiagra cyanoleuca Satin Flycatcher	Listed - overfly marine area	Breeding likely to occur within area
Nettapus coromandelianus albipennis Australian Cotton Pygmy-goose	Listed - overfly marine area	Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail	Listed - overfly marine area	Breeding may occur within area
Rostratula benghalensis s. lat. Painted Snipe	Listed - overfly marine area	Species or species habitat may occur within area

Places on the RNE [Dataset Information]
Note that not all Indigenous sites may be listed.

Historic

Nurses Quarters (former) Nambour Hospital QLD

Natural

North Coast Railway National Parks QLD

Extra Information

State and Territory Reserves [Dataset Information]

Dularcha National Park, QLD

Eudlo Creek National Park, QLD

Ferntree Creek National Park, QLD

Mooloolah (Marie Higgs) Conservation Park, QLD

Regional Forest Agreements [Dataset Information]
Note that all RFA areas including those still under consideration have been included.

South East Queensland RFA, Queensland

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 migratory and marine provisions of the Act have been mapped.

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.

Acknowledgments

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

- New South Wales National Parks and Wildlife Service
- Department of Sustainability and Environment, Victoria
- Department of Primary Industries, Water and Environment, Tasmania
- Department of Environment and Heritage, South Australia Planning SA
- Parks and Wildlife Commission of the Northern Territory
- Environmental Protection Agency, Queensland
- Birds Australia
- Australian Bird and Bat Banding Scheme
- Australian National Wildlife Collection
- Natural history museums of Australia
- 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
- Other groups and individuals

ANUCliM Version 1.8, Centre for Resource and Environmental Studies, Australian National University was used extensively for the production of draft maps of species distribution. Environment Australia is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Last updated:

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Recorded Fauna Species

Special status abbreviations are as follows:
Nature Conservation Act (1992): LC = Least concern; V = vulnerable; R = Rare; E = Endangered; I = Introduced
Environment Protection and Biodiversity Conservation Act 1999: E = Endangered Species; M = Migratory Species
BAMM = Priority Non-EVR Fauna SEQ Bioregion

BUTTERFLIES

N = 18

FAMILY		Status			Trapping Source								
Scientific Name	**Common Name**	**BAAM**	**NCA**	**EPBC**	**T01**	**T02**	**T03**	**T04**	**T05**	**T06**	**T07**	**Targeted Site**	**Inc**
HESPERIIDAE													
Euschemon rafflesia	Regent Skipper		LC					X					
PAPILIONIDAE													
Graphium macleayanus	Macleay's Swallowtail		LC									27	
Graphium sarpedon	Blue Triangle		LC					X				27	X
Papilio aegeus	Orchid Swallowtail		LC					X			X	19, 27	X
Ornithoptera richmondii	**Richmond Birdwing**		**V**									**19**	
PIERIDAE													
Eurema sp	A Grass-yellow												X
Melanitis leda	Evening Brown				X	X		X	X	X	X	6, 9, 10,13, 20, 26,, 27, 29	X
Hypocysta sp	A Ringlet		LC										X
Hypocysta adiante	Orange Ringlet		LC			X							X
Catopsilia pomona	Lemon Migrant		LC										X
NYMPHALIDAE													
Polyura sempronius	Tailed Emperor		LC									19, 27	
Mynes geoffroyi	Jezebel Nymph		LC									19	
Hypolimnas bolina	Common Eggfly		LC									27	
Junonia villida	Meadow Argus		LC										X
Euploea core	Common Crow		LC			X			X	X		19, 27	X
Danaus affinis	Swamp Tiger		LC										X
Danaus plexippus	Wanderer		LC										X
Acraea andromacha	Glasswing		LC										X

AMPHIBIANS

N = 15

FAMILY *Scientific Name*	Common Name	Status BAAM	 NCA	 EPBC	Trapping Source T01	 T02	 T03	 T04	 T05	 T06	 T07	 Targeted Site	 Inc
HYLIDAE													
Litoria caerulea	Green Treefrog		LC									13, 29	X
Litoria fallax	Eastern Sedgefrog		LC		X	X						1, 3, 6, 12, 13, 15, 22, 26, 29	X
Litoria gracilenta	Graceful Treefrog		LC									1, 13, 22, 27,29	X
Litoria peronii	Emerald Spotted Treefrog		LC							X		1, 21	
Litoria rubella			LC					X					
Litoria tyleri	Laughing Treefrog		LC		X					X		21	
Litoria wilcoxi	Stony Creek Frog		LC									21, 28	
MYOBATRACHIDAE													
Adelotus brevis	**Tusked Frog**		**V**		**X**		**X**	**X**			**X**	**1-4, 6, 9-13, 16, 18, 20, 22, 24, 26**	**X**
Crinia tinnula	**Wallum Froglet**		**V**									**2**	
Limnodynastes peronii	Striped Marsh frog		LC		X			X				1, 2, 6, 9, 10,13, 20, 22, 26, 29	X
Limnodynastes terraereginae	Scarlet-sided Pobblebonk		LC							X			X
Mixophyes fasciolatus	Great barred frog		LC				X			X			
Mixophyes iteratus	**Giant barred Frog**		**E**	**E**								**27, 28**	**X**
Pseudophryne raveni	Copper-backed Broodfrog		LC		X								
BUFONIDAE													
Bufo marinus	Cane Toad		I		X	X			X	X		1-7, 9-13, 15-20, 24-30	X

REPTILES

N = 10

FAMILY		Status			Trapping Source								
Scientific Name	**Common Name**	**BAAM**	**NCA**	**EPBC**	**T01**	**T02**	**T03**	**T04**	**T05**	**T06**	**T07**	**Targeted Site**	**Inc**
SCINCIDAE													
Carlia vivax			LC										X
Cyclodomorphus gerrardii	Pink-tongue Lizard		LC									20	
Eroticoscincus graciloides	**Elf Skink**		**R**		**X**	**X**		**X**		**X**	**X**		**X**
Eulamprus quoyii	Eastern Water Skink		LC		X								
Lampropholis delicata			LC		X	X			X			17	X
AGAMIDAE													
Physignathus lesueurii	Eastern Water Dragon		LC									20, 21, 30	X
VARANIDAE													
Varanus varius	Lace Monitor		LC						X			30	X
TYPHLOPIDAE													
Ramphotyphlops nigrescens		X	LC					X					
Ramphotyphlops proximus			LC							X			
COLUBRIDAE													
Dendrelaphis punctulata	Green Treesnake		LC			X							X

BIRDS

N = 109

FAMILY *Scientific Name*	Common Name	Status BAAM	 NCA	 EPBC	Trapping Source T01	 T02	 T03	 T04	 T05	 T06	 T07	Targeted Site	Inc
MEGAPODIIDAE													
Alectura lathami	Australian Brush Turkey		LC						**X**			10, 14	X
ANATIDAE													
Anas superciliosa	Pacific Black Duck		LC									8	X
Chenonetta jubata	Australian Wood Duck		LC		X								X
PODICIPEDIDAE													
Tachybaptus novaehollandiae	Australasian Grebe		LC										X
PHALACROCORACIDAE													
Phalacrocorax melanoleucos	Little Pied Cormorant		LC									8	
Phalacrocorax sulcirostris	Little Black Cormorant		LC									8	
ARDEIDAE													
Egretta novaehollandiae	White-faced Heron		LC										X
Ardea alba	Great Egret		LC	M								6	
Ardea ibis	Cattle Egret		S	M								8	X
THRESKIORNITHIDAE													
Threskiornis molucca	Australian White Ibis		LC									8, 30	X
Threskiornis spinicollis	Straw-necked Ibis		LC									8	X
ACCIPITRIDAE													
Aviceda subcristata	Pacific Baza		LC		X								
Accipiter novaehollandiae	**Grey goshawk**		**R**										**X**
Lophoictinia isura	**Square-tailed Kite**		**R**										**X**
Haliaeetus leucogaster	White-breasted Sea-eagle		LC	M								30	

FAMILY *Scientific Name*	Common Name	Status BAAM	 NCA	 EPBC	Trapping Source T01	 T02	 T03	 T04	 T05	 T06	 T07	 Targeted Site	 Inc
RALLIDAE													
Gallinula tenebrosa	Dusky Moorhen		LC									8, 12	X
Gallirallus philippensis	Buff-banded Rail		LC										X
Porphyrio porphyrio	Purple Swamphen		LC									8	X
CHARADRIIDAE													
Vanellus miles	Masked Lapwing		LC									12	X
COLUMBIDAE													
Chalcophaps indica	Emerald Dove		LC				X			X		1, 5	
Columba leucomela	White-headed Pigeon		LC				X		X		X	17. 30	X
Geopelia humeralis	Bar-shouldered Dove		LC		X	X	X	X	X	X	X	7, 24	X
Geopelia striata	Peaceful Dove		LC			X			X			1, 9, 15, 22, 27	X
Ptilinopus magnificus	Wompoo Fruit-dove		LC								X	22	
Ptilinopus regina	Rose-crowned Fruit-dove	X	LC					X				15	
Macropygia amboinensis	Brown Cuckoo-dove		LC					X		X	X	15, 24	X
Ocyphaps lophotes	Crested Pigeon		LC										X
Streptopelia chinensis	Spotted Turtle-dove		I										X
CACATUIDAE													
Cacatua galerita	Sulphur-Crested Cockatoo		LC			X			X				X
Cacatua roseicapilla	Galah		LC					X	X				X
Cacatua sanguinea	Little Corella		LC										X
Calyptorhynchus funereus	Yellow-tailed Black Cockatoo		LC		X								X
Calyptorhynchus lathami[1]	**Glossy Black Cockatoo**		**V**										
PSITTACIDAE													
Alisterus scapularis	Australian King-parrot		LC		X	X	X		X		X	3, 10, 15	
Platycercus adscitus	Pale-headed Rosella		LC		X	X		X	X				X
Trichoglossus chlorolepidotus	Scaly-breasted Lorikeet		LC		X			X					
Trichoglossus haematodus	Rainbow Lorikeet		LC		X	X	X	X	X		X	1, 5, 27	

[1] Not recorded during BAAM surveys but identified as present through discussions with local landholders

