Australia Pacific LNG

Ecology Assessment Report
Lots 11BWR65, 32SP116140, 17SP133341

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1. Introduction

This report has been completed by Boobook Ecological Consultants approved by the Commonwealth Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) in writing on the 28th of June 2011.

The field surveys were conducted by a team of ecologists lead by Craig Eddie, approved by DSEWPaC in writing on the 31st of March 2011, Principal Ecologist for Boobook Ecological Consultants.

2. Site Context

The property comprises Lot 11 on Plan BWR65, Lot 32 on Plan SP116140 and Lot 17 on Plan SP133341. The total area of the land parcels is approximately 2374.4 ha. The properties are located approximately 20 km southeast of Miles and 15 km northeast of Condamine in southern inland Queensland. The property is situated within three provinces of the Brigalow Belt Bioregion, these being Province 26 (Southern Downs), Province 31 (Eastern Darling Downs) and Province 32 (Inglewood Sandstones). Lot 11 on Plan BWR65 is accessed via the Fairymeadow Road, Lot 32 on Plan SP116140 is accessed via McLennans Road, and Lot 17 on Plan SP133341 is accessed via the Glenolive Road. The site lies within the Condabri tenement (PL 265 and PL 267).

Current land uses on the properties are agricultural, primarily cropping and grazing of domestic livestock. Lot 32 on Plan SP116140 contains a cattle feedlot. A small amount of infrastructure for coal seam gas extraction is present on Lot 11 on Plan BWR65. The majority of native vegetation on all of the land parcels has been cleared. Small patches of remnant vegetation are present, mainly in the form of shade lines, isolated clumps and narrow riparian strips. Small patches of regrowth of varying age are also present.

Soils on the property range from grey or black cracking clays to loams or sands. The topography of all properties is generally flat or gently undulating with occasional low ridges with some outcropping rock. The Condamine River is the major watercourse present, while other minor watercourses occur on all of the individual land parcels.

The closest weather station to the site is Roma, with a climate consisting of yearly average temperatures ranging from a maximum of 34.1 in January to a minimum of 3.9 in July. The annual rainfall of Roma for 2010 was 582.5mm, with the highest rainfall occurring in February (90.3mm) and the lowest occurring in July (24.2mm).

3. Methodology

3.1 Desktop and Literature Review

Sources used to obtain information for the desktop and literature review are as follows:

- *Nature Conservation Act 1992* (NCA) Protected Species Lists
- *Environmental Protection Biodiversity and Conservation 1999* (EPBC) Protected Matters Search Tool
- Geosciences Australia Waterways mapping

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- Department of Environment and Resource Management Regional Ecosystem version 6.0b digital GIS layer
- Department of Environment and Resource Management Wildnet database
- Department of Environment and Resource Management Referrable Wetlands database
- Queensland Herbarium HERBRECS database
- Queensland Museum database
- Hando, R. and Hando, V. (1997) *Going Bush With Chinchilla Nats*. Second Edition. Chinchilla Field Naturalists' Club, Chinchilla.

Data searches were conducted using a 7.0km buffer around the approximate centre point of the property.

3.2 Field Survey

Scouting surveys are to be conducted in general accordance with the *BioCondition – A Condition Assessment Framework for Terrestrial Biodiversity in Queensland – Assessment Manual – Version 2.1* (Biocondition Manual)(DERM, 2011) and the *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland* (Neldner et al 2005).

3.2.1 *Vegetation Community Surveys*

General baseline botanical surveys were undertaken to describe dominant flora and vegetation community structure throughout the survey site. Botanical surveys are consistent with the tertiary or quaternary level of data collection as described in *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland* (Neldner et al, 2005).

Vegetation community polygons were confirmed, mapped and identified in accordance with Queensland Regional Ecosystem (Biodiversity Status) and EPBC Threatened Ecological Community criteria. Areas of remnant vegetation were clearly distinguished from areas of regrowth vegetation that does not satisfy remnant regional ecosystem or EPBC Threatened Ecological Community criteria.

3.2.2 *Habitat Survey*

Habitat surveys were conducted within each Vegetation Community Survey location within the aforementioned Vegetation Community Area. A range of habitat features, such as log abundance, hollow tree size class and abundance are noted.

3.2.3 *Threatened Flora and Fauna surveys*

'Threatened' species are those listed under the *Environment Protection Biodiversity Conservation Act* 1999 and the *Nature Conservation (Wildlife) Regulation* 2006.

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Targeted flora and fauna searches were undertaken within the vicinity of a Vegetation Community Survey/Habitat Feature plot should field ecologists deem the given area to be of sufficient potential value to a threatened species to warrant such a search.

Targeted threatened species surveys were also conducted in additional locations based on incidental field observations of high quality habitat or identification of distinct ecological features through preliminary review of mapping and other background information for the property.

3.2.4 *Exotic Flora and Fauna Surveys*

Environmental and declared pest (as defined by the *Land Protection (Pest and Stock Route Management)* Act 2002) populations were noted and abundance recorded at the time of the survey.

3.2.5 *Disturbance Surveys*

Evidence of disturbance at each Vegetation Community/Habitat Feature was recorded for type, severity and estimated time of most recent occurrence. The recording of disturbance was also conducted at opportunistic level where appropriate.

4. Results and Discussion

In order to develop an understanding of the ecology of the Site, a detailed desktop and literature review and field ecological scouts have been performed by a certified ecologist. The results are detailed below.

4.1 Desktop and Literature Review

Data sources used for desktop searches for the site is listed in section 1.1. A summary of results follows.

4.1.1 *Matters of National Environmental Significance*

A search for Matters of National Environmental Significance under the Environment Protection and Biodiversity Conservation Act 1999 (hereafter EPBC) was most recently performed on Wednesday, 06 July 2011. This search lists Threatened Ecological Communities, EPBC Listed Flora, EPBC Listed Fauna, Migratory Species, Pest Fauna, Weeds of National Significance (WONS) and RAMSAR sites. The results of these searches can be seen below. For raw data see Attachment 1.

4.1.1.1 Threatened Ecological Communities

The results of the EPBC Protected Matters search for Threatened Ecological Communities and their likelihood of occurrence at this site can be seen below in Table 1.

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Table 1 EPBC Protected Matters search tool results for Threatened Ecological Communities predicted to occur at the site and their Likelihood of Occurrence

Name	Status	Likelihood of Occurrence
Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and derived Native Grassland	Critically Endangered	Community likely to occur within area
Brigalow (Acacia harpophylla dominant and co-dominant)	Endangered	Community likely to occur within area
Weeping Myall Woodlands	Endangered	Community likely to occur within area

4.1.1.2 Listed Flora

The results of the EPBC Protected Matters search for Listed Flora Species and their likelihood of occurrence at the site can be seen below in Table 2.

Table 2 EPBC Protected Matters search tool results for Listed Flora predicted to occur at the site and their Likelihood of Occurrence

Scientific Name	Common Name	Status	Likelihood of Occurrence
Cadellia pentastylis	Ooline	Vulnerable	Species or species habitat likely to occur within area
Homopholis belsonii	Belson's Panic	Vulnerable	Species or species habitat may occur within area
Westringia parvifolia	-	Vulnerable	Species or species habitat likely to occur within area

4.1.1.3 Listed Fauna

The results of the EPBC Protected Matters search for Listed Fauna Species and their likelihood of occurrence at the site can be seen below in Table 3.

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Table 3 EPBC Protected Matters search tool results for Listed Fauna predicted to occur at the site and their Likelihood of Occurrence

Class	Scientific Name	Common Name	Status	Likelihood of Occurrence
Birds	*Erythrotriorchis radiatus*	Red Goshawk	Vulnerable	Species or species habitat likely to occur within area
	Geophaps scripta scripta	Squatter Pigeon (southern)	Vulnerable	Species or species habitat likely to occur within area
	Neochmia ruficauda ruficauda	Star Finch (eastern). Star Finch (southern)	Endangered	Species or species habitat likely to occur within area
	Rostratula australis	Australian Painted Snipe	Vulnerable	Species or species habitat may occur within area
Fish	*Maccullochella peelii peelii*	Murray Cod, Cod, Goodoo	Vulnerable	Species or species habitat may occur within area
Mammals	*Chalinolobus dwyeri*	Large-eared Pied Bat, Large Pied Bat	Vulnerable	Species or species habitat may occur within area
	Nyctophilus corbeni (as *timoriensis* south-eastern form)	South-eastern Long-eared Bat	Vulnerable	Species or species habitat may occur within area
Reptiles	*Anomalopus mackayi*	Five-clawed Worm-skink, Long-legged Worm-skink	Vulnerable	Species or species habitat may occur within area
	Delma torquata	Collared Delma	Vulnerable	Species or species habitat may occur within area
	Egernia rugosa	Yakka Skink	Vulnerable	Species or species habitat likely to occur within area
	Furina dunmalli	Dunmall's Snake	Vulnerable	Species or species habitat may occur within area
	Paradelma orientalis	Brigalow Scaly-foot	Vulnerable	Species or species habitat likely to occur within area

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4.1.1.4 Migratory Species

The results of the EPBC Protected Matters search for Listed Migratory Species and their likelihood of occurrence at the site can be seen below in Table 4.

Table 4 EPBC Protected Matters search tool results for Migratory Species predicted to occur at the site and their Likelihood of Occurrence

Scientific Name	Common Name	Likelihood of Occurrence
Apus pacificus	Fork-tailed Swift	Species or species habitat may occur within area
Ardea modesta (as *A. alba*)	Eastern Great Egret (as Great Egret, White Egret)	Species or species habitat may occur within area
Ardea ibis	Cattle Egret	Species or species habitat may occur within area
Haliaeetus leucogaster	White-bellied Sea-Eagle	Species or species habitat likely to occur within area
Hirundapus caudacutus	White-throated Needletail	Species or species habitat may occur within area
Merops ornatus	Rainbow Bee-eater	Species or species habitat may occur within area
Gallinago hardwickii	Latham's Snipe, Japanese Snipe	Species or species habitat may occur within area
Nettapus coromandelianus albipennis	Australian Cotton Pygmy-goose	Species or species habitat may occur within area
Rostratula australis (as *R. benghalensis s. lat.*)	Australian Painted Snipe	Species or species habitat may occur within area

4.1.1.5 Marine Species

Listed marine species that were identified during the desktop analysis and their likelihood of occurrence can be found below in Table 5. This data was sourced from the EPBC Protected Matters Search Tool.

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Table 5 EPBC Protected Matters search tool results for Marine Species predicted to occur at the site and their Likelihood of Occurrence

Class	Scientific Name	Common Name	Likelihood of Occurrence
Bird	*Apus pacificus*	Fork-tailed swift	Species or species habitat may occur within area
Bird	*Ardea modesta* (as *A. alba*)	Eastern Great Egret (as Great Egret, White Egret)	Species or species habitat may occur within area
Bird	*Ardea Ibis*	Cattle Egret	Species or species habitat may occur within area
Bird	*Gallinago hardwickii*	Latham's Snipe, Japanese Snipe	Species or species habitat may occur within area
Bird	*Haliaeetus leucogaster*	White-bellied Sea-Eagle	Species or species habitat likely to occur within area
Bird	*Hirundapus caudacutus*	White-throated Needletail	Species or species habitat may occur within area
Bird	*Merops ornatus*	Rainbow Bee-eater	Species or species habitat may occur within area
Bird	*Nettapus coromandelianus albipennis*	Australian Cotton Pygmy-goose	Species or species habitat may occur within area
Bird	*Rostratula australis* (as *R. benghalensis s. lat.*)	Australian Painted Snipe	Species or species habitat may occur within area

4.1.1.6 Weeds

All Weeds of National Significance and other non-native plants that are considered to pose a particularly significant threat to biodiversity identified from the EPBC Protected Matters Search Tool are listed in Table 6 below.

Table 6 EPBC Protected Matters search tool results for weeds predicted to occur at the site and their Likelihood of Occurrence

Scientific Name	Common Name	Likelihood of Occurrence
Acacia nilotica subsp. *indica*	Prickly Acacia	Species or species habitat may occur within area
Alternanthera philoxeroides	Alligator weed	Species or species habitat may occur within area

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Lantana camara	Lantana	Species or species habitat may occur within area
Lycium ferocissimum	African boxthorn	Species or species habitat may occur within area
Parthenium hysterophorus	Parthenium weed	Species or species habitat likely to occur within area
Pinus radiata	Radiata Pine	Species or species habitat likely to occur within area
Rubus fruticosus	Blackberry	Species or species habitat may occur within area

4.1.1.7 Pest Fauna

All pest fauna identified from the EPBC Protected Matters Search Tool are listed in Table 7 below.

Table 7 EPBC Protected Matters search tool results for Pest Fauna species predicted to occur at site and their Likelihood of Occurrence

Scientific Name	Common Name	Likelihood of Occurrence
Capra hircus	Goat	Species or species habitat may occur within area
Felis catus	Cat	Species or species habitat likely to occur within area
Oryctolagus cuniculus	Rabbit	Species or species habitat likely to occur within area
Rhinella marina (as *Bufo marinus*)	Cane Toad	Species or species habitat likely to occur within area
Sus scrofa	Pig	Species or species habitat may occur within area
Vulpes vulpes	Red Fox	Species or species habitat likely to occur within area

4.1.1.8 Wetland Ecosystems

Internationally significant wetlands that were identified through desktop analysis (EPBC Protected Matters Search) include a RAMSAR listed wetland known as Narran Lake Nature Reserve. This wetland has been assessed as having a low risk of impact during operation as it is located 500km downstream (over 450km south west) of the proposed discharge location (see Volume 5, Attachment 17 of the APLNG EIS, Aquatic Ecology, Water Quality and Geomorphology Impact Assessment).

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4.1.2 *Nature Conservation Act*

A desktop search for species protected under the *Nature Conservation Act 1992* that may be present on the site was also performed. The results can be seen below. For raw data see Attachment 1 and 2.

4.1.2.1 Listed Flora

No flora listed as endangered, vulnerable or near threatened was identified within the search area containing the site. Four species of least concern native flora were identified within the search area (see Appendix B).

4.1.2.2 Listed Fauna

Four species of fauna listed as near threatened were identified within the search area containing the property (Table 8). No species listed as endangered or vulnerable were identified and 163 species of least concern native fauna were identified (see Appendix B).

