

Memorandum

To	Paul Wybrew	From	Aurecon C/o Jane Stark
Copy		Reference	225678
Date	7 February 2012	Pages (including this page)	15
Subject	Fairview Ecological Assessment – Addendum to Lot 55 FTY1153 Report		

Mr Wybrew,

This memorandum relates to the ground-truthing of the proposed development areas shown in Figures 1-1 to 1-6. This memorandum documents the results of ecological investigations of the following areas:

- Corridor F282 realignment area
- Corridor F317 and F383 realignment area
- Four (4) geotechnical investigation areas

These ecological investigations were undertaken from 9-13 January 2012 by two (2) Aurecon ecologists (Leesa Leathbridge and Cassandra Arkinstall).

A report specific to additional proposed development areas within Lot 55 on FTY1153 has been previously prepared and submitted to Santos (Ecological Assessment Report – Lot 55 FTY1153; Document Reference 221708-001 4-08-11).

This memorandum should be treated as an addendum to the report listed above. This memorandum is specific to the ecology of the section of the proposed development areas shown in Figures 1-1 to 1-6. For additional ecological information related to the proposed development that is in addition to that covered by this report, please refer to the appropriate Lot-specific report.

Ecological Assessment

1. Corridor F282 realignment area

General

The corridor F282 realignment is approximately 2 km long and 100 m wide, and extends from geotech site 6399-RM-48 in the east, towards geotech site BH-44 in the west. Most of the area has been extensively cleared and is mapped as non-remnant vegetation. An access road runs along the length of the corridor (refer to Figure 1.1).

The eastern portion of the corridor is located within remnant vegetation, and is mapped as 'no concern at present' Regional Ecosystem (RE) 11.10.9. This RE was determined to be correct in the field. A 'of concern' RE (11.3.2/11.3.25) was located approximately 60 m to the south-east of the corridor. The extent of this RE was determined to be inaccurate.

The entire corridor realignment area is mapped as a Category C Environmentally Sensitive Area (ESA), as the area is located within a State Forest regulated by the *Forestry Act 1959*.

A defined watercourse intersects the corridor in two places and is classed as a stream order 4 by the Department of Environment and Resource Management (DERM) mapping. There are also stream order 1 and stream order 2 watercourses which intersect the corridor and flow into the stream order 4 watercourse.



Map by: PIC P:\GIS\Projects\215648_Fairview_Eco_Assessment\215648_Fairview_104.mxd 02/02/2012 16:33

Legend

- | | |
|---|---|
| ☆ EVNT and Type A Species | Regional Ecosystem (VM Act Status) |
| Yellow outline Corridors - Ground Truth | Endangered - Dominant |
| Red dot Geotech Borehole | Endangered - Sub-dominant |
| White outline Cadastre | Of Concern - Dominant |
| Blue line Watercourse | Of Concern - Sub-dominant |
| | Least Concern |

Note: No ESA area or ESA buffers have been included on this figure

Source:
Cadastrre: DERM, 2011.
Regional Ecosystems: Version 6, The State of Queensland
(Department of Environment and Resource Management),
Nov 2009.



A1 scale: 1:4,000
0 50 100 200 300 Meters

Date: 02/02/2012 Version: 1 Job No: 215648
Coordinate system: GDA_1994_MGA_Zone_55

Santos Upstream Ecological Assessment

Figure 1-1: Location of Proposed Pipeline Corridors Investigated

Floristics

The majority of the pipeline realignment corridor has been extensively cleared for agriculture and is dominated by *Pennisetum ciliare* (Buffel Grass).

The eastern portion of the pipeline realignment corridor supports remnant vegetation which is defined by *Callitris glaucophylla* (White Cypress Pine) with Silver-leaved Ironbark (*Eucalyptus melanophloia*), Poplar Box (*Eucalyptus populnea*) and Bull Oak (*Allocasuarina luehmannii*) also present within the canopy layer. The canopy layer is of moderate cover (approximately 50% of the total area), with a height range of 10 – 15 m and average height of 12 m.

The shrub layer within the area of remnant vegetation is sparse (less than 5% cover of the total area), with a height range of 1-5 m, with an average height of 3 m. The shrub layer was defined by juvenile *Callitris glaucophylla* (White Cypress Pine) with *Petalostigma pubescens* (Quinee) and *Alstonia constricta* (Bitter bark) also present.

The ground stratum within the area of remnant vegetation and the remainder of the pipeline realignment corridor is relatively dense (70% cover of the total area assessed), with *Pennisetum ciliare* the dominant species. Other ground cover species recorded included *Verbena tenuisecta* (Mayne's Curse), *Alloteropsis semialata* (Cockatoo Grass), *Conyza bonariensis* (Fleabane) and *Bothriochloa bladhii* (Forest blue grass).

A number of *Cymbidium canaliculatum* (Black Orchid) were identified within the pipeline realignment corridor. This species is defined as a Type A restricted plant which is protected under the provisions of the NC Act. The location of these species is provided in the Table 1.1 and Figure 1.1.

No other flora species of conservation significance or threatened ecological communities as protected under the provisions of the EPBC Act or the NC Act were recorded within the pipeline realignment corridor.

A flora species list for the pipeline realignment corridor is provided in Table 1.7.

Table 1.1 Type A restricted plant species recorded within the pipeline realignment corridor F282

Species	Easting (GDA 94, Zone 55S)	Northing (GDA 94, Zone 55S)	Comments
<i>Cymbidium canaliculatum</i>	694324.879	7145856.622	Approximately 10 plants
<i>Cymbidium canaliculatum</i>	694346.7152	7145874.916	Over 50 plants on a stag
<i>Cymbidium canaliculatum</i>	694349.4622	7145891.164	-



Photo 1.1 Floristic structure of the pipeline realignment corridor F282

Habitat value

The pipeline realignment corridor contains limited woody vegetation and has been disturbed as a result of previous vegetation clearing for agricultural purposes. Habitat features present within the pipeline realignment corridor include dense groundcover vegetation (ie grassy tussocks) and canopy vegetation within the area of remnant vegetation situated at the eastern portion of the pipeline realignment corridor which may provide shelter and foraging value for avian and arboreal species. The habitat value of pipeline realignment corridor is considered low overall.

