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Assessment – Lot 9WV435

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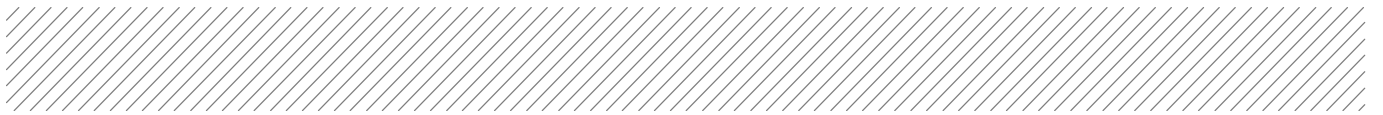
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Roma Ecological Assessment – Lot 9WV435

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1 Background

1.1 Project description

Santos Ltd (Santos) has commissioned Aurecon Australia Pty Ltd (Aurecon) to undertake ecological investigations of proposed areas of development for the Roma gas fields.

The Roma gas fields are located near the township of Roma and are characterised by undulating terrain with small elevated areas including the Thomby and Grafton Range. The dominant vegetation types within the Roma gas fields include Eucalypt and/or Brigalow woodlands, Blue grass or Mitchell grass downs, and smaller areas of White Cypress Pine and Mulga (Eddie 2007). The Roma gas fields are located within the Balonne River catchment.

Much of this area has been subject to cattle grazing and other agricultural practices, as well as previous development associated with the gas fields.

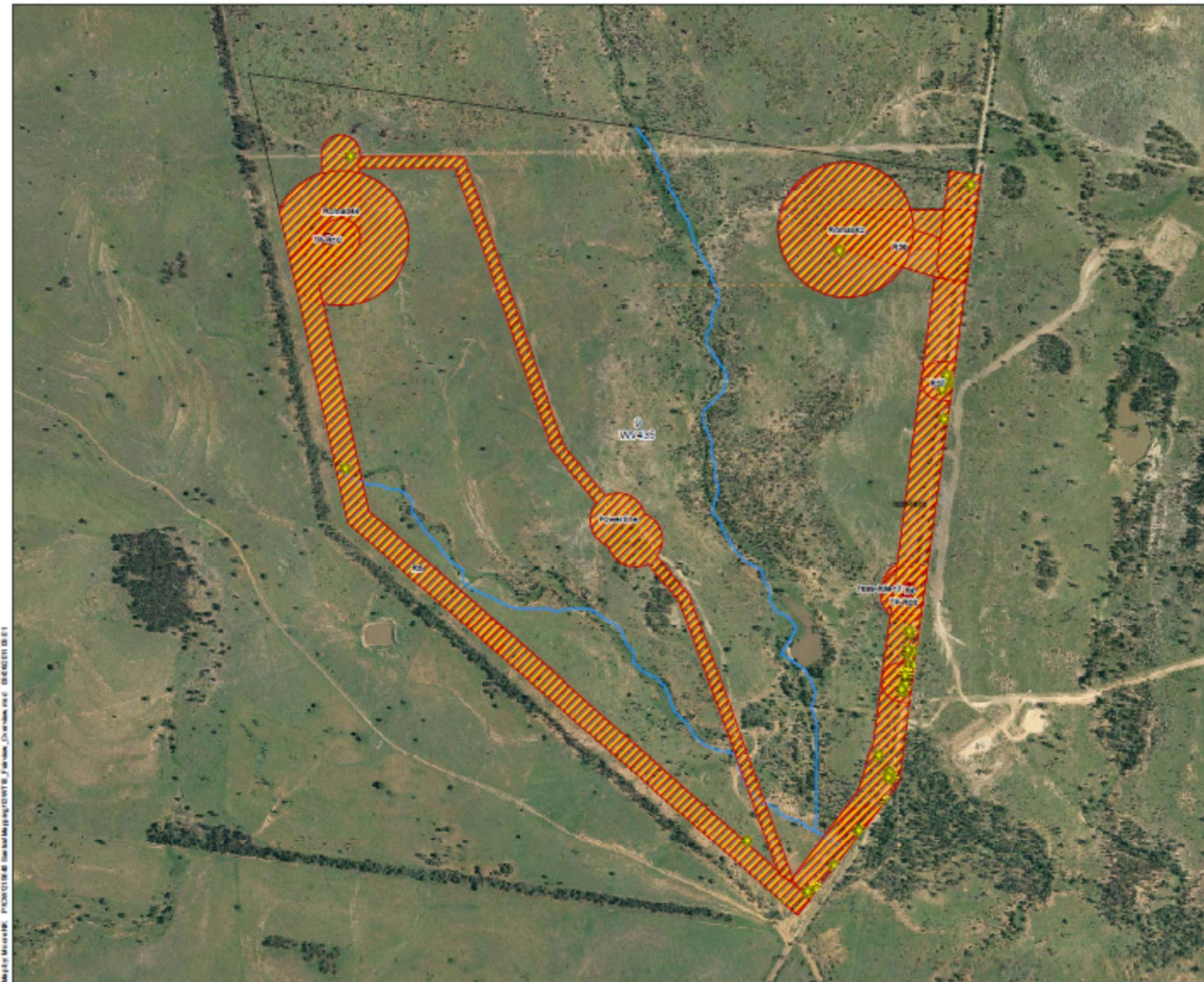
This report is specific to the proposed development areas listed below and shown in Figure 1.1:

- Pipeline corridors R4, R5 and R36
- Geotechnical survey locations situated within the above corridors and shown in Figure 1.1
- Power line easement

These areas are collectively referred to as the 'proposed development area', and are located entirely within Lot 9WV435. Note that the subject of this report is solely related to Lot 9WV435. Where survey areas overlap additional properties, these sites will be further addressed in the report relevant to those properties/lots.

1.2 Purpose of report

The aim of this report is to provide an ecological assessment of the proposed development areas located on Lot 9WV435 (Figure 1.1) and to identify areas and species of notable ecological or conservation value. This report does not make any recommendations regarding the development in relation to any Santos environmental authorities or other approvals.



Legend

- Notable Species
- Geotech Borehole Locations
- LOT 9WV435 Ground Truthed Areas
- Drainage (100K)
- ESA Category A
- ESA Category B
- ESA Category C
- Regional Ecosystem Mapping**
- Non-remnant / regrowth
- Endangered - Sub-dominant
- Endangered - Dominant
- Of Concern - Sub-dominant
- Of Concern - Dominant
- Not Of Concern
- Plantation forest
- Water

Notes:

Date: 05/07/2011

Version: 1

Santos Lot 9 on WV435



A3 scale 1:10,000



Job No: 210848

Coordinate system: GDA 1984 MGA Zone 55



2 Methodology

2.1 Desktop methodology

Proposed development areas have been projected on a range of maps provided by Santos. These maps include Regional Ecosystem (RE) Mapping (version 6.0; Department of Environment and Resource Management [DERM]), Environmentally Sensitive Areas (ESA) mapping, drainage mapping and aerial photography. Where available ahead of time, these resources were reviewed to determine target areas for the field inspection. It is important to note that the RE classifications used in this report are based on the 'biodiversity status' of the vegetation and not the '*Vegetation Management Act 1999* (VM Act) status' of the vegetation.