FAMILY *Scientific Name*	Common Name	Status BAAM	 NCA	 EPBC	Trapping Source T01	 T02	 T03	 T04	 T05	 T06	 T07	 Targeted Site	 Inc
CUCULIDAE													
Scythrops novaehollandiae	Channel-billed Cuckoo		LC						X	X			X
Eudynamys scolopacea	Common Koel		LC			X					X		X
Cacomantis flabelliformis	Fan-tailed Cuckoo		LC				X					11	
Cacomantis variolosus	Brush Cuckoo		LC		X					X	X		
Chrysococcyx lucidus	Shining Bronze-Cuckoo		LC			X						1	
STRIGIDAE													
Ninox strenua[2]	**Powerful Owl**		**V**										
TYTONIDAE													
Tyto tenebricosa	**Sooty Owl**		**R**							**X**			**X**
PODARGIDAE													
Podargus strigoides	Tawny Frogmouth		LC					X					X
AEGOTHELIDAE													
Aegotheles cristatus	Australian Owlet-nightjar		LC		X							21	
APODIDAE													
Hirundapus caudacutus	White-throated Needletail		LC	M								14, 23	
ALCEDINIDAE													
Alecto pusilla	Azure Kingfisher		LC									21	X
HALCYONIDAE													
Dacelo novaeguineae	Laughing Kookaburra		LC		X	X							X
Todiramphus macleayii	Forest Kingfisher		LC			X							
Todiramphus sanctus	Sacred Kingfisher		LC		X					X		16	
MEROPIDAE													
Merops ornatus	Rainbow Bee-eater		LC	M	X	X						16, 24	

[2] Not recorded during BAAM surveys but identified as present through discussions with local landholders

FAMILY		Status			Trapping Source								
Scientific Name	Common Name	BAAM	NCA	EPBC	T01	T02	T03	T04	T05	T06	T07	Targeted Site	Inc
CLIMACTERIDAE													
Corombates leucophaeus	White-throated Treecreeper		LC		X	X	X	X	X	X	X	1, 3, 4, 10, 15, 23	X
MALURIDAE													
Malurus lamberti	Variegated Fairy-wren		LC		X	X			X		X	1, 3, 13	X
Malurus melanocephalus	Red-backed Fairy-wren		LC										X
PARDALOTIDAE													
Acanthiza lineata	Striated Thornbill		LC			X	X					1	
Acanthiza pusilla	Brown Thornbill		LC			X			X	X	X	1, 3, 4, 15, 17	X
Gerygone mouki	Brown Gerygone		LC				X	X			X	9-11, 15	X
Gerygone olivacea	White-throated Gerygone		LC									12	
Pardalotus punctatus	Spotted Pardalote		LC		X	X							
Pardalotus striatus	Striated Pardalote		LC		X	X						2, 6	
Sericornis frontalis	White-browed Scrubwren		LC		X	X		X	X	X	X	1, 7, 9, 14, 22	X
Sericornis magnirostris	Large-billed Scrubwren		LC				X					10, 17, 21	
MELIPHAGIDAE													
Entomyzon cyanotis	Blue-faced Honeyeater		LC									17	X
Anthochaera chrysoptera	Little Wattlebird											27	
Lichenostomus chrysops	Yellow-faced Honeyeater		LC		X	X							X
Lichmera indistincta	Brown Honeyeater		LC									8, 12	
Manorina melanocephala	Noisy Miner		LC								X	5, 8, 15	X
Meliphaga lewinii	Lewin's Honeyeater		LC		X		X	X	X		X	1, 3-5, 7, 9, 11, 15, 17, 21, 24, 27, 30	X
Melithreptus albogularis	White-throated Honeyeater		LC		X	X	X					1, 11	X
Myzomela sanguinolenta	Scarlet Honeyeater		LC		X	X	X		X		X	1-3, 7, 9-11, 14	
Philemon Corniculatus	Noisy Friarbird		LC		X							5	
Phylidonyris nigra	White-cheeked Honeyeater		LC		X								
PETROICIDAE													
Tregellasia capito	Pale Yellow Robin		LC								X		
Eopsaltria australis	Eastern Yellow Robin		LC					X	X		X	1, 3, 10, 14, 27	

FAMILY		Status			Trapping Source								
Scientific Name	Common Name	BAAM	NCA	EPBC	T01	T02	T03	T04	T05	T06	T07	Targeted Site	Inc
CINCLOSOMATIDAE													
Psophodes olivaceus	Eastern Whipbird		LC					X		X	X	7, 15, 17, 27	X
PACHYCEPHALIDAE													
Colluricincla harmonica	Grey Shrike-thrush		LC			X		X		X		1-3, 21, 24	
Colluricincla megarhyncha	Little Shrike-thrush		LC				X					3, 4, 15, 17, 24	
Dicrurus bracteatus	Spangled Drongo		LC		X	X		X		X		22	X
Falcunculus frontatus	Crested Shrike-tit		LC				X					1	X
Pachycephala pectoralis	Golden Whistler		LC		X		X	X	X	X	X	1, 3, 7, 9, 10, 14, 17	X
Pachycephala rufiventris	Rufous Whistler		LC			X						6	
NEOSITTIDAE													
Daphoenositta chrysoptera	Varied Sittella		LC		X								
DICRURIDAE													
Monarcha melanopsis	Black-faced Monarch		LC	M					X	X		16	
Monarcha trivirgatus	Spectacled Monarch		LC	M				X	X			15	
Myiagra rubecula	Leaden Flycatcher		LC			X							
Grallina cyanoleuca	Magpie-lark		LC									8, 12, 27	X
Rhipidura fuliginosa	Grey Fantail		LC		X	X	X	X	X	X		2-5, 9, 10, 14	X
Rhipidura leucophrys	Willie Wagtail		LC					X				11	X
Rhipidura rufifrons	Rufous Fantail		LC	M	X		X	X	X	X	X	4, 7, 16-18, 20, 21	
CAMPEPHAGIDAE													
Coracina tenuirostris	Cicadabird		LC		X	X			X	X	X	24, 27	
Coracina novaehollandiae	Black-faced Cuckoo-shrike		LC			X						27	
Lalage leucomela	Varied Triller		LC			X				X		16, 20	
ORIOLIDAE													
Oriolus flavicinctus	Olive-backed Oriole		LC		X							27	X
Sphecotheres viridis	Figbird		LC				X	X		X		1, 5, 16, 17	X

FAMILY *Scientific Name*	Common Name	Status BAAM	 NCA	 EPBC	Trapping Source T01	 T02	 T03	 T04	 T05	 T06	 T07	 Targeted Site	 Inc
ARTAMIDAE													
Cracticus nigrogularis	Pied Butcherbird		LC		X				X				X
Cracticus torquatus	Grey Butcherbird		LC		X			X			X	15	X
Gymnorhina tibicens	Australian Magpie		LC						X			5, 8	X
Strepera graculina	Pied Currawong		LC		X	X		X				27	X
CORVIDAE													
Corvus orru	Torresian Crow		LC		X	X						1, 5, 6	
PTILONORHYNCHIDAE													
Ailuroedus crassirostris	Green Catbird	X	LC				X	X				16	
Ptilonorhynchus violaceus	Satin Bowerbird		LC										X
PASSERIDAE													
Neochmia temporalis	Red-browed Finch		LC		X							1, 7, 10, 14, 22, 23, 27	
Passer domesticus	House Sparrow		I										X
DICAEIDAE													
Dicaeum hirundinaceum	Mistletoebird		LC					X	X			14, 15	X
HIRUNDINIDAE													
Hirundo ariel	Fairy Martin		LC									12	
Hirundo neoxena	Welcome Swallow		LC									1	X
SYLVIIDAE													
Cisticola exilis	Golden-headed Cisticola		LC									6	X
ZOSTEROPIDAE													
Zosterops lateralis	Silvereye		LC									3, 7, 11, 27	

MAMMALS

N = 24

Family *Scientific Name*	Common Nmae	Status BAAM	 NCA	 EPBC	Trapping Source T01	 T02	 T03	 T04	 T05	 T06	 T07	 Target Site	 Inc
DASYURIDAE													
Antechinus flavipes	Yellow-footed Antechinus		LC		X	X	X	X					
Sminthopsis murina	Common Dunnart	X	LC			X		X					
PARAMELIDAE													
Isoodon macrourus	Northern Brown Bandicoot		LC		X								X
PHASCOLARCTIDAE													
Phascolarctos cinereus	**Koala**		**V**			**X**						**14, 23**	**X**
PSEUDOCHEIRIDAE													
Petauroides volans	Greater Glider	X	LC							X			
Pseudocheirus peregrinus	Common Ringtail Possum		LC									19, 26	
PHALANGERIDAE													
Trichosurus caninus	Mountain Brushtail Possum	X	LC									21, 28	
MACROPODIAE													
Wallabia bicolor	Swamp Wallaby		LC			X							
PTEROPODIDAE													
Syconycteris australis	Eastern Blossom Bat	X	LC									22	
Pteropus poliocephalus	**Grey-headed Flying-fox**		**LC**	**V**									**X**
MOLOSSIDAE													
Mormopterus sp 2	Eastern Freetail Bat		LC							X			

Family *Scientific Name*	Common Nmae	Status BAAM	 NCA	 EPBC	Trapping Source T01	 T02	 T03	 T04	 T05	 T06	 T07	 Target Site	 Inc
VESPERTILIONIDAE													
Falsistrellus tasmaniensis		X	LC									24	
Miniopterus australis	Little Bentwing Bat		LC							X	X	1	X
Myotis macropus	Fishing Bat	X	LC										X
Nyctophilus bifax			LC						X	X		24	
Nyctophilus gouldi			LC							X			
Scotorepens sp	Central-eastern Broad-nosed Bat		LC						X			1	
Vespadelus darlingtoni		X	LC								X		
Vespadelus pumilus	Eastern Forest Bat		LC							X	X		
MURIDAE													
Melomys cervinipes	Fawn-footed Melomys		LC		X	X	X	X	X	X	X		
Rattus fuscipes	Bush Rat		LC		X	X	X	X	X	X	X		
Rattus lutreolus	Swamp Rat		LC			X							
CANIDAE													
Vulpes vulpes	European Fox		P2								X	28	
Canis familiaris	Dog/Dingo		I/P2									X	

EVR species not considered likely to occur

Special Status abbreviations are as follows:
Queensland's *Nature Conservation Act 1992* **(NCA), E** = Endangered, **V** = Vulnerable, **R** = Rare, **LC** = Least Concern wildlife.
Federal *Environment Protection and Biodiversity Conservation Act 1999* **(EPBC): E** = endangered, **V** = vulnerable, **M** = Migratory species.