Accordingly, the species utilising resources in the pipeline realignment corridor are most likely to be limited to common, generalist species that are able to adapt to significant habitat disturbances. Common birds of prey and grassland species are also expected to utilise this site and the surrounding areas for foraging purposes.

Incidental fauna species recorded within the corridor during the field investigations are listed in Table 1.2.

Squatter Pigeons (*Geophaps scripta scripta*), a vulnerable species under the NC Act and the EPBC Act, were recorded within the pipeline realignment corridor. No other conservation significant fauna species (ie EVNT species listed under the provisions of the EPBC Act and/or the NC Act) were recorded during the field investigations.

Table 1.2 Incidental fauna species recorded within Corridor F282

Scientific Name	Common Name
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo
<i>Cracticus nigrogularis</i>	Pied Butcherbird
<i>Cracticus tibicen</i>	Australian Magpie
<i>Corvus orru</i>	Torresian Crow
<i>Centropus phasianinus</i>	Pheasant Coucal
<i>Dacelo novaeguineae</i>	Laughing Kookaburra
<i>Geopelia striata</i>	Peaceful Dove
<i>Geophaps scripta scripta</i>	Squatter Pidgeon
<i>Grallina cyanoleuca</i>	Magpie-lark
<i>Philemon corniculatus</i>	Noisy Friarbird
<i>Platycercus adscitus</i>	Pale-headed Rosella
<i>Pomatostomus temporalis</i>	Grey-crowned Babbler
<i>Rhipidura leucophrys</i>	Willie Wagtail
<i>Smicrornis brevirostris</i>	Weebill
<i>Struthidea cinerea</i>	Apostlebird
<i>Todiramphus sanctus</i>	Sacred Kingfisher
<i>Trichoglossus haematodus</i>	Rainbow Lorikeet

2. Corridor F317 and F383 realignment area

General

The F317 and F383 pipeline realignment corridor on Lot 55 FTY1153 is approximately 650 m long and 100 m wide, and is located to the south of Corridor F282 (refer to Figure 1-2). The southern end of the proposed pipeline extends out to the east for a short distance before turning back to the south-west. This portion of the corridor is also known as F383, but has been included in the summary for F317 for simplicity.

The corridor has been extensively cleared and as a result, no Regional Ecosystems (REs) as defined by the Queensland *Vegetation Management Act 1999* (VM Act) are located within the proposed pipeline corridor. There are some scattered trees within a drainage line which transects the corridor midway. There is an 'of concern' RE (11.3.2/11.3.25) located approximately 120 m to the east of the corridor.

The entire corridor realignment area is mapped as a Category C ESA, as the area is located within a State Forest regulated by the *Forestry Act 1959*.

There is a mapped watercourse which intersects the corridor about halfway along its length. This watercourse is classed as a stream order 2 by DERM mapping.

Floristics

The vegetation within the pipeline realignment corridor has been subject to historical clearing and grazing of stock. As a result, the area is dominated by grasses and lacks defined canopy, sub-canopy and shrub stratum. Photo 2 illustrates the vegetative composition and structure of the pipeline realignment corridor.

Some isolated mature trees recorded within the corridor included *Eucalyptus populnea* (Poplar Box), *Eucalyptus camaldulensis* (River Red Gum) and *Brachychiton populneus* (Kurrajong). The shrub layer is almost absent, with approximately 1% canopy cover of juvenile *Eucalyptus populnea* (Poplar Box), *Opuntia tomentosa* (Velvety Tree Pear) and *Opuntia stricta* (Common Prickly Pear). Native and exotic grasses provided a dense groundcover, which includes species such as *Chloris virgata* (Silky Topped Rhodes Grass), *Themeda triandra* (Kangaroo Grass), *Alloteropsis semialata* (Cockatoo Grass), *Panicum effusum* (Inquisitive Grass) and *Pennisetum ciliare* (Buffel Grass). Other groundcover species included *Verbena tenuisecta* (Mayne's Curse), *Conyza bonariensis* (Fleabane), *Crotalaria dissitiflora* (Grey Rattlepod) and *Sclerolaena birchii* (Galvanised Burr).

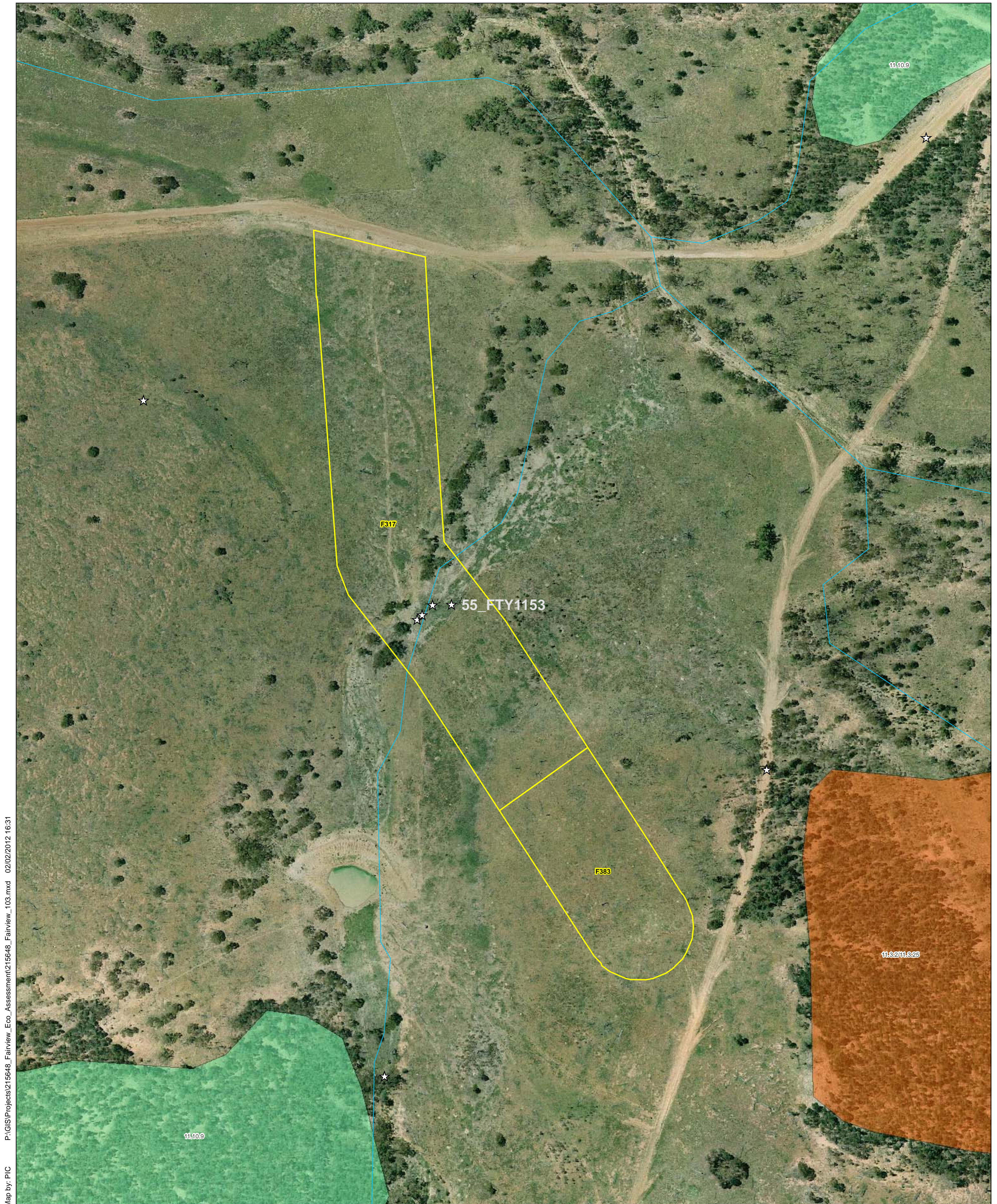
Five (5) *Brachychiton populneus* (Kurrajong) were identified within the pipeline realignment corridor. This species is defined as a Type A restricted plant which is protected under the provisions of the NC Act. The location of these species is provided in the Table 1.3 and Figure 1.2.