Table 8 Nature Conservation Act (Wildnet) search tool results for the site and their Likelihood of Occurrence

Class	Scientific Name	Common Name	Status	Likelihood of Occurrence
Birds	*Ephippiorhynchus asiaticus*	Black-necked Stork	Near threatened	Confirmed
	Melithreptus gularis	Black-chinned Honeyeater	Near threatened	Confirmed
Frogs	*Cyclorana verrucosa*	Rough Frog	Near Threatened	Confirmed
Reptiles	*Strophurus taenicauda*	Golden-tailed Gecko	Near Threatened	Confirmed

4.1.3 *Regional Ecosystem*

A search of the DERM RE Mapping was most recently performed on 11th July 2011. A schematic detailing the location of RE polygons associated with the site can be seen in Appendix G.

4.1.3.1 Endangered Regional Ecosystems

All endangered regional ecosystems identified during the desktop analysis (using the DERM RE version 6.0b GIS layer) and their description can be found below in Table 9.

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Table 9 Endangered Regional Ecosystems mapped as present on site

RE code	General description	Description
11.3.1	*Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains	Open-forest dominated by *Acacia harpophylla* and/or *Casuarina cristata* (particularly in southern parts), with or without scattered emergent *Eucalyptus* spp. such as *E. coolabah*, *E. largiflorens*, *E. populnea*, *E. orgadophila*, and *E. woollsiana*. A low tree layer dominated by *Geijera parviflora* and *Eremophila mitchellii* is usually present. The vegetation sometimes occurs as low open-forest or woodland. Tree height generally about 11-15m and the low tree (to tall shrub) understorey layer is between 2 and 8m high (where present). Ground cover is generally sparse. Associated with Cainozoic alluvial plains which may be occasionally flooded. Landforms range from level to very gently sloping plains, alluvial flats, drainage floors, back-swamps and abandoned channels. Associated soils are predominantly deep to very deep cracking clays, sometimes with gilgai or texture contrast soils with sandy surface (particularly where *Eucalyptus populnea* is present).

4.1.3.2 Of Concern Regional Ecosystems

All Of Concern regional ecosystems identified during the desktop analysis (using the DERM RE version 6.0b GIS layer) and their description can be found below in Table 10.

Table 10 Of Concern Regional Ecosystems mapped as present on site through desktop analysis

RE code	General description	Description
11.3.2	*Eucalyptus populnea* woodland on alluvial plains	*Eucalyptus populnea* woodland to open-woodland. *E. melanophloia* may be present and locally dominant. There is sometimes a distinct low tree layer dominated by species such as *Geijera parviflora*, *Eremophila mitchellii*, *Acacia salicina*, *Acacia pendula*, *Lysiphyllum* spp., *Cassia brewsteri*, *Callitris glaucophylla* and *Acacia excelsa*. The ground layer is grassy dominated by a range of species depending on soil and management conditions. Species include *Bothriochloa decipiens*, *Enteropogon acicularis*, *Aristida ramosa* and *Tripogon loliiformis*. Occurs on Cainozoic alluvial plains with variable soil types including texture contrast, deep uniform clays, massive earths and sometimes cracking clays.
11.3.3	*Eucalyptus coolabah* woodland on alluvial plains	*Eucalyptus coolabah* woodland to open-woodland with a grassy understorey. A mid layer is often absent but scattered tree or shrub species, such as *E. populnea*, *Melaleuca bracteata*, *Alectryon oleifolius*, *Terminalia oblongata* (in the north) and *Acacia pendula*, *A. cambagei*, and occasionally *Muehlenbeckia florulenta* may be present. The ground layer is dominated by a range of grass and forb species depending on season, soil and management conditions. Can include small areas of grassland with scattered trees. Occurs on Cainozoic alluvial plains or levees with clay or sometimes texture contrast soils.

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11.3.4	*Eucalyptus tereticornis* and/or *Eucalyptus* spp. tall woodland on alluvial plains	*Eucalyptus tereticornis* woodland to open-forest. Other tree species that may be present and locally dominant include *E. camaldulensis*, *Corymbia tessellaris*, *E. coolabah*, *C. clarksoniana*, *E. populnea* or *E. brownii*, *E. melanophloia*, *E. platyphylla* or *Angophora floribunda*. *E. crebra* and *Lophostemon suaveolens* may be locally dominant (subregion 14). A shrub layer is usually absent, and a tall grassy ground layer is often prominent, and may include any of *Bothriochloa bladhii* subsp. *bladhii*, *Aristida* spp., *Heteropogon contortus*, *Dichanthium* spp. and *Themeda triandra*. Heavily grazed areas tend to have shorter or annual grasses such as *Dactyloctenium radulans* or *Bothriochloa* spp. Occurs on Cainozoic alluvial plains and terraces. Occurs on variety of soils, including deep cracking clays, medium to fine textured soils, and deep texture-contrast soils.

4.1.3.3 Not Of Concern Regional Ecosystem

All Not Of Concern regional ecosystems identified during the desktop analysis (using the DERM RE version 6.0b GIS layer) and their description can be found below in Table 11.

Table 11 Not Of Concern Regional Ecosystems mapped as present on site through desktop analysis

RE code	General description	Description
11.3.25	*Eucalyptus tereticornis* or *E. camaldulensis* woodland fringing drainage lines	*Eucalyptus camaldulensis* or *E. tereticornis* open-forest to woodland. Other tree species such as *Casuarina cunninghamiana*, *E. coolabah*, *Melaleuca bracteata*, *Melaleuca viminalis*, *Livistona* spp. (in north), *Melaleuca* spp. and *Angophora floribunda* are commonly present and may be locally dominant. An open to sparse, tall shrub layer is frequently present dominated by species including *Acacia salicina*, *A. stenophylla* or *Lysiphyllum carronii*. Low shrubs are present, but rarely form a conspicuous layer. The ground layer is open to sparse and dominated by perennial grasses, sedges or forbs such as Imperata cylindrica, *Bothriochloa bladhii*, *B. ewartiana*, *Chrysopogon fallax*, *Cyperus dactylotes*, *C. difformis*, *C. exaltatus*, *C. gracilis*, *C. iria*, *C. rigidellus*, *C. victoriensis*, *Dichanthium sericeum*, *Leptochloa digitata*, *Lomandra longifolia* or *Panicum* spp. Occurs on fringing levees and banks of major rivers and drainage lines of alluvial plains throughout the region. Soils are very deep, alluvial, grey and brown cracking clays with or without some texture contrast. These are usually moderately deep to deep, soft or firm, acid, neutral or alkaline brown sands, loams or black cracking or non-cracking clays, and may be sodic at depth.
11.5.1	*Eucalyptus crebra*, *Callitris glaucophylla*, *Angophora leiocarpa*, *Allocasuarina luehmannii* woodland on Cainozoic sand plains/remnant surfaces	*Eucalyptus crebra* and/or *E. populnea* +/- *Angophora leiocarpa* +/- *E. woollsiana* (in south of bioregion) dominate the woodland (to open-woodland) canopy. A low tree layer dominated by *Allocasuarina luehmannii* +/- *Melaleuca decora* +/- *Callitris glaucophylla* +/- *C. endlicheri* is usually present. In some areas *Allocasuarina luehmannii* low woodland is the dominant layer. The ground cover is usually sparse and dominated by perennial grasses. Occurs on Cainozoic

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		sandplains, especially outwash from weathered sandstones. Duplex soils with sandy surfaces.
11.5.1a	Sub-Category of 11.5.1	*Eucalyptus populnea* woodland with *Allocasuarina luehmannii* low tree layer.

Note that the DERM biodiversity status of RE 11.3.25 is of concern. The status of each RE in the tables above is that under the *Vegetation Management Act 1999*.

4.2 Field Survey

Field surveys were conducted on 31 May 2010 – 01/06 2010 and 17-18 March 2011. These field surveys were conducted by a team of ecologists lead by Craig Eddie, the Principal Ecologist for Boobook Ecological Consulting. The results of these surveys have been summarised below.

4.2.1 *Matters of National Environmental Significance*

Field survey results concerning MNES (protected under the EPBC Act) such as threatened ecological communities, listed flora, listed fauna, migratory species, weeds and pest fauna can be seen below.

4.2.1.1 Threatened Ecological Communities

Threatened Ecological Communities (TECs) identified during the field survey are listed in Table 12 below.

Table 12 Threatened Ecological Communities identified during field survey and their likelihood of occurrence

Name	Status	Likelihood of Occurrence
Brigalow (*Acacia harpophylla* dominant and co-dominant)	Endangered	Confirmed on 17SP133341
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	Endangered	Confirmed on 17SP133341 and 32SP116140

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Occurrences of the Brigalow TEC are relatively small and isolated. A small patch was observed on the Condamine River floodplain at Boobook field site CNQ14. The ground layer of this patch was in poor condition, frequently dominated by exotic species such as *Pennisetum ciliare* and *Bryophyllum x houghtonii*. Some advanced regrowth of brigalow and/or belah may qualify as the Brigalow TEC.

Coolabah woodland is common on 17SP133341 and 32SP116140 along the Condamine River banks and associated floodplain. Many of these occurrences have characteristics that are analogous with the Coolibah TEC. In some patches, the ground layer is in poor condition and dominated by *Pennisetum ciliare*.

Weeping Myall (*Acacia pendula*) trees were recorded at CNIQ53. These were growing with coolabah within advanced regrowth, however, this patch would not qualify as the Weeping Myall Threatened Ecological Community due to its small size (<0.5 ha) and poor condition.

Semi-evergreen vine thicket (SEVT) species are present among outcropping rock on the southern bank of the Condamine River at Boobook field site CNQ10A. Although these species are characteristic of SEVT, the canopy is open and the structure of the community is not analogous to the SEVT Threatened Ecological Community.

No examples of any other Threatened Ecological Communities identified within the desktop assessment (Table 1) were observed on the property during the field scouting.

4.2.1.2 Listed Flora

No flora listed under the EPBC Act 1999 was detected during the field survey. Potentially suitable habitat is present for at least one species identified within the EPBC Protected Matters Search Tool (Table 13). Targeted searches were undertaken for this species, however, none were detected.

Table 13 EPBC protected flora species potentially occurring at the site based on field survey results

Scientific Name	Common Name	Status	Likelihood of Occurrence
Homopholis belsonii	Belson's Panic Grass	Vulnerable	Possible, potentially suitable habitat present (e.g. brigalow/belah patches)

4.2.1.3 Listed Fauna

No fauna listed as threatened under the EPBC Act 1999 were detected during the field survey. Potentially suitable habitat was confirmed during the field survey for six EPBC listed fauna species. These are listed below in Table 14.

Table 14 EPBC protected fauna species potentially occurring at site based on field survey results

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Scientific Name	Common Name	Status	Likelihood of Occurrence
Egernia rugosa	Yakka Skink	Vulnerable	Possible, some suitable habitat features identified (e.g. large hollow logs in remnant and non-remnant vegetation)
Erythrotriorchis radiatus	Red Goshawk	Vulnerable	Possible, some suitable habitat features identified (e.g. Condamine River and adjoining wetlands and floodplain)
Furina dunmalli	Dunmall's Snake	Vulnerable	Possible, some suitable habitat features identified (e.g. logs in remnant vegetation)
Nyctophilus corbeni	South-eastern Long-eared Bat	Vulnerable	Possible, some suitable habitat features identified (e.g. hollow trees within riparian and other remnant vegetation)
Paradelma orientalis	Brigalow Scaly-foot	Vulnerable	Possible, some suitable habitat features identified (e.g. logs and fallen bark in remnant vegetation)
Rostratula australis	Australian Painted Snipe	Vulnerable	Possible, some suitable habitat features identified (e.g. well vegetated dam and adjoining swampy area)

4.2.1.4 Migratory Species

One species of fauna listed as a migratory species under the EPBC Act 1999 was detected during the field survey at the site. Based on the presence of suitable habitat, and known distributions, potential exists for a further seven species of EPBC migratory fauna species to occur. These are listed below in Table 15.

Table 15 EPBC protected fauna species occurring or potentially occurring at the site based on field survey results

Scientific Name	Common Name	Likelihood of Occurrence
Apus pacificus	Fork-tailed swift	Possible, may overfly site between Sept-March
Ardea Ibis	Cattle Egret	Possible, in pasture but generally uncommon in Miles area
Ardea modesta	Eastern Great Egret	Possible, at dams and temporary puddles/pools in watercourses

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Gallinago hardwickii	Latham's Snipe, Japanese Snipe	Possible, some suitable habitat features identified (e.g. well vegetated dam and adjoining swampy area)
Haliaeetus leucogaster	White-bellied Sea-eagle	Confirmed (juvenile flying over Condamine River at Boobook Site CNQ10)
Hirundapus caudacutus	White-throated Needletail	Possible, may overfly site between Sept-March
Merops ornatus	Rainbow Bee-eater	Possible, may overfly site between Sept-March and potentially could breed in parts of the property with sandy substrates
Rostratula australis	Australian Painted Snipe	Possible, some suitable habitat features identified (e.g. well vegetated dam and adjoining swampy area)

4.2.1.5 Weeds

No Weeds of National Significance were encountered during the field survey. All other non-native flora encountered during the field survey is listed in Table 16 below.