Zoological Name	Common Name	NCA	EPBC	Comments
Amphibians				
Litoria brevipalmata	Green-thighed Frog	R		Found in a variety of habitats ranging from flooded open paddocks, heathlands, open forests and wet sclerophyll forests. Many records in south-east Queensland occur on sandy-loams. Its occurrence is extremely difficult to predict due to its absence from locations that appear similar to where healthy populations occur. Habitats within the study area are not typical for areas the species is found in south-east Queensland.
Litoria freycineti	Wallum Rocket-frog	V		Inhabits wallum habitats with acidic water. Habitat is extremely sparse within the study area and the species is not expected.
Litoria olongburensis	Wallum Sedge-frog	V	V	Inhabits wallum habitats with acidic water. Particularly associated permanent water with reed beds. No suitable habitat present
Rheobatrachus silus	Southern Gastric Brooding Frog	E	E	Known only from several streams in the Conondale Ranges. Thought to be extinct.
REPTILES				
Acanthophis antarcticus	Common Death Adder	R		Very uncommon east of the dividing range in south-east Queensland. Most records from very large areas of intact forest. Habitats within the study area are generally fragmented and disturbed. The species is therefore less likely to occur.
Ramphotyphlops silvia		R		Only one record south of the Noosa River. Located in coastal sand masses. No suitable habitat present.
Coeranoscincus reticulatus	Three-toed Snake-tooth Skink	R	V	Generally inhabits subtropical rainforests or coastal lowland sites. Most records are from areas of large intact forest. Habitats within the study area are considered to be to small and isolated to support this species.
BIRDS				
Nettapus coromandelianus	Cotton Pygmy-Goose	R	M	Prefers deeper swamps, dams and lakes, usually with plentiful semi-emergent aquatic vegetation. No suitable habitat present.
Rostratula australis	Australian Painted Snipe	V	V, M	Occurs in swamps and wetlands. No suitable habitat present.
Erythrotriorchis radiatus	Red Goshawk	E	V	A wide ranging and highly mobile species generally observed over eucalypt habitats. No suitable habitat present. Extremely rare in south-east Queensland.

Zoological Name	Common Name	NCA	EPBC	Comments
	Black-necked Stork	R		Occurs in swamps, wetlands, river systems, estuaries and dams. Suitable habitat extremely limited and not sufficient to support any resident birds.
Turnix melanogaster	Black-breasted Button-quail	V	V	Typically located in dry rainforests and, vine thickets although some populations are known to occur in costal heath around Frazer Island and nearby mainland. No suitable habitat for this species is present.
Cyclopsitta diophthalma coxeni	Coxen's Fig-parrot	E	E, M	Critically endangered species which is highly unlikely to occur in the study area. The species favours rainforest and coastal scrub habitats. While suitable habitat is present and the species cannot be completely disregarded, its scarcity suggests it is unlikely to occur.
Cacatua leadbeateri	Major Mitchell's Cockatoo	R		Occurs only in the far western corner of Queensland. Considered to be a miss-identification or escapee.
Podargus ocellatus plumiferus	Plumed Frogmouth	V		Occurs in rainforests and vine forests, particularly those with abundant palms and vines. Most records from large patches of intact or interconnected forests. Unlikely to occur due to the isolated and small nature of suitable habitats within the study area.
Menura alberti	Albert's Lyrebird	R		Known only from the McPherson and Main Ranges. Database records considered to me miss-identifications.
Climacteris erythrops	Red-browed Treecreeper	R		Generally confined to the far south-eastern corner of Queensland. Occasional records from the Conondale Ranges. Generally restricted to highland areas in Queensland. Database records quite a possibly miss-identification.
Melithreptus gularis	Black-chinned Honeyeater	R		Uncommon in south-east Queensland. Most records occur in open eucalypt forest with abundant flowering resources, particularly *E. tereticornis*. Habitats with abundant *Eucalyptus tereticornis* is not common within the study area and hence the species is not considered a high probability of occurring.
MAMMALS				
Dasyurus hallucatus	Northern Quoll		E	A recent record in south-east Queensland is not typical for the species. There is some conjecture if the animal was accidentally transported to the area. The study area is well outside its normal distribution and it is considered highly unlikely to occur.
Dasyurus maculatus maculatus	Spotted-tailed Quoll	E	V	No confirmed local records. Typically only located in very large tracts of remnant forests where pressures from introduced predators are less. The species is unlikely to occur in the highly fragmented local area.

Zoological Name	Common Name	NCA	EPBC	Comments
Potorous tridactylus tridactylus	Long-nosed Potoroo	V	V	Species is generally occurs in large tracts of vegetation with a dense understorey including wet sclerophyll forests, dry sclerophyll and heathlands. The species is unlikely to occur as suitable habitat within the study area is fragmented.
Xeromys myoides	False Water Rat/Water mouse	V	V	Coastal species confined to mangroves and adjacent mudflats/*Sporobolus* communities. No suitable habitat present.
Chalinolobus dwyeri	Large-eared Pied Bat	R	V	No confirmed local records of this uncommon species. Inhabits mesic vegetation. Not expected to occur within the study area.

Queensland Government
Environmental Protection Agency
Queensland Parks and Wildlife Service

Wildlife Online Extract

Search Criteria: Species List for a Defined Area
Species: Plants (including other non-animals such as fungi and protists)
Type: All
Status: All
Records: All
Date: All
Latitude: 26.6158 to 26.8139
Longitude: 152.9480 to 152.9783
Email: derek@qtree.com.au
Date submitted: Wednesday 25 Jun 2008 16:40:50
Date extracted: Wednesday 25 Jun 2008 16:46:02

The number of records retrieved = 595

fungi	club fungi	Basidiomycota	*Conocybe*			C	1/1
fungi	club fungi	Basidiomycota	*Phellinus senex*			C	1/1
fungi	club fungi	Basidiomycota	*Aurificaria indica*			C	1/1
fungi	club fungi	Basidiomycota	*Phanerochaete sordida*			C	1/1
fungi	club fungi	Basidiomycota	*Auricularia polytricha*			C	1/1
fungi	club fungi	Basidiomycota	*Auricularia delicata*			C	1/1
fungi	club fungi	Basidiomycota	*Polystictus rasipes*			C	1/1
fungi	club fungi	Basidiomycota	*Oxyporus cervinogilvus*			C	1/1
fungi	club fungi	Basidiomycota	*Australoporus tasmanicus*			C	1/1
fungi	sac fungi	Cladiaceae	*Cladia aggregata*			C	1/1
fungi	sac fungi	Cladoniaceae	*Cladonia rigida var. rigida*			C	2/2
fungi	sac fungi	Pyrenulaceae	*Pyrgillus javanicus*			C	1/1
plants	club mosses	Lycopodiaceae	*Lycopodium cernuum*			C	1
plants	conifers	Araucariaceae	*Araucaria cunninghamii*	hoop pine		C	3
plants	conifers	Pinaceae	*Pinus elliottii*	slash pine	Y		1
plants	conifers	Podocarpaceae	*Podocarpus elatus*	she pine		C	1
plants	cycads	Zamiaceae	*Macrozamia lucida*	pineapple zamia		C	13/1
plants	ferns	Adiantaceae	*Pellaea nana*			C	1
plants	ferns	Adiantaceae	*Adiantum silvaticum*			C	2
plants	ferns	Adiantaceae	*Cheilanthes sieberi*			C	2
plants	ferns	Adiantaceae	*Adiantum hispidulum*			C	8
plants	ferns	Adiantaceae	*Pellaea paradoxa*	heart fern		C	4/2
plants	ferns	Adiantaceae	*Adiantum diaphanum*			C	3
plants	ferns	Aspleniaceae	*Asplenium australasicum*			C	3
plants	ferns	Blechnaceae	*Doodia media*			C	1
plants	ferns	Blechnaceae	*Doodia caudata*			C	1
plants	ferns	Blechnaceae	*Blechnum camfieldii*			C	1/1
plants	ferns	Blechnaceae	*Blechnum cartilagineum*	gristle fern		C	16/1
plants	ferns	Blechnaceae	*Doodia heterophylla*			C	1
plants	ferns	Blechnaceae	*Blechnum indicum*	swamp water fern		C	3/1
plants	ferns	Blechnaceae	*Doodia aspera*	prickly rasp fern		C	3
plants	ferns	Cyatheaceae	*Cyathea cooperi*			C	1
plants	ferns	Cyatheaceae	*Cyathea leichhardtiana*	prickly tree fern		C	1
plants	ferns	Davalliaceae	*Davallia pyxidata*			C	1
plants	ferns	Dennstaedtiaceae	*Hypolepis muelleri*	swamp bracken		C	3/1
plants	ferns	Dennstaedtiaceae	*Pteridium esculentum*	common bracken		C	7
plants	ferns	Dicksoniaceae	*Calochlaena dubia*			C	16
plants	ferns	Dryopteridaceae	*Lastreopsis*			C	1
plants	ferns	Dryopteridaceae	*Lastreopsis microsora*			C	1
plants	ferns	Gleicheniaceae	*Gleichenia dicarpa*	pouched coral fern		C	1
plants	ferns	Gleicheniaceae	*Sticherus flabellatus*			C	1
plants	ferns	Hymenophyllaceae	*Crepidomanes walleri*			C	2/2
plants	ferns	Lindsaeaceae	*Lindsaea*			C	2
plants	ferns	Lindsaeaceae	*Lindsaea microphylla*	lacy wedge fern		C	1/1
plants	ferns	Lindsaeaceae	*Lindsaea incisa*			C	1/1
plants	ferns	Lindsaeaceae	*Lindsaea brachypoda*			C	1/1