No other flora species of conservation significance or threatened ecological communities as protected under the provisions of the EPBC Act or the NC Act were recorded within the pipeline realignment corridor.

A flora species list for the pipeline realignment corridor is provided in Table 1.7.

Table 1.3 Type A restricted plant species recorded within the pipeline realignment corridor F317 and F383

Species	Easting (GDA 94, Zone 55S)	Northing (GDA 94, Zone 55S)
<i>Brachychiton populneus</i>	693699.7409	7145268.58
<i>Brachychiton populneus</i>	693704.3171	7145272.834
<i>Brachychiton populneus</i>	693731.2409	7145282.522
<i>Brachychiton populneus</i>	693713.9806	7145281.999
<i>Brachychiton populneus</i>	693713.9806	7145281.999



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Legend

- | | |
|---|---|
| ☆ EVNT and Type A Species | Regional Ecosystem (VM Act Status) |
| Yellow outline Corridors - Ground Truth | Endangered - Dominant |
| Red dot Geotech Borehole | Endangered - Sub-dominant |
| White outline Cadastral | Of Concern - Dominant |
| Blue line Watercourse | Of Concern - Sub-dominant |
| | Least Concern |

Note: No ESA area or ESA buffers have been included on this figure

Source:
Cadastral: DERM, 2011.
Regional Ecosystems: Version 6, The State of Queensland
(Department of Environment and Resource Management),
Nov 2009.



A1 scale: 1:1,750
0 25 50 100 150 Meters

Date: 02/02/2012 Version: 1 Job No: 215648
Coordinate system: GDA_1994_MGA_Zone_55

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Figure 1-2: Location of Proposed Pipeline Corridors Investigated



Photo 1.2 Floristic structure of the pipeline realignment corridor on F317 and F383

Habitat value

Due to the extensive clearing and grazing activities within the pipeline realignment corridor, the habitat value for the area is considered to be low. The absence of a defined canopy, sub-canopy layer means there is limited nesting hollows and foraging and perching opportunities for avian species. The area is very exposed due to the almost absent shrub layer and lack of remnant vegetation, therefore it would not be considered to be favourable habitat for many species.

The dense groundcover and presence of woody debris throughout the area would supply some habitat value for smaller species (rodents, lizards etc).

Incidental fauna species recorded within the corridor during the field investigations are listed in Table 1.4.

No conservation significant fauna species (ie EVNT species listed under the provisions of the EPBC Act and/or the NC Act) were recorded during the field investigations.

Table 1.4 Incidental fauna species recorded within Corridor F317 and F383

Scientific Name	Common Name
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo
<i>Corvus orru</i>	Torresian Crow
<i>Centropus phasianinus</i>	Pheasant Coucal
<i>Dacelo novaeguineae</i>	Laughing Kookaburra
<i>Eolophus roseicapillus</i>	Galah

Scientific Name	Common Name
<i>Falco cenchroides</i>	Nankeen Kestral
<i>Geopelia striata</i>	Peaceful Dove
<i>Philemon corniculatus</i>	Noisy Friarbird
<i>Platycercus adscitus</i>	Pale-headed Rosella
<i>Pomatostomus temporalis</i>	Grey-crowned Babbler
<i>Rhipidura leucophrys</i>	Willie Wagtail
<i>Smicrornis brevirostris</i>	Weebill
<i>Struthidea cinerea</i>	Apostlebird
<i>Todiramphus sanctus</i>	Sacred Kingfisher
<i>Trichoglossus haematodus</i>	Rainbow Lorikeet

3. Geotechnical Locations

General

The four geotechnical locations discussed in this document include TP-F112, TP-F232, TP-F205 and 6399-TP-72 (refer to Figures 1.3 to 1.6).

The geotechnical locations are situated in a modified environment, a result of land clearing associated with grazing activities, forestry practices and the construction of internal access tracks.

TP-F112 is mapped as RE 11.3.2. Field surveys of the area found the RE mapping to be incorrect, with the area consistent with RE 11.10.9 which is mapped directly adjacent to the geotechnical location.

The geotechnical locations TP-F232 and TP-F205 are mapped as the least concern RE 11.10.9. Ecological investigations of the areas found the RE mapping to be correct.

Geotechnical location 6399-TP-72 is mapped as the least concern RE 11.10.11/11.10.7a in a percentage split of 60/40. The RE mapping was consistent with the vegetation communities present within the area.