2.2 Field methodology

The proposed development areas were assessed by four (4) Aurecon ecologists (Sarah Glauert, Sarah Stone, Cassandra Arkininstall and Sandra Walters) between 19 May and 12 July 2011. These assessments were to determine the existing vegetation communities and habitat value of the proposed clearing within the development areas as well as to verify the RE mapping as produced by DERM.

GIS environmental constraints layers (eg RE Mapping, ESA mapping etc) and high resolution aerial photography were uploaded onto a toughbook (C5 mobile clinical assistant CFT-001 – Motion computing), with an integrated GPS used to locate surveys areas. Handheld Garmin GPS units (GPS map 76) were also used during the field investigations. It should be noted that while efforts were made to ensure the GPS co-ordinates provided in this report are accurate, a margin of error approximately +/- 15 m is expected due to the limitations of the devices used and the recording environment.

The corridors were 100 m wide and of varying lengths, and the circular well pad areas had a radius of 175 m. Geotechnical survey locations were also assessed as part of the survey areas (a 50 m buffer zone around each survey location was assessed).

The ground-truthing of the proposed development areas included undertaking detailed flora species surveys including sampling of unknown flora, and recording all incidental fauna observations. All species known to be of conservation significance (such as endangered, vulnerable, near threatened or Type A species under the *Nature Conservation Act 1992* [NC Act] or endangered, vulnerable or rare species under the *Environment Protection and Biodiversity Conservation Act 1999* [EPBC Act]) were recorded using the toughbook.

A list of flora species observed in the proposed development areas has been included in Appendix A. Incidental fauna observations are provided in the relevant sections throughout this report.

3 Ecological assessment

3.1 Corridor R4

General

Corridor R4 traverses lots 8WV435 and 9WV435 and contains geotechnical locations 7699-RM-17, 7699 TP-18, and TP-R08, as shown in Figure. Only the portion of corridor R4 on lot 9WV435 will be discussed in this report.

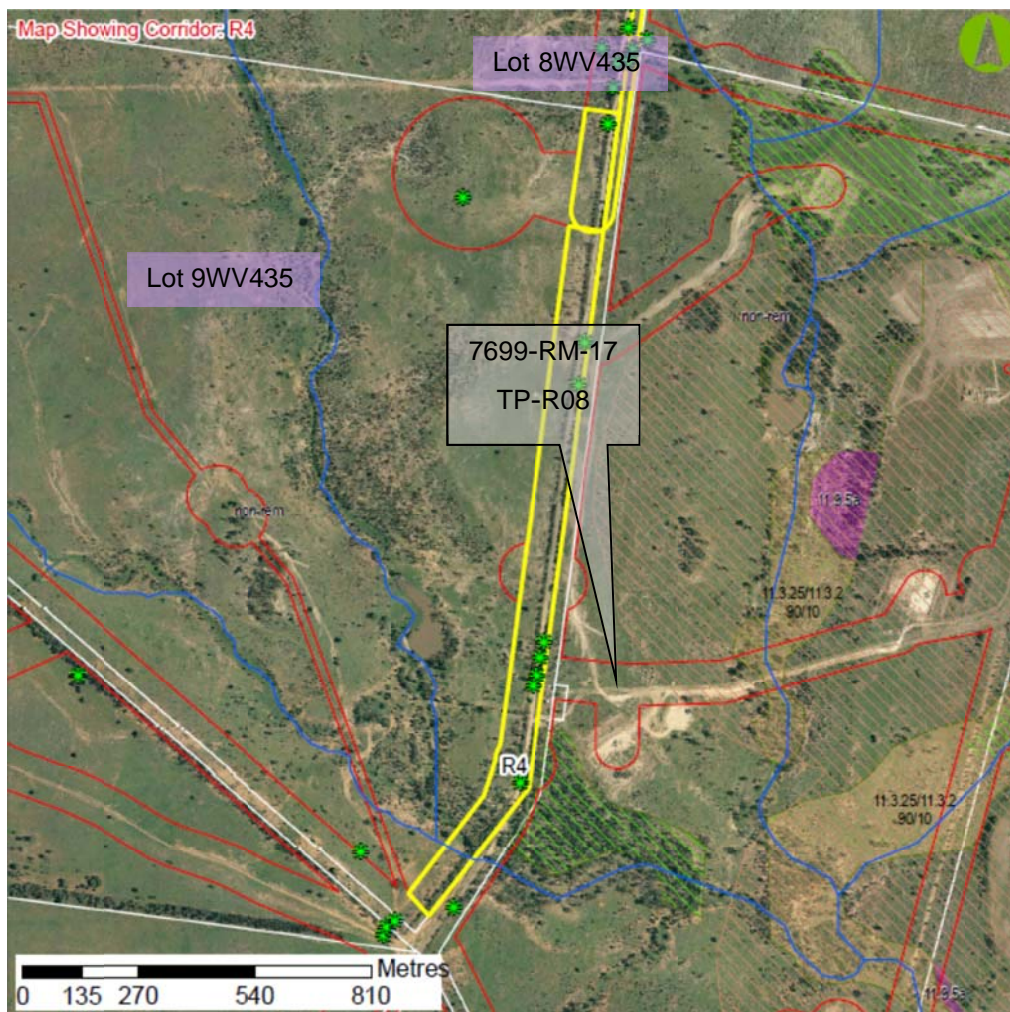



Figure 3.1 Aerial photograph of proposed corridor R4 on lot 9WV435 and associated geotechnical locations, with overlaid RE and ESA mapping



The entirety of corridor R4 and associated geotechnical locations is mapped as non-remnant vegetation, which is mostly correct, with the exception of one area of remnant vegetation north of the creek that crosses the southern end of the corridor. This remnant area will be discussed in further detail in 'Floristics' below.

No ESAs occur within the corridor itself, but two separate ESAs occur adjacent to the corridor boundary. Near the southern end, a category C ESA is mapped on adjoining lot 1CP848049, as this is a referable wetland.

A category B ESA adjoins the eastern boundary further north, due to a patch of 'endangered' regional ecosystem 11.9.5a (Brigalow), also on lot 1CP848049, which ground-truthing confirmed to be correct.

One watercourse of stream order 3 traverses the southern end of the corridor.

The eastern portion of corridor R4 runs parallel to Mount Saltbush Road, which is a major access road for the area.

Floristics

The majority of corridor R4 on lot 9WV435 is heavily disturbed and consists of non-remnant vegetation characterised by *E. populnea* (Poplar Box) and *A. harpophylla* (Brigalow) regrowth. Scattered mature trees of *E. populnea*, *Casuarina cristata* (Belah), *Corymbia tessellaris* (Moreton Bay Ash) and *C. clarksoniana* (Clarkson's Bloodwood) also occur. *Geijera parviflora* (Wilga) and *Eremophila mitchellii* (False Sandalwood) are common within the shrub layer, and *Pennisetum ciliare* (Buffel Grass) dominates the ground layer, amongst a variety of other exotic and native grasses, herbs and forbs.