plants	ferns	Nephrolepidaceae	*Arthropteris beckleri*			C	1
plants	ferns	Nephrolepidaceae	*Nephrolepis cordifolia*	fishbone fern		C	1
plants	ferns	Ophioglossaceae	*Botrychium australe*	parsley fern		C	1
plants	ferns	Osmundaceae	*Todea barbara*	king fern		C	1/1
plants	ferns	Polypodiaceae	*Drynaria rigidula*			C	2
plants	ferns	Polypodiaceae	*Platycerium superbum*	staghorn fern		C	3
plants	ferns	Schizaeaceae	*Schizaea bifida*	forked comb fern		C	2
plants	ferns	Schizaeaceae	*Lygodium microphyllum*	snake fern		C	1
plants	ferns	Schizaeaceae	*Schizaea dichotoma*	branched comb fern		C	1
plants	ferns	Thelypteridaceae	*Christella dentata*	creek fern		C	2
plants	ferns	Thelypteridaceae	*Cyclosorus interruptus*			C	1
plants	higher dicots	Acanthaceae	*Brunoniella australis*	blue trumpet		C	2
plants	higher dicots	Acanthaceae	*Brunoniella spiciflora*			C	1
plants	higher dicots	Acanthaceae	*Rostellularia adscendens*			C	1
plants	higher dicots	Acanthaceae	*Thunbergia grandiflora*	sky flower	Y		2/2
plants	higher dicots	Acanthaceae	*Pseuderanthemum variabile*	pastel flower		C	7/1
plants	higher dicots	Aizoaceae	*Sesuvium portulacastrum*	sea purslane		C	1/1
plants	higher dicots	Anacardiaceae	*Euroschinus falcatus*			C	3
plants	higher dicots	Apiaceae	*Centella asiatica*			C	2
plants	higher dicots	Apocynaceae	*Hoya australis*			C	2
plants	higher dicots	Apocynaceae	*Melodinus australis*	southern melodinus		C	3
plants	higher dicots	Apocynaceae	*Tylophora paniculata*	thin-leaved tylophora		C	1
plants	higher dicots	Apocynaceae	*Tabernaemontana pandacaqui*	banana bush		C	4
plants	higher dicots	Apocynaceae	*Gomphocarpus physocarpus*	balloon cottonbush	Y		2
plants	higher dicots	Apocynaceae	*Melodinus acutiflorus*	bellbird vine		C	1
plants	higher dicots	Apocynaceae	*Parsonsia straminea*	monkey rope		C	2
plants	higher dicots	Apocynaceae	*Marsdenia fraseri*	narrow-leaved milk vine		C	1/1
plants	higher dicots	Apocynaceae	*Parsonsia tenuis*	slender silkpod		R	1
plants	higher dicots	Apocynaceae	*Alyxia ilicifolia*			C	1
plants	higher dicots	Apocynaceae	*Alyxia ruscifolia*			C	1
plants	higher dicots	Apocynaceae	*Alyxia magnifolia*			R	6/1
plants	higher dicots	Araliaceae	*Polyscias elegans*	celery wood		C	10
plants	higher dicots	Araliaceae	*Polyscias murrayi*			C	1
plants	higher dicots	Araliaceae	*Astrotricha latifolia*			C	5
plants	higher dicots	Araliaceae	*Hydrocotyle pedicellosa*			C	1/1
plants	higher dicots	Araliaceae	*Cephalaralia cephalobotrys*	climbing panax		C	1
plants	higher dicots	Araliaceae	*Schefflera actinophylla*	umbrella tree		C	2/1
plants	higher dicots	Araliaceae	*Hydrocotyle laxiflora*	stinking pennywort		C	1
plants	higher dicots	Asteraceae	*Bidens pilosa*		Y		2
plants	higher dicots	Asteraceae	*Ageratina riparia*	mistflower	Y		4/1
plants	higher dicots	Asteraceae	*Cassinia laevis*			C	1
plants	higher dicots	Asteraceae	*Helianthus annuus*		Y		1/1
plants	higher dicots	Asteraceae	*Hypochaeris glabra*	smooth catsear	Y		1/1
plants	higher dicots	Asteraceae	*Galinsoga parviflora*	yellow weed	Y		1/1
plants	higher dicots	Asteraceae	*Hypochaeris radicata*	catsear	Y		2/1
plants	higher dicots	Asteraceae	*Baccharis halimifolia*	groundsel bush	Y		2

plants	higher dicots	Asteraceae	*Chrysocephalum apiculatum*	yellow buttons		C	1
plants	higher dicots	Asteraceae	*Centratherum australianum*			C	3
plants	higher dicots	Asteraceae	*Parthenium hysterophorus*	parthenium weed	Y		1/1
plants	higher dicots	Asteraceae	*Hypochaeris microcephala*			C	1
plants	higher dicots	Asteraceae	*Ozothamnus diosmifolius*	white dogwood		C	1
plants	higher dicots	Asteraceae	*Ambrosia artemisiifolia*	annual ragweed	Y		1/1
plants	higher dicots	Asteraceae	*Senecio amygdalifolius*			C	2
plants	higher dicots	Asteraceae	*Cyanthillium cinereum*			C	5
plants	higher dicots	Asteraceae	*Cassinia quinquefaria*			C	1
plants	higher dicots	Asteraceae	*Erechtites valerianifolius forma valerianifolius*		Y		1
plants	higher dicots	Asteraceae	*Solidago canadensis var. scabra*		Y		1/1
plants	higher dicots	Asteraceae	*Crassocephalum crepidioides*	thickhead	Y		2
plants	higher dicots	Asteraceae	*Ageratum houstonianum*	blue billygoat weed	Y		3
plants	higher dicots	Asteraceae	*Gamochaeta coarctata*		Y		1/1
plants	higher dicots	Asteraceae	*Conyza primulifolia*	Chilean fleabane	Y		1/1
plants	higher dicots	Asteraceae	*Conyza bonariensis*		Y		1
plants	higher dicots	Burseraceae	*Canarium australianum*			C	1
plants	higher dicots	Burseraceae	*Canarium australasicum*	mango bark		C	3
plants	higher dicots	Byttneriaceae	*Commersonia bartramia*	brown kurrajong		C	4
plants	higher dicots	Caesalpiniaceae	*Caesalpinia scortechinii*	large prickle vine		C	2/1
plants	higher dicots	Campanulaceae	*Pratia concolor*	poison pratia		C	1/1
plants	higher dicots	Campanulaceae	*Lobelia membranacea*			C	1/1
plants	higher dicots	Campanulaceae	*Lobelia trigonocaulis*	forest lobelia		C	1
plants	higher dicots	Campanulaceae	*Lobelia purpurascens*	white root		C	6
plants	higher dicots	Capparaceae	*Capparis velutina*			C	1
plants	higher dicots	Carpodetaceae	*Cuttsia viburnea*	silver-leaf cuttsia		C	1
plants	higher dicots	Caryophyllaceae	*Sagina procumbens*	spreading pearlwort	Y		1/1
plants	higher dicots	Casuarinaceae	*Allocasuarina torulosa*			C	11
plants	higher dicots	Casuarinaceae	*Allocasuarina littoralis*			C	2/1
plants	higher dicots	Celastraceae	*Hippocratea barbata*	knotvine		C	2
plants	higher dicots	Celastraceae	*Hedraianthera porphyropetala*	hedrianthera		C	2
plants	higher dicots	Celastraceae	*Denhamia celastroides*	broad-leaved boxwood		C	5
plants	higher dicots	Clusiaceae	*Hypericum gramineum*			C	1
plants	higher dicots	Clusiaceae	*Garcinia xanthochymus*		Y		1/1
plants	higher dicots	Convolvulaceae	*Dichondra repens*	kidney weed		C	1
plants	higher dicots	Convolvulaceae	*Polymeria calycina*	pink bindweed		C	1
plants	higher dicots	Cucurbitaceae	*Diplocyclos palmatus*			C	1
plants	higher dicots	Cunoniaceae	*Schizomeria ovata*	white cherry		C	4
plants	higher dicots	Cunoniaceae	*Pseudoweinmannia lachnocarpa*	rose marara		C	2
plants	higher dicots	Dilleniaceae	*Hibbertia aspera*			C	4
plants	higher dicots	Dilleniaceae	*Hibbertia scandens*			C	4
plants	higher dicots	Dilleniaceae	*Hibbertia vestita*			C	4
plants	higher dicots	Ebenaceae	*Diospyros pentamera*	myrtle ebony		C	3
plants	higher dicots	Ebenaceae	*Diospyros ellipticifolia forma australiensis*			C	1/1
plants	higher dicots	Elaeocarpaceae	*Sloanea woollsii*	yellow carrabeen		C	4/1
plants	higher dicots	Elaeocarpaceae	*Sloanea australis*			C	1