The four geotechnical locations are mapped as a Category C ESA, as the area is located within a State Forest regulated by the *Forestry Act 1959*.

There are no mapped watercourses which intersect the geotechnical locations.

Floristics

Geotechnical locations TP-F112, TP-F232 and TP-F208 occur within open Eucalypt and Cypress Pine woodland. The vegetation community is defined by *Callitris glaucophylla* (White Cypress Pine) and *Eucalyptus chloroclada* (Dirty Gum) in the canopy layer at an average height of 10 m and cover of approximately 70 %. The shrub layer is sparse, with a cover of approximately 15% and is dominated by *Acacia longispicata* (Slender-flowered wattle). The ground layer is comprised of native grasses, forbs and sedges including *Perotis rara* (Comet Grass), *Alloteropsis semialata* (Cockatoo Grass) *Cymbopogon refractus* (Barbwire Grass) and *Fimbristylis dichotoma* (Common Fringe).

The geotechnical location 6399-TP-72 is defined by *Eucalyptus populnea* (Poplar Box) in the canopy layer at an average height of approximately 12 m and cover of 50%. The shrub layer is sparse, at an average height of 3 m and cover of 10%. Species in the shrub layer include juvenile *Callitris glaucophylla* (White Cypress Pine), *Eremophila mitchellii* (False Sandalwood) and *Dodonaea viscosa*

(Sticky Hopbush). The ground layer is dense (95% cover of the total area assessed), with *Pennisetum ciliare* the dominant species. Other ground cover species recorded included *Verbena tenuisecta* (Mayne's Curse), *Alloteropsis semialata* (Cockatoo Grass), and *Conyza bonariensis* (Fleabane).

Photos 3 – 6 illustrate the vegetation communities present within the geotechnical locations.

Two (2) *Brachychiton populneus* (Kurrajong) and a *Brachychiton rupestris* (Narrow-leaved Bottle Tree) were recorded at the geotechnical location TP-F112. Additionally 19 *Xanthorrhoea johnsonii* (Grasstree) were identified at the geotechnical location TP-F232. These species are defined as Type A restricted plants which are protected under the provisions of the NC Act. The location of these species is provided in the Table 1.5 and Figures 1.3 and 1.4 respectively.

No other flora species of conservation significance or threatened ecological communities as protected under the provisions of the EPBC Act or the NC Act were recorded within the geotechnical locations.

A flora species list for the geotechnical locations is provided in Table 7.

Table 1.5 Type A restricted plant species recorded within the geotechnical locations

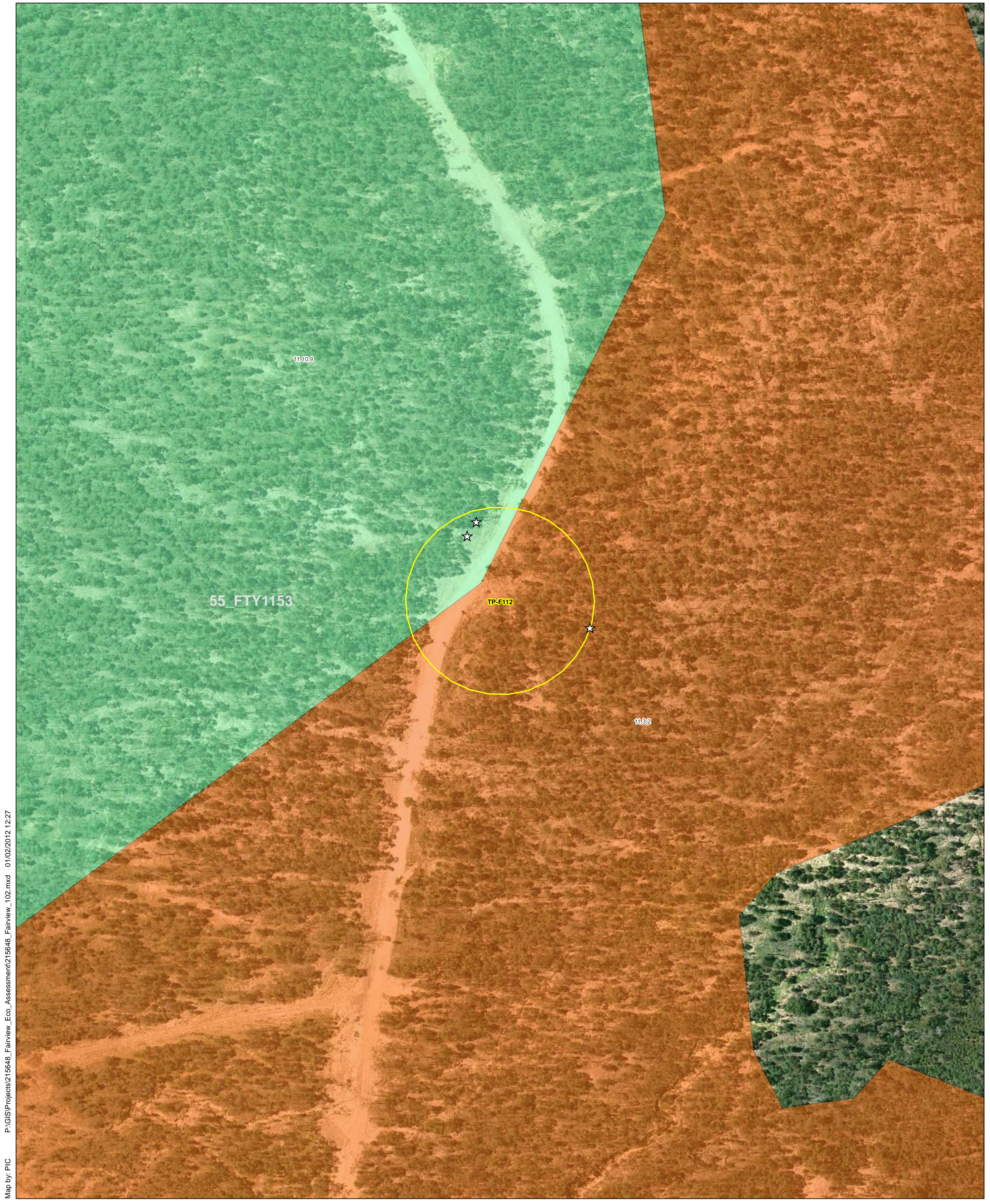
Geotechnical Location	Species	Easting (GDA 94, Zone 55S)	Northing (GDA 94, Zone 55S)	Comments
TP-F112	<i>Brachychiton populneus</i>	693848	7142136	-
	<i>Brachychiton populneus</i>	693787	7142193	-
	<i>Brachychiton rupestris</i>	693783	7142186	-
TP-F232	<i>Xanthorrhoea johnsonii</i>	696952	7147108	-
	<i>Xanthorrhoea johnsonii</i>	696937	7147082	2 plants
	<i>Xanthorrhoea johnsonii</i>	696943	7147051	-
	<i>Xanthorrhoea johnsonii</i>	696939	7147055	3 plants
	<i>Xanthorrhoea johnsonii</i>	696938	7147056	-
	<i>Xanthorrhoea johnsonii</i>	696938	7147056	11 plants
TP-F208	N/A			
6399-TP-72	N/A			