The patch of vegetation north of the creek is not currently mapped as remnant vegetation. This vegetation contains mature trees to 20 m and is structurally complex. The canopy layer consists of *Eucalyptus populnea* (Poplar Box), *Eucalyptus exserta* (Queensland Peppermint), *Eucalyptus melanophloia* (Silver Leaved Ironbark), *Callitris glaucophylla* (White Cypress Pine) and *Callitris endlicheri* (Black Cypress Pine). The sub-canopy and shrub layers are comprised of *Callitris* to 18 m and 12 m, respectively. The ground cover layer consists of mixed grasses including *Panicum decompositum* (Hairy Panic), *Megathyrsus maximus var maximus* (Green Panic), *Pennisetum ciliare* (Buffel Grass), *Themeda triandra* (Kangaroo Grass), *Cymbopogon refractus* (Barbwire Grass) and *Themeda avenacea* (Wild Oats Grass). This vegetation is consistent with RE 11.3.2 which is listed as 'of concern'.

A flora species list was compiled for the entirety of corridor R4, which did not distinguish between lots. Thus it is important to note that the species listed in Appendix A for this corridor were not necessarily present on the portion occurring on lot 9WV435.

Numerous individuals of *Brachychiton* species and one *Cymbidium canaliculatum*, which are listed as Type A restricted plants under the NC Act, were identified within corridor R4 and associated geotechnical locations. As the boundaries of the corridor and geotechnical locations overlap, several *Brachychiton* affect more than one proposed disturbance, as shown in Table 3.1.

Table 3.1 Location of Type A Restricted Plants (*Nature Conservation Act 1992*) in proposed Corridor R4 and associated geotechnical locations

Species	Disturbance affected	Comment	Easting (GDA 94, Zone 55J)	Northing (GDA 94, Zone 55J)
<i>Brachychiton populneus</i>	R4	6 m	699373	7074623
<i>Cymbidium canaliculatum</i>	R4	in western side of mature <i>E. populnea</i> height 14 m	699396	7074629
<i>Brachychiton populneus</i>	R4	10 m	699443	7074687
<i>Brachychiton populneus</i>	7699-TP-18, R4	8 m	699505	7074780
<i>Brachychiton populneus</i>	7699-TP-18, R4	12 m	699505	7074780
<i>Brachychiton populneus</i>	R4	3 trees 6 m each	699589	7074914
<i>Brachychiton populneus</i>	R4	3 m	699582	7074916
<i>Brachychiton populneus</i>	R4	3 m	699583	7074929
<i>Brachychiton populneus</i>	R4	2 within 1 m height 4 m	699583	7074929
<i>Brachychiton populneus</i>	R4	20 m	699556	7074973
<i>Brachychiton populneus</i>	R4	6 m	699619	7075138
<i>Brachychiton populneus</i>	R4	8 m	699615	7075144
<i>Brachychiton populneus</i>	R4	10 m	699615	7075144
<i>Brachychiton populneus</i>	R4	8 m	699627	7075161
<i>Brachychiton populneus</i>	R4	16 m	699627	7075161
<i>Brachychiton populneus</i>	R4	2 within 3 m, height 18 m	699623	7075181
<i>Brachychiton populneus</i>	R4	2 within 1 m, height 12 m	699631	7075181
<i>Brachychiton populneus</i>	R4	2x one 5 m 1x1 m	699636	7075205
<i>Brachychiton populneus</i>	R4	2 juvenile within 1 m	699627	7075237
<i>Brachychiton populneus</i>	R4	15 m	699645	7075242
<i>Brachychiton populneus</i>	R4	18 m	699631	7075246
<i>Brachychiton populneus</i>	R4	juvenile x 2 within 1 m, height 0.5 m	699631	7075246
<i>Brachychiton populneus</i>	R4	Juvenile 0.6 m	699631	7075246
<i>Brachychiton populneus</i>	R4	Juvenile 2.3 m	699631	7075246
<i>Brachychiton populneus</i>	R4	2.5 m	699637	7075286

Species	Disturbance affected	Comment	Easting (GDA 94, Zone 55J)	Northing (GDA 94, Zone 55J)
<i>Brachychiton rupestris</i>	R4	juvenile (hybrid x <i>B. populneus</i>)	699635	7075293
<i>Brachychiton populneus</i>	R4	8 m	699726	7075840
<i>Brachychiton populneus</i>	R4	Juvenile 1 m	699721	7075921
<i>Brachychiton populneus</i>	R4	2 m	699739	7075937
<i>Brachychiton populneus</i>	R4	2 m	699731	7075943
<i>Brachychiton populneus</i>	R4	2 within 3 m, juvenile 2.5 m	699732	7075956
<i>Brachychiton rupestris</i>	R4		699793	7076447
<i>Brachychiton rupestris</i>	Road	10 m	698194	7076520

No other species of conservation significance under the provisions of either the EPBC Act or the NC Act were recorded within corridor R4.

Habitat value

The habitat value of corridor R4 is moderate within the non-remnant area, with reasonable floristic species diversity and structural complexity. Mature trees bearing hollows, and fallen woody debris is scattered throughout the existing vegetation fringing the road corridor. However, the ground layer offers marginal fauna habitat, with a dense cover of Buffel Grass.

The remnant patch of vegetation north of the creek has high habitat value, with greater floristic diversity in all vegetation strata, and mature trees with abundant hollows. Consequently, faunal diversity was also greater, with representation from a broader order of fauna than in non-remnant areas.

Incidental fauna species that were observed in the corridor R4 are presented in Table 3.2. Note that these species were observed throughout the corridor, and were not necessarily recorded on the portion on lot 9WV435. No fauna species listed as threatened under the provisions of either the EPBC Act or the NC Act were detected.

Table 3.2 Incidental fauna species observed in proposed corridor R4

Species	Common name
Birds	
<i>Manorina melanocephala</i>	Noisy Miner
<i>Pardalotus striatus</i>	Striated Pardalote
<i>Struthidea cinerea</i>	Apostlebird
<i>Rhipidura fuliginosa</i>	Grey Fantail
<i>Rhipidura leucophrys</i>	Willie Wagtail
<i>Grallina cyanoleuca</i>	Magpie-lark

Species	Common name
<i>Corvus orru</i>	Torresian Crow
<i>Plectorhyncha lanceolata</i>	Striped Honeyeater
<i>Pomatostomus temporalis</i>	Grey-crowned Babbler
<i>Cacatua roseicapella</i>	Galah
<i>Platycercus adscitus</i>	Pale headed rosella
Mammals	
<i>Macropus rufogriseus</i>	Red-necked Wallaby
<i>Tachyglossus aculeatus</i>	Short-beaked Echidna

3.2 Corridor R5

General

The entirety of corridor R5 (Figure 3.2) and associated geotechnical locations are mapped as non-remnant vegetation, which is incorrect. Remnant *Acacia harpophylla* (Brigalow) woodland (RE 11.9.5/11.9.10) occurs approximately mid-way along the alignment on the fence line separating lot 9WV435 from lot 1SP186211 to the south. This RE is listed as endangered under both the provisions of the EPBC Act and NC Act.

No ESAs are mapped within the corridor. However, correct mapping of the patch of *Acacia harpophylla* woodland would also identify the entire corridor footprint as a Category B ESA.