plants	higher dicots	Elaeocarpaceae	*Elaeocarpus eumundi*	Eumundi quandong		C	1
plants	higher dicots	Elaeocarpaceae	*Elaeocarpus grandis*	blue quandong		C	2
plants	higher dicots	Elaeocarpaceae	*Elaeocarpus reticulatus*	ash quandong		C	6
plants	higher dicots	Elaeocarpaceae	*Elaeocarpus obovatus*	blueberry ash		C	1
plants	higher dicots	Ericaceae	*Trochocarpa laurina*	tree heath		C	4
plants	higher dicots	Ericaceae	*Leucopogon lanceolatus*			C	1
plants	higher dicots	Ericaceae	*Leucopogon juniperinus*	prickly heath		C	4/1
plants	higher dicots	Ericaceae	*Acrotriche aggregata*	red cluster heath		C	3
plants	higher dicots	Euphorbiaceae	*Acalypha nemorum*	hairy acalypha		C	3/1
plants	higher dicots	Euphorbiaceae	*Croton insularis*	Queensland cascarilla		C	1
plants	higher dicots	Euphorbiaceae	*Acalypha australis*		Y		1/1
plants	higher dicots	Euphorbiaceae	*Claoxylon australe*	brittlewood		C	2
plants	higher dicots	Euphorbiaceae	*Macaranga tanarius*	macaranga		C	2
plants	higher dicots	Euphorbiaceae	*Croton acronychioides*	thick-leaved croton		C	1
plants	higher dicots	Euphorbiaceae	*Mallotus philippensis*	red kamala		C	2
plants	higher dicots	Euphorbiaceae	*Homalanthus stillingiifolius*			C	1
plants	higher dicots	Euphorbiaceae	*Tragia novae-hollandiae*	stinging-vine		C	3
plants	higher dicots	Euphorbiaceae	*Chamaesyce hyssopifolia*		Y		2/2
plants	higher dicots	Euphorbiaceae	*Ricinocarpos speciosus*			V	1
plants	higher dicots	Euphorbiaceae	*Euphorbia heterophylla*		Y		1/1
plants	higher dicots	Euphorbiaceae	*Mallotus claoxyloides*	green kamala		C	1
plants	higher dicots	Euphorbiaceae	*Alchornea ilicifolia*	native holly		C	3
plants	higher dicots	Euphorbiaceae	*Homalanthus nutans*			C	3
plants	higher dicots	Euphorbiaceae	*Baloghia inophylla*	scrub bloodwood		C	2
plants	higher dicots	Euphorbiaceae	*Euphorbia peplus*	petty spurge	Y		1/1
plants	higher dicots	Fabaceae	*Glycine*			C	1
plants	higher dicots	Fabaceae	*Cajanus cajan*	pigeon pea	Y		1/1
plants	higher dicots	Fabaceae	*Arachis pintoi*		Y		1/1
plants	higher dicots	Fabaceae	*Desmodium gunnii*			C	3
plants	higher dicots	Fabaceae	*Hovea acutifolia*			C	12/1
plants	higher dicots	Fabaceae	*Pultenaea euchila*	orange pultenaea		C	3
plants	higher dicots	Fabaceae	*Glycine clandestina*			C	2
plants	higher dicots	Fabaceae	*Erythrina x sykesii*		Y		1/1
plants	higher dicots	Fabaceae	*Desmodium uncinatum*		Y		2/1
plants	higher dicots	Fabaceae	*Callerya megasperma*	native wisteria		C	3
plants	higher dicots	Fabaceae	*Oxylobium robustum*	tree shaggy pea		C	1/1
plants	higher dicots	Fabaceae	*Kummerowia striata*	japanese clover	Y		1/1
plants	higher dicots	Fabaceae	*Jacksonia scoparia*			C	3
plants	higher dicots	Fabaceae	*Desmodium intortum*		Y		1/1
plants	higher dicots	Fabaceae	*Pultenaea villosa*	hairy bush pea		C	9
plants	higher dicots	Fabaceae	*Austrosteenisia blackii*	bloodvine		C	1
plants	higher dicots	Fabaceae	*Macrotyloma uniflorum*		Y		2
plants	higher dicots	Fabaceae	*Hardenbergia violacea*			C	3
plants	higher dicots	Fabaceae	*Erythrina vespertilio*			C	1
plants	higher dicots	Fabaceae	*Crotalaria grahamiana*		Y		1/1
plants	higher dicots	Fabaceae	*Platylobium formosum*	flat pea		C	1

plants	higher dicots	Fabaceae	*Daviesia umbellulata*		C	1/1
plants	higher dicots	Fabaceae	*Pultenaea myrtoides*		C	1/1
plants	higher dicots	Fabaceae	*Mirbelia rubiifolia*	heathy mirbelia	C	1/1
plants	higher dicots	Fabaceae	*Macrotyloma uniflorum var. uniflorum*	Y		1/1
plants	higher dicots	Fabaceae	*Glycine clandestina var. clandestina*		C	3
plants	higher dicots	Fabaceae	*Trifolium campestre var. campestre*	Y		1/1
plants	higher dicots	Fabaceae	*Abrus precatorius subsp. africanus*	Y		1/1
plants	higher dicots	Fabaceae	*Mucuna pruriens var. utilis*	Y		1/1
plants	higher dicots	Fabaceae	*Macroptilium atropurpureum*	siratro	Y	1
plants	higher dicots	Fabaceae	*Tephrosia glomeruliflora*	pink tephrosia	Y	1
plants	higher dicots	Fabaceae	*Desmodium rhytidophyllum*		C	7
plants	higher dicots	Fabaceae	*Indigofera suffruticosa*	Y		1/1
plants	higher dicots	Fabaceae	*Lablab purpureus*	lablab	Y	1/1
plants	higher dicots	Fabaceae	*Glycine tabacina*	glycine pea	C	1
plants	higher dicots	Fabaceae	*Derris involuta*	native derris	C	2
plants	higher dicots	Fabaceae	*Vigna luteola*	dalrymple vigna	Y	1/1
plants	higher dicots	Fabaceae	*Desmodium*		C	2
plants	higher dicots	Flacourtiaceae	*Scolopia braunii*	flintwood	C	3
plants	higher dicots	Goodeniaceae	*Goodenia rotundifolia*		C	6
plants	higher dicots	Haloragaceae	*Gonocarpus micranthus*		C	1
plants	higher dicots	Lamiaceae	*Gmelina leichhardtii*	white beech	C	2
plants	higher dicots	Lamiaceae	*Plectranthus parviflorus*		C	1
plants	higher dicots	Lamiaceae	*Callicarpa pedunculata*	velvet leaf	C	4
plants	higher dicots	Lamiaceae	*Plectranthus graveolens*	flea bush	C	1
plants	higher dicots	Lamiaceae	*Clerodendrum floribundum*		C	2/1
plants	higher dicots	Leptaulaceae	*Citronella moorei*	churnwood	C	1
plants	higher dicots	Loganiaceae	*Logania albiflora*		C	1/1
plants	higher dicots	Loranthaceae	*Dendrophthoe glabrescens*		C	1
plants	higher dicots	Loranthaceae	*Amyema quandang*		C	1
plants	higher dicots	Malvaceae	*Urena lobata*	urena weed	Y	1/1
plants	higher dicots	Malvaceae	*Hibiscus heterophyllus*		C	12
plants	higher dicots	Malvaceae	*Modiola caroliniana*	red-flowered mallow	Y	1/1
plants	higher dicots	Melastomataceae	*Melastoma affine*	black-mouth bush	C	1
plants	higher dicots	Melastomataceae	*Melastoma malabathricum subsp. malabathricum*		C	4
plants	higher dicots	Meliaceae	*Melia azedarach*	white cedar	C	1
plants	higher dicots	Meliaceae	*Synoum glandulosum*		C	8
plants	higher dicots	Meliaceae	*Synoum glandulosum subsp. glandulosum*		C	2/2
plants	higher dicots	Mimosaceae	*Acacia bakeri*	marblewood	C	5
plants	higher dicots	Mimosaceae	*Acacia oshanesii*		C	15/3
plants	higher dicots	Mimosaceae	*Acacia longissima*		C	3
plants	higher dicots	Mimosaceae	*Acacia hubbardiana*		C	1
plants	higher dicots	Mimosaceae	*Acacia penninervis*		C	1
plants	higher dicots	Mimosaceae	*Acacia penninervis var. longiracemosa*		C	3/2
plants	higher dicots	Mimosaceae	*Acacia disparrima subsp. disparrima*		C	1
plants	higher dicots	Mimosaceae	*Acacia leiocalyx subsp. leiocalyx*		C	1
plants	higher dicots	Mimosaceae	*Pararchidendron pruinosum*		C	4

plants	higher dicots	Mimosaceae	*Archidendron grandiflorum*	lace flower tree	C	4
plants	higher dicots	Mimosaceae	*Acacia podalyriifolia*	Queensland silver wattle	C	1
plants	higher dicots	Mimosaceae	*Acacia melanoxylon*	blackwood	C	7
plants	higher dicots	Mimosaceae	*Acacia aulacocarpa*		C	1
plants	higher dicots	Mimosaceae	*Acacia concurrens*		C	6/2
plants	higher dicots	Mimosaceae	*Acacia maidenii*	Maiden's wattle	C	5
plants	higher dicots	Mimosaceae	*Acacia falcata*	sickle wattle	C	1
plants	higher dicots	Mimosaceae	*Acacia irrorata*		C	1
plants	higher dicots	Mimosaceae	*Acacia pennata*		C	1
plants	higher dicots	Moraceae	*Trophis scandens subsp. scandens*		C	2
plants	higher dicots	Moraceae	*Ficus coronata*	creek sandpaper fig	C	8
plants	higher dicots	Moraceae	*Trophis scandens*		C	2
plants	higher dicots	Moraceae	*Maclura cochinchinensis*	cockspur thorn	C	1
plants	higher dicots	Moraceae	*Streblus brunonianus*	whalebone tree	C	1
plants	higher dicots	Moraceae	*Ficus fraseri*	white sandpaper fig	C	2
plants	higher dicots	Myrsinaceae	*Myrsine porosa*		C	1/1
plants	higher dicots	Myrsinaceae	*Tapeinosperma repandulum*		C	1
plants	higher dicots	Myrsinaceae	*Embelia australiana*	embelia	C	4
plants	higher dicots	Myrsinaceae	*Myrsine howittiana*		C	1
plants	higher dicots	Myrsinaceae	*Myrsine variabilis*		C	3
plants	higher dicots	Myrsinaceae	*Rapanea porosa*	northern muttonwood	C	1
plants	higher dicots	Myrsinaceae	*Rapanea variabilis*	muttonwood	C	1
plants	higher dicots	Myrtaceae	*Rhodomyrtus psidioides*	native guava	C	2/1
plants	higher dicots	Myrtaceae	*Eucalyptus siderophloia*		C	8
plants	higher dicots	Myrtaceae	*Lophostemon suaveolens*	swamp box	C	2
plants	higher dicots	Myrtaceae	*Syncarpia glomulifera*		C	22
plants	higher dicots	Myrtaceae	*Lophostemon confertus*	brush box	C	23
plants	higher dicots	Myrtaceae	*Eucalyptus resinifera*	red mahogany	C	9
plants	higher dicots	Myrtaceae	*Eucalyptus microcorys*		C	20
plants	higher dicots	Myrtaceae	*Eucalyptus acmenoides*		C	2
plants	higher dicots	Myrtaceae	*Corymbia trachyphloia*		C	6
plants	higher dicots	Myrtaceae	*Backhousia myrtifolia*	carrol	C	7
plants	higher dicots	Myrtaceae	*Babingtonia bidwillii*		C	3
plants	higher dicots	Myrtaceae	*Eucalyptus tindaliae*	Queensland white stringybark	C	6
plants	higher dicots	Myrtaceae	*Eucalyptus propinqua*	small-fruited grey gum	C	13
plants	higher dicots	Myrtaceae	*Eucalyptus pilularis*	blackbutt	C	10
plants	higher dicots	Myrtaceae	*Callistemon salignus*		C	1
plants	higher dicots	Myrtaceae	*Syzygium luehmannii*		C	3
plants	higher dicots	Myrtaceae	*Syncarpia verecunda*		C	1
plants	higher dicots	Myrtaceae	*Rhodamnia rubescens*		C	5
plants	higher dicots	Myrtaceae	*Corymbia intermedia*	pink bloodwood	C	22
plants	higher dicots	Myrtaceae	*Babingtonia virgata*		C	2
plants	higher dicots	Myrtaceae	*Babingtonia collina*		C	1
plants	higher dicots	Myrtaceae	*Melaleuca salicina*		C	9
plants	higher dicots	Myrtaceae	*Eucalyptus saligna*		C	1
plants	higher dicots	Myrtaceae	*Eucalyptus robusta*	swamp mahogany	C	1