Photo 1.3 TP-F112



Photo 1.4 TP-F208



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Legend

- | | |
|---------------------------|---|
| ☆ EVNT and Type A Species | Regional Ecosystem (VM Act Status) |
| Corridors - Ground Truth | Endangered - Dominant |
| ● Geotech Borehole | Endangered - Sub-dominant |
| ▭ Cadastre | Of Concern - Dominant |
| — Watercourse | Of Concern - Sub-dominant |
| | Least Concern |

Note: No ESA area or ESA buffers have been included on this figure

Source:
Cadastral: DERM, 2011.
Regional Ecosystems: Version 6, The State of Queensland
(Department of Environment and Resource Management),
Nov 2009.



A1 scale: 1:1,000
0 12.5 25 50 75 Meters

Date: 01/02/2012 Version: 1 Job No: 215648
Coordinate system: GDA_1994_MGA_Zone_55

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Figure 1-3: Location of Proposed Pipeline Corridors Investigated



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Legend

- | | |
|---------------------------|---|
| ☆ EVNT and Type A Species | Regional Ecosystem (VM Act Status) |
| Corridors - Ground Truth | Endangered - Dominant |
| ● Geotech Borehole | Endangered - Sub-dominant |
| ▭ Cadastre | Of Concern - Dominant |
| — Watercourse | Of Concern - Sub-dominant |
| | Least Concern |

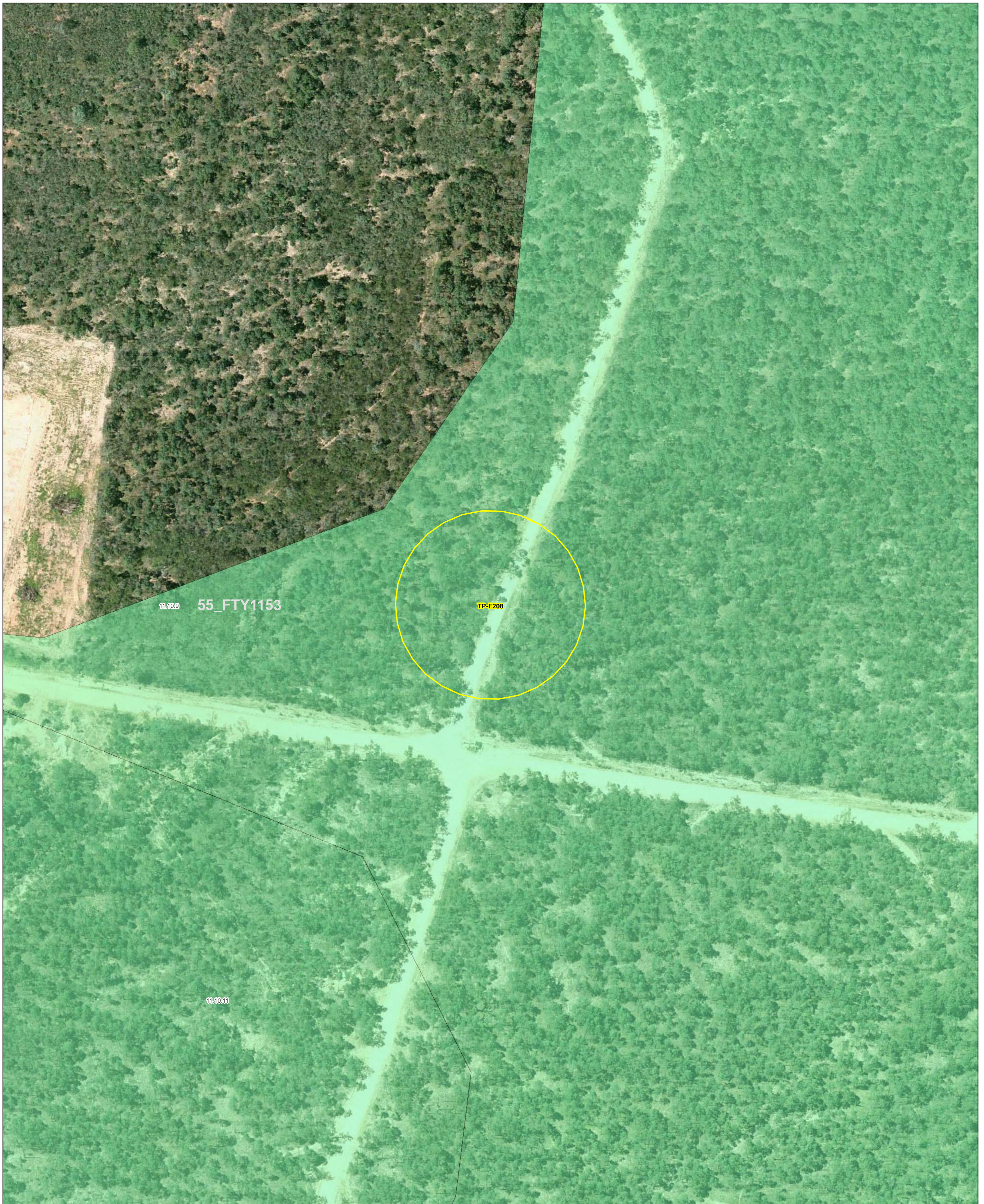
Note: No ESA area or ESA buffers have been included on this figure