Table 16 Non-native flora recorded during the ecological field survey at site

Scientific Name	Common Name	Likelihood of Occurrence
Amaranthus sp. (infertile)	An Amaranth	Confirmed
Amaranthus viridis	Green Amaranth	Confirmed
Argemone ochroleuca	Mexican Poppy	Confirmed
Bryophyllum x houghtonii	Mother-of-Millions hybrid	Confirmed
Chenopodium album	Fat Hen	Confirmed
Chloris gayana	Common Rhodes Grass	Confirmed
Cirsium vulgare	Spear Thistle	Confirmed
Citrullus sp. (infertile)	A Pie Melon	Confirmed
Conyza bonariensis	Fleabane	Confirmed
Cynodon dactylon	Couch Grass	Confirmed
Eragrostis trichophora	Hairy-flowered Lovegrass	Confirmed
Gomphrena celosioides	Soft Khaki Weed, Gomphrena Weed	Confirmed
Malvastrum americanum	Spiked Malvastrum	Confirmed

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Megathyrsus maximus	Green Panic	Confirmed
Melinis repens	Red Natal Grass	Confirmed
Opuntia aurantiaca	Tiger Pear	Confirmed
Opuntia tomentosa	Velvet Tree Pear	Confirmed
Opuntia stricta	Prickly Pear	Confirmed
Pennisetum ciliare	Buffel Grass	Confirmed
Phyla canescens	Lippia, Condamine Couch	Confirmed
Physalis lanceifolia	Ground Cherry	Confirmed
Portulaca oleracea	Pigweed	Confirmed
Portulaca pilosa	Pigweed	Confirmed
Ricinus communis	Castor Oil Plant	Confirmed
Solanum nigrum	Blackberry Nightshade	Confirmed
Soliva sp.	A Jo-jo Weed	Confirmed
Sonchus oleraceus	Common Sowthistle	Confirmed
Tagetes minuta	Stinking Roger	Confirmed
Verbascum virgatum	Twiggy Mullein, Green Mullein	Confirmed
Verbena aristigera	Mayne's Pest	Confirmed
Xanthium occidentale	Noogoora Burr	Confirmed

Of the 31 species of non-native plant recorded during the field survey at the Site, four species are listed as Class 2 pests under the *Land Protection (Pest and Stock Route) Act 2002*, these being *Bryophyllum* x *houghtonii*, *Opuntia aurantiaca*, *O. tomentosa* and *O. stricta*. *O. tomentosa* and *O. stricta* occur throughout the property in low abundance. *O. aurantiaca* and *Bryophyllum* x *houghtonii* are mainly confined to the banks of the Condamine River.

4.2.1.6 Pest Fauna

Pest fauna species identified during the field survey are listed in Table 17 below.

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Table 17 Pest fauna species identified during the ecological field survey at the site

Scientific Name	Common Name	Occurrence
Acridotheres tristis	Common Mynah	Confirmed (feedlot at 32SP116140)
Oryctolagus cuniculus	Rabbit	Confirmed (scats at Boobook field site CNI254)
Rhinella marina	Cane toad	Confirmed (at Boobook field sites CNI52, CNI236 and CNQ55)
Sturnus vulgaris	Common Starling	Confirmed(flock of c. 30 at Boobook field site CNI242)
Sus scrofa	Pig	Confirmed (5 individuals at Boobook field site CNQ55 at 11BWR65; scats and tracks at CNQ10 & CNQ11 at 17SP133341)

Cane toad, pig and house mouse were also confirmed for the search grid within the DERM Wildnet database.

4.2.2 *Nature Conservation Act*

Field survey results concerning Nature Conservation Act listed flora and fauna can be seen below.

4.2.2.1 Listed Flora

Approximately 158 species of native flora were recorded during the field survey at the Site. No flora scheduled as endangered, vulnerable or near threatened under the *Nature Conservation Act 1992* was recorded. Suitable habitat is present for five species listed in Table 18 below, however, these species were not detected during targeted searches.

Table 18 Nature Conservation Act Listed flora identified during field survey and their observed distribution

Class	Family	Scientific Name	Common Name	Conservation Status	Likelihood of Occurrence
Higher dicots	Asteraceae	*Rutidosis lanata*	Red-soil Woolly Wrinklewort	E	Possible, suitable habitat present and within species known range
Higher dicots	Fabaceae	*Zornia pallida*	A Zornia Pea	NT	Possible, suitable habitat present and within species known range
Higher	Haloragaceae	*Gonocarpus*	A Raspwort	V	Possible, suitable habitat present and

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dicots		*urceolatus*			within species known range
Higher dicots	Solanaceae	*Solanum stenopterum*	Winged Nightshade	V	Possible, suitable habitat present and within species known range
Monocots	Cyperaceae	*Eleocharis blakeana*	Blake's Spikerush	NT	Possible, suitable habitat present and within species known range

E = endangered; NT = near threatened; V = vulnerable

A pea, *Zornia* sp., was collected from Boobook field site CNI247. This specimen was submitted to the Queensland Herbarium but was unable to be identified to species level, hence, it cannot be confirmed whether or not this specimen represents the near threatened *Z. pallida*. The number of individuals at the collection site, which is a clearing dominated by exotic pasture, is less than 10. According to the Queensland Herbarium, the genus *Zornia* is currently undergoing revision and positive identification of this specimen cannot be made until this revision is completed.

4.2.2.2 Listed Fauna

No fauna scheduled as endangered, vulnerable, rare or near threatened under the *Nature Conservation Act 1992* was identified during the field survey at the Site. However, potentially suitable habitat was recorded for 14 species that are listed in Table 19 below.

Table 19 Nature Conservation Act scheduled threatened fauna potentially occurring at site based on field survey results

Scientific Name	Common Name	Status	Likelihood of Occurrence
Accipiter novaehollandiae	Grey Goshawk	Near threatened	Possible, may overfly properties
Calyptorhynchus lathami	Glossy Black-cockatoo	Vulnerable	Possible, potential habitat features identified (food plants e.g. *Casuarina cristata*)
Chalinolobus picatus	Little Pied Bat	Near threatened	Possible, some suitable habitat features identified (e.g. hollow trees)
Cyclorana verrucosa	Rough Frog	Near threatened	Possible, some suitable habitat features identified (e.g. wetlands along southern boundary of 32SP116140)
Egernia rugosa	Yakka Skink	Vulnerable	Possible, some suitable habitat features identified (e.g. large hollow logs in

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			remnant vegetation especially on 11BWR65)
Ephippiorhynchus asiaticus	Black-necked Stork	Near threatened	Possible, some suitable habitat features identified (e.g. dams and wetlands on 32SP116140)
Grantiella picta	Painted Honeyeater	Vulnerable	Possible, potential habitat features identified (food plants e.g. *Amyema quandang, A. congener)*
Furina dunmalli	Dunmall's Snake	Vulnerable	Possible, some suitable habitat features identified (e.g. logs in remnant vegetation)
Hemiaspis damelii	Grey Snake	Endangered	Possible, some suitable habitat features identified (e.g. logs in remnant and non-remnant vegetation)
Jalmenus eubulus	Pale Imperial Hairstreak	Vulnerable	Possible, some suitable habitat features identified (food plants e.g. mature *Acacia harpophylla*)
Lophoictinia isura	Square-tailed Kite	Near threatened	Possible, may overfly site and potentially may along Condamine River
Melithreptus gularis	Black-chinned Honeyeater	Near threatened	Possible, some suitable habitat identified (e.g. remnant vegetation long minor watercourses)
Paradelma orientalis	Brigalow Scaly-foot	Vulnerable	Possible, some suitable habitat features identified (e.g. logs in remnant vegetation)
Strophurus taenicauda	Golden-tailed Gecko	Near threatened	Possible, potential habitat features identified (e.g. loose bark on trees in remnant vegetation)

Areas of particularly high fauna habitat value include the entire length of the Condamine River, especially the riparian woodland and associated habitats (including wetlands) on the adjoining floodplain. Parts of the Condamine River that have rocky banks also have very high fauna habitat value.

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Other small remnants on the Site contain important microhabitat features including logs, hollow bearing trees, termite mounds, fallen bark, mistletoe and leaf litter.

4.2.2.3 Other Significant Flora and Fauna

Fauna of regional conservation significance recorded during the field survey included Salmon-striped Frog, Common Brushtail Possum, Grey-crowned Babbler and Yellow-spotted Monitor. All of these species were identified as being of regional significance within the APLNG EIS (see Volume 2 Gas Fields, Chapter 8, Terrestrial Ecology).

The Brigalow Woodland Snail *Adclarkia cameroni* has been recorded from coolabah and brigalow-belah woodlands along the banks of the Condamine River upstream of the site. This species is pending listing as Critically Endangered under the *EPBC Act 1999*. It is highly likely to occur in the riparian woodlands of 32SP116140 and 17SP133341.

Flora of significance recorded during the field survey included Yarran *Acacia melvillei* which was identified as being of regional significance within APLNG EIS (see Volume 2 Gas Fields, Chapter 8, Terrestrial Ecology. This species was recorded at Boobook field sites CNQ15 and CNI41.

Two species of flora recorded at Boobook field site CNQ10A are of local significance, these being *Planchonella pubescens* and *Diospyros humilis*. Both species are normally associated with vine thickets within the Chinchilla-Miles area and their presence along the Condamine River is unusual. The vine *Cayratia clematidea* was also present at this site which was the only site this species was observed on the Site.

An ephemeral spring was located at Boobook field site CNQ55a. Predominant vegetation at this spring included common flora such as *Eragrostis* sp. (infertile), *Aristida caput-medusae*, *Bulbostylis barbata*, *Juncus usitatus*, *Epaltes australis* and *Chrysocephalum apiculatum*, as well as a series of flora not seen elsewhere on the property including *Cyperus castaneus*, *C. sanguinolentus*, *Haloragis heterophylla*, *Goodenia rosulata*, *Lipocarpha microcephala*, *Hypericum gramineum*, *Murdannia graminea*, *Bulbostylis pyriformis* and *Schoenoplectus* sp. The exotic grass *Eragrostis trichophora* was also abundant at this spring.

An unidentified species of *Melaleuca* was recorded at Boobook field site CNQ11 (Condamine River bank at 17SP133341). The individuals at this site were infertile at the time of field survey, hence identification to species was not possible. Based on leaf morphology and general habit of the plants at the site it is likely that these plants represent a population of *M. quercina*. Although this species is currently listed as least concern under the *Nature Conservation Act 1992*, it has a relatively restricted distribution including the Condamine River and several other watercourses in southern Queensland (e.g. Charleys Creek, Bungeworgorai Creek, Teelba Creek, Oakey Creek and Injune Creek).

Two species of Type A Restricted Plant were recorded, these being Kurrajong *Brachychiton populneus* at Boobook field sites CNQ55, CNI251 and CNI256, and Black Orchid *Cymbidium canaliculatum* at Boobook field sites CNQ10, CNQ11, CNQ15 and CNI237.

4.2.3 *Regional Ecosystems*

All regional ecosystems identified during the field survey and their conservation status can be found below. A schematic of the field updated RE polygons can be seen in Appendix F.

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4.2.3.1 Endangered Regional Ecosystems

All endangered regional ecosystems identified during the field survey and a description of these sites can be found below in Table 20.

Table 20 Endangered Regional Ecosystems identified to be present on site through ecological field survey

RE code	General description	Description
11.3.1	*Acacia harpophylla* and/or *Casuarina cristata* open-forest on alluvial plains	Open-forest dominated by *Acacia harpophylla* and/or *Casuarina cristata* (particularly in southern parts), with or without scattered emergent *Eucalyptus* spp. such as *E. coolabah*, *E. largiflorens*, *E. populnea*, *E. orgadophila*, and *E. woollsiana*. A low tree layer dominated by *Geijera parviflora* and *Eremophila mitchellii* is usually present. The vegetation sometimes occurs as low open-forest or woodland. Tree height generally about 11-15m and the low tree (to tall shrub) understorey layer is between 2 and 8m high (where present). Ground cover is generally sparse. Associated with Cainozoic alluvial plains which may be occasionally flooded. Landforms range from level to very gently sloping plains, alluvial flats, drainage floors, back-swamps and abandoned channels. Associated soils are predominantly deep to very deep cracking clays, sometimes with gilgai or texture contrast soils with sandy surface (particularly where *Eucalyptus populnea* is present).
11.4.3	*Acacia harpophylla* and/or *Casuarina cristata* shrubby open forest on Cainozoic clay plains	Open-forest dominated by *Acacia harpophylla* and/or *Casuarina cristata*. *Acacia harpophylla* (10-16m high) predominates forming a fairly continuous canopy with varying densities of *Casuarina cristata* (14-18m high), forming part of the canopy or emerging above it. *Casuarina cristata* may be dominant or form pure stands particularly in the south of the bioregion (subregions 33, 36). *Eucalyptus* spp. such as *E. orgadophila*, *E. populnea*, *E. microcarpa*, *Eucalyptus woollsiana*, *E. cambageana* and *E. thozetiana* (on shallower soils and upper slopes) may be scattered through the canopy or occur as emergents up to 22m high. *Brachychiton rupestris* may also be present in places. An open to dense, tall shrub layer is present, and is dominated by *Eremophila mitchellii* and/or *Geijera parviflora*. Low shrubs are often present, occasionally forming a distinct layer dominated by species such as *Carissa ovata* and *Alectryon diversifolius*. Tree/shrub height may range from 3-8 m. *Melaleuca bracteata* may be present in low-lying areas. The ground layer is sparse to open, and composed of grasses and forbs. Occurs on Cainozoic clay plains with cracking clay soils which are often with a weak gilgai microrelief. The plains may be flat to gently undulating. Soils are often cracking clay which are usually deep to very deep, often self mulching, and sometimes with surface stone. Texture contrast soils and other clays may also be present in places.
11.4.12	*Eucalyptus populnea* woodland on Cainozoic clay plains	*Eucalyptus populnea* predominates forming a distinct but discontinuous canopy (12-19m high). Scattered *Eucalyptus* spp. may be present at some sites, but most frequently *E. populnea* alone forms the canopy. Scattered trees such as *Callitris glaucophylla* and *Acacia excelsa* may also be present and occasionally form a distinct low tree layer (8-10m high) There is generally a low tree/tall shrub layer (4-8m high) dominated by *Eremophila mitchellii*, *Acacia pendula* and *Geijera parviflora*. A low shrub layer may occur, particularly on upper slopes. The

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		ground layer is generally open but may be moderately dense in disturbed areas. The perennial grasses *Aristida* spp. and *Eragrostis* spp. are usually dominant, and forbs are conspicuous. Occurs on eroding edge of Tertiary clay plains.

4.2.3.2 Of Concern Regional Ecosystems

All Of Concern regional ecosystems identified and mapped during the field survey and a description of these sites can be found below in Table 21.

Table 21 Of Concern Regional Ecosystems identified to be present on site through ecological field survey

RE code	General description	Description
11.3.3	*Eucalyptus coolabah* woodland on alluvial plains	*Eucalyptus coolabah* woodland to open-woodland with a grassy understorey. A mid layer is often absent but scattered tree or shrub species, such as *E. populnea*, *Melaleuca bracteata*, *Alectryon oleifolius*, *Terminalia oblongata* (in the north) and *Acacia pendula*, *A. cambagei*, and occasionally *Muehlenbeckia florulenta* may be present. The ground layer is dominated by a range of grass and forb species depending on season, soil and management conditions. Can include small areas of grassland with scattered trees. Occurs on Cainozoic alluvial plains or levees with clay or sometimes texture contrast soils.