plants	higher dicots	Myrtaceae	*Eucalyptus grandis*	flooded gum		C	12/1
plants	higher dicots	Myrtaceae	*Decaspermum humile*	silky myrtle		C	1
plants	higher dicots	Myrtaceae	*Syzygium australe*	scrub cherry		C	2
plants	higher dicots	Myrtaceae	*Melaleuca sieberi*			C	1
plants	higher dicots	Myrtaceae	*Gossia acmenoides*			C	1
plants	higher dicots	Myrtaceae	*Eucalyptus crebra*	narrow-leaved red ironbark		C	1
plants	higher dicots	Myrtaceae	*Eucalyptus carnea*			C	4
plants	higher dicots	Myrtaceae	*Syzygium oleosum*	blue cherry		C	3
plants	higher dicots	Myrtaceae	*Melaleuca nodosa*			C	1
plants	higher dicots	Myrtaceae	*Acmena smithii*	lillypilly satinash		C	10/2
plants	higher dicots	Myrtaceae	*Gossia hillii*			C	3/1
plants	higher dicots	Myrtaceae	*Babingtonia*			C	1
plants	higher dicots	Myrtaceae	*Eucalyptus*			C	2
plants	higher dicots	Myrtaceae	*Lenwebbia sp. (Blackall Range P.R.Sharpe 5387)*			R	5/5
plants	higher dicots	Myrtaceae	*Corymbia trachyphloia subsp. trachyphloia*			C	2
plants	higher dicots	Myrtaceae	*Syncarpia glomulifera subsp. glomulifera*			C	6
plants	higher dicots	Myrtaceae	*Pilidiostigma rhytispermum*			C	11
plants	higher dicots	Myrtaceae	*Melaleuca quinquenervia*	swamp paperbark		C	5
plants	higher dicots	Myrtaceae	*Eucalyptus tereticornis*			C	1
plants	higher dicots	Myrtaceae	*Choricarpia leptopetala*	brown myrtle		C	1
plants	higher dicots	Myrtaceae	*Waterhousea floribunda*	weeping lilly pilly		C	2/2
plants	higher dicots	Oleaceae	*Notelaea longifolia*			C	6
plants	higher dicots	Oxalidaceae	*Oxalis corniculata*		Y		3
plants	higher dicots	Oxalidaceae	*Oxalis debilis var. corymbosa*	pink shamrock	Y		1/1
plants	higher dicots	Passifloraceae	*Passiflora foetida*		Y		1
plants	higher dicots	Passifloraceae	*Passiflora suberosa*	corky passion flower	Y		2
plants	higher dicots	Passifloraceae	*Passiflora subpeltata*	white passion flower	Y		3
plants	higher dicots	Phyllanthaceae	*Bridelia exaltata*			C	1
plants	higher dicots	Phyllanthaceae	*Cleistanthus cunninghamii*	omega		C	4
plants	higher dicots	Phyllanthaceae	*Sauropus albiflorus*	snowbush		C	2
plants	higher dicots	Phyllanthaceae	*Breynia oblongifolia*			C	7
plants	higher dicots	Phyllanthaceae	*Phyllanthus virgatus*			C	2
plants	higher dicots	Phyllanthaceae	*Glochidion sumatranum*	umbrella cheese tree		C	10
plants	higher dicots	Phyllanthaceae	*Glochidion ferdinandi*			C	18
plants	higher dicots	Phyllanthaceae	*Actephila lindleyi*	actephila		C	2
plants	higher dicots	Phytolaccaceae	*Phytolacca americana*		Y		1/1
plants	higher dicots	Picrodendraceae	*Dissiliaria baloghioides*	hauer		C	3/1
plants	higher dicots	Pittosporaceae	*Bursaria spinosa*			C	1
plants	higher dicots	Pittosporaceae	*Billardiera scandens*			C	10
plants	higher dicots	Pittosporaceae	*Pittosporum revolutum*	yellow pittosporum		C	8
plants	higher dicots	Pittosporaceae	*Pittosporum spinescens*			C	5
plants	higher dicots	Pittosporaceae	*Hymenosporum flavum*	native frangipani		C	2
plants	higher dicots	Polygalaceae	*Comesperma hispidulum*			C	1
plants	higher dicots	Polygonaceae	*Acetosa sagittata*		Y		1/1
plants	higher dicots	Polygonaceae	*Persicaria strigosa*			C	3/1
plants	higher dicots	Polygonaceae	*Persicaria decipiens*	slender knotweed		C	1/1

plants	higher dicots	Polygonaceae	*Persicaria attenuata*		C		1/1
plants	higher dicots	Proteaceae	*Banksia integrifolia*		C		1
plants	higher dicots	Proteaceae	*Persoonia cornifolia*	broad-leaved geebung	C		3
plants	higher dicots	Proteaceae	*Persoonia stradbrokensis*		C		1
plants	higher dicots	Proteaceae	*Banksia spinulosa var. spinulosa*		C		2
plants	higher dicots	Proteaceae	*Banksia spinulosa var. collina*		C		4
plants	higher dicots	Proteaceae	*Lomatia silaifolia*	crinkle bush	C		1
plants	higher dicots	Proteaceae	*Persoonia virgata*	small-leaved geebung	C		4
plants	higher dicots	Proteaceae	*Grevillea banksii*		C		1
plants	higher dicots	Proteaceae	*Hakea florulenta*	three-nerved willow hakea	C		1
plants	higher dicots	Proteaceae	*Floydia praealta*	ball nut	V	V	2/2
plants	higher dicots	Proteaceae	*Banksia robur*	broad-leaved banksia	C		1
plants	higher dicots	Proteaceae	*Stenocarpus sinuatus*	wheel of fire	C		1
plants	higher dicots	Proteaceae	*Banksia oblongifolia*	dwarf banksia	C		1
plants	higher dicots	Putranjivaceae	*Drypetes deplanchei*	grey boxwood	C		4
plants	higher dicots	Quintiniaceae	*Quintinia verdonii*	grey possumwood	C		1
plants	higher dicots	Rhamnaceae	*Alphitonia excelsa*	soap tree	C		20
plants	higher dicots	Rhamnaceae	*Alphitonia petriei*	pink ash	C		2
plants	higher dicots	Rosaceae	*Rubus bellobatus*	kittatinny blackberry	C		1
plants	higher dicots	Rosaceae	*Rubus moluccanus var. trilobus*		C		1/1
plants	higher dicots	Rosaceae	*Rubus parvifolius*	pink-flowered native raspberry	C		1
plants	higher dicots	Rosaceae	*Rubus ellipticus*	yellow raspberry	Y		1
plants	higher dicots	Rosaceae	*Rubus moluccanus*		C		10
plants	higher dicots	Rosaceae	*Rubus rosifolius*		C		1
plants	higher dicots	Rubiaceae	*Psychotria*		C		1/1
plants	higher dicots	Rubiaceae	*Psychotria loniceroides*	hairy psychotria	C		8
plants	higher dicots	Rubiaceae	*Coelospermum paniculatum var. paniculatum*		C		2
plants	higher dicots	Rubiaceae	*Cyclophyllum longipetalum*		C		3
plants	higher dicots	Rubiaceae	*Cyclophyllum coprosmoides*		C		1
plants	higher dicots	Rubiaceae	*Atractocarpus chartaceus*		C		3
plants	higher dicots	Rubiaceae	*Hodgkinsonia ovatiflora*	golden ash	C		2
plants	higher dicots	Rubiaceae	*Pomax umbellata*		C		1
plants	higher dicots	Rubiaceae	*Canthium odoratum*		C		1
plants	higher dicots	Rubiaceae	*Morinda jasminoides*	morinda	C		6
plants	higher dicots	Rubiaceae	*Canthium coprosmoides*		C		1
plants	higher dicots	Rubiaceae	*Psydrax odorata*		C		1
plants	higher dicots	Rutaceae	*Zieria smithii*		C		7/2
plants	higher dicots	Rutaceae	*Zieria furfuracea*		C		2
plants	higher dicots	Rutaceae	*Zieria minutiflora*		C		8
plants	higher dicots	Rutaceae	*Pentaceras australe*	bastard crow's ash	C		1
plants	higher dicots	Rutaceae	*Bosistoa medicinalis*		C		1/1
plants	higher dicots	Rutaceae	*Acronychia wilcoxiana*	silver aspen	C		2
plants	higher dicots	Rutaceae	*Zieria furfuracea subsp. euthadenia*		C		1/1
plants	higher dicots	Rutaceae	*Philotheca queenslandica*		C		1/1
plants	higher dicots	Rutaceae	*Medicosma cunninghamii*	pinkheart	C		1
plants	higher dicots	Rutaceae	*Flindersia bennettiana*	Bennett's ash	C		1