One minor watercourse of stream order 1 traverses the northern end of the corridor.

A fence line and minor access track extends along the length of corridor R5.

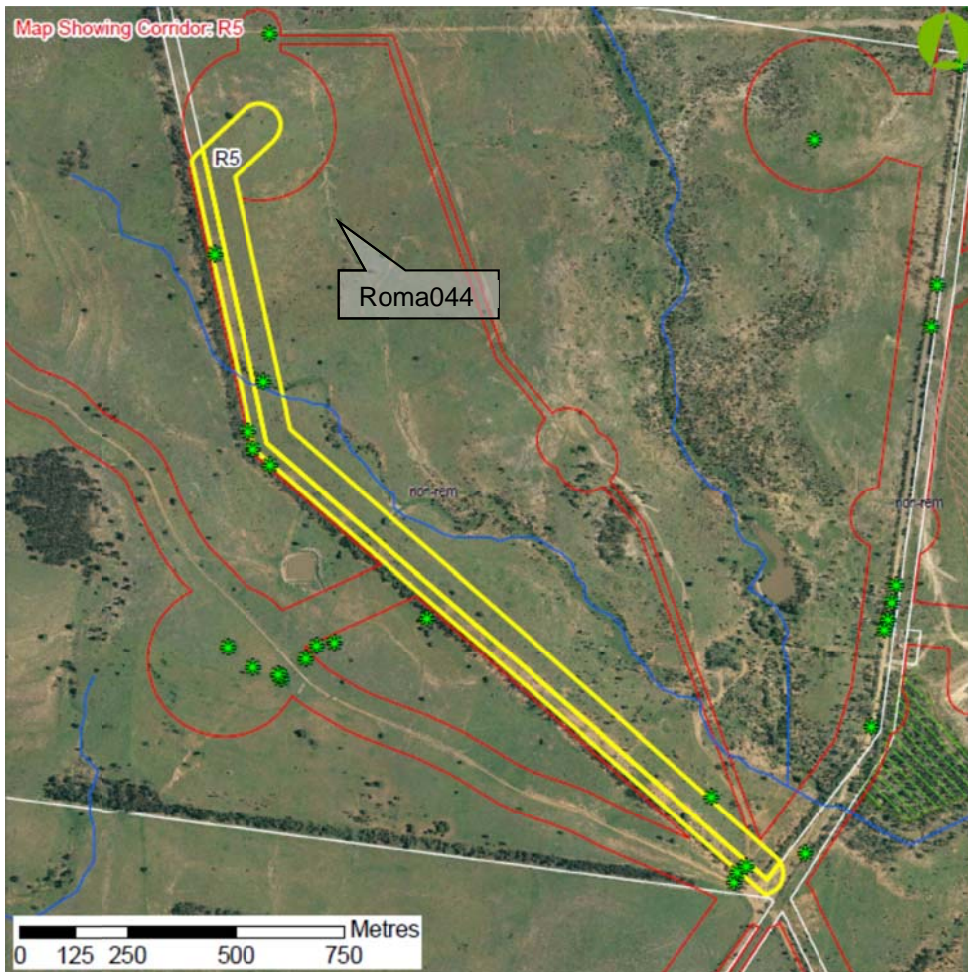


Figure 3.2 Aerial photograph of proposed corridor R5 with overlaid RE and ESA mapping

Floristics

Corridor R5 occurs within a heavily disturbed landscape, characterised by *E. populnea* (Poplar Box) regrowth with an understorey dominated by the exotic pasture, *Pennisetum ciliare* (Buffel Grass). Scattered shrubby growth includes *Geijera parviflora* (Wilga), *Eremophila mitchellii* (False Sandalwood) and *Alstonia constricta* (Bitter Bark). Where native vegetation has been retained, for example, along fence lines, increasing floristic diversity is evident.

The tree layer within the remnant patch of Brigalow on corridor R5 also contains individuals of *Brachychiton populneus* (Kurrajong), *Brachychiton rupestris* (Narrow-leaved Bottle Tree), *Eucalyptus populnea* (Poplar Box) and *Santalum lanceolatum* (Sandalwood), with a shrub layer of *Eremophila deserti* (Turkey Bush), *Carissa ovata* (Currant Bush), *Alectryon diversifolius* (Scrub Boonaree) and *Dodonaea viscosa* (Sticky Hopbush). The ground layer is sparse and consists of *Ancistrachne uncinulata* (Giant Spear Grass) and a range of other native grasses. This vegetation composition is consistent with RE 11.9.5, which is listed as endangered under both the NC Act and EPBC Act.

Nine individuals of *Brachychiton* species, which are listed as Type A restricted plants under the NC Act, were identified within the corridor. Their locations are provided in Table 3.3.

Table 3.3 Location of Type A Restricted Plants (*Nature Conservation Act 1992*) in proposed corridor R5

Species name	Easting (GDA 94, Zone 55J)	Northing (GDA 94, Zone 55J)
<i>Brachychiton rupestris</i>	698194	7076520
<i>Brachychiton rupestris</i>	698065	7076008
<i>Brachychiton rupestris</i>	698179	7075714
<i>Brachychiton rupestris</i>	698143	7075600
<i>Brachychiton rupestris</i>	699278	7074577
<i>Brachychiton rupestris</i>	699271	7074556
<i>Brachychiton populneus</i>	699299	7074592
<i>Brachychiton populneus</i>	698154	7075560
<i>Brachychiton populneus</i>	698194	7075521

No other flora species of conservation significance under the provisions of either the EPBC Act or the NC Act were recorded within corridor R5.

Habitat value

The habitat value of corridor R5 is low within the heavily disturbed areas, and moderate within remnant patches of vegetation. The area has been extensively disturbed by stock grazing and invasion of exotic pastures. Isolated mature and semi-mature trees are present throughout the corridor alignment and these are likely to provide some habitat for avian and arboreal fauna.

A low order stream crosses the alignment, but there was limited riparian vegetation remaining along the banks of this water course and no permanent pools of water. The remainder of the area contained some woody debris and the remnant vegetation along the fence line is likely to provide some habitat for native fauna species. There were signs of recent Short-beaked Echidna (*Tachyglossus aculeatus*) activity within the remnant vegetation and several bird species were seen within the lot.

No fauna species listed as threatened under the provisions of either the EPBC Act or the NC Act were detected.

3.3 Corridor R36

General

Corridor R36 is approximately 370 m in length, and terminates at geotechnical location Roma042, as shown in Figure 3.3. The entirety of R36 and Roma042 are mapped as non-remnant vegetation, which is correct.

No ESAs are mapped within the corridor. The nearest ESA occurs approximately 210 m to the south east (category B), due to a patch of remnant endangered *Acacia harphophylla* woodland on adjoining lot 1CP848049. Ground truthing confirmed the correctness of this RE mapping.

No watercourses traverse the corridor.

The eastern end of corridor R36 adjoins Mount Saltbush Road, which is a major access road within the area.