4.2.3.3 Not Of Concern Regional Ecosystems

All not of concern regional ecosystems identified and mapped during the field survey and a description of these sites can be found below in Table 22.

Table 22 Not of Concern Regional Ecosystems identified to be present on the site through ecological field survey

RE code	General description	Description
11.3.25	*Eucalyptus tereticornis* or *E. camaldulensis* woodland fringing drainage lines	*Eucalyptus camaldulensis* or *E. tereticornis* open-forest to woodland. Other tree species such as *Casuarina cunninghamiana*, *E. coolabah*, *Melaleuca bracteata*, *Melaleuca viminalis*, *Livistona* spp. (in north), *Melaleuca* spp. and *Angophora floribunda* are commonly present and may be locally dominant. An open to sparse, tall shrub layer is frequently present dominated by species including *Acacia salicina*, *A. stenophylla* or *Lysiphyllum carronii*. Low shrubs are present, but rarely form a conspicuous layer. The ground layer is open to sparse and dominated by perennial grasses, sedges or forbs such as Imperata cylindrica, *Bothriochloa bladhii*, *B. ewartiana*, *Chrysopogon fallax*, *Cyperus dactylotes*, *C. difformis*, *C. exaltatus*, *C. gracilis*, *C. iria*, *C. rigidellus*, *C. victoriensis*, *Dichanthium sericeum*, *Leptochloa digitata*, *Lomandra longifolia* or *Panicum* spp. Occurs on fringing levees and banks of major rivers and drainage lines of alluvial plains throughout the region.

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		Soils are very deep, alluvial, grey and brown cracking clays with or without some texture contrast. These are usually moderately deep to deep, soft or firm, acid, neutral or alkaline brown sands, loams or black cracking or non-cracking clays, and may be sodic at depth.
11.3.27	Freshwater wetlands	Freshwater wetlands. Vegetation is variable including open water with or without aquatic species and fringing sedgelands and eucalypt woodlands. Occurs in a variety of situations including lakes, billabongs, oxbows and depressions on floodplains.
11.5.1	*Eucalyptus crebra*, *Callitris glaucophylla*, *Angophora leiocarpa*, *Allocasuarina luehmannii* woodland on Cainozoic sandplains/remnant surfaces	*Eucalyptus crebra* and/or *E. populnea* +/- *Angophora leiocarpa* +/- *E. woollsiana* (in south of bioregion) dominate the woodland (to open-woodland) canopy. A low tree layer dominated by *Allocasuarina luehmannii* +/- *Melaleuca decora* +/- *Callitris glaucophylla* +/- *C. endlicheri* is usually present. In some areas *Allocasuarina luehmannii* low woodland is the dominant layer. The ground cover is usually sparse and dominated by perennial grasses. Occurs on Cainozoic sandplains, especially outwash from weathered sandstones. Duplex soils with sandy surfaces.
11.5.4	*Eucalyptus crebra*, *Callitris glaucophylla*, *C. endlicheri*, *E. chloroclada*, *Angophora leiocarpa* on Cainozoic sandplains/remnant surfaces. Deep sands.	*Eucalyptus crebra*, *Callitris glaucophylla*, *E. chloroclada*, *Angophora leiocarpa*, +/- *A. floribunda* woodland to open-forest with a low tree layer dominated by species such as *Allocasuarina luehmannii*, *A. inophloia* and *Callitris endlicheri*. Localised areas dominated *by E. rhombica*. Occurs on Cainozoic sandplains with deep sandy soils
11.5.20	*Eucalyptus moluccana* and/or *E. microcarpa*/ *E. woollsiana* +/- *E. crebra* woodland on Cainozoic sandplains	*Eucalyptus moluccana* or *E. microcarpa* or *E. woollsiana* woodland to open-forest. Species such as *Allocasuarina luehmannii* and *Callitris glaucophylla* often form a low woodland layer. Occurs on flat to gently undulating plains formed from Cainozoic/Quaternary sediments. Soils are mainly texture contrast with sandy surfaces.
11.7.2	*Acacia* spp. woodland on Cainozoic lateritic duricrust. Scarp retreat zone	Monospecific stands of *Acacia* spp. forest/woodland on Cainozoic lateritic duricrusts. *Acacia shirleyi* and or *Acacia catenulata* usually predominate the woodland to low woodland to low open-forest tree canopy (7-12m high). Other *Acacia* spp. that commonly occur and occasionally dominate the tree layer include *A. rhodoxylon*, *A. burrowii*, *A. sparsiflora*, *A. crassa* and *A. blakei*. Emergent eucalypt species such as *Eucalyptus thozetiana*, *E. crebra*, *E. decorticans* and *E. exserta* may be present. A low shrub layer is sometimes present and dominated by species such as *Acalypha eremorum*, *Croton phebalioides* and *Carissa ovata*. The ground layer is extremely sparse and dominated by grasses such as *Aristida caput-medusae*, *Paspalidium rarum*, *Urochloa foliosa*. Forbs are usually rare although *Sida filiformis* may be conspicuous. Occurs on scarps and adjacent tops and slopes of dissected tablelands, mesas and buttes formed from chemically altered sediments and duricrusts. The soils are shallow to very shallow lithosols with surface stone and boulders. The vegetation is often growing in pockets of shallow lithosol soil between bare rock.
11.7.6	*Corymbia citriodora* or *Eucalyptus crebra* woodland on Cainozoic lateritic duricrust	*Corymbia citriodora* and/or *Eucalyptus crebra* woodland. On adjacent footslopes, scattered *E. crebra*, *C. clarksoniana* and *C. tessellaris* may occur. There is usually a distinct tall shrub layer often dominated by Acacia spp. The ground layer varies from sparse to moderately dense and is dominated by perennial

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		grasses. Occurs on Cainozoic lateritic duricrust.
11.7.7	*Eucalyptus fibrosa* subsp. *nubila* +/- *Corymbia* spp. +/- *Eucalyptus* spp. on Cainozoic lateritic duricrust	*Eucalyptus fibrosa* subsp. *nubila* predominates and forms a distinct but discontinuous open-forest to woodland canopy (22-25m high). *E. crebra* often co dominates or be locally dominant, particularly on lower slopes. Also includes areas with *Corymbia citriodora* as a codominant. Other frequently occurring sub-dominant tree species include *Corymbia trachyphloia*, *E. apothalassica*, *E. sideroxylon*, *Acacia shirleyi* and *Callitris glaucophylla*. There is usually a low woodland mid layer dominated by *Acacia* spp. or sometimes *Allocasuarina luehmannii* and *Callitris endlicheri*. Scattered tall shrubs may occur, but rarely form a prominent layer. There is usually a moderately dense, low shrub layer developed with a variable floristic composition. The ground layer is open to moderately dense and dominated by grasses. Occurs on low hills and ranges formed from deeply weathered sediments. Soils are usually shallow (< 30cm deep) uniform sands with stone or rocks covering much of the ground surface.

Note that the DERM biodiversity status of RE 11.3.25 and 11.3.27 is of concern.

4.2.4 *Wetland Ecosystems*

Lot 32 on SP116140 contains numerous Referable Wetland areas as identified by DERM. Some of these wetlands have been modified for agricultural purposes and are used for water storages. Lot 17 on SP133341 has a number of Referrable Wetlands associated with the Condamine River along the western and northern boundary. Lot 11 on BWR65 has no referrable wetlands.

Additional wetland areas were detected during the field scouting including a small lagoon at Boobook field site CNI234. Numerous small wetlands, particularly temporary swamps and depressions, are present at the extreme south of 32SP116140.

The Condamine River forms the southern boundary of 32SP116140 and the western and northern boundary of 17SP133341. This is the major riparian corridor of the region and as such has local, regional and state corridor values.

An ephemeral (non-artesian) spring was detected at Boobook field site CNQ55a.

4.2.5 *Disturbance*

Existing disturbances on the Site include substantial areas of cleared land, parts of which are cultivated, irrigated and cropped. The entire property has been grazed. Numerous internal vehicle tracks and fence lines are present throughout. Other infrastructure associated with grazing and cropping are present including homesteads, sheds, stock yards and dams. A feedlot is present on 32SP116140.

Severe flooding in late 2010 and early 2011 affected the lower lying parts of 32SP116140 and 17 SP133341.

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5. Recommendations

- Where possible infrastructure should be sited in existing clearings and avoid clearing of remnant vegetation.
- Where there is no reasonable alternative to siting proposed infrastructure in non-remnant vegetation, clearing should proceed in accordance with relevant statutory conditions.
- Avoid any disturbance to the rock outcrops along the Condamine River bank on17SP133341 between Boobook field sites CNQ10A and CNQ11.
- Avoid areas of outcropping rock on 32SP116140 between Boobook field sites CNQ54 and CNQ54a.
- Avoid areas of advanced belah and/or brigalow regrowth where possible.
- Clearing of vegetation along watercourses and in wetland buffers should be avoided where possible and existing crossings should be utilised for positioning of linear infrastructure. Where unavoidable, clearing or other disturbances should be limited to that which is in accordance with applicable regulatory approvals.
- A qualified fauna spotter should be engaged during clearing of any sites requiring removal of intact vegetation, including advanced regrowth, to identify potential habitat features of significance to fauna (e.g. large hollow logs, hollow trees) including within existing clearings.
- Any clearing of remnant vegetation or advanced regrowth should be undertaken in a manner to allow escape of mobile fauna.
- Clearing of Type A Restricted Plants should be avoided wherever possible, and any applicable regulatory requirements should be complied with.

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6. Attachments

Appendix A - **Results of EPBC Protected Matters Search Tool conducted on 06 July 2011**

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Australian Government
Department of Sustainability, Environment, Water, Population and Communities

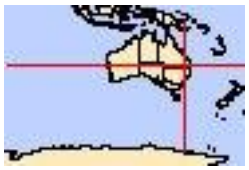
EPBC Act Protected Matters Report: Coordinates

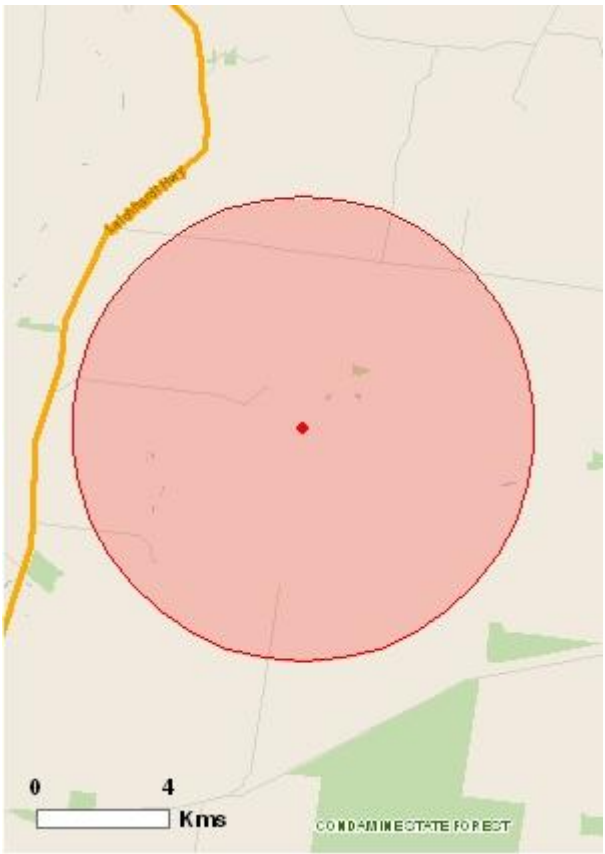
This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

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

Information 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

Report created: 06/07/11 14:22:20





Summary

Details

Matters of NES

Other matters protected by the EPBC Act

Extra Information

Caveat

Acknowledgements

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

Coordinates

Buffer: 7.0Km

Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance - see http://www.environment.gov.au/epbc/assessmentsapprovals/guidelines/index.html.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Significance (Ramsar Wetlands):	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Areas:	None
Threatened Ecological Communitites:	4
Threatened Species:	15
Migratory Species:	11

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
Listed Marine Species:	9
Whales and Other Cetaceans:	None

Critical Habitats:	None
Commonwealth Reserves:	None

Report Summary for Extra Information

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

Place on the RNE:	None
State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	13
Nationally Important Wetlands:	None

Details

Matters of National Environmental Significance

Wetlands of International Significance (RAMSAR Sites) [Resource Information]

Name	Proximity
Narran lake nature reserve	Upstream from Ramsar site

Threatened Ecological Communities [Resource Information]

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

Name	Status	Type of Presence
Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area
Brigalow (Acacia harpophylla dominant and co-dominant)	Endangered	Community known to occur within area
Weeping Myall Woodlands	Endangered	Community likely to occur within area

Threatened Species [Resource Information]

Name	Status	Type of Presence
BIRDS		
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat likely to occur within area
Neochmia ruficauda ruficauda		

Star Finch (eastern), Star Finch (southern) [26027]	Endangered	Species or species habitat likely to occur within area
Rostratula australis		
Australian Painted Snipe [77037]	Vulnerable	Species or species habitat may occur within area
FISH		
Maccullochella peelii peelii		
Murray Cod, Cod, Goodoo [68443]	Vulnerable	Species or species habitat may occur within area
MAMMALS		
Chalinolobus dwyeri		
Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat may occur within area
Nyctophilus timoriensis (South-eastern form)		
Greater Long-eared Bat, South-eastern Long-eared Bat [66888]	Vulnerable	Species or species habitat may occur within area
PLANTS		
Cadellia pentastylis		
Ooline [9828]	Vulnerable	Species or species habitat likely to occur within area
Homopholis belsonii		
[2406]	Vulnerable	Species or species habitat may occur within area
Westringia parvifolia		
[4822]	Vulnerable	Species or species habitat likely to occur within area
REPTILES		
Anomalopus mackayi		
Five-clawed Worm-skink, Long-legged Worm-skink [25934]	Vulnerable	Species or species habitat may occur within area
Delma torquata		
Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Egernia rugosa		
Yakka Skink [1420]	Vulnerable	Species or species habitat likely to occur within area
Furina dunmalli		
Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area
Paradelma orientalis		
Brigalow Scaly-foot [59134]	Vulnerable	Species or species habitat likely to occur within area

Migratory Species [Resource Information]

Name	Status	Type of Presence
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Migratory Terrestrial Species		
Haliaeetus leucogaster		