plants	higher dicots	Rutaceae	*Flindersia schottiana*	bumpy ash		C	5
plants	higher dicots	Rutaceae	*Flindersia australis*	crow's ash		C	1
plants	higher dicots	Rutaceae	*Acronychia pubescens*	hairy acronychia		C	5/3
plants	higher dicots	Rutaceae	*Melicope micrococca*	white evodia		C	1
plants	higher dicots	Rutaceae	*Melicope elleryana*			C	8/2
plants	higher dicots	Rutaceae	*Halfordia kendack*	saffron heart		C	4
plants	higher dicots	Rutaceae	*Acronychia laevis*	glossy acronychia		C	3
plants	higher dicots	Santalaceae	*Exocarpos cupressiformis*	native cherry		C	1/1
plants	higher dicots	Sapindaceae	*Guioa acutifolia*	northern guioa		C	3
plants	higher dicots	Sapindaceae	*Jagera pseudorhus var. pseudorhus*			C	1
plants	higher dicots	Sapindaceae	*Mischarytera lautereriana*	corduroy tamarind		C	3
plants	higher dicots	Sapindaceae	*Mischocarpus pyriformis*			C	5
plants	higher dicots	Sapindaceae	*Mischocarpus australis*	red pear-fruit		C	1/1
plants	higher dicots	Sapindaceae	*Diploglottis australis*	native tamarind		C	2
plants	higher dicots	Sapindaceae	*Cupaniopsis parvifolia*	small-leaved tuckeroo		C	2
plants	higher dicots	Sapindaceae	*Castanospora alphandii*	brown tamarind		C	1
plants	higher dicots	Sapindaceae	*Dodonaea triangularis*			C	1
plants	higher dicots	Sapindaceae	*Jagera pseudorhus*			C	6
plants	higher dicots	Sapindaceae	*Dodonaea triquetra*	large-leaved hop bush		C	5
plants	higher dicots	Sapindaceae	*Cupaniopsis serrata*	smooth tuckeroo		C	3
plants	higher dicots	Sapindaceae	*Toechima dasyrrhache*	blunt-leaved steelwood		C	1/1
plants	higher dicots	Sapindaceae	*Sarcopteryx stipata*	steelwood		C	1
plants	higher dicots	Sapindaceae	*Guioa semiglauca*	guioa		C	1
plants	higher dicots	Sapotaceae	*Pouteria australis*	black apple		C	1
plants	higher dicots	Sapotaceae	*Pouteria chartacea*	thin-leaved coondoo		C	3
plants	higher dicots	Sapotaceae	*Pouteria queenslandica*			C	5
plants	higher dicots	Scrophulariaceae	*Artanema fimbriatum*			C	2/1
plants	higher dicots	Solanaceae	*Solanum opacum*	green berry nightshade		C	1/1
plants	higher dicots	Solanaceae	*Duboisia myoporoides*			C	1
plants	higher dicots	Solanaceae	*Physalis ixocarpa var. ixocarpa*		Y		1/1
plants	higher dicots	Solanaceae	*Solanum mauritianum*	wild tobacco	Y		1
plants	higher dicots	Solanaceae	*Physalis minima*	wild gooseberry	Y		1
plants	higher dicots	Solanaceae	*Physalis angulata*		Y		2/2
plants	higher dicots	Sterculiaceae	*Sterculia quadrifida*	peanut tree		C	3
plants	higher dicots	Sterculiaceae	*Argyrodendron sp. (Kin Kin W.D.Francis AQ81198)*	rusty tulip oak		C	2
plants	higher dicots	Sterculiaceae	*Brachychiton bidwillii*	little kurrajong		C	1/1
plants	higher dicots	Symplocaceae	*Symplocos stawellii*			C	1
plants	higher dicots	Symplocaceae	*Symplocos thwaitesii*	buff hazelwood		C	1
plants	higher dicots	Symplocaceae	*Symplocos stawellii var. stawellii*			C	1/1
plants	higher dicots	Thymelaeaceae	*Pimelea latifolia subsp. altior*			C	1
plants	higher dicots	Ulmaceae	*Trema tomentosa*			C	2
plants	higher dicots	Ulmaceae	*Trema tomentosa var. viridis*			C	1
plants	higher dicots	Ulmaceae	*Aphananthe philippinensis*			C	1
plants	higher dicots	Urticaceae	*Pipturus argenteus*	white nettle		C	1
plants	higher dicots	Urticaceae	*Dendrocnide excelsa*	giant stinging tree		C	1
plants	higher dicots	Urticaceae	*Dendrocnide moroides*	Gympie stinger		C	2/1

plants	higher dicots	Verbenaceae	*Lantana camara*		Y		10
plants	higher dicots	Violaceae	*Viola hederacea*			C	7
plants	higher dicots	Violaceae	*Hybanthus stellarioides*			C	2
plants	higher dicots	Violaceae	*Viola betonicifolia*			C	1
plants	higher dicots	Vitaceae	*Cissus opaca*			C	1
plants	higher dicots	Vitaceae	*Cissus antarctica*			C	5
plants	higher dicots	Vitaceae	*Cissus hypoglauca*			C	6
plants	hornworts	Anthocerotaceae	*Phaeoceros carolinianus*			C	1/1
plants	liverworts	Lepidoziaceae	*Lepidozia eenii*			C	1/1
plants	lower dicots	Annonaceae	*Melodorum leichhardtii*			C	3
plants	lower dicots	Aristolochiaceae	*Aristolochia*			C	1
plants	lower dicots	Aristolochiaceae	*Pararistolochia praevenosa*			R	1
plants	lower dicots	Cabombaceae	*Cabomba caroliniana var. caroliniana*	Cabomba	Y		1/1
plants	lower dicots	Eupomatiaceae	*Eupomatia laurina*	bolwarra		C	7
plants	lower dicots	Eupomatiaceae	*Eupomatia bennettii*	small bolwarra		C	4
plants	lower dicots	Lauraceae	*Litsea leefeana*			C	2
plants	lower dicots	Lauraceae	*Litsea australis*	brown bolly gum		C	3
plants	lower dicots	Lauraceae	*Endiandra sieberi*	hard corkwood		C	1
plants	lower dicots	Lauraceae	*Cassytha pubescens*	downy devil's twine		C	8
plants	lower dicots	Lauraceae	*Endiandra discolor*	domatia tree		C	6
plants	lower dicots	Lauraceae	*Cassytha filiformis*	dodder laurel		C	3/1
plants	lower dicots	Lauraceae	*Endiandra compressa*			C	1
plants	lower dicots	Lauraceae	*Beilschmiedia obtusifolia*	hard bolly gum		C	3
plants	lower dicots	Lauraceae	*Cryptocarya triplinervis*			C	1
plants	lower dicots	Lauraceae	*Cryptocarya sclerophylla*	totempole		C	4
plants	lower dicots	Lauraceae	*Cryptocarya macdonaldii*	McDonald's laurel		C	5
plants	lower dicots	Lauraceae	*Cryptocarya glaucescens*			C	8/1
plants	lower dicots	Lauraceae	*Beilschmiedia elliptica*	grey walnut		C	2
plants	lower dicots	Lauraceae	*Cryptocarya microneura*	murrogun		C	3
plants	lower dicots	Lauraceae	*Cryptocarya laevigata*			C	4
plants	lower dicots	Lauraceae	*Cinnamomum camphora*	camphor laurel	Y		4/1
plants	lower dicots	Lauraceae	*Neolitsea dealbata*	white bolly gum		C	8
plants	lower dicots	Lauraceae	*Cinnamomum oliveri*	Oliver's sassafras		C	1
plants	lower dicots	Lauraceae	*Litsea reticulata*			C	4
plants	lower dicots	Lauraceae	*Cassytha glabella*			C	1
plants	lower dicots	Lauraceae	*Endiandra pubens*	hairy walnut		C	9
plants	lower dicots	Menispermaceae	*Hypserpa decumbens*			C	3
plants	lower dicots	Menispermaceae	*Pleogyne australis*	wiry grape		C	1
plants	lower dicots	Menispermaceae	*Stephania japonica var. discolor*			C	1/1
plants	lower dicots	Menispermaceae	*Sarcopetalum harveyanum*	pearl vine		C	1
plants	lower dicots	Menispermaceae	*Echinostephia aculeata*	prickly snake vine		C	4/1
plants	lower dicots	Menispermaceae	*Carronia multisepalea*			C	1
plants	lower dicots	Menispermaceae	*Stephania japonica*			C	4
plants	lower dicots	Monimiaceae	*Wilkiea macrophylla*	large-leaved wilkiea		C	7
plants	lower dicots	Piperaceae	*Peperomia blanda*			C	1
plants	lower dicots	Piperaceae	*Piper hederaceum*			C	3