Source:
Cadastre: DERM, 2011.
Regional Ecosystems: Version 6, The State of Queensland
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A1 scale: 1:1,000
0 12.5 25 50 75 Meters

Date: 01/02/2012 Version: 1 Job No: 215648
Coordinate system: GDA_1994_MGA_Zone_55



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Legend

- | | |
|---------------------------|---|
| ☆ EVNT and Type A Species | Regional Ecosystem (VM Act Status) |
| Corridors - Ground Truth | Endangered - Dominant |
| ● Geotech Borehole | Endangered - Sub-dominant |
| ▭ Cadastre | Of Concern - Dominant |
| — Watercourse | Of Concern - Sub-dominant |
| | Least Concern |

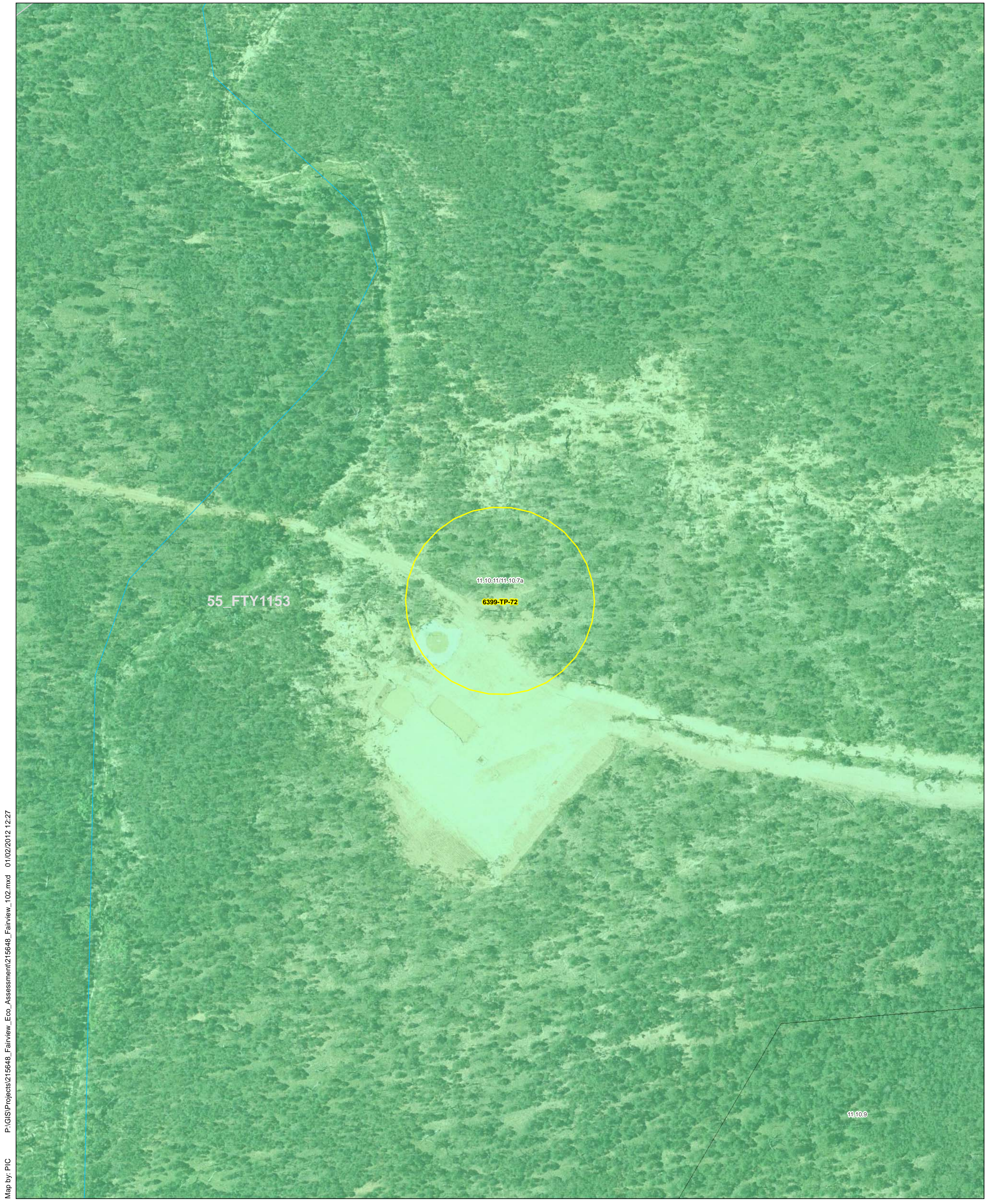
Note: No ESA area or ESA buffers have been included on this figure

Source:
Cadastre: DERM, 2011.
Regional Ecosystems: Version 6, The State of Queensland
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A1 scale: 1:1,000
0 12.5 25 50 75 Meters

Date: 01/02/2012 Version: 1 Job No: 215648
Coordinate system: GDA_1994_MGA_Zone_55



Map by: PIC P:\GIS\Projects\215648_Fairview_Eco_Assessment\215648_Fairview_102.mxd 01/02/2012 12:27

Legend

- | | |
|---------------------------|---|
| ☆ EVNT and Type A Species | Regional Ecosystem (VM Act Status) |
| Corridors - Ground Truth | Endangered - Dominant |
| ● Geotech Borehole | Endangered - Sub-dominant |
| ▭ Cadastre | Of Concern - Dominant |
| — Watercourse | Of Concern - Sub-dominant |
| | Least Concern |

Note: No ESA area or ESA buffers have been included on this figure

Source:
Cadastre: DERM, 2011.
Regional Ecosystems: Version 6, The State of Queensland
(Department of Environment and Resource Management),
Nov 2009.



A1 scale: 1:1,000
0 12.5 25 50 75 Meters

Date: 01/02/2012 Version: 1 Job No: 215648
Coordinate system: GDA_1994_MGA_Zone_55



Photo 1.5 TP-F232



Photo 1.6 6399-TP-72

Habitat value

The geotechnical locations are considered to be of low habitat value due to the lack of structural complexity in the vegetation communities and limited habitat features.

Habitat features present within the geotechnical locations include dense groundcover vegetation and woody debris, which would supply habitat value for smaller species such as rodents and lizards, and canopy vegetation which may provide shelter and foraging value for avian and arboreal species.