White-bellied Sea-Eagle [943]	Species or species habitat likely to occur within area
Hirundapus caudacutus	
White-throated Needletail [682]	Species or species habitat may occur within area
Merops ornatus	
Rainbow Bee-eater [670]	Species or species habitat may occur within area
Migratory Wetlands Species	
Ardea alba	
Great Egret, White Egret [59541]	Species or species habitat may occur within area
Ardea ibis	
Cattle Egret [59542]	Species or species habitat may occur within area
Gallinago hardwickii	
Latham's Snipe, Japanese Snipe [863]	Species or species habitat may occur within area
Nettapus coromandelianus albipennis	
Australian Cotton Pygmy-goose [25979]	Species or species habitat may occur within area
Rostratula benghalensis s. lat.	
Painted Snipe [889]	Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species **[Resource Information]**

Name	Status	Type of Presence
Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Hirundapus caudacutus		
White-throated Needletail [682]		Species or species habitat may occur within area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Nettapus coromandelianus albipennis		
Australian Cotton Pygmy-goose [25979]		Species or species habitat may occur within area
Rostratula benghalensis s. lat.		
Painted Snipe [889]		Species or species habitat may occur within area

Extra Information

Invasive Species **[Resource Information]**

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced

plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Frogs		
Bufo marinus		
Cane Toad [1772]		Species or species habitat likely to occur within area
Mammals		
Capra hircus		
Goat [2]		Species or species habitat may occur within area
Felis catus		
Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Oryctolagus cuniculus		
Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Sus scrofa		
Pig [6]		Species or species habitat may occur within area
Vulpes vulpes		
Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Acacia nilotica subsp. indica		
Prickly Acacia [6196]		Species or species habitat may occur within area
Alternanthera philoxeroides		
Alligator Weed [11620]		Species or species habitat may occur within area
Lantana camara		
Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]		Species or species habitat may occur within area
Lycium ferocissimum		
African Boxthorn, Boxthorn [19235]		Species or species habitat may occur within area
Parthenium hysterophorus		
Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]		Species or species habitat likely to occur within area
Pinus radiata		
Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
Rubus fruticosus aggregate		
Blackberry, European Blackberry [68406]		Species or species habitat may occur within area

Caveat

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

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

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

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

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

Only selected species covered by the following provisions of the EPBC Act have been mapped:
- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:
- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:
- non-threatened seabirds which have only been mapped for recorded breeding sites;
- seals which have only been mapped for breeding sites near the Australian continent.

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

Coordinates

-26.82385 150.22835

Acknowledgements

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

-Department of Environment, Climate Change and Water, New South Wales
-Department of Sustainability and Environment, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment and Natural Resources, South Australia
-Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts
-Environmental and Resource Management, Queensland
-Department of Environment and Conservation, Western Australia

-Department of the Environment, Climate Change, Energy and Water
-Birds Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-SA Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Atherton and Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
-State Forests of NSW
-Other groups and individuals

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

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

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Appendix B - **Results of Wildnet Search conducted on 06 July 2011**

Class	Family	Scientific Name	Common Name	Conservation status
amphibians	Bufonidae	Rhinella marina	cane toad	
amphibians	Hylidae	Litoria rubella	ruddy treefrog	C
amphibians	Hylidae	Litoria caerulea	common green treefrog	C
amphibians	Hylidae	Cyclorana verrucosa	rough collared frog	NT
amphibians	Hylidae	Litoria latopalmata	broad palmed rocketfrog	C
amphibians	Hylidae	Cyclorana alboguttata	greenstripe frog	C
amphibians	Limnodynastidae	Limnodynastes salmini	salmon striped frog	C
amphibians	Limnodynastidae	Platyplectrum ornatum	ornate burrowing frog	C
amphibians	Limnodynastidae	Limnodynastes fletcheri	barking frog	C
amphibians	Limnodynastidae	Limnodynastes terraereginae	scarlet sided pobblebonk	C
amphibians	Limnodynastidae	Limnodynastes tasmaniensis	spotted grassfrog	C
amphibians	Myobatrachidae	Uperoleia rugosa	chubby gungan	C
birds	Acanthizidae	Acanthiza nana	yellow thornbill	C
birds	Acanthizidae	Gerygone albogularis	white-throated gerygone	C
birds	Acanthizidae	Smicrornis brevirostris	weebill	C
birds	Acanthizidae	Acanthiza chrysorrhoa	yellow-rumped thornbill	C
birds	Accipitridae	Accipiter fasciatus	brown goshawk	C
birds	Accipitridae	Elanus axillaris	black-shouldered kite	C
birds	Accipitridae	Haliastur indus	brahminy kite	C
birds	Accipitridae	Haliastur sphenurus	whistling kite	C
birds	Accipitridae	Haliaeetus leucogaster	white-bellied sea-eagle	C
birds	Acrocephalidae	Acrocephalus australis	Australian reed-warbler	C
birds	Anatidae	Cygnus atratus	black swan	C
birds	Anatidae	Anas superciliosa	Pacific black duck	C
birds	Anhingidae	Anhinga novaehollandiae	Australasian darter	C

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birds	Apodidae	Hirundapus caudacutus	white-throated needletail	C
birds	Ardeidae	Ardea modesta	eastern great egret	C
birds	Ardeidae	Egretta novaehollandiae	white-faced heron	C
birds	Ardeidae	Nycticorax caledonicus	Nankeen night-heron	C
birds	Ardeidae	Ardea pacifica	white-necked heron	C
birds	Ardeidae	Egretta garzetta	little egret	C
birds	Ardeidae	Ardea intermedia	intermediate egret	C
birds	Artamidae	Cracticus tibicen	Australian magpie	C
birds	Artamidae	Cracticus torquatus	grey butcherbird	C
birds	Artamidae	Artamus cyanopterus	dusky woodswallow	C
birds	Artamidae	Strepera graculina	pied currawong	C
birds	Cacatuidae	Cacatua galerita	sulphur-crested cockatoo	C
birds	Cacatuidae	Nymphicus hollandicus	cockatiel	C
birds	Cacatuidae	Cacatua sanguinea	little corella	C
birds	Cacatuidae	Eolophus roseicapillus	galah	C
birds	Campephagidae	Lalage sueurii	white-winged triller	C
birds	Campephagidae	Lalage leucomela	varied triller	C
birds	Charadriidae	Pluvialis fulva	Pacific golden plover	C
birds	Charadriidae	Elseyornis melanops	black-fronted dotterel	C
birds	Charadriidae	Vanellus miles novaehollandiae	masked lapwing (southern subspecies)	C
birds	Ciconiidae	Ephippiorhynchus asiaticus	black-necked stork	NT
birds	Cisticolidae	Cisticola exilis	golden-headed cisticola	C
birds	Columbidae	Geopelia striata	peaceful dove	C
birds	Columbidae	Ocyphaps lophotes	crested pigeon	C
birds	Columbidae	Phaps chalcoptera	common bronzewing	C
birds	Columbidae	Lopholaimus antarcticus	topknot pigeon	C

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birds	Columbidae	Geopelia humeralis	bar-shouldered dove	C
birds	Coraciidae	Eurystomus orientalis	dollarbird	C
birds	Corcoracidae	Struthidea cinerea	apostlebird	C
birds	Corcoracidae	Corcorax melanorhamphos	white-winged chough	C
birds	Corvidae	Corvus orru	Torresian crow	C
birds	Cuculidae	Chalcites lucidus	shining bronze-cuckoo	C
birds	Cuculidae	Centropus phasianinus	pheasant coucal	C
birds	Cuculidae	Chalcites minutillus russatus	Gould's bronze-cuckoo	C
birds	Cuculidae	Cacomantis flabelliformis	fan-tailed cuckoo	C
birds	Cuculidae	Cacomantis pallidus	pallid cuckoo	C
birds	Dicruridae	Dicrurus bracteatus	spangled drongo	C
birds	Estrildidae	Taeniopygia guttata	zebra finch	C
birds	Estrildidae	Lonchura castaneothorax	chestnut-breasted mannikin	C
birds	Estrildidae	Taeniopygia bichenovii	double-barred finch	C
birds	Falconidae	Falco berigora	brown falcon	C
birds	Falconidae	Falco longipennis	Australian hobby	C
birds	Falconidae	Falco cenchroides	nankeen kestrel	C
birds	Fregatidae	Fregata ariel	lesser frigatebird	C
birds	Halcyonidae	Dacelo novaeguineae	laughing kookaburra	C
birds	Halcyonidae	Todiramphus macleayii	forest kingfisher	C
birds	Halcyonidae	Todiramphus pyrrhopygius	red-backed kingfisher	C
birds	Halcyonidae	Todiramphus sanctus	sacred kingfisher	C
birds	Hirundinidae	Hirundo neoxena	welcome swallow	C
birds	Hirundinidae	Petrochelidon ariel	fairy martin	C
birds	Hirundinidae	Petrochelidon nigricans	tree martin	C
birds	Jacanidae	Irediparra gallinacea	comb-crested jacana	C

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birds	Laridae	Hydroprogne caspia	Caspian tern	C
birds	Laridae	Gelochelidon nilotica	gull-billed tern	C
birds	Maluridae	Malurus cyaneus	superb fairy-wren	C
birds	Maluridae	Malurus lamberti	variegated fairy-wren	C
birds	Meliphagidae	Entomyzon cyanotis	blue-faced honeyeater	C
birds	Meliphagidae	Manorina flavigula	yellow-throated miner	C
birds	Meliphagidae	Lichmera indistincta	brown honeyeater	C
birds	Meliphagidae	Melithreptus gularis	black-chinned honeyeater	NT
birds	Meliphagidae	Melithreptus lunatus	white-naped honeyeater	C
birds	Meliphagidae	Philemon corniculatus	noisy friarbird	C
birds	Meliphagidae	Lichenostomus chrysops	yellow-faced honeyeater	C
birds	Meliphagidae	Lichenostomus leucotis	white-eared honeyeater	C
birds	Meliphagidae	Manorina melanocephala	noisy miner	C
birds	Meliphagidae	Myzomela sanguinolenta	scarlet honeyeater	C
birds	Meliphagidae	Philemon citreogularis	little friarbird	C
birds	Meliphagidae	Melithreptus albogularis	white-throated honeyeater	C
birds	Meliphagidae	Plectorhyncha lanceolata	striped honeyeater	C
birds	Meropidae	Merops ornatus	rainbow bee-eater	C
birds	Monarchidae	Myiagra inquieta	restless flycatcher	C
birds	Monarchidae	Grallina cyanoleuca	magpie-lark	C
birds	Motacillidae	Anthus novaeseelandiae	Australasian pipit	C
birds	Nectariniidae	Dicaeum hirundinaceum	mistletoebird	C
birds	Oriolidae	Oriolus sagittatus	olive-backed oriole	C
birds	Oriolidae	Sphecotheres vieilloti	Australasian figbird	C
birds	Otididae	Ardeotis australis	Australian bustard	C
birds	Pachycephalidae	Colluricincla harmonica	grey shrike-thrush	C

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birds	Pachycephalidae	Pachycephala rufiventris	rufous whistler	C
birds	Pachycephalidae	Pachycephala pectoralis	golden whistler	C
birds	Pardalotidae	Pardalotus striatus	striated pardalote	C
birds	Pelecanidae	Pelecanus conspicillatus	Australian pelican	C
birds	Petroicidae	Petroica rosea	rose robin	C
birds	Petroicidae	Microeca fascinans	jacky winter	C
birds	Petroicidae	Eopsaltria australis	eastern yellow robin	C
birds	Phalacrocoracidae	Phalacrocorax varius	pied cormorant	C
birds	Phalacrocoracidae	Microcarbo melanoleucos	little pied cormorant	C
birds	Phalacrocoracidae	Phalacrocorax sulcirostris	little black cormorant	C
birds	Phasianidae	Coturnix pectoralis	stubble quail	C
birds	Phasianidae	Excalfactoria chinensis	king quail	C
birds	Podicipedidae	Tachybaptus novaehollandiae	Australasian grebe	C
birds	Pomatostomidae	Pomatostomus temporalis	grey-crowned babbler	C
birds	Psittacidae	Platycercus adscitus	pale-headed rosella	C
birds	Psittacidae	Aprosmictus erythropterus	red-winged parrot	C
birds	Psittacidae	Trichoglossus chlorolepidotus	scaly-breasted lorikeet	C
birds	Psittacidae	Northiella haematogaster	blue bonnet	C
birds	Psophodidae	Psophodes olivaceus	eastern whipbird	C
birds	Rallidae	Fulica atra	Eurasian coot	C
birds	Rallidae	Gallirallus philippensis	buff-banded rail	C
birds	Rallidae	Porphyrio porphyrio	purple swamphen	C
birds	Rallidae	Porzana pusilla	Baillon's crake	C
birds	Rallidae	Gallinula tenebrosa	dusky moorhen	C
birds	Recurvirostridae	Himantopus himantopus	black-winged stilt	C
birds	Rhipiduridae	Rhipidura albiscapa	grey fantail	C

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birds	Rhipiduridae	Rhipidura leucophrys	willie wagtail	C
birds	Scolopacidae	Gallinago hardwickii	Latham's snipe	C
birds	Strigidae	Ninox boobook	southern boobook	C
birds	Threskiornithidae	Platalea regia	royal spoonbill	C
birds	Threskiornithidae	Platalea flavipes	yellow-billed spoonbill	C
birds	Threskiornithidae	Threskiornis molucca	Australian white ibis	C
birds	Threskiornithidae	Threskiornis spinicollis	straw-necked ibis	C
birds	Timaliidae	Zosterops lateralis	silvereye	C
birds	Turnicidae	Turnix velox	little button-quail	C
bony fish	Percichthyidae	Macquaria ambigua	golden perch	
mammals	Dasyuridae	Sminthopsis murina	common dunnart	C
mammals	Dasyuridae	Sminthopsis macroura	stripe-faced dunnart	C
mammals	Macropodidae	Macropus giganteus	eastern grey kangaroo	C
mammals	Muridae	Mus musculus	house mouse	
mammals	Muridae	Pseudomys delicatulus	delicate mouse	C
mammals	Suidae	Sus scrofa	pig	
reptiles	Agamidae	Pogona barbata	bearded dragon	C
reptiles	Elapidae	Suta suta	myall snake	C
reptiles	Elapidae	Suta dwyeri		C
reptiles	Elapidae	Furina diadema	red-naped snake	C
reptiles	Elapidae	Denisonia devisi	De Vis' banded snake	C
reptiles	Elapidae	Pseudechis guttatus	spotted black snake	C
reptiles	Elapidae	Pseudonaja textilis	eastern brown snake	C
reptiles	Elapidae	Simoselaps australis	coral snake	C
reptiles	Elapidae	Rhinoplocephalus boschmai	Carpentaria whip snake	C
reptiles	Gekkonidae	Gehyra dubia		C
reptiles	Gekkonidae	Diplodactylus vittatus	wood gecko	C
reptiles	Gekkonidae	Lucasium steindachneri	Steindachner's gecko	C
reptiles	Gekkonidae	Strophurus taenicauda	golden-tailed gecko	NT