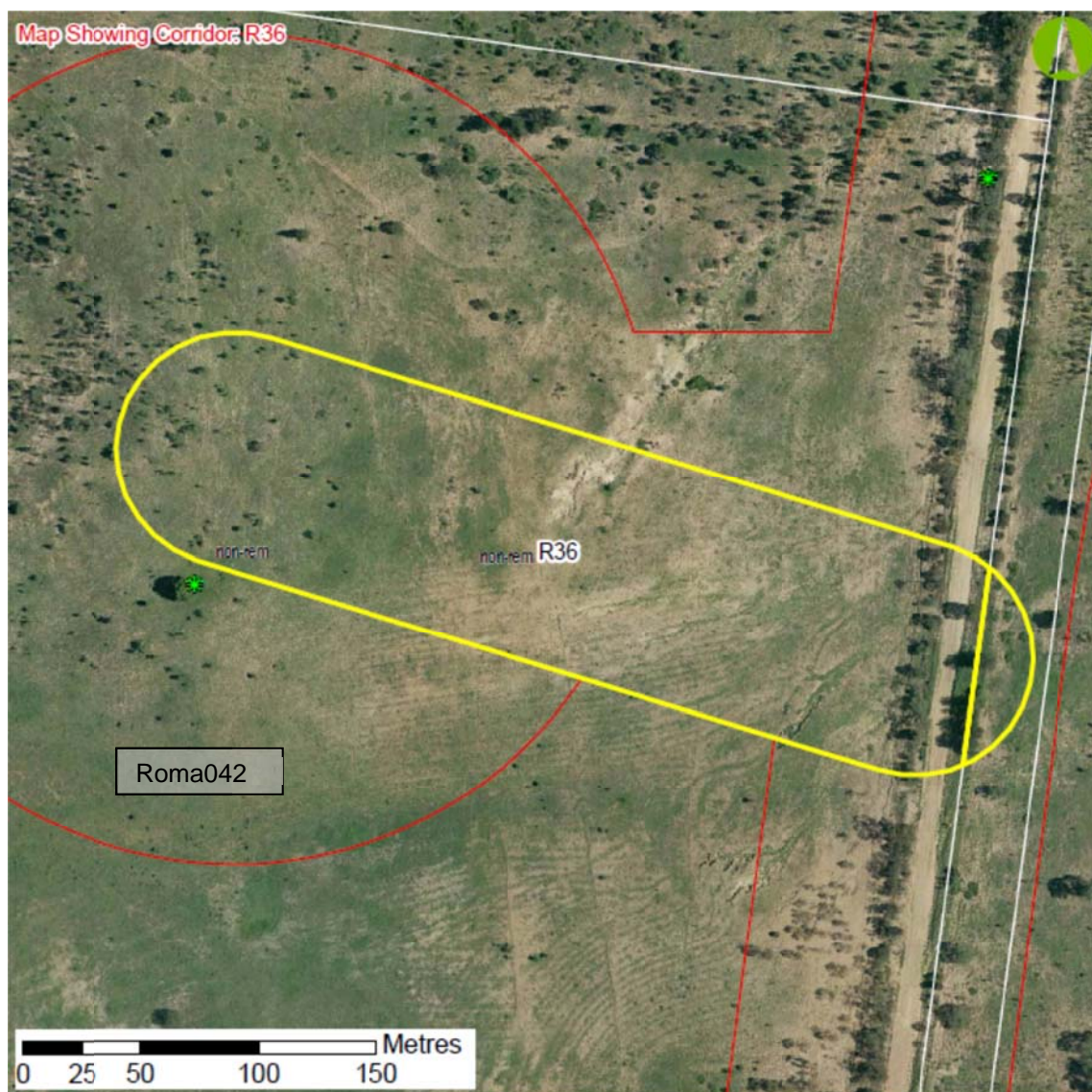


Figure 3.3 Aerial photograph of proposed corridor R36 and associated geotechnical location Roma042, with overlaid ESA and RE mapping

Floristics

Corridor R36 occurs within a heavily disturbed landscape, characterised by scattered shrubs of *Acacia harpophylla* (Brigalow), *A. leiocalyx* (Black Wattle), *Geijera parviflora* (Wilga) and *Alstonia constricta* (Bitter Bark). The ground layer is dominated by the exotic pasture, *Pennisetum ciliare* (Buffel Grass), with very low representation of native grasses.

One individual of *Brachychiton populneus*, which is listed as a Type A restricted plant under the NC Act, was identified within the buffer zone of geotechnical location Roma042, and its location is provided in Table 3.4.

Table 3.4 Location of Type A Restricted Plants (*Nature Conservation Act 1992*) in proposed corridor R36/geotechnical location Roma042

<i>Species name</i>	<i>Easting</i> (GDA 94, Zone 55J)	<i>Northing</i> (GDA 94, Zone 55J)
<i>Brachychiton populneus</i>	699456	7076274

Habitat value

Due to the near absence of mature trees, lack of structural complexity, poor floristic diversity, and prevalence of Buffel Grass, the habitat value of corridor R36 is generally low. Despite this, historical clearing and lack of follow up raking of timber within the area has left an abundance of fallen woody debris on the ground. Signs of use of several of these logs by ground dwelling mammals were observed, with scratching, digging and scats in evidence.

One female Eastern Grey Kangaroo (*Macropus giganteus*) with a large pouch young was observed in the corridor (20/05/2011), and tracks of Dingo (*Canis lupis dingo*) were also noted. Several raptor pellets containing bone and hair fragments were recorded on a patch of ground devoid of Buffel Grass.

No fauna species listed as threatened under the provisions of either the EPBC Act or the NC Act were detected.

3.4 Power line corridor

General

The power line corridor on lot 9WV435 is approximately 2.3 km in length, and is mapped entirely as non-remnant vegetation, which is correct, as shown in Figure 3.4.

No ESAs occur within the power line corridor, and the nearest ESA is located approximately 200 metres east of the southern end of the corridor. This is a referable wetland (category C ESA). A category B ESA also occurs approximately 750 m northwest of the southern end of the corridor, which is mapped due to a patch of remnant endangered RE 11.9.5 (Brigalow) on adjoining lot 1CP848049.

One watercourse of stream order 1 crosses the southern end of the proposed power line corridor. At the time of survey (12 July 2011) standing water was present in the watercourse.