Some hollow bearing trees were present within the geotechnical locations and a number of bandicoot diggings were observed. A number of large flat rocks at TP-F232 would provide suitable basking habitat for reptile species.

Incidental fauna species recorded within the geotechnical locations during the field investigations have been detailed in Table 1.6.

No conservation significant fauna species (ie EVNT species listed under the provisions of the EPBC Act and/or the NC Act) were recorded during the field investigations.

Table 1.6 Incidental fauna species recorded within geotechnical locations

Species		Location			
Scientific Name	Common Name	TP-F112	TP-F232	TP-F208	6399-TP-72
<i>Cracticus torquatus</i>	Grey butcherbird	x			
<i>Manorina melanocephala</i>	Noisy minor bird	x			
<i>Platycercus adscitus</i>	Pale-headed rosella	x	x	x	
<i>Pomatostomus temporalis temporalis</i>	Grey-crowned babbler	x			
<i>Smicronis brevirostris</i>	Weebill		x		
<i>Struthidea cinerea</i>	Apostlebird	x		x	
<i>Taeniopygia bichenovii</i>	Double-barred finch		x		

Memorandum

Table 1.7 Flora Species List

Family	Species Name		Geotech Locations				Corridor F317 and F383 Realignment	Corridor F282 Realignment
	Scientific Name	Common Name	TP-F112	TP-F232	TP-F205	6399-TP-72		
Adiantaceae	<i>Cheilanthes aspera</i>	Bristly Cloak Fern			x			x
Adiantaceae	<i>Cheilanthes sieberi</i>	Mulga Fern		x	x			x
Amaranthaceae	<i>Achyranthes aspera</i>	Two-spine Burr			x			
Amaranthaceae	<i>Alternanthera pungens</i>	Kaki Burr				x		
Amaranthaceae	<i>Gomphrena celosioides</i>	Gomphrena Weed	x	x	x	x	x	x
Amaranthaceae	<i>Ptilotus polystachyus</i>	Pussy Tails				x	x	x
Apocynaceae	<i>Alstonia constricta</i>	Bitter Bark					x	x
Apocynaceae	<i>Carissa ovata</i>	Currant Bush	x					
Asteraceae	<i>Calocephalus platycephalus</i>	Billy Buttons	x	x		x		
Asteraceae	<i>Calotis cuneifolia</i>	Purple Burr Daisy						x
Asteraceae	<i>Calotis lappulacea</i>	Yellow Burr Daisy				x		
Asteraceae	<i>Cassinia laevis</i>	Cough Bush		x				
Asteraceae	<i>Chrysocephalum apiculatum</i>	Yellow Buttons	x		x	x	x	x
Asteraceae	<i>Cirsium vulgare</i>	Spear Thistle, Black Thistle		x			x	x
Asteraceae	<i>Conyza bonariensis</i>	Fleabane	x	x	x	x	x	x
Asteraceae	<i>Podolepis jaceoides</i>	Showy Copper Wire Daisy	x	x			x	x

Family	Species Name		Geotech Locations				Corridor F317 and F383 Realignment	Corridor F282 Realignment
	Scientific Name	Common Name	TP-F112	TP-F232	TP-F205	6399-TP-72		
Asteraceae	<i>Pterocaulon sphacelatum</i>	Apple Bush				x	x	x
Asteraceae	<i>Senecio lautus</i>	Fire Weed					x	x
Asteraceae	<i>Tagetes minuta</i>	Stinking Rodger					x	x
Asteraceae	<i>Xerochrysum bracteatum</i>	Everlasting Daisy	x	x	x		x	x
Asteraceae	<i>Xanthium spinosum</i>	Bathurst Burr					x	x
Boraginaceae	<i>Heliotropium amplexicaule</i>	Blue Heliotrope					x	x
Brassicaceae	<i>Lepidium sagittulatum</i>	Pepper Cress	x					
Cactaceae	<i>Opuntia stricta</i>	Prickly Pear	x		x	x	x	x
Cactaceae	<i>Opuntia tomentosa</i>	Velvety Tree Pear	x	x	x	x	x	x
Campanulaceae	<i>Wahlenbergia communis</i>	Large Bluebells	x	x	x		x	x
Caesalpiniaceae	<i>Senna coronilloides</i>	Coffee Senna					x	x
Casuarinaceae	<i>Allocasuarina luehmannii</i>	Bull Oak		x	x			x
Chenopodiaceae	<i>Maireana microphylla</i>	Small-leaf Bluebush					x	x
Chenopodiaceae	<i>Sclerolaena birchii</i>	Galvanised Burr					x	x
Commelinaceae	<i>Commelina diffusa</i>	Wandering Jew		x	x			
Convolvulaceae	<i>Dichondra repens</i>	Kidney Weed					x	x
Convolvulaceae	<i>Evolvulus alsinoides</i>	Speed Well	x		x		x	x
Cupressaceae	<i>Callitris glaucophylla</i>	White Cypress Pine	x	x	x	x		x
Cyperaceae	<i>Cyperus bifax</i>	Star Sedge	x	x	x		x	x
Cyperaceae	<i>Cyperus difformis</i>	Dirty Dora				x		x
Cyperaceae	<i>Fimbristylis dichotoma</i>	Fimbristylis	x	x	x	x		