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reptiles	Gekkonidae	Heteronotia binoei	Bynoe's gecko	C
reptiles	Gekkonidae	Diplodactylus tessellatus	tessellated gecko	C
reptiles	Pygopodidae	Lialis burtonis	Burton's legless lizard	C
reptiles	Pygopodidae	Pygopus schraderi		C
reptiles	Scincidae	Lerista timida		C
reptiles	Scincidae	Ctenotus robustus		C
reptiles	Scincidae	Egernia striolata	tree skink	C
reptiles	Scincidae	Tiliqua scincoides	eastern blue-tongued lizard	C
reptiles	Scincidae	Morethia boulengeri		C
reptiles	Scincidae	Eremiascincus fasciolatus	narrow-banded sand swimmer	C
reptiles	Typhlopidae	Ramphotyphlops ligatus		C
reptiles	Varanidae	Varanus varius	lace monitor	C
reptiles	Varanidae	Varanus panoptes	yellow-spotted monitor	C
higher dicots	Mimosaceae	Acacia omalophylla		C
higher dicots	Polygonaceae	Muehlenbeckia florulenta	lignum	C
monocots	Hemerocallidaceae	Dianella longifolia var. stupata		C
monocots	Orchidaceae	Cymbidium suave		C

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Appendix C - **Results of DERM Referrable Wetland search conducted on 06 July 2011**

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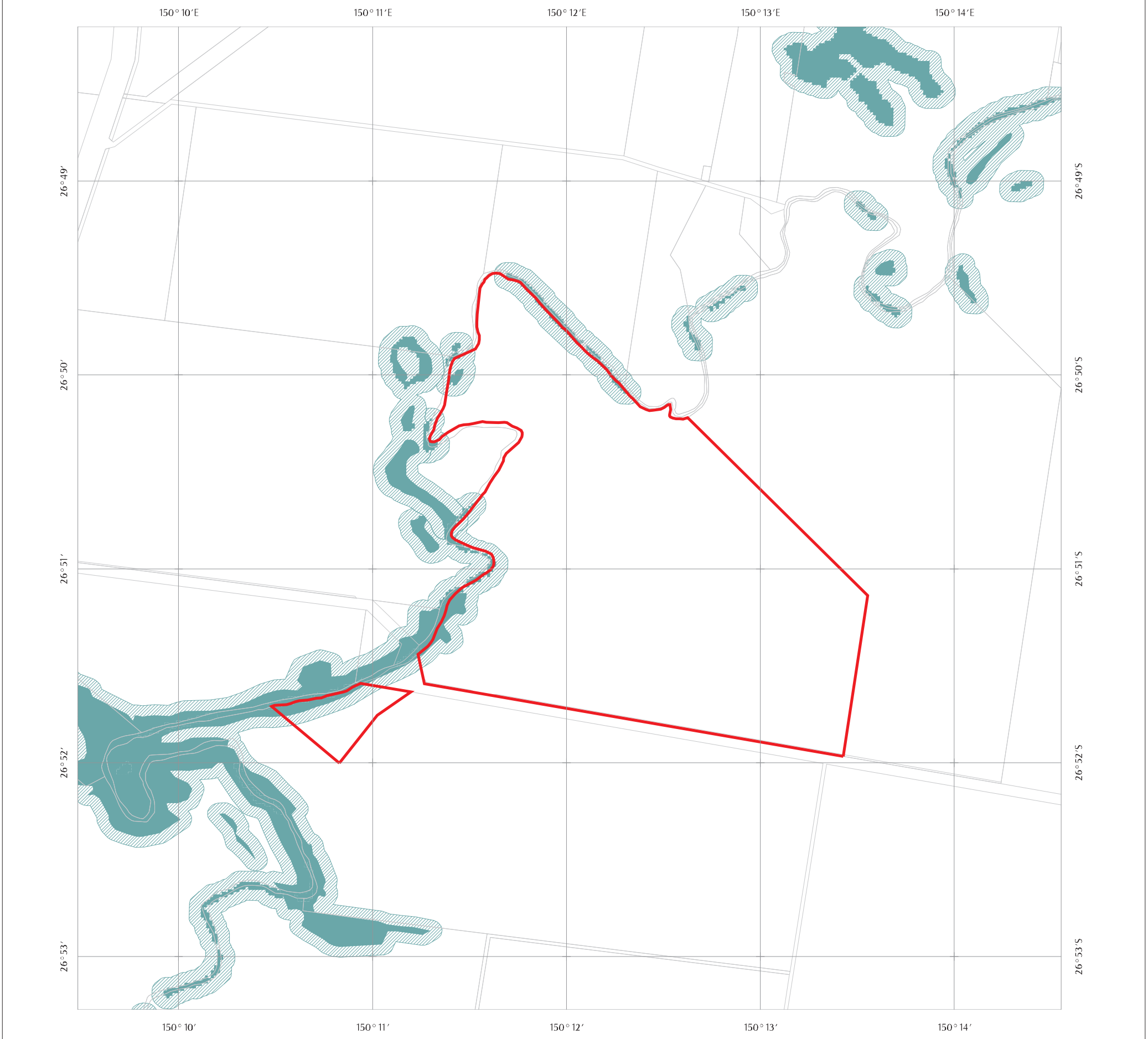


Map of Referable Wetlands

Requested By: BOOBOOK1@BIGPOND.COM
Date: 06 Jul 11 Time: 16.36.59

Centered on Lot on Plan:
17 SP133341

Legend

- Selected Land Parcel
- Property Boundary

GBR Wetland Protection Area

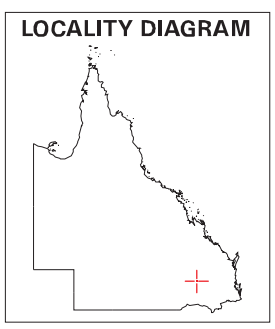
- Wetland
- Trigger Area

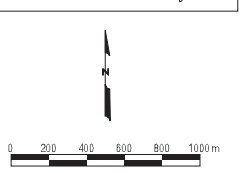
Wetland Management Area

- Wetland
- Trigger Area

Queensland Government

LOCALITY DIAGRAM





This scale bar is approximate only
Horizontal Datum: Geocentric Datum of Australia 1994 (GDA94)
This product is unprojected and is not suitable for measuring distances

This map should only be used to apply policies outlined in the Temporary State Planning Policy: Protecting Wetlands of High Ecological Significance in Great Barrier Reef Catchments (SPP for GBR Wetlands).

Information shown on the map includes multiple spatial datasets that define policies stated in the Temporary State Planning Policy: Protecting Wetlands of High Ecological Significance in Great Barrier Reef Catchments (SPP for GBR Wetlands). Datasets include wetlands, roads, rail lines and cadastral boundaries.

All datasets are current as at 30 April 2010.

The maps are produced at a scale relevant to the size of the lot on plan identified and should be printed as A4 size in portrait orientation. Consideration of the effects of mapped scale is necessary when interpreting data at a large scale i.e. property level. For property assessment, digital linework should be used as a guide only.

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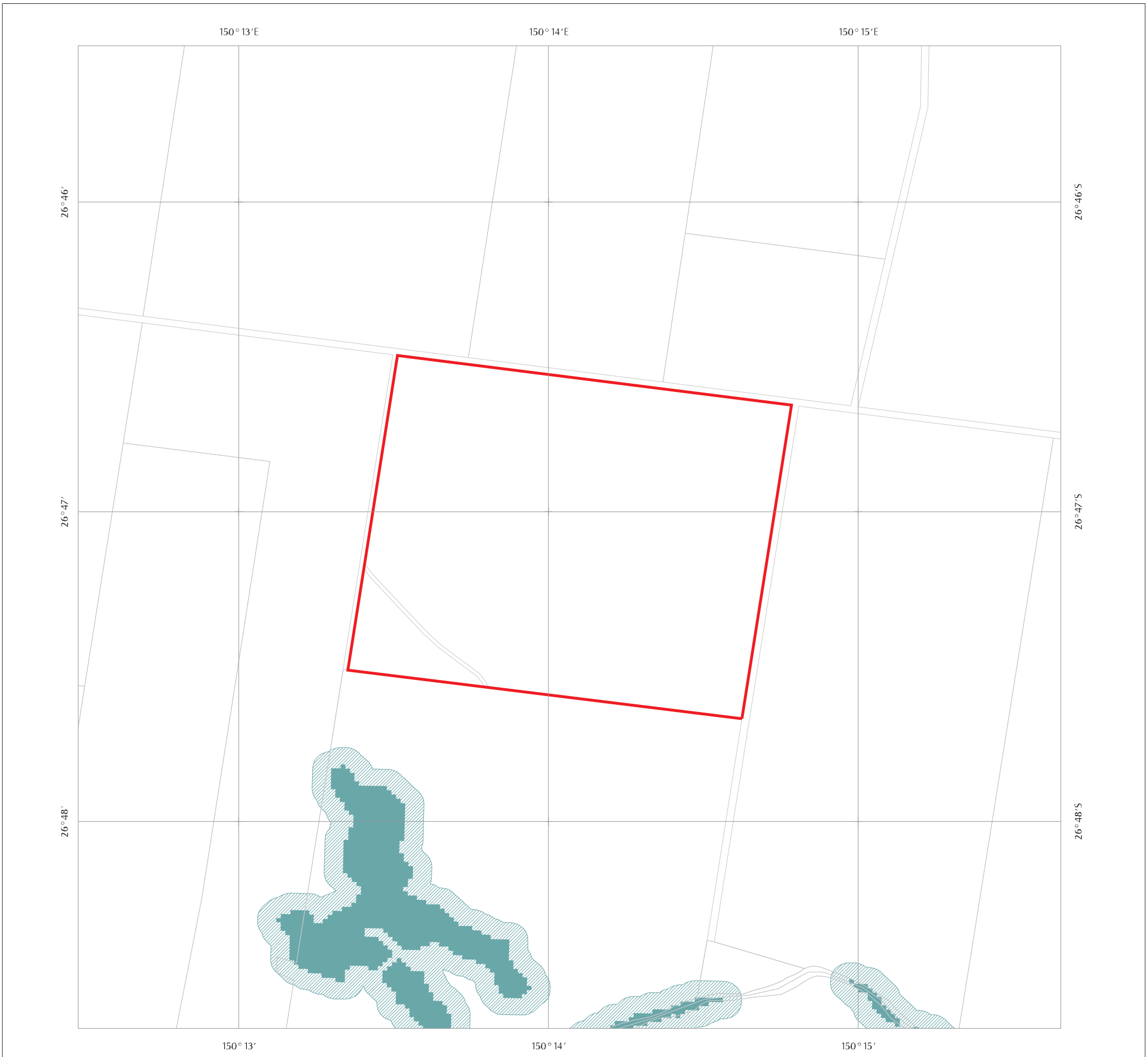


Map of Referable Wetlands

Requested By: BOOBOOK1@BIGPOND.COM
Date: 06 Jul 11 Time: 16.33.11

Centered on Lot on Plan:
11 BWR65

Legend

- Selected Land Parcel
- Property Boundary

GBR Wetland Protection Area

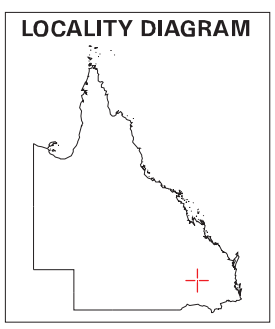
- Wetland
- Trigger Area

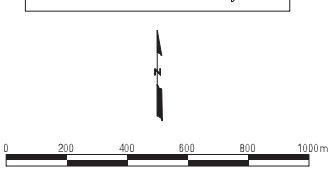
Wetland Management Area

- Wetland
- Trigger Area

Queensland Government

LOCALITY DIAGRAM





This scale bar is approximate only
Horizontal Datum: Geocentric Datum of Australia 1994 (GDA94)
This product is unprojected and is not suitable for measuring distances

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All datasets are current as at 30 April 2010.