plants	lower dicots	Piperaceae	*Peperomia blanda var. floribunda*			C	1
plants	lower dicots	Piperaceae	*Piper novae-hollandiae*			C	1
plants	lower dicots	Winteraceae	*Tasmannia insipida*	brush pepperbush		C	2/1
plants	monocots	Araceae	*Gymnostachys anceps*	settler's flax		C	7
plants	monocots	Araceae	*Pothos longipes*			C	2
plants	monocots	Arecaceae	*Calamus muelleri*	lawyer vine		C	11/1
plants	monocots	Arecaceae	*Livistona australis*	cabbage tree palm		C	6
plants	monocots	Arecaceae	*Linospadix monostachya*	walking stick palm		C	1
plants	monocots	Arecaceae	*Archontophoenix cunninghamiana*	piccabeen palm		C	10
plants	monocots	Commelinaceae	*Aneilema acuminatum*			C	1
plants	monocots	Commelinaceae	*Tradescantia fluminensis*		Y		1/1
plants	monocots	Commelinaceae	*Tradescantia zebrina*		Y		1/1
plants	monocots	Cyperaceae	*Cyperus*			C	1
plants	monocots	Cyperaceae	*Schoenus melanostachys*			C	1
plants	monocots	Cyperaceae	*Rhynchospora corymbosa*			C	1
plants	monocots	Cyperaceae	*Fimbristylis dichotoma*	common fringe-rush		C	2
plants	monocots	Cyperaceae	*Cyperus stradbrokensis*			C	1/1
plants	monocots	Cyperaceae	*Lepidosperma laterale*			C	7
plants	monocots	Cyperaceae	*Scleria mackaviensis*			C	2
plants	monocots	Cyperaceae	*Rhynchospora brownii*	beak rush		C	1
plants	monocots	Cyperaceae	*Lipocarpha chinensis*			C	1/1
plants	monocots	Cyperaceae	*Scleria terrestris*			C	1/1
plants	monocots	Cyperaceae	*Scleria sphacelata*			C	7
plants	monocots	Cyperaceae	*Gahnia sieberiana*	sword grass		C	1
plants	monocots	Cyperaceae	*Cyperus trinervis*			C	1
plants	monocots	Cyperaceae	*Carex horsfieldii*			C	4/1
plants	monocots	Cyperaceae	*Cyperus pilosus*			C	1/1
plants	monocots	Cyperaceae	*Scleria levis*			C	4
plants	monocots	Cyperaceae	*Carex maculata*			C	1/1
plants	monocots	Cyperaceae	*Cyperus laevis*			C	1
plants	monocots	Cyperaceae	*Carex polyantha*			C	1
plants	monocots	Cyperaceae	*Gahnia clarkei*	tall sawsedge		C	4
plants	monocots	Cyperaceae	*Gahnia aspera*			C	2
plants	monocots	Cyperaceae	*Rhynchospora*			C	1
plants	monocots	Dioscoreaceae	*Dioscorea transversa*	native yam		C	9
plants	monocots	Flagellariaceae	*Flagellaria indica*	whip vine		C	9
plants	monocots	Hemerocallidaceae	*Dianella*			C	3
plants	monocots	Hemerocallidaceae	*Dianella caerulea*			C	9
plants	monocots	Hemerocallidaceae	*Dianella revoluta*			C	1
plants	monocots	Hemerocallidaceae	*Geitonoplesium cymosum*	scrambling lily		C	11
plants	monocots	Hemerocallidaceae	*Dianella caerulea var. vannata*			C	1
plants	monocots	Hemerocallidaceae	*Dianella caerulea var. assera*			C	2
plants	monocots	Hemerocallidaceae	*Dianella longifolia*			C	1
plants	monocots	Hydrocharitaceae	*Egeria densa*	dense waterweed	Y		1/1
plants	monocots	Hydrocharitaceae	*Ottelia ovalifolia*	swamp lily		C	1/1
plants	monocots	Hydrocharitaceae	*Hydrilla verticillata*	hydrilla		C	1/1

plants	monocots	Juncaceae	*Juncus usitatus*			C	1
plants	monocots	Juncaceae	*Juncus planifolius*			C	1
plants	monocots	Laxmanniaceae	*Lomandra laxa*	broad-leaved matrush		C	4/2
plants	monocots	Laxmanniaceae	*Lomandra longifolia*			C	13
plants	monocots	Laxmanniaceae	*Lomandra multiflora*			C	2
plants	monocots	Laxmanniaceae	*Lomandra hystrix*			C	7
plants	monocots	Laxmanniaceae	*Cordyline rubra*	red-fruited palm lily		C	12
plants	monocots	Laxmanniaceae	*Cordyline petiolaris*	large-leaved palm lily		C	1
plants	monocots	Laxmanniaceae	*Arthropodium milleflorum*	vanilla lily		C	1
plants	monocots	Laxmanniaceae	*Lomandra multiflora subsp. multiflora*			C	3
plants	monocots	Laxmanniaceae	*Lomandra confertifolia subsp. pallida*			C	1
plants	monocots	Laxmanniaceae	*Eustrephus latifolius*	wombat berry		C	6
plants	monocots	Orchidaceae	*Dipodium*			C	2
plants	monocots	Orchidaceae	*Phaius australis*			E	E 1
plants	monocots	Orchidaceae	*Cymbidium madidum*			C	2
plants	monocots	Orchidaceae	*Epipogium roseum*	leafless nodding orchid		C	1/1
plants	monocots	Orchidaceae	*Cymbidium suave*			C	1
plants	monocots	Orchidaceae	*Calanthe triplicata*	christmas orchid		C	2
plants	monocots	Orchidaceae	*Acianthus fornicatus*	pixie caps		C	1
plants	monocots	Orchidaceae	*Papillilabium beckleri*			R	1
plants	monocots	Orchidaceae	*Pseudovanilla foliata*	giant climbing orchid		C	1
plants	monocots	Orchidaceae	*Corybas aconitiflorus*			C	1
plants	monocots	Orchidaceae	*Geodorum densiflorum*	pink nodding orchid		C	3
plants	monocots	Orchidaceae	*Spiranthes sinensis*	austral ladies tresses		C	1/1
plants	monocots	Pandanaceae	*Freycinetia*			C	1
plants	monocots	Pandanaceae	*Freycinetia scandens*			C	4/1
plants	monocots	Philydraceae	*Philydrum lanuginosum*	frogsmouth		C	1
plants	monocots	Poaceae	*Oplismenus imbecillis*			C	2
plants	monocots	Poaceae	*Themeda triandra*	kangaroo grass		C	11
plants	monocots	Poaceae	*Sporobolus laxus*			C	1/1
plants	monocots	Poaceae	*Paspalum notatum*	bahia grass	Y		1/1
plants	monocots	Poaceae	*Ottochloa nodosa*			C	1
plants	monocots	Poaceae	*Urochloa mutica*		Y		1/1
plants	monocots	Poaceae	*Panicum effusum*			C	2
plants	monocots	Poaceae	*Eragrostiella*			C	1
plants	monocots	Poaceae	*Paspalidium*			C	2
plants	monocots	Poaceae	*Entolasia*			C	1
plants	monocots	Poaceae	*Eragrostis mexicana*	Mexican lovegrass	Y		1/1
plants	monocots	Poaceae	*Entolasia marginata*	bordered panic		C	1
plants	monocots	Poaceae	*Digitaria ramularis*			C	1/1
plants	monocots	Poaceae	*Urochloa decumbens*		Y		1
plants	monocots	Poaceae	*Paspalum dilatatum*	paspalum	Y		4
plants	monocots	Poaceae	*Oplismenus aemulus*	creeping shade grass		C	1
plants	monocots	Poaceae	*Chrysopogon fallax*			C	1
plants	monocots	Poaceae	*Aristida benthamii*			C	1
plants	monocots	Poaceae	*Entolasia stricta*	wiry panic		C	12

plants	monocots	Poaceae	*Pennisetum purpureum*	elephant grass	Y		1/1
plants	monocots	Poaceae	*Ottochloa gracillima*	pademelon grass		C	5
plants	monocots	Poaceae	*Oplismenus hirtellus*			C	1
plants	monocots	Poaceae	*Digitaria violascens*	bastard summergrass	Y		1
plants	monocots	Poaceae	*Digitaria parviflora*			C	4
plants	monocots	Poaceae	*Cymbopogon refractus*	barbed-wire grass		C	5
plants	monocots	Poaceae	*Sporobolus fertilis*	giant Parramatta grass	Y		1/1
plants	monocots	Poaceae	*Melinis minutiflora*	molasses grass	Y		4
plants	monocots	Poaceae	*Imperata cylindrica*	blady grass		C	13
plants	monocots	Poaceae	*Setaria pumila subsp. pumila*		Y		1/1
plants	monocots	Poaceae	*Notodanthonia longifolia*			C	1
plants	monocots	Poaceae	*Eragrostis paniciformis*		Y		1/1
plants	monocots	Poaceae	*Capillipedium spicigerum*	spicytop		C	2
plants	monocots	Ripogonaceae	*Ripogonum album*	white supplejack		C	1
plants	monocots	Ripogonaceae	*Ripogonum brevifolium*	small-leaved supplejack		C	5
plants	monocots	Ripogonaceae	*Ripogonum elseyanum*	hairy supplejack		C	3
plants	monocots	Smilacaceae	*Smilax australis*	barbed-wire vine		C	10
plants	monocots	Smilacaceae	*Smilax glyciphylla*	sweet sarsaparilla		C	9
plants	monocots	Xanthorrhoeaceae	*Xanthorrhoea johnsonii*			C	1
plants	monocots	Xanthorrhoeaceae	*Xanthorrhoea latifolia*			C	2
plants	monocots	Xanthorrhoeaceae	*Xanthorrhoea macronema*			C	6
plants	monocots	Xanthorrhoeaceae	*Xanthorrhoea latifolia subsp. latifolia*			C	1
plants	monocots	Zingiberaceae	*Alpinia caerulea*	wild ginger		C	10
plants	monocots	Zingiberaceae	*Alpinia arundelliana*			C	3/3
plants	mosses	Garovagliaceae	*Garovaglia elegans subsp. dietrichiae*			C	1/1
plants	mosses	Meteoriaceae	*Papillaria nitens*			C	1/1
plants	mosses	Moss	*Moss*			C	3/3
plants	mosses	Orthotrichaceae	*Macromitrium caloblastoides*			C	1/1
plants	mosses	Orthotrichaceae	*Macromitrium involutifolium*			C	1/1
plants	mosses	Polytrichaceae	*Pogonatum neesii*			C	1/1
protists	blue-green algae	Cyanophyceae	*Nostoc commune*			C	1/1
protists	blue-green algae	Cyanophyceae	*Aphanothece stagnina*			C	1/1
protists	blue-green algae	Cyanophyceae	*Nostoc microscopicum*			C	1/1
protists	brown algae	Phaeophyceae	*Chnoospora minima*			C	1/1
protists	brown algae	Phaeophyceae	*Sargassum parvifolium*			C	1/1
protists	green algae	Chlorophyceae	*Ulva lactuca*			C	1/1
protists	green algae	Chlorophyceae	*Halimeda tuna*			C	1/1
protists	green algae	Chlorophyceae	*Ulva compressa*			C	1/1
protists	green algae	Chlorophyceae	*Phycopeltis nigra*			C	1/1
protists	red algae	Rhodophyceae	*Porphyra*			C	1/1
protists	red algae	Rhodophyceae	*Laurencia*			C	1/1
protists	red algae	Rhodophyceae	*Hypnea musciformis*			C	1/1
protists	red algae	Rhodophyceae	*Laurencia filiformis*			C	2/2

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 Presumed Extinct (PE), Endangered (E), Vulnerable (V), Rare (R), Common (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.