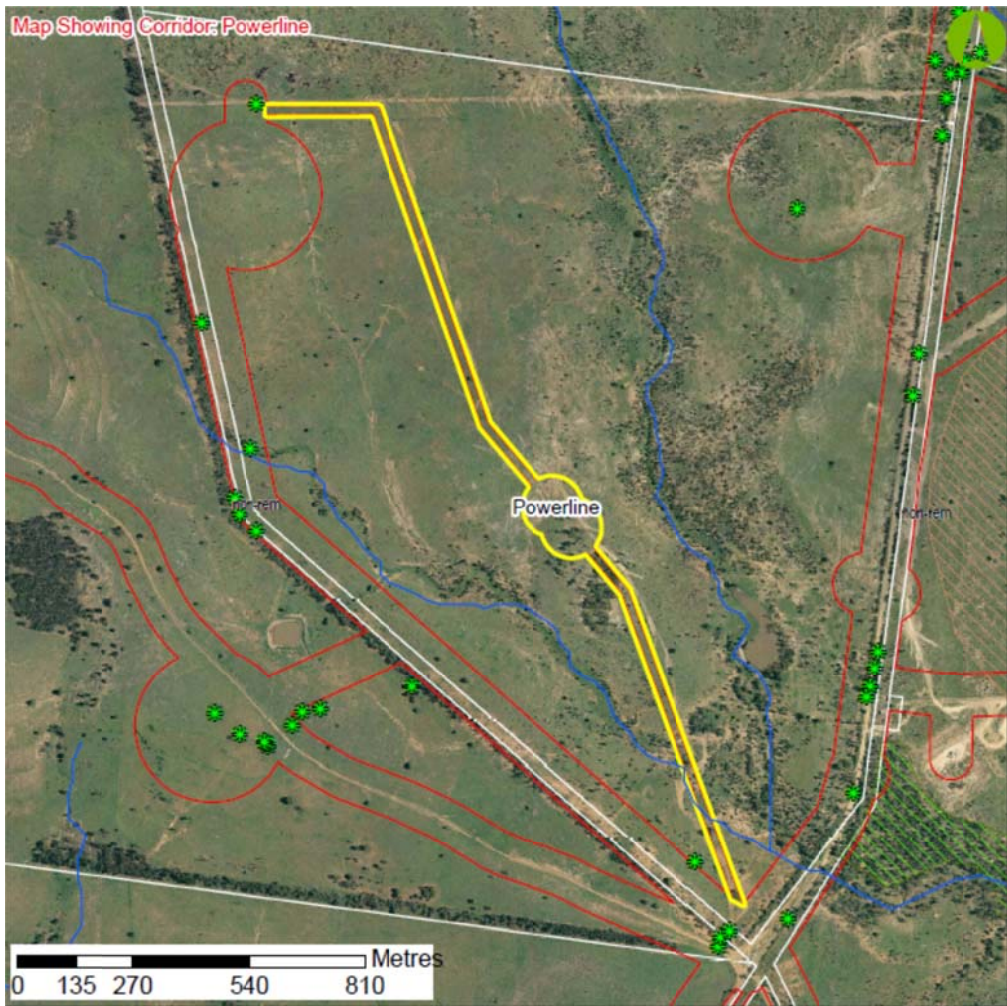


Figure 3.4 Aerial photograph of the power line corridor on lot 9WV435, with overlaid RE and ESA mapping

Floristics

The power line corridor occurs within a heavily disturbed landscape, characterised by *E. populnea* (Poplar Box) regrowth with an understorey dominated by the exotic pasture, *Pennisetum ciliare* (Buffel Grass). In the vicinity of the watercourse at the south-eastern end of the corridor, *Eucalyptus camaldulensis* (River Red Gum) to a height of 25 m dominates the canopy. Other species in the riparian and alluvial zone include *Corymbia Clarksoniana* (Clarkson's Bloodwood), *C. tessellaris* (Moreton Bay Ash) and *Brachychiton populneus* (Kurrajong), with an average height of 18-25 m. *Callitris glaucophylla* (White Cypress Pine) forms a dense shrub layer.

Several individuals of *Brachychiton* species, which are listed as Type A restricted plants under the NC Act, were identified within the corridor. Their locations are provided in Table 3.5.

Table 3.5 Location of Type A Restricted Plants (*Nature Conservation Act 1992*) in the proposed power line corridor

<i>Species name</i>	Easting (GDA 94, Zone 55J)	Northing (GDA 94, Zone 55J)
<i>Brachychiton rupestris</i>	698585	7076268

<i>Species name</i>	<i>Easting</i> (GDA 94, Zone 55J)	<i>Northing</i> (GDA 94, Zone 55J)
<i>Brachychiton populneus</i> (contains 3 birds' nests)	698704	7075882
<i>Brachychiton populneus</i> (contains 1 bird's nest)	698919	7075561
<i>Brachychiton populneus</i>	698849	7075379
<i>Brachychiton populneus</i>	699062	7075460
<i>Brachychiton rupestris</i>	699178	7075247
<i>Brachychiton rupestris</i>	699167	7075195
<i>Brachychiton rupestris</i>	699166	7075195
<i>Brachychiton populneus</i>	699289	7074594
<i>Brachychiton rupestris</i>	699282	7074589

No other flora species of conservation significance under the provisions of either the EPBC Act or the NC Act were recorded within the power line corridor on 9WV435.

Habitat value

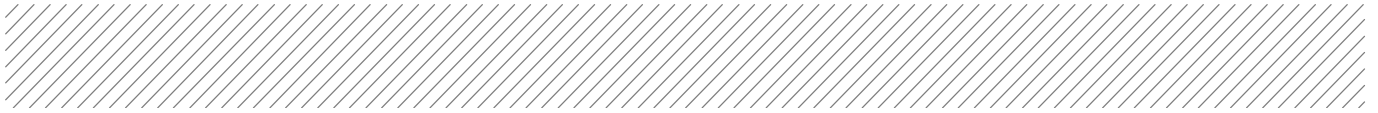
The habitat value of the powerline corridor is low overall, due to the heavily disturbed condition of the majority of the corridor. Canopy cover suitable for shelter, foraging and perching is limited, as is fissured tree bark. Dense ground cover vegetation consisting of grassy tussocks is abundant, although this is comprised of approximately seventy percent (70%) weed species. There is a limited amount of woody debris on the ground, very little leaf litter and no rocky areas containing crevices and shelters. At the time of survey, standing water was present in the watercourse, offering some habitat value to aquatic fauna, although none were detected during incidental searches.

Several birds' nests were recorded in individuals of *Brachychiton* species (Table 3.5). A further nest was detected in a 25 m-tall *Eucalyptus camaldulensis* (River Red Gum) at GPS location 698932 7075533.

Incidental fauna species that were observed in the power line corridor are presented in Table 3.6.

Table 3.6 Incidental fauna species observed in power line corridor

<i>Species</i>	<i>Common name</i>
<i>Birds</i>	
<i>Pardalotus striatus</i>	Striated Pardalote
<i>Smicronis brevirostris</i>	Weebill
<i>Rhipidura fuliginosa</i>	Grey Fantail
<i>Rhipidura leucophrys</i>	Willie Wagtail
<i>Gymnorhina tibicen</i>	Australian Magpie
<i>Cracticus torquatus</i>	Grey Butcherbird
<i>Corvus orru</i>	Torresian Crow



Species	Common name
<i>Nymphicus hollandicus</i>	Cockatiel
<i>Cacatua roseicapella</i>	Galah
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo
<i>Falco cenchroides</i>	Nankeen Kestrel
Mammals	
<i>Macropus rufogriseus</i>	Red-necked Wallaby

No fauna species listed as threatened under the provisions of either the EPBC Act or the NC Act were detected.



4 Conclusion

The pipeline corridors occur across a variety of landscape and vegetation types. While most the corridors occur in previously disturbed areas, species of conservation significance occur in multiple corridors (ie Type A restricted plants).

The proposed development traverses several areas mapped as non-remnant vegetation, which when ground-truthed were identified as remnant vegetation. These include 'endangered' (EPBC Act and NC Act) RE 11.10.4 (see section 3.2) and 'of concern' RE 11.3.2 (NC Act) (see section 3.1). All other areas mapped as non-remnant vegetation were confirmed to be correct.