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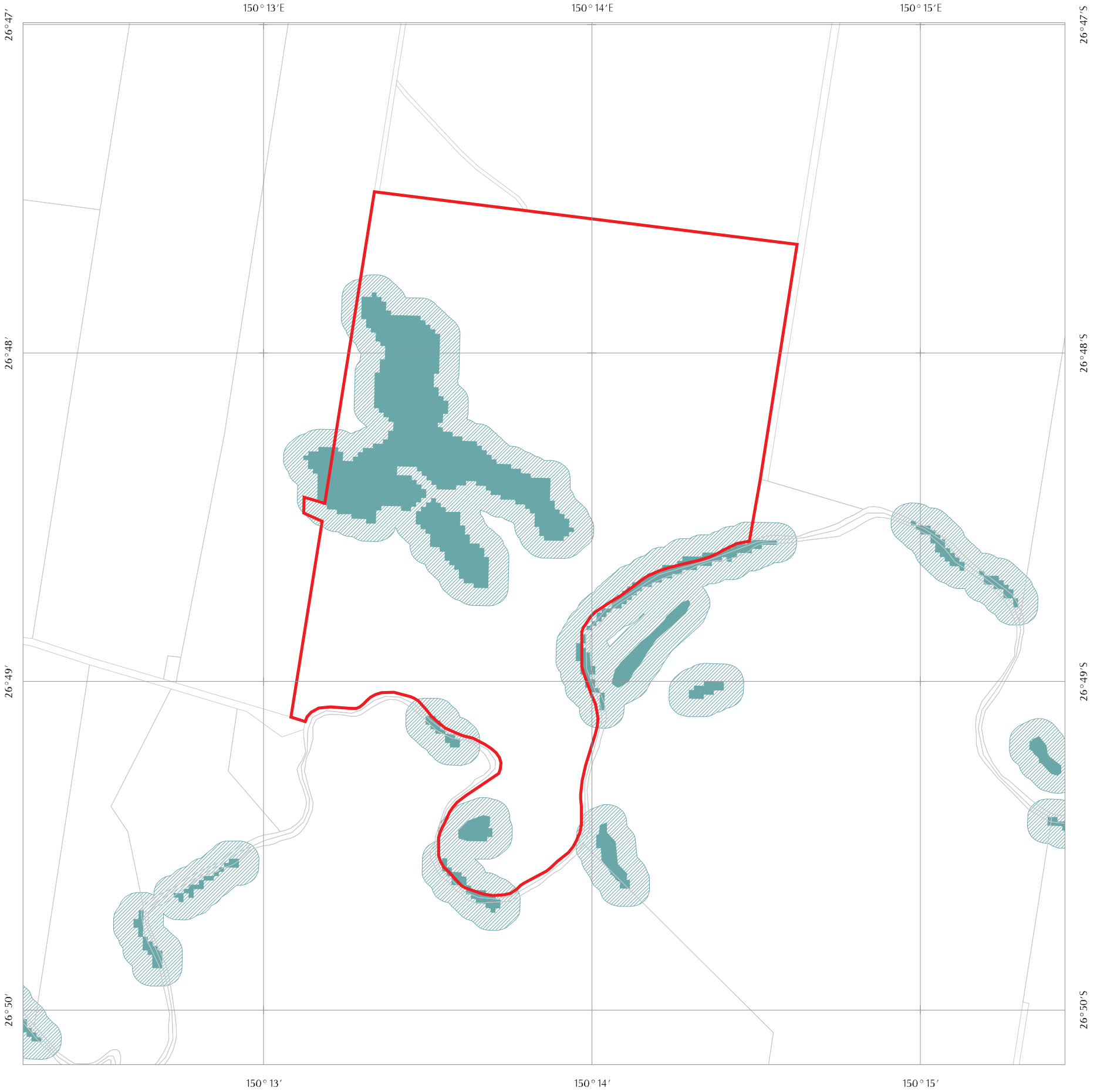


Map of Referable Wetlands

Requested By: CATALINA.NARANJO@ORIGINENERGY.COM.AU
Date: 09 Dec 10 Time: 16.14.54

Centered on Lot on Plan:
32 SP116140

Legend

- Selected Land Parcel
- Property Boundary

GBR Wetland Protection Area

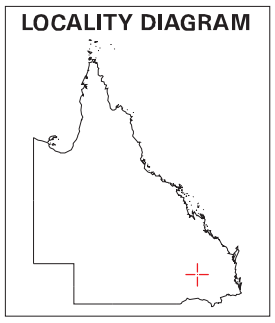
- Wetland
- Trigger Area

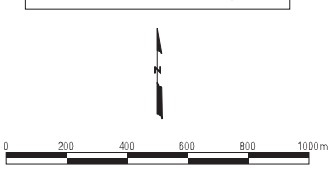
Wetland Management Area

- Wetland
- Trigger Area

Queensland Government

LOCALITY DIAGRAM





This scale bar is approximate only
Horizontal Datum: Geocentric Datum of Australia 1994 (GDA94)
This product is unprojected and is not suitable for measuring distances

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Appendix D - **Fauna recorded at the Site during field survey**

Fauna recorded at Site

KEY: * = non-native species; LC = least concern; M = migratory species.

CLASS	FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Amphibians	Bufonidae	*Rhinella marina*	Cane Toad*		
Amphibians	Hylidae	*Litoria caerulea*	Green Tree Frog	LC	
Amphibians	Hylidae	*Litoria latopalmata*	Broad Palmed Rocketfrog	LC	
Amphibians	Hylidae	*Litoria peronii*	Peron's Tree Frog	LC	
Amphibians	Hylidae	*Litoria rubella*	Red Tree Frog	LC	
Amphibians	Limnodynasidae	*Limnodynastes fletcheri*	Long-thumbed Frog	LC	
Amphibians	Myobatrachidae	*Limnodynastes salmini*	Salmon-striped Frog	LC	
Amphibians	Myobatrachidae	*Limnodynastes tasmaniensis*	Spotted Marsh Frog	LC	
Birds	Acanthizidae	*Acanthiza chrysorrhoa*	Yellow-rumped Thornbill	LC	
Birds	Acanthizidae	*Acanthiza uropygialis*	Chestnut-rumped Thornbill	LC	
Birds	Acanthizidae	*Smicrornis brevirostris*	Weebill	LC	
Birds	Accipitridae	*Aquila audax*	Wedge-tailed Eagle	LC	
Birds	Accipitridae	*Aviceda subcristata*	Pacific Baza, Crested Hawk	LC	

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CLASS	FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Birds	Accipitridae	*Haliaeetus leucogaster*	White-bellied Sea Eagle	LC	M
Birds	Accipitrdae	*Haliastur sphenurus*	Whistling Kite	LC	
Birds	Alcedinidae	*Todiramphus sanctus*	Sacred Kingfisher	LC	
Birds	Anatidae	*Chenonetta jubata*	Australian Wood Duck	LC	
Birds	Anatidae	*Dendrocygna eytoni*	Plumed Whistling Duck	LC	
Birds	Anatidae	*Anas superciliosa*	Pacific Black Duck	LC	
Birds	Anseriformes	*Anas gracilis*	Grey Teal	LC	
Birds	Ardeidae	*Egretta novaehollandiae*	White-faced Heron	LC	
Birds	Ardeidae	*Nycticorax caledonicus*	Nankeen Night Heron, Rufous Night Heron	LC	
Birds	Artamidae	*Cracticus nigrogularis*	Pied Butcherbird	LC	
Birds	Artamidae	*Cracticus tibicen*	Australian Magpie	LC	
Birds	Artamidae	*Cracticus torquatus*	Grey Butcherbird	LC	
Birds	Cacatuidae	*Cacatua galerita*	Sulphur-crested Cockatoo	LC	
Birds	Cacatuidae	*Cacatua sanguinea*	Little Corella	LC	
Birds	Cacatuidae	*Eolophus roseicapillus*	Galah	LC	
Birds	Cacatuidae	*Nymphicus*	Cockatiel	LC	

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CLASS	FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
		hollandicus			
Birds	Campephagidae	*Coracina maxima*	Ground Cuckoo-shrike	LC	
Birds	Campephagidae	*Coracina novaehollandiae*	Black-faced Cuckoo-shrike	LC	
Birds	Charadriidae	*Vanellus miles*	Masked Lapwing	LC	
Birds	Columbidae	*Geopelia striata*	Peaceful Dove	LC	
Birds	Columbidae	*Ocyphaps lophotes*	Crested Pigeon	LC	
Birds	Corcoracidae	*Corcorax melanorhamphos*	White-winged Chough	LC	
Birds	Corcoracidae	*Struthidea cinerea*	Apostlebird	LC	
Birds	Corvidae	*Corvus orru*	Torresian Crow	LC	
Birds	Cuculidae	*Centropus phasianinus*	Pheasant Coucal	LC	
Birds	Estrildidae	*Taeniopygia bichenovii*	Double-barred Finch	LC	
Birds	Falconidae	*Falco cenchroides*	Nankeen Kestrel	LC	
Birds	Halcyonidae	*Dacelo novaeguineae*	Laughing Kookaburra	LC	
Birds	Maluridae	*Malurus cyaneus*	Superb Fairy-wren	LC	
Birds	Maluridae	*Malurus leucopterus*	White-winged Fairy-wren	LC	
Birds	Meliphagidae	*Entomyzon cyanotis*	Blue-faced Honeyeater	LC	
Birds	Meliphagidae	*Lichenostomus*	White-plumed	LC	

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CLASS	FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
		penicillatus	Honeyeater		
Birds	Meliphagidae	*Manorina melanocephala*	Noisy Miner	LC	
Birds	Meliphagidae	*Philemon citreogularis*	Little Friarbird	LC	
Birds	Meliphagidae	*Philemon corniculatus*	Noisy Friarbird	LC	
Birds	Meliphagidae	*Plectorhyncha lanceolata*	Striped Honeyeater	LC	
Birds	Monarchidae	*Grallina cyanoleuca*	Magpie-lark	LC	
Birds	Monarchidae	*Myiagra inquieta*	Restless Flycatcher	LC	
Birds	Motacillidae	*Anthus novaeseelandiae*	Australasian Pipit	LC	
Birds	Nectariniidae	*Dicaeum hirundinaceum*	Mistletoebird	LC	
Birds	Pachycephalidae	*Pachycephala rufiventris*	Rufous Whistler	LC	
Birds	Pardalotidae	*Pardalotus striatus*	Striated Pardalote	LC	
Birds	Pomatostomidae	*Pomatostomus temporalis*	Grey-crowned Babbler	LC	
Birds	Psittacidae	*Aprosmictus erythropterus*	Red-winged Parrot	LC	
Birds	Psittacidae	*Northiella haematogaster*	Blue Bonnet	LC	
Birds	Psittacidae	*Platycercus adscitus*	Pale-headed Rosella	LC	
Birds	Psittacidae	*Psephotus haematonotus*	Red-rumped Parrot	LC	

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CLASS	FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Birds	Psittacidae	*Trichoglossus chlorolepidotus*	Scaly-breasted Lorikeet	LC	
Birds	Rhipiduridae	*Rhipidura albiscapa*	Grey Fantail	LC	
Birds	Rhipiduridae	*Rhipidura leucophrys*	Willie Wagtail	LC	
Birds	Sturnidae	*Acridotheres tristis*	Common Myna*		
Birds	Sturnidae	*Sturnus vulgaris*	Common Starling*		
Birds	Threskiornithidae	*Platalea flavipes*	Yellow-billed Spoonbill	LC	
Insects	Nymphalidae	*Danaus chrysippus petilia*	Lesser Wanderer		
Insects	Nymphalidae	*Hypolimnas bolina*	Common Eggfly		
Insects	Nymphalidae	*Melanitis leda*	Evening Brown		
Insects	Nymphalidae	*Tirumala hamata*	Blue Tiger		
Insects	Papilionidae	*Papilio aegeus aegeus*	Orchard Swallowtail		
Insects	Papilionidae	*Papilio demoleus sthenelus*	Chequered Swallowtail		
Mammals	Phalangeridae	*Trichosurus vulpecula*	Common Brushtail Possum	LC	
Mammals	Leporidae	*Oryctolagus cuniculus*	Rabbit*		
Mammals	Macropodidae	*Macropus giganteus*	Eastern Grey Kangaroo	LC	
Mammals	Macropodidae	*Macropus rufogriseus*	Red-necked Wallaby	LC	

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CLASS	FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Mammals	Macropodidae	*Wallabia bicolor*	Swamp Wallaby	LC	
Mammals	Suidae	*Sus scrofa*	Pig*		
Reptiles	Agamidae	*Pogona barbata*	Common Bearded Dragon	LC	
Reptiles	Elapidae	*Parasuta dwyeri*	Dwyer's Snake	LC	
Reptiles	Gekkonidae	*Gehyra dubia*	Dubious Dtella	LC	
Reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's Gecko	LC	
Reptiles	Scincidae	*Lerista punctatovittata*	Eastern Robust Slider	LC	
Reptiles	Scincidae	*Tiliqua scincoides*	Common Blue Tongue	LC	
Reptiles	Scincidae	*Morethia boulengeri*	Boulenger's Skink	LC	
Reptiles	Varanidae	*Varanus panoptes*	Yellow-spotted Monitor	LC	
Reptiles	Varanidae	*Varanus varius*	Lace Monitor	LC	

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Appendix E - **Flora recorded at the Site during field survey**

Native flora recorded at Site

Key: LC = least concern; TAR = Type A Restricted plant.

FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Acanthaceae	*Brunoniella australis*	Blue Trumpet	LC	
Acanthaceae	*Pseuderanthemum variabile*	Pastel Flower	LC	
Acanthaceae	*Rostellularia adscendens*	A Justicia	LC	
Adiantaceae	*Cheilanthes distans*	Bristly Cloak-fern	LC	
Adiantaceae	*Cheilanthes sieberi*	Mulga Fern	LC	
Adiantaceae	*Cheilanthes* sp. (infertile)	A Fern	LC	
Aizoaceae	*Tetragonia tetragonioides*	New Zealand Spinach	LC	
Aizoaceae	*Trianthema triquetra*	Red Spinach	LC	
Amaranthaceae	*Alternanthera nana*	Hairy Joyweed	LC	
Amaranthaceae	*Amaranthus macrocarpus*	Dwarf Amaranth	LC	
Amaranthaceae	*Nyssanthes* sp. (infertile)		LC	
Apocynaceae	*Alstonia constricta*	Bitterbark	LC	
Apocynaceae	*Carissa ovata*	Currantbush	LC	
Asteraceae	*Calotis cuneifolia*	Purple Burr Daisy	LC	
Asteraceae	*Calotis lappulacea*	Yellow Burr Daisy	LC	
Asteraceae	*Cassinia laevis*	Cough Bush	LC	
Asteraceae	*Centipeda minima*	Desert Sneezeweed	LC	

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FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Asteraceae	*Chrysocephalum apiculatum*	Yellow Buttons	LC	
Asteraceae	*Epaltes australis*	Speading Nut-heads	LC	
Asteraceae	*Ozothamnus diosmifolius*	Rice Flower, White Dogwood	LC	
Asteraceae	*Vittadinia* sp. (infertile)	A fuzzweed	LC	
Bignoniaceae	*Pandorea pandorana*	Wonga Vine	LC	
Boraginaceae	*Ehretia membranifolia*	Weeping Koda, Peach Bush	LC	
Campanulaceae	*Wahlenbergia* sp. (infertile)	A bluebell	LC	
Capparaceae	*Apophyllum anomalum*	Broom Bush, Warrior Bush	LC	
Caryophyllaceae	*Polycarpaea corymbosa*	Pretty Polly	LC	
Casuarinaceae	*Allocasuarina luehmannii*	Bulloak	LC	
Casuarinaceae	*Casuarina cristata*	Belah	LC	
Casuarinaceae	*Casuarina cunninghamiana*	River She-oak	LC	
Celastraceae	*Maytenus cunninghamii*	Yellow Berry Bush	LC	
Chenopodiaceae	*Chenopodium* sp. infertile (*carinatum* group)	A goosefoot	LC	
Chenopodiaceae	*Einadia hastata*	Saloop Saltbush	LC	
Chenopodiaceae	*Einadia nutans*	Climbing Saltbush	LC	
Chenopodiaceae	*Einadia* sp. (infertile)	A saltbush	LC	
Chenopodiaceae	*Enchylaena tomentosa*	Ruby Saltbush	LC	
Chenopodiaceae	*Rhagodia spinescens*	Thorny Saltbush	LC	