Family	Species Name		Geotech Locations				Corridor F317 and F383 Realignment	Corridor F282 Realignment
	Scientific Name	Common Name	TP-F112	TP-F232	TP-F205	6399-TP-72		
Fabaceae	<i>Desmodium sp.</i>	Desmodium			x			
Fabaceae	<i>Glycine tomentella</i>	Hairy Glycine	x	x	x		x	x
Fabaceae	<i>Hovea planifolia</i>	Hovea		x				
Fabaceae	<i>Indigofera spicata</i>	Creeping Indigo					x	x
Goodeniaceae	<i>Goodenia glabra</i>	Smooth Goodenia		x			x	x
Hemerocallidaceae	<i>Dianella caerulea</i>	Blue Flax-lily					x	x
Juncaceae	<i>Juncus usitatus</i>	Juncus	x	x	x		x	x
Lamiaceae	<i>Plectranthus parviflorus</i>	Native Coelus		x	x			
Laxmanniaceae	<i>Lomandra longifolia</i>	Lomandra	x					
Malvaceae	<i>Sida acuta</i>	Spiny-headed Sida			x			
Malvaceae	<i>Sida rhombifolia</i>	Paddy's Lucerne		x				
Malvaceae	<i>Sida rohlenae</i>	Shrub Sida						
Malvaceae	<i>Sida spinosa</i>	Spiny Sida	x		x			
Malvaceae	<i>Sida subspicata</i>	Queensland Hemp	x	x	x		x	x
Mimosaceae	<i>Acacia leiocalyx</i>	Black Wattle		x	x	x		
Mimosaceae	<i>Acacia longispicata</i>	Slender-flowered Wattle	x	x	x			
Myoporaceae	<i>Eremophila mitchellii</i>	False Sandalwood				x		
Myrtaceae	<i>Angophora floribunda</i>	Rough-barked Apple			x			
Myrtaceae	<i>Angophora leiocarpa</i>	Smooth-barked Apple		x	x			
Myrtaceae	<i>Corymbia citriodora</i>	Lemon-scented Gum, Spotted Gum	x					
Myrtaceae	<i>Corymbia erythrophloia</i>	Variable-barked Bloodwood	x		x			
Myrtaceae	<i>Corymbia tessellaris</i>	Moreton Bay Ash	x	x	x			
Myrtaceae	<i>Corymbia trachyphloia</i>	Brown Bloodwood						x

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Myrtaceae	<i>Eucalyptus camaldulensis</i>	River Red Gum					x	x
Myrtaceae	<i>Eucalyptus chloroclada</i>	Baradine Red Gum, Dirty Gum	x	x	x			
Myrtaceae	<i>Eucalyptus melanophloia</i>	Silver Leaved Ironbark	x					x
Myrtaceae	<i>Eucalyptus populnea</i>	Poplar Box				x	x	x
Orchidaceae	<i>Cymbidium canaliculatum</i>	Black Orchid						x
Oxalidaceae	<i>Oxalis stricta</i>	Yellow Wood Sorrel		x	x		x	x
Picrodendraceae	<i>Petalostigma pubescens</i>	Quinine	x		x		x	x
Poaceae	<i>Alloteropsis semialata</i>	Cockatoo Grass	x	x	x		x	x
Poaceae	<i>Aristida caput-medusae</i>	Curly Head Wire Grass			x		x	x
Poaceae	<i>Aristida holathera</i>	Tall Wire Grass	x					
Poaceae	<i>Aristida ingrata</i>	Purple Aristida	x		x	x		
Poaceae	<i>Aristida jerichoensis</i>	Jericho Wire Grass				x	x	x
Poaceae	<i>Austrostipa verticillata</i>	Slender Bamboo Grass	x				x	x
Poaceae	<i>Bothriochloa bladhii</i>	Forest Blue Grass					x	x
Poaceae	<i>Bothriochloa decipiens var. decipiens</i>	Pitted Blue Grass					x	x
Poaceae	<i>Chloris gayana</i>	Rhodes Grass		x	x		x	x
Poaceae	<i>Chloris pectinata</i>	Comb Chloris				x	x	x
Poaceae	<i>Cymbopogon refractus</i>	Barbwire Grass	x	x		x	x	x
Poaceae	<i>Cynodon dactylon</i>	Green Couch					x	x
Poaceae	<i>Dichanthium sericeum</i>	Queensland Blue Grass	x			x	x	x
Poaceae	<i>Digitaria ammophila</i>	Digitaria	x				x	x
Poaceae	<i>Enteropogon acicularis</i>	Curly Windmill Grass				x	x	x

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Poaceae	<i>Enteropogon ramosus</i>	Twirly Windmill Grass				x	x	x
Poaceae	<i>Entolasia stricta</i>	Wiry Panic				x		x
Poaceae	<i>Eragrostis brownii</i>	Browns Lovegrass	x		x	x		
Poaceae	<i>Eragrostis elongata</i>	Clustered Lovegrass		x		x	x	x
Poaceae	<i>Eragrostis fallax</i>	Tall Lovegrass	x	x		x	x	x
Poaceae	<i>Eriachne ciliata</i>	Slender Wanderrie	x					
Poaceae	<i>Heteropogon contortus</i>	Black Spear Grass				x	x	x
Poaceae	<i>Melinis repens</i>	Red Natal	x	x	x			
Poaceae	<i>Panicum effusum</i>	Inquisitive Grass					x	x
Poaceae	<i>Panicum similie</i>	Two-coloured Panic			x			
Poaceae	<i>Pennisetum ciliare</i>	Buffel Grass	x	x	x	x	x	x
Poaceae	<i>Perotis rara</i>	Comet Grass	x	x	x		x	x
Poaceae	<i>Sporobolus caroli</i>	Desert Sporobolus	x			x	x	x
Poaceae	<i>Sporobolus creber</i>	Western Rat's Tail Grass	x			x	x	x
Poaceae	<i>Themeda australis</i>	Kangaroo Grass		x		x	x	x
Poaceae	<i>Themeda avenacea</i>	Wild Oats Grass					x	x
Portulacaceae	<i>Portulaca oleracea</i>	Pigweed	x		x		x	x
Portulacaceae	<i>Portulaca pilosa</i>	Hairy Pigweed	x				x	x
Proteaceae	<i>Grevillea striata</i>	Beefwood				x		
Proteaceae	<i>Hakea lorea</i>	Bootlace Oak			x			
Rhamnaceae	<i>Alphitonia excelsa</i>	Red Ash			x			
Rubiaceae	<i>Richardia brasiliensis</i>	Mexican Clover					x	x
Sapindaceae	<i>Dodonaea viscosa</i>	Sticky Hopbush				x		
Solanaceae	<i>Solanum ellipticum</i>	Potato Bush					x	x
Sterculiaceae	<i>Brachychiton populneus</i>	Kurrajong	x				x	
Sterculiaceae	<i>Brachychiton rupestris</i>	Narrow-leaved	x					

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		Bottle Tree						
Verbenaceae	<i>Verbena litoralis</i>	Tall Verbena		x				
Verbenaceae	<i>Verbena tenuisecta</i>	Mayne's Curse	x	x	x	x	x	x
Xanthorrhoeaceae	<i>Xanthorrhoea johnsonii</i>	Grasstree		x				