Multiple watercourses occur within, or in close proximity to, development areas. The watercourses within the proposed development areas have limited fringing riparian vegetation, and subsequently have low to moderate ecological and habitat value.

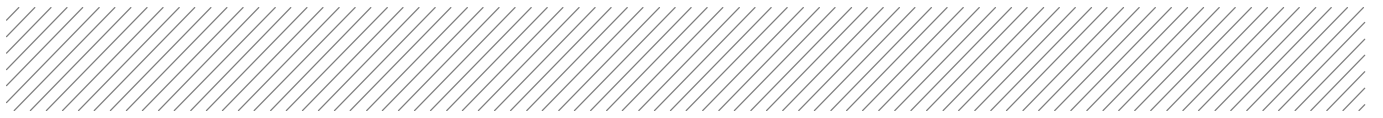
No species protected under the provisions of the EPBC Act were observed within the proposed development areas during these investigations.



5 References

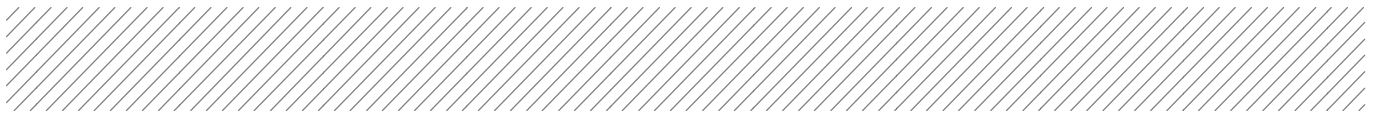
Eddie, C (2007) Field Guide to Trees and Shrubs of Eastern Queensland Oil and Gas Fields, First Edition, Santos Ltd, Adelaide.

Regional Ecosystem Mapping, Version 6.0, Queensland Government Department of Environment and Resource Management (DERM).

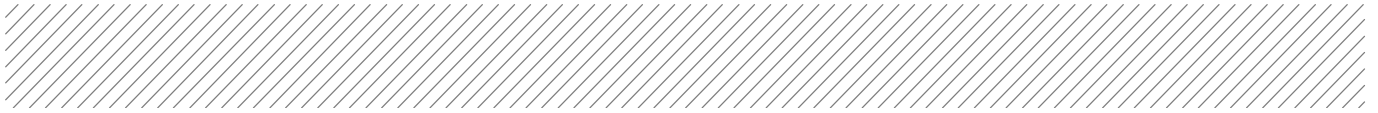


Appendix A

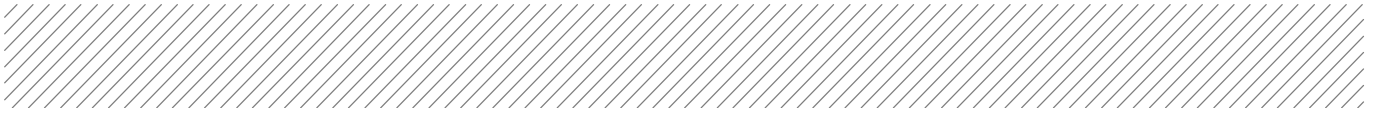
Flora Species List



Scientific Name	Common Name	Corridor			
		R4	R36	R5	Power line
<i>Abutilon malvifolium</i>	Chinese Lantern			■	■
<i>Acacia deanii</i>	Dean's Wattle	■			
<i>Acacia excelsa</i>	Iron wood	■		■	■
<i>Acacia fasciculifera</i>	Scrub Ironbark				
<i>Acacia harpophylla</i>	Brigalow		■	■	■
<i>Acacia macradenia</i>	Zigzag Wattle				■
<i>Acacia salicina</i>	Sally Wattle			■	
<i>Alectryon diversifolius</i>	Scrub Boonaree			■	■
<i>Allocasuarina leuhmannii</i>	Bull Oak			■	
<i>Alstonia constricta</i>	Bitter Bark			■	■
<i>Ancistrachne uncinulata</i>	Giant Spear Grass	■	■		
<i>Apophyllum anomalum</i>	Warrior bush		■	■	■
<i>Aristida caput medusae</i>	Curly Head Wire Grass			■	■
<i>Aristida ingrata</i>	Purple Aristida			■	
<i>Aristida jerichoensis</i>	Jericho wire grass	■			
<i>Aristida latifolia</i>	Hairy Aristida			■	
<i>Aristida personata</i>	Spear Grass	■			
<i>Atalaya hemiglauca</i>	Whitewood			■	■
<i>Bothriochloa bladhii</i>	Forest Blue Grass			■	■
<i>Bothriochloa decipiens var. decipiens</i>	Pitted Bluegrass	■		■	
<i>Brachychiton populneus</i>	Kurrajong			■	■
<i>Brachychiton rupestris</i>	Narrow Leaved Bottle Tree	■		■	■
<i>Brachycome dentata</i>	Lobe-seed Daisy				■
<i>Bracteantha bracteata</i>	Everlasting Daisy				■
<i>Callitris endlicheri</i>	Black Cypress Pine				■
<i>Callitris glaucophylla</i>	White Cypress Pine	■		■	■
<i>Calotis cuneifolia</i>	Purple Burr Daisy			■	
<i>Calotis lappulacea</i>	Yellow Burr Daisy			■	
<i>Capparis lasiantha</i>	Native Orange - Wait a while			■	■