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FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Chenopodiaceae	*Sclerolaena birchii*	Galvanised Burr	LC	
Chenopodiaceae	*Sclerolaena muricata*	Black roly-poly	LC	
Chenopodiaceae	*Sclerolaena* sp.(infertile)		LC	
Clusiaceae	*Hypericum gramineum*	Small St. John's Wort	LC	
Commelinaceae	*Commelina* sp.(infertile)	Scurvy Weed	LC	
Commelinaceae	*Murdannia graminea*	Slug-herb	LC	
Convolvulaceae	*Evolvulus alsinoides*	Tropical Speedwell	LC	
Crassulaceae	*Crassula* sp.	A Stonecrop	LC	
Cucurbitaceae	*Cucumis melo* subsp. *agrestis*	Ulcardo Melon, Native Cucumber	LC	
Cupressaceae	*Callitris glaucophylla*	White Cypress Pine	LC	
Cyperaceae	*Bulbostylis barbata*	A sedge	LC	
Cyperaceae	*Bulbostylis pyriformis*	A sedge	LC	
Cyperaceae	*Carex appressa*	Tall Sedge	LC	
Cyperaceae	*Cyperus bulbosus*	Downs Nutgrass	LC	
Cyperaceae	*Cyperus castaneus*	A Sedge	LC	
Cyperaceae	*Cyperus* sp. (infertile)	A Sedge	LC	
Cyperaceae	*Cyperus fulvus*	Sticky Sedge	LC	
Cyperaceae	*Cyperus gracilis*	Whisker Grass	LC	
Cyperaceae	*Cyperus sanguinolentus*	Dark Flat-sedge, Red Top Sedge	LC	
Cyperaceae	*Cyperus* sp. (infertile)	A sedge	LC	

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FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Cyperaceae	*Eleocharis plana*	Ribbed Spike-rush	LC	
Cyperaceae	*Fuirena* sp.	A Sedge	LC	
Cyperaceae	*Lipocarpha microcephala*	Button-rush	LC	
Cyperaceae	*Schoenoplectus* sp. (infertile)	A Club-rush	LC	
Ebenaceae	*Diospyros humilis*	Small-leaved Ebony	LC	
Ericaceae	*Leucopogon mitchellii*	A beard-heath	LC	
Euphorbiaceae	*Euphorbia tannensis* subsp. *eremophila*	Desert Spurge	LC	
Fabaceae	*Aeschynomene indica*	Budda Pea	LC	
Fabaceae	*Glycine tomentella*	Woolly Glycine	LC	
Fabaceae	*Zornia muriculata*	A Zornia Pea	LC	
Fabaceae	*Zornia* sp. (indet.)	A Zornia Pea	LC	
Goodeniaceae	*Goodenia delicata*	Hop Goodenia	LC	
Goodeniaceae	*Goodenia glabra*	Smooth Goodenia	LC	
Goodeniaceae	*Goodenia rosulata*	A Goodenia	LC	
Haloragaceae	*Haloragis heterophylla*	Rough Raspwort, Variable Raspwort	LC	
Hemerocallidaceae	*Dianella brevipedunculata*	Short-flowered Flax lily	LC	
Juncaceae	*Juncus* sp. (infertile)	A Rush	LC	
Juncaceae	*Juncus usitatus*	Common Rush	LC	

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FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Lamiaceae	*Ajuga australis*	Australian Bugle	LC	
Lamiaceae	*Plectranthus parviflorus*	Cockspur Flower	LC	
Lamiaceae	*Spartothamnella puberula*	Broom Bush	LC	
Laxmanniaceae	*Eustrephus latifolius*	Wombat berry	LC	
Laxmanniaceae	*Laxmannia* sp. (infertile)	Wire Lily	LC	
Laxmanniaceae	*Lomandra leucocephala*	Woolly Mat-rush	LC	
Laxmanniaceae	*Lomandra longifolia*	Long-leaved Matrush	LC	
Loranthaceae	*Amyema congener*	Variable Mistletoe	LC	
Loranthaceae	*Amyema quandang*	Grey Mistletoe	LC	
Malvaceae	*Abutilon* sp. (infertile)	A Chinese-lantern flower	LC	
Malvaceae	*Hibiscus sturtii*	Hill Hibiscus	LC	
Malvaceae	*Sida hackettiana*	High Sida	LC	
Marsileaceae	*Marsilea* sp.	Nardoo	LC	
Mimosaceae	*Acacia conferta*	Crowded-leaf Wattle	LC	
Mimosaceae	*Acacia crassa*	A Wattle	LC	
Mimosaceae	*Acacia decora*	Pretty Wattle	LC	
Mimosaceae	*Acacia harpophylla*	Brigalow	LC	
Mimosaceae	*Acacia melvillei*	Yarran	LC	
Mimosaceae	*Acacia pendula*	Weeping Myall	LC	
Mimosaceae	*Acacia salicina*	Doolan	LC	

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FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Mimosaceae	*Acacia* sp. (*aprepta/burrowii* group)		LC	
Mimosaceae	*Acacia sparsiflora*	Currawong	LC	
Mimosaceae	*Acacia stenophylla*	River Cooba, Belalie	LC	
Molluginaceae	*Mollugo cerviana*	Slender Carpetweed	LC	
Myoporaceae	*Eremophila longifolia*	Long-leafed Emu Bush	LC	
Myoporaceae	*Eremophila mitchellii*	False Sandalwood	LC	
Myrtaceae	*Angophora floribunda*	Rough-barked Apple	LC	
Myrtaceae	*Corymbia clarksoniana*	Clarkson's Bloodwood	LC	
Myrtaceae	*Corymbia tessellaris*	Carbeen, Moreton Bay Ash	LC	
Myrtaceae	*Eucalyptus camaldulensis/E. tereticornis*	River Red Gum/Queensland Blue Gum	LC	
Myrtaceae	*Eucalyptus chloroclada*	Baradine Red Gum	LC	
Myrtaceae	*Eucalyptus coolabah*	Coolibah	LC	
Myrtaceae	*Eucalyptus crebra*	Narrow-leaved Red Ironbark	LC	
Myrtaceae	*Eucalyptus exserta*	Queensland Peppermint	LC	
Myrtaceae	*Eucalyptus fibrosa*	Dusky-leaved Ironbark	LC	

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FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Myrtaceae	*Eucalyptus populnea*	Poplar box	LC	
Myrtaceae	*Eucalyptus woollsiana*	Gum-topped Box	LC	
Myrtaceae	*Melaleuca* sp. infertile (*quercina* group)	A Bottlebrush	LC	
Nyctaginaceae	*Boerhavia* sp.	Tar Vine	LC	
Oleaceae	*Notelaea microcarpa*	Small-fruited Mock Olive	LC	
Onagraceae	*Ludwigia peploides*	Water Primrose	LC	
Orchidaceae	*Cymbidium canaliculatum*	Black Orchid	LC/TAR	
Oxalidaceae	*Oxalis* sp.	A wood sorrel	LC	
Picrodendraceae	*Petalostigma pubescens*	Quinine Tree	LC	
Pittosporaceae	*Pittosporum angustifolium*	Weeping Pittosporum, Gumbi Gumbi	LC	
Poaceae	*Ancistrachne uncinulata*	Hooky Grass	LC	
Poaceae	*Aristida caput-medusae*	Many-headed Wiregrass	LC	
Poaceae	*Aristida* sp. (infertile)		LC	
Poaceae	*Austrostipa verticillata*	Slender Bamboo Grass	LC	
Poaceae	*Bothriochloa bladhii*	Forest Blue Grass	LC	
Poaceae	*Chionachne cyathopoda*	River Grass	LC	
Poaceae	*Digitaria* sp.	Cotton Panic Grass	LC	
Poaceae	*Enneapogon* sp. (infertile)	Bottle washer grasses	LC	

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FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Poaceae	*Eragrostis* sp.(infertile)		LC	
Poaceae	*Heteropogon contortus*	Black Speargrass	LC	
Poaceae	*Paspalidium* sp. (infertile)		LC	
Poaceae	*Paspalum distichum*	Water Couch	LC	
Poaceae	*Perotis rara*	Comet Grass	LC	
Poaceae	*Phragmites australis*	Common Reed	LC	
Poaceae	Poaceae sp. (infertile)		LC	
Poaceae	*Setaria surgens*	Pale Pigeon Grass	LC	
Polygalaceae	*Muehlenbeckia florulenta*	Tangled Lignum	LC	
Polygalaceae	*Polygala linariifolia*	No Common Name	LC	
Polygonaceae	*Persicaria attenuata*	Sojak, Velvet Knotweed	LC	
Polygonaceae	*Persicaria decipiens*	Slender Knotweed	LC	
Polygonaceae	*Persicaria prostrata*	Creeping Knotweed	LC	
Polygonaceae	*Rumex* sp.	A docks	LC	
Proteaceae	*Hakea lorea*	Bootlace Oak	LC	
Rhamnaceae	*Alphitonia excelsa*	Red Ash, Soap Tree	LC	
Rhamnaceae	*Cryptandra armata*	A Cryptandra	LC	
Rubiaceae	*Psydrax odorata*	Shiny-leaved Canthium	LC	
Rubiaceae	*Psydrax oleifolia*	Myrtle Tree	LC	

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FAMILY	SCIENTIFIC NAME	COMMON NAME	NC ACT STATUS	EPBC ACT STATUS
Rutaceae	*Geijera parviflora*	Wilga	LC	
Santalaceae	*Santalum lanceolatum*	Sandalwood	LC	
Sapindaceae	*Alectryon diversifolius*	Scrub Boonaree	LC	
Sapindaceae	*Alectryon oleifolius*	Boonaree	LC	
Sapindaceae	*Dodonaea viscosa* subsp. *spatulata*	Sticky Hopbush	LC	
Sapotaceae	*Planchonella pubescens*	Yellow Lemon	LC	
Solanaceae	*Solanum coracinum*		LC	
Solanaceae	*Solanum ellipticum*	Potato Bush	LC	
Solanaceae	*Solanum esuriale*	Quena, Potato Weed	LC	
Sterculiaceae	*Brachychiton populneus*	Kurrajong	LC/TAR	
Vitaceae	*Cayratia clematidea*	Slender Grape	LC	
Zygophyllaceae	*Tribulus micrococcus*	Caltrop	LC	

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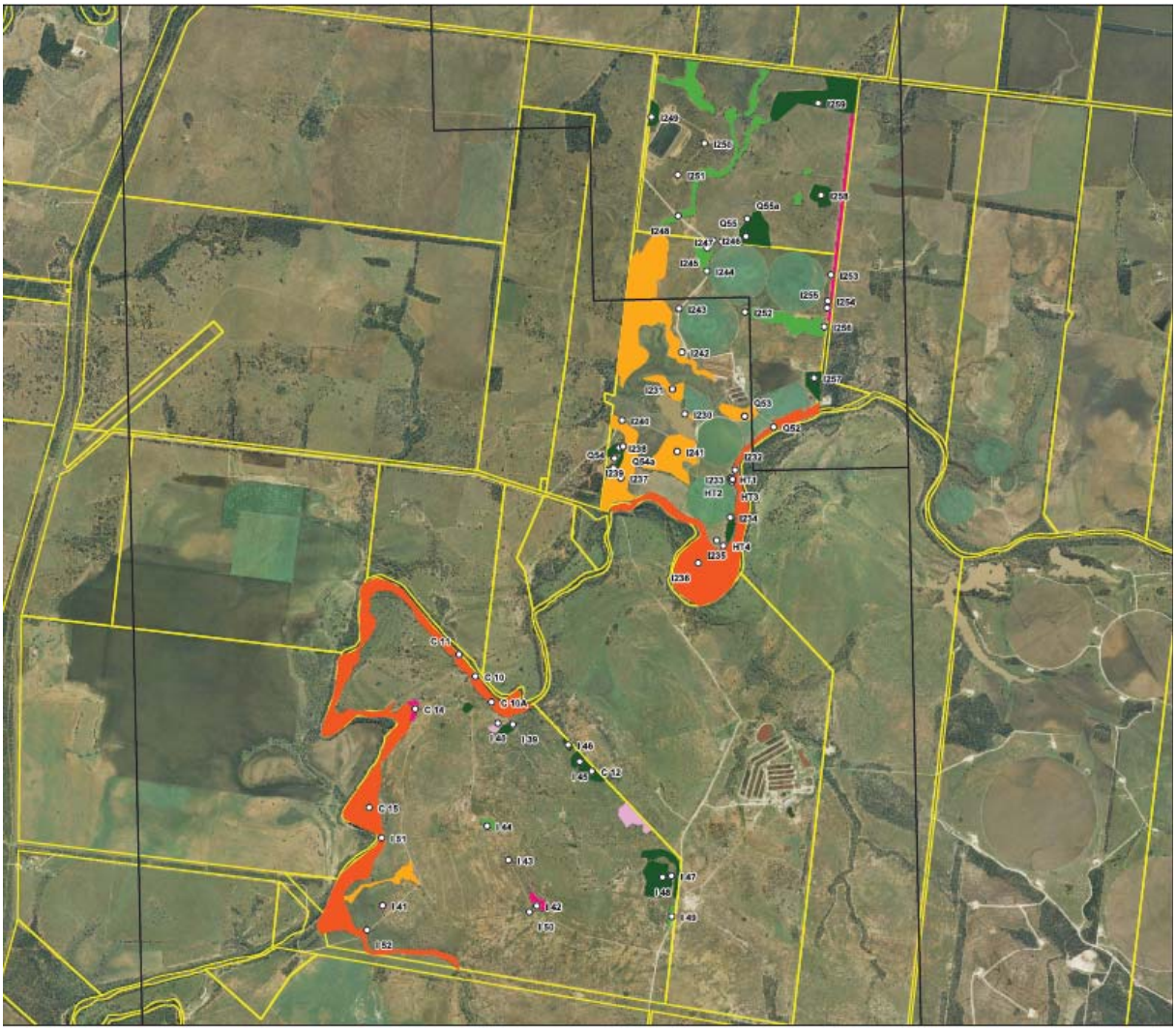
Appendix F - **Map of field survey sites for the Site**



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