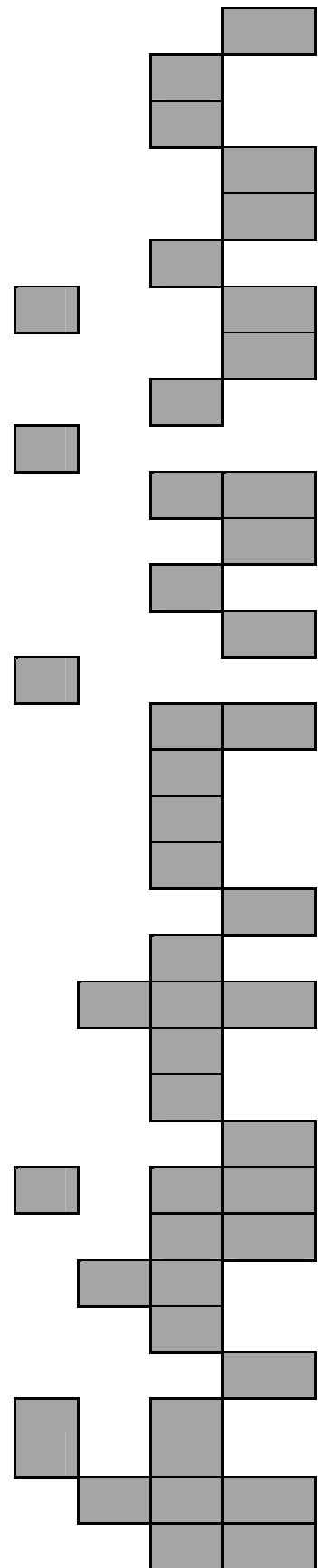


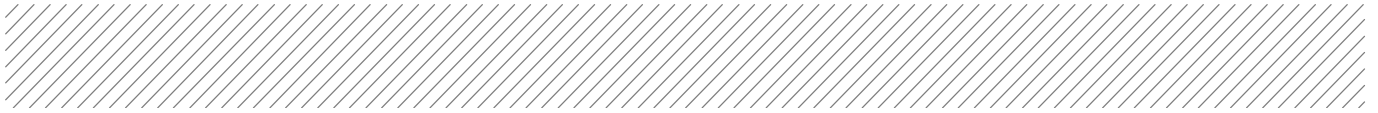
<i>Capparis loranthifolia</i>	Nipan, Wait a while	■			
<i>Capparis mitchellii</i>	Bumble fruit	■			
<i>Capparis sepiaria</i>	Wild Caper Bush		■		
<i>Capparis spinosa</i>	Capparis midsize			■	
<i>Carissa ovata</i>	Currant Bush		■	■	
<i>Casuarina cristata</i>	Belah		■		
<i>Cheilanthes sieberi</i>	Mulga Fern	■	■	■	■
<i>Chloris pectinata</i>	Comb Chloris				■
<i>Chrysocephalum apiculatum</i>	Yellow Buttons	■		■	
<i>Cirsium vulgare</i>	Spear Thistle, Black Thistle				■
<i>Citrus glauca</i>	Lime bush			■	
<i>Corymbia clarksoniana</i>	Clarkson's Bloodwood				■
<i>Corymbia tessellaris</i>	Moreton Bay Ash	■			■
<i>Cymbopogon refractus</i>	Barbwire Grass			■	■
<i>Cynodon dactylon</i>	Green Couch			■	
<i>Cyperus difformis</i>	sedge 2 - difformis, Dirty Dora				■
<i>Dichanthium sericeum</i>	Queensland Blue Grass	■	■	■	■
<i>Enteropogon acicularis</i>	Curly Windmill Grass		■	■	
<i>Enteropogon ramosus</i>	Twirly Windmill Grass		■	■	
<i>Eragrostis elastica</i>	Elastic Grass				■
<i>Eragrostis fallax</i>	Tall Lovegrass				■
<i>Eragrostis sororia</i>	Blue eragrostis				■
<i>Eremophila mitchellii</i>	False Sandalwood	■		■	
<i>Eucalyptus camaldulensis</i>	River Red Gum				■
<i>Eucalyptus leichardtii</i>	Yellow Jacket	■			
<i>Eucalyptus melanophloia</i>	Silver Leaved Ironbark			■	■
<i>Eucalyptus orgadophila X E populnea</i>	Boettcher's Box	■			
<i>Eucalyptus populnea</i>	Poplar Box			■	■
<i>Evolvulus alsinoides</i>	Speed Well			■	
<i>Fimbristylis dichotoma</i>	Fimbristylis			■	■
<i>Geijera parviflora</i>	Wilga			■	■
<i>Glycine tabacina</i>		■			
<i>Gomphrena celosioides</i>	Gomphrena Weed			■	



<i>Goodenia glabra</i>	Smooth Goodenia			
<i>Grevillea striata</i>	Beefwood			
<i>Hakea lorea</i>	Bootlace Oak			
<i>Heteropogon contortus</i>	Black Spear Grass			
<i>Hibiscus trionum</i>	Bladder ketmia			
<i>Hovea lorata</i>	Hovea			
<i>Hydrocotyle laxiflora</i>	Pennywort			
<i>Indigofera linifolia</i>	Little Red Pea			
<i>Jasminum didymum subsp. racemosum</i>	Native Jasmine			
<i>Juncus usitatus</i>	Juncus			
<i>Keraudrenia collina</i>	Keraudrenia			
<i>Lepidium sagittulatum</i>	Pepper Cress			
<i>Lomandra leucocephala</i>	Lomandra			
<i>Corchorus sidoides</i>	Flannel jute			
<i>Maireana microphylla</i>	Small-leaf Bluebush			
<i>Malva parviflora</i>	Small-flowered Mallow			
<i>Malvastrum americanum</i>	Spiny Malvastrum			
<i>Marsilea drummondii</i>	Nardoo			
<i>Medicago polymorpha</i>	Burr Medic			
<i>Melinis repens</i>	Red Natal			
<i>Myoporium acuminatum</i>	Boobiolla			
<i>Opuntia stricta</i>	Prickly Pear			
<i>Opuntia tomentosa</i>	Velvety Tree Pear			
<i>Owenia acidula</i>	Emu Apple			
<i>Oxalis stricta</i>	Yellow Wood Sorrel			
<i>Pandorea pandorana</i>	Wonga Vine			
<i>Panicum decompositum</i>	Hairy Panic			
<i>Panicum effusum</i>	Inquisitive Grass			
<i>Panicum simile</i>	Two-coloured Panic			
<i>Passiflora arizonica</i>	Passion flower			
<i>Pennisetum ciliare</i>	Buffel Grass			
<i>Perotis rara</i>	Comet Grass			
<i>Petalostigma pubescens</i>	Quinine			

<i>Pimelea microcephala</i>	Pussy Tail
<i>Pittosporum angustifolium</i>	Native Apricot
<i>Pittosporum spinescens</i>	Wallaby Apple
<i>Podolepis jaceoides</i>	Showy Copper Wire Daisy
<i>Portulaca pilosa</i>	Hairy Pigweed
<i>Psydrax odorata forma buxifolius</i>	Round Leaf Psydrax
<i>Pterocaulon sphacelatum</i>	Apple Bush
<i>Richardia brasiliensis</i>	Mexican clover
<i>Santalum lanceolatum</i>	Sandalwood
<i>Scaevola spinescens</i>	Spiny Scaevola
<i>Sclerolaena birchii</i>	Galvanised Burr
<i>Sida acuta</i>	Spiny head sida
<i>Sida cordifolia</i>	Flannel weed
<i>Sida rhombifolia</i>	Paddy's lucerne
<i>Sida rohlenae</i>	Shrub Sida
<i>Sida subspicata</i>	Queensland Hemp
<i>Solanum americanum</i>	American Nightshade
<i>Solanum esuriale</i>	Brown Potato Bush
<i>Solanum nigrum</i>	Black nightshade
<i>Sonchus oleraceus</i>	Sow Thistle
<i>Sporobolus caroli</i>	Desert Sporobolus
<i>Sporobolus creber</i>	Western Rats Tail Grass
<i>Swainsona galegifolia</i>	Swainsona
<i>Tagetes minuta</i>	Stinking Rodger
<i>Themeda avenacea</i>	Wild Oats Grass
<i>Themeda triandra</i>	Kangaroo Grass
<i>Trianthema triquetra</i>	Red Spinach
<i>Urochloa mosambicensis</i>	Urochloa
<i>Ventilago viminalis</i>	Vine Tree
<i>Verbena litoralis</i>	Tall Verbena
<i>Verbena officinalis</i>	Common Verbena, Native Verbena
<i>Verbena tenuisecta</i>	Mayne's Curse
<i>Wahlenbergia communis</i>	Large Bluebells





Wahlenbergia gracilis

Xanthium occidentale

Sprawling Bluebells

Noogoora Burr





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